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CAPE TOWN SOUTH AFRICA FOSS4G 2008

Introduction to Geoportal Management using Mapbender

–

Orchestrating the Geospatial Concert

a FOSS and OGC compliant Geoportal Software

FOSS4G Workshop

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http://www.wheregroup.com

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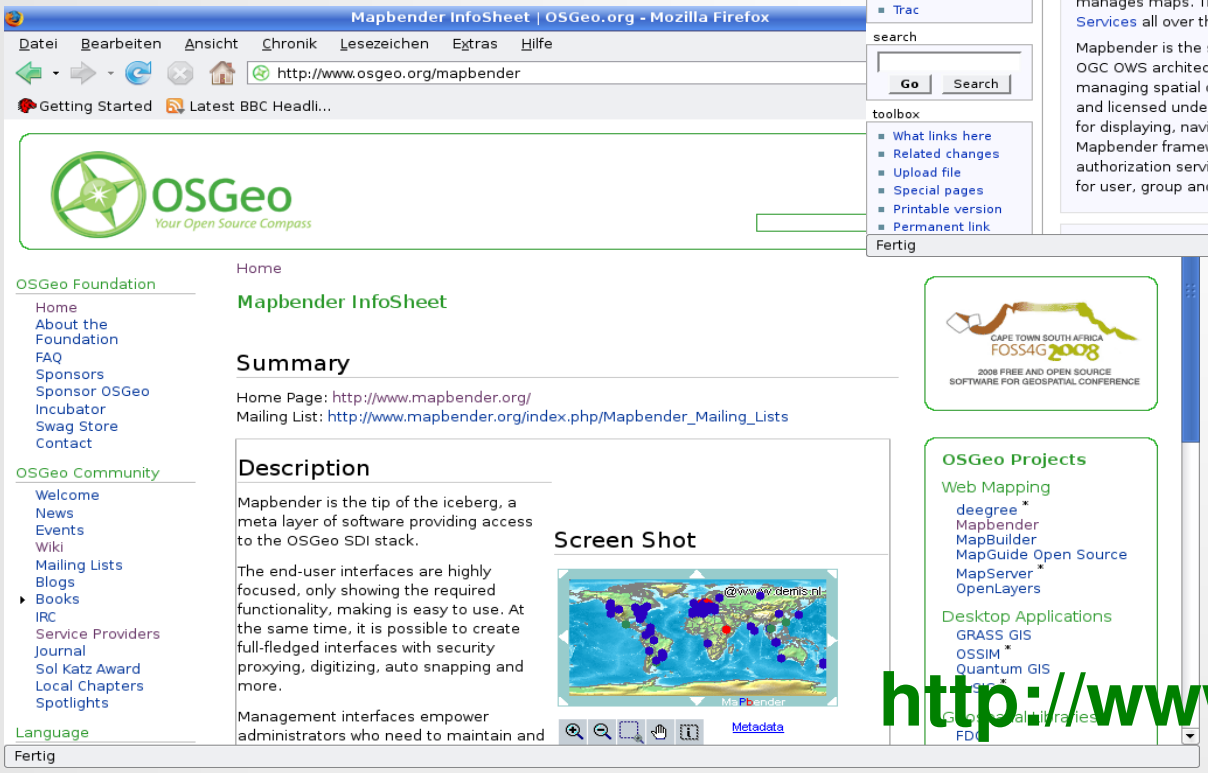
http://www.mapbender.org



http://www.osgeo.org/mapbender

Agenda

- **Mapbender – More than just a viewer**
- Community building in Free and Open Source Software - how the Mapbender community developed
- Best practice Examples
- The WhereGroup

Mapbender Snapshot

Mapbender

- is a framework to deploy OGC compliant Geoportals (OGC WMS, WFS, WMC, KML, GML) – implemented in php
- Provides interfaces to manage, bind and orchestrate web map and feature services
- includes user and service management and combines them into manageable user interfaces
- represents a typical workflow: create user account, create user application, build map service catalogs, populate with maps, grant user access to interface, add interactive elements, secure the infrastructure

Mapbender is a framework to make data more available for internal power users or to the public to make government more efficient. It is a communication medium in the information society using the web.

