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Item 8 (c) of the provisional agenda*
High-level parallel meetings to review in depth and showcase progress made and to facilitate peer-to-peer learning in connection with the sub-themes of the Forum: industry, innovation and infrastructure

Background report on the sub-theme of industry, innovation and infrastructure

I. Introduction

1. Sustainable Development Goal 9 and its eight targets concern building resilient infrastructure, promoting inclusive and sustainable industrialization and fostering innovation. Infrastructure provides the essential physical systems and structures necessary for the functioning of societies and economies. Industrialization drives economic growth, creates job opportunities and contributes to poverty reduction. Innovation enhances the technological capabilities of industrial sectors and fosters the development of new skills. Therefore, inclusive and sustainable industrial development generates income that enables significant and sustained improvements in living standards, while also providing environmentally friendly solutions necessary for sustainable industrialization.

2. Goal 9 is closely aligned with the priorities of Agenda 2063: The Africa We Want, of the African Union, and its second 10-year implementation plan (2024–2033),[1] including strategic objectives 1.1, on enhancing the standard of living, quality of life and well-being for all citizens; 1.2, on transforming economies; 1.5, on building the climate resilience of economies and communities; 2.3, on building world-class infrastructure that crisscrosses Africa; 6.1, on educating and skilling citizens, underpinned by science and innovation; and 7.1, on strengthening the place of Africa in global affairs.

3. The infrastructure that is expected to cross the continent by 2063 should support accelerated integration and growth, technological transformation, trade and development, with a view to catalysing manufacturing, skills development, sustainable and innovative technologies, research and development, integration, intra-African trade, investment and tourism.

* ECA/RFSD/2026/1/Rev.1.

[1] African Union, *Decade of Accelerated Implementation: Second Ten-Year Implementation Plan, 2024–2033* (Addis Ababa, 2024).

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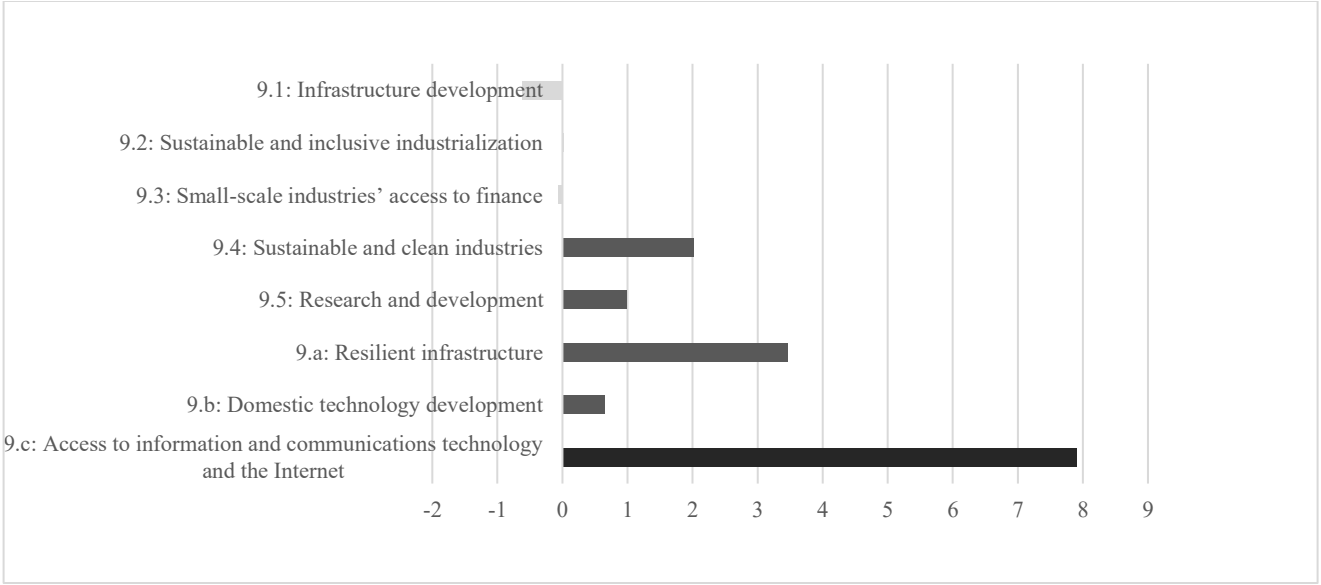
II. Progress in implementation

4. The continent's progress towards Goal 9 remains uneven: although connectivity has improved, manufacturing, and research and development continue to lag. Since 2015, advancement has been limited, with most African countries showing negative or negligible progress, leaving the region far off track from achieving the Goal 9 targets.[2] African trends diverge from global patterns, often moving in the opposite direction, and, although no African subregion leads across all indicators, only in North Africa has every measure improved since 2015.[3] As shown in figure I, only the target for access to information and communications technology (ICT) is on track, driven by efforts to expand affordable Internet access. Internet shutdowns have doubled since 2016, however, rising from 14 to 28 by 2024.[4] Four targets require accelerated action, and progress towards three has regressed, highlighting areas of concern.

Figure I
Progress in Africa towards Goal 9 targets, 2025
(Standardized performance score)



Source: United Nations, Economic Commission for Africa (ECA), "Africa SDG Progress Tracker". Available at https://ecastats.uneca.org/data/africa-sdg-tracker/regional-progress/2025 (accessed on 12 January 2026).

