



Open Data Barometer Leaders Edition

Research Handbook - v1.0 | 2 October 2017

Welcome to the Open Data Barometer Handbook and thank you for participating in the Leaders Edition of the Open Data Barometer study. This guide introduces the assessment process of the Open Data Barometer, including information on the methodology, guidance on the sources you can use and how to cite them, and **detailed question-by-question scoring guidance and thresholds** to be consulted as your work through the research process. **You should read the first section of this handbook in detail before starting your research.**

Overview

This document acts as a handbook for researchers, and a reference for those seeking to understand the data that has been made available through the study. This should be considered a living document as we pilot [common methods for assessing open data](#). The most updated online copy can be found at <https://goo.gl/qzCP4c>. Your help and feedback is valuable in assisting us to test, verify and develop the research methodology for this project. You can send your feedback on the methodology and handbook to project-odb@webfoundation.org or comment directly at the online version.

The main aim of this handbook is to provide consistent referencing as a way to **minimize individual interpretations** and confusion when identifying the most appropriate choices for each country score on a given expert survey indicator.

Before answering or reviewing Barometer questions it is also important to familiarise yourself with [the concept of open government data](#) and the [open definition](#) fully. Further detailed information can be found in the [Open Data Charter Principles](#).

SECTION 1 - RESEARCH METHODOLOGY

For the expert survey portion of the Open Data Barometer, a lead country researcher performs desk research and consults with key informants to score the indicators for each of the countries in the study. Those initial scores are then reviewed by the project management and coordination team, who may send back a portion of those questions for improvement or correction based on the standards described in this handbook.

When the project management is satisfied with the state of the indicators, a mix of country, government (by means of a *self-assessment* questionnaire) functional expert and peer reviewers will be invited to review the indicators and will flag certain questions for additional research, correction or clarification. Project management will check all reviewer feedback to determine which indicators need to be returned to the lead researcher for further strengthening; this back-and-forth process will lead to a final set of well-researched and well-sourced indicators.

The general time period under study is the 15-month period from July 2016 to September 2017 (both included), although **some relevant evidence could be considered time-independent** (e.g. policies, legislation or impact use cases). All questions (with the exception of C8 and sometimes D9) make reference exclusively to **the national (or federal) government** and can take two main forms:

- A. **'To what extent'** questions, with 11 score choices from 0 to 10 and above 0, 3, 5 and 8 incremental scoring guidelines containing detailed scoring criteria to guide the researchers in their selection of the most appropriate score.
- B. **'Dataset questions'** broken down into 10 yes/no checklist questions, and a number of prompts for additional evidence.

Several questions can be answered drawing upon online sources, published materials and desk research. Tips on sources and searching for information are provided alongside each question. In other cases you may need to interview or consult with open data experts, NGOs, journalists, government officials or any other actors to identify the appropriate answer to a question. In these cases you must explain clearly to these sources:

- That you are undertaking research for the World Wide Web Foundation [Open Data Barometer](#), a multi-country study of open data policy and practice;
- That any responses they give may be placed in a public open dataset, and that such dataset will be shared openly at the website in the following months;
- That they are under no obligation to respond to your questions, and can withdraw from the interview at any time;

You should keep a clear written record, ideally with e-mail trail where interviews or

consultations were arranged by e-mail, to show that you have asked each source to consent to the use of their responses.

A note on maximum and minimum scores

Although the scores are in the range of zero (0) to ten (10), **allocating a score of 10 for an indicator (question) for a country should be very rare**. A score of 10 would imply virtually no room for improvement, which is not likely to be the case in the large majority of cases. Similar due care should be exercised when allocating a score of zero for an indicator. In both cases, **the evidence needs to be very strong in support of scores at the extremes (both, 10 and 0)**.

Please remember that **the scoring range is continuous and allows for all 11 scores to be used in the range of 0-10**. To guide the researcher in a consistent scoring approach, detailed and incremental criteria based on four incremental scoring threshold levels (above 0; above 3; above 5 and above 8) are provided for each question. Note that the criteria are incremental so, **each level incorporates also the criteria of the previous ones**. However, in some cases it may happen that none of the criteria for the lowest scores are fulfilled while some of the criteria for the highest scores are. In those cases you will need to use your best judgement to adapt the scores proportionally.

Providing evidence and sources along with justification

For **every question at the Readiness and Impact sections** it is very important that researchers **provide a brief and reasoned argument to explain the score choice as well as details of the sources used to answer that question**. This will support reviewers to check the answers given. **You should always provide a justification**, even when scoring a question zero (0). In these cases you must explain how you tried to locate the details requested in the question. For example, describe the searches you tried to find an open data policy or a particular dataset which ended with no evidence of a policy or that dataset being available.

For each of the questions you should also provide a 'Confidence Level' of 0%, 25%, 50%, 75%, 95% or 100% for how certain you are of the answer you have given. Space will also be provided for any **additional notes** in the survey tool. Additional notes will be available to the reviewers, but will not be published. You can use this space to note if you have any areas of uncertainty about a question response, or to record notes to yourself for following up this question further.

You **must** provide your justification, sources and notes in **English**¹. The resources linked to can be in other languages, and you should research and search for sources in the official languages of the country you are researching wherever appropriate. These **justifications should be written in clear prose, and neutral impersonal way**, avoiding the use of first person in the redaction. You need to **create your own justifications based on the findings**, using content quotations when needed to support your argument but not relying solely on them. **All justifications need to be self-contained and self-explanatory**, with no cross-references between any of them.

Sources are intended to support and supplement our justifications, but **one should be able to fully understand the justification without looking at the sources**. Numerical footnotes in **(semi-circle brackets) within the text** will be used to indicate the relevant sources used, with sources listed at the bottom of the text box. Please, **follow the specified format narrowly for context and impact questions**. For example:

Example of justification formatting:

A justification might refer to multiple web pages **(1)** to support the claims made. Include dates of access for the web links. At the relevant point in the justification text you can include footnote references, following the indicated standardised format **(2)**. It should be possible for a reviewer to easily locate all the sources you cite, or to understand the evidence you have to support each statement in your justification.

This keeps the justification prose clear, and ensures that all sources are listed in one place at the bottom of the justification box **(3)** starting with a couple of sharp signs (**##**) Sources header.

Use quotes sparingly. Good justifications rarely exceed three to four paragraphs, and can often be shorter and more concise.

Using semi-circle brackets means that the markdown processor used in the survey tool **(4)** will not distort the formatting of your content when displaying it to a reviewer.

Sources

(1): http://en.wikipedia.org/wiki/Web_page

(2): University of Chicago Press, 2010. The Chicago Manual of Style, 16th Edition.

(3): Skype interview with Hania Farhan, Web Index Team.

(4): <http://daringfireball.net/projects/markdown/>

¹ Please, use at minimum a grammar and spell checker tool before introducing the results into the survey tool if you need so.

For most questions, where a source is not available online to link to, **you can also upload supporting files through the online survey tool.**

When writing justifications...

- **Researcher's' comments are expected to offer a brief and reasoned argument to explain the score choice.** Make reference to concrete examples or details obtained from the research (interviews, reports, etc.). General or vague comments are not acceptable and will be returned to the researcher for improvement.
- **An isolated example is not enough evidence with which to select a score.** Researchers need to consider and assess the overall context (for example, is a recent scandal/incident reflective of the overall and typical situation or rather a one-time outlier?) before selecting the appropriate score.

Personal opinions and broad generalizations without specific supporting evidence within the period of study are not acceptable. Comments such as “media can sometimes be subjective” “reporters write in exchange for gifts” or “the most powerful judges are close to the government” need to be substituted for specific sources that provide real-life, concrete examples.

When citing interviews and other desk research...

- **Score choices should always reflect the project's official reporting period of 2016 July to September 2017.** Sources and score choices that fall outside the official study period by a few weeks are also allowed; beyond that, however, **sources and score choices that fall outside the study period should not be included.**
- Exercise professional judgment in determining whether opinions of an interviewee are factual and accurate. **We strongly suggest researchers corroborate information obtained in interviews with desk research and do not rely on a single personal opinion.**
- **Please use exactly the following format when citing interviews:** Interview sources must include the full name of the interviewee, the name of the interviewee's employer and job title. Example: *Jane Doe, Ministry of Justice, Director General.*
- **Anonymity:** When it is not feasible to publish the name of an interviewee (out of justified fear for the interviewee's safety or negative professional ramifications), please include the name of the interviewee in the “Additional notes” box of the survey. In the “Sources” box, simply state “Anonymous” for the interviewee name while providing as many other details as possible (e.g. Anonymous, Ministry of

Finance, government official). Web Foundation will maintain that confidentiality and no names will be published that are submitted in the “Additional notes” box.

- **Please use the following format when citing media articles:** name of author, name of publication, title of article, date published, and a URL/hyperlink (or a digital/PDF attachment if a link is not available or has expired).
- **Please use the following format when citing journal articles, written documents or other third-party desk research:** provide the full citation and whenever possible please provide a URL/hyperlink (or attach an electronic copy if a link is unavailable). Example: *Comstock, E. W. & Butler, J. W., 2000. Access denied: The FCC’s Failure to Implement Open access, Winter.*

When citing laws or regulations...

- Researchers must identify the law (full name, article, etc.), case law, specific legal articles or statutes and provide a direct quote or a detailed explanation of the law in the comments box, as needed.
- Researchers must refer, where appropriate, to case law, specific legal articles or statutes.
- Researchers are to reflect and describe applicable traditional and customary law when necessary.
- Laws cited must be domestic laws rather than international law.
- Please **use this specific format when citing laws or regulations:** Name of Law, Article, Section Number, Year, Hyperlink to law. Example: *Constitution Acts, Part I: Canadian Charter of Rights and Freedoms, Section 6. 1982.*
http://laws.justice.gc.ca/eng/Const/page-11.html#sc:7:s_6

You can ask your project manager or the research coordinator to review your first attempt at any of the questions if you are unsure of the answers you have given or the way you are providing justifications.

SECTION 2: QUESTIONS AND STRUCTURE

This document outlines in detail the construction of the Open Data Barometer scores, including details of the primary and secondary data used. The methodology used in the Leaders Edition of the Open Data Barometer seeks to repeat the analysis from previous editions, with some minor methodological revisions and two major modifications:

- The scope of the study has been reduced, now measuring 30 governments only — those that have publicly committed to adopt the [International Open Data Charter Principles](#) or the equivalent [G20 Anti-Corruption Open Data Principles](#).
- We are using absolute values in the 0-100 scale for scores now — rather than the previous scaled values — to provide more realistic evaluations of performance.

