Title: The Dutch Kadaster gets INSPIREd with deegree

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The INSPIRE directive (http://inspire.jrc.ec.europa.eu) aims to create a pan-European Union (EU), spatial data infrastructure. This will enable the sharing of spatial information among public sector organisations and better facilitate public access to spatial information across Europe. The directive requires that common specifications are adopted by EU Member States in a number of specific areas, such as Metadata, Data and Network Services. INSPIRE Data Specifications cover many areas such as for example Cadastral Parcels, Addresses and Hydrography and are published as GML (3.2.1) Application Schemas. Specifications for INSPIRE Network Services include the use of the Web Feature Service (WFS) for query and download of INSPIRE-compliant data.

In order to adhere to INSPIRE specifications, EU member states will need to transform local national data to INSPIRE Application Schema data. This transformation may include coordinate transformation to ETRS89 (EPSG:4258), the CRS required by INSPIRE. Within EU-funded projects such as ESDIN and EURADIN best practices for these challenges are jointly developed. These practices include approaches to data and coordinate transformation with both free and closed software.
Within the Dutch Kadaster (Dutch Land Registry Office and Topographic Service) prototyping for INSPIRE using FOSS4G started in the fall of 2009 within the context of the European best-practices projects ESDIN and EURADIN. From the beginning the deegree (then v2) WFS has been part of the software architecture. This setup also included source data transformation (using XSLT) into PostGIS, GeoServer (for WMS) and OpenLayers/GeoExt (web client visualisation). The outcome of this project was a successful data transformation and a download service (via WFS) of the INSPIRE data themes Cadastral Parcels (CP) and Addresses (AD).

Currently, in a second phase this prototype architecture is evolved using deegree 3 (WFS and WMS) and GeoNetwork (metadata/CSW) components. In addition, local datasources for large-scale topography will be made available as INSPIRE/ESDIN-compliant data services. Examples of these data themes are Hydrography (HY), Transport Networks (TN) and Administrative Units (AU).
In this talk the focus will be on the overall software architecture, including issues on data transformation, data publication, feature storage, visualisation and metadata. As indicated deegree 3 (WMS+WFS) is playing a key role within our architecture as the "INSPIRE Hub".

We think that our approach to INSPIRE is reusable within other EU member states. For this we have started an Open Source project
together with core developers from lat/lon (Markus Schneider and Andreas Schmitz). See http://code.google.com/p/inspire-foss. If time permits we can give some demos as well.