5. At the indicator level, as shown in figure II, progress on one indicator – the proportion of the population covered by a mobile network (9.c.1) – is on track to be achieved. Whereas there has been regress on three of the indicators – passenger

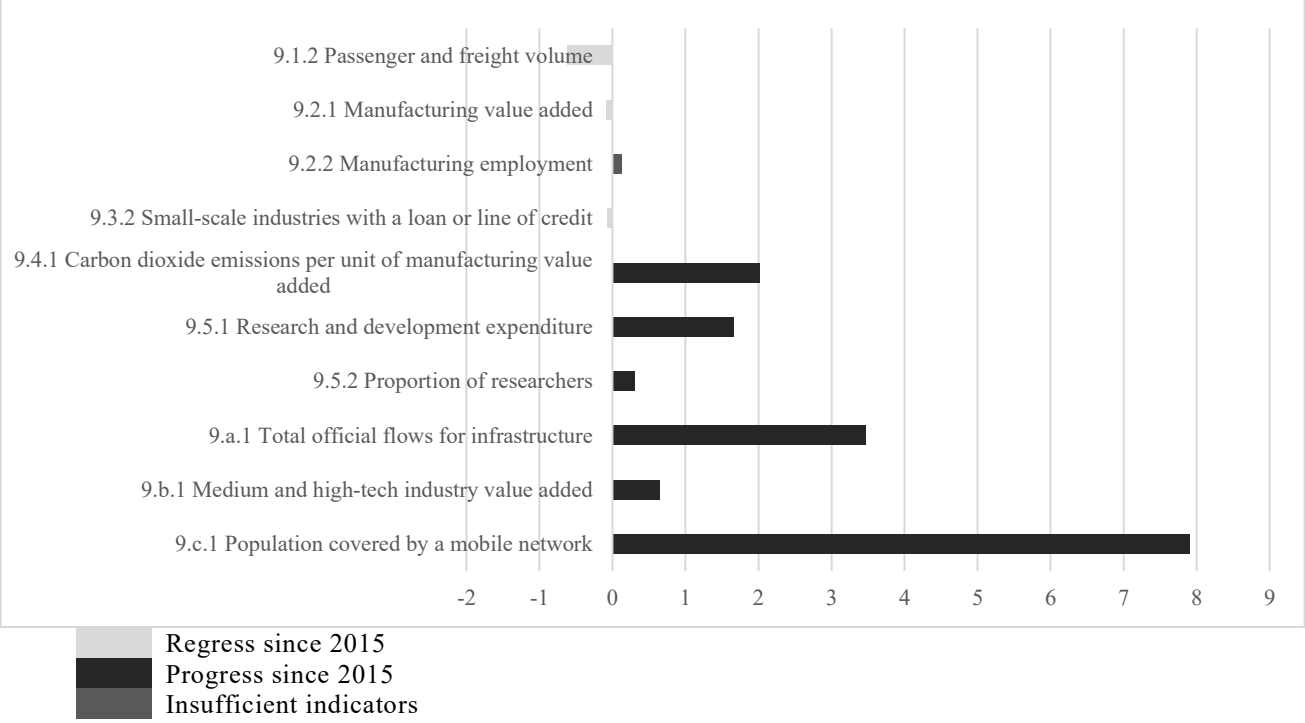
[2] See United Nations, Economic Commission for Africa, "Africa SDG Progress Tracker" Available at https://ecastats.uneca.org/data/africa-sdg-tracker/ and United Nations Industrial Development Organization (UNIDO), *Statistical Indicators of Inclusive and Sustainable Industrialization: SDG 9 Progress Report 2025* (Vienna, 2025).

[3] UNIDO, *Statistical Indicators of Inclusive and Sustainable Industrialization: SDG 9 Progress Report 2025* (Vienna, 2025).

[4] Institute of Development Studies, "Internet shutdowns in Africa double since 2016", 25 September 2025.

and freight volume (9.1.2), manufacturing value added as a proportion of gross domestic product and per capita (9.2.1), and small-scale industries with a loan or line of credit (9.3.2) – and progress on the remainder has stagnated and requires acceleration. It is important to note, however, that limited data availability significantly constrains a comprehensive assessment of progress across some indicators.[5]

Figure II
Progress in Africa on Goal 9 indicators, 2024
(Standardized performance score)



Source: United Nations, ECA, "Africa SDG Progress Tracker" (see figure I)

A. Target 9.1: develop quality, reliable, sustainable and resilient infrastructure

6. The global shift towards sustainable development offers Africa a chance to embark on a path of green industrialization, boosting growth, trade and job creation across the continent. The region's lagging infrastructure development, however, in particular in the energy sector, has compromised progress. Infrastructure constraints are major obstacles to industrialization on the continent, given that inadequacies and unreliability in power generation, transport networks, ports and logistics systems continue to limit industrial development and affect households. The infrastructure gap remains particularly severe in low-income countries in Africa.[6]

[5] UNIDO, *Statistical Indicators of Inclusive and Sustainable Industrialization*.

[6] UNIDO, *Industrial Development Report 2026: The Future of Industrialization – Building Future-ready Industries for Sustainable Development* (Vienna, 2025).

7. Infrastructure development is essential for regional integration, industrialization and the delivery of all the benefits of the Agreement Establishing the African Continental Free Trade Area. The Agreement could help to increase intra-African freight demand by 28 per cent, with road, rail, maritime and air freight rising by 22, 8, 62 and 28 per cent, respectively. [7] Rail's modal share could grow from 0.3 to about 7 per cent, but road transport will remain dominant at nearly 70 per cent.

8. A similar study undertaken by ECA in 2025[8]on electricity demand in the context of the African Continental Free Trade Area highlights the Agreement's role in driving trade-related power needs and the associated investment requirements. Africa will need to invest $157 billion in electricity infrastructure in the period 2025–2030, $195 billion in the period 2031–2035 and $258 billion in the period 2036–2040. Implementation of the Agreement adds further investment needs of $3 billion, $7 billion and $12.4 billion over the respective periods.

