

# **Open Government Data Policy**

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Version 2.0

20 May 2025

## Contents

| Document Control   |
|--|
| Document Review History  |
| Abbreviations List   |
| Introduction   |
| Section A – Strategic Direction to Open Data                                     |
| <b>Purpose</b>   |
| Prior Initiatives & Current Status   |
| Strategic Direction  |
| Fundamental Principles7  |
| Collaboration with Private Sectors, Non-Government Sectors and Municipal bodies7 |
| Specific Measures7   |
| Section B - Open Government Data Policy8   |
| Scope of this Policy8  |
| Purpose  |
| Policy Requirements / Rules8   |
| Guidelines & Procedures11  |
| Roles & Responsibilities14   |
| Change to this policy15  |
| Feedback & Suggestions15   |
| Appendix A: Data Relevant Regulations16  |

## **Document Control**

| Attributes       | Value   |  |  |
|------------------|---|--|--|
| Document Title   | Open Data Policy  |  |  |
| Document Owner   | Governance & Enterprise Architecture Directorate  |  |  |
|                  | Information and eGovernment Authority   |  |  |
| Publication Date | 20 May 2025   |  |  |
| Number of Pages  | 17 Pages  |  |  |
| Caution          | This document is controlled electronically. Printed copies are treated as uncontrolled and cannot be guaranteed to be the current version |  |  |

# **Document Review History**

| Version | Status    | Date            | Remarks   |
|---------|-----------|-----------------|---|
| 2.0     | Published | 20 May 2025     | <ul> <li>Several updates, additions and improvements<br/>in the following areas:</li> <li>Government Open Data Licensing</li> <li>Data Formats</li> <li>Metadata</li> <li>Public Awareness</li> <li>Public Engagement and Participation</li> <li>Open Data Strategy</li> <li>Data versioning and tracking</li> <li>Datasets request process</li> <li>Data Export Options</li> <li>Minor changes to document structure,<br/>formatting, version history, along with<br/>content improvement (rewording and<br/>rephrasing).</li> </ul> |
| 1.3     | Published | 10 January 2023 | Minor changes in document layout, formatting and branding.  |
| 1.0     | Published | 24 October 2021 | First publication.  |

## **Abbreviations List**

| Abbreviation | Definition   |  |  |
|--------------|--|--|--|
| AI           | Artificial intelligence  |  |  |
| ΑΡΙ          | Application Program Interface                                      |  |  |
| CSV          | Comma-separated value  |  |  |
| GCC          | Gulf Cooperation Council   |  |  |
| GeoJSON      | Geographic JavaScript Object Notation                              |  |  |
| HTML         | Hypertext Markup Language  |  |  |
| ІСТ          | Information & Communication Technology                             |  |  |
| ICTGC        | Information & Communication Technology Governance Committee        |  |  |
| iGA          | Information & eGovernment Authority                                |  |  |
| ISO          | International Organization for Standardization                     |  |  |
| JSON         | JavaScript Object Notation   |  |  |
| мсіст        | Ministerial Committee for Information Technology and Communication |  |  |
| NGO          | Non-Government Organization  |  |  |
| ODBC         | Open Database Connectivity   |  |  |
| RDF          | Resource Description Framework                                     |  |  |
| SDMX         | Statistical Data and Metadata eXchange                             |  |  |
| URLs         | Uniform Resource Locator   |  |  |
| W3C          | World Wide Web Consortium  |  |  |
| XML          | Extensible Markup Language   |  |  |

## Introduction

Government of Bahrain considers sharing of data in the public domain as a major step towards the enhancement of transparency and accountability in governance. Towards this direction, Government is actively pursuing the publication of open data to encourage collaboration and engagement with its constituents (citizens, business, residents and tourists) leading to innovative solutions addressing the nation's opportunities and challenges for a better quality of life.

This document highlights the commitment of Government of Bahrain towards the publication and usage of Government data to increase the accessibility and easier sharing of non-sensitive data for commercial as well as societal transformation.

