



**COURSE ON KEY ISSUES
ON THE INTERNATIONAL
ECONOMIC AGENDA**

**Shaping the future of supply chains in Africa: Optimizing
opportunities and strategic value
The Economic Development in Africa Report 2023**

Geneva, 12 September 2023



Economic Development
in **Africa Report**
2023

The Potential of Africa to Capture Technology-Intensive Global Supply Chains

Session II

Geneva, 12 September 2023



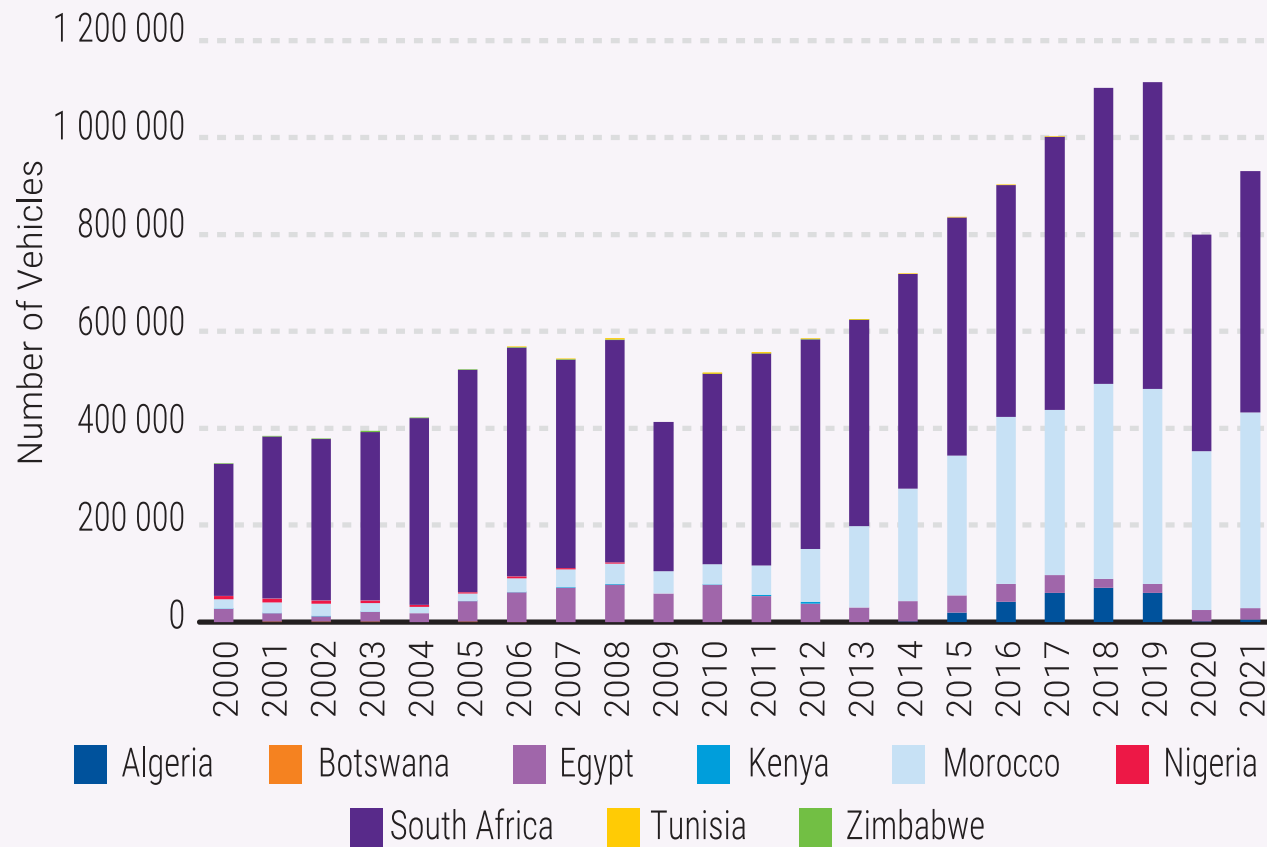
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Which technology-intensive supply chains do you consider as highly relevant for supply chain development and diversification in your country?

Africa: A newcomer in the automotive supply chain

Vehicle production trends in Africa, 2000–2021



- Production of vehicles in Africa increased from 328,749 units in 2000 to 931,056 units in 2021.
- In Africa, automotive industry mostly based on small-scale assembly operations, semi-knock-down kits with minimal value added.
- Over 80% of vehicle registration used vehicles
- Vehicle demand in Africa could reach 10 million vehicles a year by 2030.
- Potential to build new capabilities (e.g., parts and components industry) through targeted investment.

