



CASE STUDY

Enhancing Data-Sharing Practices Between Government Agencies

By Sone Osakwe

March 2024



1.

THE POWER OF DATA SHARING

In today's fast-paced world, access to accurate and timely data is crucial for effective governance and decision-making. Policymakers often struggle to access the data they need to make informed decisions and serve the public effectively. The problem lies not in the lack of available data but in its inaccessibility. Unfortunately, many government ministries, departments, and agencies (MDAs) in African countries face challenges when it comes to sharing and integrating data. This lack of data interoperability hampers collaboration, slows down processes, and prevents the delivery of efficient public services. However, by embracing data-sharing practices, African governments can unlock a wealth of opportunities and drive positive change. Data interoperability allows for the integration of various data sources and systems compiled by different MDAs, providing a holistic view of information. This, in turn, enables data-driven insights that support efficient collaboration, informed decision-making, enhanced service delivery, and good governance within the public sector.



2.

BREAKING DOWN BARRIERS

The journey towards seamless data sharing is not without obstacles. Balancing the benefits and risks associated with data sharing can be challenging, particularly due to the sensitive nature of government data, which poses privacy and security risks. Enhanced data integration often requires opening information systems, potentially exposing MDAs to digital security threats that could disrupt the availability, integrity, or confidentiality of data. Government agencies encounter other barriers such as:

- **Inadequate data sharing and governance structures:**

The absence of mechanisms for responsible information flow, unclear data ownership issues, and insufficient mitigation plans against data breaches hinder effective data sharing.

- **Lack of common approaches and rules:**

Disparate legal frameworks governing data sharing create ambiguity and inhibit collaboration between agencies. Different data formats, protocols, and terminologies further complicate data integration and sharing.

- **Data silos:**

Government agencies often operate separate information systems and databases that do not communicate with each other. This isolation makes information inaccessible across agencies.

- **Cost of investing in data infrastructure:**

Updating outdated information systems that were not originally designed for interoperability, along with the need to build secure government-owned data centres and integrated platforms, can hinder seamless data exchange.

- **Bureaucracy and entrenched cultures:**

Organisational barriers can make it difficult for MDAs to participate in data-sharing initiatives.

Overcoming these challenges requires a comprehensive approach that addresses not only the technical aspects but also the legal and cultural barriers that impede progress.

3.

CASE STUDY: MAURITIUS' SUCCESS IN PROMOTING DATA SHARING

One African country that has achieved significant progress in tackling these challenges and implementing data interoperability is Mauritius. Through visionary leadership and strategic initiatives, Mauritius has transformed its data-sharing practices and reaped substantial benefits. By implementing a supportive data governance framework and investing in centralised and secure data infrastructure, the government has created an environment conducive for effective collaboration and information exchange.



3.1 KEY INITIATIVES AND STRATEGIES IMPLEMENTED

3.1.1 SUPPORTIVE DATA SHARING POLICIES AND DATA GOVERNANCE MODEL

Mauritius has enacted legislation and strategies that promote data sharing and protect privacy, including creating an oversight body responsible for overseeing data sharing initiatives. The Digital Government Transformation Strategy emphasizes the importance of data reuse to optimise government services and drive business optimisation. The National Open Data Policy establishes an "open by default" position for government data, fostering transparency while ensuring appropriate safeguards. The Data Protection Act further permits interagency data exchange, enabling seamless collaboration. Below are some extracts of provisions supporting data sharing:



Legislation/strategy	Extracts
Digital Government Transformation Strategy 2018 – 2022	<p>The Strategy emphasizes the criticality of using and reusing data to support public administration, optimise services, and achieve large-scale business optimisation. It lays out guiding principles for achieving digital transformation goals, including: commitment to the open data policy, emphasis on data-driven decision-making and policy formulation, and establishment of the "Once-Only (data) Principle" where citizens and businesses provide information only once to the government for reuse in delivering other public services.</p>
National Open Data Policy 2017	<p>Adopts an "open by default" position for all government data, except for personal data or data with national security implications.</p>
Data Protection Act 2017	<p>Section 3(4)(a) of the Data Protection Act 2017 provides an exception that allows for the exchange of information between MDAs, as long as the exchange is on a need-to-know basis. This provides flexibility for intergovernmental and interagency data sharing. Additionally, Section 28(1)(b) states that personal data can be processed if it is necessary for the performance of any task carried out by a public authority.</p>

Electronic Transactions Act 2000	<p>This act was amended to allow public sector agencies share information via electronic means with other MDAs, and private sector institutions for the purpose of business facilitation. The sharing of information is facilitated through agreements between the institution providing the information and the receiving institution.</p>
Amendments to pre-existing legislation	<p>The annual Finance (Miscellaneous Provisions) Acts have been used to amend various legislation such as the Civil Status Act, the Business Registration Act, the Immigration Act, the Data Protection Act and Customs Act, to provide appropriate legal backing for sharing of information amongst public organisations. An example, Section 16c of the Customs Act now reads as: 'Agency Cooperation</p> <p>(1) Notwithstanding any other enactment, the Director General may, through an electronic system or in such other appropriate manner, share with another public sector agency or parastatal body, such information as may be mutually agreed upon and which the public sector agency</p> <p>or parastatal body may require for the discharge of its functions in respect of – (a) goods, persons or crafts; (b) import or export transactions; (c) importers or exporters; or (d) data or information which is required for border protection purpose.</p> <p>(2) No public sector agency or parastatal body shall disclose any information obtained pursuant to subsection (1) to a third party'.</p>

Some other relevant legislation and strategies guiding data interoperability in the country include; Digital Mauritius 2030 Strategic Plan, Mauritius Artificial Intelligence Strategy 2018, Cybersecurity and Cybercrime Act 2021, Mauritius Digital Promotion Agency Act 2023, Mauritius Emerging Technologies Council Act 2021, and e-Government Interoperability Framework 2002.

