

Geospatial Data: Conservation and Archiving Planning

Helen Gollin
Federal Office of Topography
swisstopo
Seftigenstrasse 264
3084 Wabern, Switzerland
+41 58 469 04 40
helen.gollin@swisstopo.ch

Urs Gerber
Federal Office of Topography
swisstopo
Seftigenstrasse 264
3084 Wabern, Switzerland
+41 58 469 02 82
urs.gerber@swisstopo.ch

Martin Schlatter
Federal Office of Topography
swisstopo
Seftigenstrasse 264
3084 Wabern, Switzerland
+41 58 469 03 04
martin.schlatter@swisstopo.ch

ABSTRACT

In this poster, we describe a work package of the project Ellipse - archiving of official geospatial data under federal legislation in Switzerland. The work package treats the Conservation and Archiving Planning for all the geospatial data of the federal administration. The Conservation and Archiving Planning allows to determine how long a set of geospatial data is kept at the authority responsible and if it is of archival value or not. An overarching, coordinated and joint planning is of fundamental importance when dealing with geospatial data sets, so to ensure the combinability in the long term.

Keywords

Long-term preservation, preservation planning, conservation and archiving planning, long-term availability, archiving, geospatial data, OAIS, metadata, management of geospatial data, appraisal of geospatial data.

1. INTRODUCTION

The project Ellipse is carried out as a joint project involving the Swiss Federal Office of Topography (swisstopo) and the Swiss Federal Archives. Its aim is to find a solution for the archiving of geospatial data in the federal administration. A set of objective stated:

- The solution should be developed for the entire federal administration.
- It should be a well-founded, integral solution for long-term availability and archiving.
- It must permit archived digital geospatial data to be (subsequently) re-integrated into a geographic information system (GIS). It must enable geoinformation to be restored at a later date.

To ensure this well-founded and integral solution for long-term availability and archiving the work package Conservation and Archiving Planning (CAP) was realised. More information, especially to other aspects of the archiving of geospatial data can be found in the concept report of the project Ellipse [1].

2. CONCEPTION OF THE CONSERVATION AND ARCHIVING PLANNING

What is to happen to the geospatial data in future, in other words which data are to be available where, for how long, and for what purpose, is a key issue in the management of geospatial data. In Switzerland there is a legal framework for answering these questions, which distinguishes between *conservation* for a limited time at the authority responsible (long-term availability) and *archiving* for an unlimited time by the Swiss Federal Archives.

The archival value of all documents must be assessed before archiving. To do this, the bodies required to offer records for safekeeping and the Swiss Federal Archives assess

corporately which of the documents offered are worth archiving, and which should be destroyed once their conservation period has ended.

The Swiss Federal Archives operate a standard method for appraising documents against a catalogue of criteria which is applied equally to all types of documents. The criteria and the two-stage overall appraisal process can also be applied to geospatial data. In view of the important interdependencies between the geospatial data collected by various authorities, the procedure has been supplemented such that, when appraising in accordance with legal and administrative criteria, not only the authority responsible for the data according to the law but also, via the latter, other responsible authorities that are affected, are involved.

The aim of long-term availability is to conserve official geospatial data for a limited period in such a way that their quantity and quality are maintained and they are available for continuous active use. Online availability should extend not just to the data that are current at a given time but also to defined older versions (in the sense of time series) to enable amongst others monitoring

The archive and the authorities responsible must draw up an overarching, coordinated and joint conservation and archiving plan. Appraisal of geospatial data for time-limited conservation in long-term availability and subsequent archiving, where appropriate, are to be planned and coordinated in advance and not on a case-by-case basis, if questions of appraisal of an individual geospatial data set are upcoming.

Although the goals and statutory basis of long-term availability and archiving differ, they nevertheless relate to the same documents (in this case geospatial data) and require detailed reflection on their function, potential use and links, as well as the exploitation of possible synergies. Linking the two decision-making processes together from an organisational point of view is therefore a matter of importance.

