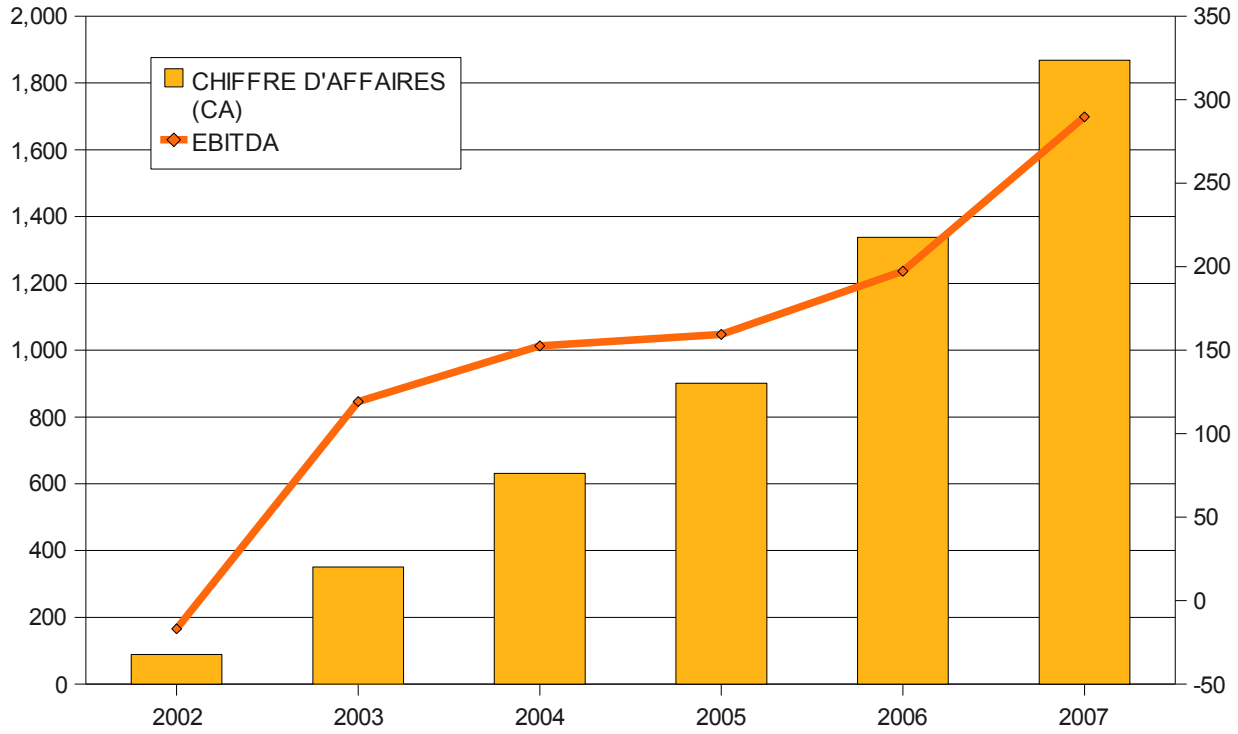
MapFish

A WebGIS 2.0 Framework: toolkit to build rich client WebGIS

Camptocamp, a Franco-Swiss company

- A **Franco-Swiss** company employing 42 professionals
  - ✓ Switzerland, Lausanne: 26 persons
  - ✓ France, Chambéry and Toulouse: 16 persons
- A **sustained** growth: between 50% and 70% since 2004



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Service-oriented Open Source editor

- Camptocamp is **an Open Source editor and integrator for software**
  - ✔ Initiated by Camptocamp : **CartoWeb, MapFish** and **Spatial Data Integrator (SDI)**
  - ✔ Initiated by well-respected communities (OSGeo) : **GeoTools**, **GeoServer**, **Udig**, **GeoNetwork**, **MapServer**, **PostGIS**, **Open Layers**, **GeoExt, Ext**

- **Camptocamp helps clients move forward in every part of their businesses with the latest Open Source applications and technologies**

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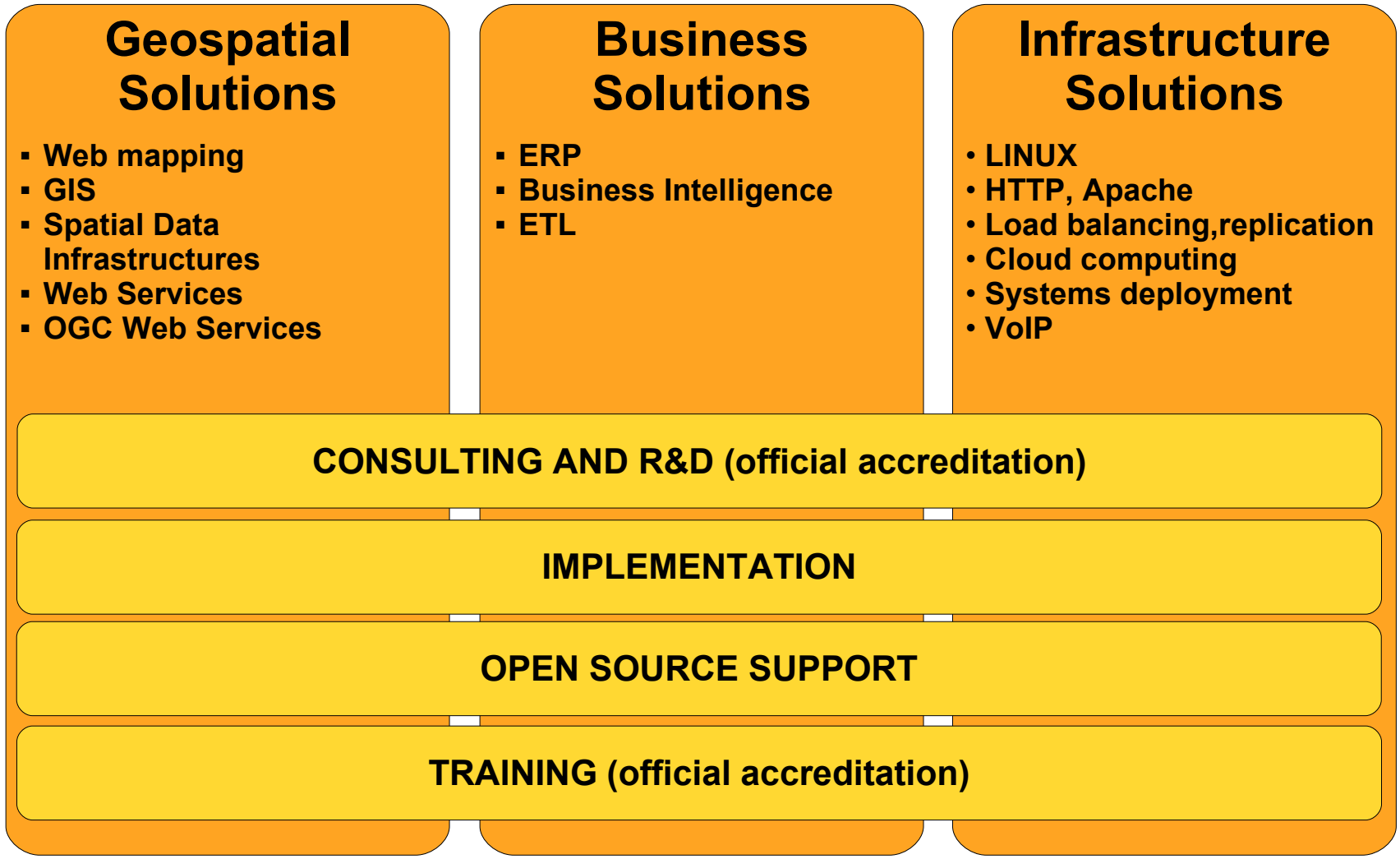
Camptocamp's strategic activity domains



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MapFish is ...

- **Open Source** (GPL & LGPL)
- A **WebGIS** development **toolkit**
- **Not an application** but a **Framework**
- Based on :
  - OpenLayers JavaScript library
  - ExtJS JavaScript library
  - MapFish Server is responsible for server side treatments and composed of several modules which can be implemented in several languages:
    - Pylons Python
    - Ruby on Rails Ruby
    - Symfony PhP
    - Java
    - Other libraries (SQLAlchemy, Shapely, iText, ...)

MapFish is also ...

