The OECD Council adopted on 15 July 2014 the Recommendation on Digital Government Strategies. The Recommendation provides a set of 12 principles structured around 3 pillars. The OECD Secretariat is developing a Digital Government Policy Toolkit to support OECD member countries and non-member adhering countries with the implementation of the Recommendation. This practice was submitted by the government of Austria to be considered as a good practice in the implementation of one or more of the principles contained in the Recommendation.

**Description of the practice:**

**Organisation:** Federal Chancellery of Austria  
**Name of the practice:** Open Data Portal (OGP) [www.data.gv.at](http://www.data.gv.at)  
**Principles implemented:** Principle 1 – Ensure greater transparency, openness and inclusiveness of government processes and operations.

**Description:** In 2012 Austria has put in place a platform that gives access to freely available open data. The data are stored and prepared decentralized on federal, regional or local level – but they all are connected to a single portal at [www.data.gv.at](http://www.data.gv.at), where users can browse through information on geological data, transport, tourism, culture, environments, statistics, etc. These data may be processed to develop new apps (e.g. InstaPlay [to find the nearest playground], Taxi Wien [to find the nearest taxi stand], Wanderwege Wien [to find hiking trails]) or for visualization purposes.

Currently more than 2,048 data sets are made available on the Open Government Data Portal. Each data set shows information on who has published the data, what category the data set belongs to (e.g. “economy and tourism”), contains metadata and a subject catalogue (Schlagwortkatalog), the license (“CC BY”) and apps which has been developed by this data set.

**Project management:** Federal Chancellery of Austria.

**Project team:** Federal Ministries, Regional and Local Governments. Different stakeholders were identified and involved in preparatory activities like stakeholder workshops, namely, political decision makers, civil society (citizens and user communities), economy and public administration. Additional groups were involved journalists, media and science (universities, as well as other private and public research institutions).
Results

1) Meta Data Standardization:

The most successful output was the meta-data standard, meanwhile harmonized with the German and adopted by the Swiss national OGD initiatives. A unified meta-data standard is the solid base for every national OGD portal and prerequisite for cross-border activities.

2) License Standardization:

The Austrian OGD initiative is one of the few initiatives, which was able to agree on one international established license for data publishing. The decision to commonly use Creative Commons (CC by) license was an important output of the initiative, because application developers or users of the data exactly knew what they are allowed to do with datasets and it enables them to mix the different datasets, without the need to take legal advice.

3) Meta-Data Portal:

Based on these two OGD initiative outputs the OGD portal makes the cooperation happen. Administrations deliver open data sets and the open data community develops applications and visualizations. The success of the portal is measurable by in between 174 Apps and over 1000 datasets. Seamless integration and alignment as well as a central portal between regional, community and federal data providers could be achieved and collected in a single portal.

4) Cross border Meta-Data Harmonization:

OGD initiatives shouldn’t stop the national borders, because people often develop for regions and are not interested in national limitations. Therefore Austrian and German OGD initiates harmonized their meta-data standards, which enables the open data communities to harvest meta-data and get a quick overview about existing datasets in both countries.

5) Various small but invaluable success stories include:

(i) New business models: the RIS (legal information system) dataset which led to a successful App, now used by countless lawyers across Austria and has boosted the SME originally built the app.

(ii) Unexpected use and increased equity: a dataset and app for locating public toilets has found a community of patients who found their quality of life increased and who have sent a testimonial to the portal providers.

(iii) Feeding back apps into public administration: the public transport of the city of Linz did not have resources to build their own timetable and route planning app. The data was provided as OGD and used by a successful app, now bought back and sustainably maintained by public administration.

(iv) Improving public data quality: a dataset including geodata by the city of Vienna that contained errors could be corrected by community feedback.
Development

Design: Winter/spring 2011/2012

Stakeholders were identified and involved in the initiative as follows:

1) Preparatory Activities:

Different stakeholders were identified and involved in preparatory activities like stakeholder workshops, namely, political decision makers, civil society (citizens and user communities), economy and public administration. Additional groups were involved journalists, media and science (universities, as well as other private and public research institutions). The goal of preparatory workshops was to identify requirements of the primary stakeholder groups as well as the potential to involve the secondary stakeholder groups for dissemination and public relation to make the effort and portal known to a wider community and help building up an active user group.

2) Cooperation OGD Austria:

As for public administrations under the coordination of the Cooperation OGD Austria, this involves besides the chancellery as a coordinator, the cities of Vienna, Linz, Salzburg and Graz, several federal states and single communities down to the level of small villages such as the community of Engerwitzdorf (pop. ~8400), which contributes 122 datasets.