Overall, however, we have sought to maintain certain consistency with the questions used in previous editions. Wider methodological revisions will continue to be explored in future editions. In any case, **please read the question guidance carefully in each instance and in case you have any doubt don't hesitate to contact the project manager.**

Data provided by the previous edition of the Barometer for each country is available as an initial input to the research. The researcher is expected to challenge, extend, update and keep improving the quality of the answers for all Context, Impact and Datasets sections.

OPEN DATA READINESS QUESTIONS

The [ten principles of open government](#) data are:

1. Completeness
2. Primacy
3. Timeliness
4. Ease of Physical and Electronic Access
5. Machine readability
6. Non-discrimination
7. Use of Commonly Owned Standards
8. Licensing
9. Permanence
10. Usage Costs

There are many policy areas that can overlap with open data. However, for our context analysis it is important to understand that open data is conceptually **distinct** from:

- **Open government** - whilst an open government policy might mention open data, the two are not identical. Always check for explicit discussion of open data;
- **E-government** - policies to place government services online *might* have an open data element to them, but in many cases they only give citizens access to specific services or small extracts of data, rather than providing full access to machine-readable data;
- **Data sharing** - governments may increase data sharing between departments, but with limits on whom the data is shared with, or who can re-use it. It is only open data when anyone can re-use it without restrictions;
- **Open Access** - open access focuses mainly on access to (academic) documents and publications rather than datasets.

C1) To what extent is there an active and well-resourced open government data initiative in the country? [ODB.2013.C.INIT]

Evidence and scoring criteria and thresholds:

Score > 0	There should be evidence of some open data initiative or at least any explicit commitment from government to release open data.
Score > 3	There should be evidence of a national data catalogue or central portal providing easy access to datasets available for re-use in one place. Access to the data could be provided directly on the catalogue or indirectly through pointers to the place where the data is located.
Score > 5	There should be evidence of a small-scale open data initiative, even when not yet completely resourced. Senior leadership is making commitments to increased government transparency, and/or some commitments to open data are being expressed by at least a junior minister or single ministry.
Score > 8	There should be evidence of a strong and consolidated cross-departmental national open data initiative with significant resources behind it, including dedicated staff and allocated budgets . There is explicit commitment to open data from a senior government figure (e.g. Cabinet minister) and/or parliamentary backing for an open data initiative. The initiative regularly shares experience and/or technical expertise with other governments and/or international organizations or initiatives around the world (e.g. the Open Data Charter or the Open Government Partnership).

Scoring Guidance

Look for evidence of **an explicit government commitment to open data**. An open data initiative is a programme by the government to release government data online to the public. It has four main features:

1. The government discloses data or information without request from citizens. This may be according to a release schedule or *ad hoc*.
2. The Internet is the primary means of disclosure (including mobile phone applications);
3. Data is free to access and reuse, e.g. open licenses;
4. Data is in a machine-readable format to enable computer-based reuse, e.g. spreadsheet formats, Application Programming Interfaces (APIs), etc.

Significant resources for an open government data initiative include a sufficient budget, personnel and facilities to carry out the mandate of the open data initiative, including technical personnel with appropriate qualifications for dealing with open data issues.

Note that this question is only concerned with initiatives led by the **national government**. Open data initiatives covering the country, but organised by a third party, such as the African Development Bank or another regional organisation should not be counted, although you can detail these in the 'Additional notes' section.

Source Guidance

- The existence of government open data action plans, policies or directives;
- Speeches by government leaders about open data;
- Conversations with government and civil society members of the open data movement;
- Conversations with the “civic hacker” community;
- [Open Government Partnership country action plans](#) that contain explicit commitments to open data. See also the [specific Open Data Charter commitments](#) as well as the general [database of commitments](#) and [progress report](#);
- [Country statements](#) from the Anti-Corruption summit London 2016;
- Reports published by the media, academic and policy journals, and development and multilateral bodies (e.g. [World Bank](#), IFC, OECD, African Development Bank, [European Commission](#)).
- Regional reports such as the [Open Data maturity in Europe](#) (and the [Maturity Dashboard](#)), the [Overview of Open Data Policies and Practices in Asia](#), the [Status of Open Data Initiatives in West Africa](#), the [African Open Data Conference Report](#) or the [list of data portals in Latin America](#).
- The lists of known Open Government Data portals at [Open Geo Code](#), [Open Data Inception](#), [DataPortals.org](#) and the [European Data Portal](#);
- Regional open data communities, such as:
 - The Chapters and Groups of the [Open Knowledge Network](#);
 - The [European Open Data portal](#) and [JoinUP OGov](#) communities;
 - The [ILDA open data initiative](#) for Latin America;
 - The [Caribbean open data Institute](#)
 - The [Africa Open Data](#), [Open Data for Africa](#), [Open Data Francophone](#), [Open Government in the Arab States](#), [Data-Driven Innovation](#) in MENA and [Open MENA](#) networks.

C2) To what extent is there a well-defined open data policy and/or strategy in the country? [ODB.2015.C.POLI]

Evidence and scoring criteria and thresholds:

Score > 0	There should be evidence of any official websites, government documents or guidelines referencing global open data practices in the country, although no formal open data policy or strategy may be yet in place.
Score > 3	There should be evidence of at least some national statements or guidelines on the publication of public sector information, even if just as part of the open government and transparency agenda or any other more general information management programme. A common definition of open data may still not be shared across the public sector and non-commercial restrictions or access fees may exist.
Score > 5	There should be evidence of a documented national open data policy or strategy that articulates processes, responsibilities, timelines and resources and a national institution or authority is in charge of its execution. There are general guidelines and standards for data publication covering different aspects such as specific datasets to be published, formats to be used, licensing to be applied, etc. Publication of raw machine readable data and adoption of data standards are clearly promoted.
Score > 8	There should be evidence of an active national open data strategy defined for a period of at least 2 years. The national data policy establishes a general right to reuse by means of an explicit 'open by default' statement and promotes standard licenses or terms of use to be adopted by the public sector bodies without any possible access and re-use restriction more than attribution and share-alike. General open data training and awareness programmes for civil servants are available to ensure they are capable of using open data effectively. The release of data is considered as part of the regular government performance indicators and progress reports are available.

Scoring Guidance

Governments need to develop strategies, action plans and policies in support of the implementation of the open data principles. Strategies will typically be high-level plans focused on the particular long-term goals, actions and resources for success, while action

plans and policies will define specific courses of action adopted to guide decisions towards implementation.

Our open data reference principles are those proposed by the [Open Data Charter](#) where the following [principles](#) have been established:

- Principle 1: Open by Default;
- Principle 2: Timely and Comprehensive;
- Principle 3: Accessible and Usable;
- Principle 4: Comparable and Interoperable;
- Principle 5: For Improved Governance and Citizen Engagement;
- Principle 6: For Inclusive Development and Innovation.

Look for all or at least most of these features in the policy you are assessing for it to receive the maximum scores.

Source Guidance

- The existence of government open data action plans, guidelines, strategies, policies or directives;
- The existence of supranational open data policies or directives affecting the country;
- The existence of other public sector information or information innovation programmes;
- Speeches by government leaders about open data;
- Conversations with members of the open data movement, both government and civil society;
- [Open Government Partnership country action plans](#) that contain explicit commitments to open data. See also the [specific Open Data Charter commitments](#) as well as the general [database of commitments](#) and [progress report](#);
- [Country statements](#) from the Anti-Corruption summit London 2016;
- Documentation available at the different official open data portals. See some lists of known Open Government Data portals at [Open Geo Code](#), [Open Data Inception](#) and [DataPortals.org](#);
- Regional analysis such as the [Implementation of the Public Sector Information Directive](#) in Europe, the [Overview of Open Data Policies and Practices in Asia](#) or the [ICT policies database in Africa](#).
- Reports published by the media, academic and policy journals, and development and multilateral bodies (e.g. [World Bank](#), IFC, OECD, African Development Bank, [European Commission](#)).

C3) To what extent is there a consistent (open) data management and publication approach? [ODB.2015.C.MANAG]

Evidence and scoring criteria and thresholds:

Score > 0	There should be at least some minimal description of the datasets through the provision of metadata, even when it may not be completely standardised and could be used in an inconsistent way across different agencies or departments. A basic general data management methodology from the National Statistics Office could also count for these low scores.
Score > 3	There should be shared common core metadata elements used across government. Regular public consultations on the user's data needs and preferences are conducted (through online systems, social media, workshops, etc.), as well as when there are significant changes in the structure or supply of data already published. Requests are being addressed and responded.
Score > 5	There should be a standardized release process for the publication of data sets, addressing also future updates. Comprehensive machine readable metadata is regularly provided. Multiple format human and machine-readable options are usually available for each of the published datasets. There is a set of technical standards (including metadata, data models, codelists and identifiers) for the publication of (open) data.
Score > 8	There should be a single and exhaustive (open) data inventory for the central government, including justifications for data not to be released. Consistent information lifecycle management practices are applied, ensuring that historical copies of datasets are preserved. Publishing processes are documented and shared online and user's guides for reference data are available. There is a quality control process for the data covering various aspects such as completeness, granularity, timeliness, persistence, etc. User's feedback on the quality of data published is also requested.

Scoring Guidance

When releasing data, no matter whether they could be considered strictly open or not, one should aim to do so in an uniform way across the different agencies and departments to help people to use and understand them. Data needs to be fully described, as appropriate, to help users to fully understand the data. Following the [recommendations of the Open Data Charter](#), this may include:

- Implementation of consistent, open standards related to data formats, interoperability, structure, and common identifiers when collecting and publishing data;
- Consistent core metadata;
- Information to understand the source, strengths, weaknesses, and analytical limitations of the data;
- Accompanying guidance documentation that is written in clear, plain language; and
- Being transparent about data collection, standards, and publishing processes by documenting these processes online.

At the same time, governments need to listen to feedback from data users to improve the breadth, quality and accessibility of data they offer. This could be in the form of a public consultation, discussions with civil society, creation of a feedback mechanism on the data portal, or through other appropriate mechanisms.

Source Guidance

- The existence of government data management and/or publication guidelines and data standards policies;
- Documentation of official open data catalogs;
- Evidence of adoption of international reference metadata and data standards (e.g. [DCAT](#), [DCAT-AP](#), [oData](#), [Best Practices for the Publication of Data on the Web](#), etc.);
- Conversations with members of the open data movement, both government and civil society;
- Conversations with government officials working in open data offices or projects;
- Conversations with the “civic hacker” community;
- Conversations with data entrepreneurs and researchers;
- Reports published by the media, academic and policy journals, and development and multilateral bodies (e.g. [World Bank](#), IFC, OECD, African Development Bank, [European Commission](#), [African Data Revolution](#));
- The [ICT policies database in Africa](#).

