

Swiss Confederation

(Open Government Data Strategy, OGD Strategy)

Strategy for open government data in Switzerland 2019-2023

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Strategy

Background

Digitalisation has become part of our everyday life, affecting every aspect of our existence (society, economy, science and government administration). The Federal Council wants to be a driving force behind this structural change, in particular by strengthening Switzerland's policy on open government data. Free access to government data promotes transparency and participation, encourages responsibility and leads to an increase in value added through greater efficiency of the administration, enabling innovation and creating new business models. It will also contribute to implementing the UN 2030 Agenda for sustainable development.² In the context of egovernment, technological developments should be used not only to modernise the administration but also to ensure that everyone can take part in politics on an equal and independent footing. Free use of government data (that can be processed by both machine and humans) constitutes an integral part of e-Government services to the population, the economy and the public sector. The scientific community also benefits from these services. Their transparent, efficient and seamless provision is indispensable to a society where public opinion and political solutions are founded on the basis of freely accessible information.³ The same government data can also provide an impulse for economic innovation, facilitating relationships between the administration, the economy and the general public.

This systemic transformation involves not only the renewal of the technical infrastructure but also the organisation of administrative processes and content (data as infrastructure). In its daily work, the administration collects and processes a multitude of data unrelated to individual persons: provided there are no legal protection provisions to the contrary, these data should be available to everyone free of charge and subject to the same legal and relatively undemanding technical requirements. These data make a considerable contribution to political debate and serve as a foundation for new business ideas (data economy). They simplify the administration's work and can even be combined with algorithms to help with decision making⁴, they increase its efficiency (cf. the "once only principle" as described in the EU Tallinn Declaration of 2017⁵) and enable new discoveries to be made in various scientific disciplines but also in data science. Open data also make the work of educational and cultural institutions easier. Open government data can therefore make a decisive contribution to eGovernment and to a forward-looking Switzerland.

New OGD strategy 2019-2023 in the context of other strategies

The new strategy is closely aligned with the "Digital Switzerland" strategy and its action plan as well as on the guiding principles for the next eGovernment Switzerland strategy, in particular with regard to the drawing up of the legal framework. A new strategy is essential to bring about these changes. It will stabilise what has already been achieved and standardise the usage and implementation of OGD principles, especially with regard to licences, terms of use and documentation using metadata. It is also necessary for the realisation of further objectives. As a national reference document, it is key to the use of data as infrastructure and the creation of a standardised data room.

Definitions

Open government data (OGD) combines the notion of open government as a mission statement for government action with the concepts of open data and government data. The key terms are defined below:

Data: The term data is understood in the broadest sense. Data are isolated units (or units that can be isolated), which can be processed and analysed by machine. These may be intentionally produced data (e.g. statistics, financial data, or register data), data produced by measurements (e.g. weather data, geo-data, or traffic measurements), but also other information that can be processed in the same way as data such as lists, (e.g. health insurance premiums, illegal substances, or goods that must not be exported), structured or non-structured texts, e.g. archive or library catalogues or legal texts) or also multi-media productions (digital image, sound or video documents including their metadata).⁷

Government data defines data by the purpose for which they were created. Government data are produced and owned not only by all state authorities and at all federal levels; they can also come from state-related or third-party enterprises, including private ones, with a public sector mandate. Government data are essentially all data that are produced, obtained or collected in the execution of

Strategy Digital Switzerland (BBI 2018 5961): first and second principles

² www.are.admin.ch > Sustainable development > International cooperation

 $^{3\}underline{\hspace{0.5cm}} \text{eGovernment Strategy Switzerland (www.egovernment.ch)} : Introduction and mission statement.}$

⁴ cf. the algorithm tested in SEM: Kirk Bansak et al.: Improving refugee integration through data-driven algorithmic assignment, in: Science 359 (6373), 325–329; In the name of transparency, the authors published the algorithm used as well as the database.

⁵ cf. Tallinn Declaration on eGovernment at the ministerial meeting during Estonian Presidency of the Council of the EU on 6 October 2017.

⁶ cf. notes 1 and 3 and objective 3 of the Federal Council's 2018 objectives; the motion 17.4246 "Continuation of open government data strategy from 2019"; SFAO recommendations, Strategy implementation of open government data Switzerland within the Confederation (transversal audit), 24.7.2018 (report in German, summary in French). By the same token, the report on the harmonisation of the Confederation's measurement network of 5.9.2018 makes reference to OGD policy, by providing for the publication of data as open government data.

