

<p align="center"><b>Framework for Open Government Data platforms</b></p>	<p><b>White Paper</b></p>	
	<p><b>Open Government Data – 1.2.0</b></p>	
	<p><b>Result of PG</b></p>	
<p>Short description</p>	<p>The disclosure of data management is discussed as a means to increase participation in a common value creation process of politics, administration, citizens and economy. The accompanying transparency of data and information increases the trust of all stakeholders in administrative processes, leads to new business models and strengthens in the medium to long term the existing democratic institutions.</p> <p>This document provides basic information available about Open Government Data and defines legal, technical and organizational requirements for Open Government Data platforms.</p>	
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## Table of Contents

<b>(1)</b>	<b>Vision of a data ecosystem .....</b>	<b>3</b>
<b>(2)</b>	<b>Basic information about Open Government Data .....</b>	<b>4</b>
<b>(3)</b>	<b>Open Government Data Principles.....</b>	<b>7</b>
<b>(4)</b>	<b>Uniform name for administrative management.....</b>	<b>9</b>
<b>(5)</b>	<b>Technical requirements - Open Government Data Formats &amp; Metadata .....</b>	<b>9</b>
<b>(6)</b>	<b>Organizational Requirement - OGD monitoring .....</b>	<b>10</b>
<b>(7)</b>	<b>Legal Requirement – Licensing and Terms of Use .....</b>	<b>11</b>

## Open Government Data in the public administration

### (1) Vision of a data ecosystem<sup>1</sup>

Data is one of the crucial economic and social resources of the information society of the 21st century. In short, we live in a data society. Nonetheless, with the exception of "data-oriented" companies, neither the company nor the state and the administration are adequately prepared for this. As a result, this leads to the fact that the potentials inherent in the existing data can often not be lifted.

In order for citizens to be involved in all areas, process steps and life situations of an overarching data ecosystem, they need to know how they can deal with (open) data and what they can do with them.

But knowing how data can be managed and deployed is also essential. These are the foundations for a data-oriented, "data-driven" administration and policy, economy, culture, civil society, science and research.

In order to promote this cultural change, education and training are the key starting points. It is crucial to consider the two core dimensions of "Open Data":

- Openness means an open culture of sharing and co-operation. It is the basis for increasing the value of the data and for achieving the greatest possible social benefits
- "Dateness" means skills and (technical) skills to deal with data and to use data.

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<sup>1</sup> Cooperation OGD D-A-CH-LI, 2015. Vision eines Daten-Ökosystems im Raum D-A-CH-LI: <https://www.data.gv.at/wp-content/uploads/2015/05/OGD-D-A-CH-LI-Daten-Oekosystem-VISION-1.pdf> (German)

## (2) Basic information about Open Government Data

### Open Government (opening of state and government)

“Open Government” is used as a comprehensive term for a range of concepts and visions that deal with certain aspects of opening of state and government. These include considerations about Transparency 2.0, Participation 2.0 and Collaboration 2.0, the open innovation approach, opening of the society, open society, reflections on free data and open standards, open interfaces, open source software and open communication systems.”<sup>2</sup>

The principles of Open Government are:

- **Transparency:** strengthens the sense of duty and provides the citizens information about what their government and their administration do. The free availability of information is an essential basis for transparency.
- **Participation:** strengthening the effectiveness of government and administration and to improve the quality of their decisions by the widely dispersed knowledge of the society involved in the decision making.
- **Collaboration:** new tools, methods and systems to accelerate the cooperation of all administrative levels as well as those with the private sector.

An implementation of an Open Government strategy in administrative and political processes should therefore be made in the light of the transformation of values and decision-making cultures. For this purpose transparent processes are necessary that make Open Government Data become a key pillar of all Open Government strategies.

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<sup>2</sup> von Lucke, Open Government, 2010, P. 3

## **Open Government Data (OGD)**

Open Government Data are those non-personal and not infrastructure-critical data resources held by public bodies that are made accessible in the interest of the general public without any restriction for free usage, for dissemination and for re-use.

Open Government Data is awarded the potential for sustainable social, cultural, scientific and economic progress. Through the utilization of non-personal information in the public sector new products and services will be promoted and economic growth will be supported in Austria. Moreover, Open Government Data is seen as an adequate tool to increase the transparency of administrative action, to allow better cooperation between politics, government, business, research and citizens and to strengthen democracy.

In selecting the data to be published, care should be taken that those data are selected which are interesting and useful for users.

## **Potentials**

The key opportunity for the state is the use of the innovative power of society and economy. Transparent data and accountable decision-making processes are key for voluntary participation in joint value creation processes.

Applications based on Open Data can lead to better and more efficient services. Positive societal effects are expected due to indirect profitability through new business models and thus higher tax revenue. The precise utility and value of Open Government Data for policy and administration can be quantified only vaguely.

For administration other economic opportunities arise besides the "outsourcing" of application development by tax revenues drawn from sold Open Data-based products.