C4) To what extent is there a robust legal or regulatory framework for protection of personal data implemented in the country? [ODB.2013.C.DPL]

Evidence and scoring criteria and thresholds:

Score > 0	There should be evidence of a legal or regulatory policy to promote data protection of some form.
Score > 3	There should be evidence that the legal or regulatory policy that promotes data protection is concise and useful in practice. some cases where it was used and applied should be provided.
Score > 5	There should be evidence that the legal or regulatory policy that promotes data protection exists but is missing some of the key elements understood to promote best practice around data protection policies, including broad applicability, the right of choice/consent to individuals, the right to access and/or correct one's personal data, clear responsibilities on information holders (data-controllers), and/or the right of redress against both private and public bodies that violate data privacy.
Score > 8	There should be evidence that the legal or regulatory law that promotes data protection exists and has been implemented in practice , provides the right of choice/consent to individuals, provides the right to access and/or correct one's personal data, imposes clear responsibilities on information holders (data-controllers) and provides a right of redress against both private and public bodies that violate data privacy. In accordance with privacy legislation and standards, data is anonymised prior to publication, ensuring that sensitive, personally-identifiable data is removed beforehand.

Scoring Guidance

This indicator addresses whether the country's data protection regime is not only available, but also implemented in an "effective" way. The basic requirements for strong data protection regimes include the key features noted below:

- (1) **Broad applicability** – these rules should apply to personal data sets and data controllers in both the public and private sectors.
- (2) **The right of choice/consent** – Individuals should normally be given the choice of whether their information is collected. There should be only limited exceptions to this

where there is an overriding interest, defined in law, in the collection of such information. This implies that individuals understand and are given clear notice of a public or private body's information practices before any personal information is collected. This notification should describe what information is proposed to be collected and held, who will collect it, how the information will be used and who will have access to it. It should also be clear to the subject whether the provision of the requested information is voluntary or required by law and of the consequences of refusing to provide the requested information. Information should not be used for purposes that are incompatible with the use for which the information was originally collected.

(3) **The right to access and correct** – Individuals should have the right of access to any information held about them at reasonable intervals and without undue delay. They should also have the right to require the data controller to correct any inaccuracies or to delete the data, where appropriate.

(4) **The responsibilities of information holders** – Data controllers must take reasonable steps to ensure that the information they hold is accurate and secure. Access to the data should be limited in accordance with the established uses of the data. Transfers should be made only to third parties that can ensure similar respect for data protection principles. Data should be destroyed once the information is no longer needed for the established uses, or converted to anonymous form. While information is held, appropriate steps should be taken to ensure the confidentiality, integrity and quality of the data.

(5) **The right of redress** – Individuals should have the right of redress against public and private bodies that fail to respect data protection rules in relation to data about them. Remedies can be provided through self-regulation, private law actions and government enforcement. Oversight of the system should be undertaken by an independent body.

Source Guidance

- This 2012 paper about [Global Data Privacy Laws](#) provides a list of 89 countries with data protection laws and the names of the laws to assist in researching whether a law is effectively implemented;
- The [State of Privacy Briefings](#) from Privacy International.
- National and supranational data protection legislation;
- Interviews with senior officials from the information commission or data protection commission;
- Interviews with NGO officers with expertise in data protection and access-to-information issues and also investigative journalists;

- Experts in data privacy, information privacy or access to information, such as academics, researchers and think tanks;
- News and reports published by the media, academic and policy journals, and development and multilateral bodies (e.g. [World Bank](#), IFC, OECD, African Development Bank, [European Commission](#)).

C5) To what extent does the country have a functioning Right to Information (RTI) / Freedom of Information (FoI) law? [ODB.2013.C.RTI]

Evidence and scoring criteria and thresholds:

Score > 0	There should be evidence of some form of legal or regulatory right to information from government, even though it might not be implemented. Policy statements have been made that this issue will be addressed in government policy, although implementation remains weak.
Score > 3	There should be evidence that the legal or regulatory right to information law is responded to when there are requests for the information, through a dedicated agency or channel, although the response time may be slow and the quality of the information provided may not be as requested. Implementation is patchy and not yet widespread.
Score > 5	There should be evidence that the legal or regulatory regime which exists guarantees citizens access to information. A dedicated agency exists to deal with enquiries and to adjudicate cases or request for information from government that are refused. Response rate from this agency is fairly prompt (within a few months).
Score > 8	There should be evidence that citizens generally receive responses to requests for government information within the legally stipulated time as governed by the RTI / FOI law and at the cost defined by law. The responses are typically of acceptable quality. An RTI law or similar legal right enshrines the right to such requests. There is a redress mechanism with a dedicated agency that adjudicates cases that are refused by the government, and this role is taken seriously and there is evidence of its work being effective and respected. The law also foresees a right to data with the obligation to publish data proactively as open by default (with some reasonable security and privacy exceptions) and sets requirements on formats for the disclosure of information that enable a general right to reuse. Right to freedom of expression is also respected by protecting those who use open data to identify corruption or criticize governments.

Scoring Guidance

This indicator addresses whether the country's disclosure requirements are not only available, but also implemented in an "effective" way. The basic requirements for them to be considered "effective" are whether information is:

- A. available to the public for free or at reasonable/minimal costs in a variety of venues (e.g., online, government agency offices);
- B. can be accessed by citizens within a timeframe as defined by the law; and
- C. answers the specific request, with explanations for refusal to release information.

For a 10 score, there can be exceptions in which information is not released to protect national security or public interests clearly prescribed by law (e.g., medical records, sexual orientation, etc.), but the legal reason must be stated clearly in the response from the government to the citizen who requested the information. Proactive publication with reusable formats is also required.

Source Guidance

- Non-exhaustive databases of right-to-information laws: [RTI Rating](#), [Constitutional provisions, laws and regulations](#), [Public Accountability Mechanisms](#) and the [ICT policies database in Africa](#);
- The [Access to Information Commitments](#) in [OGP Action Plans](#). See also the [database of commitments](#) and [progress report](#);
- Regional analysis such as the [Global Integrity Access to Information & Openness](#) or the [State of Right of access to Information in Africa](#) Report;
- [freedominfo.org](#) as the one-stop portal that describes best practices and links the efforts of freedom of information advocates around the world;
- Interviews with NGO officers with expertise in access-to-information issues and investigative journalists;
- If there is a national agency in charge of handling appeals to denials for request of information, then researchers should interview government officials who work for this agency to obtain a sense of the conditions in which an agency denies (or grants) information;
- Reports published by the information agency, media reports and publications by development/donor agencies;
- For researchers to find statistics, they should refer to the national statistical agency or the appropriate governmental agency that houses statistical information;
- The [Principles on national security and right to information](#);
- [Freedom of the Press index](#) ranks 180 countries according to the level of freedom available to journalists.

C6) To what extent are civil society and/or information technology professionals engaging with the government regarding open data? [ODB.2013.C.CSOC]

Evidence and scoring criteria and thresholds:

Score > 0	There should be evidence of some minimal demand or use of open data by civil society and/or information technology professionals.
Score > 3	There should be evidence of some data users' engagement and interaction, even when it may be basically just through the use of online services to interact, communicate and reach out to the community in general (e.g. blogs, social media, etc.)
Score > 5	There should be evidence of demand or engagement over open data from individuals or communities, although it may be isolated and with no coordinated campaign for open data usage. At this stage the government does not engage with the community regularly although it shows proactive efforts towards it, such as specific public consultations or communication strategies designed to make civil society and IT professionals aware of the benefits and possibilities of open data.
Score > 8	There should be evidence of coordinated campaign(s) calling for open data or working with governments to promote open data and create value. The government regularly engages with the user community and there are regular outreach events and activities to promote the use of open data, including at least one regular national or inter-regional event with government participation that serves as a forum for the discussion of the status of open data in the country. Non governmental organizations are starting to contribute to the enrichment of government data with new data collected by them. Public-private partnerships, with civil society, private sector organizations or other multilateral institutions, are being explored to support the release of open data and maximize impact through effective use.

Scoring Guidance

This question focuses on engagement campaigns and actions instead other innovation collaborative activities (such as hackathons, grants or competitions which are covered by question C7). Campaigns for open data are often composed of civil society organizations, data technologists, informational professionals, computer experts and ordinary citizens who advocate for greater access to government data. We need a short description of the current

ecosystem, including who specifically are the current main stakeholders. Lower scores are compatible with interactions focused only on one of the groups, but higher scores require broader interaction involving all the different groups. A 10 score indicates that government officials recognize these organized campaigns and engage regularly in discussion with community leaders and representatives from **all** these different groups about which data to release, when and in what forms, exploring also other collaborations.

Source Guidance

- Online evidence of an open data community, including reports of events and other activities;
- Conversations with open data specialists in civil society organizations or individuals who are directing open data campaigns;
- Conversations with government officials working in open data offices or projects;
- Conversations with NGO officers with expertise in open-data and access-to-information issues, and investigative journalists;
- Reports published by the media, academic and policy journals, and development and multilateral bodies (e.g.: Web Foundation, Open Knowledge Foundation, Sunlight Foundation, etc.)
- Regional open data communities, such as:
 - The Chapters and Groups of the [Open Knowledge Network](#);
 - The [European Open Data portal](#) and community;
 - The [ILDA open data initiative](#) for Latin America;
 - The [Caribbean open data Institute](#);
 - The [Africa Open Data](#), [Open Data for Africa](#), [Open Data Francophone](#), [Open Government in the Arab States](#), [Data-Driven Innovation](#) in MENA and [Open MENA](#) networks.

C7) To what extent is government directly supporting a culture of innovation with open data through competitions, grants or other support actions? [ODB.2013.C.SUPIN]

Evidence and scoring criteria and thresholds:

Score > 0	There should be some isolated efforts to support a culture of innovation, but these actions may come exclusively from the civil society side with no government support.
Score > 3	There should be a range of interventions to support a culture of innovation, including challenges, hackathons, informative sessions or co-creation sessions, but government is not directly involved and its support may be only testimonial.
Score > 5	There should be evidence of a range of frequent interventions to support a culture of innovation. For example, there are three or more examples of initiatives such as competitions, funding schemes or hackathon events within the year that foster the development or co-creation of datasets, visualizations, applications, and other tools based on open data. These have the support and participation of the government, and two or more different departments or agencies are involved in running these schemes.
Score > 8	There should be evidence of substantial continuous commitment from government to support and empower a data-driven culture of innovation with open data, including significant financial incentives to create new services and value and supporting a range of different activities for the promotion of data innovation. These include also events targeting entrepreneurship, private sector use of open data, sectoral approaches and empowerment of marginalised communities. Multiple government departments are involved in supporting innovation with open data and there are dedicated teams in government charged with exploring data possibilities and developing new products and tools.