This document consists of two sections which are segregated as:

- Section A Strategic Direction to Open Data and
- Section B Strategic Direction to Government Open Data.

## Section A – Strategic Direction to Open Data

### Purpose

The purpose of having a government strategic direction to open data is to immediately undertake measures for encouraging the use of public data and to implement them broadly in order to raise the standard of living and stimulate business activities, contributing to the development of Bahrain society and economy as a whole.

### **Prior Initiatives & Current Status**

Government of Bahrain has launched its open data portal in 2013 with the intention of having it as a single portal for Statistics and open data content. The portal provides data pertaining to various sectors such as Agriculture, Industry, Health, Education, Labour Force, Population, Tourism, Social Security & Justice, Culture & Media, Electricity & Water, Environment, Finance & insurance, Marine resources, Meteorological conditions, Oil & Gas, Transportation, Public Services pertaining to life events.

As part of Government of Bahrain's ongoing effort to improve, its open data practices related to the open government global initiative were reviewed and a plan was initiated to enhance the open data effort, namely in the delivery part of the open data initiative. Government of Bahrain has revisited its current strategy towards Open Government and released a new version of its open data portal, which is considered as a centralized source of government data, information, statistics along with Bahrain standing in international indicators.

The government is continuing its plans to make more data available through the Open Data Portal (<u>www.data.gov.bh</u>), with focus on:

- Increasing the utilization of the Open Government Data by providing Application Program Interface (API) and web services to enable data mobilization.
- Providing metadata (data about the data) and Information on how to access the various datasets.
- Supporting Geo-spatial data and its analysis.
- Supporting Linked data, big data, and connected data.
- Supporting different data formats. For example: XML, CSV, JSON, GeoJSON, etc.

## **Strategic Direction**

Government is committed to openness and transparency and will continue opening its data to empower its constituents.

#### **Fundamental Principles**

The fundamental principles concerning measures for promoting the use of public sector information in Kingdom of Bahrain are set forth as follows:

- Government bodies must actively release public data in alignment with the Protection
  of State Information and Documents", Law No. 16 of 2014, and its amendment by
  virtue of Legislative Decree No. 14 of 2023, and Law of Protection of Personal Data,
  No. 30 of 2018. Other laws associated with data must also be considered, including but
  not limited to, those listed in Appendix A.
- Government Open Data shall be released in non-proprietary, and prevalent open formats.
- The use of public information must be encouraged for commercial as well as non-commercial purposes.

Appropriate measures should be taken such as the prompt disclosure of public data that can be released, and results shall be steadily accumulated.

#### Collaboration with Private Sectors, Non-Government Sectors and Municipal bodies

Government should collaborate fully with Private Sector, Non-Government sector and Municipal bodies in promoting and encouraging the contribution and use of data and take advantage of the creative innovations utilizing the open data. This collaboration will help on facilitating the execution of processes across all bodies and stakeholders.

## **Specific Measures**

- 1) Publish more open data datasets and ensure the quality, quantity as well as the range of open datasets available in the Open Data Portal.
- 2) Develop an environment for the use of Open Data.
  - a. Creation of appropriate rules for the use of public data
  - b. Update data catalogues
  - c. Enhance the standardization of data formats and structures.
- 3) Promote the use of Open Data.
  - a. Continue engagement with stakeholders to encourage use of open data.
  - b. Identification of stakeholder's needs from the public data
  - c. Analyze and take appropriate actions on issues related to current data provision methods.
  - d. Encourage private services development using open data.
- 4) Evaluate the impacts, benefits and risks of open data initiatives.

## **Section B - Open Government Data Policy**

## **Scope of this Policy**

The Open Government Data Policy, in accordance with the Protection of State Information and Documents", Law No. 16 of 2014, and its amendment by virtue of Legislative Decree No. 14 of 2023, and Law of Protection of Personal Data, No. 30, 2018, or any relevant laws (including but not limited to those listed in Appendix A) will apply to data and information created, generated, collected, and archived by various government entities and public sector institutions of Government of Bahrain. Additionally, this policy is complementing other existing and planned eGovernment initiatives and frameworks including artificial intelligence (AI), digital transformation and data governance.