To maximise the benefit from the potential synergies between the selection of geospatial data for long-term availability and appraisal for archiving, coordination is advisable on two levels: coupling the two processes together; and applying them to all federal geospatial data sets. The advantages of this approach are as follows:

- First, linking the prospective appraisal of all federal geospatial data with regard to long-term availability and archiving enables the two aspects of limited conservation and (unlimited) archiving to be coordinated.
- Second, registration of all geospatial data on a single occasion creates a shared working basis, which is preferable to individual stocktakes in terms of both the work involved and the information value.
- Third, early planning for long-term availability and archiving enables the various parties involved to input their requirements and interests into the process.
- Fourth, account can be taken of the interdependencies between thematic geospatial data and geospatial reference data or geospatial data. As all parties are involved at the same time, the results can be aligned where necessary.
- Fifth, coordination takes account of the fact that geospatial data, the vast majority of which are collected decentrally, can be linked to geoinformation in any number of ways. This needs to be borne in mind both in long-term availability and in the archive.
- Sixth, the workload involved at a later stage when geospatial data are submitted to the archive is significantly reduced.

In addition to efficiency gains, this approach therefore permits a holistic perspective on the issue of what is to happen to the various geospatial data. If transparency is assured and an overall view is available on this point, geospatial data can be managed prospectively and their long-term usability is secured. Geospatial data that are no longer needed can be filtered out at an early stage, instead of unnecessarily consuming resources. Finally, planning is a prerequisite for the automation of transfer between geospatial data-producing authorities and the archive. It also creates transparency for all involved as well as for users.

3. REALISATION OF THE CONSERVATION AND ARCHIVING PLANNING

The conception of the Conservation and Archiving Planning was done in 2013. From 2014 till 2016 the Conservation and Archiving Planning was realised with all the federal offices involved.

Initially, an inventory was generated, this included on the one hand side the compilation of the official geospatial data under federal legislation and on the other hand side other geospatial data that the federal offices produce. The inventory was generated in a tool, which was also used by all the participants to fill in their appraisal information. When the inventory was completed, the authority responsible appraised the long-term availability and the archival value of their geospatial data sets. In the implementation this means they defined how long their geospatial data sets are going to be kept in the long-term availability and if their geospatial data sets are of archival value or not from a legal and administrative point of view. When every responsible authority had finished the appraisal of their geospatial data sets, the other authorities had the opportunity to appraise these geospatial data sets as well. For this purpose a workshop was conducted, where all the geospatial data producing offices, respectively the authorities responsible, came together and could place their requirements. The main part of the changes due to this workshop were harmonisations of the appraisal of geospatial data sets with a similar data model but diverging authorities responsible (e.g. sectoral plans). After this workshop the Swiss Federal Archives

conducted the appraisal of the archival value of all the geospatial data sets from a historical and social point of view. This process was finalized with an official appraisal decision from the direction of the Swiss Federal Archives.

4. CONCLUSIONS

The activities of the initial Conservation and Archiving Planning were completed in spring 2016. They are published on the geoportal of the Swiss Confederation¹ and on the website of the Swiss Federal Archives². By the end of 2016 the annual updating process is going to be designed, so that from 2017 onwards the Conservation and Archiving Planning can be put into operation. The annual updating process renders the possibility to adjust the appraisal when new geospatial data sets are generated or when conditions change.

5. REFERENCES

- [1] Project Ellipse, 2013. *Concept for the archiving of official geodata under federal legislation*. Concept report. Federal Office of Topography swisstopo, Swiss Federal Archives, Berne, Switzerland.
<http://www.swisstopo.admin.ch/internet/swisstopo/en/home/topics/geodata/geoarchive.parsysrelated1.59693.downloadList.56737.DownloadFile.tmp/konzeptberichtellipsev1.3publikationen.pdf>

¹http://www.geo.admin.ch/internet/geoportal/de/home/topics/archive_planning.html

²[https://www.bar.admin.ch/dam/bar/de/dokumente/bewertungsentscheide/Geobasisdaten%20Bewertungsentscheid%202016.pdf.download.pdf/Bewertungsentscheid%20Geo\(basis\)daten%20des%20Bundes%20\(Projekt%20Ellipse,%20AAP\),%202016-02-19.pdf](https://www.bar.admin.ch/dam/bar/de/dokumente/bewertungsentscheide/Geobasisdaten%20Bewertungsentscheid%202016.pdf.download.pdf/Bewertungsentscheid%20Geo(basis)daten%20des%20Bundes%20(Projekt%20Ellipse,%20AAP),%202016-02-19.pdf)