- Using **extensively OpenLayers** on the client side
  - MapFish developers are OpenLayers developers
  - New OpenLayers version ⟹ New MapFish version
- **OGC-compliant**
  - query components
  - editing components
  - ...
- **Very modular**
  - The Client part and the Server part are uncoupled
  - MapFish defines a RESTFul protocol for creating, reading, updating and deleting features
  - The representation format used is GeoJSON (compatible WFS format)

Development status

- **Version 1.1** – January 2009 (3 to 4 yearly releases)
- MapFish is subject to the **OSGEO incubation process**
  - ✔ pending resources: mentor and code reviewers

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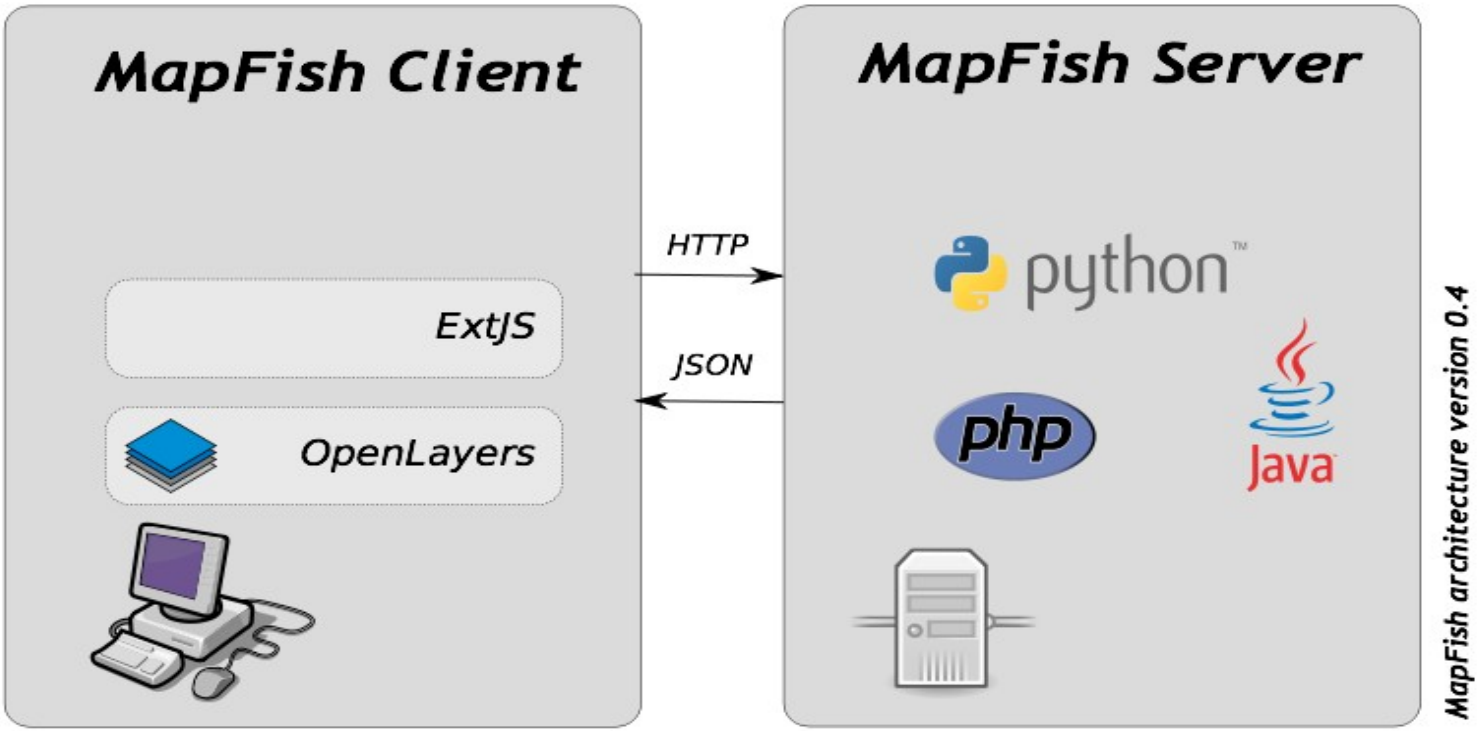
MapFish provides ...

- **A WebGIS development toolkit**
- **GIS typical functionalities**
  - Layer Tree
  - Map queries
  - Search
  - Editing
  - ...
- **Advanced functionalities** (available in version 1.1)
  - Offline support – based on Gears
  - PDF printing – features printed as vectors, map rotations, scale bars, legends, tables, notes, templates

Global Architecture



- **MapFish Client**
  - Javascript components
    - Core components
    - Graphical components (Ext)
    - Open Layers
  - Interaction with Web Services (developed with MapFish Server)
- **MapFish Server**
  - Development framework
  - Component libraries

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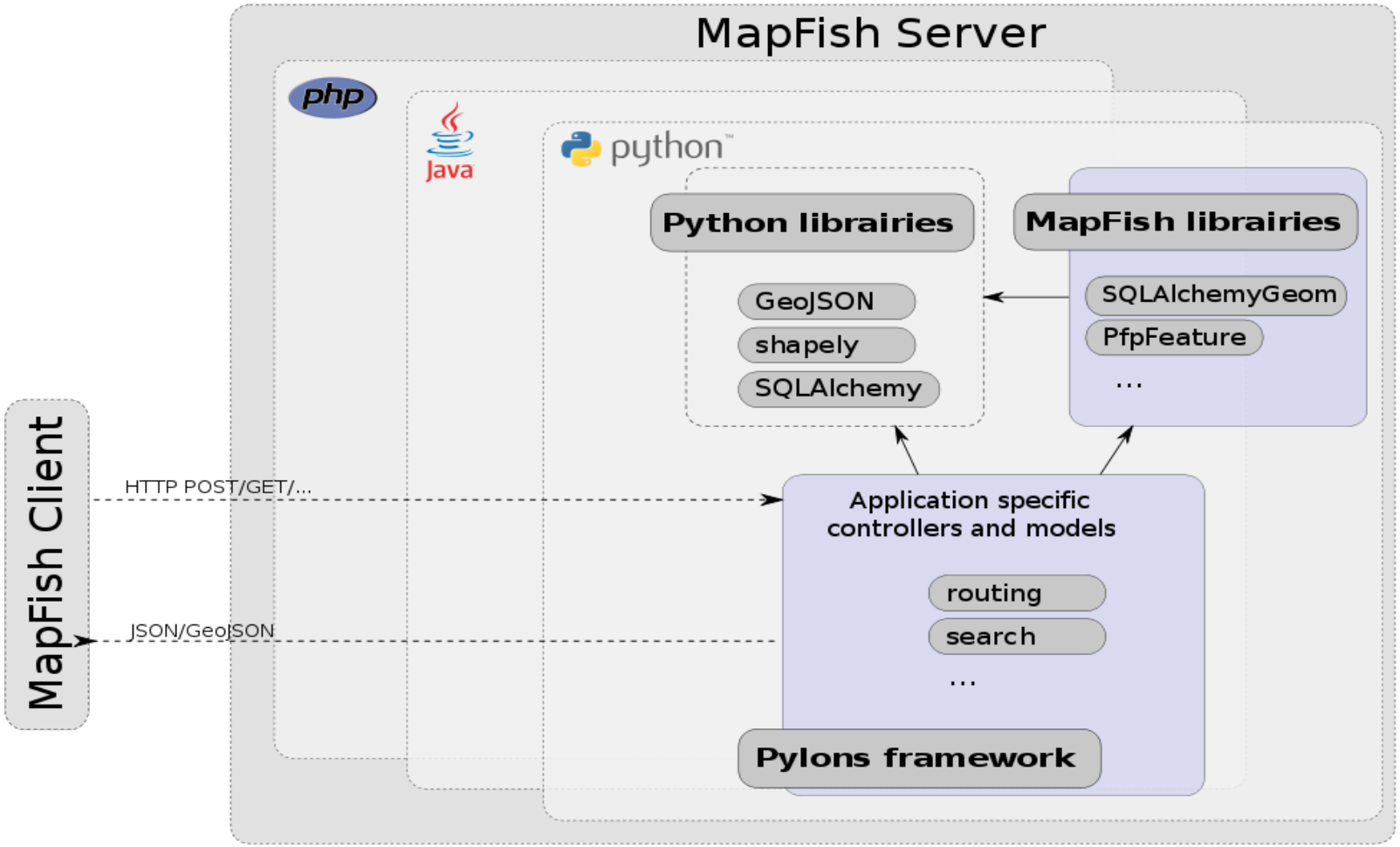
Server Architecture (for Python)