B. Target 9.2: promote inclusive and sustainable industrialization

9. Overall, manufacturing value added per capita in Africa has stagnated,[9] and, as a share of gross domestic product (GDP), it has remained broadly unchanged, declining marginally from 10.7 per cent in 2015 to 10.6 per cent in 2024. [10] Between 2022 and 2025, the proportion of manufacturing value added in GDP increased in 22.2 per cent of African countries, and manufacturing value added per capita increased in 18.5 per cent, which indicates significant structural challenges in advancing industrial development on the continent.[11] A notable trend in Africa is the decline of manufacturing's share of GDP alongside a slight rise in manufacturing employment, which increased from 7.6 per cent in 2015 to 8.5 per cent in 2023, reflecting shifts in production structures and labour dynamics.[12]

10. African countries are increasingly making industry a core element of their climate strategies, as can be seen in their nationally determined contributions, which, in their latest versions, include industrial decarbonization as a strategic priority: all updated African nationally determined contributions contain a reference to industry, and 70 per cent include quantitative targets, reflecting growing alignment among climate ambition, economic transformation and just transition goals.[13]

11. Reported industrial measures largely emphasize energy efficiency and process improvements in heavy industries, such as cement and manufacturing. Examples include clinker substitution and greater energy efficiency in cement production in Nigeria; the promotion of green growth, small and medium-sized enterprise development and sustainable extractive sectors in Angola and Kenya;

[7] United Nations, ECA, *The African Continental Free Trade Area and Demand for Transport Infrastructure and Services* (Addis Ababa, 2022).

[8] United Nations, ECA, "The African Continental Free Trade Area and demand for electricity infrastructure and services, and further implications of energy efficiency and transition on trade" (n.p., n.d.).

[9] UNIDO, *Statistical Indicators of Inclusive and Sustainable Industrialization*.

[10] UNIDO, "SDG 9 Indicators", Statistics Portal. Available at https://stat.unido.org/analytical-tools/sdg?tab=charts&country=R1_002 (accessed on 12 January 2026).

[11] UNIDO, *Statistical Indicators of Inclusive and Sustainable Industrialization*.

[12] UNIDO, "SDG 9 Indicators".

[13] UNIDO, Global Matchmaking Platform of the Climate Club and United Nations Development Programme "From ambition to action: how countries are advancing industry in their NDCs – a joint UNIDO-UNDP explainer on industrial decarbonization in the 2025 NCD cycle" (n.p., 2025).

and measures to improve material efficiency and integrate renewable energy into industrial processes in Ethiopia.

C. Target 9.3: increase access to financial services and markets

12. Access to finance has been highlighted as a persistent barrier to industrial development in Africa. Underdeveloped capital markets constrain firms' ability to upgrade, leaving small-scale industries with particularly low access to finance, in particular in low-income and lower-middle-income countries. Such financial constraints hinder production capacity, trade performance and innovation, and weak environments for venture capital and private equity further restrict the diffusion of innovation. In addition, high public debt levels and fiscal pressures constrain Governments' capacity to invest in infrastructure and pursue industrial policy.[14]

13. To develop their infrastructure to a level comparable to that of peer countries in other regions, African economies require investments of $2.48 trillion between now and 2040, which equates to annual investments of $155 billion, corresponding to 5.6 per cent of the continent's GDP in 2024.[15] Attaining those investment levels could elevate annual growth by 4.5 percentage points, enabling the continent to double its GDP by 2040.

14. Infrastructure financing commitments from the private sector to Africa reached $19.0 billion in 2020, compared with $11.8 billion in 2018.[16] Public-private partnerships continue to contribute to overall infrastructure investment, with 27 of such projects closed in both 2019 and 2020. The share of transport-related commitments increased from 32 per cent in 2018 to 42 per cent in 2020. Despite those efforts, African Governments continue to bear the bulk of their infrastructure financing, allocating an average of $34 billion annually to infrastructure development during the period 2016–2020.[17] Fiscal constraints and rising debt levels are exerting pressure on public budgets, however: from 2019 to 2023, African Governments allocated an average of 7 times more funds to debt servicing than to infrastructure development, and, in 15 countries, expenditure on debt interest exceeded that on infrastructure.[18]

D. Target 9.4: upgrade infrastructure and industries for sustainability

15. In line with global trends, African countries have, on average, reduced their relative carbon dioxide emissions.[19] In 2015, carbon dioxide emissions per unit of manufacturing value added were 0.51 kg per constant 2015 dollar. By 2022, the

[14] UNIDO, *Industrial Development Report 2026.*

[15] African Union and Organisation for Economic Co-operation and Development, *Africa's Development Dynamics 2025: Infrastructure, Growth and Transformation* (Addis Ababa, African Union; Paris, OECD Publishing, 2025).

[16] The Infrastructure Consortium for Africa, *Infrastructure Financing Trends in Africa 2019–2020* (Abidjan, African Development Bank, 2022).

[17] African Union and Organisation for Economic Co-operation and Development, *Africa's Development Dynamics 2025.*

[18] Ibid.

[19] UNIDO, *Statistical Indicators of Inclusive and Sustainable Industrialization*.

value had improved modestly, falling to 0.47.[20] The pace of improvement was slower than that observed in other regions of the world, however.

16. Notable subregional disparities are evident: there were improvements in environmental efficiency in Central, North and Southern Africa, with the largest reduction in carbon dioxide emissions per unit of value added, of approximately 30 per cent, in Central Africa; in contrast, carbon dioxide emissions per unit increased in East and West Africa.[21]

17. The potential for green industrialization in Africa is anchored in its abundant renewable energy resources, including solar, wind, hydropower and geothermal energy. The continent already outperforms other developing regions in renewable energy use, largely driven by low-income and lower-middle-income countries that are leapfrogging into clean energy systems. Fully exploiting that resource wealth, however, requires coordinated investment strategies that are focused on expanding both renewable power generation and industrial manufacturing capacity.[22]

E. Target 9.5: enhance research and upgrade industrial technologies

18. In most African countries, research and development as a share of GDP remains far below 1 per cent, the African Union target, and well below the global average.[23]

19. The absence of a dedicated ministry, council or commission within a country may explain the lack of data and the absence of a proactive approach to the permanent tracking of gross domestic expenditure on research and development as a percentage of GDP. Computing gross domestic expenditure on research and development is very technical, given that it requires well-established national focal points supported by national statistical offices to sustain the production of high-quality core indicators that are compliant with the methodology set forth in *Frascati Manual 2015* by the Organisation for Economic Co-operation and Development.