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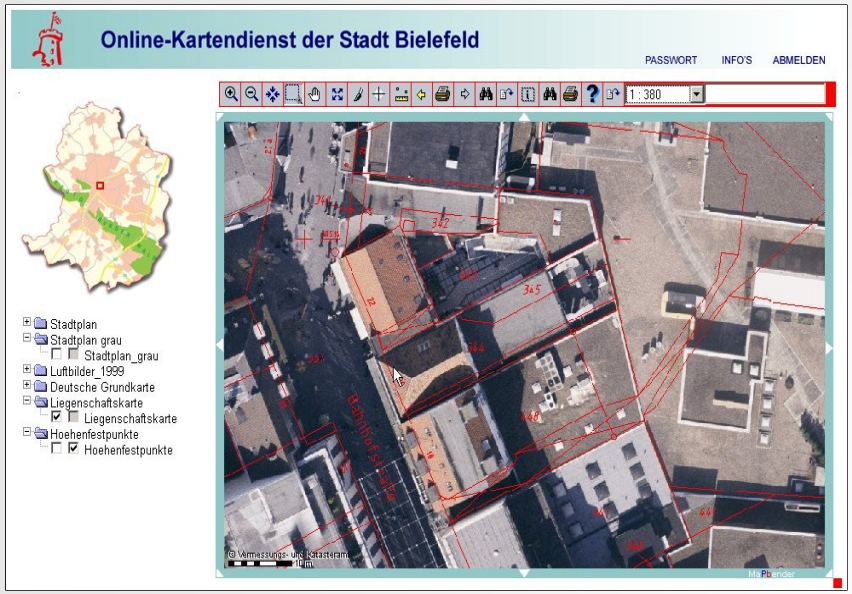
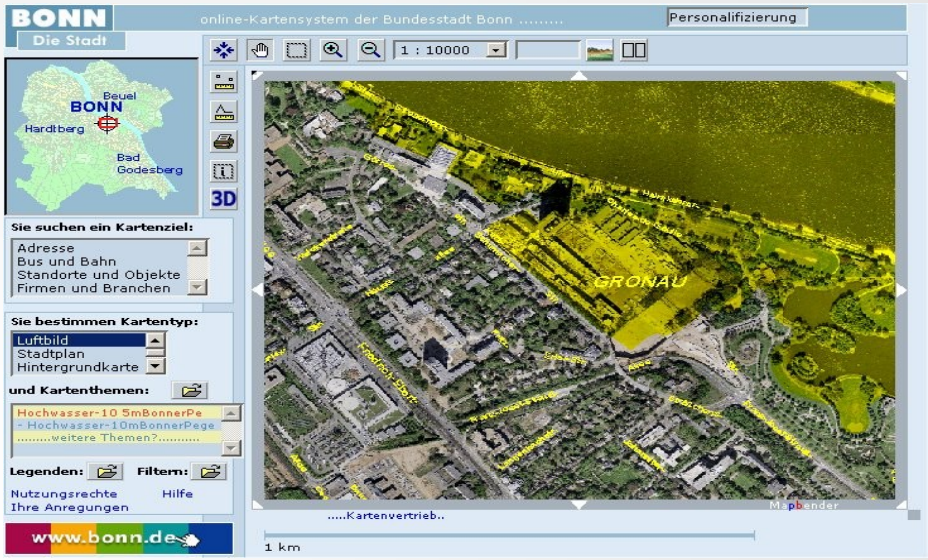
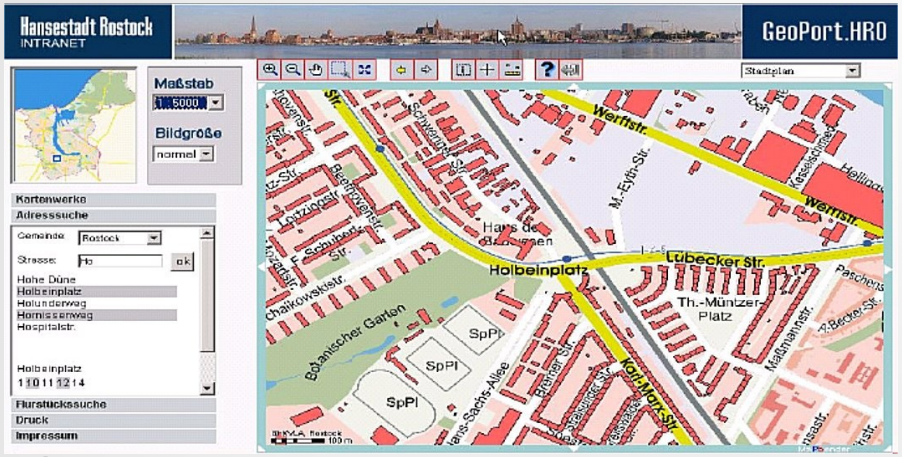
Mapbender Snapshots – City Map Services



