

SUMMARY FINDINGS FROM NATIONAL CONSULTATION IN THE DEMOCRATIC REPUBLIC OF CONGO (DRC)



This report summarizes inputs gathered from participants in the East African Community (EAC) Digital Strategy National Consultation meeting that took place in Kinshasa on June 7, 2023. Information is supplemented by additional material online, where available.

The report is organized into sections as follows:

- **Policy and regulatory environment:** Highlights existing strategies, policies, and laws.
- **Key stakeholders:** Lists key institutions and their roles with respect to information and communication technologies (ICTs).
- **Overview of digital assets and capabilities:** Provides a high-level narrative of assets and capabilities around digital applications and service architecture, as well as data collection, management, and use.
- **Detailed inventory of digital assets by sector:** Full list of priorities, applications, and tools for developing digital applications.
- **Technology and workforce considerations:** Describes basic power, connectivity, and workforce considerations that relate to the enabling environment for digital applications.

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EAC DIGITAL STRATEGY NATIONAL CONSULTATION: DRC

Summary: *The digital ecosystem of the Democratic Republic of Congo (DRC) is still emerging, with limited technology infrastructure and a weak legal and regulatory environment to support digital platforms. There have been efforts to develop strategies, policies, and laws to support the development of DRC's digital ecosystem, but they have not been fully implemented across all sectors. DRC can use other East African Community (EAC) Partner States' digital assets and capabilities to grow its digital ecosystem.*

Background

This report outlines the digital assets and capabilities of the Democratic Republic of Congo (DRC) that can be utilized by the East African Community (EAC) to develop regional shared platforms. To assess DRC's digital assets and capabilities, the enterprise architecture (EA) approach was employed, adopting a systems-thinking approach to digital transformation. The EA approach provides a comprehensive understanding of the digital assets and capabilities required for digital solutions to deliver business value by considering a holistic view of the business, data, application, technology, and enabling environment aspects of an enterprise. It facilitates the creation of a digital asset and capability map and establishes a set of governing principles that promote a structured alignment between business strategies, goals, and information technology.

To evaluate DRC's digital assets and capabilities, a focus was placed on four EA domains: business, data, applications and services, infrastructure technology, and the enabling environment. The assessment was conducted at a cross-cutting national level as well as across the five EAC priority sectors – agriculture, climate, education, health, and trade – with the aim of digitalization. To identify the assets and capabilities within these sectors, an assessment framework anchored on The Open Group Architecture Framework (TOGAF) v9.2 was developed, providing the basis to a series of questions designed to evaluate the readiness of DRC's digital assets and capabilities in support of regional shared platforms.

In this report, an overview of the policy and regulatory environment and governance mechanisms is provided, setting the foundation for the subsequent exploration of other aspects of DRC's digital ecosystem using the enterprise architecture (EA) approach to consider the digital readiness required for regional shared platforms.

Policy and Regulatory Environment for ICTs

The current state of the digital ecosystem of DRC is relatively nascent. In 2019, DRC launched a development strategy, [Plan National Stratégique de Développement \(PNSD\)](#), 2019–2023, to guide its development agenda, but information and communication technologies (ICTs) were not recognized as a vehicle for delivering the strategy. However, the leadership of the DRC recognizes ICT's critical role in transforming government service delivery to citizens and has embarked on a series of initiatives to enhance its utilization. One such initiative is the development of a new [National Development Plan \(NDP\)](#), 2022–2026, anchored on developing a digital economy.

DRC's telecommunications sector is regulated by the outdated Framework Law of 2002, which provides a framework for the telecommunication sector.¹ Efforts are underway to update the law to provide further guidance for commercial transactions and public e-services.

The DRC recently passed the Digital Code, 2023, which addresses cybercrimes. It consists of an ordinance law to operationalize the legal and regulatory provisions for cybercrimes. The code applies to digital activities and services, electronic tools and service providers, digital content, and security and global protection of computer systems. In addition, the Digital Code establishes the tax, customs, and exchange regime applicable to DRC's trade and commerce sectors.