MapFish server architecture version 1.0

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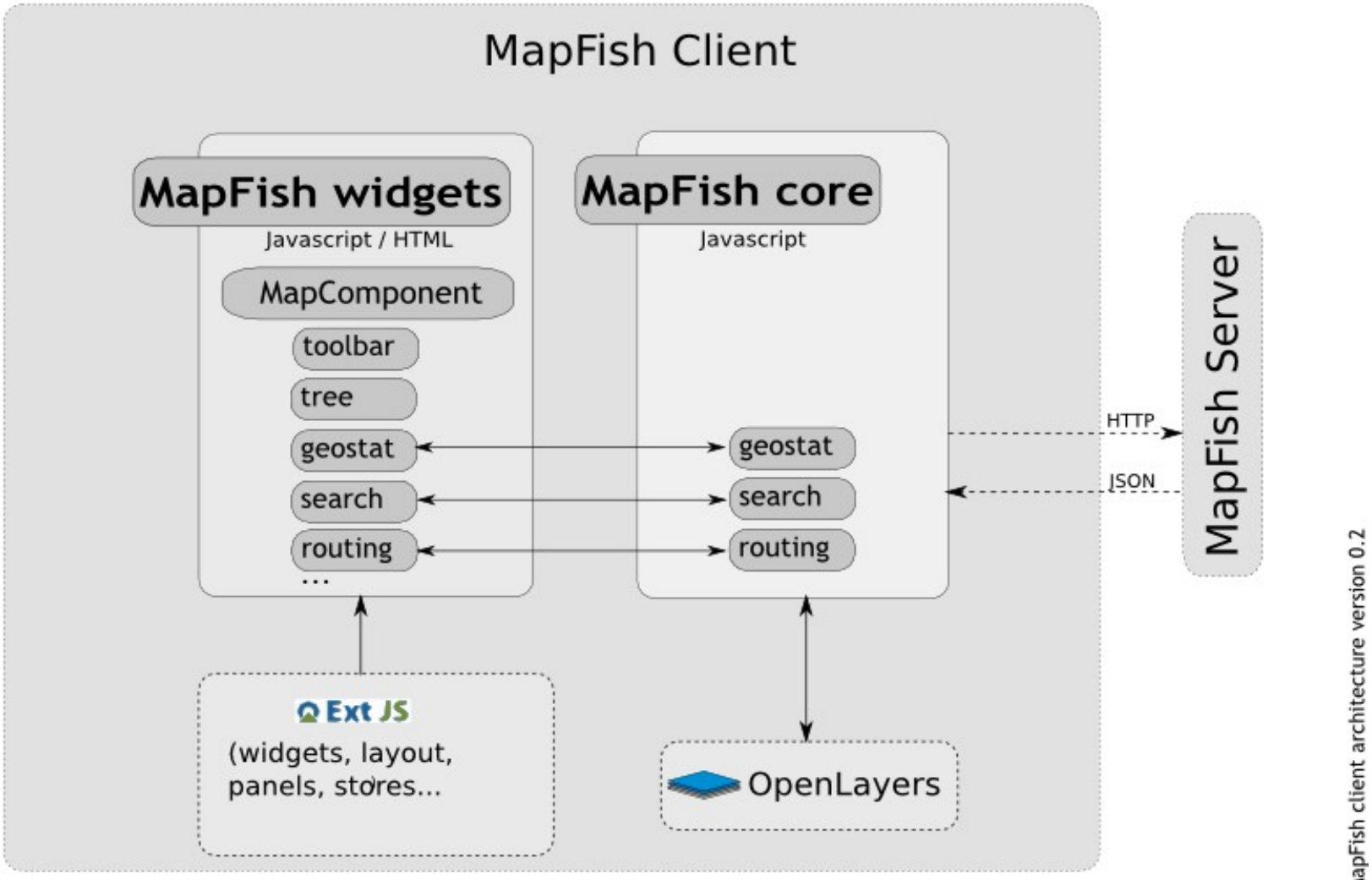
Client Architecture



MapFish client architecture version 0.2

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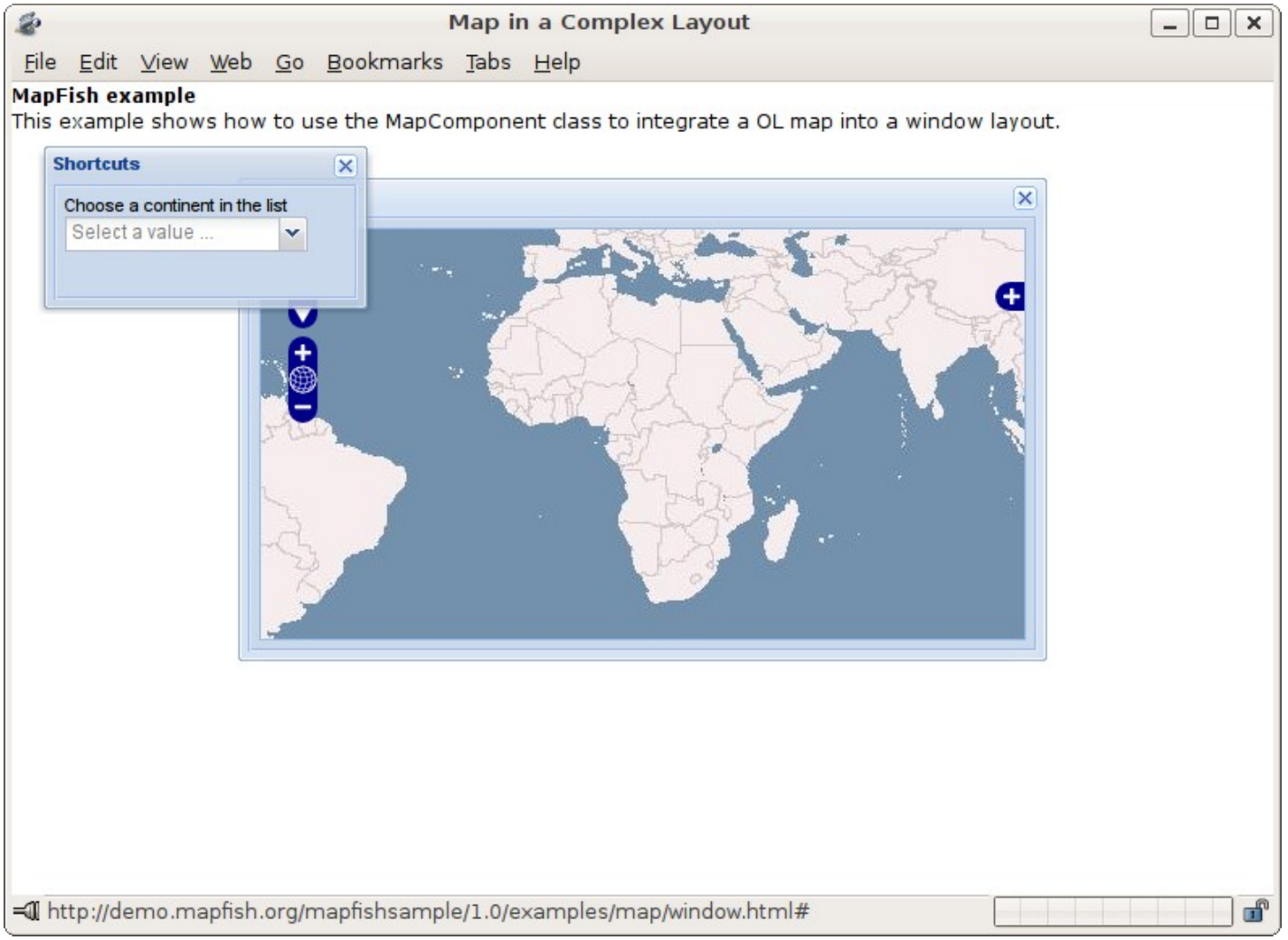
Différences between OL & MapFish

- OpenLayers
  - JavaScript library
  - Client side only
  - Functions closely connected to the map
  - Not a development framework
  - Generic, but off specific business applications needs
- MapFish
  - Supports OpenLayers on the client side
  - Client side and server side
  - WebGIS application development framework
  - Map connected functions
  - JavaScript graphical components (based on Ext)
  - Functions oriented towards business applications