20. Research and development expenditure and the number of scientific researchers per million inhabitants in African low-income and lower-middle-income economies are only about 10 per cent and 3 per cent, respectively, of those of the world's best-performing countries. Upper-middle-income African countries perform better, with research and development expenditure reaching approximately 14 per cent and the number of scientific researchers per million inhabitants about 6 per cent of the levels observed in the global frontier economies.[24]

21. African countries are increasingly aligning national policies with the Science, Technology and Innovation Strategy for Africa 2024. Although science, technology and innovation are prioritized in national development plans, many countries lack strong institutions to ensure evidence-based policymaking. Dedicated science, technology and innovation ministries are essential for tracking progress towards target 9.5, in particular the minimum research investment

[20] UNIDO, "SDG 9 Indicators".

[21] UNIDO, *Statistical Indicators of Inclusive and Sustainable Industrialization*.

[22] UNIDO, *Industrial Development Report 2026.*

[23] United Nations, ECA, "Towards achieving the African Union's recommendation of expenditure of 1% of GDP on research and development", Policy Brief, No. ECA/18/004 (Addis Ababa, 2018).

[24] UNIDO, *Industrial Development Report 2026.*

benchmark. Since the adoption of the Science, Technology and Innovation Strategy for Africa, several countries, including the Democratic Republic of the Congo, Mali and Uganda, have revised their national science, technology and innovation policies to align with the continental framework and the 2030 Agenda for Sustainable Development. South Africa continues to support the development of science, technology and innovation through initiatives of the African Union and the Southern Africa Development Community, and Egypt has aligned its science, technology and innovation strategy with the 2030 Agenda, albeit without an explicit reference to the Science, Technology, and Innovation Strategy for Africa.

22. African countries recognize the tremendous opportunities that emerging technologies, such as artificial intelligence, present in driving innovation and entrepreneurship, creating new industries, improving the productivity and efficiency of existing public and private entities and creating jobs and wealth. The continent's participation in digital technologies and digital society remains low, however. As part of the efforts to accelerate the contribution of digital transformation to the attainment of Goal 9, many African countries are guided by the African Digital Transformation Strategy and the Continental Artificial Intelligence Strategy. The latter is aimed at leveraging artificial intelligence development for socioeconomic growth in Africa and integrating the technology into efforts to achieve the goals of Agenda 2063 across such sectors as health, agriculture and public services.

F. Target 9.a: facilitate sustainable infrastructure development in developing countries

23. Total official flows for infrastructure in Africa increased slightly from $14.11 billion in 2015 to $16.63 billion in 2023 (constant 2023 values).[25] To meet the Goal 9 target by 2030, acceleration is needed.

G. Target 9.b: support domestic technology development and industrial diversification

24. Progress on indicator 9.b.1, the proportion of medium- and high-tech industry value added in total value added, has been very limited, with African countries recording little to no improvement on average and showing significant heterogeneity. The share of medium- and high-tech industry value added increased only marginally, from 18.0 per cent in 2015 to 18.4 per cent in 2022, underscoring the urgent need to accelerate progress.26 Subregional trends differ markedly: the largest improvement in the share, of 2.4 percentage points, was in West Africa, whereas a decline was recorded in East Africa over the same period. It is important to note, however, that firm-level data for this indicator remain limited, and data are unavailable for many countries, which constrains the comprehensiveness of the assessment.[27]

25. Overall, much of the continent's industrial base remains concentrated in low-technology industries that depend heavily on imported technologies. This reliance hampers the accumulation of domestic technological capabilities embedded in

[25] United Nations, Global Sustainable Development Goal Indicators Database. Available at https://unstats.un.org/sdgs/dataportal/database (accessed on 12 January 2026).

[26] UNIDO, "SDG 9 Indicators".

[27] UNIDO, *Statistical Indicators of Inclusive and Sustainable Industrialization*.

machinery and equipment, posing persistent challenges to achieving technological sovereignty in vital sectors. The constraints are further compounded by infrastructure deficiencies, which undermine the competitiveness of African industries.[28]

H. Target 9.c: provide universal access to information and communications technology

26. Digital transformation is a powerful catalyst for sustainable development. Digital technologies are central to driving economic growth, advancing social inclusion and strengthening resilience. For Africa, where the development agenda is both urgent and ambitious, such technologies offer significant potential to accelerate progress and unlock new opportunities for prosperity and livelihoods.[29]

27. In sub-Saharan Africa, mobile network coverage has expanded, and, although 66 per cent of the population owns a mobile phone, only 36 per cent of the population has Internet access.[30,31] Mobile ownership and mobile Internet use remain low, owing to affordability barriers and limited digital literacy. The gap between ownership and access is shrinking across the world, however, with Internet use continuing to outpace mobile phone ownership.

28. The gender gap in ownership is comparable with that of Internet use, and like for Internet use, gender parity is strongly correlated with income levels. Globally, 77 per cent of men use the Internet, compared with 71 per cent of women, whereas in sub-Saharan Africa the figures are 40 and 31 per cent, respectively.

29. Coverage by 3G or higher mobile technology has reached 96 per cent of the world's population. Extending networks to the remaining 4 per cent, comprising approximately 312 million people, is proving slow and complex, however. Almost half of the global population without access to mobile broadband is in sub-Saharan Africa.

