



**USAID**  
FROM THE AMERICAN PEOPLE



# ALLIANCE FOR ETRADE DEVELOPMENT

## PILOTING THE AFCFTA DIGITAL PROTOCOL READINESS INDEX

September 30, 2024

This document was made possible by the generous support of the American People through the United States Agency for International Development (USAID). The contents are the responsibility of Palladium and do not necessarily reflect the views of USAID or the United States Government.

# ALLIANCE FOR ETRADE DEVELOPMENT

## PILOTING THE AFCFTA DIGITAL PROTOCOL READINESS INDEX

**Agreement no.:**  
7200AAI9CA0002I

**Submitted to:**  
USAID Center for Economics and Market Development

**Prepared by:**  
Dr. Kati Suominen, Founder and CEO, Nextrade Group; Technical Director, Alliance for eTrade Development; Bonaly Phrasavath, Senior Associate, Nextrade Group

**DISCLAIMER:**

The authors' views expressed in this document do not necessarily reflect the views of the United States Agency for International Development or the United States Government or the views of the Alliance for eTrade Development members.

**Table of Contents**

I. Introduction .....4

II. State of Digital Trade in Africa .....5

III. The AfCFTA Digital Protocol Framework..... 14

IV. Strategies for Successful Implementation ..... 23

V. Conclusion ..... 25

Appendix 1 – Coverage of digital trade and economy agreements ..... 26

Appendix 2: Scoring Results for Implementation of AfCFTA Digital Protocol ..... 27

Appendix 3: Scoring for Mapping..... 39

**ACKNOWLEDGMENTS**

This report was produced for the Alliance for eTrade Development, a Global Development Alliance supported by the U.S. Agency for International Development. The author’s views expressed in this document do not necessarily reflect the views of the United States Agency for International Development or the United States Government or the views of the Alliance for eTrade Development members.

## I. Introduction

In February 2020, the 33<sup>rd</sup> African Union Ordinary Session resolved that the Phase III Negotiations of the African Continental Free Trade Agreement (AfCFTA) would focus on the AfCFTA Protocol on Ecommerce, today called the AfCFTA Digital Trade Protocol or “Digital Protocol.” African Heads of State approved the Protocol in January 2024. Negotiations continue on the eight annexes contemplated for the Protocol.

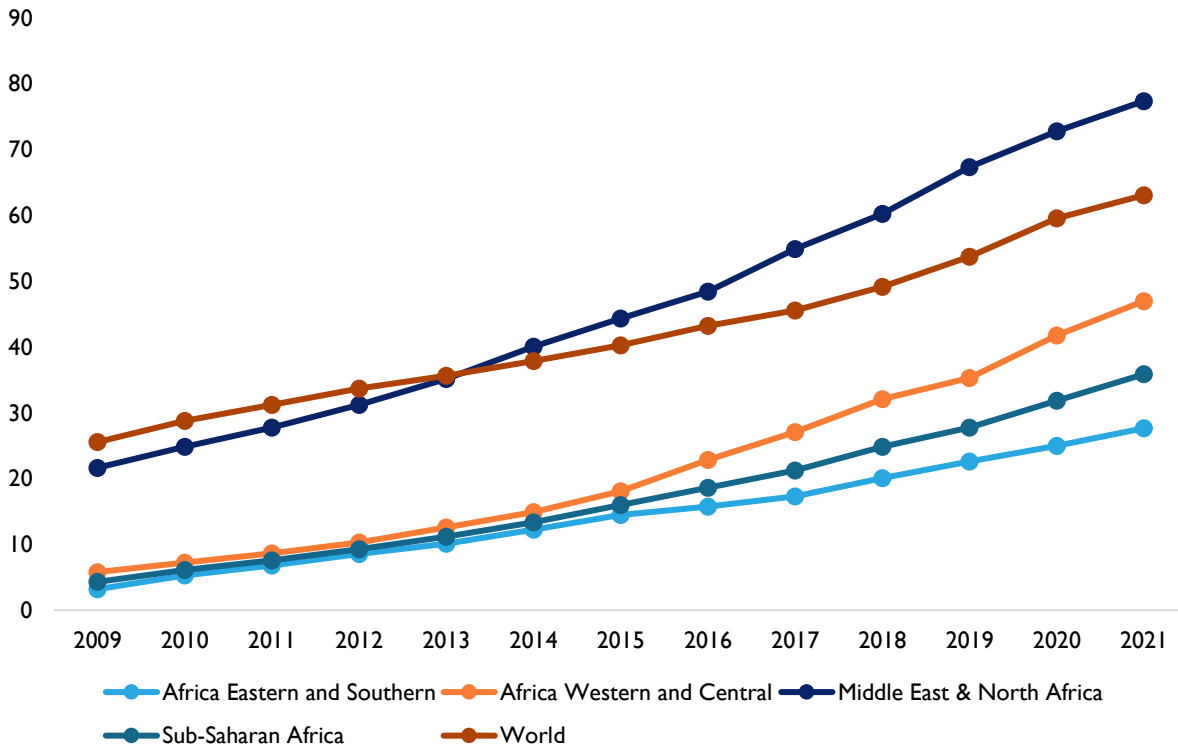
The purpose of this report is to assess the readiness of African countries to implement the Digital Protocol, assuming many of its provisions reflect provisions adopted by other major digital trade and economy agreements. The data is aimed to serve as gap analysis and highlight countries and specific policy areas where African countries may require capacity-building to implement the Protocol. The approach here can also be used as a monitoring framework for the Digital Protocol’s implementation, once the annexes are agreed upon.

The following section reviews the digital transformation of African economies and firms. Section three creates a framework for analyzing African countries’ readiness to implement the AfCFTA Digital Protocol, and carries out the pilot analysis. Section four discusses the framework for monitoring the implementation of the Digital Protocol. Section five concludes.

## II. State of Digital Trade in Africa

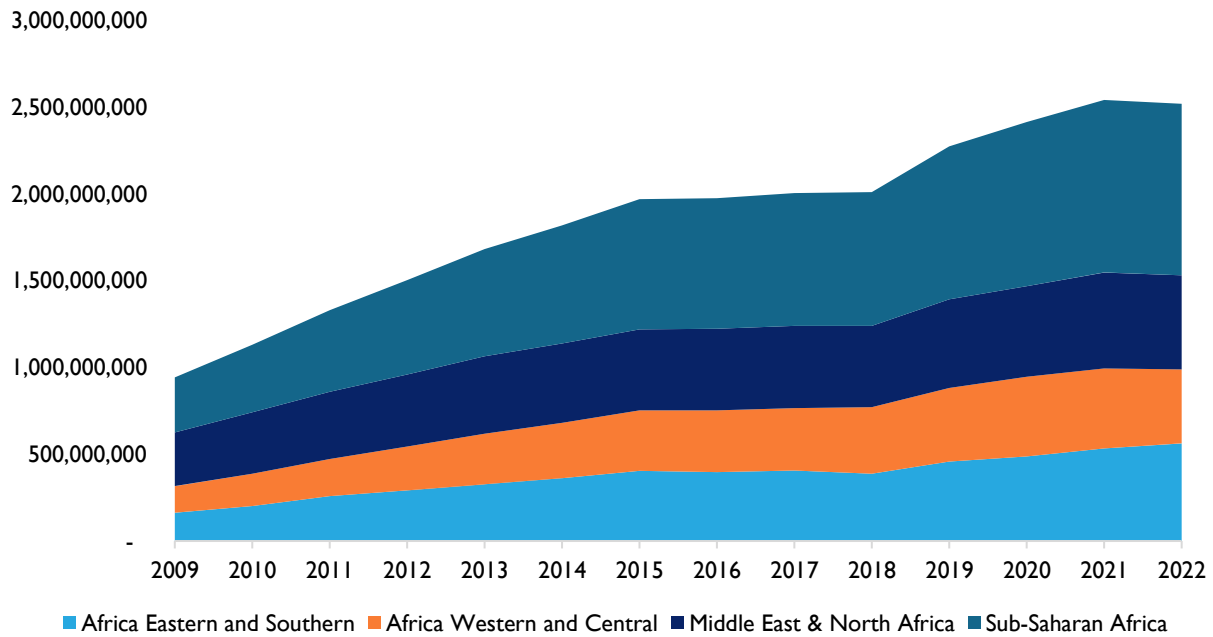
As of 2024, Africa is experiencing a digital transformation that is reshaping its trade landscape. The rapid expansion of internet access and mobile technology has created new opportunities for businesses and consumers across the continent. Internet penetration has expanded over the last 15 years (Figure 1). Cellular subscriptions have also expanded to over 2 billion subscriptions (Figure 2). Increased internet penetration and mobile phone subscriptions provide the infrastructure that enables ecommerce, digital payments, and other online services.

**Figure 1: Internet penetration per 100 people, regions in Africa and the world**



Source: World Bank Development Indicators.

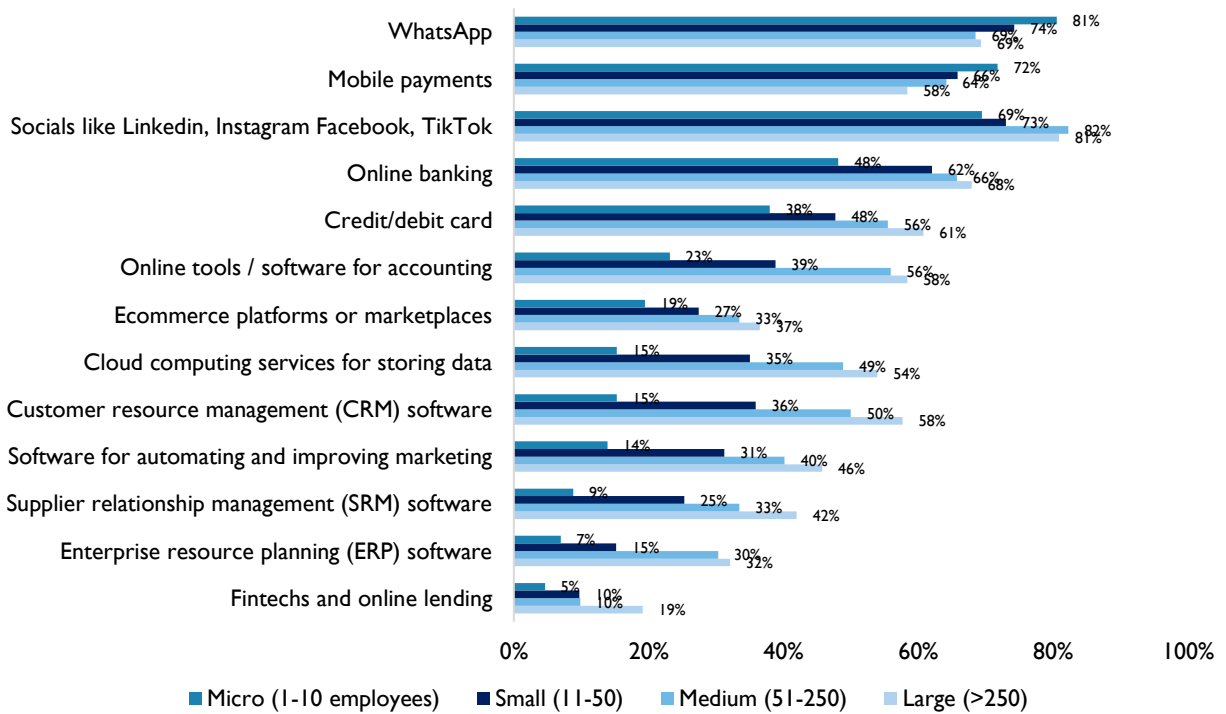
**Figure 2: Number of mobile cellular subscriptions in Africa, by main regions**



Source: World Bank Development Indicators.