Example: Pop-up window / Block



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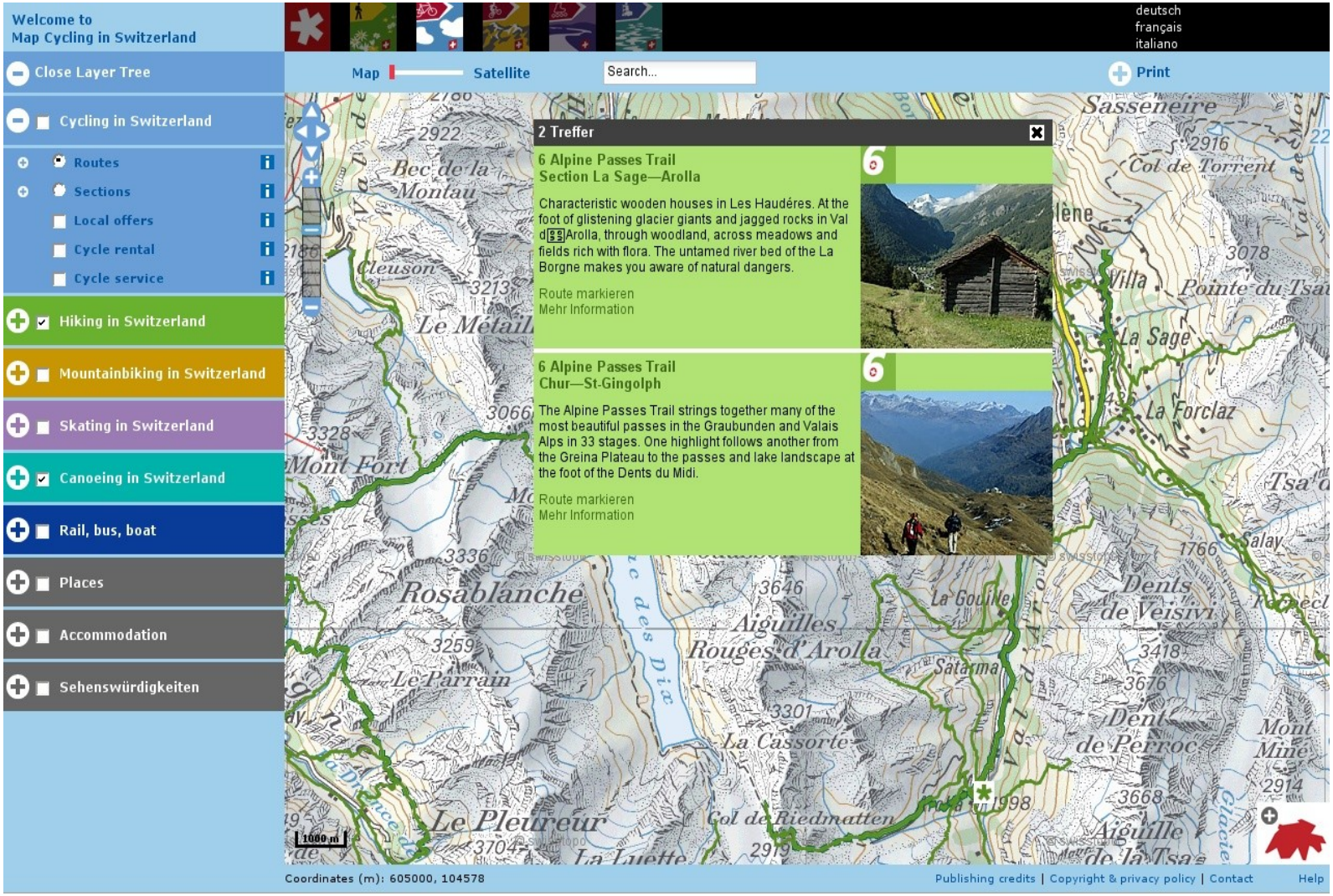
Example: Pop-up window / Search



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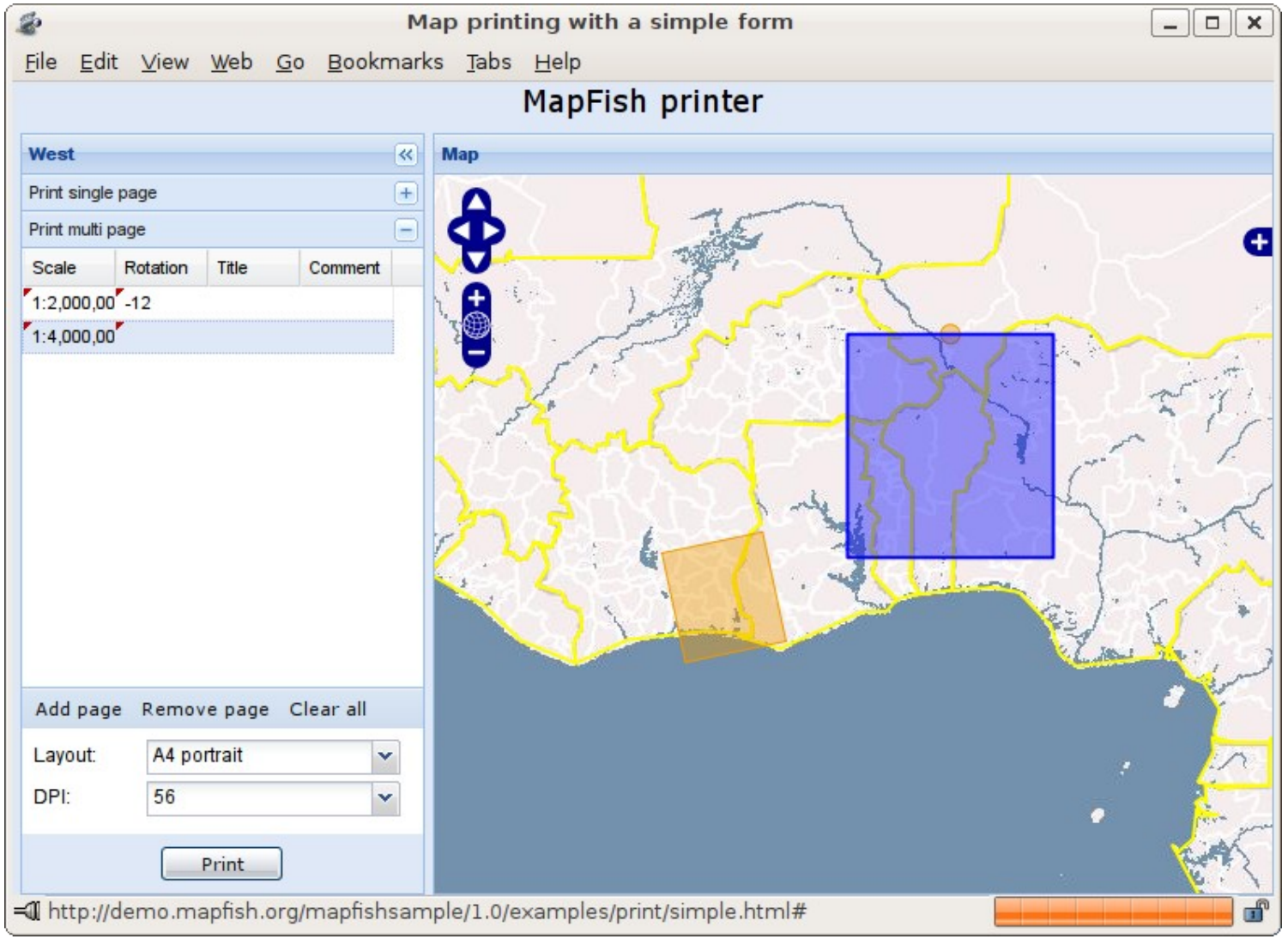
Example: Printing



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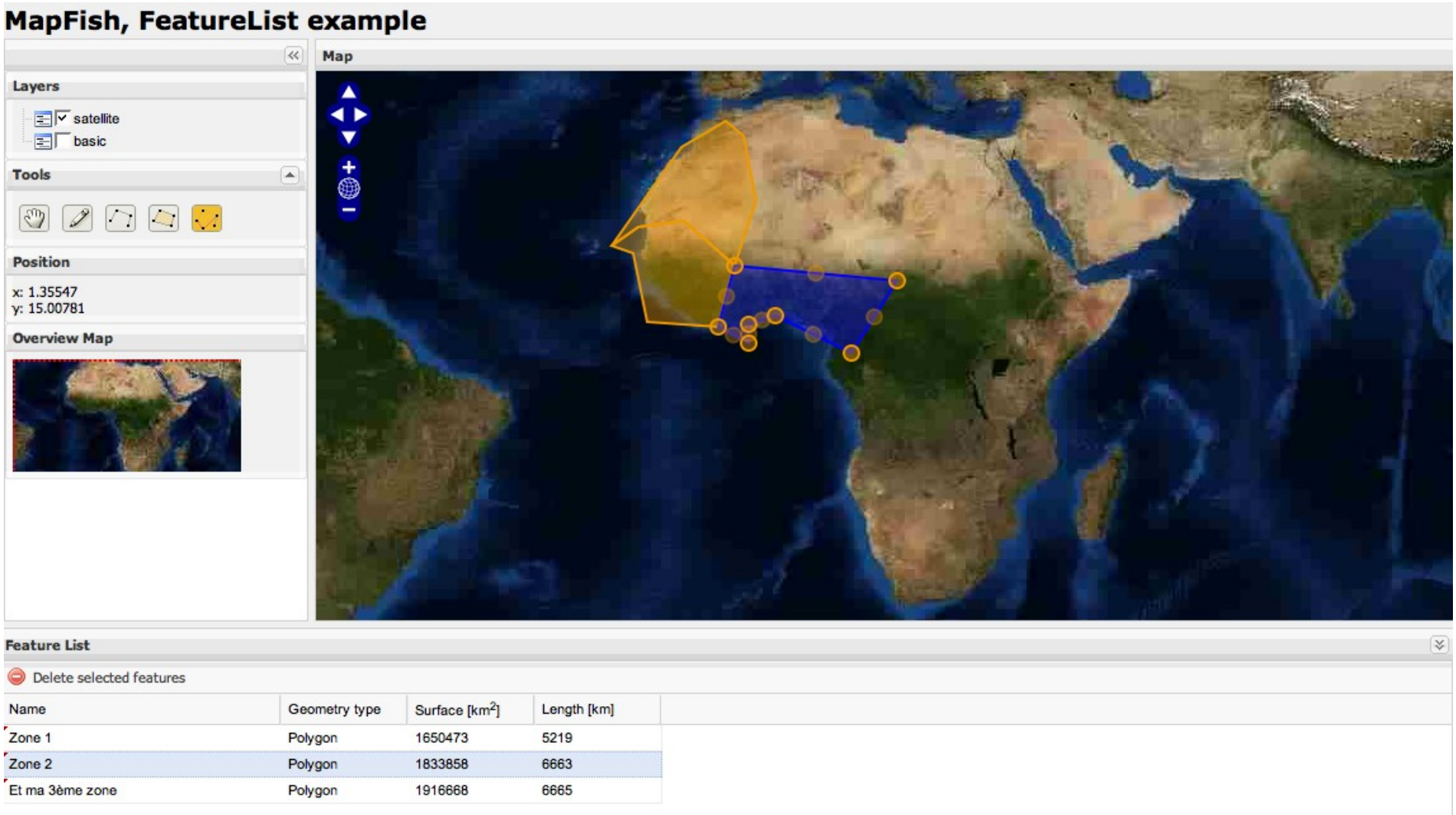
Example: Editing



