



Terms of Reference

Consultancy to Develop a Data Catalogue and Data Classification Framework

Mastercard Foundation Rwanda
Cashless Acceleration Programme

February 2022



1. Programme overview

The [Rwanda Economy Digitalisation Programme](#) is a three-year initiative to support a sustained shift to an inclusive, digitalised economy. It involves all stakeholders to leverage insights from data analysis to improve policymaking, catalyse innovation and, ultimately, improve livelihoods.

This programme, which is hosted by the Government of Rwanda (GoR) through the Ministry of ICT and Innovation (MINICT), is driven by a partnership, with technical support from Cenfri and financial support from the Mastercard Foundation. It builds on work undertaken by Rwandan agencies in partnership with Cenfri over the last five years to better use data to advance financial-sector development and economic inclusion in the country. The datahub for the programme is intended to be hosted by the Rwanda Information Society Authority (RISA). RISA is therefore a primary recipient of the work to be undertaken under this project.

An important component of the programme is to enable data-driven decision-making to ultimately reduce poverty, improve livelihoods and promote financial inclusion through a three-pronged approach:

- Making data and trend analysis easily accessible
- Supporting the application of data to policy actions, and
- Accompanying public sector staff to use data-driven approaches on the job through targeted upskilling

Currently, significant amounts of data are collected in Rwanda but are not optimised for decision-making. By establishing a “Data Hub” and growing the local skills required for its utilisation, this programme will enable a significant and sustained transition to evidence-based policymaking, supporting and informing policymakers to better target government services to reach the most vulnerable and promote an inclusive approach to digital transformation.

The GoR recognises the value of using data to inform, measure and monitor national policy implementation. As part of the programme, Cenfri has received several requests from Rwandan stakeholders which have highlighted the need to better understand and catalogue the current data assets owned by the different Ministries and statutory agencies of the GoR. As such, Cenfri is looking for a consultant to support a review of internal government data assets, by creating an initial data catalogue of the data currently held by the GoR and develop a framework of relevant data classification and metrics that ensure the effective and efficient use of this data.

2. Project background and objectives

Rwanda has distinguished itself as a country that has “bet big” on digitalisation as a means to accelerate growth and reduce poverty. With the publication of “Vision 2050”¹, the GoR charted an ambitious course for achieving rapid digital transformation and demonstrated a clear commitment to embracing the digital economy as a lever for accelerating growth, improving services delivery, and increasing job creation. Digital transformation is the driving force at the heart of this vision, as Rwanda aspires to transform its economy and modernise the lives of all Rwandans.

To achieve its ambitious vision, the Government developed a “Data Revolution Policy” (DRP)², which covers aspects related to rules on data release, privacy safeguards, use of an open licence and technical standards, to ensure that government agencies are equipped with the right capabilities and skills. Front and centre to this strategy is the analysis of “big data”, with the aim of producing timely insights to support evidence-based decision-making, enhance transparency and offer opportunities for attaining an innovative data-enabled industry to accelerate social economic development. Moreover,

¹ https://www.minecofin.gov.rw/fileadmin/user_upload/Minecofin/Publications/REPORTS/National_Development_Planning_and_Research/Vision_2050/English-Vision_2050_Abridged_version_WEB_Final.pdf

² <http://statistics.gov.rw/publication/rwanda-national-data-revolution-and-big-data>

Rwanda has recently gazetted Law No. 058/2021³ of 13/10/2021 relating to the protection of personal data and privacy, which establishes the manner in which personal data should be processed, stored and shared, as well as the rights the data owner has.

However, for Rwanda to fully realise the opportunity that this vision promises, it is important to build a more vibrant and robust data ecosystem in the public sector. Good data governance can contribute to setting a common vision; enhance coherent implementation and coordination; and strengthen the institutional, regulatory, skills and technical foundations to better control and manage the data value cycle.

Currently, there are not yet proper governance frameworks for data management and sharing that guide the existing data-sharing interfaces. For example, many government departments are not aware of data collected by other departments, resulting in high-value administrative data neither being utilised to its full extent, nor being shared even among the Government itself, nor being shared through a one-to-one relationship, often creating unnecessary delays or not guaranteeing the proper security levels.

A full data governance framework for the public sector entails several dimensions, including data strategy, data processing, data standards, data policies, data protection and data sharing. It is not the intention of this project to prepare a comprehensive data governance framework for the government. That is the aim of a larger programme that will kick off later this year. Rather, the focus is on an initial exploration of the data (creating a data catalogue) and developing a data classification.