30. Given that urban areas are more densely populated and economically attractive, they are usually prioritized when new infrastructure is deployed. As a result, 66 per cent of people living in urban areas worldwide already have access to 5G networks, compared with just 40 per cent of those in rural areas, as shown in figure III. In sub-Saharan Africa, 80 per cent of the rural population is covered by at least 3G, with 1 per cent covered by 5G, 57 per cent by 4G and 22 per cent by 3G only.

31. Gaps in access and mobile phone ownership, between genders and between urban and rural areas, constrain participation in the digital economy and limit progress towards inclusive and sustainable development. The expansion of 4G and 5G broadband networks and digital public infrastructure,

[28] UNIDO, *Industrial Development Report 2026.*

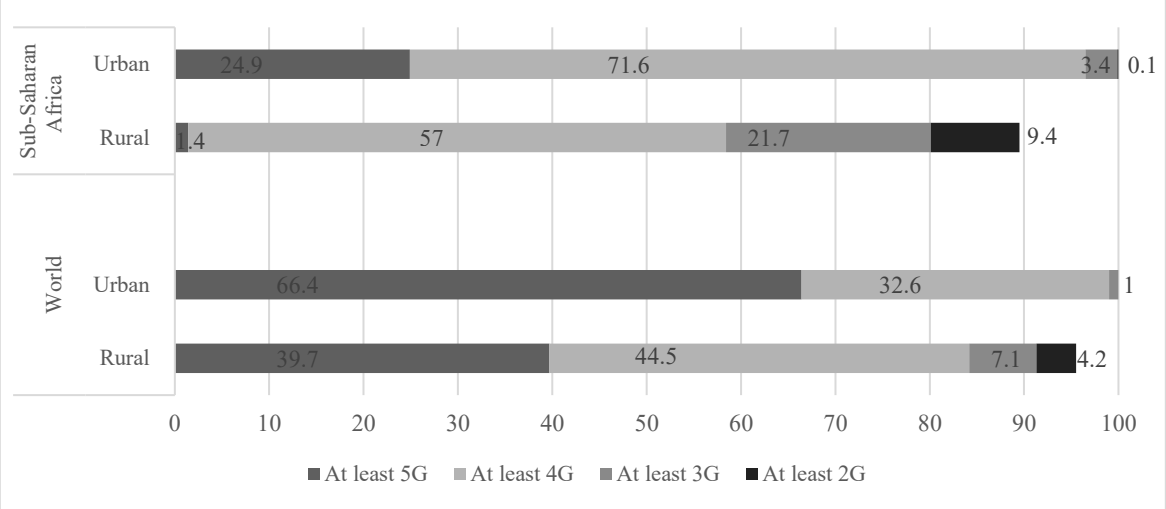
[29] International Telecommunication Union, *Measuring Digital Development: State of Digital Development and Trends in the Africa Region – Challenges and Opportunities* (Geneva, 2025).

[30] Unless otherwise stated, the analysis in the present section is taken from International Telecommunication Union, *Measuring Digital Development: Facts and Figures 2025* (Geneva, 2025).

[31] For comparison, Internet use in the Asia-Pacific and the Arab States regions is at 77 and 70 per cent of the population, respectively, which is in line with the global average.

such as data centres and innovation hubs, is essential to accelerating the continent's digital transformation.

Figure III
Population coverage by type of mobile network, globally and in sub-Saharan Africa, 2025
(Percentage)



Source: International Telecommunication Union, *Measuring Digital Development: Facts and Figures 2025* (Geneva, 2025).

Note: The values for 2G, 3G, and 4G networks indicate the incremental percentage of the population not covered by a more advanced network technology.

32. Affordability remains a major barrier to universal Internet access in Africa. Although prices are decreasing in sub-Saharan Africa, the median cost of a 5 GB mobile broadband basket was 6.6 per cent of gross national income per capita in 2024 and 5.3 per cent in 2025, which is well above the 2 per cent affordability target of the Broadband Commission for Sustainable Development. Fixed broadband is even less affordable, costing 15.2 per cent of gross national income per capita in 2024 and 13.8 per cent in 2025, making it inaccessible for many households.

33. In 2025, only 18 per cent of sub-Saharan African countries had reached the most advanced stage (G4) of ICT regulation, compared with 38 per cent globally,[32] highlighting the need for more investment-friendly frameworks that reduce infrastructure risk. In addition, African countries must strengthen their policies on emerging technologies, given the dependence of digital economies on agile, coherent governance to maximize benefits and manage risks. As of 2023, sub-Saharan Africa lagged other regions in emerging technology regulation, and only 27 per cent of countries there had innovation policies, which are critical tools for boosting digital economies through science, technology and innovation, as shown in figure IV.[33]