Although the Digital Code addresses cybercrimes, there are no laws or regulatory instruments for data protection and privacy, consumer protection, electronic transactions, or e-commerce. However, the DRC Constitution recognizes the right to privacy in correspondence, telecommunications, and other forms of communication, while the Framework Law only contains partial penal stipulations.²

Key Stakeholders

Several stakeholders are responsible for developing and conducting ICT programs in the DRC. The government of the DRC has clearly defined the roles and responsibilities of each stakeholder and who, by law, is required to work together to create the digital ecosystem. The Prime Minister's Office is responsible for coordinating the different stakeholders in the digitization of government service. The key stakeholders include:

- **The Ministry of Telecommunications and Digital Transformation (PTNTIC)**, which leads DRC's digital transformation agenda. DRC's institutional arrangement places the design and implementation of digital solutions under the Ministry of Telecommunication and Digital Transformation. It is specifically mandated to oversee the performance of the DRC National Digital Plan (Plan National du Numérique [PNN]) – Horizon 2025.
- **The Ministry of Finance (MoF)** collaborates with the Ministry of Telecommunications and Digital Transformation by providing the necessary funding to support the implementation of government-owned digital solutions. Most of the digital solutions implemented in DRC focus on financial management, value-for-money motivations and resource mobilization, which squarely fall under the mandate of the MoF.
- **Agence Nationale d'Ingénierie Clinique et du Numérique de la Santé (ANICNS) - Information Technology Agency of the State** is the ICT agency in DRC mandated to develop and implement ICT policies, strategies, and standards for digital transformation of the Ministry of Health.
- **The Post and Telecommunications Regulatory Authority (ARPTC)** regulates the telecommunications sector by enforcing existing laws, regulations, and conventions. ARPTC is mandated to ensure that citizens have access to e-government services.

¹ The World Bank Group. (2020). Democratic Republic of Congo, [Digital Economy Assessment](#).

² *ibid*

Other stakeholders in the digitalization agenda of DRC include The Presidency Office, which initiates and coordinates the implementation of the PNN, and the Ministry of Planning, which develops long-term plans for the economy, with provision for digital development.

OVERVIEW: DIGITAL ASSETS AND READINESS

CONSIDERATIONS

This section provides an overview of digital assets that guide investment and activities in support of digital applications and services as well as the processes that influence the collection, quality, and use of digitized data that could inform national or regional applications. Specific details on individual sectors are summarized in the following section.

National and Sector-Specific Digital Strategies. DRC's national digital strategy provides guidance to MDAs to develop their respective sectoral strategy. The [Plan National du Numérique – Horizon 2025](#) (PNN) is the overarching digital strategy of the DRC, intended to strengthen infrastructure, digital content, digital application use cases (including e-government), governance, legal and regulatory protections, and cybersecurity. The PNN is not yet implemented, as the DRC seeks to obtain funding for its implementation. The health and education sectors are the only two sectors to integrate the PNN in their digital strategies. The education sector's National Digital Sub-Sector Plan for higher and university education is aligned with the PNN. The health sector's national health development plan, Plan National de Développement Sanitaire, is aligned with the PNN to develop health-specific digital plans aimed at guiding the establishment of a digital health governance structure as well as the development and implementation of digital health assets.

Enterprise Architecture Frameworks. DRC has not developed a national, digital enterprise architecture framework to guide the evolution of its digital ecosystem. However, efforts supported by the Danish Refugee Council (DRC) to establish an enterprise architecture practice in the DRC are ongoing. Sectors have yet to develop sectoral enterprise architecture frameworks, though the health sector is in the beginning stages of developing an architecture framework to guide digitalization.³

Interoperability Frameworks. The DRC has not developed a national interoperability framework to promote information sharing. The health sector has developed an interoperability framework to guide information sharing among digital platforms, and the education sector is developing one.

Digital Governance and Data Management. The PTNTIC and the ARPTC, under the leadership of the President of the Republic, have governance mechanisms to oversee aspects of digital transformation. The Prime Minister's Office plays a leading role in coordinating the digitalization of the DRC.

The different sectors of the DRC collect data to make decisions on service delivery to citizens. However, apart from health, there are no national or sector-specific standards, guidelines, or standard operating procedures (SOPs) guiding data collection, processing, and storage. Sectoral data storage

³ The World Bank Group. (2020). Democratic Republic of Congo, [Digital Economy Assessment](#).

and sharing occur using various tools and platforms (e.g., Excel files, CSV reports, and existing digital platforms like District Health Information Software 2 [DHIS2]).

Data Sharing Mechanisms. All sectors reported sharing data internally and with other MDAs. However, no formal guidelines are in place to guide data sharing. Data sharing is on a case-by-case basis through partnership agreements specifying the terms and conditions for sharing, including responsibilities, intellectual property rights, confidentiality limits, length of the agreement, and security protocols for data. The health and education sector are developing application program interfaces (APIs) to link their sector-specific digital platforms with other MDA digital platforms.

DRC-EAC Data Sharing. The DRC does not share data with EAC organs or institutions; however, they share data on epidemics such as Ebola Virus Disease with the World Health Organization, UNICEF, and the International Federation of the Red Cross.