Scoring Guidance

Governments can adopt a range of approaches to stimulate a culture of innovation around open data including:

- **Running competitions** in which prize money is offered to innovators creating tools, services or commercial applications using open data;

- **Organising [hackathon events](#)** which invite developers to create prototype tools and services over one or two day events;
- **Organising incubators, labs and open data boot camps** specifically targeted at supporting innovative uses of open data;
- **Offering grant funding or [innovation vouchers](#)** specifically targeted at encouraging businesses to engage with open data;

Sometimes these are run as one-off activities, organised with minimal budgets by small groups of staff. In these cases, a maximum score of 5 should be given. To receive a score of 10 there should be clear evidence of government dedicating investment to support innovation with open data, including support to private sector re-users of open data.

If you find a number of non-government activities to support innovation with open data you may include details of these in the additional notes field, but only events with significant government involvement should feature in the score you give.

Source Guidance

- Conversations with open data activists, government officials involved in open data, or entrepreneurs working on open data in the country;
- Search for government press releases and announcements about support for open data innovation activities;
- Search for donor press releases, project funding documents and announcements of support for open data innovation activities;
- Search for ‘hack days’, ‘open data boot camps’, ‘open data competitions’, ‘open data challenges’ ‘open data hackathons’ and check to identify if any of these were supported by government;
- Open data incubation programmes for entrepreneurship, such as [Finodex](#) or [ODINE](#);
- Global open data innovation events and programmes such as the [annual open data day](#);
- Research and innovation networks such as the [Open Data Research Network](#) the [Open Data for Development Network](#) and the [Open Data Innovations Network](#);
- Regional open data communities, such as:
 - The Chapters and Groups of the [Open Knowledge Network](#);
 - The [European Open Data portal](#) and community;
 - The [ILDA open data initiative](#) for Latin America;
 - The [Caribbean open data Institute](#);
 - The [Africa Open Data](#), [Open Data for Africa](#), [Open Data Francophone](#), [Open Government in the Arab States](#), [Data-Driven Innovation](#) in MENA and [Open MENA](#) networks.

C8) To what extent are city, regional and local governments running their own open data initiatives? [ODB.2013.C.CITY]

Evidence and scoring criteria and thresholds:

Score > 0	There should be evidence of at least some open data activity at the city or regional level, even if just incipient.
Score > 3	There should be evidence of open data initiatives in at least the national or state capitals. These should be running their own open data initiatives with dedicated data catalogues.
Score > 5	There should be evidence of a number of different cities or regions across the country with open data initiatives beyond the national or state capitals. These may be predominantly run by civil society, or may have limited resources dedicated to them.
Score > 8	There should be evidence of the presence of open data initiatives in most of the largest cities and regions in the country as well as in other smaller ones. The majority of these should have strong political backing and be well resourced with their own dedicated policies. Some level of coordination between these initiatives and the national one is also expected.

Scoring Guidance

Open government data does not just involve central government. Regional, city and local government may all adopt open data initiatives. The criteria of an open data initiative are the same as in the C1 question.

You can use the [list of the largest cities by population for each country](#) from Wikipedia.

For a score of 10 check the top-10 cities by population (10 largest States by population for federal systems), but also activity at some slower ones.

Source Guidance

- Conversations with open data specialists in civil society organizations or individuals who are directing open data campaigns at the subnational level;
- Conversations with government officials working in open data offices or projects;

- Conversations with NGO officers with expertise in open-data and access-to-information issues, and investigative journalists;
- Searching for data portals and platforms run by cities or regions;
- Reports published by the media, academic and policy journals, and development and multilateral bodies (e.g.: Web Foundation, Open Knowledge Foundation, Sunlight Foundation, etc.);
- The lists of known Open Government Data portals at [Open Geo Code](#), [Open Data Inception](#) and [DataPortals.org](#);
- Maps of subnational open data initiatives, such as the ones for [France](#) or [Spain](#);
- [Open Data in Cities](#) report from the European Data Portal;
- Regional open data communities, such as:
 - The [European Open Data portal](#) and community;
 - The [ILDA open data initiative](#) for Latin America;
 - The [Caribbean open data Institute](#);
 - The [Africa Open Data](#), [Open Data for Africa](#), [Open Data Francophone](#), [Open Government in the Arab States](#), [Data-Driven Innovation](#) in MENA and [Open MENA](#) networks.

C9) To what extent is training about open data available for individuals or businesses who want to increase their technical skills or develop businesses to use (open) data? [ODB.2013.C.TRAIN]

Evidence and scoring criteria and thresholds:

Score > 0	There should be evidence of some training available, but in a very limited way, mostly as informative sessions focused on general data and/or open data issues or mainly from outside the country (including online training).
Score > 3	There should be evidence of limited access to training on general data issues, such as general data technology, statistics and data visualisations, but not specifically on the peculiarities of open data.
Score > 5	There should be evidence of limited access to training on more specific data issues, such as data science, geographic information systems (GIS) and big data as well as open data issues, like the business and legal aspects of open data. Whilst there may be some examples of training that would equip those trained to operate in a global marketplace, the majority of training may be of middling or low quality.
Score > 8	There should be widespread access to high quality training covering the full range of data analytics and open data issues, as well as other thematic training such as geodata or data journalism. Both basic and advanced training are available from a range of different providers and in a range of cities and locations across the country. Much of the training provided is 'world class' and would equip those trained to operate in a global marketplace. Data literacy has been incorporated into educational curricula both, at schools and post-secondary education institutions.

Scoring Guidance

Working with open data involves a wide range of knowledge and skills, including:

- **Web technologies** - covering issues such as web development, publishing data on the web, and building applications with open data for a range of platforms, including mobile;
- **Data science** - covering core statistical skills, and the ability to work with large online data sets from heterogeneous sources;
- **Data visualisation** - covering design and programming skills to create interactive and static data visualisations and infographics;

- **Big data** - covering techniques to mine and analyze big amounts of structured and unstructured data.
- **Legal aspects of open data** - addressing issues such as the licensing of open datasets, and legal issues in open source, open data and open knowledge;
- **Business aspects of open data** - addressing the creation of commercial enterprises on top of open data or open source - delivered through formal training or business mentoring and incubation programmes.

Training may be delivered through i), both full-time and part-time, or through professional development courses. Training may also be delivered through business incubator programmes, or short-term boot-camp training events. Training on general web and data technologies, data science and visualisations, and increasingly also on more specific open data issues, is usually available through university curriculums and programmes.

Where training events are one-off, or short-term donor funded interventions in one or two locations in the country, the maximum score available should be 5. Where training on the majority of the topics noted above is accessible to businesses and individuals in the country who may be interested in it, then a score of 10 should be given.

Where online training is available in languages accessible to businesses and individuals in the country, *and* there is evidence that this training is used by nationals of the country, then this may count towards your assessment of 'limited access to training' (5), but online only courses should not be taken to count towards 'widespread access to training' (10).

Source Guidance

- Conversations with developers and technology businesses interested in developing their open data capacity to identify the training they access;
- Conversations with training providers about the courses offered and the range of courses available;
- Course directories and promotional material from further and higher education providers, including universities;
- Web searches for training providers on the particular topics noted above;

OPEN DATA IMPACT QUESTIONS

I1 to I6 ask you to assess the degree to which there is any evidence that **open data release by the country government** has had impacts in a variety of different domains in the country. Note that, even in the case **when a given country may not have an official open data initiative yet some impact could still be possible** coming from government data that could have been released by any other means.

The Scoring Criteria invite you to look for credible claims made in academic and scientific publications, use cases, mainstream media and other accredited online sources which explicitly attribute certain impacts to open data released by the country government. **The highest scores are only available where there is peer-reviewed or audited evidence of impact.**

A side note on ‘impact’

Measuring impact is notoriously difficult. Establishing a solid causal connection between open data and particular changes is clearly beyond the scope of a survey such as the Barometer. However, for the purpose of the Barometer, claims made in credible sources concerning possible impacts of open data are a useful proxy indicator of areas in which impact may be occurring, and to allow initial comparison between countries.

Claims about impact go beyond simple descriptions of where open data has been used. For example, a newspaper might report that open data has been used to create a bus timetables application, to visualise the budget of the country, or in a hackathon focussed on public services. It is only when they relate this to some other outcome, such as budget savings, or an increase in use of public transport, that an impact claim has been made.

General Impact Scoring Guidance

With the exception of question I6, for each topic area **you should carefully check to ensure the impacts you cite can be reasonably attributed to open government data from the country in question and released by the national or federal government.** For example, a crowdsourcing application created by an NGO to monitor public services may contribute to more efficient government, but if it does not use open data from government then, for the purposes of these questions, you should not include it in your analysis. By contrast, if a government publishes data on its spending, and there are cases of third-parties using this to highlight where government could use its resources more efficiently, this would count as a case where impact could be cited from open government data.

Where examples draw on open data from outside the country (e.g. an ICT based in the country is using open data from the World Bank, some other government, or some global dataset) or city level data you may report this in Justifications and Sources, but these examples should not count towards scores higher than 5, as higher scores are only available where the data being used comes from the national government's open data releases.

The top score (10) should only be given where at least one credible peer reviewed article clearly attributes measurable impacts to open data *and* there are further cases of impact in other credible media sources and blog posts etc. The justification of the highest 'widespread impacts' scores should also include examples cited from **at least three different sectors** (e.g. health, education, transport).

I1) To what extent has open data had a noticeable impact on increasing government efficiency and effectiveness? [ODB.2013.I.GOV]

Scoring Criteria

10	5	0
Open data is widely cited to have made a significant contribution to government efficiency, with rigorous evidence to back these claims: for example a peer-reviewed study or government audit showing the contribution of open data to government efficiency.	Two or more cases in the media or credible online sources where open data is cited to have contributed to increased government efficiency	No evidence of impact. For the purpose of this indicator, if no relevant open government data is available the score should also be 0.

Scoring Guidance

Open data could lead to improvements in government efficiency and effectiveness in a number of ways:

- By enabling government departments to better plan and target resources;
- By allowing outside actors to scrutinise government use of resources and highlight areas for savings;
- By enabling outside actors to build new services on top of open data which deliver more effective public services;
- By supporting collaboration between different government departments;
- By conducting data analytics to identify patterns and develop new data-driven approaches to more informed policy making and service delivery;
- By cross linking data between different public agencies to produce shared content, services and policies among administrations.

You may find other ways that open data impacts government efficiency and effectiveness in addition to these.