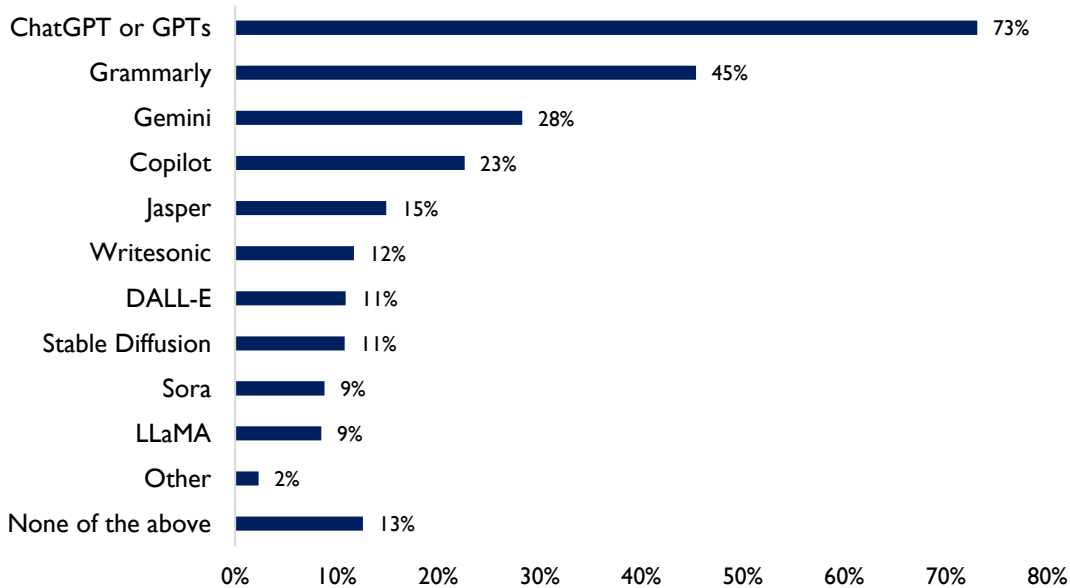
As digitization has expanded, African firms have increasingly been adopting ecommerce to expand their market reach, enhance their competitiveness, and access new customers both domestically and internationally. In addition, African firms have been adopting various digital services, from digital payments acceptance to customer relationship management and enterprise resource management (ERP) systems (figure 3). African businesses are rapidly increasing their use of AI and generative AI. Over 70 percent of firms use ChatGPT, and almost 30 percent use Google’s Gemini (figure 4). While most micro and small firms have only recently adopted AI or are planning to adopt, medium and large firms have used AI longer, for example to enhance sales and marketing and safety (figure 5). Supporting African businesses’ digitization is an increasingly robust ecosystem of ecommerce platforms, fintechs, and mobile payment systems (figure 6). The ranks of these firms have grown about four-fold in the past decade.

**Figure 3: % of African firms adopting digital services and technologies, by firm size**



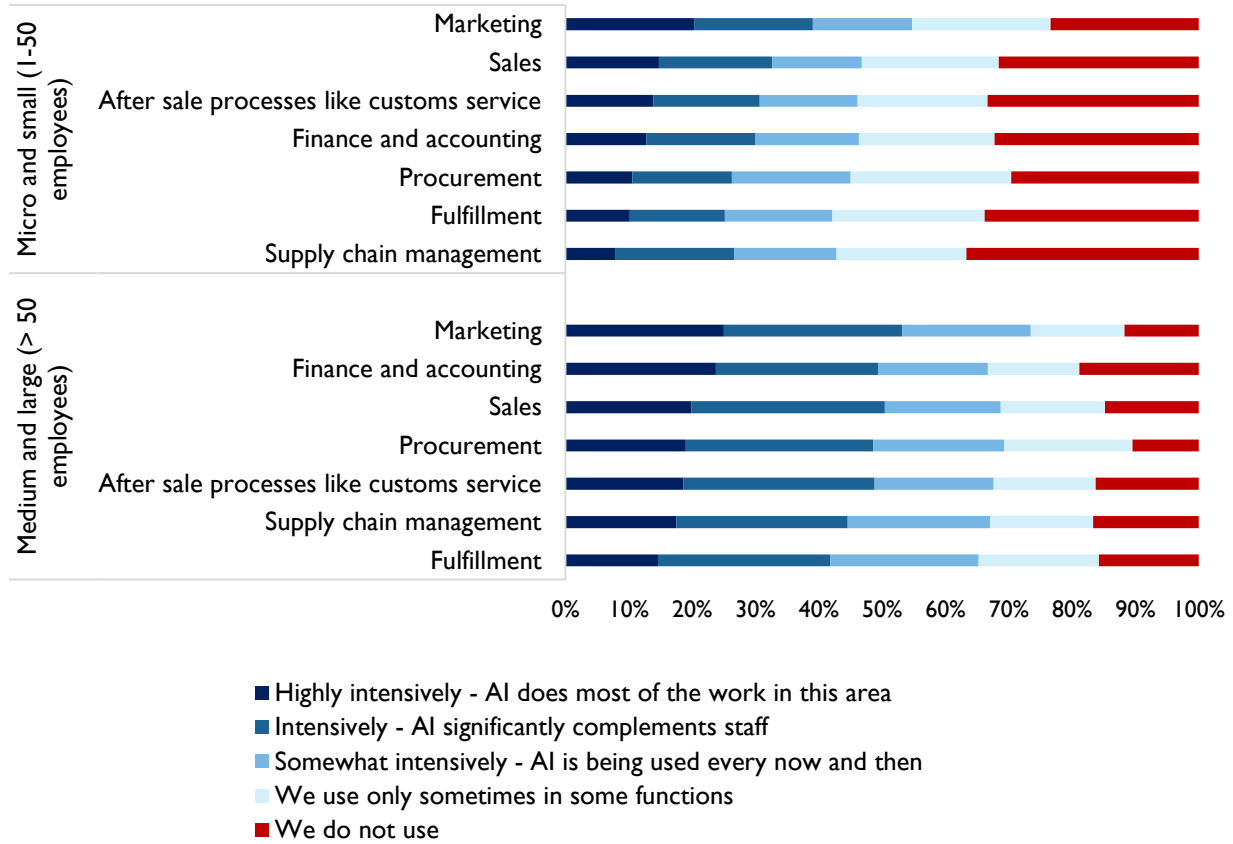
Source: Nextrade Group survey with 800 African firms on 17-20 July 2024.

**Figure 4: % of African firms using generative AI**



Source: Nextrade Group survey with 800 African firms on 17-20 July 2024.

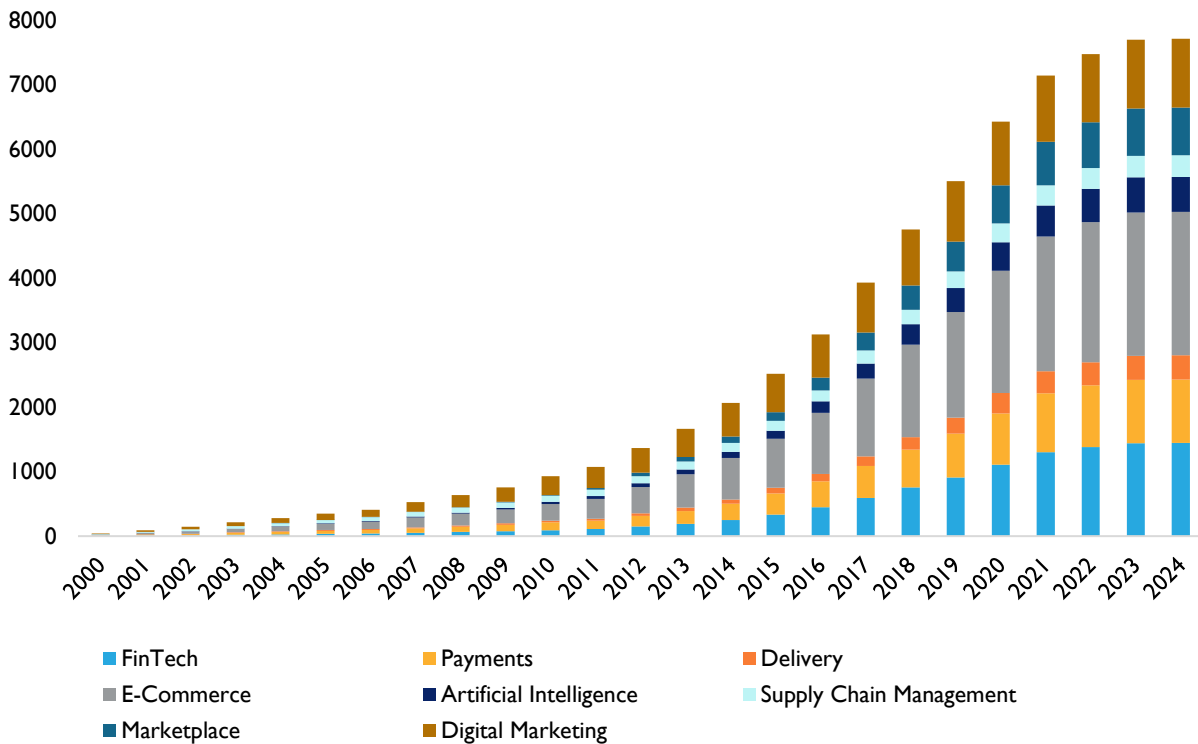
**Figure 5: Intensity of AI use in business functions, by firm size**



Source: Nextrade Group survey with 800 African firms on 17-20 July 2024.



