PUTTING THINGS TOGETHER:
Geonetwork OpenSource, OpenLayers, GeoExt and MapFish under the roof of Drupal CMS - Geoportal RO as an example

Hinrich Paulsen, terrestris GmbH & Co. KG
(1) The company terrestris
(2) Evolution of Geoportals
(3) The modern way using Geoportal Raumordnung as an example
(4) Conclusions
terrestris GmbH & Co. KG

→ Geoinformatics business headquartered in Bonn, Germany
→ Specialised in Web-GIS using Open-Layers, MapFish, GeoExt, UMN, Geo-server, PostGIS, etc.
→ 9 staff
terrestris GmbH & Co. KG

→ Regular participant in FOSS conferences like FOSSGIS and FOSS4G
→ Bronze Sponsor of FOSS4G 2010
Evolution of Geoportals

- Internet went main-stream in the middle of the 1990s
- A lot of content was put on the internet using static HTML pages
- After the internet had picked up speed it became quickly apparent that systems were needed to manage content so Content Management Systems (CMS) came into being
Evolution of Geoportals

➔ Emergence of web map servers at the end of the 1990s
➔ Direct integration of maps into websites
➔ Google-Maps at the beginning of the 21\textsuperscript{st} century really helped to make interactive maps on the internet popular
➔ Emergence of geoportal software like Mapbender
Evolution of Geoportals

- Geoportals are usually not limited to displaying geodata but offer other information too, hence the need to combine geoportal software with CMS.
Evolution of Geoportals
Evolution of Geoportals
Evolution of Geoportals

Geoportal Berlin/Brandenburg

Mapbender
- user administration
- session handling
- backend to administrate OGC Services

TYPO3
- user administration
- session handling
- backend to administrate Content, WIKI, etc.
The modern way

➔ Make one software lead and let all others follow using plugins

➔ Usually the software of choice for leader is the content management system because it already has a lot of functionality like

• session handling
• database abstraction layer
• ....
The modern way

- Geoportal Raumordnung of Baden-Württemberg, Germany uses the following components
  - Drupal CMS
  - PostgreSQL/PostGIS
  - OpenLayers, MapFish, GeoExt
  - UMN Mapserver
  - Geonetwork Opensource
The modern way
The modern way

Geoportal Raumordnung Baden-Württemberg
Wirtschaftsministerium - Regierungspräsidien - Träger der Regionalplanung

Funktionen
- Übersichtskarte
- Karten- und Planinhalt
  - Verwaltungsgebiete
  - Raumordnungskataster (ARK)
  - Raumordnungspflichten (ROV)
  - Besonderes Stadtbaurecht
  - B-Plan, Satzung §§ 34/35 Baugebill
  - Flächennutzungsplan
  - Landes-Regionalplanung (PlanAtlas)
- Raumstruktur
  - Zentrale Orte
  - Oberzentrum
  - Mittelzentrum
  - Untermenü
  - Kleinzentrum
  - Mittelbereiche
  - Entwicklungssachen Land
  - Entwicklungssachen Region
  - Strukturschwache Räume
  - Raumkategorien
  - Siedlungsstruktur
  - Freiraumstruktur LEP

Drucken / PDF Ausgabe
Suche nach

Koordinaten (DHDN/GK5):
32509882, 5480654
The modern way

- Drupal plugins for upload and download of geodata
- Topology and attribute validation for uploaded geodata using PostGIS
- Visual comparison between data being uploaded and data already available in the system
Upload von PlanAtlas und AROK Daten in das Geoportal
Schritt 3 - Sichtung der hochgeladenen Daten

- pg_8121_siedlungsbereiche
- pt_8121_siedlungsbereiche
- testdatensatz
  - Shapefile ist nicht komplett.
  - Shapefile ist nicht valide.

Tabulatoransicht des Metadatensatzes:
edierbar: muss bestätigt werden.

Metadatensatz bestätigen
The modern way

- Drupal plugin to edit metadata for Geo-Network OpenSource (GNOS)

- Easy adaptation of metadata profiles and definition of dependencies (parent-child relations)

- Metadata objects can easily be preconfigured which reduces error susceptibility and provides for easier validation
The modern way
The modern way

- The MapFish print module is integrated by way of a servlet
- GeoExt is being loaded as a resource
The modern way
The modern way
The modern way
Conclusions

- Things are not as easy as they look, for example in presentations

- Project restrictions, i.e. politics, time and money usually apply so that the 'right' solution can not always be obtained

- With tenacity and perseverance one can usually utilise several projects to achieve the goal of adequate integration
Conclusions

- For instance the OpenLayers Drupal plugin which is available at
  
  http://drupal.org/project/openlayers

  was at the time of reviewing not flexible enough to deal with the complex geodata operations required in the project

- Project resources are allocated to finalise this plugin
Thank you for your attention!

Dipl.-Geogr. Hinrich Paulsen
paulsen@terrestris.de
+49 228 – 962 899 51