3) Stakeholder Involvement – Community Management:

One of the crucial success factors is community management. Therefore, the City of Vienna established an event, which was organized every three month with the aim bringing together open data community and officials, adopted by other communities in similar models.

4) Cross boarder Involvement:

At international level, the initiative is closely aligned and plays a coordinating role among data portals by its neighbours (Germany, Switzerland, Liechtenstein), where the Cooperation represents the interests of federal states in Austria, communities, ministries and its user community.

All stakeholders from politicians, official public bodies, companies through to the open data community have been involved from the early beginning 2011 till today.

Testing: Beta started on 18th April 2012, early user and real world testing was conducted during summer/fall 2012, gathering stakeholder feedback and continuous improvement is ongoing.

The following performance indicators were developed by the Cooperation OGD Austria for measuring the progress for the different local open data portals and for the central OGD portal. These indicators facilitate the comparison of the different open data providers.
1) Quantity of Datasets:

A typical indicator for OGD initiatives is dataset quantity. On the portal the users can easily find out how many datasets have been published per organization. This stimulates an unofficial competition between publishing organizations. Austria’s Open data policy is compared to other countries fairly cautious; whilst in some of the Anglo-American countries often "data-tsunamis" were released, the Austrian and German approach was more defensive, publishing datasets stepwise in several phases, but steadily increasing datasets that can be kept up-to-date in a sustainable manner.

2) Quality of Datasets:

Quality monitoring is based on the feedback from the open data community. Several options to provide feedback include a Wiki, E-Mail, Twitter and real life meetings. The quality of the datasets was very high, according to this evaluation by the open data community and also the community feedback helped to increase the dataset quality in particular cases, where errors were reported and fixed.

3) Quantity of Applications:

A very interesting indicator for OGD initiatives is the quantity of applications or visualizations, which are using open data sets. Therefore the initiative defined in the netiquette. That people who use the datasets should list their application on the OGD-Portal with links to the integrated data sets. This delivers two indicators: First a general overview about the quantity of applications (currently 175) and second the apps in combination with the used datasets also listed on the portal. This offers an indirect feedback about the quality and (un)popularity of different datasets.

4) Ratio datasets to applications:

The ratio between released datasets and applications is one of most interesting indicators in the field of OGD, because it delivers the effectiveness of an open data initiative, because the goal of open data initiatives is to create an impact for society through valuable applications and visualizations – e.g. the City of Vienna provides 223 datasets used by 111 applications, listed at the portal, cf. http://s.shr.lc/1fNpGqi

5) Download statistics

After evaluating download statistics and Web traffic in the initial phase, interviews with various stakeholders confirmed that these metrics do not reflect actual usage and uptake of open data and were discontinued after the initial phase.
Implementation: 18th October 2012

1) Loose cooperation between federal levels and different public institutions:
Preparatory workshops were held to identify stakeholders and potential of a common Austrian Open Government Data Portal and its synergetic effects in bundling and aligning existing efforts around open data by Austrian governmental organizations at different levels. For this purpose, representatives of the chancellery not only participated in workshops organized by the respective open data initiatives, but also organized workshops itself and became a coordinating force among the open government data initiatives in Austria.

2) Cooperation OGD Austria founded:
The Cooperation OGD Austria was founded in July 2011 together by representatives of the chancellery, as well as the Austrian cities of Vienna, Linz, and Graz for the purpose of aligning standards for open data publishing, creating a common portal and more efficient coordination of all stakeholders.

3) Standardization meta-data and license:
Several versions of the jointly founded Cooperation OGD Austria metadata working group aligned metadata structure to describe OGD datasets were then published, which also includes the agreement of a common license to ease access and combinability of open datasets to together with representatives of universities, research institutes, companies, and OGD publishers.

4) OGD Portal (Beta):
As an additional measure the OGD Portal has launched awards to incentivize the development of Apps on top of OGD and promotes Apps actively through its portal.
The central portal collects all published datasets by public bodies in the cooperation and is open for more organizations to join. This includes various technical features that help to achieve its goals:
* A searchable Data Catalogue supported by standards (CKAN, a common meta-data catalogue and a common license model).
* An application registry (that includes documentation which datasets have been used by which apps).
* Soft integration of social media (by adding social media "like" buttons in a 2-click fashion for added privacy).
* Links to other open government data efforts* contact and feedback facilities.
* FAQs.
5) Cross Border meta-data Standardization Based on the initiative of the Austrian OGD Portal been reconciled with German OGD initiatives and the Swiss OGD portal has agreed to adhere to the same standards. The Austrian OGD standards thereby contribute to reconciliation and harmonization of Open Data efforts bottom-up within Europe (as a complementary effort to top-down EU directives such as INSPIRE) in a dynamic, participatory manner, involving various stakeholders and user groups.