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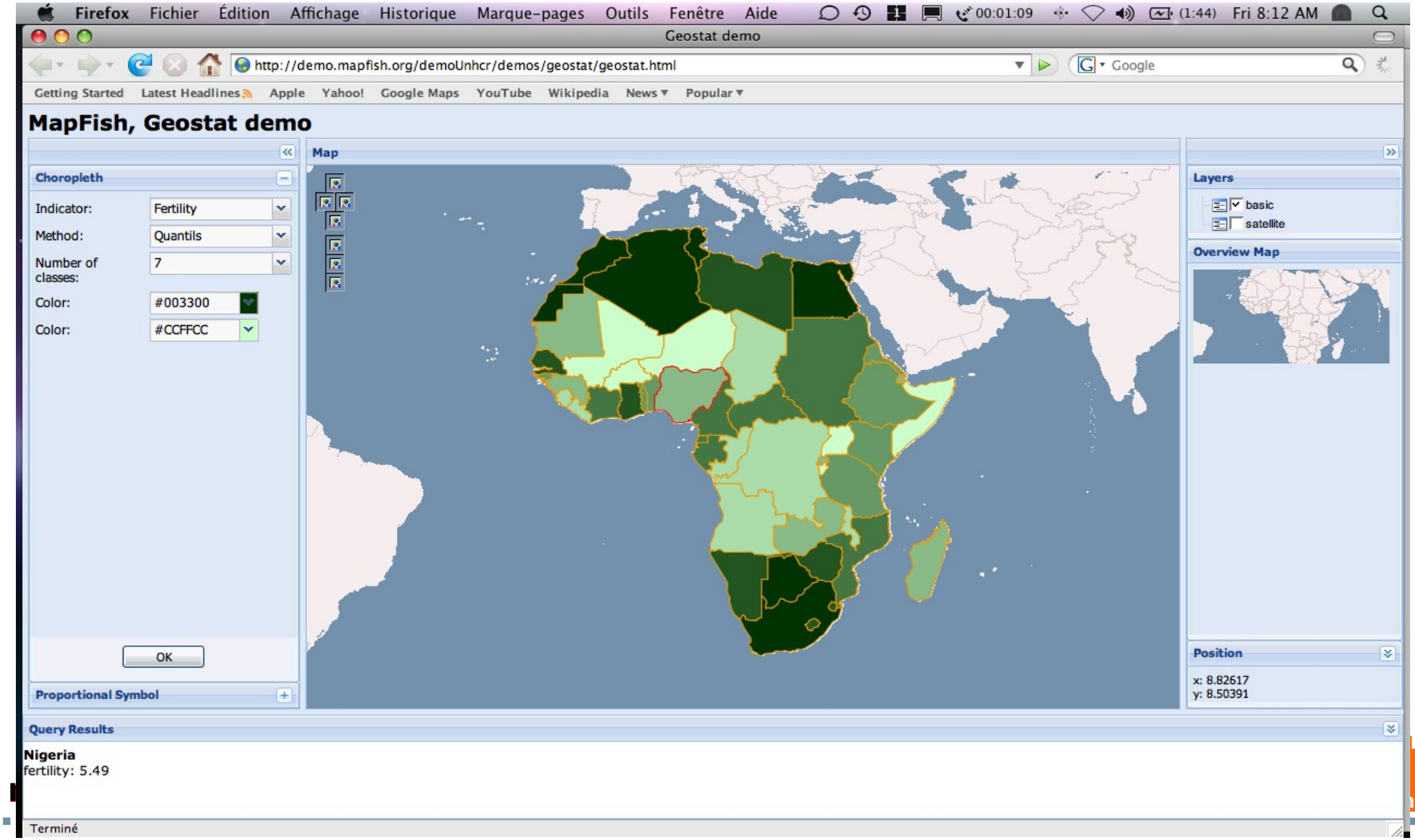
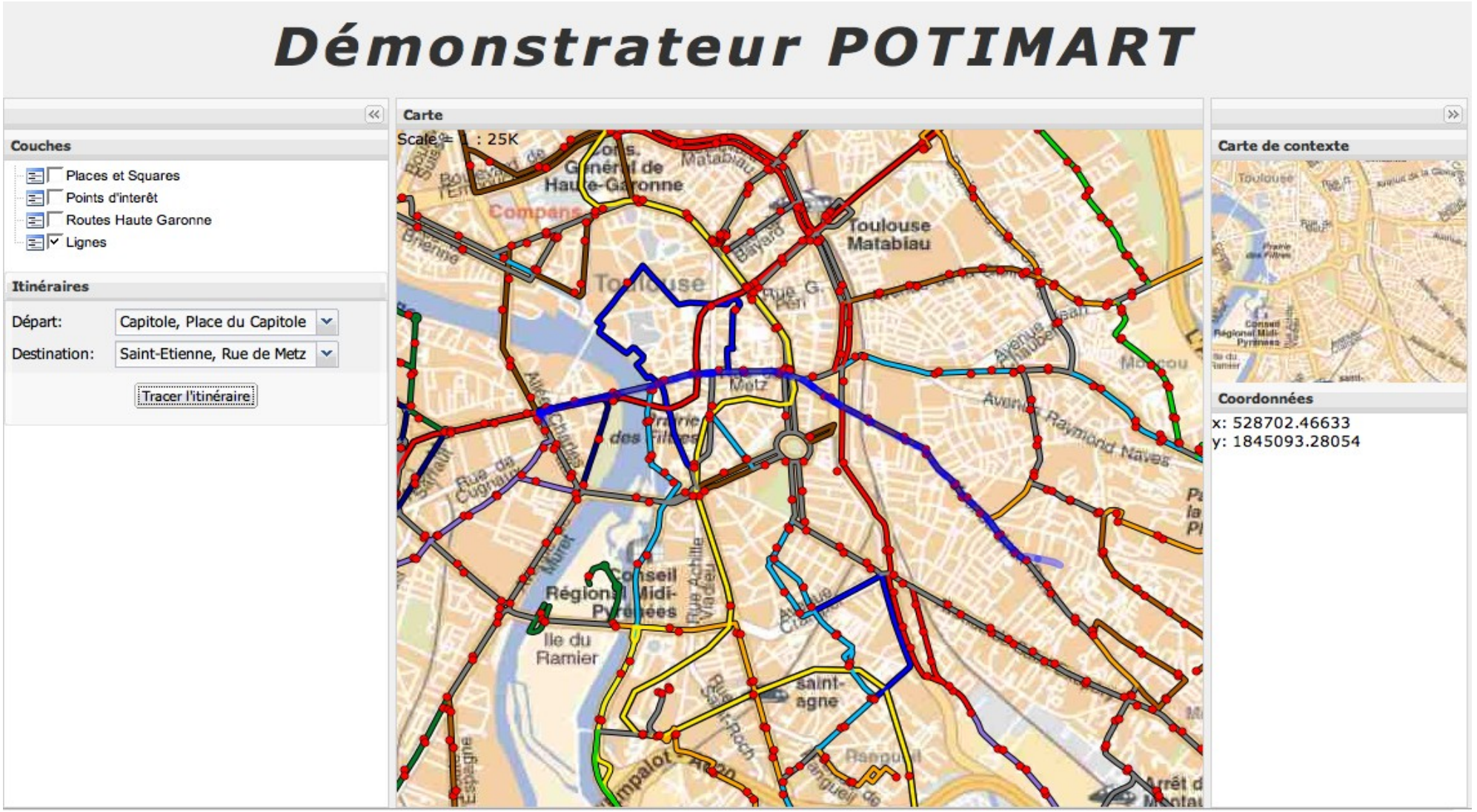
Example: Geostatistics



