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Geoinformation on Demand – The Bavarian Example

Abstract

Nowadays spatial data is well on the way to gain an outstanding importance for politics, economy, administration and each citizen. This development is initiated by several facts:

- over 80% of all daily used information contains spatial reference,
- this spatial reference is easily available by modern technologies of positioning in a standardised, global coordinate reference system with high accuracy, currentness and economical conditions,
- in addition to three spatial dimensions there is the possibility of integrating time as a fourth dimension or any feature attributes in spatial data services.

So GIS stand for a memory of interdisciplinary data, including a provision of its standardised spatial and chronological attribution, which is indispensable for any political, economical, administrative and ecological decision or problem-solving. Due to the possibility of analyses over various chronological scales, GIS fits the requirements of long period examinations over many years as well as those of disaster-management, where it often depends on minutes.

GIS mostly deal with huge amounts of data. Therefore the efficiency of data collection, data documentation and data services have a great relevance.

The observance of the following basic principles

- no redundant data storing
- standards in data modelling and interfaces
- and rapid data access

is especially important. Only under these circumstances “Geoinformation on demand” actually makes sense.

In Bavaria, the administration of land survey and cadastre has by law the task of establishing a spatial data infrastructure (SDI) called “Geodaten-Infrastruktur Bayern (GDI-BY). The big point is the extended definition of its scope. It is defined as collecting and providing not only basic spatial data (topographical and cadastral data) for the entire national territory, but also all specific spatial data of the public sector by web-services. GDI-BY is part of the German spatial data infrastructure initiative “Geodateninfrastruktur Deutschland (GDI-DE)”, which is itself part of the European SDI-Initiative INSPIRE. In the technical aspect GDI-BY is based upon the open standards of ISO and OGC as well as upon the mandatory nationwide SDI-Conventions.

Basic components of “Geoinformation on Demand” are the Integrated Spatial Database (IGDB) and a “Viewer of Bavaria”, called “Bayernviewer”. Its advantage is the scalability to various ranges of specific spatial data of the public sector, for example the “Bayernviewer-agrar”, developed for agriculture (IN-VEKOS and application of subsidies), the “Webservice of flood endangered areas (Bayernviewer-aqua)”, developed for water management or the “Bayernviewer-denkmal” for spatial referencing of all listed monuments, buildings and archaeological sites. Already now the Bayernviewer has evolved as an indispensable appliance for disaster-management and police force.



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Short biographical notes

1943	born in Rosenheim
1965 – 1970	study of geodesy at the Technical Universities of Munich and Graz with an endowment by the German People Study Foundation
1970 – 1972	trainee in the Bavarian Land survey Administration finished with the Great Examination
1972	doctorate and entry in the Bavarian Land survey Administration
1978 – 1979	course in governmental and administration management at the Bavarian State Chancellery
1982 – 1998	senior governmental adviser in the Bavarian Ministry of Finance
1995	Honorary professor at the Technical University of Munich
since 1998	head of department of the Bavarian Land survey Administration and CIO in the Ministry of Finance
2002	member of the German Geodetic Committee