### Purpose

The purpose of this policy is to facilitate the access and usage of Government of Bahrain's data and information updated in a periodical manner and available in both human and machine readable forms through the national open data portal (<u>www.data.gov.bh</u>) within the existing framework of the Protection of State Information and Documents", Law No. 16 of2014, and its amendment by virtue of Legislative Decree No. 14 of 2023, and Law of Protection of Personal Data, No. 30 of 2018 and other various related policies, Acts and rules.

## **Policy Requirements / Rules**

The following Policy Principles must always be observed and implemented:

#### 1. Availability of public data

- (a) The Government and public sector entities are committed to openness and transparency by making data open by default in conformance with Law No. 16, 2014 (Protection of State Information and Documents) and its amendment by virtue of Legislative Decree No. 14 of 2023, and Law No. 30 of 2018 (Protection of Personal Data) in order to support innovation and productivity improvements across all major sectors in Bahrain.
- (b) Wherever possible, the Government and public sector entities must ensure free, easy to use, high quality and reliable data in various formats.
- (c) The Government and public sector entities must uphold the highest standards of security and privacy for the individual, commercial and national data.
- (d) The Government and public sector entities must evaluate the impacts, benefits and risks of open data initiatives including evaluation of the datasets being published.

- (e) The Government and public sector entities must build strategic partnerships with the public, private and research institutions and leverage public data for the social and economic benefit of the constituents of Bahrain.
- (f) If a desired dataset is not available on the Open Data Portal, the Government of Bahrain is committed to allow users to submit a dataset request through Bahrain's Open Data Portal.

#### 2. Data must be offered under Bahrain Government Open Data License

- (a) Open data is subject to the terms and conditions detailed in Bahrain's Government Open Data License, which establishes the legal framework for its use, outlining the terms, conditions, obligations, and restrictions for using the data. By using open data, users are deemed to agree to comply with the terms and conditions detailed in the license.
- (b) Data made available on the Open Data Portal must have no expiry or other conditions affecting its validity.
- (c) The use of public information must be encouraged for commercial as well as non-commercial purposes.

#### 3. Access to the open data must be simple and straightforward

- (a) The Open Data Portal must be easy to use and intuitively, in order to improve the user experience, shorten the time required to find Data, and lower the learning curve required to build analytics using the Portal.
- (b) The Portal must use open formats and be standards-based to enable wider compliance with prevalent practices, including those set by the W3C for readability and accessibility.
- (c) Access to the Portal must comply with all security controls and standards published by the responsible department for National Cyber Security in Bahrain.

#### 4. The Open Data Portal must be updated in a timely fashion

- (a) Data must be uploaded to the Portal as soon as it is received by the iGA.
- (b) The iGA must put in place the necessary mechanisms to automate this process as much as possible to facilitate timely availability of Data to the public.

#### 5. Data versioning and tracking must be enabled in the Open Data Portal

Data versioning and tracking must be enabled in the Portal in order to ensure transparency and enable historical analysis, the iGA should implement data versioning and historical tracking for dataset updates to provide users with information about first publication of datasets and records of changes over time.

#### 6. Availability of Metadata must be included for all datasets

For each published dataset on the Open Data Portal, machine-readable metadata must be provided to ensure discoverability, interoperability, and effective reuse by all users.

#### 7. The Data formats used must be open

All data published on the Open Data Portal must be in machine-readable, nonproprietary, and prevalent open formats that are easily and readily usable, including at least one of the following formats CSV, JSON, GeoJSON, XML, RDF, and any other formats that the iGA deems appropriate to facilitate easier use and manipulation by end users, with consideration to international standards for publishing open data such as Statistical Data and Metadata eXchange (SDMX). Furthermore, the Portal will support the utilization of linked data, big data, and connected data technologies to enhance data integration and analysis

In order to ensure interoperability and enable real-time data access over the web, all data published on the Portal must be available through API. ODBC is also preferred where applicable.