Example: Multimodal Routing



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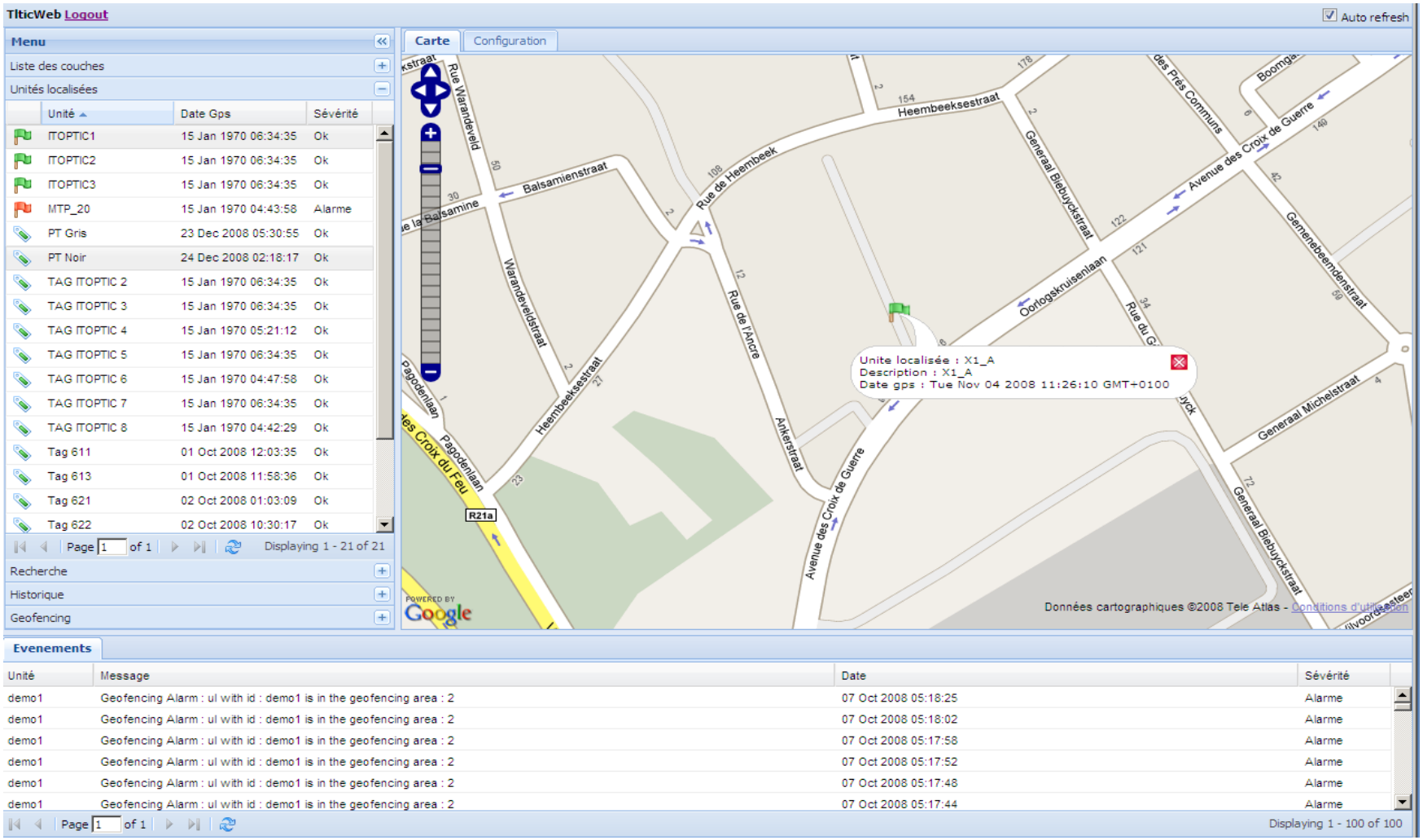
Example: Tracking



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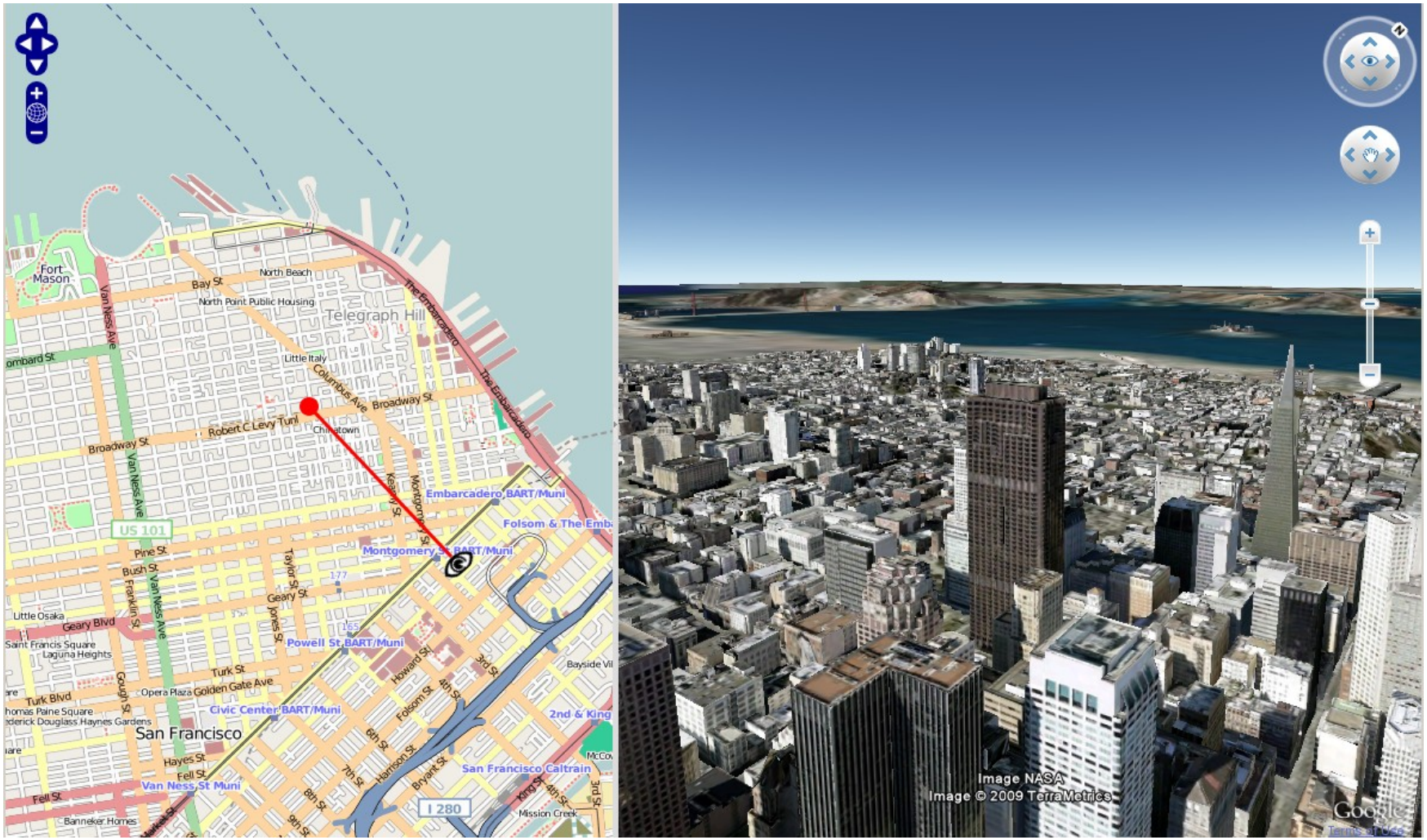
Example: 2D / 3D