Source Guidance

- Conversations with open data experts, government officials, NGOs and media;
- Reports and case studies from government departments, international organisations and NGOs;
- Media reports from domestic or international media;
- Blog posts and forum discussions;
- Research and innovation networks such as the [Open Data Research Network](#) [Open Data for Development Network](#) and the [Open Data Innovations Network](#);
- Repositories of research journals, such as [Google Scholar](#) or the [Open Data Research Network Bibliography](#);
- Repositories of open data impact case studies and use examples such as [Open Data's Impact](#), the [Open Data in Developing Countries report](#), the [Open Governance Research Exchange](#), the [Open Data Impact Map](#) or those [curated by the GovLab](#).

I2) To what extent has open data had a noticeable impact on increasing transparency and accountability in the country? [ODB.2013.I.ACCOUNT]

Scoring Criteria

10	5	0
Open data is widely cited to have made a significant contribution to increased transparency and accountability, with rigorous evidence to back these claims: for example, a peer-reviewed study showing a positive impact on transparency and accountability.	Two or more cases in the media or credible online sources where open data is cited to have contributed to greater transparency and accountability.	No evidence of impact. For the purpose of this indicator, if no relevant open government data is available the score should also be 0.

Scoring Guidance

Open data could lead to improvements in government transparency and accountability in a number of ways:

- Supporting journalism and data journalism which uncovers wasteful spending, corruption or other wrongdoing by government departments or officials;
- Supporting the creation of applications which allow citizens to report on their experience of government services (for example, when a directory of schools or hospitals helps third-parties build a school or healthcare performance reporting application for citizens);
- Supporting scrutiny of government decision making;
- Supporting greater citizen engagement in policy making.

You may find other ways that open data impacts government transparency and accountability in addition to these.

This question is intended to evaluate whether open data is being used by civil society, individuals or non-government professionals to increase government transparency and accountability. Examples include applications to leverage open data around budgets, expenditure tracking, procurement, taxation and policy making, as well as accountability mechanisms such as financial disclosure, conflict-of-interest restrictions, audit systems and anti-corruption efforts.

Researchers should first check the websites of ministries such as health, education, transportation or agriculture for available open data. They should also check for national

open data portals that make data available to the community free of charge (e.g., Open Data Kenya, Healthdata.gov, Data.gov.uk). If there is available open data in a country, further investigation should be done to evaluate the extent that this data is used to improve government transparency and accountability.

Source Guidance

- Conversations with open data experts, government officials, NGOs and media;
- Reports and case studies from government departments, international organisations and NGOs;
- Media reports from domestic or international media;
- Blog posts and forum discussions.
- Research and innovation networks such as the [Open Data Research Network](#) the [Open Data for Development Network](#) and the [Open Data Innovations Network](#);
- Repositories of research journals, such as [Google Scholar](#) or the [Open Data Research Network Bibliography](#);
- Repositories of open data impact case studies and use examples such as [Open Data's Impact](#), the [Open Data in Developing Countries report](#), the [Open Governance Research Exchange](#), the [Open Data Impact Map](#) or those [curated by the GovLab](#).

13) To what extent has open data had a noticeable impact on environmental sustainability in the country? [ODB.2013.I.ENV]

Scoring Criteria

10	5	0
Open data is widely cited to have made a significant contribution to the environmental sustainability, with rigorous evidence to back these claims: for example a peer-reviewed study showing the impact of an open dataset on environmental sustainability.	Two or more cases in the media or credible online sources where open data is cited to have had an impact on environmental sustainability.	No evidence of impact. For the purpose of this indicator, if no relevant open government data is available the score should also be 0.

Scoring Guidance

Open data could lead to impacts on environment sustainability in a number of ways:

- Through enabling greater scrutiny of pollution impacts, climate change or environmental impacts of government projects or private enterprise;
- Through supporting greater attention to be paid to environmental factors in planning projects;
- Through encouraging government buildings to make more efficient use of energy;
- Through raising citizens awareness of their own environmental impacts;
- Through supporting campaigns on environmental issues.

You may find other ways that open data impacts environmental sustainability in addition to these.

You may include in your assessment open datasets which, whilst not directly published by government, are published as a result of a government mandate. For example, where a regulator may require that factories publish pollution statistics. However, you should check that the published data is **open data**, licensed for reuse in these cases.

This question is intended to evaluate whether open data is being used by civil society, individuals or non-government professionals to enhance environmental sustainability. Examples of areas where open data can be applied are alternative energy (solar, wind, hydro), energy-efficient construction, pollution (air, water, soil), water usage, waste management and sewage treatment, recycling programs and climate change.

Researchers should first check the websites of ministries such as health, education, transportation or agriculture for available open data. They should also check for national open data portals that make data available to the community free of charge (e.g., Open Data Kenya, Healthdata.gov, Data.gov.uk). If there is available open data in a country, further investigation should be done to evaluate the extent that this data is used to enhance environmental sustainability.

Source Guidance

- Conversations with open data experts, government officials, NGOs and media;
- Reports and case studies from government departments, international organisations and NGOs;
- Media reports from domestic or international media;
- Blog posts and forum discussions.
- Research and innovation networks such as the [Open Data Research Network](#) the [Open Data for Development Network](#) and the [Open Data Innovations Network](#);
- Repositories of research journals, such as [Google Scholar](#) or the [Open Data Research Network Bibliography](#);
- Repositories of open data impact case studies and use examples such as [Open Data's Impact](#), the [Open Data in Developing Countries report](#), the [Open Governance Research Exchange](#), the [Open Data Impact Map](#) or those [curated by the GovLab](#).

I4) To what extent has open data had a noticeable impact on increasing the inclusion of marginalised groups in policy making and accessing government services? [ODB.2013.I.INC]

Scoring Criteria

10	5	0
Open data is widely cited to have made a significant contribution to the inclusion of marginalised groups, with rigorous evidence to back these claims: for example a peer-reviewed study showing the greater inclusion of at least one marginalised group.	Two or more cases in the media or credible online sources where open data is cited to have allowed marginalised groups to participate in either policy making, or accessing government services.	No evidence of impact. For the purpose of this indicator, if no relevant open government data is available the score should also be 0.

Scoring Guidance

All societies have certain groups who are marginalised. This may be on grounds of age, gender, race, tribe, caste, class, disability, geographic location, and levels of poverty or inequality in general. Whilst these groups are not explicitly prohibited from accessing and using open data, they may not always be able to have effective access to open data.

It has been argued however that open data can lead to more inclusive policy making and government services. This may happen through the direct use of open data by marginalised groups, or through the work of intermediary organisations who support marginalised groups to access and use data, or who use data to campaign for the greater inclusion of marginalised groups in decision making or in receiving the benefits of public services.

Source Guidance

- Conversations with open data experts, government officials, NGOs and media;
- Reports and case studies from governments, international organisations and NGOs;
- Media reports from domestic or international media;
- Blog posts and forum discussions;
- Research and innovation networks such as the [Open Data Research Network](#) the [Open Data for Development Network](#) and the [Open Data Innovations Network](#);
- Repositories of research journals, such as [Google Scholar](#) or the [Open Data Research Network Bibliography](#);
- Repositories of open data impact case studies and use examples such as [Open Data's Impact](#), the [Open Data in Developing Countries report](#), the [Open Governance Research Exchange](#), the [Open Data Impact Map](#) or those [curated by the GovLab](#).

15) To what extent has open data had a noticeable positive impact on the economy? [ODB.2013.I.ECON]

Scoring Criteria

10	5	0
Clear rigorous evidence of a contribution of open data to a range of forms of new economic activity and/or economic growth; for example, a peer-reviewed study showing a positive impact on economic growth across a number of sectors.	Multiple cases in the media or credible online sources where open data is cited to have contributed to economic growth in at least two different sectors.	No evidence of impact. For the purpose of this indicator, if no relevant open government data is available the score should also be 0.

Scoring Guidance

Open data may impact on the economy in a number of ways. For example:

- Through supporting existing businesses to lower their costs or become more efficient (for example, using weather or transport data to better plan their operations)
- Through supporting better economic planning.

This question focuses on the impact of open data on the traditional economy sectors. Potential economic gains through entrepreneurship and new data business models is covered by question 16. There are many articles concerning the potential contribution of open data to economic growth, but to score 10, studies or credible sources cited should be about actual observed economic growth, rather than forecasts of potential economic impacts from open data.

Source Guidance

- Conversations with businesses, open data experts, government officials, NGOs and media;
- Reports and case studies from government departments, international organisations and NGOs;
- Media reports from domestic or international media;
- Blog posts and forum discussions;
- Research and innovation networks such as the [Open Data 500 Network](#), the [Open Data Research Network](#), the [Open Data for Development Network](#) and the [Open Data Innovations Network](#);
- Repositories of research journals, such as [Google Scholar](#) or the [Open Data Research Network Bibliography](#);

- Repositories of open data impact case studies and use examples such as [Open Data's Impact](#), the [Open Data in Developing Countries report](#), the [Open Governance Research Exchange](#), the [Open Data Impact Map](#) or those [curated by the GovLab](#).

16) To what extent are entrepreneurs successfully using open data to build new businesses in the country? [ODB.2013.I.ENTR]

Scoring Criteria

10	5	0
There are five or more examples of successful and thriving new businesses based around open data, employing staff and/or attracting significant external investment.	There are small scale examples of commercial apps, websites or other businesses built with open data. These remain niche or small scale businesses.	There is no evidence of entrepreneurial use of open data.

Scoring Guidance

This question focuses specifically on entrepreneurial use of open government data (including also government data sources from other countries). You can read about [a range of existing open data business models](#). An entrepreneurial use of open data involves a company that:

- Earns revenue from its products and services, and
- Use open government data as a **key resource** for its business.

Be careful to distinguish business based on **open data** (explicitly citing certain open datasets as a key input into their work) from businesses based around open source software. Open source software is distinct from open data, and open source businesses do not count for this question.

Source Guidance

- Conversations with businesses, open data experts, government officials, NGOs and media;
- Reports and case studies from government departments, international organisations and NGOs;
- Media reports from domestic or international media;
- Blog posts and forum discussions;
- Research and innovation networks such as the [Open Data Research Network](#) the [Open Data for Development Network](#) and the [Open Data Innovations Network](#);
- Repositories of research journals, such as [Google Scholar](#) or the [Open Data Research Network Bibliography](#);
- Repositories of open data impact case studies and use examples such as [Open Data's Impact](#), the [Open Data in Developing Countries report](#), the [Open Governance Research Exchange](#), the [Open Data Impact Map](#) or those [curated by the GovLab](#);
- The [repository of open data driven companies in emerging markets](#).

- Open Data incubation entrepreneurship programmes such as [FINODEX](#), [ODINE](#) or [Data Pitch](#).

OPEN DATASETS QUESTIONS

To assess how far open data policies are being implemented the following questions ask you about whether government makes available data on a range of different topics in this country, and where the best sources for that data may be.