#### 8. Data Export Options must be enabled

The Open Data Portal must offer various export/download options for datasets to enhance accessibility and usability. Datasets must be provided with several download options including bulk download, and user-select download.

#### 9. There must be very little to no analysis made to the Data.

The open data must be provided in a raw format with no analysis made. This must not prevent the iGA displaying such data on the Open Data Portal using graphical means, but any analysis must be solely made by end-users.

#### 10. Public Awareness and Capacity Building

Government and public sector entities are encouraged to conduct awareness programs, trainings, workshops, hackathons, campaigns and any kind of effort to promote open data usage by individuals, public and private sectors.

#### 11. Public Engagement and Participation

The Government and public sector entities should engage and collaborate with all stakeholders including individuals, public and private sectors, NGOs and research institutions in order to:

- (a) Encourage the use of open data. and take advantage of the creative innovations utilizing the open data
- (a) Identify of stakeholder's needs from the public data
- (b) Analyze and take appropriate actions on issues related to current data provision methods.
- (c) Participate in dataset co-creation and valuation activities.

## **Guidelines & Procedures**

These guidelines and procedures must be followed by the Government and public sector entities to ensure that the open data supports the growth of economy, improve service delivery and welfare of the society.

- (a) All public datasets must be considered open unless they contain information designated as sensitive, private, or confidential.
- (b) The entities should use the following guidelines to select and prioritize their datasets for publication. For purposes of prioritizing public datasets, entities should consider whether information embodied in the public dataset:
  - (i) Increases the Entities' accountability and responsiveness.
  - (ii) Improves public knowledge of the Entity and its operations.
  - (iii) Responds to a need or demand identified by the public.
  - (iv) Furthers the mission of the Entity.
  - (v) Creates economic opportunity.
- (c) Entities must ensure the nomination of appropriate officials who should be accountable to ensure the correctness and appropriateness of the open data before their release in the data platforms. While publishing data appropriate disclaimers must be included which should highlight exclusions of any express or implied warranties that shall relieve the entity's responsibility for consequential damages, and indemnity clauses.
- (d) The structure of published datasets must align to Protection of State Information and Documents", Law No. 16 of 2014, and its amendment by virtue of Legislative Decree No. 14 of 2023, and Law of Protection of Personal Data, No. 30 of 2018 as well as entity specific data sharing specifications, where they exist. The entity may consult with the iGA regarding current specifications.
- (e) The entities retain ownership over the datasets that they submit. All Data and datasets remain the property of the originating Entity and public users acquire no ownership rights to entity data or datasets.
- (f) Datasets must be available with no restrictions on dissemination and are not subject to any copyright, patent or trademark regulations. Government entities must clearly label public information as a work of the government and available without restrictions on use. These requirements are governed by the terms and conditions detailed in Bahrain Government Open Data License.
- (g) The public datasets published on the Open Data Portal become a public resource available to anyone with access to the Internet. The public use of the datasets may include development of applications. In this case, the developers

retain all intellectual property ownership in their applications, excluding the entity data itself, whose ownership continues to reside with the entity.