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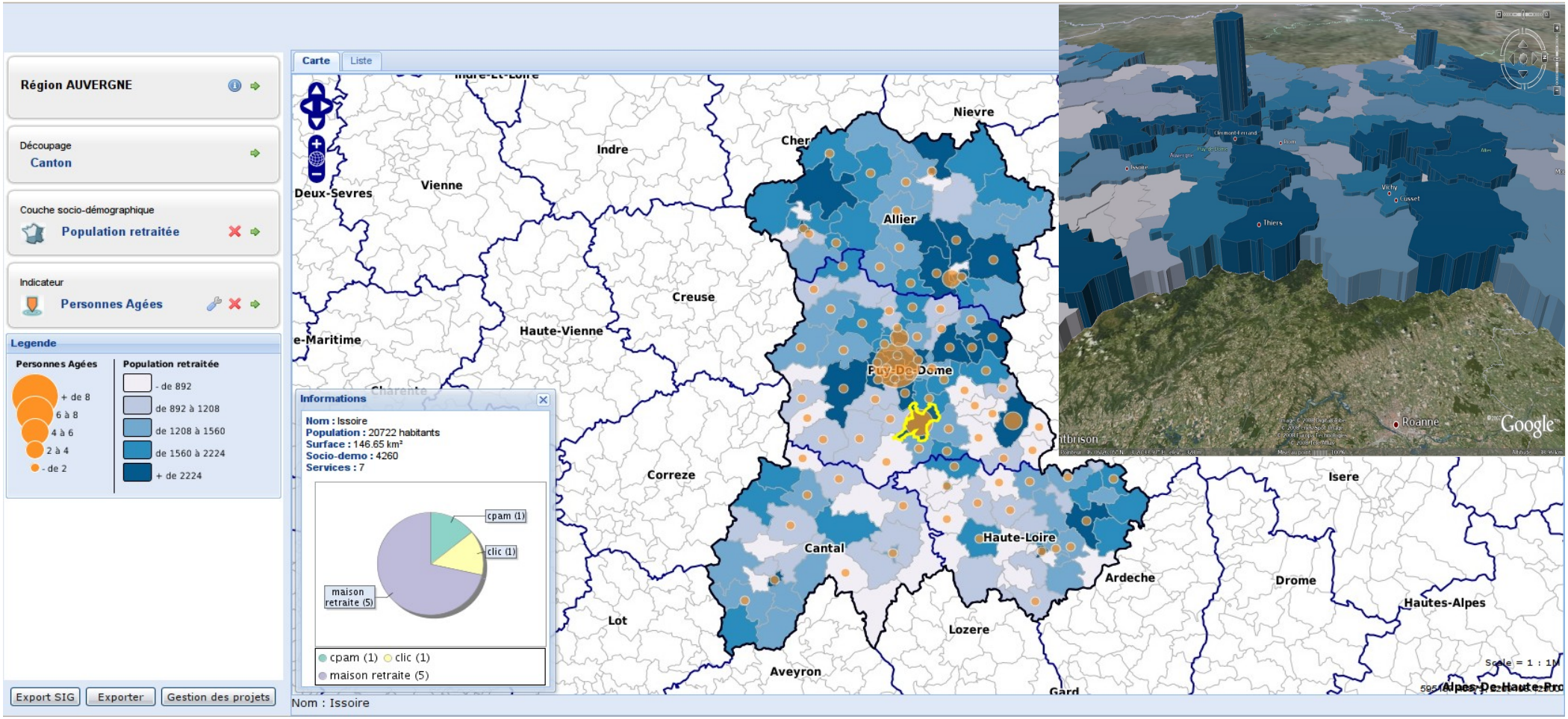
Case study: Caisse des dépôts

- http://veille-territoriale.servicepubliclocal.net/cdc/ (admin/ admin)



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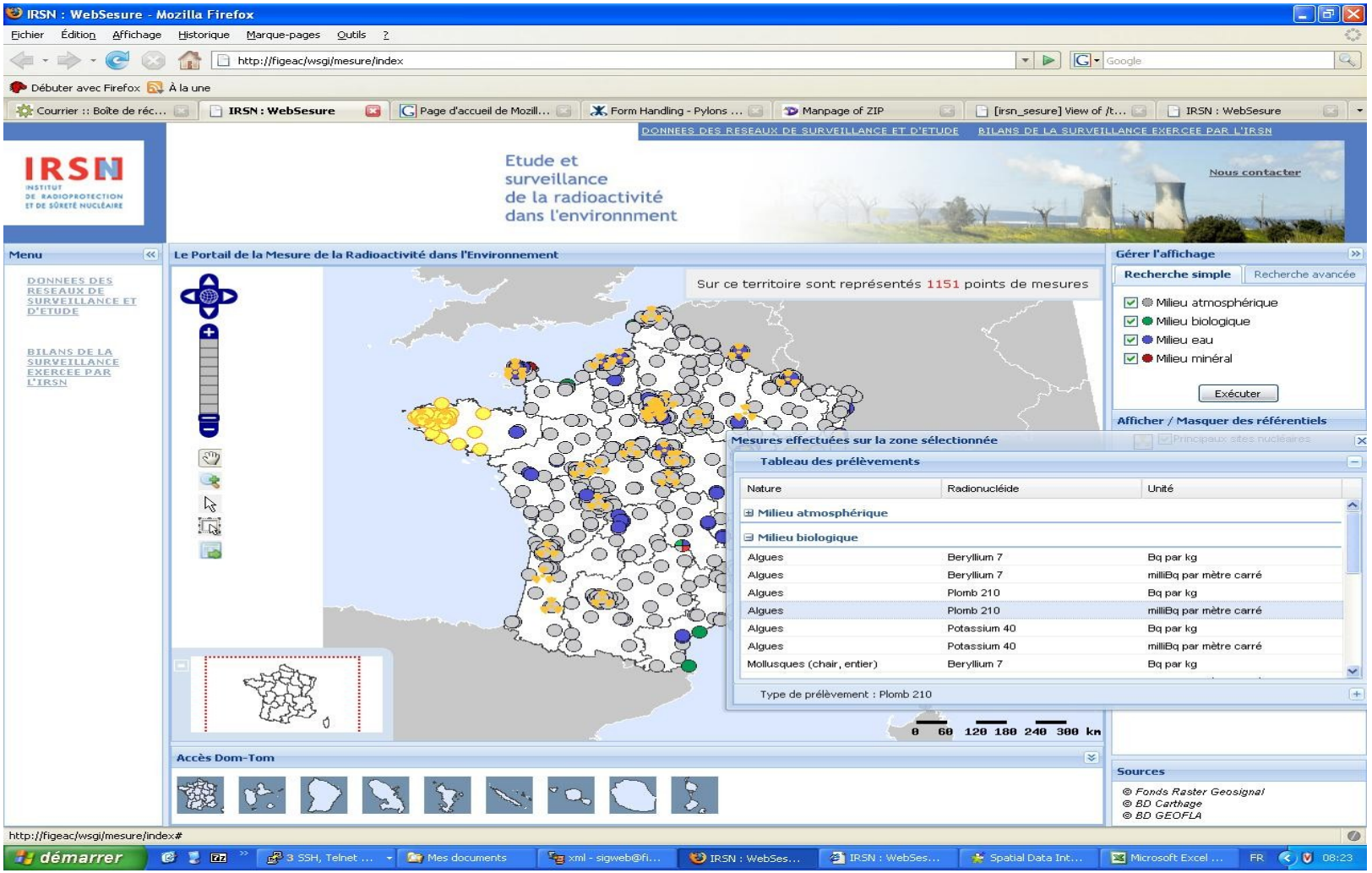
Case study: IRSN

- http://sws.irsn.fr admin/1e3d1ad5!