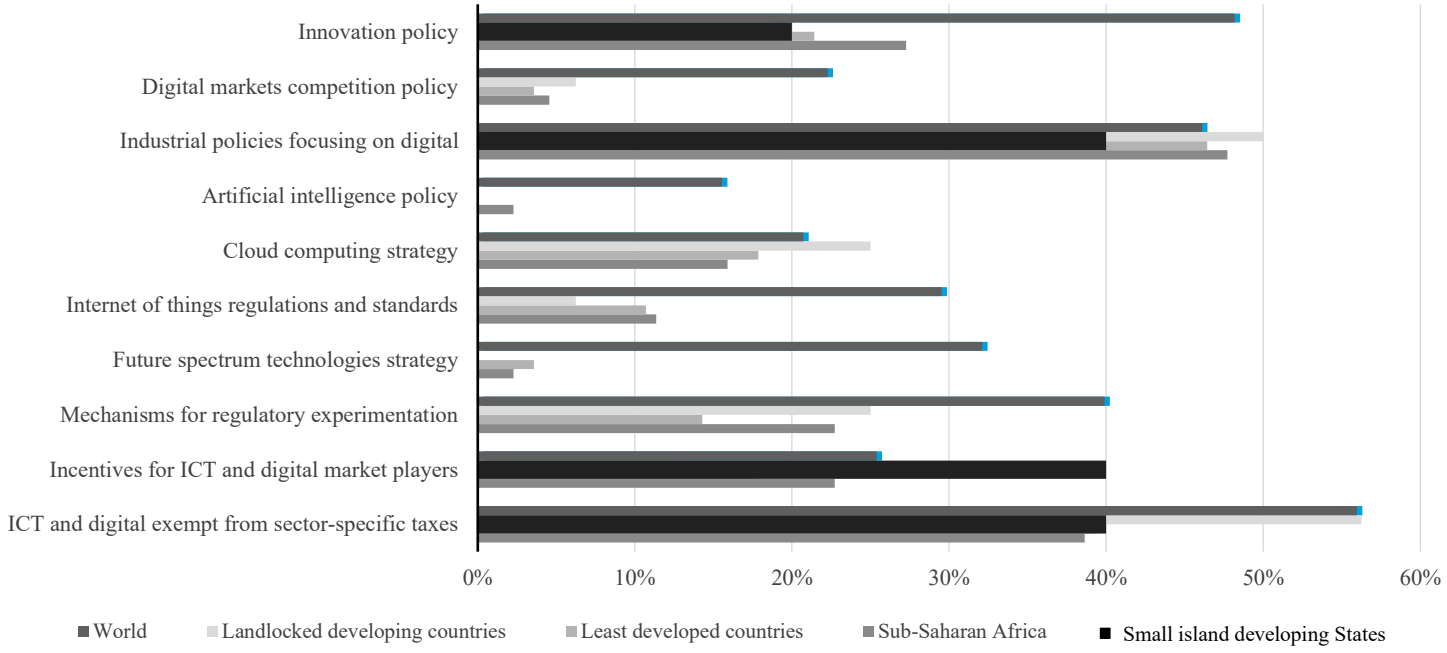
34. Sector-specific digital policies, in particular in agriculture and finance, are more common, having been adopted by 48 per cent of sub-Saharan African

[32] International Telecommunication Union, *Measuring Digital Development: State of Digital Development and Trends in the Africa Region.*

[33] Ibid.

countries.[34] Regulatory experimentation, however, remains limited: only 23 per cent of those countries have sandboxes, and, while regulatory incentives there, also at 23 per cent, are just two percentage points below the global average, they are nonetheless insufficient to drive rapid market growth. Tax exemptions for the ICT sector remain low, at 39 per cent, compared with other areas.

Figure IV
Enabling environment for emerging technologies in sub-Saharan Africa, 2023
(Percentage of implementation)



Source: Adapted from International Telecommunication Union, *Measuring Digital Development: State of Digital Development and Trends in the Africa Region – Challenges and Opportunities* (Geneva, 2025).

Abbreviation: ICT, information and communications technology.

III. Good practices and solutions

35. Special economic zones, including industrial parks, are increasingly hubs for technology and data centres, enabling hyperscale data centre deployments to improve efficiency in crucial sectors. Industrial parks in Ethiopia that leverage South-South cooperation to integrate technology serve as a lesson for African digital transformation (see, for example, box 1).[35] Ethiopia introduced industrial parks in 2013 to attract foreign direct investment, create jobs and accelerate industrialization. Between 2014 and 2020, the Government invested $1 billion in 9 such parks, later expanding to more than 20 by 2021, drawing $740 million in foreign direct investments from over 60 investors, creating 150,000 jobs, mostly for women, and generating $500 million in manufactured exports in 2023. Today, 32 industrial parks operate across the country, supported by such institutions as the Ethiopian Investment Board and the Industrial Parks Development Corporation.

[34] Ibid.

[35] United Nations Office for South-South Cooperation, “Accelerating Ethiopia’s structural transformation and science, technology and innovation: the impact of South-South cooperation” (New York, 2025).

With credit facilities and links with small and medium-sized enterprises, they are hubs for fostering local sourcing, skills development and technology transfer, positioning Ethiopia as a manufacturing centre and an African success story.

Box 1
Ethiopia: the example of Hawassa industrial park

Hawassa industrial park is one of the premier industrial parks in Ethiopia, having been operational since 2016. It was built on 140 hectares of land, with the potential to expand to 300 hectares. At full capacity, the park will provide employment to 60,000 workers. It was designed to attract foreign investment, and as a result, over 75 per cent of the 24 companies operating there are foreign-owned, with only 6 domestic firms. Specializing in the textile and garment sector, the park is focused entirely on exports, primarily to the United States of America through a duty-free initiative established pursuant to the African Growth and Opportunity Act. The park has created 34,000 jobs, with over 80 per cent of the workforce comprising women of 18–24 years of age.

Sources: Hawassa City Administration, "Hawassa Industrial Park", available at www.hawassa.gov.et/en/landmarks/hawassa-industrial-park, and UNIDO, *Industrial Development Report 2024: Turning Challenges into Sustainable Solutions – The New Era of Industrial Policy* (Vienna, 2024).

36. Challenges persist in Ethiopia, however, including costly and limited financing, restricting firm growth; foreign exchange shortages, hindering raw material imports; and regulatory inefficiencies, slowing operations. In addition, concerns have been raised over land rights, livelihoods, labour conditions, environmental and cultural impacts, social tensions and limited local benefits. Sustaining progress requires addressing those challenges and concerns, in order to ensure that industrialization is inclusive and sustainable.

37. By leveraging the Agreement Establishing the African Continental Free Trade Area, African countries can establish inclusive and sustainable special economic zones that tap into cross-border trade and investment opportunities. The Lobito corridor project represents one such opportunity, as described in box 2.