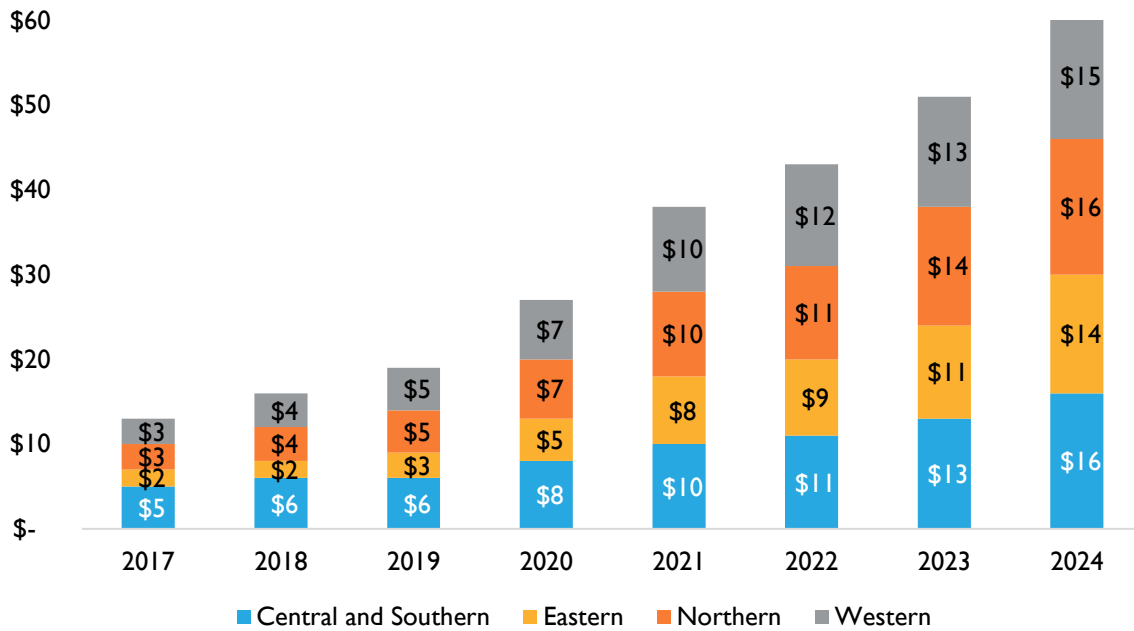
**Figure 6: Cumulative Ecommerce Ecosystem Firms in Africa from 2000-2024**



Source: Nextrade Group, on the basis of Crunchbase data.

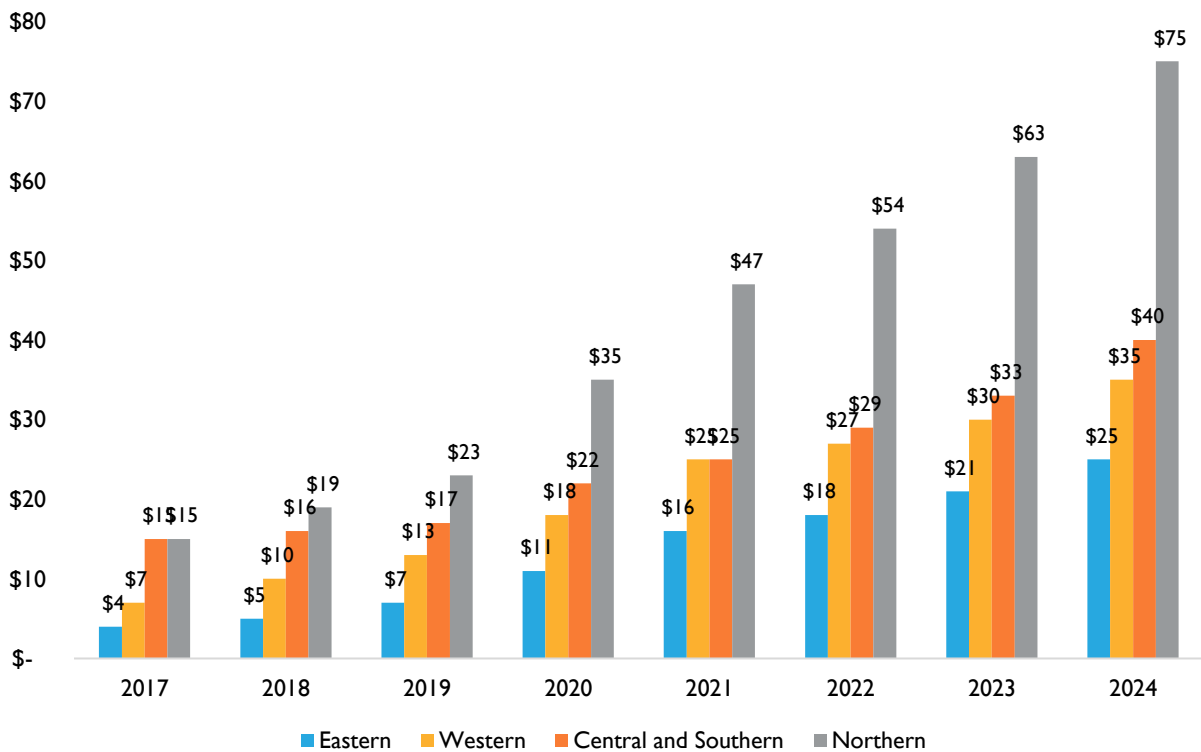
Africa’s digitization is reflected in online sales growth. Online transactions in goods have grown from \$13 billion in 2017 to over \$61 billion over the last seven years, led by Central and Southern Africa (figure 7). Per capita online purchases have also soared, growing five-fold in Northern and Eastern Africa in 2017-24 (figure 8).<sup>1</sup>

**Figure 7: Ecommerce in goods in Africa in 2017-24, by regions (in billions of USD)**



Source: Nextrade Group, on the basis of Statista

**Figure 8: Per capita spending on ecommerce goods in African regions, 2017-2024**

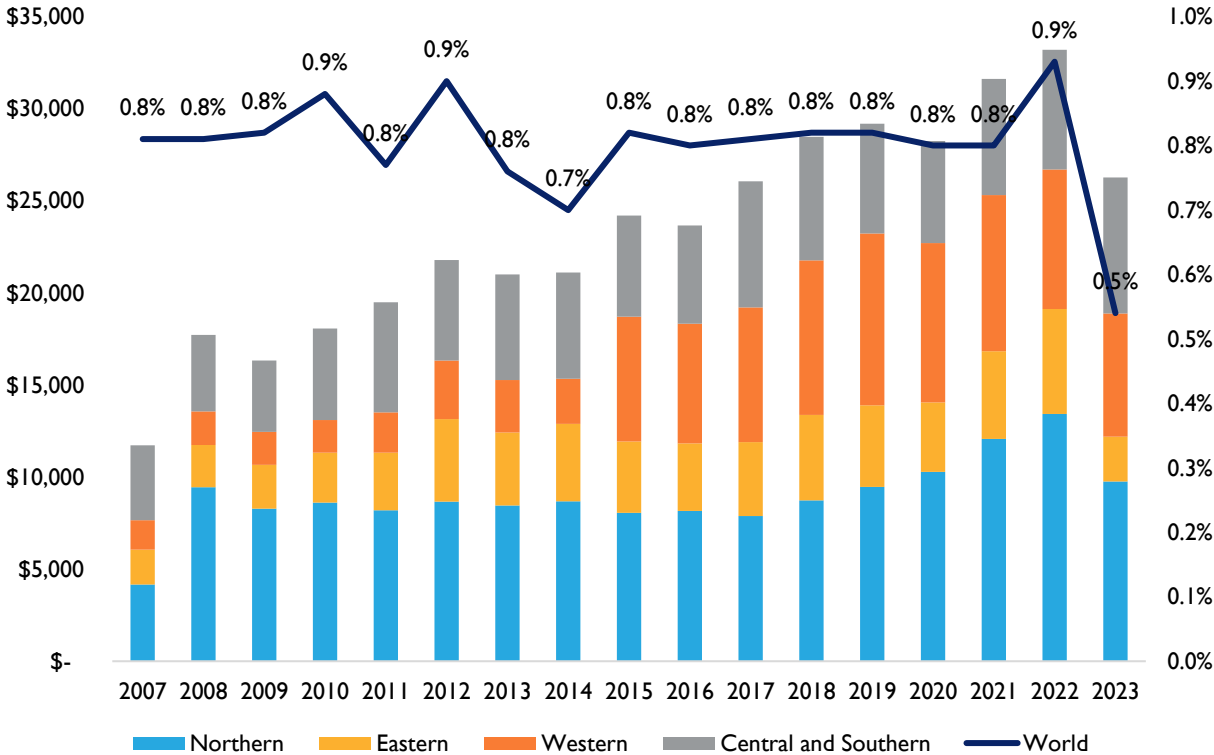


Source: Nextrade Group on the basis of Statista.

Africa’s exports digitally deliverable services (consisting of telecommunications, computer, and information services; charges for the use of intellectual property; financial services; insurance and pension services; and other business services) have grown at 6 percent year on year since 2007 to \$33 billion in 2022 (figure 9). The growth is driven by North Africa, where digital services have grown by 13 percent per annum, led by Morocco and Egypt. Digital services exports have declined by 2 percent in East Africa. Central and South African and Western African exports of digital services have grown modestly at 3 percent and 1 percent, respectively.

To be sure, Africa’s digital services exports are still very modest, only 0.7 percent of global digital services exports and 12 percent for example of Southeast Asia’s digital services exports. Digital services exports are equivalent to only 0.34 percent of Africa’s GDP, compared to 7 percent in Southeast Asia.