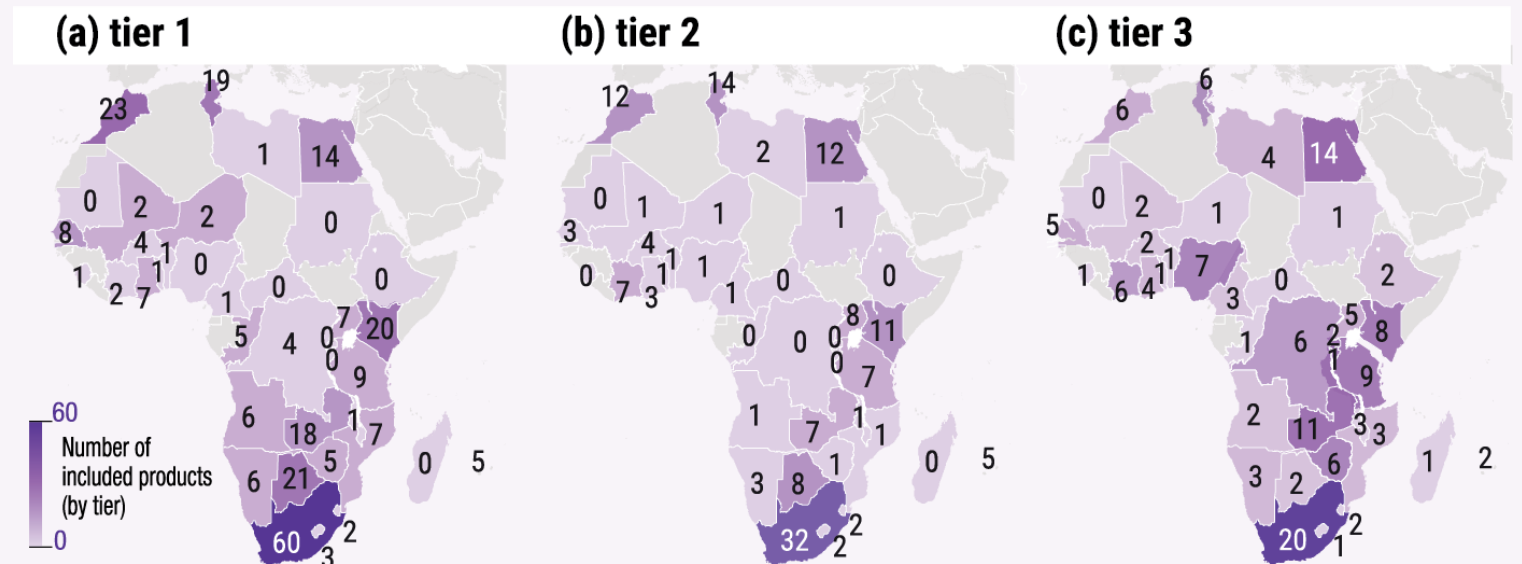


Automotive supply chain diversification opportunities

- African countries remain largely dependent on imports of automotive parts from outside the continent, but there is room for greater regional supply chain integration
- Manufacture of non-specific parts and components provides more viable production options for most African countries (less technology and knowledge-intensive)
- Feasible diversification opportunities through targeted investment
 - *Kenya, which exports 11 products in tier 2, could diversify into 30 other products in tier 2.*

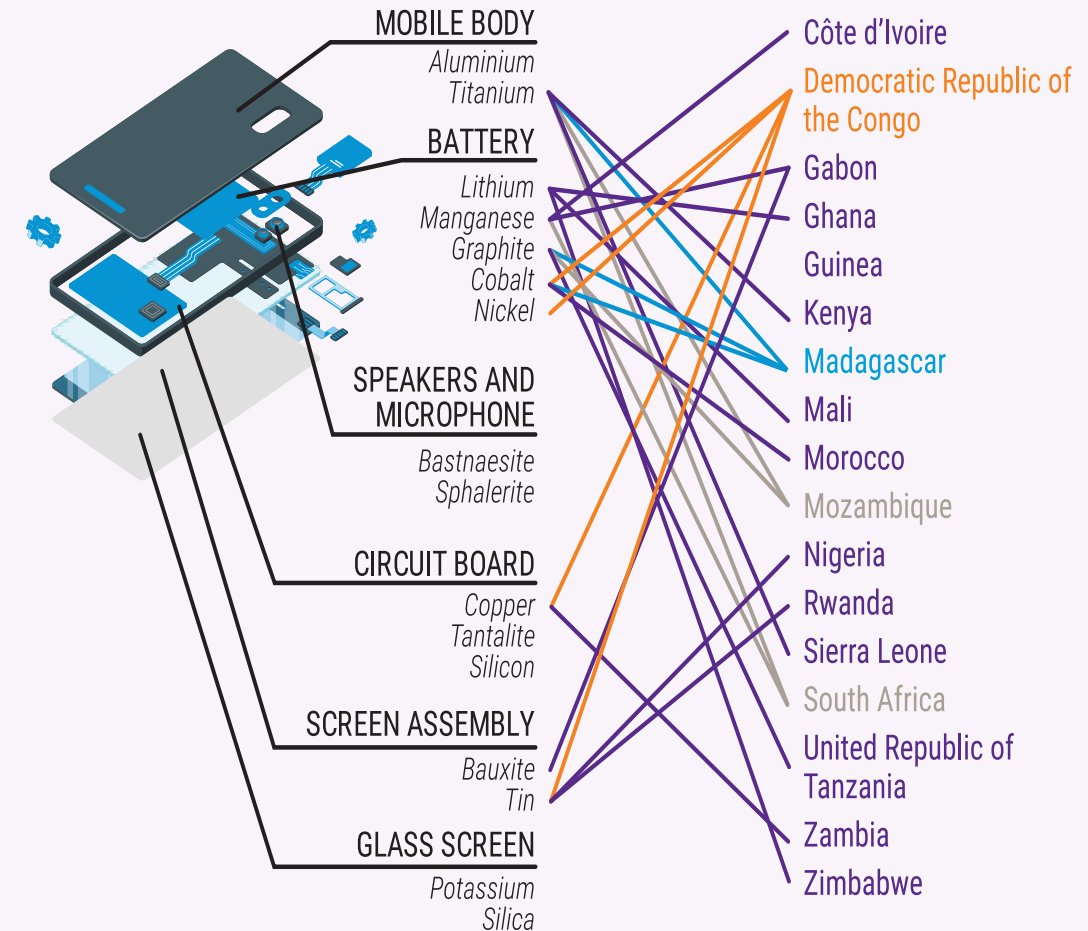
➔ Greater scale and mobility in the automotive industry, by instituting favorable policies and incentives to localize supply chains, including parts and components, distribution and aftersales goods and services.

