Ministry of Technology, Communication and Innovation

National Open Data Policy

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Authors

This Policy Paper has been prepared by the representatives of The Ministry of Technology, Communication and Innovation, The Central Informatics Bureau, The Data Protection Office and The Attorney General's Office.
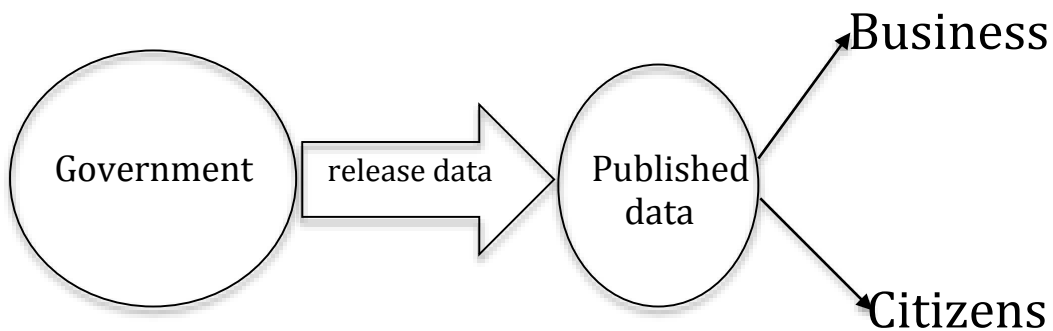
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1   Purpose Statement

The Government of Mauritius through its operations produces huge sets of data. Ministries and departments process the raw datasets[1] to produce information in support of the delivery of public services to citizens and businesses.

Evidence abounds in the world that opening up Government datasets can yield substantial boost to the economy. Thus, supporting the claim that Government datasets have much greater useful lives beyond their role in upholding Government functions.

The purpose of this policy document is to formulate the appropriate guidelines and processes for Ministries and Departments in the release and management of Government datasets as open data.

2   Background

Ministries and Departments utilise tax money for running their operations and fulfilling their responsibility in the delivery of public services to citizens and businesses. In so doing, massive amounts of data covering mainly citizens' data, business and land related data are collected, processed, analysed and transformed into insightful and highly valuable information.

These datasets would be yielding more value to the country by being released as Open Data, subject to the constraints of personal privacy and national security i.e. Open Data is data put in machine readable form that can be used, reused and redistributed freely.

In 2012, Graham Vickery of Information Economics made a study of the impact of Open Data on economies in the European Union and concluded that an average of 1.7% GDP of the European Union growth could be attained.

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[1] Dataset is a collection of data that is extracted from a data source or database.

Attractive opportunities exist for businesses to use Open Data to find new markets, refine their offers whilst creating high value jobs and wealth for the nation. Developing big data analytical skills, which represent the next frontier in employing Information and Communication Technologies (ICTs) for processing the loads of Open Data, on the island will require a refocusing of the Ministry of Technology, Communication and Innovation's Capacity Building Framework. This will be in line with the Smart Mauritius Agenda.

New business ventures in data broking activities, whereby open data is aggregated with other proprietary sources of data to develop other services, are expected to emerge.

New avenues will open up for citizens and Non-Governmental Organisations alike to analyse the performance of schools, health institutions, social security services and many more. Citizens will be more comforted in having their say in the governance of the country. Thus advancing the cause for accountability and transparency.

The main difference between the Open Data Initiative and the Freedom of Information Act intended to be introduced by Government according the Government Programme 2015 – 2019, is that Open Data proactively looks at datasets that Government can make publicly available whilst the Freedom of Information Act reacts to requests for data made by citizens. Hence, the Open by Default[2] concept governs the Open Data Initiative.

3   Objectives of the National Open Data Policy

The objectives of the National Open Data Policy are:

1. **Economic Advantages**

   The overriding priority of the Government is the creation of high value jobs and wealth. The expansion of the circle of opportunities and economic space are the cornerstones of the intention of Government to engage into an Open Data Initiative.