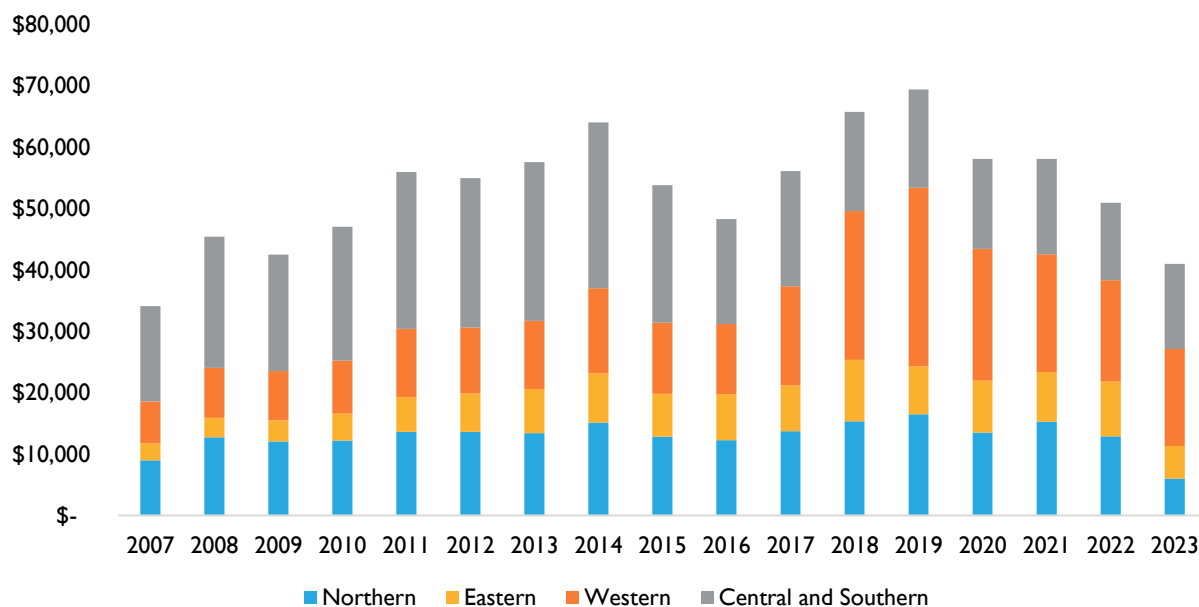
**Figure 9: African digitally deliverable services exports in 2007-23, by main regions (in millions of USD)**



Source: Authors on the basis of World Trade Organization data.

Africa’s imports of digitally deliverable services suggest that Africa saw steady growth from 2008 through 2019, reaching \$69 billion in 2019. After 2019, imports began to decline to \$41 billion in 2023 (figure 10).

**Figure 10: Digitally deliverable services imports in Africa in 2008-23, by main regions (in millions of USD)**



Source: Authors on the basis of World Trade Organization data.

Africa’s intra-regional digital service trade flows are still modest. Data that is available from the Organization of Economic Cooperation and Development (OECD) Balanced trade in services (BATIS) suggest that intraregional digital services trade made up 12 percent of total digital services exports and 7 percent of total imports in 2021 (figure 11).

**Figure 11: Digitally deliverable services exports and imports to Africa in 2021, by main regions (in millions of USD)**



Source: Authors on the basis of the OECD BATIS database.

This is where the Digital Protocol can come in and help generate future digital trade gains. In particular, the Protocol can help African economies lock in good digital policies, promote common digital trade rules that promote convergence among African economies’ digital policies, and pre-empt new barriers to digital trade. These gains would in turn promote regulatory certainty for regional businesses, thereby both safeguarding existing growth in digital trade and unlocking further digital trade and investment in the region.<sup>2</sup> But how prepared are then African economies to implement the Digital Protocol? The following section seeks to provide answers.

### III. The AfCFTA Digital Protocol Framework

The AfCFTA Digital Protocol framework is designed to regulate digital trade across the continent. It aims to create a more cohesive African digital market by promoting common regulations, promoting ecommerce, and enabling the free flow of digital products and services and data among member states.

African countries need to be prepared to implement the Protocol's provisions, for it to have impact. The Protocol and its annexes are currently expected to cover several areas covered also in multiple digital trade agreements especially in the Asia-Pacific region. Among these agreements are the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) among by now 12 countries formed in 2018, and the subsequent Digital Economic Partnership Agreement (DEPA) between Singapore, New Zealand, and Chile, and the Singapore-Australia Digital Economy Agreement (SADEA), among many others. Some of the core provisions across these agreements include (see also appendix I):

- Electronic authentication and validity of electronic signatures.
- Moratorium on electronic transmissions, which prohibits members of the agreement from imposing customs duties on electronic transmissions.<sup>3</sup>
- Promotion of data privacy and consumer protection.
- Rules to facilitate cross-border data flows.
- Ban on computing facilities, which prevents governments from requiring the use or location of computing facilities inside the country as a condition of supplying a service in that country.<sup>4</sup>
- Non-discriminatory treatment of digital products.
- Protecting source code which prohibits governments and their agencies from requiring the transfer of, or access to, source code.<sup>5</sup>
- Anti-spam laws that protect individuals and businesses from receiving unwanted and deceptive electronic messages.
- Promoting cybersecurity capabilities and cooperation.
- Promoting paperless trade.

The AfCFTA Digital Protocol will likely mirror this template and provisions to an extent, but it will also add to it. The Protocol's eight annexes still under discussion cover:

- Cross-border data transfers.
- Digital identities, for parties to adopt ID systems for both natural and juridical persons.
- Cross-border digital payments and their interoperability.
- Rules of origin for digital trade.

- Online safety and security;
- Financial technologies.
- Emerging and advanced technologies.

How prepared are African countries to implement the Digital Protocol and its annexes? Which AfCFTA Member States would need capacity-building to successfully implement the Digital Protocol, and in which specific areas?

To address these questions, we introduce the AfCFTA Digital Protocol Readiness Index, which assesses the progress of African countries in implementing these various policies. The readiness index is based on the methodology developed in Suominen (2022) as follows:<sup>6</sup>

- Step 1: Adopt a scoring system for assessing national laws, policies, and regulations surrounding areas of cybersecurity, cross-border data transfer, data privacy, consumer protection, AI, and more.
- Step 2: Score each African countries' laws and practices in terms of meeting these provisions. Provisions that are binding and oblige a member to have in place a law or regulation are scored by looking at the law in question.
- Step 3: Bring data together to create a “traffic light” system. Each of the African economies receive either a red, yellow, or green traffic light to indicate whether they do not meet provisions, partially meet provisions, or fully meet provisions, respectively.

There are 19 policies covered by the Index (Table 1).

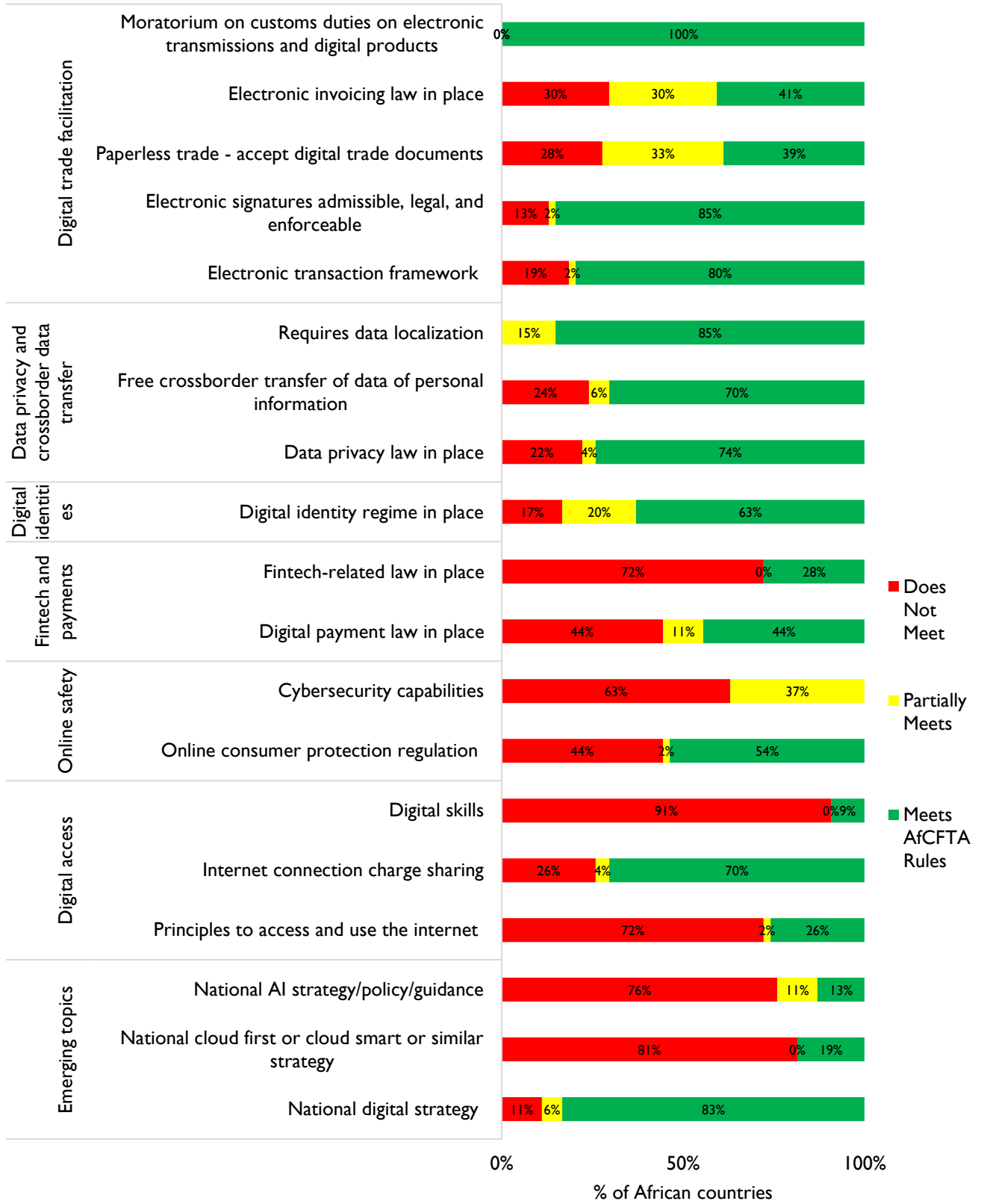
**Table 1: Policy Areas Covered**

Policy Area	Indicator	Source
<b>Digital trade facilitation</b>	Electronic transaction framework in place	National laws
	Electronic signatures admissible, legal, and enforceable	National laws
	Paperless trade – accept digital documents	UN Paperless Trade and Trade Facilitation Database
	Electronic invoicing law in place	National laws
	Moratorium on customs duties on electronic transmissions	National laws
<b>Data privacy and crossborder data transfer</b>	Data privacy law in place	National laws
	Crossborder transfer of data of personal information	National laws
	Location of computing facilities	National laws
<b>Digital identities</b>	Digital identity regime in place	News updates
<b>Digital payments</b>	Digital payment law in place	National laws
<b>Financial technologies</b>	Fintech-related law in place	National laws
<b>Online safety</b>	Online consumer protection law in place	National laws
	Cybersecurity capabilities	National Cybersecurity Index <sup>7</sup>
<b>Digital access</b>	Principles to access and use the internet	Freedom House score on access to internet <sup>8</sup>
	Digital Skills	World Bank on Human Capital Index
	Internet connection charge sharing	International Telecommunication Union's Policy Index Competition among internet services <sup>9</sup>
<b>Emerging topics</b>	National digital strategy in place	National laws
	National cloud first or cloud smart strategy that guides and promotes cloud adoption across government agencies	National laws
	National AI strategy/policy/guidance in place	National laws