With the establishment of an Open Data strategy the interoperability of data management is improved and enables the linking and analysis of internal databases. Internal records are visible to both internal and external stakeholders and thus promote cooperation. The opportunity lies in a variety of analyses that can lead to new insights.

The integration of society and the economy can improve data quality using crowdsourcing methods.

In addition to the economic advantages democracy is strengthened by increased transparency, which potentially leads to a strengthening of citizens' trust in the state and its institutions.

### **Risks and obstacles**

Besides the above-mentioned positive effects negative ones are also to be expected by higher transparency. One of the biggest risks of Open Data are the aforementioned errors of interpretation of data; statistical data, for example due to lack of expertise, lack of background knowledge or by the mixture of data sets of different quality can be misinterpreted. Quality assurance is therefore a critical factor that could be carried out both top-down by the state and its institutions, as well as bottom-up, by means of examination and counter analysis by the society, especially through science and involvement of universities and colleges.

Open data lead to more transparency which can, however, have negative political and social, individual effects. For example, an easier access to environmental data through map-based representation, such as soil contamination of land, would lead to direct adaptations in the real estate market.

The effect of transparency on audited data is undisputed in this regard; the critical question is how politics, administration and society deal with the results. Even the deliberate manipulation by data corruption in statistical analysis or falsified representation in applications, creates new challenges for the administration offering data.

By publishing Open Government Data additional initial and maintenance costs (quality, availability...) need to be considered when planning budgets.

Even if Open Government Data - records are never personal datasets, there exists a certain risk that an assignment to individuals cannot be excluded by merging multiple data sources. This possibility has to be considered and assessed in advance.

### (3) Open Government Data Principles

Eight Open Government Data principles were already formulated in late 2007 by Open Government advocates in the United States, enhanced by the Sunlight Foundation to ten principles<sup>3</sup>.

Whenever a public body publishes data as Open Data, the following principles should be adhered to as far as possible. If the compliance of individual principles is not possible, this should be justified internally and externally documented.

1. **Completeness:** the published datasets are as complete as possible; they form the entire extent of what is documented on a specific topic. Metadata describing the raw data are also included along with formulas and explanations to calculate the data. This will allow users to understand the adjustments of available information and to examine each data element with the greatest possible detail. Before publication data protection restrictions, security restrictions or access restrictions have to be checked. Personal data are basically exempt from the publication.
2. **Primary source:** The data is collected at its origin and is published with the finest possible granularity, not in aggregated or otherwise modified formats.
3. **Current provision:** the published records are available to the public within an adequate period as topically as possible. They are published as soon as they are collected and compiled. Data available in real time are retrievable through a programming interface (API).
4. **Easy access:** the published datasets are very easily accessible without barriers. Physical barriers (e.g. the need to personally go to a certain office or the requirement to meet certain processes) must be avoided, such as technical barriers (e.g. access to data only after completed entry forms or via systems requiring browser-based technologies such as Flash, JavaScript, Java applets or cookies).
5. **Machine-readability:** data are stored in established file formats that are easily machine-readable so that an automated, structured processing is possible. The use of different file formats is recommended. If for any reasons the use

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<sup>3</sup> OpenGovData.org, 2007. 8 Principles of Open Government Data: <http://www.opengovdata.org/home/8principles>  
Translation of the Ten Principles for Opening up Government Information from the Open Data Network  
(wiki.opendata-network.org). <http://sunlightfoundation.com/policy/documents/ten-open-data-principles/>

of non-machine-readable formats is required, the data should also be available in machine-friendly formats. Files should be accompanied by a documentation which refers to the format and on how it can be used in respect to the data. Discrimination: Any person may at any time access the data without identifying him-/herself or having to give a justification for her actions.

7. Use of open standards: The formats in which the data are published are as open as possible, over which no entity has exclusive control (see "OGD Formats" in the White Paper OGD Metadata Austria). Here, the administration orientates on standards that were developed by bodies such as the World Wide Web Consortium e.g. DCAT-AP<sup>4</sup>), and at conventions of the Austrian BLSG.
8. Licensing: The administration must clarify any copyright, patent and trademark questions in advance (see chapter 7 for the legal requirements).
9. Documentation (durability): Information published by the administration is fully documented with metadata, accessible for a long time. Once online, information is provided with an adequate version control and is in principle permanently archived. Should the underlying data model change, the original information and the updated information will be published in parallel for at least 3 months. These changes are to be announced via the communication channels of the administration and documented in the metadata.
10. Costs of utilization: By specifying the use of the Creative Commons licences user charges are currently not foreseen.

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<sup>4</sup> [https://joinup.ec.europa.eu/asset/dcat\\_application\\_profile/description](https://joinup.ec.europa.eu/asset/dcat_application_profile/description)



#### (4) Uniform name for administrative management

The Austrian government, like many other European governments, is also influenced by federal principles. Therefore, this section recommends a unified approach to URI names that consistently identifies the data portals and keeps the cost low.

##### The name and modelling pattern for URL-based identification

The records of the public administration are assigned to the organizations publishing Open Government Data. Each record must be uniquely identifiable by URL.