Data Centers and Infrastructure. The DRC does not have a national public or private data center in place, though the DRC is negotiating with China to finance a national data center project that is expected to host data for all government MDAs. The health sector, however, has several siloed small data centres developed by some health programs.

RELEVANT PRIORITIES AND ASSETS FOR A REGIONAL DIGITAL PLATFORM

Country-level assets and resources can offer critical foundations for developing a regional platform following an enterprise architecture approach. The digital ecosystem for DRC is still evolving; therefore, few digital assets can be leveraged to create regional platforms. This section provides a snapshot of digital assets available within DRC.

Sector-Agnostic Resources

Asset	Details
Overarching resources applicable to all sectors	
National Development Plan (NDP), 2022–2026	The plan consists of six fundamental pillars to diversify the Congolese economy, including agriculture, tourism, industrial development, digital economy, and the promotion of real estate and commercial-free zones.
Digital Code, 2023	The Digital Code addresses cyber security.

Framework Law of 2002	This law regulates the telecommunications sector (e.g., MNOs).
Notable digital applications and tools	
No notable digital applications exist.	
Tools to support the development of digital services and applications	
No tools to support digital development exist.	

Agriculture & Climate

Assets from the agriculture and climate sectors are combined in the table below given that climate change and adaptation activities are often related to agriculture objectives and climate is relatively nascent as a sector.

Asset	Details
Sector-specific digital priorities and strategies	
No strategies exist.	
Notable digital applications	
No notable digital applications exist.	
Tools to support development of digital services and applications	
No tools to support digital development exist.	

Health

Asset	Details
Sector-specific digital priorities and strategies	

Plan National de Développement de l'Informatique de Santé en RDC, 2020-2024	Provides strategic priorities for the DRC healthcare system; however, there are no strategic initiatives to guide digital development.
Notable digital applications	
District Health Information System 2 (DHIS2)	DHIS2 is a free and open-source health management data platform used by multiple Ministry of Health (MoH) organizations and is scaled nationally
OpenClinic – GA	This is an open-source hospital information management system covering operational aspects of small and medium-sized hospitals.
CommCare	CommCare supports health worker client-care workflows.
VLSM	VLSM is a scaled PEPFAR tool to monitor viral load (HIV) samples
Tools to support development of digital services and applications	
Data Collection Tools	<ul style="list-style-type: none"> • Open Data Kit (ODK) is a mobile-based collection and management tool • Kobo Collect is a mobile-based data collection tool

Education

Asset	Details
Sector-specific digital priorities and strategies	
ESU Digital Sub-Sector Plan	The plan stipulates the key priority areas for digitalization within DRC's education sector. Implementation of the plan is ongoing and requests for public funding are in progress.
Notable digital applications	

National Digital Library	This platform supports library management processes and is scaled nationally.
Tools to support development of digital services and applications	
No tools to support digital development exist.	

Trade/e-Commerce/Digital Finance

Asset	Details
Sector-specific digital priorities and strategies	
No digital strategy exists.	
Notable digital applications	
No notable digital applications exist.	
Tools to support development of digital services and applications	
No tools exist.	

TECHNOLOGY INFRASTRUCTURE AND WORKFORCE: COUNTRY CONTEXT AND INVESTMENTS

There are planned projects to support power, digital infrastructure, and workforce, however, lack of funding limits the implementation.

Power and Electrification Projects

Projects to improve the accessibility and reliability of electricity are provided for under the National Development Plan (NDP), 2022–2026, but they have not been funded.

Internet Connectivity

The [Global System for Mobile Communication Association \(GSMA\) data](#) indicates the DRC has one of Africa's most under-developed and under-invested broadband markets, with low internet and mobile phone penetration at 22.9% and 47.9% of the total population in January 2023, respectively. There were

23.04 million internet users in the Democratic Republic of the Congo, and 48.15 million cellular mobile connections were active in the DRC at the start of 2023. Strengthening mobile and fixed connections will continue to support the enabling environment for citizens and institutions to develop and engage with digital services in the future. The DRC requires support to strengthen the telecommunications policy and regulatory environment, work towards lowering the cost of mobile services for equitable uptake, simplify the complexities of telecom taxation, and reduce power interruptions.⁴

ICT Workforce

The health sector's Plan National de Développement de l'Informatique de Santé (PNDIS) 2.0 roadmap calls for operationalizing a Center of Excellence for Research and Training in Health Informatics. Efforts are required to support other sectors' workforce capacity building. ICT skills remain a challenge throughout much of the workforce, and specialized skills for digital development are needed for the country to build its digital ecosystem and fully participate in regional e-services.

⁴ The World Bank Group. (2020). Democratic Republic of Congo, [Digital Economy Assessment](#).