Number of countries supplying inputs to African markets



New opportunities in Africa's growing mobile telephone industry

- Growth in Africa's mobile telephone industry, with rising demand for affordable and reliable smartphones.
- Mobile cellular subscriptions in excess of 100 per 100 inhabitants in 13 African countries.
- Diversifying electronics supply chain into Africa and producing locally components of mobile telephones.
- Regional supply chain and higher value capture in the battery industry (e.g., production of precursors involving DRC, Gabon and Madagascar)



Africa's competitive advantage in solar energy supply chain

- ✓ Africa's unique untapped potential for solar generation due to its solar photovoltaic potential (at 7,900 gigawatts) and its high horizontal irradiance levels.
- ✓ Raw materials make up 35–50% of the total cost of a solar photovoltaic module – many of which are sourced in Africa, demonstrating high relevance in solar energy supply chain.
- ✓ In Africa, rapid growth in demand for solar systems is being driven by lower system costs and innovative new business models – potential for industrial upgrading and improved access to energy.



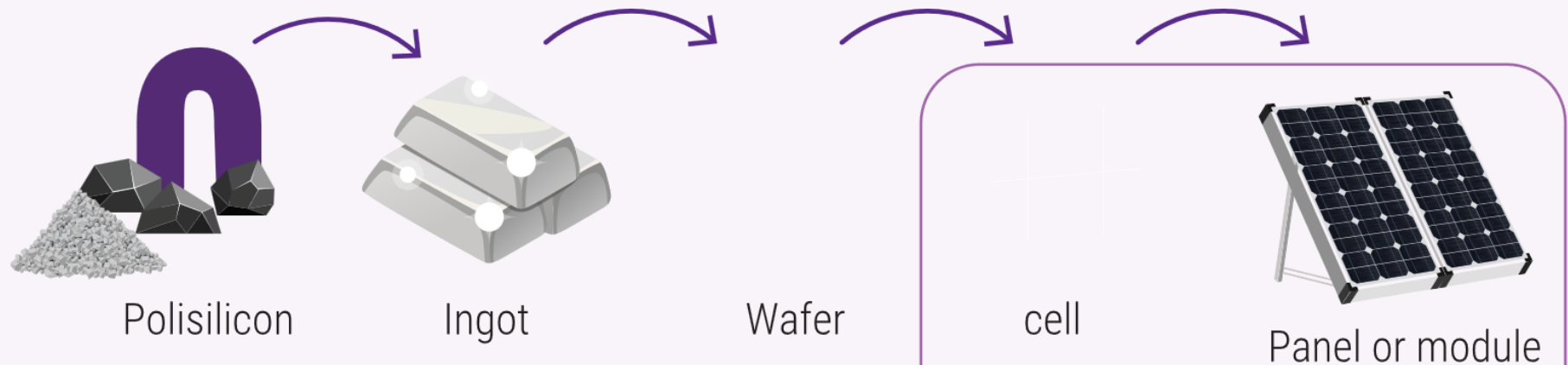
Strategic opportunities in solar energy supply chain

- Growth in the solar panel market provides a vast opportunity for the economy through private sector development and job creation.

For example, in Kenya, for every megawatt of mini-grid capacity developed, about 800 full-time-equivalent job-years are created, especially through the provision of services.