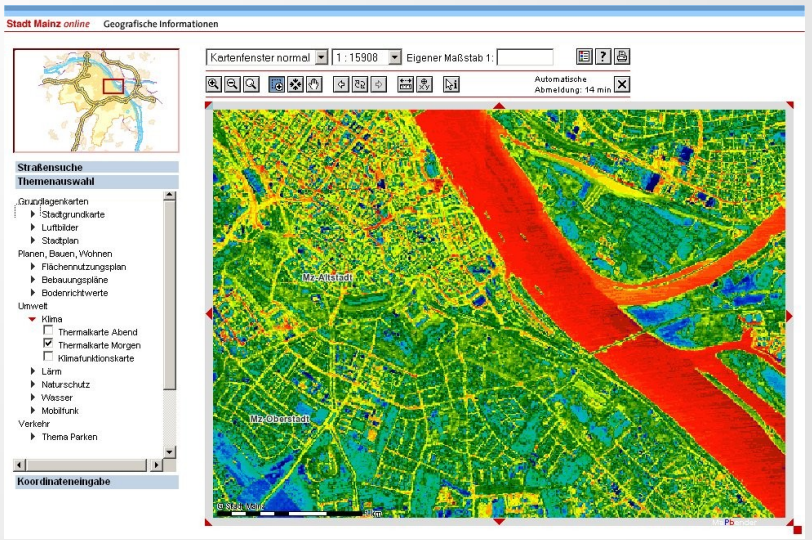
Online Map Service Bielefeld



SDI Bonn



GeoPort Rostock



City Map Portal Mainz

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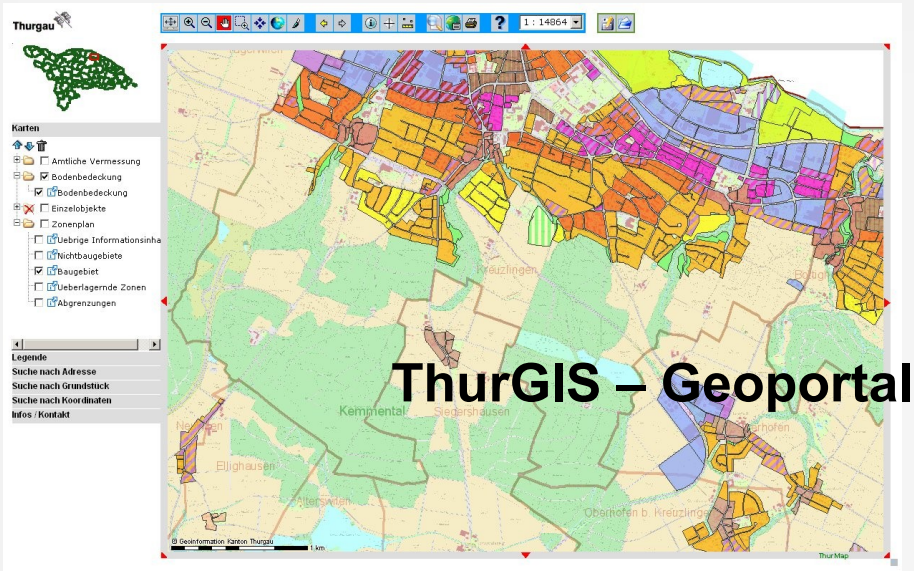
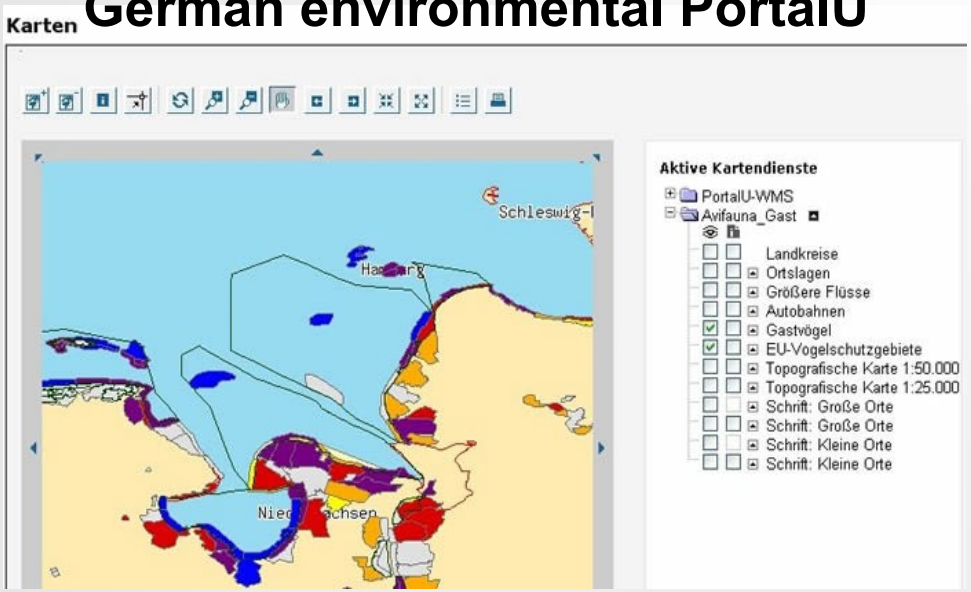
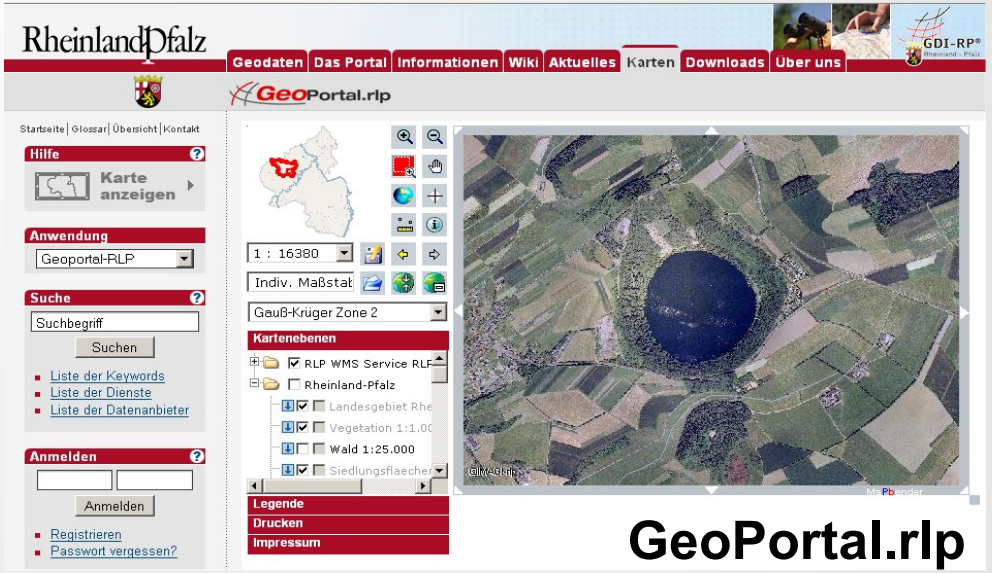
Mapbender Snapshots - Geoportals