The results suggest that African countries are most prepared in such key areas as having a moratorium on customs duties on electronic transmissions, accepting electronic signatures, banning data localization, and adopting national digital strategies (figure 11, table 2). Readiness to implement Digital Protocol is lowest on cybersecurity, where this report has used as indicators cyber incident response, cyber crisis management, fight against cybercrime, and military cyber defense scores from the National Cybersecurity Index.<sup>10</sup> Only 37 percent of African countries partially meet these standards. Additionally, 91 percent of countries lag on digital skills, benchmarked hereby using the World Bank's Index on Human Capital.<sup>11</sup>

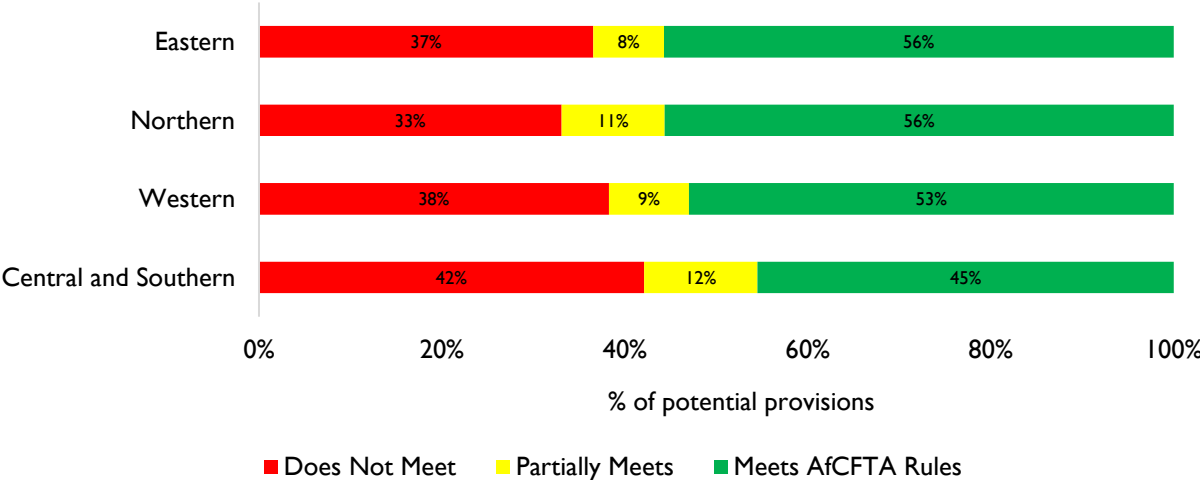


**Figure I I: Readiness to implement the AfCFTA Digital Protocol, by region**



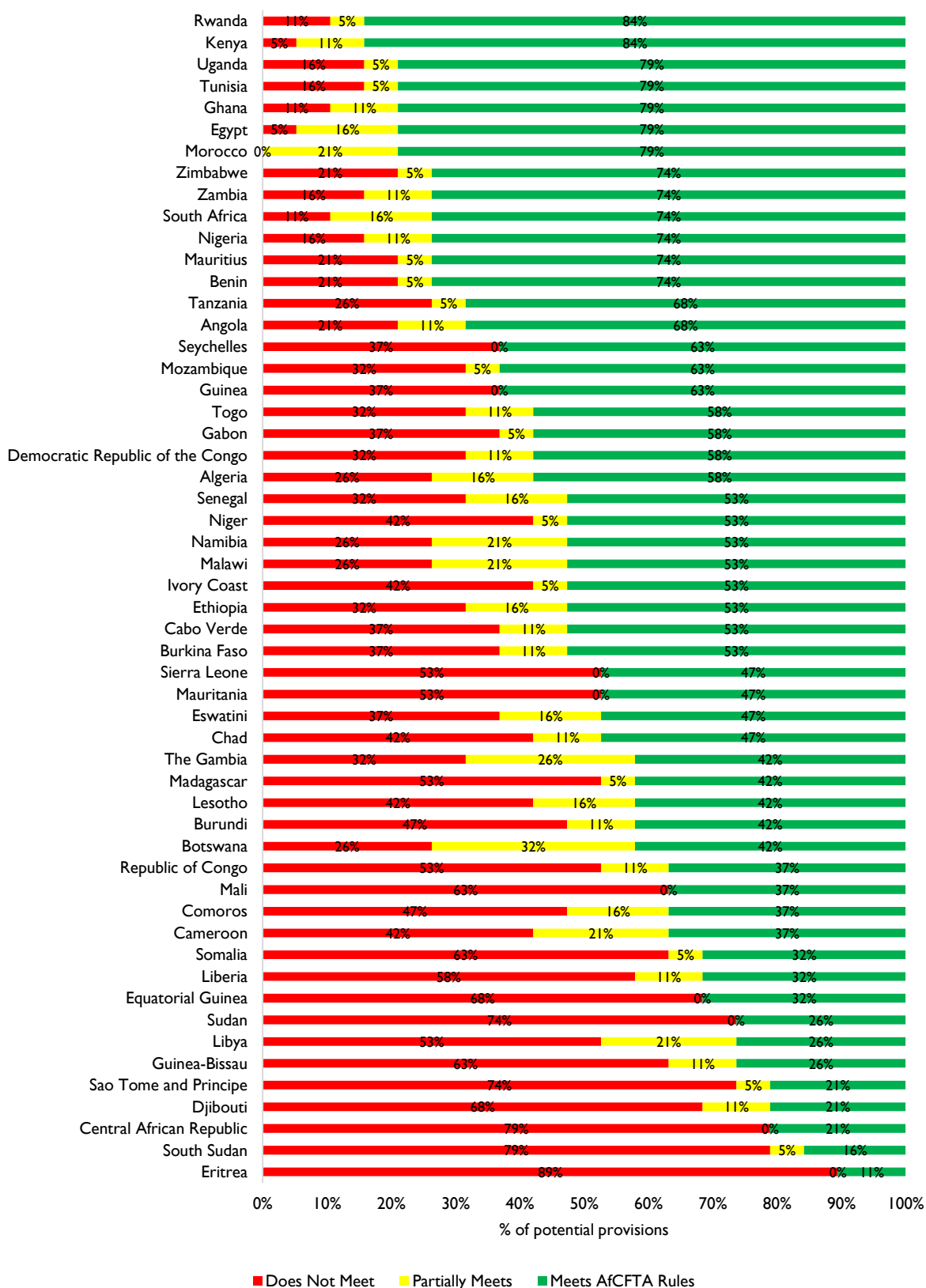
Eastern and North African countries are somewhat more prepared than other regions to implement AfCFTA Digital Protocol (Figure 12). The Eastern and Northern regions meet 56 percent of the anticipated provisions. Western and Central and Southern regions meet 53 percent and 45 percent of provisions, respectively.

**Figure 12: Readiness to implement the AfCFTA Digital Protocol, by region**



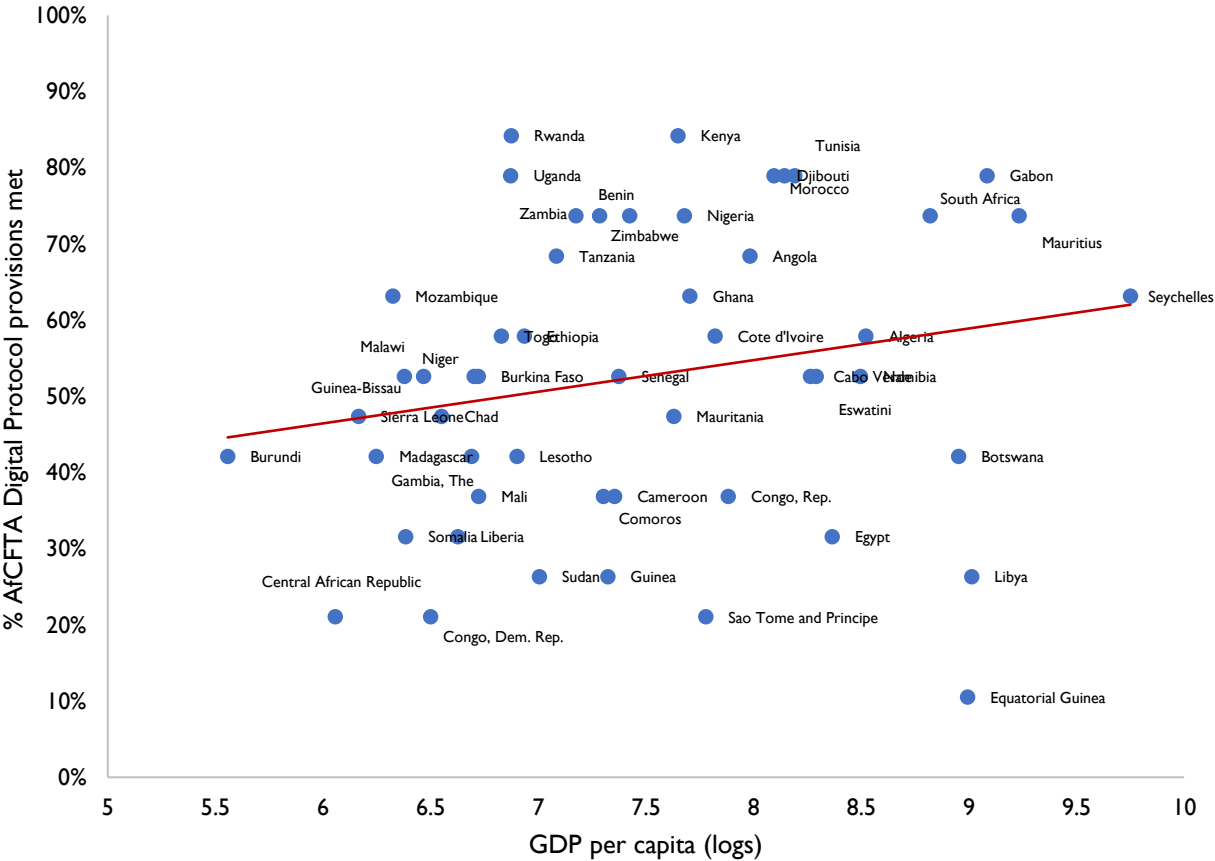
Of the 54 analyzed countries, Rwanda and Kenya are the most prepared to implement the AfCFTA Digital Protocol. Each meets 84 percent of the presumable provisions (figure 13). Uganda, Tunisia, and Ghana meet 79 percent of provisions each, while Eritrea and poorer Eastern, and Central and Southern African economies lag behind: Eritrea meets 11 percent of provisions, South Sudan 16 percent, and the Central African Republic, Djibouti, and São Tomé and Príncipe a fifth.

