The Map Supply

The Danish National Survey and Cadastre is the government organisation responsible for the geodetic network, the cadastral system, topograâ€“phical mapping and nautical charting in Denmark. This organisation also has overall responsibility for the national spatial-data infrastructure. Spatial Data Infrastructure (SDI) is defined as â€¯the technology, policies, standards, and human resources necessary to acquire, process, store, distribute and improve utilisation of geospatial dataâ€™.

Integration with IT

With the anticipated approval of the INSPIRE directive, the Danish National Survey and Cadastre has as the authority responsible for overall co-ordination of Danish implementation of INSPIRE focused attention on national SDI. The INSPIRE directive and the vision of a shared public infrastructure for spatial-data information emphasise the need for a seamless infrastructure consisting of data of differing custodian responsibility and offering easy access to up-to-date information for various user communities. To be successful the SDI must be available for integration into mainstream IT solutions and must consist of information from various sources.

Groundwork

From a technology viewpoint one of the most exciting developments within mainstream information and communication technology is Service Oriented Architecture (SOA) and its emerging standards, including OGC standards for the geospatial area. The flexibility of SOA lends itself well to the environment within which SDI must exist and SOA and OGC standards are important building blocks for the SDI. However, technology and technology standards alone will not solve the problem: a substantial amount of groundwork needs to be done in the areas of data modelling and developing new business models, new ways of working together, new processes and procedures, and a new set of agreements on sharing.

Map Supply

In 2001 the Danish National Survey and Cadastre launched The Map Supply as the platform for making spatial data and functionality available on the internet as web services in an SOA. The Map Supply application is based on standards, SOA standards in general, complemented by OGC standards in the geospatial area, including the OpenGIS Web Map Service (WMS) and Web Feature Service (WFS) Specifications. Apart from technology and technical standards The Map Supply deals with the business model and defines conditions for use of web services. It provides a partner program ensuring that available resources are discoverable and to help integrate the geospatial infrastructure into mainstream Information Technology solutions.

The main goal for The Map Supply is to decrease barriers to use of geospatial intelligence. This has traditionally been mainly used in dedicated GIS systems and initial investments in systems and knowledge were high. With web-service offerings we see a dramatic increase in the use of geospatial intelligence in mainstream solutions such as e-government. The Map Supply has been very successful. Today some two hundred organisations have access to the services, more than twenty system integrator companies are involved in the partner programme, and more than three million requests are serviced each month.