- Assembly of solar field, which must be performed at the site offers significant local manufacturing potential

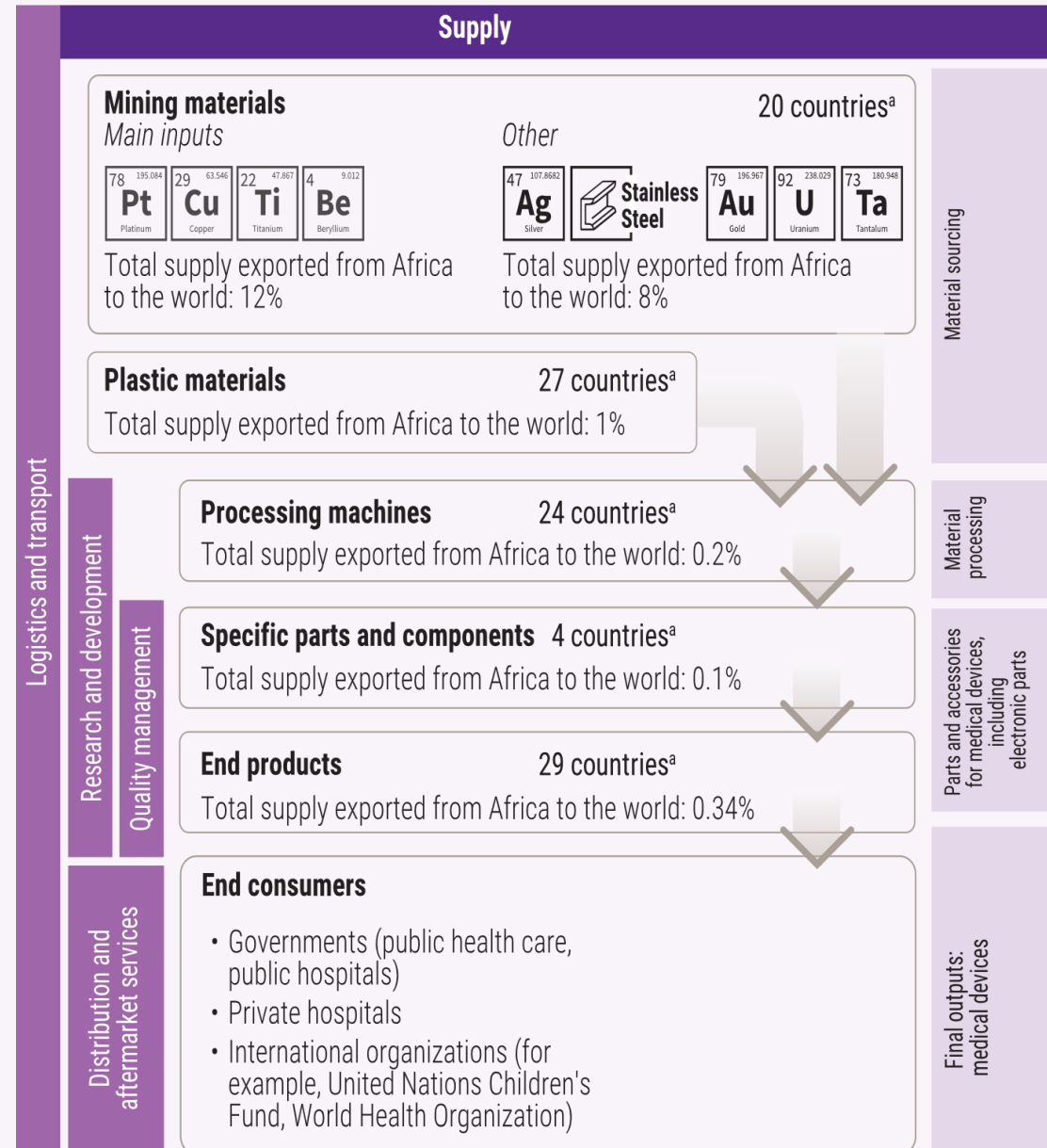
Components used by other industries offer opportunities for already established companies for lateral diversification



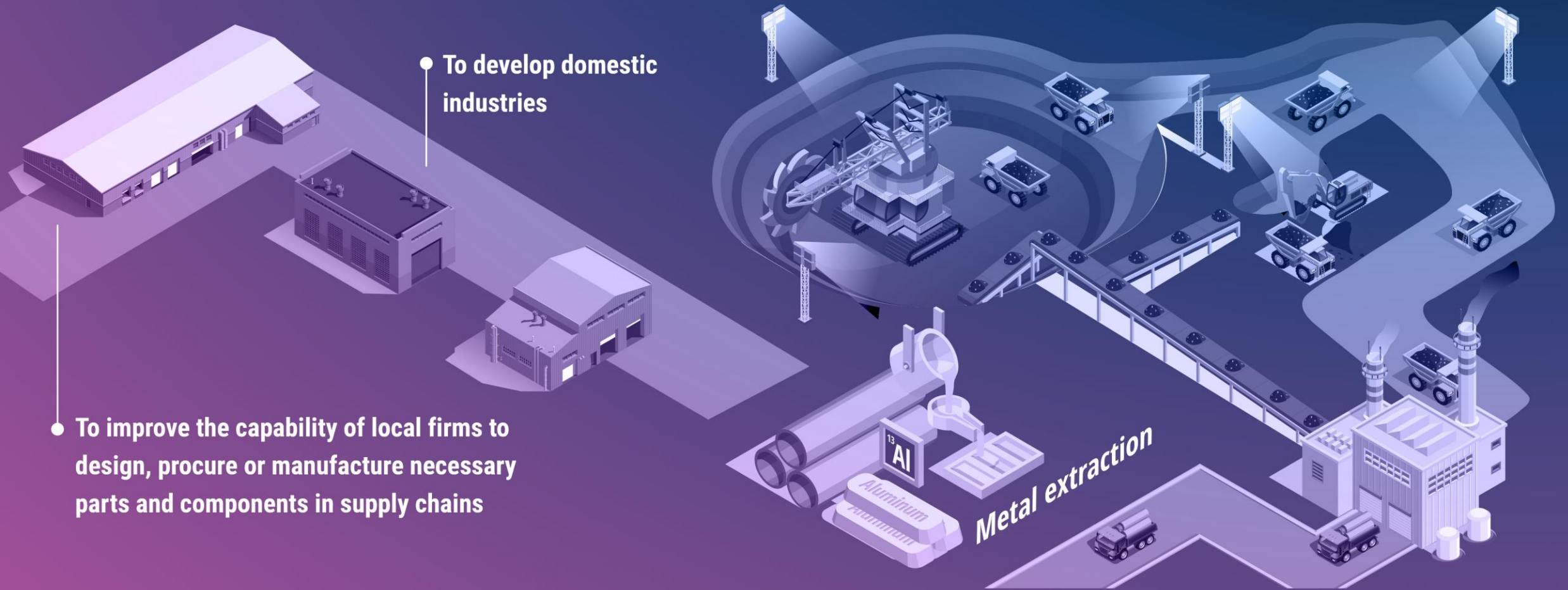
African solar photovoltaic manufacturing could start by prioritizing the steps for the cell manufacturing and module assembly