As such, Cenfri is seeking to hire a consultant to lead a review of internal government data assets, including the creation of a data catalogue of existing datasets, the creation of a classification matrix to determine their sensitivity, and the development of an initial data governance framework for each data class.

3. Scope of work

The focus of the consultancy is to work with GoR institutions to advance the Government's objectives of data-driven decision-making and a digitalised economy. While the final list of participating institutions will be determined in consultation with RISA, it is envisaged that it will include the Rwanda Utilities Regulation Authority (RURA), the National Identification Agency (NIDA), the National Bank of Rwanda (NBR), the Rwanda Development Board (RDB), the Rwanda Social Security Board (RSSB), the Ministry of Health, or the Ministry of Education ("the Project Institutions"). The Project Institutions will be limited to 10.

The consultant will operate in three domains:

- **Data cataloguing:** The consultant will identify existing datasets in the Project Institutions, will identify their current usage and will create a searchable and explorable "Data Catalogue" of the datasets the institutions are currently collecting. This data catalogue should include, among others, details on technical, analysis and operational metadata for each of the included datasets. The aim of this data catalogue is both to gain a holistic understanding of the data currently collected and their current status and to facilitate internal data and external data sharing.
- **Data classification:** Develop a system of data classification, including well-defined classification criteria, and develop in-depth data requirements for each class of information. This will result in the development of the Data Classification Matrix, which is intended to assist the GoR in determining how sensitive each class of data is, how it should be classified and protected, and the level of sharing that should be allowed for both existing data as well as new data that may be collected in the future. This will include establishing an ongoing workflow to classify new or updated data and to develop comprehensive "handling guidelines" for each data class.

³ https://www.minijust.gov.rw/fileadmin/user_upload/Minijust/Publications/Official_Gazette/2021_Official_Gazettes/October/OG_Special_of_15.10.2021_Amakuru_bwite.pdf

- **Training:** In order to support the longer-term effort of the GoR and to ensure sustainability of the project, the consultant will train relevant staff in each institution to familiarise them with the Data Catalogue as well as the requirements and practical application of the Data Classification Matrix. This should be done after the completion of the Data Classification Matrix and its adoption by RISA. Please provide a separate budget for this activity.

Activities

To this end, the Consultant will perform the following activities:

- Identify the Project Institutions' current databases and create a searchable and explorable Data Catalogue that can be accessed by each Institution and the broader Government. This catalogue should include, among others, a list of associated metadata such as:
 - Technical metadata: description of the variables contained, data dictionaries, entity relationship diagrams (ERD)
 - Analysis metadata: description of the dataset and its use cases, security classifications, and quality indicators (fitness-for-use ratings)
 - Operational metadata: how frequently the data is updated; through what procedure it is updated: manual vs automated; size of dataset and rate of growth; if a time series, history available; and last date updated.
- Develop a system of classification of the various government data assets to support standardised data management practices for the data already collected or available to policymakers and other public agencies. This will require establishing data sensitivity levels to differentiate how to treat various types of classified data and to create a taxonomy to identify each category of data depending on its sensitivity level (for example High, Medium, Low Sensitivity), which will determine the level of access and sharing of each category, as well as clearly define the classification criteria. The system of classification must be broad enough to accommodate most types of data being generated with the ministries and agencies of the GoR.
- Collaborate with Government stakeholders to develop a Data classification Matrix, which includes in-depth requirements for each category of information identified, including (but not limited to):
 - Provisions on how each category's data is created, accessed, processed, shared, edited, archived and deleted
 - Ownership of data
 - Anonymisation requirements
 - Obligations of each party with regard to data sharing
 - Data usage and distribution
 - Data protection and security (including the development of a Data Protection Impact Assessment (DPIA) process to help the institution identify and address the data protection risks for data sharing of each category)
 - Any other relevant data governance provisions that can be adopted across the Government
- Coordinate with the Government stakeholders to gather their inputs and validate the above Data classification Matrix, as well as the criteria to determine the data classification
- Establish an ongoing workflow to classify new or updated data, and develop comprehensive "handling guidelines", i.e., a set of actions that must be taken to protect each of the different classes of data.
- Comment on any gaps or impediments in the current regulatory framework that may impede the application or further development of the Data classification Matrix.
- Training relevant staff in each institution to familiarise them with both the Data Catalogue and how to keep it updated, as well as the requirements and practical application of the Data classification Matrix. This includes training relevant staff at RISA who will be taking over responsibility for overseeing the ongoing classification of new and updated datasets.