**Figure 13: Readiness to implement the AfCFTA Digital Protocol, by country**

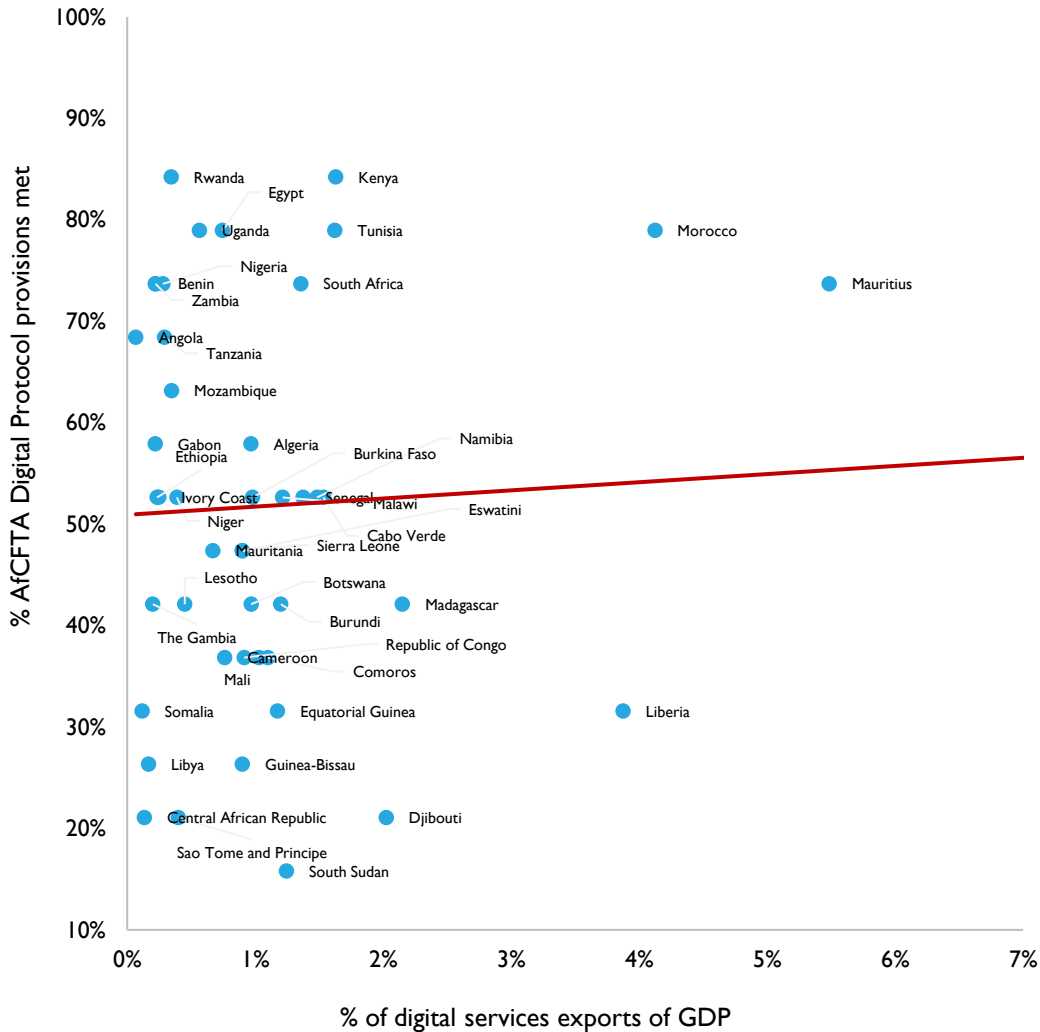


To date, the countries that are most prepared to implement the Protocol are the more developed African economies – although there is also wide variation in readiness by various development levels, with Rwanda, Tunisia, and Kenya among others, outperforming their peers at the same level of development (figure 14). There is a slight correlation between digital services exports as share of GDP and readiness to implement the Protocol (figure 15) – but also many economies that have yet to have significant digital services exports such as Zambia and Tanzania are quite prepared to implement the Digital Protocol.

**Figure 14: AfCFTA Digital Protocol readiness, by development levels**



**Figure 15: AfCFTA Digital Protocol readiness and digital trade as % of GDP**



Some key findings from the mapping by provisions are as follows:

- Data privacy:** In this index, data privacy provisions were determined by whether a country adopted a legal framework that provides for the protection of personal information of ecommerce users. Seventy-four percent of mapped African countries have a data privacy law in place. A number of countries such as Burundi, Eritrea, and Libya do not have a data privacy law in place, while countries like The Gambia and Cameroon have a draft law in place.
- Basic provisions on electronic transactions:** These provisions included the existence of an electronic transaction framework, whether countries consider electronic signatures as legal and enforceable, and no customs duties on electronic transmissions. Electronic transaction frameworks aim to establish a secure and efficient environment for conducting business and other transactions electronically. Seventy-eight percent of mapped countries have an electronic transaction framework in place. Among countries that do not have the framework in place include Guinea-Bissau and the Republic of Congo. Eswatini, Malawi, and Madagascar consider

electronic signatures legal and enforceable, while countries like South Sudan and Eritrea do not. No country has customs duties on electronic transmissions.

- **Cross-border data transfer:** Digital trade agreements call for allowing personal information to be transferred across borders when the purpose is related to the business of a covered person. Seventy percent of the mapped countries allow free cross-border transfer of data, including the Democratic Republic of Congo, Botswana, and Lesotho.
- **Localization of computing facilities:** Another provision that was examined was server localization, where countries might require a party to store their data servers in their country. While there are no African countries that outright require all data to be stored domestically, there are a few countries that have localization requirements dependent on sector, including Algeria, Botswana, Egypt, Morocco, Sao Tome and Principe, Senegal, Zambia, and Zimbabwe. Each of these countries have different types of restrictions in place, but mainly for personal data.
- **Paperless Trade:** Promotion of paperless trade was measured through whether the country accepts digital trade documents. Only thirty-nine percent of mapped African countries meet fully accept digital trade documents, while thirty-three percent partially accept, and twenty-eight percent do not yet accept digital trade documents.
- **Cybersecurity:** The cybersecurity provisions promote countries' cybersecurity capabilities and cooperation with others. Here, readiness to implement cybersecurity capabilities was measured by the scores from the International Telecommunication Union's most recent Global Cybersecurity Index.<sup>12</sup> This provision was the least prepared, as none of African countries satisfied the cybersecurity capabilities provision based on the mapping. This is likely attributed to weak regulatory frameworks and possibly a sign of limited ability to invest in a more robust cybersecurity infrastructure.
- **Emerging technologies:** Emerging technologies such as AI and cloud computing significantly shape the future of national economies. Here, the mapping evaluated the strategic frameworks governments put in place, such as a national AI regulation or strategy, a national cloud-first strategy, and a national digital strategy. National AI strategies outline a country's commitment to developing and implementing artificial intelligence technologies. 13 percent of African countries have a national AI policy or strategy in place, including Algeria, Ethiopia, Mauritius, Rwanda, and Tunisia, and several are working on one. A cloud-first strategy prioritizes cloud computing solutions and encourages different sectors to adopt cloud-based services. Nineteen percent of African countries such as South Africa, Morocco, and Kenya have some type of national cloud-first or cloud smart strategy. National digital strategies include plans for digital transformation across various sectors and often include specific policies related to promoting digital infrastructure, enhancing digital literacy, and improving access to digital services. Eighty-three percent of African countries have a national digital strategy in place. Countries that do not have a strategy in place include Guinea, Eritrea, and the Central African Republic.

## IV. Strategies for Successful Implementation

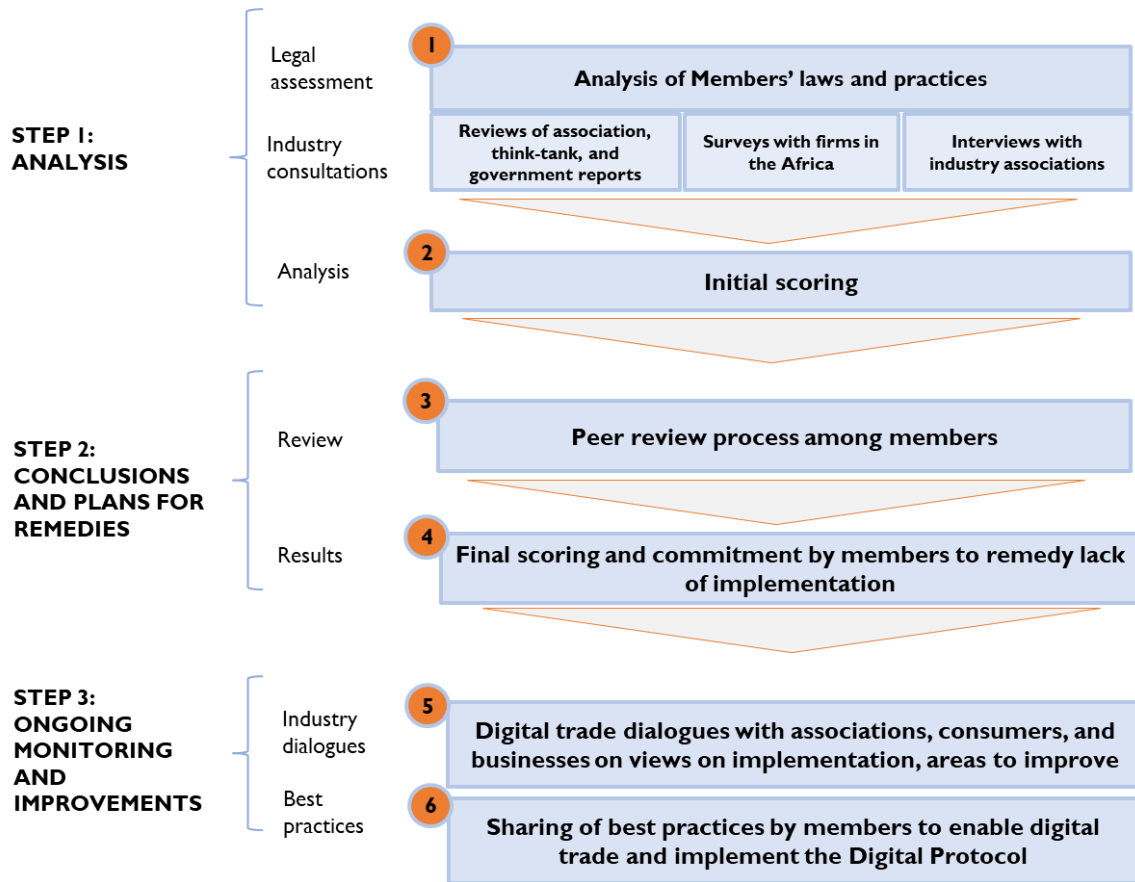
After finalizing the AfCFTA Digital Protocol and Annexes. Hard work starts to promote and monitor its implementation. AfCFTA could create a pioneering process for monitoring the agreements' implementation. This could consist of (figure 16):

- Legal reviews of members' laws and their conformity with the Protocol;
- Industry and think-tank opinions of the various laws and law initiatives;
- Interviews with industry associations and MSMEs on the agreements' functioning;
- Peer review process to discuss the various findings; and
- Promotion of technical assistance to members that need it and mediation and dispute settlement process with members that intentionally fail to meet their commitments.