Accelerating productive capacity in medical supply chain

- Trade deficit in medical devices amounts to \$2.6 billion (2018-2020)
- Innovative solutions and technologies improved access to health diagnostics in rural areas
- 12% of global exports of key mining materials – potential importance for future growth of the medical products and devices industry.
- Plastic processing capabilities must be improved – an important input for the manufacture of medical devices.



BETTER MINING CONTRACTS AND EXPLORATION LICENSES FOR METALS USED IN HIGH-TECHNOLOGY PRODUCTS AND SUPPLY CHAINS ARE NEEDED



Cross-cutting policy recommendations

- ✓ Industrial policies should prioritize local sourcing and focus on areas such as science and technology, human capital development, infrastructure and capacity-building
 - Local content requirements or supplier programmes will not sufficiently promote domestic firms if the initial challenges of these firms – lack of electricity and access to finance, for example – are not tackled.
- ✓ Clustering production through special economic zones and industrial parks can be a viable option to overcome challenges to lack of infrastructure
- ✓ Skills development and intensified collaboration to enhance knowledge and technology transfer
 - Collaboration with the private sector to provide funding for technical Institutes that specialize in the automotive sector and adapt curriculums to reflect new developments in technology
 - Mentoring programmes, in which more established and successful companies can share information and benefit from formal and informal intra-industry exchanges that are necessary for continuous learning.
- ✓ Harmonized regulation and product registration is essential to facilitate market access and economies of scale in production.



Cross-cutting policy recommendations

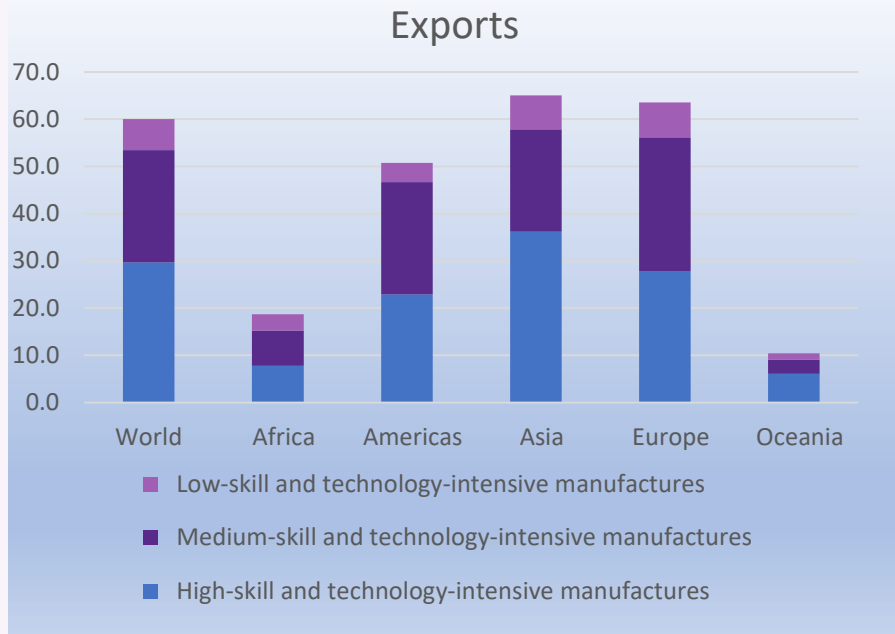
- Addressing legacy environmental, social and governance issues, such as raw materials transparency, is important to ensure the sector's sustainable development.
 - Enforcement of decent labour laws is paramount: electronics assembly employs a relatively larger share of women – women are often more vulnerable to health risks and exploitation
- Better data and information sharing would attract international investors to more countries in Africa, as multinational companies also require supply chain information to be agile and to comply with environmental, social and governance regulations.
- Support investment promotion agencies on how to attract investment in strategic sectors and to mainstream the SDGs into their investment promotion work.
- Strategies and mechanisms that foster the adoption of circular supply chains, which consist in recycling and remanufacturing products and components instead of discarding them
- Use of new technologies and digital solutions can provide comprehensive supply chain visibility and innovative financing solutions to SMEs
- Increasing intra-African trade can increase metal supply for use in the various industries