ThurGIS – Geoportal Canton Thurgau

German environmental PortalU





GeoPortal.rlp

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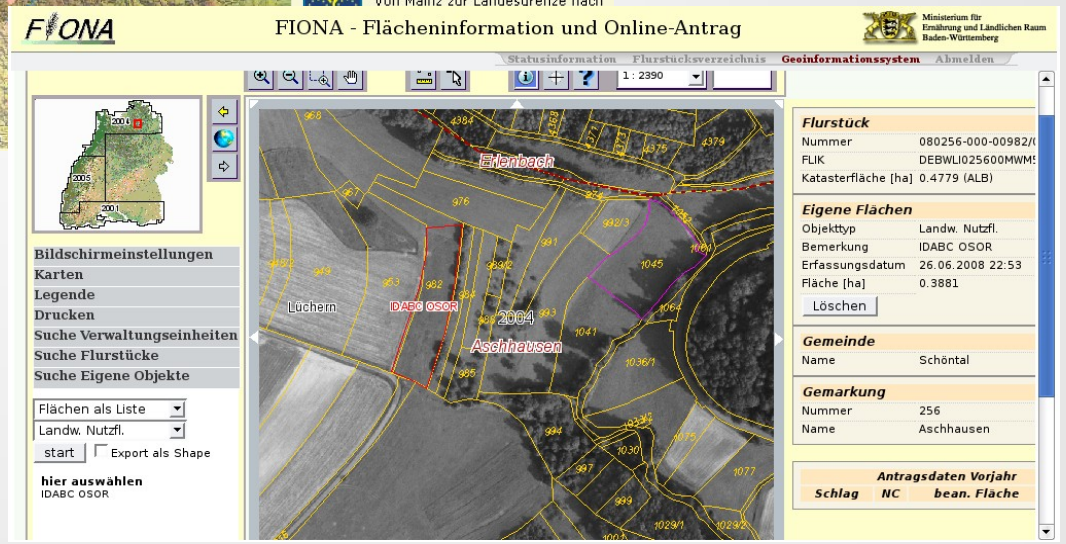
Mapbender Snapshots