Search tips: locating datasets online

1. **If the government has a central open data portal search there first.** If you are not sure if the country has an open data portal search the web for relevant mentions. You might also find data portals from specific departments, particularly national statistics agencies.

You can also find two extensive lists of known Open Government Data portals at The lists of known Open Government Data portals at [Open Data Inception](#) and [DataPortals.org](#) **Note:** neither of these sources are authoritative, and may contain outdated data, or may miss out on data, particularly information not accessible in English. **You should confirm for yourself any information on datasets gathered or missing from these sites.**

2. **Check the websites of any government departments or agencies who may be responsible for this dataset** - use their internal search features to look for the relevant data or to search for 'open data' to see if they contain a listing of available datasets.

Consider using the 'site:' and 'filetype:' operators in Google search as explained below to probe the websites if their in-built search is not very effective.

3. **Search the web for mentions of this data or any other pointers to a possible dataset.** In addition, to identify whether a dataset is available, and available as open data, you might:
 - Enquire with the relevant government department directly;
 - Ask on the mailing lists of the local open data community if one exists;
 - Consult academics who work with this kind of data to identify whether they have found sources for it.

Using 'site:' and 'filetype:' operators.

Google search has two advanced search options that can help you locate data.

1. The 'site:' operator restricts search to files indexed by Google on the site(s) you specify.

For example, having located the website of the Geospatial agency in Indonesia I can run the search:

[site:bakosurtanal.go.id "open data"](#)

to search for mentions of the phrase "open data" anywhere on the website. I could also widen the search to check on any government website using 'go.id' as the site. For example:

[site:go.id "open data"](#)

2. Using the 'filetype:' operator I can look for files of a particular kind. For example:

[site:bps.go.id filetype:csv](#)

searches the Statistics Indonesia website for any CSV files that may contain relevant statistical data. To explore whether a particular dataset might be available I could guess at something I would expect to find within it and add this to my query.

DATA CATEGORIES

Below you will find a list of dataset categories to be assessed, along with an operational definition of those categories. Examples are given of data that might fit into this category. The examples are not necessarily 'open data', but simply indicate the kinds of data that would meet the requirements of the question.

D1. Map Data (full coverage of the country)

A detailed digital political map of the country provided by a national mapping agency with key features such as official administrative borders, roads and other important infrastructure. Please look for maps of at least a scale of 1:250,000 or better (1cm = 2.5km).

Examples:

The United Kingdom mapping agency, the Ordnance Survey, provides open data mapping products for download:

<http://www.ordnancesurvey.co.uk/oswebsite/opendata/discover.html>

The United States Census.gov site provides detailed mapping products for download:

<http://www.census.gov/geo/maps-data/>

The Mozambique mapping agency at

http://www.cenacarta.com/modules.php?name=Downloads&d_op=viewdownload&cid=5 provide shape files for download.

D2. Land Ownership Data

A dataset that provides national level information on land ownership, tenure and location. This will usually be held by a land registration agency and/or national cadaster, and usually relies on the existence of a national land registration database.

Research tips:

A simple land ownership search field alone is not enough for this dataset to be considered available if it is not supplement with any mechanism that facilitates access to the data of any registry without requiring knowing the owner or other details in advance.

The [Land Portal](#) allows for the collection, sourcing, and searching of otherwise fragmented and inaccessible data and information on land governance and land use from diverse sources, produced by governments, academia, international organizations and NGOs.

Examples:

The New Zealand Land Registry makes data on '[land parcels](#)' available as open data.

The UK Land Registry publishes monthly residential sales '[Price Paid](#)' data on land transactions.

This [news story](#) reveals that Delhi has implemented a GIS system for land ownership, but also implies that a national land ownership database does not currently exist.

D3. Question intentionally left blank

There is no D3 question in the survey any more and this is left blank intentionally for backwards compatibility purposes only.

D4. National Statistics

National Census or other key national statistics including minimal demographic and/or economic indicators (GDP, unemployment, population, etc), often provided by a National Statistics Agency. **Aggregated data is considered acceptable for this category** for the time being (e.g. GDP for whole country at a quarterly level, or population at an annual level) but should be indicated in the description of the dataset.

Examples:

The [Moldovan Open Data Portal](#) contains datasets on population distribution drawn from the Census.

[Detailed bulk data tables](#) from the UKs 2011 Census are available online.

[Statistics Canada](#) provide in depth census tables and other national statistics for download.

D5. Detailed government budget

National government budget at a high level (e.g. spending by sector, department, sub-department, etc). Budgets are government plans for expenditure, (not details of actual expenditure in the past which is covered in the following spend category).

Research tips:

The [Open Budget Survey](#) (not universal coverage) regularly assesses whether budget data is available from a government.

The [OpenSpending.org](#) platform have brought together many budget datasets, and may help you locate whether the government is publishing open budget data or not. In some cases data is being made available on open spending by third-parties converting from printed or PDF budget records. In these cases you can judge that data is available, but should decide whether or not this is sustainable, given the effort required on the part of civil society.

The World Bank have published a detailed report and '[FMIS World Map](#)' dataset on Integrated Financial Management Information Systems in government, and an [Open Budgets](#) dedicated portal.

Examples:

South Africa publishes [detailed information on the country budget](#) online at- a search on the site for xls files (using google> 'site:treasury.gov.za filetype:xls budget') suggests that datasets for elements of the budget may also be available, although further investigation is needed to confirm.

The UK Data Portal lists the [PESA budget dataset](#).

D6. Detailed data on government spend

Records of actual (past) national government spending at a detailed transactional level; at the level of month to month government expenditure on specific items (usually this means individual records of spending amounts under \$1m or even under \$100k). Note: A database of contracts awarded or similar is not sufficient for this category, which refers to detailed ongoing data on **actual expenditure**.

Examples:

The Uruguay Office of Planning and Budget publish a [visualisation of public spending, along with underlying datasets](#).

The UK has mandated [detailed publication of all government spend](#) over £25,000 and over £500 spend datasets.

D7. Company register and information

A list of registered (limited liability) companies in the country including name, unique identifier and additional information such as address and registered activities. The data in this category does not need to include detailed financial data such as balance sheet, etc.

Research tips:

A simple company search field alone is not enough for this dataset to be considered available if it is not supplement with any mechanism that facilitates access to the data of any company without requiring knowing the company name or details in advance.

The Wikipedia [list of company registrars by country](#) may prove useful in research.

[OpenCorporates.com](#) have scraped data from many different corporate registries and maintains an [Open Company Data Index](#). Each record points you to details of the government held data, linking back to it's original source of information where you could double check such details.

Examples:

[UK Companies House](#) list a 'free public data product' on their company information pages, which consists of a download of basic company information.

D8. Legislation

The constitution and laws of a country, including national laws and statutes but excluding case-law and administrative regulations. Please detail whether the data source covers all the primary and secondary legislation of the country, or only a subset thereof.

Research tips:

A simple legislation search field alone is not enough for this dataset to be considered available if it is not supplement with any mechanism that facilitates access to any legislation data without requiring knowing the law or other details in advance.

Legislative open data will often be provided using eXtensible Markup Language (XML), so searching for '[country] legislation XML' may help locate open legislation data.

Examples:

The UK [Legislation.gov.uk](http://legislation.gov.uk) site provides laws as structured data as described in this [Legislation as open data](#) presentation. The site provides stable URLs for laws.

[XML data files of recent US Laws](#) are available through the Library of Congress Thomas site.

D9. Public transport timetables

Details of when (times) and where (stops) public transport services, such as buses and rail services, are expected to operate. Please provide details for both bus and rail services if applicable. **If no national data is available, please check and provide details related to the capital city** (clearly stating that in your justification as well).

Research tips:

Sometimes transport information is provided through an 'API' (Application Programming Interface) rather than as bulk downloads. The [GTFS data exchange](#) for example provides details of many local areas sharing public transport data.

Examples:

[The Traveline National Dataset of public transport timetables](#) provides UK public transport timetables.

Labs Ruter provide an [API onto real-time transport information for Norway](#), released under an open license.

D10. International trade data

Details of the import and export of specific commodities and/or balance of trade data against other countries.

Examples:

Data.gov.uk lists [a range of trade statistics available](#) under the Open Government License.

The Central Statistics Organisation of Afghanistan publish [a list of exports by commodity and country](#) in a Excel spreadsheet on their website, along with other trade statistics.

D11. Health sector performance

Statistics generated from administrative data that could be used to indicate performance of specific services, or the healthcare system as a whole. Health performance data might include one or more of:

- Mortality and survival rates;
- Levels of vaccination;
- Levels of access to health care;
- Health care outcomes for particular groups;
- Patient satisfaction with health services;
- Waiting times for medical treatment;
- Spend per admission.

Simple lists of health facilities do not qualify as health performance data.

Research tips:

[The Global Health Data Exchange](#) maintain country profiles and a repository of datasets for countries across the world. The [advanced search](#) can be used to find 'Administrative Record' data types'. This can help you locate national sources of health data, and explore whether these are open datasets. Not all the sources listed on the Exchange are from national governments, so check carefully when exploring available data.

National ministry of health websites are a useful starting point for a health data search in countries that do not have a national open data portal.

Examples:

The [UK Department of Health](#) publish extensive statistics on the performance of the health service.

The [Kenya Open Data Portal includes](#) statistics on levels of immunisation in the country, although the data is not updated.

D12. Primary and secondary education performance data

Statistics generated from administrative data that could be used to indicate performance of specific services, or the education system as a whole. Performance data might include one or more of:

- Test scores for pupils in national examinations (not only rates of approvals);
- School attendance rates;
- Teacher attendance rates.

Simple lists of schools do not qualify as education performance data.

Examples:

The [Kenya Open Data Portal](#) includes a range of education datasets, including attendance and test score statistics.

Brazil [publishes a microdata census of schools annually](#).

[The New Zealand Open Data Portal](#) lists a range of education and learning outcomes datasets, including primary and secondary school achievements.

D13. Crime statistics

Annual returns on levels of crime and/or detailed crime reports. Crime statistics can be provided at a variety of levels of granularity, from annual returns on levels of crime, to detailed specific offenses and real-time crime-by-crime reports published online and geolocated, allowing the creation of crime maps.

Research tips:

Look for data from a national criminal records agency, or policing department.

Examples:

The Indian [National Crime Records Bureau](#) publish annual crime and prison statistics.

The [UK Police Force publishes street level](#) crime data on a monthly basis, sharing the location of individual crime reports.

D14. Environmental data

Data on one or more of: carbon emissions, emission of harmful air pollutants (e.g. carbon monoxides, nitrogen oxides, particulate matter, etc.), water quality (e.g.

arsenic, fluorides, nitrates, etc.) and deforestation. Please provide links to sources for each if available.