A look inside the enablers for improving Africa's
integration in technology-intensive global supply chains

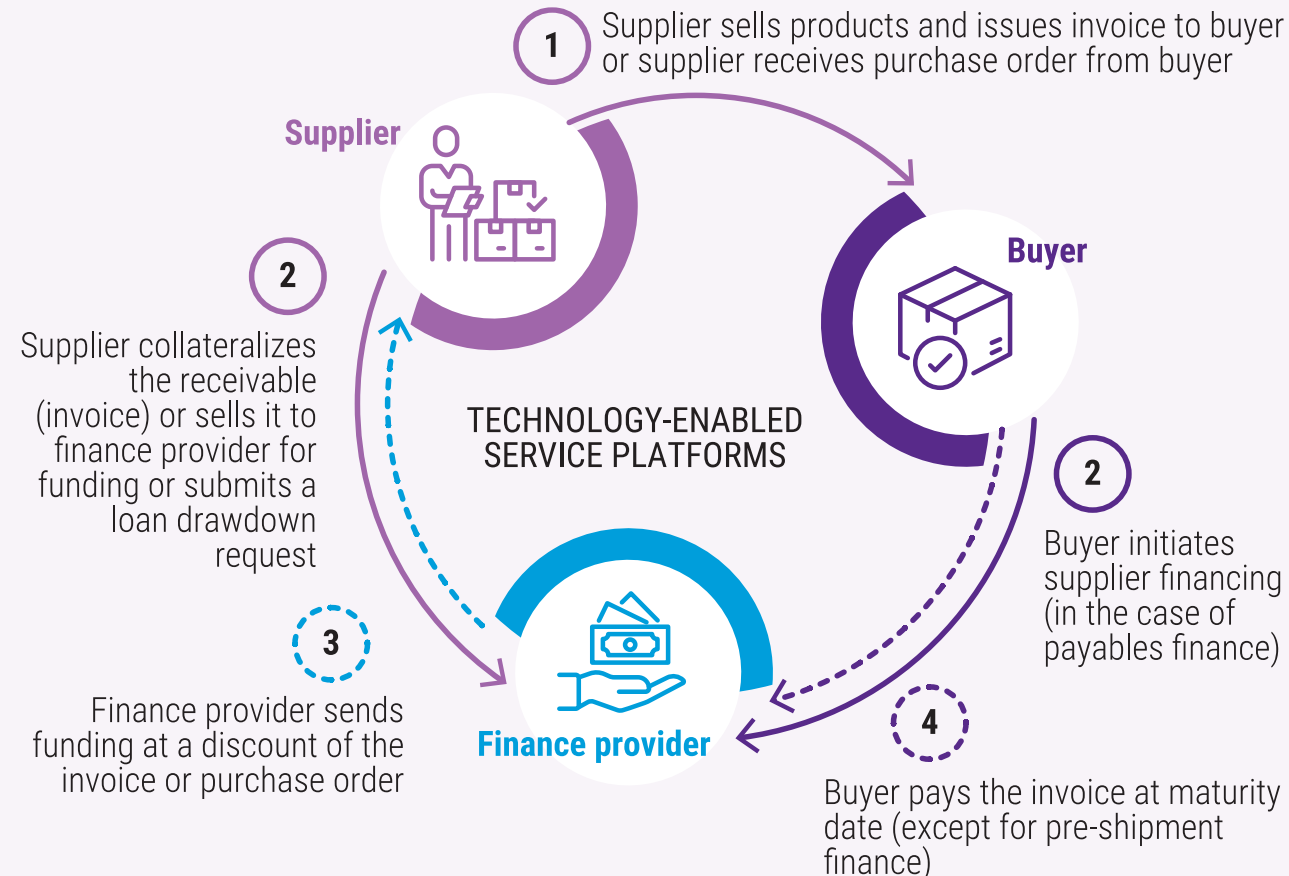
Scaling the adoption of technology for value capture



- Low levels of technology-intensive manufactures imply very limited or lack of research and development and innovation in African manufacturing industries.
 - Adoption and use of technology can contribute to production efficiency, faster delivery, enhanced information flows across supplier networks and increased supply chain integration, as well as job creation and higher incomes
 - Advanced technologies provide valuable tools and platforms that can meet the financing needs of African firms and potential suppliers or service providers in supply chains.
- ✓ Digital skills development
 - ✓ Digital technology adoption programmes, including the establishment of technology hubs and incubators
 - ✓ Increase the use of supply chain-related investments and finance.