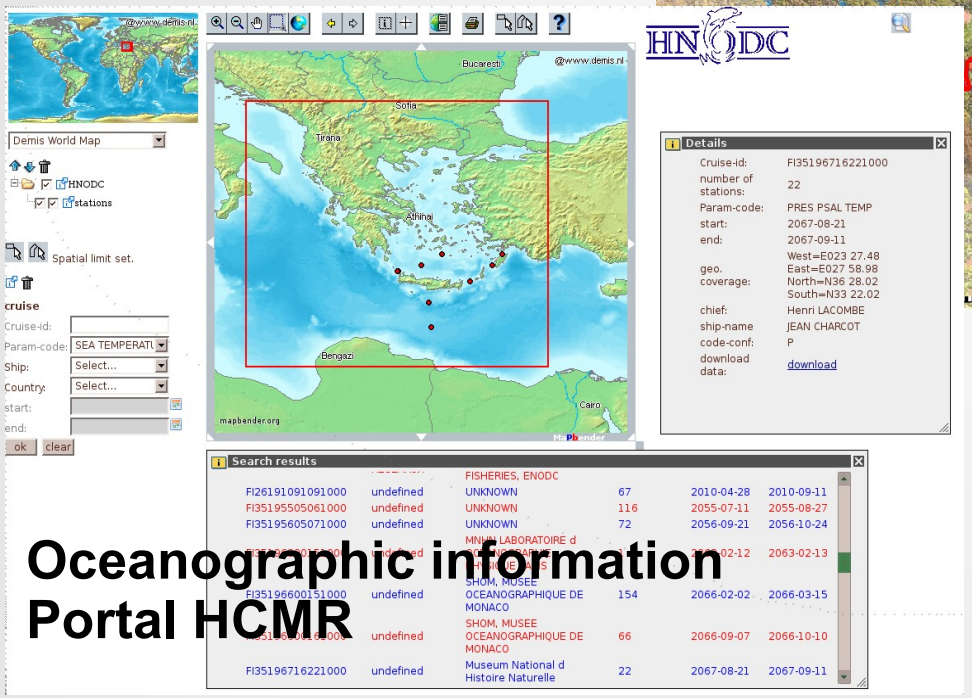
Find many more on http://www.mapbender.org/Gallery

Tourenplaner Rheinland-Pfalz

FIONA online subsidies



Oceanographic information Portal HCMR



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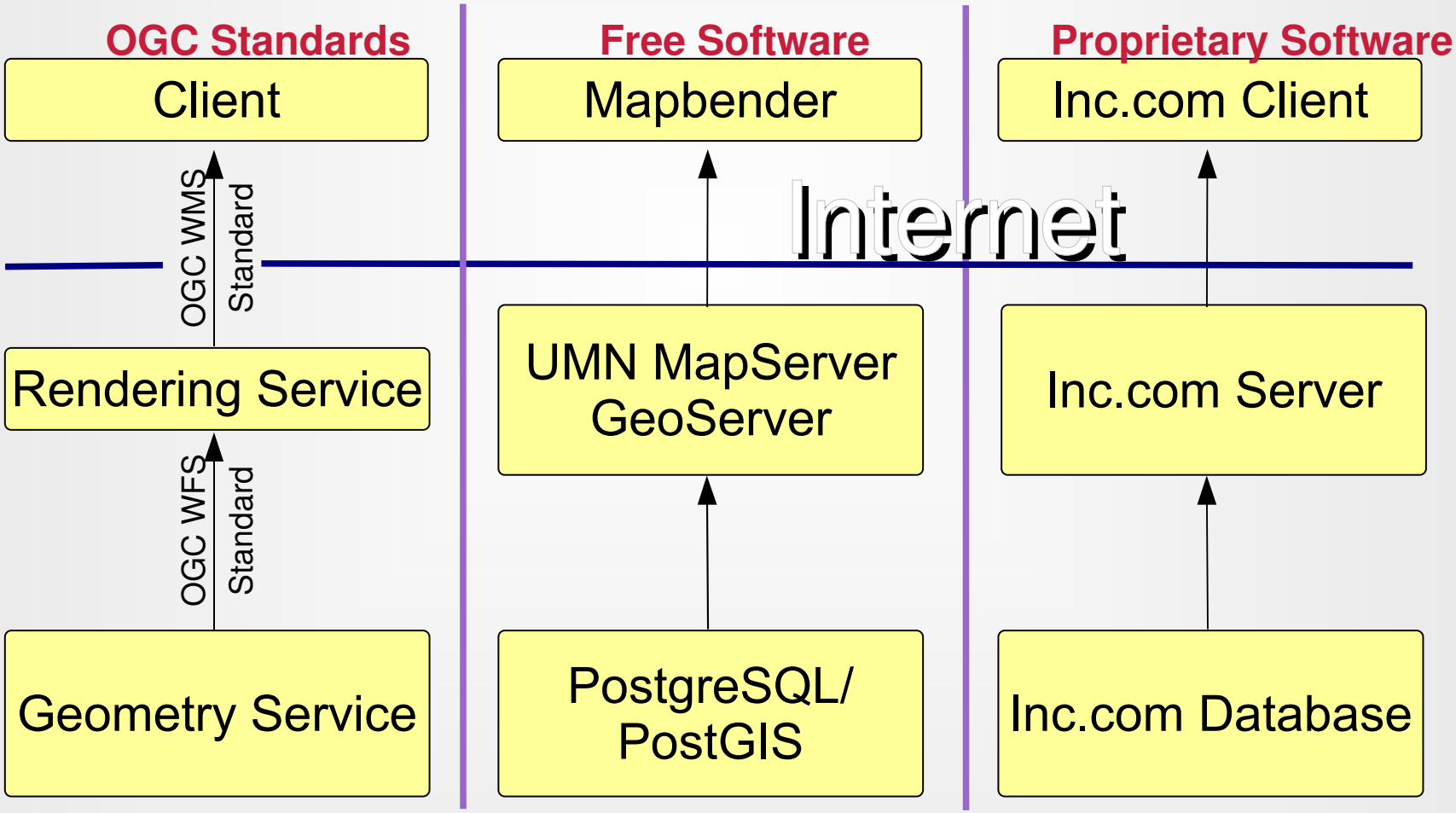
OGC compliant SDI