Examples:

The [UK Department for Food and Rural Affairs](#) maintain an archive of air quality information.

The [Mexican 'Your Government Maps' service](#) provides maps on a variety of environmental indicators.

D15. National election results

Results by constituency / district for national electoral contests, including registered and invalid votes. If only partial data is available please provide details.

Examples:

The [Swedish Election Authority](#) provide detailed downloads of election information, returns and results.

The [UK Electoral Commission](#) publish a spreadsheet of recent election results.

See also the [open contracting scoping studies](#) available from Hivos.

D16. Public contracting data

Details of the contracts issued by the national or federal government. When answering this question please look for sources that provide contract award data and not only requests for bids (i.e. details of the fact a contract has been put in place) If only solicitation/tenders are available, please do not consider the data available but still include this in your description of the data.

Research tips:

Governments enter into many contracts for the provision of goods and services. Through websites publishing tenders, government contract finder websites, procurement portals and contract websites they may make information about the tender (request for bids) and award (details of who received the contract and it's value) online.

Look for services that aggregate data from across government - not just single departmental websites. However, if no such service is available, check a selection of the biggest government departments and note if they publish their contract data in any form.

When looking for **open data** from a contracts portal, look for options to 'export' searches or feeds. If a national data portal exists, check there for national government contract data. The new [Open Contracting Data Standard](#) is also now being [implemented and deployed by governments and cities around the world](#).

Examples:

[The United Kingdom Contracts Finder website](#) provides information on tenders and awarded contracts. It provides data feeds and on the data.gov.uk website there are details of a regularly updated data dump for this site.

DATASET QUESTIONS

For each dataset in the survey you will need to complete a ten points checklist. You should also cross-reference answers after against:

- The 2016 [Open Data Barometer](#) and the respective [country sheets](#).
- The 2016 [Open Data Inventory](#) - where you can find links to different data indicators hosted by National Statistics Offices at the “Data Locator” sheets for each [country profile](#).
- The 2016 [Global Open Data Index](#) - though note that this may have both false positives and false negatives.

These are two initial very important considerations:

- **When you respond “NO” to any of the questions a) or b) in the questionnaire for a given dataset you don’t need to respond to the rest of the survey for that dataset** as all other questions won’t be applicable.
- If you find several different datasets for the same category in a given country then for questions you should include all of them for questions a) and b). **For all the rest of the questions c) to j) you need to choose only one (*the one you consider more complete in terms of data availability*) and respond on the basis of that one solely.**

The dataset questions are as follow:

a) Does the data exist?

If the data is not collected by the government in this country at all, or is not aggregated at a federal level in any form, then answer NO to this question and you don’t need to continue with the rest of the survey for this dataset. You still will be asked then to provide an explanation of why the data does not exist and need to ensure that you have provided a detailed explanation of the search you undertook and sources consulted. This should include primary research, and not just finding a dataset was judged non-existent in existing third-party listings.

If the data is collected at the level of government you are answering for in any form, then you should answer YES (e.g. paper or digital). You will be asked to provide a brief description of the data available, including main characteristics and limitations, as well as details of the agencies responsible for this data.

Research tips:

If the data is held by government (including also state-owned companies and contractors delivering public programs or services for government), you will need to provide also a **brief description of the data being provided** (i.e. the different elements in the dataset and any known limitations) and, particularly, whether the data is **disaggregated by gender** for those case where it is applicable (i.e. National statistics, Health performance, Education performance and Crime statistics). You will be asked also to provide the **name of the agency or agencies** (including state-owned companies or contractors) **that are responsible for the data**.

If the data is not held by government at all, you will need also to **explain briefly why the government does not hold this data** when possible (e.g. lack of capacity to collect the data, or the data in question being managed at a local rather than national level, etc.)

Examples:

- If you are answering for **'census data'** and a census is carried out, with records kept on paper, then answer **YES**.
- If you are answering for **'census data'** and no data is collected, or the data is only collected in one or two regions, answer **NO**.

b) Is it available online from government in any form?

Can you find the data online in any digital format? This might include even tables on web pages, PDF files, or scanned copies of paper documents, as well as other formats like MS Excel.

You should only answer YES if a substantial proportion of the data we are looking for is available, and then provide a link from where the data can be found online. Press releases or short summaries selecting just a few of the possible data points do not count. Under each particular dataset guidance is provided on what might constitute adequate online data.

You will be also asked to indicate whether registration is required to access the data.

Research tips:

Ensure the data source you find is the responsibility of government (including also state-owned companies or contractors). A government domain name, or clear statement that the website is sponsored by government may provide evidence of this. If you find a dataset available on a non-government website then further searching to find if a

government source is also available may be required. If registration is required to access the data you should indicate that in your answers, but also try to complete the registration process in order to evaluate the rest of the questions for the dataset.

If no government source is available, answer NO to this question and you don't need to continue with the survey for this dataset.

You will be asked to provide brief details describing the data that exists for the country, including main characteristics and fields, coverage and any limitations of the data.

Examples:

- If looking for **mapping data** and the government has published **image files containing maps with boundaries and locations of key infrastructure** (e.g. roads, rail) then answer **YES**.
- If looking at **census data** and the only data available is in **PDF reports with tables and graphs, but without in-depth statistical tables covering the majority of main census indicators**, then answer **NO**.
- If the only data available is **substantially outdated** (e.g. 10 years old) or **only available for a very small period of time** (e.g. 2 months in the last 2 years), then answer **NO**.
- If the data is **only available for a relatively small group of people** (e.g. government officials or country nationals only), then answer **NO**.
- If the data is **only accessible through a search system requiring to know some specifics from the data beforehand** (e.g. ID codes, registry numbers or similar) to be able gain to access and/or getting only partial results back, then answer **NO**.
- If **the amount of data available is not substantial** and/or highly aggregated (e.g. only total percentages of secondary education approval rates disaggregated by sex, then answer **NO**.

c) Is the dataset provided in machine readable and reusable formats?

Can you find a copy of the data in a structured and standardized machine readable format which can be opened in appropriate data manipulation and analysis software?

If there are multiple datasets that you could answer with respect to (for example, when a government publishes different data products based upon a census or land registry, or when there are a number of different government service directories maintained) **you should answer with respect to the best example you can locate in terms of availability of open data.**

For example, if the government holds data on mortality and survival rates and levels of vaccination, but only the later are in a machine readable form, you should note this in the

justification and continue to answer the rest of the questions with respect to that specific dataset.

Examples of machine readable and reusable formats are csv, xls, xlsx, ods, xml, shp, px or json. Examples of formats that can not be considered machine readable and reusable are html, txt, pdf, doc, docx, odf, jpeg or tiff.

You will be asked to indicate whether any of the formats provided is open and whether any standardised data format is being used. A standardized data format is a series of guidelines that define the way in which data should be collected or recorded, supporting comparability and interoperability between datasets. Examples include (but are not limited to):

- The Web Map Service (WMS) for the definitions of distributed geospatial data or the Geographic Markup Language (GML) and the Keyhole Markup Language (KML) for the description and annotation of maps.
- The Statistics Data and Metadata eXchange (SDMX) for macroeconomic statistics.
- The Universal Business language (UBL) or the eXtensible Business Reporting Language (XBRL) for exchanging business and financing information.
- The Core Business Vocabulary is a simplified, reusable and extensible data model that captures the fundamental characteristics of a legal entity.
- LegalML and LegalDocumentXML for the specification of parliamentary, legislative, and judicial documents.
- The General Transit Feed Specification (GTFS) for transport data.
- Health Level Seven (HL7) for transfer of clinical and health administrative data.
- The Election Markup Language (ELM) or the IEEE Open Election data standard for election data exchange.
- The Open Data Contracting Standards (ODCS) for public procurement.

All the standardized formats indicated above can also be considered both, machine readable and open.

Research tips:

You may need to search the site where you find the data for any machine readable form. For example, if on a data portal, go back to the root of the portal and search for all mentions of this dataset to find different versions. If on a government website, use the 'site:' operator to search the site for 'open data', 'datasets' or files of csv, xls or other types.

You will be asked to provide **a comma-separated list of all the file formats the dataset is available in** (e.g. pdf, csv, xls), as well as a link to each machine-readable version of the data when available. APIs (Application Programming Interfaces) that allow as to exchange

data in json or other similar formats are also another good indicator of the use of machine readable and reusable formats.

You will also be asked to indicate whether any of the formats provided are open and whether any standards related to data formats or interoperability, such as the ones indicated above, are being used. According to the open definition an open format is one which places no restrictions upon its use and can be fully processed with at least one open-source software tool. Apart from those indicated in the list above other examples of more generic open formats are csv, xlsx, ods, xml or json. Examples of formats that can not be considered open are pdf, xls, shp or px.

Examples:

- If the data is only available as **scanned copies of printed out documents in PDF or in image formats** answer **NO**. In these cases the only way to get data that can be sorted or manipulated would be to retype it into a spreadsheet. This shows the data was not originally machine readable.
- If looking at **statistical data**, and there is a version of the dataset you can load into **spreadsheet** software and sort and filter, answer **YES**.
- If looking at **statistical data** and the only data available is in **PDF files, or on (HTML) web pages** where copying and pasting the data into a spreadsheet does not let you easily sort and filter it, answer **NO**.
- If looking for **mapping data** and there are **shapefiles (SHP), Points of Interest (KML)** or other geographic data formats provided, answer **YES**.
- If looking for **mapping data** and the only data available is in the form of **images**, even if in 'slippy maps' online, answer **NO**.
- If there is an **API (Application Programming Interface) for the data, or downloads provided in XML, CSV or JSON formats**, answer **YES**.

d) Is the machine readable and reusable dataset available as a whole?

Bulk access to data files allows analysts and developers to more flexibly build upon the data and to integrate it into other products, services and activities. **Look for links to bulk downloads. These might be organised by month or year for time-series data, or broken down into sub-files for very large datasets.**

Research tips:

Sometimes it is only possible to access small extracts of a dataset using an online interface, as when, for example, you can only get a spreadsheet download after you build a query onto the dataset, or when data is scattered across tables or a very large number of download files

on different web pages. However, **it should be possible for a developer to easily collect a list of download file URLs and then grab this data and feed it into an application.**

You will be asked to provide a link from where the bulk download is available.

Examples:

- If you are looking for *crime data* and the relevant agency publishes **a list of monthly crime statistics files for download on one single web page**, answer **YES**.
- If looking for education statistics and annual data packages are available for download as a single ZIP, RAR or similar compression file format, answer **YES**.
- If looking for *transport timetable* data and the only way to get at a timetable is to **fill in an online form** for each transport route you are interested in, answer **NO**.
- If looking for health data this is scattered across a large number of download files on different web pages or sites that require further interaction or navigation to collect all the data, answer **NO**.
- If you need to provide several links from different sections in the website for a full dataset coverage or even from different websites, then answer **NO**.

e) Is the dataset available free of charge?