3.1.2

INVESTMENT IN CENTRALISED AND SECURE DATA INFRASTRUCTURE

Mauritius has leveraged technology to facilitate data sharing. The government's integrated platform, InfoHighway, acts as a hub for multiple agencies to exchange data in real-time. This centralized system ensures data integrity, standardization, and secure access. By implementing a secure publisher-subscriber architecture, data providers and receivers can establish connections, share relevant information, and integrate it into their applications. InfoHighway offers the following features:

- Requires the establishment of a 'connection' between two authorized MDAs, following an initial negotiation between the data provider 'publisher' and the receiver 'subscriber' institutions.
- Publisher and subscriber meet, agree on data to be shared and sign an application form or memorandum of understanding.
- A High-Level Management Team chaired by the Ministry of Technology, Communication and Innovation (MTCI)¹, reviews and approves requests for data sharing.
- Upon approval, authorized government agencies publish the data on the platform, which can then be accessed by other connected agencies.
- Subscribers can integrate the received data with their applications.
- Only the data agreed upon by both parties is allowed to be shared, and subscribers are prohibited from forwarding the data.
- Data encryption ensures security, and subscribers cannot modify the data.

[1] Other representatives are the Ministry of Finance and Economic Development, Board of Investment, State Law Office, the Civil Status Division and the Data Protection Commissioner.

- The InfoHighway platform is hosted at the government data center, accessible only via the government intranet network.
- Publishers have full control over their databases and can terminate connections at any time.
- The InfoWatch dashboard constantly monitors the platform.
- Currently, the InfoHighway facilitates a total of 169 connections between various government agencies.

3.2

EXAMPLES OF IMPACTFUL DATA SHARING

3.2.1

CENTRAL KYC

The Bank of Mauritius, the Civil Status Division, the Mauritius Police Force and MTCI signed memoranda of understanding, to facilitate the sharing of data through the InfoHighway for the establishment of the countries' central KYC (Know Your Customer) database. The Bank of Mauritius serves as a gateway between financial institutions and the government database.

This cooperation streamlines the verification of customer identification documents thereby reducing associated costs of carrying out multiple KYC document verifications. It also enables efforts targeted at anti-money laundering reforms.



3.2.2 TAX ALLOWANCE FOR LOW-INCOME EMPLOYEES



The Mauritius Revenue Authority (MRA) leverages the InfoHighway to support its digital service where citizens can register to derive a negative income tax allowance in the form of financial support from the government to low-income employees. By linking with the citizens' database of the Civil Status Division via InfoHighway, the MRA gains valuable insights to implement evidence-based tax reforms and deliver services that reduce poverty and income inequality.

3.3 TANGIBLE RESULTS²

The impact of Mauritius' data sharing initiatives is tangible and far-reaching:

- **Improved service delivery:** Through access to accurate and up-to-date information, government agencies now provide faster and more targeted services to citizens. With data queries that used to take more than six months, now completed within 30 minutes, service delivery has drastically improved.

- **Data-driven policy formulation:** Policymakers now have access to integrated and comprehensive data from various sources, enabling evidence-based decision-making and effective resource allocation. This has resulted in more impactful policies and targeted interventions to address societal challenges.
- **Improved business environment:** Seamless access and exchange of data have reduced administrative burdens for businesses, leading to faster and more efficient processes. This has attracted foreign investments, stimulated entrepreneurship, and accelerated economic growth.
- **Empowering citizen engagement:** Data interoperability has empowered citizens to actively participate in governance and decision-making processes. By accessing their own data, such as health records or tax information, transparency, accountability, and trust between the government and the public are promoted.
- **Cost savings:** The implementation of the InfoHighway system has reduced duplication of efforts and eliminated manual data processes, resulting in significant cost savings and less administrative burden for the government.

[2] Based on testimonials

4. LESSONS

The following actions can provide a strong foundation for seamless data interoperability among government agencies:

- Establish a robust data governance framework that defines clear strategies, processes, roles, and responsibilities for data sharing and reuse. This framework should include guidelines for harmonising legislative provisions, data sharing agreements, and mechanisms to enforce data policies effectively.
- Foster a strong legal and regulatory environment supported by institutions that drive data sharing strategies, enforce compliance, and monitor progress.
- Invest in centralised/collaborative data platforms that enable secure and standardized integration and exchange among government agencies. Prioritize data standardization, quality assurance, and access controls to ensure data integrity and security.
- Embrace interoperable technologies by upgrading legacy systems and implementing cutting-edge solutions.
- Foster a collaborative culture among agencies through data-sharing agreements that promote ethical data use, legal compliance, and establish trust.
- Enhance data literacy and management skills among government officials through comprehensive capacity-building and training programs.