Not considered data in the sense of this strategy are notes or lists etc. compiled solely for personal use

government tasks; these include data from 'memory' institutions (museums, archives and libraries). Not included are data from publicly financed research although these can be also be published with open access.

Open data are data that can be freely used, processed, analysed and transferred without any significant legal, financial or technical restrictions. From a legal point of view, the use and processing of data must be free of charge, and from a technical point of view, it must be possible to process the data by machine. Provisions governing data protection, information protection, copyright and trade secrecy must be observed when data are published as open data.⁸

Linked (open) data refers to data that are freely available in interlinked format and ready for processing. This characteristic distinguishes data that are merely available from data that can easily be used and processed. Linked (open) data is a technical and organisational concept that allows data to be used across organisations and systems and is a key component in increasing efficiency and thus in reducing unnecessary bureaucracy.

Data as infrastructure refers to data as part of the basic apparatus needed for society, politics and the economy to function properly. As a 'non-rival good' (can be used or consumed by another person without reducing the amount left for others), data serve as input for a wide range of purposes and can be considered as a common good with many uses.

Strategy

Scope of application

The strategy is binding for the central federal administration. For decentralised entities, it is an important reference document. As owner of the strategy, the Confederation also strives for its implementation in state-related enterprises.

The cantons and communes should see the strategy as a recommendation and a reference document. The strategy is designed to support and implement the publication of open government data at all federal levels.

For other public and private businesses and enterprises who accomplish tasks for the Confederation, the strategy is for information purposes only. Ideally, however, data produced or collected in the accomplishment of such tasks, should be published as open government data and referenced on the opendata.swiss website.

Private stakeholders with data of public interest are also invited to reference their data on the opendata.swiss website. As part of the Confederation's data policy, the Federal Department of Economic Affairs, Education and Research (EAER), together with the State Secretariat for Education and Research (SER) has already been commissioned, in cooperation with stakeholders from research and academia, to examine appropriate measures to ensure the availability of suitable research data.

Basic principles

Principle of the publication of open government data

The strategic mission statement is "open data by default". Data produced or commissioned by public authorities should in principle be considered open government data, provided no legal provision exists to the contrary. From 2020 such data will be published by data owners in machine-readable form as far as this is technically and legally possible. Published data shall be referenced on opendata.swiss. This will make them easy to use by both third parties and the authorities, who are not only data providers but also data users. At the start of "data production" data-producing entities should examine whether their data is OGD-relevant and can be published as OGD.

These changes may require changes to the way data processing is organised, as the possibility of publishing data as open government data will need to be considered from the outset. By referencing data on opendata.swiss, the use of high quality data that is already often published but hard to find will be increased.

To continuously improve the administration's work, the OGD office at the Federal Statistical Office (FSO) will develop and operate a few simple interfaces for the transversal use of data between the different authorities, establishing state-of-the-art and rigorous processes to generate value-added.

Data ecosystem (data as infrastructure, collaborative approach)

Open government data are a public administration service available to all interested parties. Once the owner has published the data, they are integrated into a data ecosystem (from the internet of documents to the internet of data), where they are available for use by persons and technical systems alike. This will drive interaction between data and stakeholders and encourage cooperation. The distinction between data provider and data user is blurred.

Optimising the legal framework

The General Secretariat for the Federal Department of Home Affairs (GS FDHA), should examine whether the OGD principles need to be enshrined in legal form and if so, take the relevant legislative steps. These will affect diverse areas of the Confederation's

⁸ This strategy is guided by the principles of Open Knowledge International (okfn.org).

jurisdiction. An important subject will be the free use of data that currently has to be paid for. The aim will be to find the best legal solution while mitigating any financial losses. Furthermore, the OGD coordination service at GS-FDHA will have to ensure that all future legislation projects - also those not primarily concerned with OGD - promote the OGD principles. This will allow fee-charging for data - which is contrary to the OGD principles - to be gradually phased out. There is no intention to apply this legal pressure to state-related or private enterprises.

GS-EDI will also examine whether specific provisions on data use as set out in Swiss law will continue to apply or whether they should be replaced by alternative solutions.