- The URL for the Austrian portal is: **data.gv.at**.  
The URL convention for Open Government Data portals is:  
**data.organisation.gv.at** (E.g. data.wien.gv.at; data.statistik.gv.at ...)
- If a more detailed breakdown URL is wished, it is recommended to carry out the subdivision according to the categories defined in the White Paper OGD metadata.
- The URL convention for the database should follow the scheme:  
**data.organisation.gv.at/katalog**
- The URL convention for the terms of use follows the pattern:  
**data.organisation.gv.at/nutzungsbedingungen**  
(See chapter Legal Requirements)

Should the name of the organisation change, the old link must be redirected to the new link.

#### (5) Technical requirements - Open Government Data Formats & Metadata

The Metadata Working Group of Cooperation ODG Austria has developed a white paper document "OGD Metadata Austria" The correspondences to INSPIRE, PSI (IWG) and DCAT-AP are also considered. As a result, there are a so-called core metadata, additional optional attributes and a vocabulary for metadata catalogue Austria. In the document the recommended formats for OGD are also listed.

## (6) Organizational Requirement - OGD monitoring

In order to further increase the transparency of data, a data monitoring identifying the data sets for publishing and a process for the publication of data should be set up. The responsible administrative unit can assess internal databases with regard to the following criteria and identifies the records to be released as Open Government Data.<sup>5</sup> For the assessment and monitoring of OGD the following catalogue with detailed descriptions of the indicators can be used. Individual criteria evaluated with 0 points are reasons for an exclusion of publication. The sum of the points awarded helps in ranking the first to be processed or records to be published:

Table 1: Criteria for data monitoring according to KDZ open government implementation model

Criterion	Explanation	Score (0-5 points)
<b>Non-disclosure/ legal restrictions</b>	Is the data subject to non-disclosure obligations or other legal restrictions or does it include data critical for infrastructure?	0: non-disclosure obligation 1: restrictions exist, are hardly alterable (e.g. EU restrictions) 2: restrictions exist, alterable (e.g. regional or district council with 2/3 majority) 3: restrictions exist, easily alterable (e.g. regional or district council with simple majority) 4: restrictions exist, very easily alterable (e.g. internal rules and practices, administrative culture) 5: no restrictions
<b>Personal or corporate references</b>	Does the data include personal references or can individuals or companies be identified?	0: personal data 1: data cannot be made anonymous, missing approval hardly obtainable 2: data cannot be made anonymous, missing approval obtainable 3: approval obtained (e.g. subsidy data) 4: data can be made anonymous 5: no identification of individuals or companies possible, or no infringement of interests in secrecy deserving protection (sec. 8 Data Protection Act)
<b>Copyright</b>	Is the administrative agency sole proprietor of data copyright?	0: no copyright: disclosure not possible 1: subject to license fees and approval 2: subject to license fees, approval obtained 3: no license fees, subject to approval 4: no license fees, no approval needed 5: sole possession of copyright ensured
<b>Value</b>	How high is the estimated value of disclosure for all target groups?	0: no value 1: very low value 3: medium value 4: high value 5: very high value
<b>Effort</b>	How high is the effort of disclosure?	0: unjustifiable cost 1: very high cost 2: high cost 3: medium cost 4: low cost 5: very low

<sup>5</sup> KDZ and Vienna, Open Government Implementation Model <http://www.kdz.eu/de/open-government-vorgehensmodell/>

<b>Content-related data quality</b>	How high is the estimated data quality? (timeliness, completeness, accurateness, faultiness)	0: data quality unjustifiable 1: data quality very low 2: data quality low 3: data quality medium 4: data quality high 5: data quality very high
<b>Technical availability</b>	Available data formats and data sources, open standards: OGD formats, extended Five-Star System (see chapter OGD formats“ and Table 4)	1: data available electronically 2: data available in machine-readable format 3: data available in OGD formats 4: data available with URI / as RDF 5: data available as Linked Data
<b>Synergy</b>	Are agencies already making the data/services available for other purposes?	1: already voluntarily published 2: soon to be published voluntarily 3: to be published under alterable regional/national laws 4: already published (e.g. INSPIRE, Environmental Information Directive 2003/4/EC...) under an obligation (e.g. statutory, EU or contractual requirements) 5: to be published (e.g. INSPIRE, Environmental Information Directive 2003/4/EG...) under an obligation that is hard

## (7) Legal Requirement – Licensing and Terms of Use

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The attribution of the **organization** as a holder of rights has to be done in the following manner: "Datenquelle: Organisation - data.organisation.gv.at"

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<sup>6</sup> <http://creativecommons.org/licenses/by/3.0/at/>

<sup>7</sup> <https://creativecommons.org/choose/mark/?lang=de>

Should notes should be required to license, these can be accommodated in the terms of use.

The URL convention follows the scheme:

**data.organisation.gv.at/nutzungsbedingungen**

Best practice example Vienna: [data.wien.wien.gv.at/nutzungsbedingungen](http://data.wien.wien.gv.at/nutzungsbedingungen)

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