   Releases of Open Data hold the promises of new business activities around the analysis of Open Data, identification of new markets and firming up of existing and new products and services. Such expanded activity will be accompanied by the creation of jobs in the area of big data analytics requiring data skills.

   Open Data is the bedrock of innovation which will be the driving force of the Mauritian economy in the next decade. Innovation flourishes when

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[2] Data is made available as open data except when they relate to personal data or have a national security dimension.

provided with the right ecosystem. This explains why the National innovation Framework, currently under development at the Ministry of Technology, Communication and Innovation, lays lot of emphasis on Open Data.

2. **Accountability and Transparency**
   The more datasets are made available as Open Data, the more easy it will be for citizens, Non-Governmental organisations and businesses to scrutinise the effectiveness and efficiency of Government operations. Thus satisfying the accountability and transparency concerns of Government which rank very high on its agenda as expressed in the Government Programme 2015-2019.

4   What data are to be released as Open Data

"Open By Default"

Data is made available as open data except when they relate to personal data or have a national security dimension.

All public datasets will be classified as Open Data provided that:
1. they do not contain any personal or sensitive information as per the Data Protection Act;
2. they are not classified as confidential under the Government Security Instructions;
3. they do not have a public safety or national security dimension;
4. they are not covered by third party rights; and
5. they are not reworked by the Ministries and Departments to produce value added services for specific customers.

However, the Open Data datasets will be considered for release depending on the category specified in the Open Data Readiness Assessment Report produced by the World Bank. The report follows consultation mission of the World Bank with suppliers (Ministries and Departments) and demanders (private sector, academia, software developer community) of data in June and October 2015.

Prior to the release of the datasets, a Privacy Compliance Assessment will need to be carried out to ensure that the datasets do not contain personal data or are such that anonymised data they contain may be prone to re-identification.

Some 25+ datasets have been listed as quick wins in the Open Data Readiness Assessment Report (please see annex I). These will be released as and when the datasets are ready at the level of the data supplier.

Some Applicable Guidelines

Other datasets will be considered for release based on their state of readiness and the feedbacks received from initial releases of Open Data.

Sometimes personal data may be of interest to citizens and businesses. In these circumstances, Ministries and Departments will have to weigh public interest considerations vis a vis privacy concerns. Should the balance tip towards public interest of releasing the data as Open Data, then appropriate anonymisation and/or aggregation techniques are to be adopted.

The assistance of Statistics Mauritius is to be sought for the suppliers of data to apply anonymisation and/or aggregation techniques on the datasets prior to release as Open Data.

5 Open Data Licence (Terms and Conditions)

As per international best practice, many countries and regional groupings (e.g. Australia, Austria, Brazil, Bulgaria, Chile, Croatia, European Union, France, Greece, Guatemala, Indonesia, Italy, Korea, New Zealand and Spain) have adopted the Creative Commons issued licences.

The Creative Commons Attribution 4.0 International Licence used by Australia and New Zealand for their Open Data Initiatives allows users of Open Data to use, reuse and redistribute the data provided that appropriate Attribution clauses are included in the datasets by the users.

The Creative Commons Attribution 4.0 International Licence ensures that the supplier of data continues to hold copyright on the data whilst allowing the users to use, reuse and redistribute the data freely or even commercially.

The Government of Mauritius expressly affirms that it adopts the Creative Commons Attribution 4.0 International Licence for its datasets released as Open Data.

However, the following attributions will have to be adopted by the users of the datasets:

1. Users reproducing the data without adaptation should include a source accreditation to the <Ministry/Department releasing the data> in the following manner:
   Source: <Ministry/Department>

2. Users reproducing the data with adaptation should include a source accreditation to the <Ministry/Department releasing the data> in the following manner:
   Adapted from data from <Ministry/Department

6 Cost of Open Data and Processed Data

Open Data would be free of charge for raw data whenever released on the Internet. On the other hand, Processed data will involve some form of transformation and production by the public body; as such it would imply some costs. Such processed data would usually imply some marginal cost to account for the cost of producing it should the data be released as Open Data.