The technical framework will be improved as work progresses on the linked data platforms.

Objectives

Encouraging coordinated data publication

The publication of new data sets will be coordinated from the outset; existing data sets regarding selected policy areas will be published as soon as possible.

The OGD coordination service at GS FDHA and the OGD office at the FSO actively encourage the publication of data, especially where demand exists or when economic activities or political endeavours can be supported. Currently of public interest are data on the environment, health or mobility. Data on education, culture or research, in particular, can generate major value-added. As requested by the G8 and EU, open land registry data are of particular interest (high value datasets), as are data on legal persons and other reference data used as a basis for further data that have to be published immediately. The OGD coordination office at GS FDHA will set in motion the measures that this will require at various federal levels.⁹

As mentioned above, newly collected and processed data should be published as open data by default. With regard to existing data, which is not always machine-readable, the Public administration and Open Government Forum, as well as the Round Table (see chap. 6.1) will set priorities for the responsible use of limited resources. In order to guarantee the widest possible use of data, publication is coordinated on the basis of thematic or organisational criteria. The publishing of data according to both supply and demand is important to ensure that data sets are made as widely available as possible.

Data and data description: Quality

Published data must meet the defined quality requirements and are described using standardised metadata.

The administrative publishing data are responsible for the quality of data. They must make sure that data are complete and are published as soon as possible. Data must be directly available and machine-readable (open data formats and conditions for use that comply with the OGD principles). Where possible, data should be published in various formats to meet the needs of different users. The long-term availability of published open data must be clarified.

Data owners must provide standardised and meaningful metadata on their published data. These metadata must be clear and with a degree of abstraction that is as homogeneous as possible, informing users of the data's origins, their structure and reliability. The opendata.swiss portal operator (FSO, see chap.4.3.3) undertakes a formal quality control of the published metadata, required format and the conditions of use (standards compliance, such as eCH-02000, etc.).

The central portal opendata.swiss

Opendata.swiss is the central platform for open government data in Switzerland.

The opendata.swiss portal is a central and reliable platform enabling simple access to open government data in Switzerland. The platform also references data from third parties – state-related enterprises, persons who perform tasks for the Confederation, cantons or communes – where there is a public interest in such data, even if they are already referenced on other websites.

By referencing data in this centralised manner, the portal plays a fundamental role in data infrastructure and creates an environment encouraging the use of data.

The portal only shows users where data are; the published data remain with the individual data owners, thus avoiding data redundancy. As far as possible, the portal operator (FSO) ensures that the metadata of data already published elsewhere are automatically entered on opendata.swiss.

Overview of government data

Data sets will be regularly entered into a data register.

The inventories published in 2015 and 2017 provide an initial overview of existing datasets already published as OGD as well as those not yet published. The OGD office at the FSO should establish a system enabling the continuous update of this overview from 2019, which will function as a register, replacing the inventories updated at regular intervals. All data sets from the central federal administration's administrative units must be recorded in this register. This overview will facilitate the publication of data in a coordinated and topic-based manner, while at the same time targeting it to interested parties. It will be equivalent to the Federal Data Protection and Information Commissioner's Register of personal data sets (FDPIC).¹⁰

 $^{^{9}\,\,\,\,\,\,\,}$ cf. the G8 Open Data Charter with a list of 14 topics 'high value data'.

¹⁰ www.datareg.admin.ch

Encouraging the use of data

Data use must be encouraged through measures in which all stakeholders cooperate.

The fundamental cultural change underlying the notion of OGD implies the support of all the offices concerned by OGD in the future. This includes not only measures and services, but also increased contact between interested parties. The former will require reinforcement of the necessary data skills, such as data literacy and empowerment. This goes beyond the transmission of technical skills and involves making users aware of the misuse of data and data protection. It also requires the appointment of persons who will be responsible for data (contact persons) in the administrative offices, and the provision of appropriate tools and aids. The latter will involve various parallel and overlapping networks connecting the different providers and data users. This data-focused dialogue, in which different organisational types will come together (structured administration and less structured, social entities), will entail a blurring of the lines between the different roles of data providers and data users, so that all can benefit as much as possible from the published data.

Apart from data, the opendata.swiss platform also references, where possible, the uses for such data (uses, applications, API, data-based publications or "data journalism", etc.).