4. Management and deliverables

The consultancy is expected to last for a three-month period commencing mid-March 2022. The assignment will involve four separate phases as below:

Activity	Deliverables
Kick-off meeting and agreement on approach and methodology (two weeks)	<ul style="list-style-type: none"> • Inception report, setting out the final agreed approach, timeline and deliverables
Data Cataloguing (two months)	<ul style="list-style-type: none"> • Identify and review each institution’s current data sets. • Create a searchable and explorable Data Catalogue in Excel for the institutions involved in the project. The consultant will develop a template for approval by Cenfri and RISA before starting to compile the data catalogue.
Data Classification (1 month)	<ul style="list-style-type: none"> • Develop a system of classification of the various government data assets. • Develop in-depth requirements for each category of information identified. • Finalise an agreed Data classification Matrix. • Establish an ongoing workflow to classify new or updated data. • Develop comprehensive “handling guidelines” for each category of data.
Training (to be confirmed – and thus separately budgeted for)	<ul style="list-style-type: none"> • Conduct training to relevant staff in each institution to familiarise them with both the Data Catalogue and the Data classification Matrix.

The consultant will report to the Cenfri Program Lead and the Policy Lead based in Rwanda.

The project involves multiple institutions. The consultant will therefore work closely with several institutions and individuals:

- RISA, who will designate a staff member to work on the project with Cenfri and the consultant
- The Chief Digital Officers⁴ (CDOs) in the Project Institutions
- The legal counsel of MINICT and RISA throughout the project (The nature of the cooperation will be determined by the consultant in consultation with MINICT and included in the Inception report.)
- Cenfri’s technical partner (71point4) to consult for guidance on technical data specification, for example on data quality and technical infrastructure

The consultant will have access to legal counsel at ENS Africa’s Rwanda office. This will be for consultations and legal guidance. The scope of work to be allocated to ENS will be agreed between the Consultant and the Cenfri Program Lead.

Extensive interviews and communication with Rwandan partners on the ground are expected throughout the project.

Travel to Rwanda will be required. We envision two separate missions: an initial fact-finding mission (which can be followed by further exploration online), as well as a follow-up mission to assess progress. Considering the ongoing COVID-19 pandemic, we require the consultant to be flexible and make any reasonable adjustment to be able to travel. Respondents to the TORs must familiarise themselves with the Covid requirements for travelling to Rwanda, including the need for vaccination.

5. Consultant requirements

The consultant must meet the following requirements:

⁴ Chief Digital Officers are responsible for the digital transformation of their designated line ministries. Part of their responsibilities are to oversee the data assets of the government institution they are associated with.

- Demonstrate extensive technical knowledge in data management and data governance. Having this experience in the public sector is a strong recommendation, but experience in the private sector is also relevant.
- Demonstrate solid technical and regulatory expertise and experience in the ICT sector and advisory services for digital transformation strategies, especially in African countries.
- Previous experience and understanding of working with public institutions or the public sector, including an understanding of how it operates and its constraints
- Strong drafting experience and presentation skills

6. Proposals

Proposals are welcomed by individual consultants, as well as qualifying firms. Proposals to undertake this project must include:

- Statement of qualifications and experience of individual/firm to undertake the assignment
- Name and CV(s) of staff members responsible (i) for overseeing the work; (ii) for undertaking the work
- Proposed technical approach to the work and any qualifications to the Terms of Reference
- Detailed timeline and work plan
- Financial proposal, indicating the basis of the calculation of fees in USD or ZAR. Fees and direct costs should be listed separately, and fee rates indicated.
- Proposals should not exceed five pages, excluding CVs.

Proposals must be submitted electronically by close of business on **Monday 28 February 2022** to amandaS@cenfri.org. A decision will be made by **7 March**, and we plan to complete the contracting during the week of **14 March 2022**.

Please note that the inception report will be due by **31 March 2022**.

7. Basis of award

Cenfri will award the contract based on the following criteria and will weight these as indicated:

1. Relevant, demonstrated competence of individual or firm in this area (20%)
2. Demonstrated expertise of key individuals who will implement this project (20%)
3. Content, quality and originality of technical proposal (35%)
4. Fee basis (25%)

Questions or comments in respect of these terms of reference should be directed to **Fiacre Mushimire** e-mail: fiacre@cenfri.org or Hennie Bester e-mail: hennie@cenfri.org.