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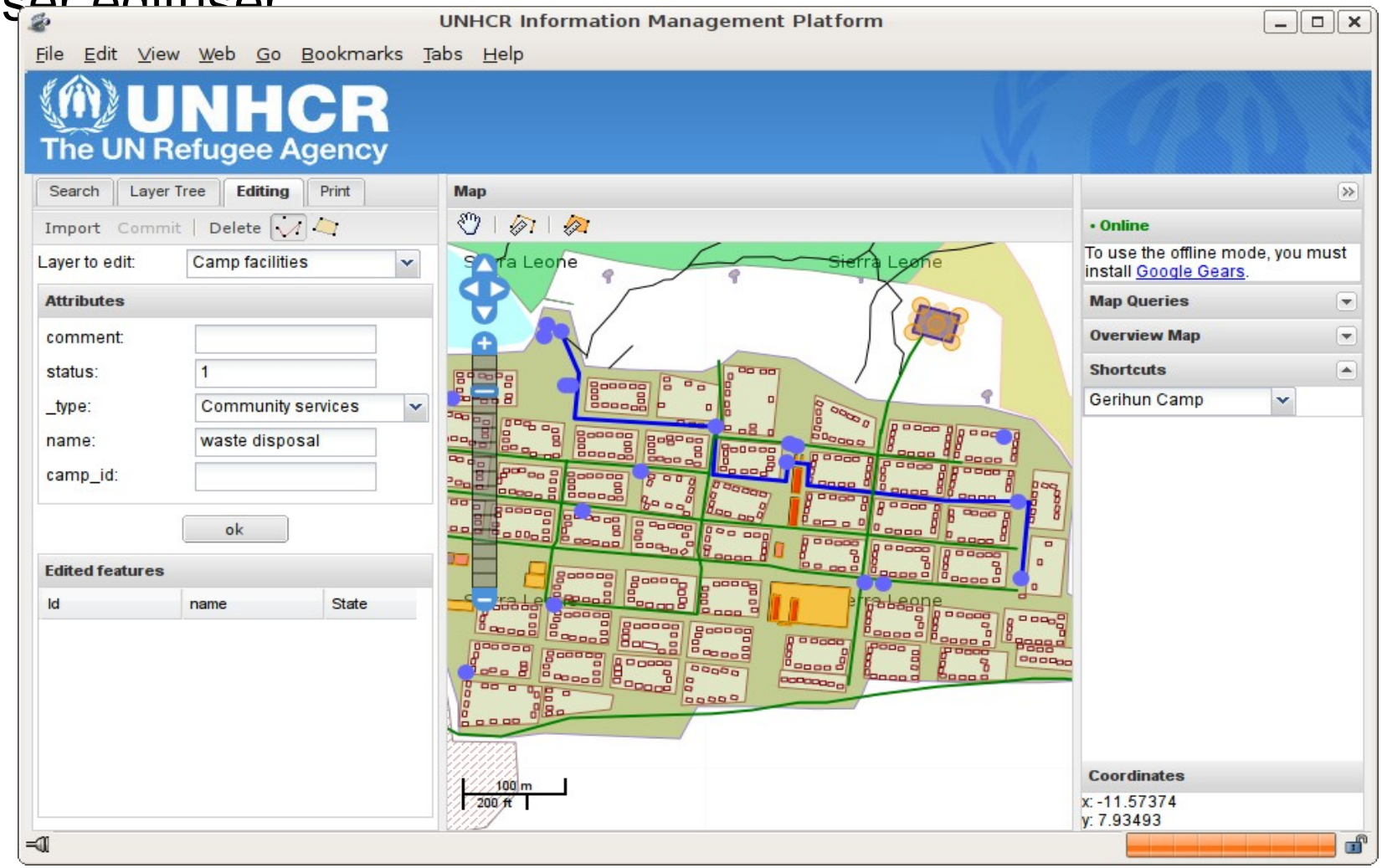
Case study: UNHCR

- http://prod-unhcr.camptocamp.net/map.html?offline=true
  edituser:edituser



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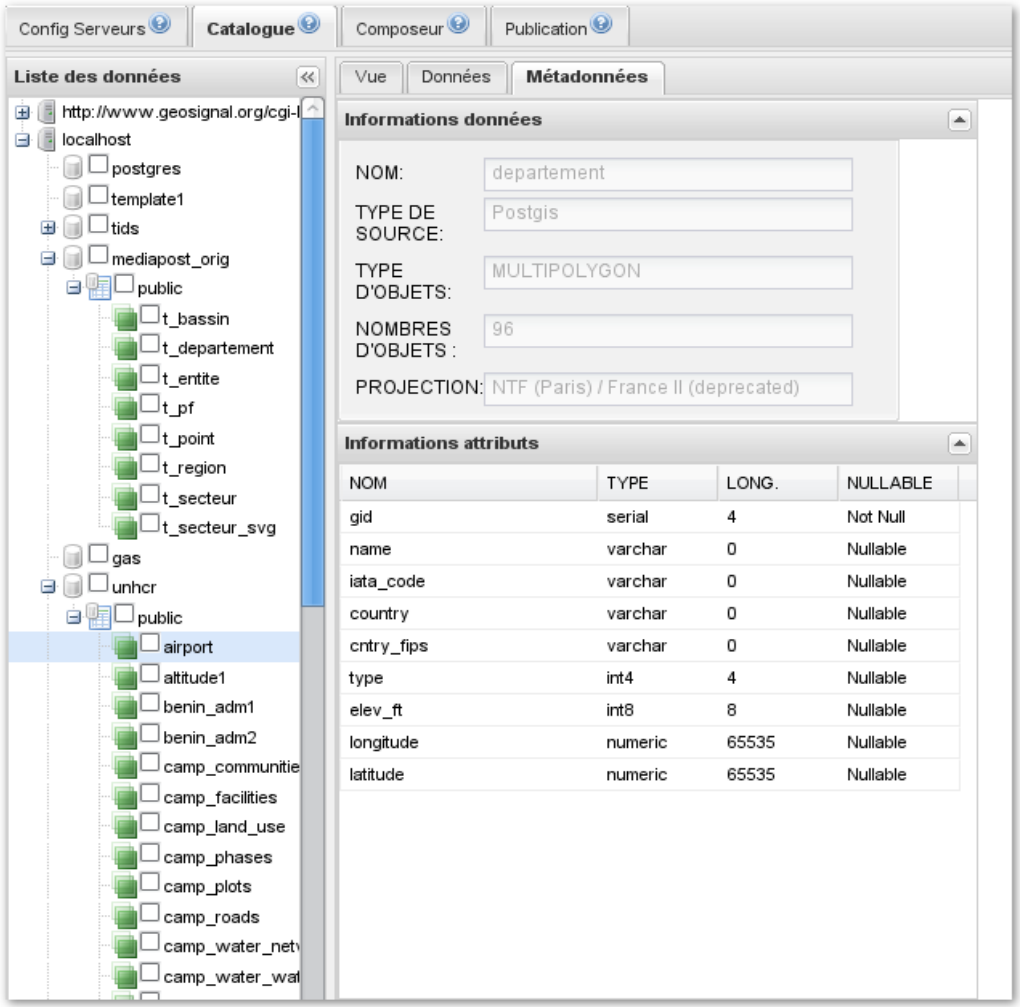
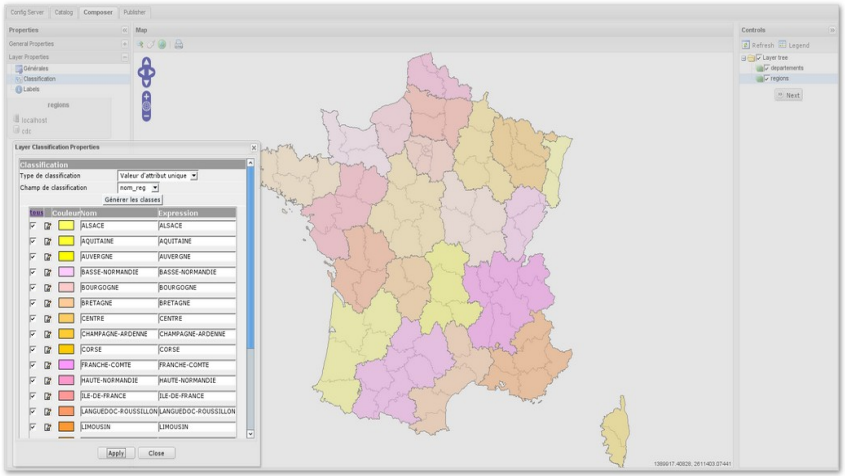
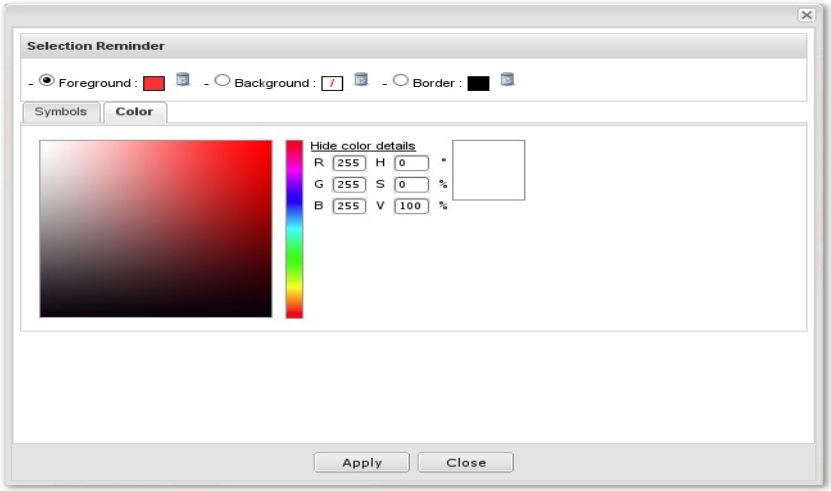
Administration interface







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MapFish (next) ...

- **Administration interface**
  - ✔ An administration application to automatically create MapFish applications
  - ✔ 3 main components: Data Manager / MapFile Manager / MapFish Manager
- Better integration between OpenLayers and ExtJS: led to the development of the **GeoExt project**
- Development of the **server component in Java**
- Orientation « **Spatial Data Infrastructure** » (link with the GeoNetwork catalog, data extractor, publication of OGC services)
- What about a **MapFish client in Flash/Flex** based on Open Scales ?
- MapFish distributed in **OSGeo4W**

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Community, community, community ...

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MapFish: the community

- Web site: http://www.mapfish.org
- Subversion
- Mailing lists (dev & users)
- IRC chat
- Blog : http://mapfishblog.blogspot.com

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