- (h) The Entities must create, publish, and maintain on the Open Data Portal accurate metadata for each public dataset as set forth in the Metadata standards specified by the iGA.
- (i) The entities must ensure that each public dataset and associated metadata is kept current to the extent that the agency regularly maintains or operationally updates the public dataset.
- (j) All public datasets must be accessible to the public through the Open Data Portal and accessible to third-party (Internet-based) search engines. In any exceptional case in which for technical reasons it is not feasible to host a public dataset on the Portal itself, the Portal must provide a direct link to the public dataset that is hosted elsewhere. The entity may self-host the public dataset in a standard format (shared by iGA), provided that the public dataset is accessible through the link on the Portal to the public and to third-party (Internet-based) search engines.
- (k) In any exceptional case in which transaction volumes, data structure, technical barriers, or resource limitations prevent hosting a public dataset on the Open Data Portal itself, the Portal must provide a direct link to the public dataset that is hosted elsewhere so that the dataset is accessible to the public through the Portal. In such an exceptional case, an entity may self-host the relevant public dataset, provided that the public dataset is accessible to the public through the link on the Portal according to following standards:
  - (i) The entity must provide a single, unique, publicly accessible URL for each dataset along with the dataset-level metadata. This information will be made available in the Portal's catalog of datasets. It is strongly preferred that the URL be the location of the dataset, and not an intermediate web page.
  - (ii) The dataset must be in machine-readable, non-proprietary, and prevalent open formats that are easily and readily usable.
  - (iii) The dataset may be encapsulated in a single archive file (and optionally compressed) if it consists of multiple related files.
- (I) Entity datasets, including metadata, are not required to be published in additional languages beyond those used at their sources.
- (m) Delivery of data from back-end systems to the Open Data Portal will take place though an architecture which permits de-coupling and enables a layer of abstraction. This architecture leverages infrastructural investments and technical capabilities that either already exist within entities or would require minimal effort to implement.

- (n) The entity datasets may contain the following data types:
  - (i) Numbers, Currency, and percentages.
  - (ii) Dates/times (ISO-8601 preferred).
  - (iii) Booleans(true/False).
  - (iv) E-mail addresses.
  - (v) URLs.
- (o) The entity data values must not contain elements or markup used for presentation, nor should they contain interpreted or raw application source code. For example, HTML formatting tags such as <script>, , , , or <br> are not permitted.
- (p) Datasets published on the Open Data Portal must be maintained for accuracy, timeliness, and accessibility, as set forth below:
  - (i) entity representatives are responsible for identifying an update frequency for each public dataset as an element in its dataset metadata, and for ensuring that their dataset content updates are maintained and published according to the dataset's identified schedule or to the extent that the agency regularly maintains or updates the public dataset.
  - (ii) entity representatives must not modify existing data structure during normal updates to the dataset. The number of data elements per record, name, format, and order of the data elements must be consistent with the originally published version. The entity representatives should notify the iGA prior to any structural changes to datasets.
  - (iii) The iGA will contact the entity representatives to obtain feedback or a direct answer to comments or inquiries from the public that relate to dataset contents or supporting documentation. The entity will provide the iGA with an expected timeframe to resolve the support inquiry as soon as possible. The entity must then notify the iGA when the updates or corrections are ready for publication.
- (q) Dataset request mechanism:
  - (i) If a desired dataset is not available on the Open Data Portal, users may <u>submit a dataset request</u> available in the Portal.
  - (ii) The request must include a reason for requesting with a clear description of the requested dataset, and the requester's contact information.
  - (iii) The iGA will forward the request to the relevant government entity responsible for the requested data to process the request and provide the requester with feedback and outcomes
- (r) Users are encouraged to share their feedback, opinion and suggestions regarding Open Data Portal and the published datasets through the National

Suggestion and Complaint System "Tawasul", which is available on the national portal (Bahrain.bh) as well as in Bahrain eGovernment App store.

## **Roles & Responsibilities**

This policy is approved by Cabinet Office and implemented by the Information & eGovernment Authority (iGA) with the support of Government and public sector entities. Any modifications on this policy will be reviewed by ICTGC and approved by Ministerial Committee for Information and Communication Technology (MCICT). Additionally, specific roles and responsibilities for stakeholders involved with the policy implementation, are listed below:

#### **Cabinet Office**

- Set the strategic direction for 'Open Government Data' in the Kingdom.
- Oversee the effective and consistent usage of the Open Government Data policy.

#### Ministerial Committee for Information and Communication Technology (MCICT)

• Approval authority for major changes in policies or standards relating to open data.

#### Information & Communication Technology Governance Committee (ICTGC)

- Oversee the effective and consistent publication and usage of the open data.
- Review and approve any deviations or exemptions requirements.

#### Information & eGovernment Authority (iGA)

- Develop and upgrade Open Data Portal.
- Lead the working group and suggest recommendations for improving open data ecosystem in the Kingdom.
- Management, administration and maintenance of the open data policies and standards.
- Monitor the usage of open data.
- Communication, marketing, publication, and awareness creation on open data.
- Auditing and reporting.