Supply chain finance solutions for profit and liquidity

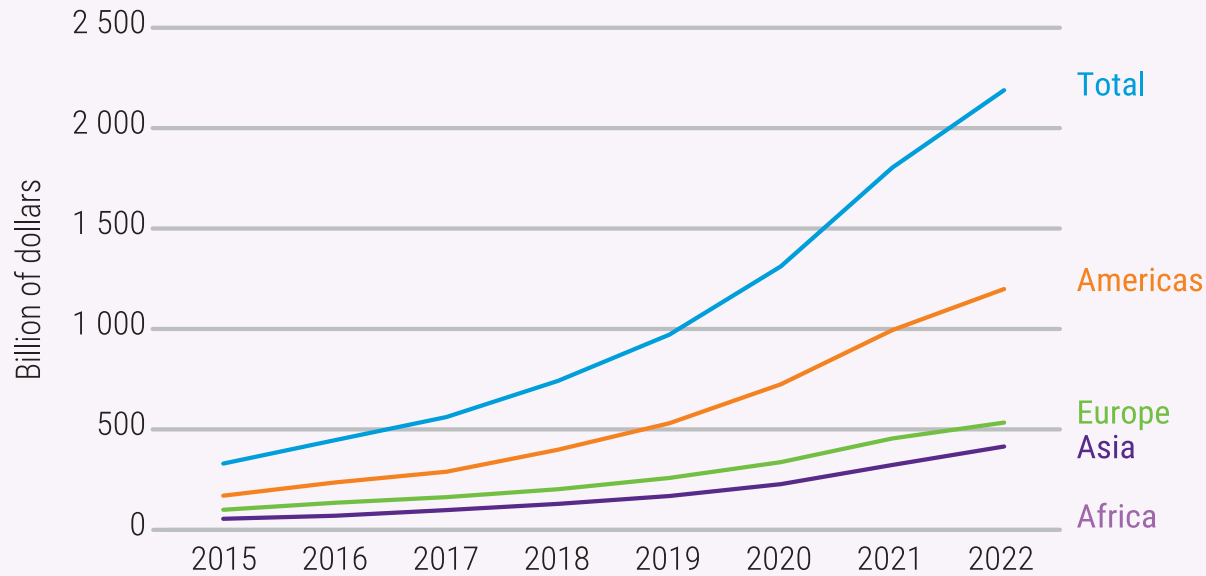
- SCF focuses on working capital financing, bridging the payment time gap between the buyers and sellers, in order to most efficiently manage its cash needs from daily operations and reduce stress to the balance sheet.
- No internationally agreed standards for SCF:
 - 1) part of the **financial supply chain management** integrated into physical supply chain activities;
 - 2) **financing instruments to manage working capital and liquidity** in the supply chain; and
 - 3) **payables finance** (or reverse factoring).
- Scaling innovative SCF solutions could significantly improve SMEs' access to financing and competitiveness in a well-integrated supply chain that could further increase employment, income, quality of life, and economic growth in Africa.



Growth of SCF markets can lower barriers to firms' competitiveness and participation in global supply chains

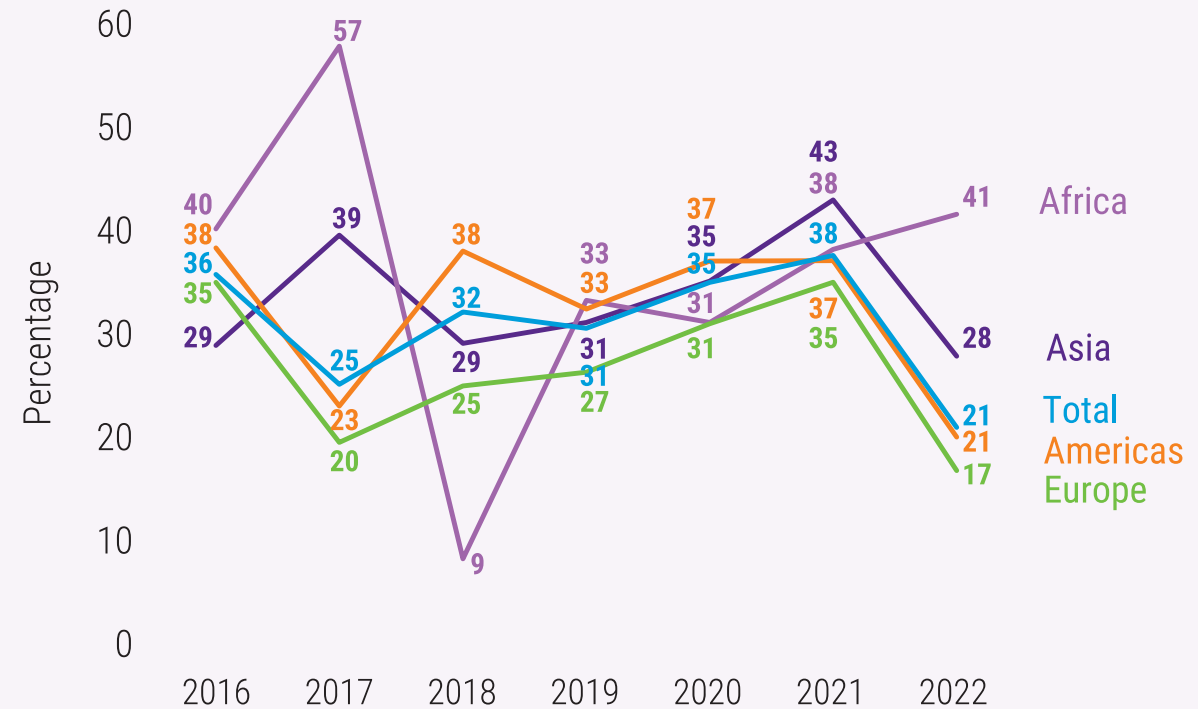
Global supply chain finance volume and growth, 2015–2022

