

10 Years of "Law on Geoinformation" in Switzerland – Core Features of a Successful National Spatial Data Infrastructure

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SUMMARY

This paper is one article in a series of four that are being submitted to the FIG-WW 2019 in Hanoi. The background is the 10-year anniversary of the "Swiss Federal Law on Geoinformation", which came into force on 1 July 2008.

This paper presents tools for the technical harmonisation and dissemination of geodata in the context of a national spatial data infrastructure (NSDI). The specifications for the technical harmonization of the several hundred data sets that are classified as official geodata must take place on a level which copes with the diversity of their contents. Specific requirements for the geodetic reference system, data model and representation model, data quality and feature capture rules and data exchange have been laid out.

Official geodata are managed on all three administrative levels. Several data sets such as spatial planning and cadastre are managed at municipal level, but are often used at cantonal and national level. The system architecture of the NSDI is thus based on de-centralised storage at the data manager and centralised access, whereby decentralised use is of course also important. For efficient data exchange between the authorities, a backbone for data distribution is required in addition to maintain the consistency of the data models used and the exchange format Interlis. The so called "aggregation infra-structure" ensures that only data with sufficient data quality is transferred into the homo-geneous structure. Organizational mechanisms also ensure that the data in the central infrastructure are always kept up-to-date.

Due to the importance of geodata for economic prosperity, many official geodata are not subject to access restrictions. In recent years, many organisations began to provide their data as Open Government Data (OGD). Through the intensified data usage, the harmonization of further data

sets that are related to geodata, such as a housing register, has been promoted. By means of register harmonization, the data records managed in isolation can be easily combined with each other, so that a holistic view for the promotion of smart governance is guaranteed.

Different uses of geodata in apps on smartphones would not be possible without the NGDI and the underlying technical harmonisation. The developments over the last 10 years show that the scope of the legislation and the corresponding ordinances have been done in a sufficient level of detail. Only those requirements have been defined that have proven to be necessary in practice. This also seems to have resulted in an optimal cost-benefit ratio.