**Resources:** The members of the Cooperation ODG Austria and its stakeholders (including publishing organizations and community resources) mobilized the following resources:

1) Cooperation ODG Austria:

Every member was responsible for his own open government data portal. The standardization process was also financed by cost sharing; the organizations allocated personal resources for the standardization. The ongoing process of coordination of planning is also financed by the members.

2) OGD Portal Development & Implementation:

The Austrian federal chancellery has contributed with a workforce of 3 people at 30% to facilitate the administrative setup of the open government data portal from October 2010 until April 2011, launch of the beta version of the OGD portal. The federal computing center did the technical implementation, which required about 6 person months. The technical implementation was financed by the Ministry of Finance.

3) OGD Portal operational phase:

Two people of the Federal Chancellery are working part time (around 50%); they are responsible for the coordination and further development of the portal and the standards. The technical operations is done by the federal computing center and is charged around 100,000 Euros per annum, this includes running costs (hard- and software) and small budget for technical innovation and implementation. The annual running costs are shared by the chancellery and the City of Vienna.

4) Community Resources:

Public organizations, companies, research partners and open data community have mobilized at least the same amount of voluntary work to contribute to the effort, e.g. support of the standardization process, organization of “bar camps”, feedback loop for the OGD portal. Furthermore a wide number of open data apps (around 140) were developed and submitted to the portal. Based on a survey an average of 100 development hours effort per app, so additional workforce has been mobilized. It should be emphasized that a vast majority of the effort contributing to the Cooperation ODG Austria from all stakeholders is not accountable in numbers and based on voluntary and community contributions.
**Diffusion and scaling:** Ongoing.

The implementation of the initiative is exclusively built upon open source software and components and free to be mirrored by community users. The usage of CKAN as a data catalogue software makes the platform transferable and interoperable. Additionally, the existing platform offers interfaces to various existing content management systems (CMS) that allows communities and OGD providers hosting their data on the platform to use and server the data directly from the platform on their websites without the need to provide their own data hosting.

Currently, the platform and its concepts are being transferred for setting up a parallel platform under the auspices of Cooperation OGD Austria in collaboration with its partners form economy to set up a platform for private open data, connected to the OGD platform and building on the same standards developed on the OGD Austria platform, for further boosting Open Data and its economic exploitation within Austria.

Additionally, the setup and documentation of technical infrastructure are all built with the goal of being exemplary and also usable for other governments of smaller federal republics. Transfer of knowledge and experiences is already actively sought in regular communication with Germany and Switzerland (where alignment and partial transfer e.g. in the used open meta-data standards was achieved), but also with other neighbours.

**Partnerships:** Cooperation OGD Austria ([www.data.gv.at/infos/cooperation-ogd-oesterreich](http://www.data.gv.at/infos/cooperation-ogd-oesterreich)).

The Cooperation Open Government Data Austria (in short: Cooperation OGD Austria) was designed. Cooperation OGD Austria is a loosely coupled cooperation by federal representatives, provinces, cities and municipalities. This body is not a formal entity but consists of so called "ambitious and knowing" persons who have an interest in the future of Open Government Data (=unconventional cooperation without political mandate). The core assumption is framed by OGD principles, effective organizational and technical frameworks. The Open Knowledge Forum Austria, the Danube University Krems, Department for E-Governance and the “Open3.at” society act as advisors to the Cooperation OGD Austria. Finally, the Austrian federal chancellery coordinates the Cooperation OGD Austria. The Cooperation defines the overall OGD strategy with the intention to catalyse Austrian’s Open Data efforts.

Nature of the partnership: Academics and Research Bodies and Public Sector Organisations.

**Lessons learned**

Early on and flexible cooperation between OGD providers from different federal organization and rapid standardization have proven a crucial success factor for the Austrian OGD initiative. In the
starting phase of national OGD initiatives it is vital to set up cooperation and to standardize e.g. meta-data or publishing license. Subsequent harmonization of different standards later on is time and cost intensive.

Second, the set-up of a common portal and building up channels for regular community feedback, thus involving all stakeholders has backed up the effort significantly.

Thirdly, the alignment and exchange cross-border with neighbours has proven cross-fertilizing e.g. in terms of aligning meta-data standards across other national OGD initiatives.

**Recommendations and Goals for the future:**

Providing tools on the OGD platform, which help to visualize core data sets such as points of interest or time series related data in a user driven fashion are still needed to make the available date more consumable for laypersons. Currently there are no data visualizations provided by the OGD-Portal.