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Mapbender history - the software perspective

- 2001: development of the CCGIS Client Suite, WMS Client optimised for proprietary WMS software
- 2002/2003: reeingineering of the CCGIS Client Suite, renaming to Mapbender and licensing under the GNU GPL
- 2003: registration of Mapbender at sourceforge.net
- 2005: introduction of a CVS at sourceforge.net
- 2006: Foundation of OSGeo
- 2006: Mapbender enters the incubation process and becomes the first graduated OSGeo Project
- 2006-2008: three developer sprints (for 2008 integration with OpenLayers)

Mapbender history - the business perspective

- 2001: some customers use the CCGIS Client Suite
- 2002/2003:
  - early adopters are starting to use Mapbender: Cities of Bielefeld, Bonn, Wesseling, Remscheid
  - beginning of the user-community building, but still: only a few users, no external developers

Uncertainty and lack of information on the concepts of

Free Software and FOSS business models.

Mapbender history - the business perspective

- 2003 – 2005: slowly acceptance of the software on a broader scale
  - what helped: sticking to OpenGIS standards, the web, new challenges for the geospatial web (geoGovernment)
  - „development chains“: City of Mainz – FLOrlp – Fiona - Geoportal.RLP
- more and more interest from other companies and external developers
  - PortalU
  - ISTE (Extractive Industry Association)

Mapbender history - financial aspects

- No external funding
- investment by the company CCGIS
- financing of the software and module development through projects
- generic development is harder to fund (but: high RoI, high transfer potential)
- OSGeo operates development platform
- Google summer of code (two projects for three months)
- planned: OSGeo Project Sponsorship Program
- planned (2): get in contact with OSOR

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Good Practice Example

GeoPortal.rlp – part of GDI-DE

(OGC website of the month - http://www.opengeospatial.org -> Newsletter)

The spatial portal site GeoPortal.rlp (http://www.geoportal.rlp.de/) is designed to act as a broker between users and providers of spatial information and geo-related services. With more than 2000 layers from 70 OGC WMS services it is a perfect example of an interoperable service architecture and a living example of the emerging INSPIRE directive.