Sometimes datasets are only available for a charge - either a one-off payment or a subscription fee. For example, when maps are licensed by the mapping agency and only provided for a fee, or when a country's legislation is compiled and provided for sale through a private company.

Research tips:

If a bulk dataset is available, answer with respect to this, otherwise answer with respect to the online accessible version of the data. You will be also asked to provide a brief description and link to any relevant existing charging policy.

When the data is available online but under a paywall (totally or partially) then you should just answering "NO" to this question, but still completing the rest of the survey. That dataset won't be considered open, but still we want to gather all other information about the dataset.

Examples:

- If looking for *school performance data* and the data is **published for free on a government agency website**, answer **YES**.
- If looking for information on a *company* and you have **access only to basic information for free while complete information is only available after payment**, answer **NO**.

- If looking for **legislation** and you can only **buy a database of laws on CD for a price**, and the data is not otherwise freely available, answer **NO**.

f) Is the data clearly identified as openly licensed?

Unless the license that a dataset is provided under is explicitly stated, users of the data cannot be sure whether they have permission to reuse it, and under what conditions. For example, government datasets may be subject to copyright or intellectual property restrictions that make it illegal for a campaign group or company to build on top of the data or redistribute it.

Research tips:

If a bulk dataset is available, answer with respect to this, otherwise answer with respect to the online accessible version of the data. Look for a clear license statement setting out the permission that a user has. This will only count as an open license if:

- It clearly states that **anyone has permission to reuse it**;
- It **does not restrict what the data can be re-used for** (for example, through non-commercial restrictions) more than attribution and share-alike;

Refer to the [Open Definition](#) and the [list of conformant licenses](#) for a detailed overview of what counts as an open license.

You will also need to indicate what is the applicable license and/or terms of use (even if those are just unknown) and a link to where the license is indicated in the website when available.

Examples:

- If there is **no clear statement concerning how the data can be re-used**, either next to the download, in the terms and conditions of the website, or on other relevant pages where the dataset can be found, answer **NO** and explain it at the license description.
- If there is a **copyright or license statement that states the dataset can only be used for non-commercial use, or that it is only for 'personal' or 'research' use**, answer **NO**.
- If there is a **clear open data license statement associated with the dataset** such as [Creative Commons Zero](#) (or CC-BY and CC-BY-SA), [Open Database License](#) (or ODC-BY), or [Open Government License](#), answer **YES**.
- If the dataset is **explicitly shared in the public domain and no other additional terms of use contradict that public domain status**, answer **YES**.

- If a **statement of terms of use or general permissions is associated with the dataset, and the intent of the statement is clearly and unambiguously intended to permit re-use** of the data for all purposes, including commercial use, answer **YES**.
- If there is **statement of terms of use or permissions, but it is ambiguous**, and no other license indication is given, answer **NO**.
- If there are some **general applicable copyright exemptions by law but those are not explicitly indicated** neither referenced in association with the dataset, answer **NO**.

g) Is the dataset up to date?

Many datasets are only useful if they are recent and kept updated. **Consider any evidence on what was the last update date and how often it is being updated and how often you would expect data of this form to be updated.**

Research tips:

This assessment should focus on **the update of the dataset itself and not any of the metadata records** associated with the data (several times the metadata date records are automatically updated with any metadata edition, even when the actual data has not changed at all). Some illustrative minimum update frequencies that could be considered appropriated for each of the dataset categories are:

- D1 - Map Data: *Every two years*.
- D2 - Land Ownership: *Monthly*.
- D4 - National Statistics: *Yearly*.
- D5 - Government Budget: *Yearly*.
- D6 - Government Spending: *Monthly*.
- D7 - Company register: *Monthly*.
- D8 - Legislation: *Monthly*.
- D9 - Public transport timetables: *Quarterly*.
- D10 - International trade: *Monthly*.
- D11 - Health: *Quarterly*.
- D12 - Education: *Yearly*.
- D13 - Crime: *Quarterly*.
- D14 - Environmental data: *Monthly*.
- D15 - Election results: *After each new elections*.
- D16 - Public contracting: *Monthly*.

These are provided only as a reference and researchers are encouraged to use also their best judgement in all cases providing appropriate rationale and justifications. You will also be asked to provide the date of last substantial update, the date of checking and an estimation

about how often is apparently the underlying dataset changing (one from *Real-time, Daily, Weekly, Monthly, Quarterly, Yearly, Irregular or Unknown*). Please use always YYYY-MM-DD format for dates.

Examples:

- If there is no indication or hint on when last update has been performed, answer **NO** and answer “Unknown” for all other fields with respect to this question.
- If looking at ***international trade data***, and there is a data file for download, but it appears to have been **generated once-off, and not updated since**, answer **NO**.
- If looking at ***census data***, and there are files from the **last census** conducted in the country, answer **YES**.
- If looking at ***budget data***, and there are data files from **the most recent budget**, answer **YES**.
- If the metadata indicates that the data has been updated but the actual data is still old, answer **NO**.

h) Is the dataset being kept regularly updated?

Look for evidence that this was a once-off publication, or for evidence that the dataset is being kept regularly updated (for example using past track-record of publication). You will need to provide some brief notes to explain your judgement as well as the number of years in a row for which data is available back from last publication (e.g. three last years before 2014 or five last years before 2016).

Research tips:

Sometimes open data appears to involve just one-off publication of datasets, without any process in place to keep the data updated. Offer your best judgement as to whether it is likely that this open data will be kept updated for at least a further 12 months (or longer if the update cycle for this data is longer than 12-months as in the case, for example, of election data, where you would judge on the basis of whether it is likely that open data will be published on results at the next election).

In some cases the evidence available to make a judgement will be quite limited. In these cases, **where you cannot locate any evidence that the data will be updated regularly**, you can answer **NO**.

Examples:

- If this is a type of data set that needs regular updates, but **only one version has been produced**, answer **NO**.

- If **all the datasets on a data portal were added on one date over 6 months ago, and there has been no activity since**, answer **NO**.
- If there is a **single dataset publication** with no further evidence of previous publication track record or future plans, answer **NO**.
- If **the publication has been quite irregular for some time** with just a few datasets available for the full period, answer **NO**.
- If there appear to be **regular updates** to the dataset, for example, monthly versions posted on the web page, answer **YES**.
- If there is a **clear explicit commitment from the responsible agency** to keep their open data updated, answer **YES**.
- If the publication of the data is **regulated by law**, answer **YES**.

i) Was it easy to find information on this dataset?

This needs to be answered thinking particularly about whether it was easy to find not only the dataset itself, but also all information on the dataset required to answer questions a) to f) In addition to answering these supplementary questions **you should also add a note outlining the steps you took to search for this category of data since the beginning of the search process** (e.g. using the search option at the national data catalog, searching for some specific terms “x” and “y” using a search engine, etc.). You will need to provide some brief notes to explain your judgement.

You will be also asked to indicate whether **core metadata** (descriptive dataset metadata to facilitate discovery and identification) and/or any **guidance documentation** is accompanying the dataset to explaining the source, strengths, weaknesses, and analytical limitations of the data.

Research tips:

- Answer **YES** if you think **a regular Internet user with a degree level education would be able to locate and find out the information required about this dataset** if they were looking for it.
- Answer **NO** if you struggled to locate the dataset, or if you think **a degree educated Internet user in your country would face considerable struggles in trying to find and find out about this dataset**.

Examples:

- If there are some minimal **core metadata elements**, such as the dataset title, data source, publication date and format, answer **YES**.

- If once you located the dataset **all the information you needed about it's status as open data was just a few clicks away**, answer **YES**.
- If you have links from the data to relevant guidance, documentation, visualizations, or analyses, answer **YES**.
- If you **had to repeatedly go back to search engines to find out about dataset licenses etc**, or if you had to draw upon privileged information or contacts to find out about the dataset, answer **NO**.
- If you faced any **bureaucratic or administrative barriers** while trying to access the information, such as registration processes, access requests, or several consultations by phone/email, answer **NO**.
- If you simply couldn't find the information you needed to answer some of the questions after concluding the research process, answer **NO**.

j) Are data identifiers provided for key elements in the dataset?

Datasets usually contain many different entities. For example, a dataset on education might include record on about schools, regions and types of education programme. Implementing consistent and common identifiers when publishing data will contribute to make these entities comparable and interoperable. The advantage of this is that when different datasets use the same IDs to identify a think then connections can be more easily made between those datasets.

Research tips:

Sometimes, when following the [linked data principles](#), web addresses or URIs (stands for Uniform Resource Identifier) are being used as data IDs. For the purpose of this question you can treat URIs as they were the same as regular web addresses (e.g. <http://example.org/barometer>)

First, check to see whether a **'Linked Data' version of the dataset or a 'SPARQL endpoint' is advertised**. This may be provided in the 'RDF (Resource Descriptor Format)' file format, or as a file with the **.ttl, .rdf, or .n3 file extension**. To answer yes to this question these formats are *not* required, but **if you find these formats** then it is likely that the answer is **YES**.

Secondly, if you don't find these formats apparent, look to see if **there are unique web pages with specific URIs (web addresses) provided for the key entities in the dataset** and those are being *published by* the organisation or agency responsible for the dataset then you should answer **YES**. (Note: third party publication does not count). For example, the UK Legislation website at <http://legislation.gov.uk> publishes unique URIs for every bit of UK legislation with web addresses such as <http://www.legislation.gov.uk/ukpga/2012/9/contents/enacted>

Thirdly, if you don't find any of the above, look to see if there are any **ID codes or fields** associated with the key entities in the dataset, looking either at the associated documentation or the data itself. If that's the case then you should answer **YES**.

You will be also asked to provide an example of the identifiers used and/or a link to any relevant documentation available.

Examples:

- If you find evidence in the data or associated documentation of any **ID codes or fields** associated with the key entities in the dataset, answer **YES**.
- If you find **a series of different URIs or web addresses for each entry in the dataset** (e.g. each school; each road), answer **YES**.
- If you search and find **an RDF version of the dataset, or a SPARQL endpoint which claims to contain the dataset**, and this appears to be **maintained by government**, answer **YES**.
- If you search and find **an RDF version of the dataset, or a SPARQL endpoint** which claims to contain the dataset, but this appears to have been **built and published by a third party unrelated with government**, answer **NO**.
- If **queries for the dataset name and IDs, RDF, Linked Data or SPARQL provides no clear pointers** to available data, answer **NO**.