#### Government & public sector Entity:

- Compliance and adoption of Open Government Data Policy.
- Produce and publish data as per the established norms of the entity.
- Manage the quality and quantity of the open data.

## Change to this policy

This policy may change from time-to-time and the latest version of this policy will be always available on the Bahrain's National Enterprise Architecture website (<u>www.nea.gov.bh</u>) as well as the Information and eGovernment Authority's website (<u>www.iga.gov.bh</u>).

### Feedback & Suggestions

Feedback and suggestions on the Open Government Data Policy are welcome. Any suggestion/feedback will help in enhancing/refining the policy further thus making this document more comprehensive and relevant. Feedback, suggestions, clarifications and queries on this document may be sent to <u>standards@iga.gov.bh</u>.

## **Appendix A: Data Relevant Regulations**

- Legislative Decree No. 10 of 1992 with respect to promulgating the commercial agency law and its amendments.
- Legislative Decree No. 36 of 2002 with respect to Regulating Government Tenders and Purchases and its amendment, as well as Decree No. 37 of 2002 with Respect to Promulgating the Implementing Regulations of the Law Regulating Government Tenders and Purchases and its amendment.
- Legislative Decree No. 48 of 2002 promulgating the Telecommunications Law and its amendments.
- Law No. 1 of 2004 regarding Patents and Utility Models and its amendment, and Decision No. 101 of 2018 promulgating the Implementing Regulation of Law No. 1 of 2004 regarding Patents and Utility Models.
- Law No. 16 of 2004 regarding the Protection of Geographical Indications and its amendment.
- Law No. 5 of 2006 on Design of Integrated Circuits.
- Law No. 6 of 2006 on Industrial Drawings and Models, and Decision of the Minister of Industry and Trade No. 1 of 2010 issuing the Executive Regulations of the Industrial Designs and Models Law No. 6 of 2006.
- Law No. 15 of 2006 with Respect to Manufacturing and Trading in Compact Discs.
- Decree No. 32 of 2008 Establishing and Organizing the Quality Assurance Authority for Education and Training amended by virtue of Decree No. 6 of 2009.
- Law No. 6 of 2014 approving the Law (Regulation) of Trademarks for the Cooperation Council for the Arab States of the Gulf amended by virtue of Law No. 3 of 2021, and Decision of the Minister of Industry, Trade and Tourism No. 65 of 2016 issuing the Executive Regulations of the Trademark Law (Regulation) for the Gulf Cooperation Council Countries promulgated by Law No. 6 of 2014.
- Legislative Decree No. 27 of 2015 regarding the Commercial Registration and its amendments, and Decision No. 126 of 2016 promulgating the Implementing Regulation of Legislative Decree No. 27 of 2015 regarding the Commercial Register and its amendment by virtue of Decision No. 62 of 2024.
- Legislative Decree No. 21 of 2015 regarding Private Health Institutions amended by virtue of Law No. 1 of 2019.
- Law No. 51 of 2014 regarding Regulating the Practice of Engineering Professions amended by virtue of Legislative Decree No. 18 pf 2021, and Decision No. 27 of 2023 promulgation of the Implementing Regulations of Law No. 51 of 2014 with Respect to Regulating the Practice of Engineering Professions.
- Law No. 23 of 2018 promulgating the Health Insurance Law.
- Law No. 30 of 2018 with respect to Personal Data Protection Law.
- Law No. 31 of 29018 with respect to the Promotion and Protection of Competition.
- Law No. 27 of 2017 promulgating the Real Estate Regulatory Law amended by virtue of Decree No. 41 of 2022.

- Legislative Decree No. 22 of 2006 with respect to the Protection of Authors Rights and Attendant Rights Law and its amendments; Law No. 7 of 2003 regarding Trade Secrets and amendments.
- Law No. 16 of 2014 regarding the Protection of State Information and Documents amended by virtue of Legislative Decree No. 14 of 2023.