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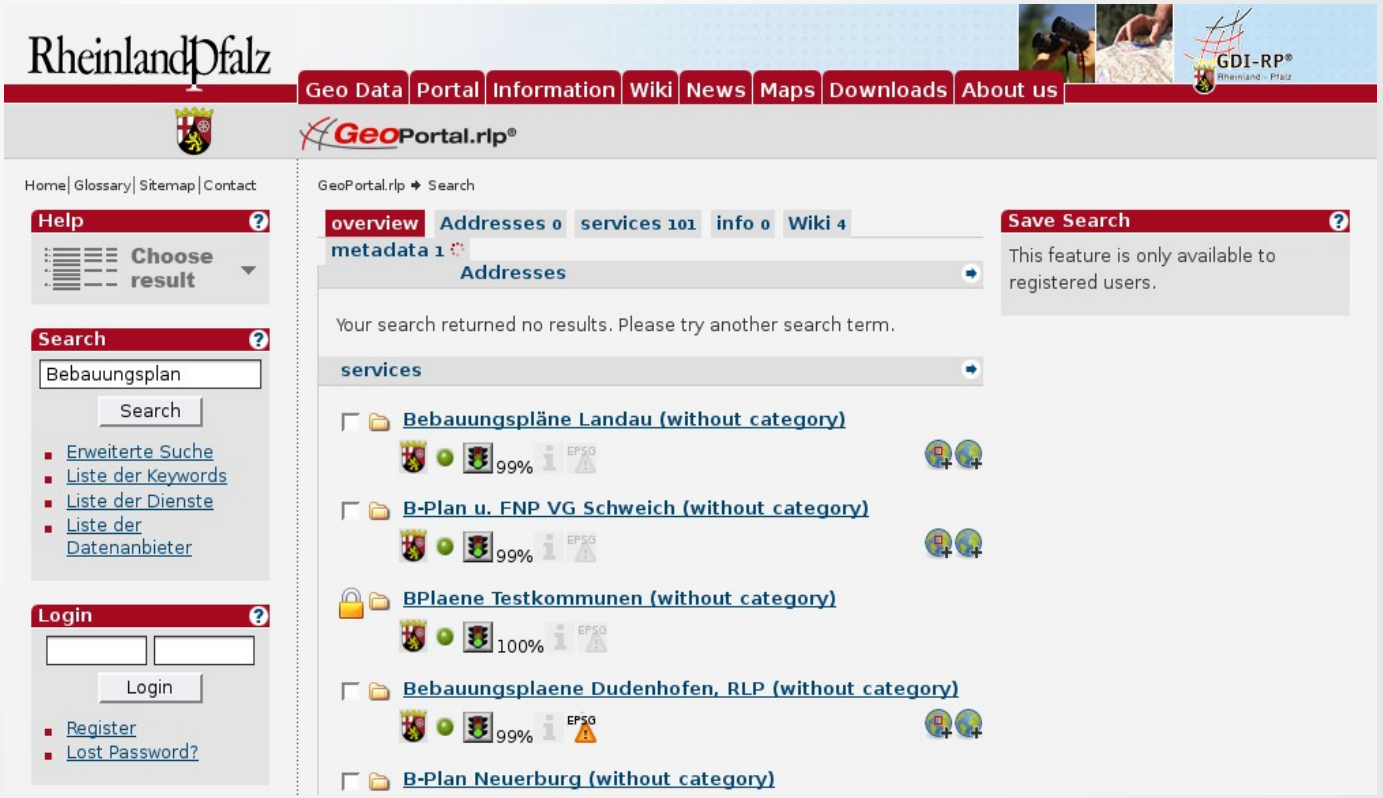
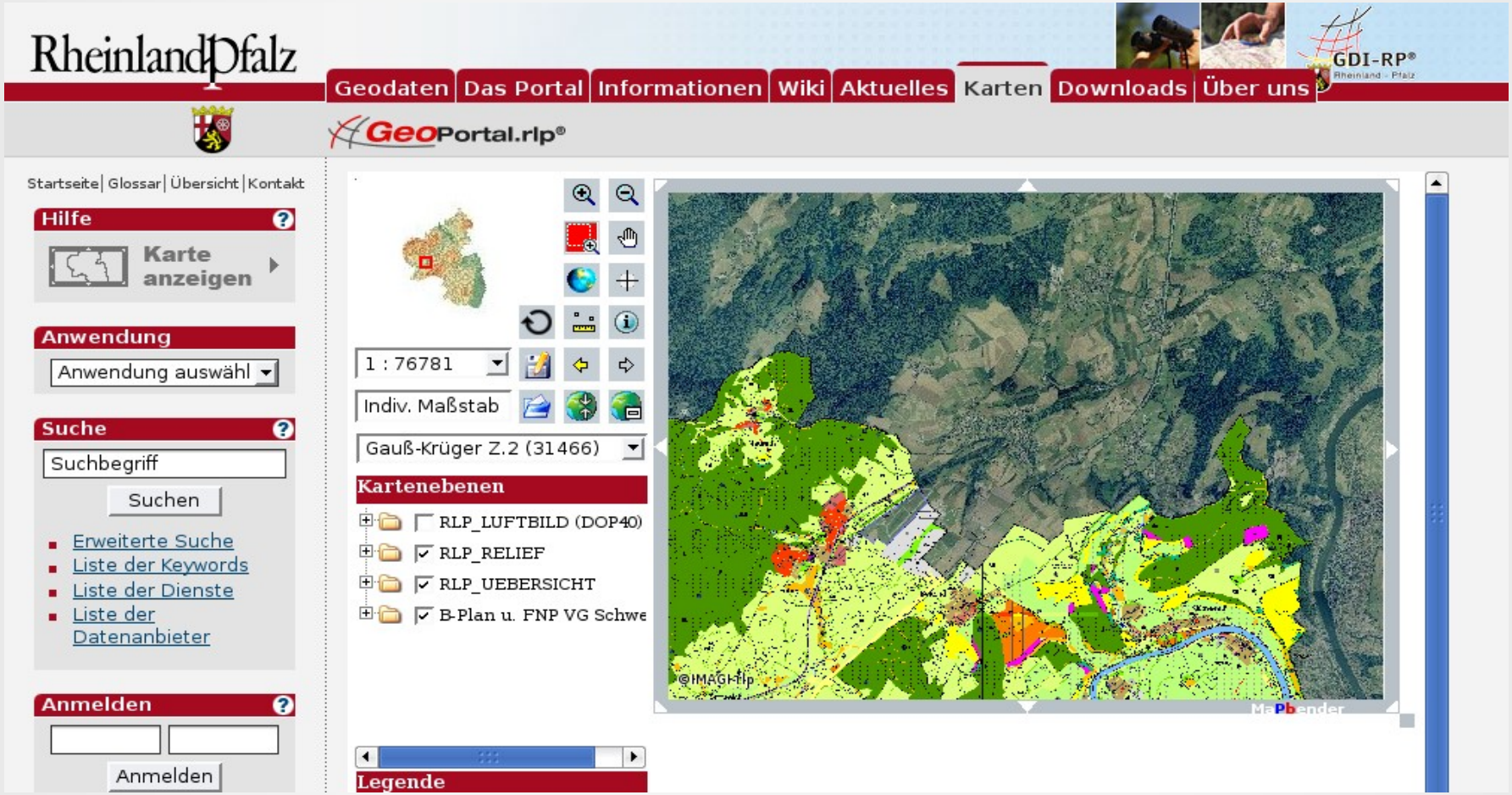
Example - GeoPortal.rlp