Plan of measures

The strategy is supported by an annex defining measures, indicators and responsibilities. The FDHA, together with the Conference of General Secretaries, is tasked with implementing this strategy and to assess it regularly, making any necessary changes to the plan of measures. The results of the assessment will be published as open government data.

Organisation and resources

Organisation

The GS FDHA is responsible for the overall management of the strategy, supported by an interdepartmental committee composed of representatives from all Departments, the Federal Chancellery and the Parliamentary services. The GS FDHA will report annually to the CGS

The *Public Administration and Open Government Data Forum*, also under GS FDHA management, will monitor the concrete measures outlined in the strategy's appendix and where necessary revise this appendix. Institutions from all state authorities, all federal levels and state-related enterprises are represented in this forum.

Representatives of data providers and data users meet at the *Round Table*, with the medium-term aim of creating the conditions to guarantee coordinated and demand-driven publication of data.

Under the leadership of the OGD office at the FSO, the Website Working Group continues to support the running and ongoing development of the portal.

For the publication of specialist data, thematic *working groups* could be set up, led by the relevant office, with data providers and data users working together. If necessary, methodologists could be appointed to supervise the publication of data from specific subject areas, such as statistics or geo-information; existing structures such as Regiostat, FEDESTAT or KOGIS could be used for this.

An OGD delegate at the GD FDHA will hold central responsibility for coordination (OGD coordination service). All departments and the Federal Chancellery will nominate a person or create a service responsible for the planning and coordination of data publication, examining the descriptions of data, representing their office in committees and acting as contact person for data users. Similar posts could be created in administrative offices of the Confederation that process large amounts of data or that fulfil a data processing cross-departmental function. For all of the above posts, the combination of this function with that of the person responsible for data protection or public relations should be considered. The different persons and services responsible for OGD will form a network to support the implementation of this strategy.

Resources

Implementation of the new strategy will using existing resources, including the new post at GS FDFA (political, strategical responsibility). The OGD office will be located at the FSO (operational responsibility) and funded by the FSO's existing budget.

Resources to cover the work of persons and services responsible for data in the departments, the Federal Chancellery and the administration will also come from the existing budget.

Any financial impact due to the loss of revenue from fees will be considered on a case to case basis.

Measures, indicators and responsible entities per objective

(Objective attainment will be assessed annually)

1. Encouraging coordinated data publication

The publication of data sets relative to selected political areas will be coordinated.

Measures:

- From 2020, the units of the central federal administration will in principle publish their new data as open government data, providing there are no legitimate protection interests or legal provisions to the contrary, (open by default principle).
- Analyses to assess the necessity of new legal provisions will be completed by mid-2020 and any preliminary draft legislation launched immediately. At the same time, fee-charging for data which is contrary to the OGD principles can be gradually phased out. Any changes to the conditions governing data use should also be decided by this deadline. If the conditions for data publication cannot be fulfilled, data owners should receive support to help them achieve this gradually.
- The OGD Round Table, under the management of GS FDHA will continue to bring together data owners at all federal levels, interested third parties and data users, for demand-driven data publication.
- Existing data that have not yet been published or have not been published centrally should be identified and published as open data. Due to limited resources, priority political areas must be identified (e.g. environment, mobility or health).
- Metadata from existing websites (e.g. geo-information, environmental sites, cantonal websites) should be automatically harvested.

Indicators / deadlines:

- The Public Administration and Open Government Data Forum (Confederation, cantons, communes, and third parties) should meet at least three times a year to deal with questions on the publication of data that is produced and processed by various stakeholders in the federal system (e.g. the Commercial Register).
- The OGD Round Table should meet regularly (at least twice a year) to make decisions on demand-driven data publication.
- At least two main topics will be processed by the end of 2022 and the relevant data published on opendata.swiss.
- OECD, EU or G8 publication calendar and recommendations should be taken into account.

Responsibility:

- Organisation and management of the publication platform, management of the different committees (Forum and Round Table) as well as examining necessity of taking legislative steps. OGD coordination office (GS FDHA).
- Establish priority topics for which the Confederation should publish data: Interdepartmental committee, in coordination with the offices responsible for data within the Departments and in the Federal Chancellery as well as in individual administration offices.
- For the publication of data relating to certain specialised topics, the individual offices concerned can assume responsibility with support from the OGD coordination office (GS FDHA) (thematic working groups, methodology-related subject leaders [statistics, geo-information]).
- Ongoing publication of datasets: OGD office (FSO).