(a) Volume



| | | | | | | | | |
|----------|-----|-----|-----|-----|-----|------|------|------|
| Africa | 5 | 7 | 11 | 12 | 16 | 21 | 29 | 41 |
| Americas | 170 | 235 | 290 | 400 | 530 | 726 | 995 | 1199 |
| Asia | 55 | 71 | 99 | 128 | 168 | 227 | 324 | 415 |
| Europe | 100 | 135 | 162 | 203 | 257 | 337 | 455 | 534 |
| Total | 330 | 448 | 562 | 743 | 971 | 1311 | 1803 | 2189 |

(b) Year-on-year growth



Challenges to supply chain finance growth

- **The supply of SCF continues to be far below what is demanded across the continent.** For example, Kenya's SCF supply has only reached 7-10% of the estimated market.
- Challenges to SCF growth could include: 1) lack of **technological infrastructure**, including tech-enabled services; 2) inadequate **legal and regulatory framework**; 3) high risk perception by local firms due to insufficient **knowledge and education**; 4) **fragmented market**;
- **New technologies**, e.g. digital invoicing, are particularly important to improve supply chain transparency, facilitate real-time data capture to lower financing risk, and potentially prevent frauds.
- It is essential to:
 - Develop technological infrastructure and digitization of payment and invoicing processes
 - Improve and enforce legal and regulatory frameworks, such as ensuring the application of laws related to dematerialization for digital invoicing, signatures and accounting
 - Innovative and custom-made credit assessment and financing tools for African firms could help manage and change the risk perception of potential market players.

Policy recommendations

- Better data and information sharing would attract international investors to more countries in Africa
- Corporate social responsibility practices should be fostered to facilitate technology transfer, research and development and access to production knowledge.
- The implementation of strong intellectual property rights can attract foreign investment in high-technology- and research-and-development-intensive supply chains and promote innovation to provide products tailored to meet the needs of Africa.
- Innovative and custom-made credit assessment and financing tools for African firms could help manage and change the risk perception of potential market players.





Policy support for strengthening global supply chain
diversification

UNCTAD's support...

To help African countries become the next frontier destination for resilient global supply chains.

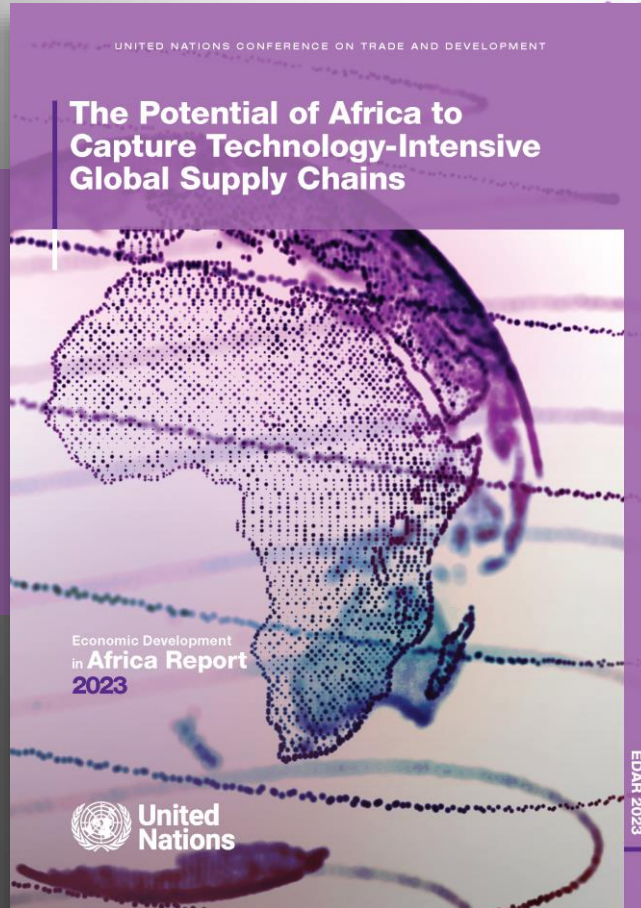
To help African public and private sectors intensify efforts in acquiring the necessary skills and capabilities to integrate regional and global supply chains for high-knowledge and technology-intensive industries.

To help leverage the potential of other drivers and enablers of supply chain diversification.

To help promote the localization of supply chains, and other regional market opportunities under the African Continental Free Trade Area.



Economic Development in **Africa Report** **2023**



**THANK YOU
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