GeoPortal.rlp offers the opportunity for federal state agencies, municipal authorities and private companies to present their data and services. Online-access to the distributed data sources of each geospatial product- and service-provider ensures that information made available by these institutions on a joint platform is as up-to-date as possible.

Instead of users having to copy the data, links to the original sources enable them to have direct access. This metadata is managed by the providers themselves using the multi-client-capable administrative framework implemented by Mapbender.



Good Practice Examples



GeoPortal.rlp is designed to provide information about geospatial data and the data owners, as well as offering integrated functionality for use in standard GIS viewers and in specific applications.

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The WhereGroup

- The WhereGroup was founded January 2007 as merger of the companies CCGIS, KARTA.GO GmbH and Geo-Consortium
- app. 22 staff (Geographers, Informatics, Geodesists, Geoinformatic scientist)
- service provider in WebGIS, SDI, cadastrial information, databases with Free Software
- Know-How transfer through: training, workshops, information events, conferences
- Principal Member of the OGC
- OSGeo Board of Director and Charter members
- OSGeo Sponsor
- fosterer of Mapbender

karta·go GmbH

CCGIS

Geo-Consortium

OGC® Principal Member

OSGeo

Mapbender

WhereGroup Services

- **Consulting**
  - System analysis
  - Requirements and Specifications analysis
  - Architecture Design
- **Project Management**
- **Implementations**
  - Application design
  - Application development
  - Data administration
- **Training, maintenance, Support**

Some closing thoughts

- If you are interested in using Free and Open Source Software, do a propper research of existing software (OSGeo, OSOR, FreeGIS.org etc.)
- contact your colleagues, get information from other users
- „not invented here“: before starting a new project, check the possibilities supporting, joining and participating in other projects (language, sustainability)
- roles in Free Software projects: users and developers
- join forces to finance modules, participate in the community and use the transfer potential of Free Software

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Now we really start... (turn page)

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Now on to the real stuff! Lets do some hands on practical work. All the rest is available online, please follow this link:

http://www.mapbender.org/FOSS4G 2008 Workshop

* create web mapping interfaces;
* upload remote OGC WMS services (Capabilities caching);
* combine uploaded WMS services for overlay, editing layer visibility, order, format, caption;
* edit and extend service meta data (ISO profile) based on Capabilities document;
* upload and configure WFS services to search, find and highlight geo objects;
* bind transactional WFS with WMS service to enable online digitizing;
* create users, groups and grant access to services and modules;
* restrict user access with the OWS security proxy module via trusted servers and encrypted protocols;
* monitoring, status notification and auto-update service for remote OGC services;
* interface fine tuning;
* customize modules;
* add new functionality.