2. Data and data description: Quality

Published data must meet the defined quality requirements and are described using standardised metadata.

Measures:

- Quality standards and metadata standards should be reviewed and where necessary updated on a regular basis. In Switzerland, the standard DCAT application profile for data portals is eCH-0200.
- The quality of data and metadata formats should be reviewed regularly with regard to publication requests by federal offices.
 Metadata will be automatically harvested from existing websites to reduce the workload of persons concerned. Solutions will be found in cooperation with the relevant partners.

Indicators / deadlines:

- The percentage of datasets that are not (or insufficiently) described, and the percentage of links that do not lead directly to the data, must be less than 5% for new data publications by federal offices. For data that have already been published, this percentage will be gradually reduce to less than 10% by the end of 2021.
- $\,-\,$ The percentage of federal office publications at one-star level must be less than 10%. 11

¹¹ Cf. the five star scale, ranking data formats from unmodifiable, proprietary PDFs to linked RDF data. Use by means of API must also be ensured.

Responsibility:

- Assessment and development of quality requirements: Interdepartmental committee.
- Technical support and development: FDHA / OGD office at the FSO.
- Implementation: all administrative units.

3. The central portal opendata.swiss

Opendata.swiss is the central platform for open government data in Switzerland.

Measures:

- The administrative units of the Confederation reference their data on opendata.swiss. The OGD office at the FSO ensures that existing metadata can also be included in the future by means of harvesting (geo-information, statistics)
- Operation of the website is guaranteed.
- The platform will be further developed using state-of-the-art technology (objective: to reach level known as "fast-tracker"12)
- Information about the datasets, their uses and their interactivity will be provided.
- Small data providers must be helped in creating custom-made data hosting.

Indicators / deadlines:

- The opendata.swiss website must operate on a 24/7 basis. No maintenance work can be carried out between Mon-Fri 08:00-17.00 CET.
- Further development of the site in consultation with the interdepartmental committee (regular reporting).
- The "fast-tracker" level as outlined in the EU study will be reached in 2021.

Responsibility:

- FDHA

4. Overview of government data

Data sets will be regularly entered into a data register.

Measures:

- Offer of a suitable application (acquisition of a platform from the University of Bern).
- If necessary, the existing application can be further developed or replaced in consultation with the Swiss Federal Archives.
- Data owners must enter their datasets on a regular basis.

Indicators / deadlines:

- All data sets published on admin.ch will be recorded by the end of 2020.

Responsibility:

- Transfer of the existing platform from 1.1.2019 and operation: FDHA / OGD office at the FSO.
- Registration of datasets: All administrative units of the central federal administration.

5. Promoting data use

Data use must be encouraged through measures in which all stakeholders cooperate.

Measures:

- The new Public Administration and Open Government Data Forum continues the work of previous forums and committees. The Forum comprises the Departments and the Federal Chancellery, together with the persons responsible for their data, as well as federal offices that manage large quantities of data or that fulfil a cross-departmental function related to data.
- The Round Table ensures that data providers and data users can be in constant contact with one another in order to encourage thematic and methodology-based development. It can, for example, promote the publication of manuals, tools or tutorials or the organisation of hackathons, but also encourage the active participation of universities including in the area of citizen sciences or promote courses for journalism, in order to promote the difference aspects of data use.
- Uses and analyses based on OGD will be referenced on opendata.swiss.

¹² Carrara, Wendy et. al.: Open Data for a European Data Economy, 2017.

Indicators / deadlines:

- By 2020 all Departments and the Federal Chancellery, as well as other relevant administrative units that manage large quantities of data or that fulfil a cross-departmental function related to data, have designated a person or post responsible for data.
- Once a year, all post responsible for data will report the status of their OGD implementation to the OGD coordination office (SG-FDHA).
- Events where data users meet (e.g. hackathons) are to be actively encouraged.
- Use of the website should see 25% annual growth.

Responsibility:

- Designation of persons or posts responsible for data: all General Secretariats (GS) and the Federal Chancellery, all other administrative units designated by the GS.
- Implementation of measures: GS FDHA
- For referencing of uses and analyses: the OGD office at the FSO, after informing the data owner.