As per the Open Data Readiness Assessment Report, datasets to be released as Open Data currently are estimated by the Ministries to account for less than 1% of the income/revenue of Ministries and Departments. Hence, data releases as Open Data will be at no cost whilst the Ministry of Finance and Economic Development will support the releasing Ministry/Department with additional funds to cover the outlays.

7 Implementation Mechanism

As recommended by the Open Data Readiness Assessment Report, a Central Open Data Team (CODT) led by the Chief Technical Officer, Ministry of Technology, Communication and Innovation will be set up. The CODT will comprise the following officers:

- Deputy Permanent Secretary, Ministry of Technology, Communication and Innovation overseeing the Open Data Initiative
- Director, Central Informatics Bureau
- Programme Managers, Central Informatics Bureau
- Director, Central Information Systems Division
- System Analysts, Central Information Systems Division
- Data Protection Commissioner
- Data Protection Officers, Data Protection Office
- Director, Statistics Mauritius
- Statisticians, Statistics Mauritius
- Sector Management Support Team, Ministry of Finance and Economic Development

The CODT will have as mandate to steer the Open Data Initiative across Ministries and Departments. This will include establishing and reviewing standards for Open Data and setting up and administering the National Open Data Portal. In addition, the CODT will set the standards for the Privacy Compliance Assessment to be carried out at the level of Ministries and Departments prior to the release of datasets as Open Data.

The CODT will be supported by Open Data Teams (ODT) at the level of Ministries and Departments engaged in the Open Data Initiative. Each ODT will comprise:

- Deputy Permanent Secretary
- Programme Manager, Central Informatics Bureau

- System Analyst, Central Information Systems Division
- Statistician, Statistics Mauritius

8   Technical Standards and Policies

Data Format
Open Data will be made available in machine readable format adhering to open standards. The initial datasets will be released in CSV format. Subsequently, XML format will be considered.

Open Data Portal
The National Open Data Portal adhering to ICT security standards will be set up on the SharePoint platform of the Government Portal to act as a single point of contact for datasets released as Open Data.

In a phased manner and in line with the Open Data Readiness Assessment Report, an open source based Open Data Portal will be considered. The open source solution will provide the much needed flexibility to the Open Data Portal.

Eventually, Application Program Interfaces (APIs) will be developed for the Open datasets. Facilities for downloading datasets in bulk will also be developed.

9   Continuous Engagement with Ministries and Departments, Citizens, Private Sector, Software Developers and other stakeholders

Engagement sessions will be conducted on a regular basis with Ministries and Departments to accompany the suppliers of data in their reflections/feedbacks and processes for releasing datasets.

Consumers of data like citizens, the private sector, software developers and other stakeholders will also be consulted on a regular basis to ensure that the Open datasets meet their demand, are of quality and to identify other datasets that may be of interest to the community.

References

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Sunlight Foundation 2015. *Open Data Policy Examples* [Online]. Available from: http://www.worldbank.org/content/dam/Worldbank/document/Open-Data-for-Economic-Growth.pdf [Accessed on 1 November 2015].

World Bank 2014. *Open Data for Economic Growth* [Online]. Available from: http://www.worldbank.org/content/dam/Worldbank/document/Open-Data-for-Economic-Growth.pdf [Accessed on 1 November 2015].

World Bank 2015. *Open Data Readiness Assessment Report.* Washington: World Bank.

Annex 1

QUICKWIN DATASETS

1. Budget data
2. Budget execution data
3. BOOST database
4. Procurement Notices
5. Contract award data
6. Digital maps
7. Aerial photography
8. Postcodes and Street Names
9. Beach water quality
10. Meteorological data forecast and current observations
11. Meteorological data- warnings
12. Cadastre data
13. Property price paid data
14. Locations of public facilities
15. Historical data on disaster management events
16. Census data
17. Statistical tabular data
18. Bank of Mauritius Statistics
19. Education school facilities
20. Road accidents

21. Bus Routes

22. Aviation movement and other statistics

23. Company Register : basic data

24. Agriculture statistics

25. Agriculture prices

26. Data for tourists

27. Health statistics

28. Election data

29. Laws and Regulations