Implementation of a cross-department information management system via a common data bus is one important improvement and could foster acceptance among departments and government organizations, because OGD will be part of the daily digital workflow - OGD by Design.

The standardization of meta-data was the first step; the next step is the harmonization of dataset structure and comparability of OGD through code lists and thesauri. The departments are autonomous in their decision about formats and structures. The sheer amount of data within the organization, combined with the promise of OGD to be a valuable resource for business intelligence, requires data to be organized in a machine readable and understandable manner. It is a first step towards more sophisticated automated reasoning possibilities to leveraging the potential of business intelligence.

The development of appropriate OGD re-financing models is crucial for departments, which are more or less self-financed. Direct finical losses by OGD contributing departments have to be compensated in a way that releasing more data is encouraged rather than punished. So re-financing requires structural changes.

Further public relation activities and stakeholder-oriented initiatives carried out by the departments themselves are planned. Those activities shall focus on specific user groups (compare e.g. OG Ontario and the Guidelines on Open Government Data for Citizen Engagement by the United Nations).

Education and training programs will have to increasingly account for creative methodologies as well as analytical competences.
CC-BY or a comparatively permissive license should be used as the default in OGD according to which beneficiaries of public subsidies have to release their results.

With the increased documentation of success stories and testimonials from publishers and consumers of OGD, the initiative aims to publish more data and further increase data quality.

**Conditions required:** The form of partnership is crucial. So the Cooperation OGD Austria is an innovative cooperation: despite its informal nature it was able to standardize open government data in Austria in a “grass roots” effort. Meta-data standards were developed and used in the local projects of the Cooperation members and all later following organizations joined and accepted these standards.

The initiative doesn’t end at the national border and government data:

* The Austrian Federal Chancellery started to harmonize open metadata descriptions with the Germany Ministry of Interior: the Austrian and German metadata schemes are now aligned. Coordination and consultancy to other countries is underway where Austria plays a spearheading role.

* A parallel portal for non-public open data providers (using the same standard technologies and meta-data standards) is currently being set up in order to provide an additional platform for private entities and to leverage, participate in and enrich the overall Austrian Open Data landscape.

Whilst in many OGD efforts proprietary licenses are used, the Cooperation OGD Austria agreed to use an established license - Creative Commons, CC BY - for all datasets.

A central OGD portal makes all integrated and hosted sources amenable to reuse and combination with other open data sources adhering to its standards.

**Additional information:** Open government data, though emerging in various communities and governments, is a resource the full potential of which is as of yet largely untapped. Many public organizations collect a broad range of different, heterogeneous data in order to perform their tasks. The government itself is particularly significant in this respect, both because of the quantity and centrality of the data it collects, but also because most of that government data is public data by law, or already paid by the citizens via taxes.

There are many areas where we can expect open data to be of value, and where examples of how it has been used already exist. There are also many different groups of people and organizations who can benefit from the availability of Austrian open government data, including the government itself. At the same time it is impossible to predict precisely how and where value will be created in the future: the nature of innovation is that developments often comes from unlikely places and originally unforeseen usage. Leveraging and improving the accessibility of Open Data is a crucial
factor in this accelerating this potential. It is already possible to point to a large number of areas where open government data is creating value:

* Transparency and democratic control
* Participation
* Self-empowerment
* Improved or new private products and services
* Innovation
* Improved efficiency of government services
* Improved effectiveness of government services
* Impact measurement of policies
* New knowledge from combined data sources and patterns in large data volumes

Economically, open data is of great importance as well. Several studies have estimated the economic value of open data at several tens of billions of Euros annually in the EU alone. This economic value is particularly obvious at the level of SMEs. New products and companies are re-using open data. However, one of the remaining problems of Open data in its current form remains heterogeneity and data being scattered across various sources and public organizations that are all willing to open up their data, but neither have the technical and personal resources, nor the authority to resolve these issues in isolation. This leads to potential inconsistencies and quality deficiencies in open data, also often criticized in public discussions about open data. Besides quality issues, coordination of Open Data efforts at a hierarchical (national, but also transnational) level is needed to harmonize Open data, leverage agreement on common meta-data, and provide a platform that by itself enables participation to involve the community in resolving quality issues and harmonization.

The Federal Chancellery of the Republic of Austria as an organization is ideally positioned to host and lead the development of such an effort, by:

* being one of the biggest owner of public data itself;
* being in a position to funnel and coordinate nationwide open data initiatives by other public bodies (at community or regional level); and,
* being in a position to represent and coordinate the alignment of Open data efforts beyond Austria in collaboration with other national level open data efforts.