Box 2

Lobito corridor project: leveraging technology, infrastructure and special economic zones

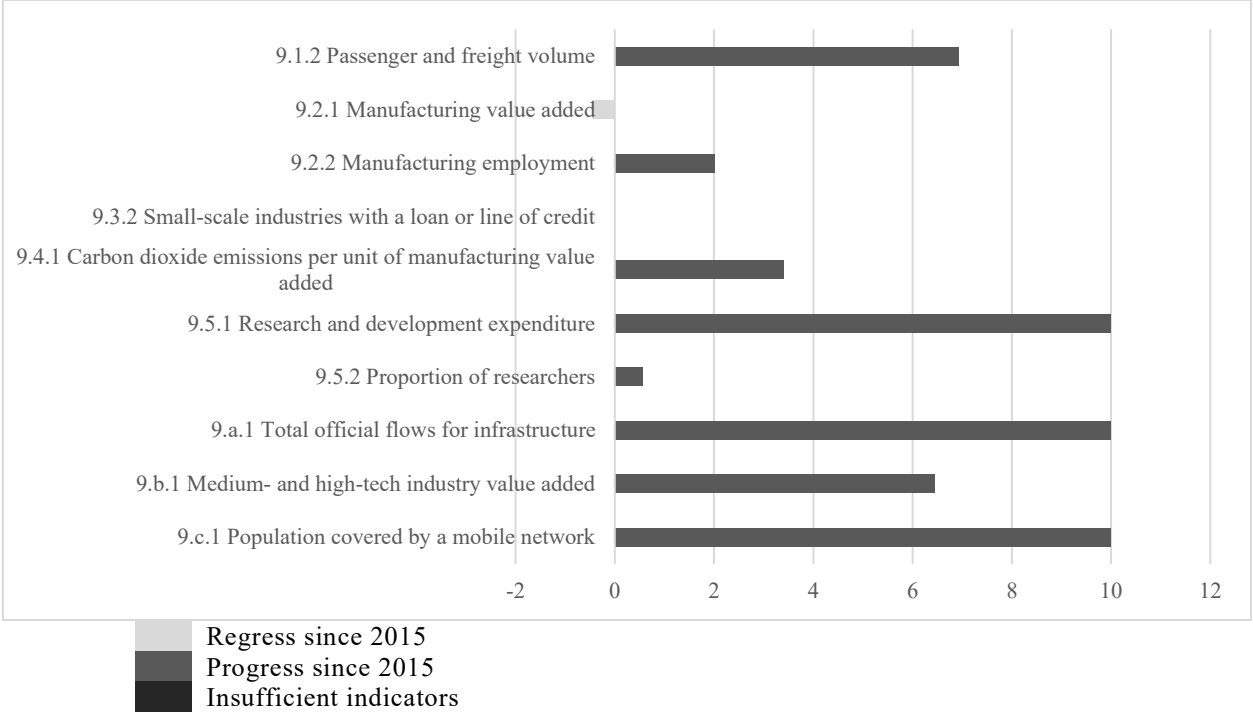
The Lobito corridor spans approximately 1,300 km, from the port of Lobito and through Luau in Angola, to the borders with the Democratic Republic of the Congo and Zambia. Its backbone is the Benguela railway, which was historically critical for mineral exports but which was disrupted by the civil war in Angola and was later renovated under a $2 billion Chinese rail-for-oil programme. Freight volumes since the renovation remain well below targets, however.

In 2023, Angola, the Democratic Republic of the Congo and Zambia signed a transit transport facilitation agency agreement to harmonize cross-border movement, trade and regulatory systems. Also, in 2023, the Lobito Atlantic Railway consortium secured a 30-year concession, committing $455 million in Angola and $100 million in the Democratic Republic of the Congo and constructing a 259 km Luacano–Jimbe branch line costing roughly $1 billion. The African Development Bank estimates that an additional $1.6 billion is needed for full extension work and has pledged $500 million. The Lobito corridor project can reduce transit costs, expand exports and attract investment while strengthening regional integration and job creation. Achieving those gains requires corridor infrastructure to be linked with a broader industrial strategy in which local value addition, diversification and inclusive growth are promoted, with a view to transforming the transport corridor into an industrial and development corridor.

Sources: Gunther Beger, Managing Director of the Directorate for SDG Innovation and Economic Transformation, UNIDO, speech made at the second edition of the Global Gateway Forum, Brussels, 10 October 2025, and United Nations Zambia, “Potential impact of the Lobito corridor and support to the regional transformation agenda: policy brief” (Lusaka, 2024).

38. Senegal has made significant progress in strengthening industry, innovation and infrastructure, and is on track to achieve Goal 9 by the deadline. Of the 12 indicators under Goal 9, the performance of 10 has been assessed. As illustrated in figure V, the country has made notable advancements in research and development (9.5.1), total official flows for infrastructure (9.a.1), medium- and high-tech industry value added (9.b.1), mobile network coverage (9.c.1) and passenger and freight volume (9.1.2).

Figure V
Progress in Senegal on Goal 9 indicators
(Standardized performance score)



Source: ECA, United Nations, Global Sustainable Development Goal Indicators Database. Available at https://unstats.un.org/sdgs/dataportal/database (accessed on 22 December 2025).

IV. Challenges, emerging issues and opportunities to accelerate implementation

39. The African digital economy is expanding but remains limited by infrastructure deficits, skills gaps and fragmented policies. The continent has under 1 per cent of global data centre capacity and needs some 700 new additional data centre facilities.[36,37] In a context of limited access to reliable electricity among the African population, the global demand for energy from data centres, cryptocurrencies and artificial intelligence could double by 2026 from its 2022 level.[38] High Internet prices further restrict access. Addressing the gaps requires sustained investment.

40. The expansion of infrastructure on the continent offers opportunities to strengthen national and regional industrial value chains. Rising demand for materials, such as iron ore and cement, driven by demographic and development pressures, creates opportunities for countries to leverage domestic resources, enhance competitiveness and attract private investment.