Members should also annually discuss improvements in the methodologies to measure members' implementation of their commitments.

In addition, there should be public-private dialogue on the functioning of the Protocol. Stakeholder engagement is crucial to the Protocols' implementation by helping all parties understand how the agreement is working, share concerns, and mitigate emerging risks – and futureproof the agreement as technologies evolve and new issues emerge. These discussions should also include assessments of the needs for MSMEs to take advantage of Protocol and how to meet those needs, as well as on ways to enable MSMEs to comply with digital trade rules.<sup>13</sup>

**Figure 16: Potential Monitoring Framework for the AfCFTA Digital Protocol's Implementation**



Source: Derived from Suominen (2022) proposal for the CPTPP.



## V. Conclusion

The implementation of the AfCFTA Digital Protocol represents a significant milestone in Africa's journey toward deeper economic integration and digital transformation. This report has analyzed Africa economies and firms' digitization and African countries' readiness to implement the Protocol. While progress has been made in areas like electronic transaction frameworks, data privacy, and the adoption of digital trade facilitation measures, gaps remain in cybersecurity capabilities, cross-border data transfer regulations, and digital skills development. Countries such as Rwanda, Kenya, and Tunisia are emerging as leaders in their readiness to adopt the Protocol's potential provisions, while others, particularly in Central and Southern Africa, have still work ahead. Going forward, African stakeholders can pioneer a robust monitoring mechanisms to assess countries' implementation of the Digital Protocol. In addition, the mapping accomplished here could be expanded to the many other parts of the AfCFTA that also affect digital trade, such as digital services, investment, and market access.

## Appendix I – Coverage of digital trade and economy agreements (full circle = binding provision; half circle = best endeavor)

Provision	Korea-U.S. FTA (2011)	CPTPP (2018)	USMCA (2019)	U.S.-Japan DTA (2020)	RCEP (2020)	DEPA (2020)	SADEA (2020)	UK-Australia FTA (2021)	UK-New Zealand FTA (2022)	UK-Singapore Digital Economy Agreement (2022)	Korea-Singapore Digital Partnership Agreement (2021)
Moratorium on customs duties on electronic transmissions and digital products	●	●	●	●	○	●	●	●	●	●	●
Non-discriminatory treatment for digital products	●	●	●	●		●	●	●	●		●
Ban on data localization (localizing “computing facilities” such as servers)		●	●	●	○	●	●	●	●	●	●
Free cross-border transfer of data of personal information	◐	●	●	●	○	●	●	●	●	◐	●
Protect consumers’ personal information		●	●	●	○	●	●	●	●	●	●
Consumer protection laws preventing deceptive commercial activities	◐	●	●	●	○	●	●	●	●	●	●
Measures against spam or unsolicited messages		●	●	●	○	●	●	●	●	●	●
Prohibit forced transfer of source code as a condition for market access		●	●	●			●	●		●	●
Collaboration on cybersecurity management		●	●	●	○	●	●	◐	●	●	●
Safe harbor for internet intermediaries			●	●							
Open government data			●	●		●	◐	◐	◐	◐	◐
Interoperable electronic invoicing						◐	◐	◐	◐	◐	◐
Interoperable electronic payments system						◐	◐	◐	◐	◐	◐
Interoperable digital identities						◐	◐	◐	◐	◐	◐
Cooperation in fintech sector						◐	◐	◐	◐	◐	◐
AI governance						◐	◐	◐	◐	◐	◐
Data innovation								◐		◐	◐

Source: Derived from Suominen (2022).

## Appendix 2: Scoring Results for Implementation of AfCFTA Digital Protocol

Country	Algeria	Angola	Benin	Botswana	Burkina Faso	Burundi	Cabo Verde	Cameroon	Central African Republic
Electronic transaction framework	●	●	●	●	●	●	●	●	●
Electronic signatures admissible, legal, and enforceable	●	●	●	●	●	●	●	●	●
Paperless trade - Accept digital trade documents	●	●	●	●	●	●	●	●	●
Electronic Invoicing Law in place	●	●	●	●	●	●	●	●	●
Moratorium on customs duties on electronic transmissions and digital products	●	●	●	●	●	●	●	●	●
Data privacy law in place	●	●	●	●	●	●	●	●	●
Free crossborder transfer of data of personal information	●	●	●	●	●	●	●	●	●
Ban on data localization	●	●	●	●	●	●	●	●	●
Digital identity regime in place	●	●	●	●	●	●	●	●	●
Digital payment law in place	●	●	●	●	●	●	●	●	●

Country	Chad	Comoros	Democratic Republic of the Congo	Djibouti	Egypt	Equatorial Guinea	Eritrea	Eswatini	Ethiopia
Electronic transaction framework	●	●	●	●	●	●	●	●	●
Electronic signatures admissible, legal, and enforceable	●	●	●	●	●	●	●	●	●
Paperless trade - Accept digital trade documents	●	●	●	●	●	●	●	●	●
Electronic Invoicing Law in place	●	●	●	●	●	●	●	●	●
Moratorium on customs duties on electronic transmissions and digital products	●	●	●	●	●	●	●	●	●
Data privacy law in place	●	●	●	●	●	●	●	●	●
Free crossborder transfer of data of personal information	●	●	●	●	●	●	●	●	●
Ban on data localization	●	●	●	●	●	●	●	●	●
Digital identity regime in place	●	●	●	●	●	●	●	●	●
Digital payment law in place	●	●	●	●	●	●	●	●	●

Country	Gabon	Ghana	Guinea	Guinea-Bissau	Ivory Coast	Kenya	Lesotho	Liberia	Libya
Electronic transaction framework	●	●	●	●	●	●	●	●	●
Electronic signatures admissible, legal, and enforceable	●	●	●	●	●	●	●	●	●
Paperless trade - Accept digital trade documents	●	●	●	●	●	●	●	●	●
Electronic Invoicing Law in place	●	●	●	●	●	●	●	●	●
Moratorium on customs duties on electronic transmissions and digital products	●	●	●	●	●	●	●	●	●
Data privacy law in place	●	●	●	●	●	●	●	●	●
Free crossborder transfer of data of personal information	●	●	●	●	●	●	●	●	●
Ban on data localization	●	●	●	●	●	●	●	●	●
Digital identity regime in place	●	●	●	●	●	●	●	●	●
Digital payment law in place	●	●	●	●	●	●	●	●	●

Country	Madagascar	Malawi	Mali	Mauritania	Mauritius	Morocco	Mozambique	Namibia	Niger
Electronic transaction framework	●	●	●	●	●	●	●	●	●
Electronic signatures admissible, legal, and enforceable	●	●	●	●	●	●	●	●	●
Paperless trade - Accept digital trade documents	●	●	●	●	●	●	●	●	●
Electronic Invoicing Law in place	●	●	●	●	●	●	●	●	●
Moratorium on customs duties on electronic transmissions and digital products	●	●	●	●	●	●	●	●	●
Data privacy law in place	●	●	●	●	●	●	●	●	●
Free crossborder transfer of data of personal information	●	●	●	●	●	●	●	●	●
Ban on data localization	●	●	●	●	●	●	●	●	●
Digital identity regime in place	●	●	●	●	●	●	●	●	●
Digital payment law in place	●	●	●	●	●	●	●	●	●

Country	Nigeria	Republic of Congo	Rwanda	Sao Tome and Principe	Senegal	Seychelles	Sierra Leone	Somalia	South Africa
Electronic transaction framework	●	●	●	●	●	●	●	●	●
Electronic signatures admissible, legal, and enforceable	●	●	●	●	●	●	●	●	●
Paperless trade - Accept digital trade documents	●	●	●	●	●	●	●	●	●
Electronic Invoicing Law in place	●	●	●	●	●	●	●	●	●
Moratorium on customs duties on electronic transmissions and digital products	●	●	●	●	●	●	●	●	●
Data privacy law in place	●	●	●	●	●	●	●	●	●
Free crossborder transfer of data of personal information	●	●	●	●	●	●	●	●	●
Ban on data localization	●	●	●	●	●	●	●	●	●
Digital identity regime in place	●	●	●	●	●	●	●	●	●
Digital payment law in place	●	●	●	●	●	●	●	●	●

Country	South Africa	South Sudan	Sudan	Tanzania	The Gambia	Togo	Tunisia	Uganda	Zambia	Zimbabwe
Electronic transaction framework	●	●	●	●	●	●	●	●	●	●
Electronic signatures admissible, legal, and enforceable	●	●	●	●	●	●	●	●	●	●
Paperless trade - Accept digital trade documents	●	●	●	●	●	●	●	●	●	●
Electronic Invoicing Law in place	●	●	●	●	●	●	●	●	●	●
Moratorium on customs duties on electronic transmissions and digital products	●	●	●	●	●	●	●	●	●	●
Data privacy law in place	●	●	●	●	●	●	●	●	●	●
Free crossborder transfer of data of personal information	●	●	●	●	●	●	●	●	●	●
Ban on data localization	●	●	●	●	●	●	●	●	●	●
Digital identity regime in place	●	●	●	●	●	●	●	●	●	●
Digital payment law in place	●	●	●	●	●	●	●	●	●	●



Country	Algeria	Angola	Benin	Botswana	Burkina Faso	Burundi	Cabo Verde	Cameroon	Central African Republic
Fintech-related law in place	●	●	●	●	●	●	●	●	●
Online consumer protection regulation	●	●	●	●	●	●	●	●	●
Cybersecurity capabilities	●	●	●	●	●	●	●	●	●
Principles to access and use the internet	●	●	●	●	●	●	●	●	●
Internet connection charge sharing	●	●	●	●	●	●	●	●	●
Digital Inclusion	●	●	●	●	●	●	●	●	●
National Digital Strategy	●	●	●	●	●	●	●	●	●
National cloud first or cloud smart or similar strategy	●	●	●	●	●	●	●	●	●
National AI strategy/policy/guidance	●	●	●	●	●	●	●	●	●