[36] Nii Simonds and Obinna Isiadinso, "How shared digital infrastructure can bridge the gap in Africa", World Economic Forum, 9 April 2025.

[37] Dan Swinhoe, "Report: Africa needs 1000MW & 700 data center facilities to meet demand", Data Centre Dynamics, 10 February 2021.

[38] International Energy Agency, *Electricity 2024: Analysis and Forecast to 2026* (n.p., 2024).

41. The global clean energy transition is boosting demand for critical minerals, creating opportunities for value addition in Africa. With responsible mining and stronger governance, African countries can expand their role in mineral-based value chains and supply components for clean energy technologies. The Agreement Establishing the African Continental Free Trade Area can help to stimulate intra-African trade in processed goods, including components for electric vehicles, batteries, and wind and solar energy technology.

42. Although they add compliance burdens, regional and global trade frameworks offer avenues for enhancing industrial competitiveness. The Agreement Establishing the African Continental Free Trade Area can strengthen regional value chains in such sectors as cement, aluminum and fertilizers, but external measures, including the carbon border adjustment mechanism of the European Union, may challenge countries that lack robust systems for monitoring carbon and decarbonization.

43. African industrialization remains limited, with manufacturing contributing less than 10 per cent of GDP in many countries and only 2 per cent of global manufacturing value added.[39] High levels of informality, at 83 per cent of employment in Africa and 85 per cent in sub-Saharan Africa, restricts access to secure, well-paid jobs,[40] although such opportunities exist in the medium- and high-technology sectors.

44. Industrialization challenges are closely tied with deficits in decent work. Limited formal employment pushes workers into informal jobs without security or access to healthcare and pensions. Strengthening industrial capacity is essential to expanding decent work and reinforcing social protection systems.

45. A robust industrialization strategy into which digital technologies are integrated is vital to increasing opportunities for decent work, which will, in turn, improve productivity, expand social protection and enable Africa to benefit from its demographic dividend. Efforts to enhance working conditions for informal workers and support the productivity and formalization of the continent's 218 million informal own-account businesses[41] are central to that effort.

46. The African diaspora, of nearly 350 million people, represents a major asset for advancing scientific, technological and industrial development. Africa can target that resource to attract and retain talent in specific fields of interest to accelerate the continent's technological and industrial development.

47. At the ninth World Telecommunication Development Conference, held in Baku in November 2025 under the theme "Universal, meaningful and affordable connectivity for an inclusive and sustainable digital future", African States agreed to implement five regional initiatives in Africa for the period 2026–2029, pursuant to the Baku Declaration, covering resilient digital infrastructure and universal connectivity; inclusive artificial intelligence ecosystems; digital trust and safety; innovation support; and sustainable funding.[42] The initiatives are intended to address specific telecommunications and ICT priority areas, through partnerships

[39] Marvellous Ngundu, "Unlocking Africa's manufacturing potential", Institute for Security Studies, 15 July 2025.

[40] African Union, International Labour Organization and United Nations Development Programme, "Concept note", paper prepared for an event titled "Informal economy in Africa: which way forward? – making policy responsive, inclusive and sustainable", Victoria Falls and online, May 2022.

[41] Marcio Cruz and others, "Estimating the number of firms in Africa", Policy Research Working Paper, No. 11032 (Washington, D.C., World Bank, 2025).

[42] For more information, see ITU, "WTDC-25 snapshot report" at www.itu.int/reports/wtdc-snapshot-report-2025/.

and resource mobilization. Their effective roll-out will help to accelerate progress towards the achievement of Goal 9.

V. Main messages and recommendations to ensure the integrated and accelerated implementation of the 2030 Agenda and Agenda 2063

48. Given the approaching deadline of the 2030 Agenda and the importance of the second 10-year implementation plan (2024–2033) of Agenda 2063, African countries should:

(a) Prioritize the attainment of Sustainable Development Goal 9, given that progress in industrialization, innovation and resilient infrastructure generates strong spillover benefits for energy access, health, education and overall economic growth, which all accelerate inclusive and sustainable development;

(b) Adopt forward-looking, regionally aligned industrial strategies that address global megatrends, namely the green energy transition, artificial intelligence and digital connectivity, shifting supply chains, demographic change and food-system transformation, in order to advance inclusive and sustainable industrialization;

(c) Scale up investment in resilient infrastructure and integrate energy planning with the deployment and operation of digital infrastructure, recognizing that reliable power is essential for inclusive, resilient and sustainable digital connectivity;

(d) Prioritize the digital economy as a driver of industrialization, decent job creation and diversification, and take urgent action to deploy emerging technologies, such as artificial intelligence, build digital skills and support full business participation in all aspects of digital activity;

(e) Bridge infrastructure gaps in order to benefit fully from regional integration and the Agreement Establishing the African Continental Free Trade Area, with a view to improving cross-border connectivity, enhancing energy security and leveraging technological opportunities;

(f) Place greater emphasis on and channel resources towards strengthening cross-country collaboration in science, technology and innovation to advance sustainable development priorities as part of the Science, Technology and Innovation Strategy for Africa 2034 and related harmonization frameworks;

(g) Address financing barriers that are specific to sectors and locations, match instruments with needs, mobilize local partners, strengthen policy and regulatory environments, and use blended finance, including concessional capital and risk mitigation tools, in order to attract private investment in infrastructure;

(h) Promote sustainable consumption and production using principles of the circular economy and good product design and through sustainable lifestyles, resource efficiency policies, zero-waste initiatives, reduced exposure to hazardous chemicals and actions that minimize pollution of air, soil, land and water;

(i) Prioritize infrastructure project selection and investment pipelines that are aligned with sustainable development and continental priorities, with a view to strengthening investment readiness and mobilizing green finance, complemented by proactive engagement with bilateral partners, multilateral institutions and development finance organizations.