Country	Chad	Comoros	Democratic Republic of the Congo	Djibouti	Egypt	Equatorial Guinea	Eritrea	Eswatini	Ethiopia
Fintech-related law in place	●	●	●	●	●	●	●	●	●
Online consumer protection regulation	●	●	●	●	●	●	●	●	●
Cybersecurity capabilities	●	●	●	●	●	●	●	●	●
Principles to access and use the internet	●	●	●	●	●	●	●	●	●
Internet connection charge sharing	●	●	●	●	●	●	●	●	●
Digital Inclusion	●	●	●	●	●	●	●	●	●
National Digital Strategy	●	●	●	●	●	●	●	●	●
National cloud first or cloud smart or similar strategy	●	●	●	●	●	●	●	●	●
National AI strategy/policy/guidance	●	●	●	●	●	●	●	●	●

Country	Gabon	Ghana	Guinea	Guinea-Bissau	Ivory Coast	Kenya	Lesotho	Liberia	Libya
Fintech-related law in place	●	●	●	●	●	●	●	●	●
Online consumer protection regulation	●	●	●	●	●	●	●	●	●
Cybersecurity capabilities	●	●	●	●	●	●	●	●	●
Principles to access and use the internet	●	●	●	●	●	●	●	●	●
Internet connection charge sharing	●	●	●	●	●	●	●	●	●
Digital Inclusion	●	●	●	●	●	●	●	●	●
National Digital Strategy	●	●	●	●	●	●	●	●	●
National cloud first or cloud smart or similar strategy	●	●	●	●	●	●	●	●	●
National AI strategy/policy/guidance	●	●	●	●	●	●	●	●	●

Country	Madagascar	Malawi	Mali	Mauritania	Mauritius	Morocco	Mozambique	Namibia	Niger
Fintech-related law in place	●	●	●	●	●	●	●	●	●
Online consumer protection regulation	●	●	●	●	●	●	●	●	●
Cybersecurity capabilities	●	●	●	●	●	●	●	●	●
Principles to access and use the internet	●	●	●	●	●	●	●	●	●
Internet connection charge sharing	●	●	●	●	●	●	●	●	●
Digital Inclusion	●	●	●	●	●	●	●	●	●
National Digital Strategy	●	●	●	●	●	●	●	●	●
National cloud first or cloud smart or similar strategy	●	●	●	●	●	●	●	●	●
National AI strategy/policy/guidance	●	●	●	●	●	●	●	●	●

Country	Nigeria	Republic of Congo	Rwanda	Sao Tome and Principe	Senegal	Seychelles	Sierra Leone	Somalia	South Africa
Fintech-related law in place	●	●	●	●	●	●	●	●	●
Online consumer protection regulation	●	●	●	●	●	●	●	●	●
Cybersecurity capabilities	●	●	●	●	●	●	●	●	●
Principles to access and use the internet	●	●	●	●	●	●	●	●	●
Internet connection charge sharing	●	●	●	●	●	●	●	●	●
Digital Inclusion	●	●	●	●	●	●	●	●	●
National Digital Strategy	●	●	●	●	●	●	●	●	●
National cloud first or cloud smart or similar strategy	●	●	●	●	●	●	●	●	●
National AI strategy/policy/guidance	●	●	●	●	●	●	●	●	●

Country	South Sudan	Sudan	Tanzania	The Gambia	Togo	Tunisia	Uganda	Zambia	Zimbabwe
Fintech-related law in place	●	●	●	●	●	●	●	●	●
Online consumer protection regulation	●	●	●	●	●	●	●	●	●
Cybersecurity capabilities	●	●	●	●	●	●	●	●	●
Principles to access and use the internet	●	●	●	●	●	●	●	●	●
Internet connection charge sharing	●	●	●	●	●	●	●	●	●
Digital Inclusion	●	●	●	●	●	●	●	●	●
National Digital Strategy	●	●	●	●	●	●	●	●	●
National cloud first or cloud smart or similar strategy	●	●	●	●	●	●	●	●	●
National AI strategy/policy/guidance	●	●	●	●	●	●	●	●	●

### Appendix 3: Scoring for Mapping

Digital Trade Facilitation	Coding	Source
Electronic transaction framework	0=No 0.5 = In development 1=Yes	National laws
Electronic signatures admissible, legal, and enforceable	0=No 0.5 = In development 1=Yes	National laws
Paperless trade – Accept digital trade documents	0=Not implemented 0.5= Partially implemented 1= Fully implemented	UN Paperless tared and Trade Facilitation Database
Electronic invoicing law in place	0=No 0.5= In development or voluntary 1=Yes and mandatory	National laws
Moratorium on customs duties on electronic transmissions and digital products	0=Yes 1=No	Policy on whether country imposed customs duties on electronic transmissions
Data Privacy and Cross-Border Data Transfer	Coding	Source
Data privacy law in place	0=No 0.5 = In development 1=Yes	National laws
Free cross-border transfer of data of personal information	0=No 0.5 = In development 1=Yes	National laws
Ban on data localization	0= No 0.5 = Certain sectors 1= Yes	National laws
Digital Identities	Coding	Source
Digital identity regime in place	0=No 0.5 = In development 1=Yes	National laws
Fintech and Payments	Coding	Source
Digital payments law in place	0=No 0.5 = In development 1=Yes	National laws
Fintech-related law in place	0=No 0.5 = In development 1=Yes	National laws
Online Safety	Coding	Source
Online consumer protection regulation	0=No 0.5 = In development 1=Yes	National laws
Cybersecurity capabilities	0=bottom 25% 0.5=25-75 1=top 25%	Average of Responsive Cybersecurity Indicator Scores from the National Cybersecurity Index
Digital Access	Coding	Source
Principles to access and use the internet	0 = <3 1 = >3	Freedom House score on access to internet

Internet connection charge sharing	0 = Monopoly 0.5 = Partial competition 1 = Fully competition	World Bank on Human Capital Index
Digital skills	0= <0.5 1= >0.5	International Telecommunication Union's Policy Index Competition among internet services

Emerging topics	Coding	Source
National Digital Strategy	0=No 0.5 = In development 1=Yes	National laws
National AI Strategy/Policy/Guidance	0=No 0.5 = In development 1=Yes	National laws
National Cloud-First or Cloud Smart Strategy	0=No 0.5 = In development 1=Yes	National laws





**Agreement Officer's Representative:**

Paul Fekete

USAID, Center for Economics & Market Development

[pfekete@usaid.gov](mailto:pfekete@usaid.gov)

**Project Director:**

Amanda Saville, Palladium

[amanda.saville@thepalladiumgroup.com](mailto:amanda.saville@thepalladiumgroup.com)

**Technical Director:**

Kati Suominen, Nextrade Group

[Kati@nextradegroupllc.com](mailto:Kati@nextradegroupllc.com)

[www.allianceforetradedevelopment.org](http://www.allianceforetradedevelopment.org)



**USAID**  
FROM THE AMERICAN PEOPLE



**eTrade  
Alliance**

## References

---

<sup>1</sup> Countries are grouped as follows in the four regions:

**North:** Algeria, Egypt, Libya, Mauritania, Morocco, Sudan, Tunisia

**East:** Burundi, Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Rwanda, Seychelles, Somalia, South Sudan, Tanzania, Uganda, Zambia, Zimbabwe

**West:** Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo

**Central and South:** Angola, Botswana, Cameroon, Central African Republic, Chad, Congo, Democratic Republic of the Congo (DRC), Equatorial Guinea, Eswatini, Gabon, Lesotho, Namibia, South Africa, São Tomé and Príncipe.

<sup>2</sup> What could be the value-added of the Digital Protocol in the AfCFTA? In a global study covering trade in 1970-2020, Suominen (2021) finds that the adoption of digital trade agreement and ecommerce chapters in agreements like the CPTPP that include ecommerce chapters in a broader trade agreement (much like the Digital Protocol would do) would increase trade in services by 42 percent and digitally deliverable services trade by 45 percent between the members, even in the presence of existing trade agreements among the parties. This would in light of the current low levels of intra-regional digital trade entail gains form a modest base. Suominen, Kati and CSIS Scholl Chair in International Business. 2021. "The CPTPP's Impacts on Digital Trade and the Path Forward." A Report of the CSIS Scholl Chair in International Business. [https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/211027\\_Suominen\\_CPTPP\\_FullReport.pdf?VersionId=6TBKVom7OckpyAbINDJmR0m0wwWpIyx](https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/211027_Suominen_CPTPP_FullReport.pdf?VersionId=6TBKVom7OckpyAbINDJmR0m0wwWpIyx).

<sup>3</sup> "Fact Sheet: WTO Moratorium on Customs Duties on Electronic Transmissions - Public Citizen." 2024. Public Citizen. February 17, 2024. <https://www.citizen.org/article/fact-sheet-wto-moratorium-on-customs-duties-on-electronic-transmissions/>.

<sup>4</sup> Karina, Eva Novi. 2019. "The Risk of E-Commerce Provisions in the RCEP." *The Diplomat*, April 4, 2019. <https://thediplomat.com/2019/04/the-risk-of-e-commerce-provisions-in-the-rcep/>.

<sup>5</sup> Dorobantu, C., Ostmann, F., & Hitrova, C. (2021). Source code disclosure: A primer for trade negotiators. In I. Borchert & L. A. Winters (Eds.), *Addressing Impediments to Digital Trade* (pp. 105-140). London: CEPR Press.

<sup>6</sup> Suominen, K. "Monitoring the Implementation of the CPTPP's E-Commerce Chapter: Proposed Tool Kit and Initial Assessment." 2022. CSIS. <https://www.csis.org/analysis/monitoring-implementation-cptpps-e-commerce-chapter-proposed-tool-kit-and-initial>.

<sup>7</sup> <https://ncsi.ega.ee/ncsi-index/>

<sup>8</sup> <https://freedomhouse.org/countries/freedom-net/scores>

<sup>9</sup> <https://datahub.itu.int/data/?i=100045&s=2667>

<sup>10</sup> "NCSI :: Ranking." n.d. <https://ncsi.ega.ee/ncsi-index/>.

<sup>11</sup> "World Bank Open Data." n.d. World Bank Open Data. <https://data.worldbank.org/indicator/HD.HCI.OVRL>.

<sup>12</sup> International Telecommunication Union and Development Sector. 2020. "Global Cybersecurity Index 2020." International Telecommunication Union.

<sup>13</sup> "HKTDC." n.d. <https://smesupport.hktdc.com/en/s/sme-centre>.