

# GeoMapFish

Das Open Source WebGIS



AGIT 2015  
Elisabeth Leu, Camptocamp SA

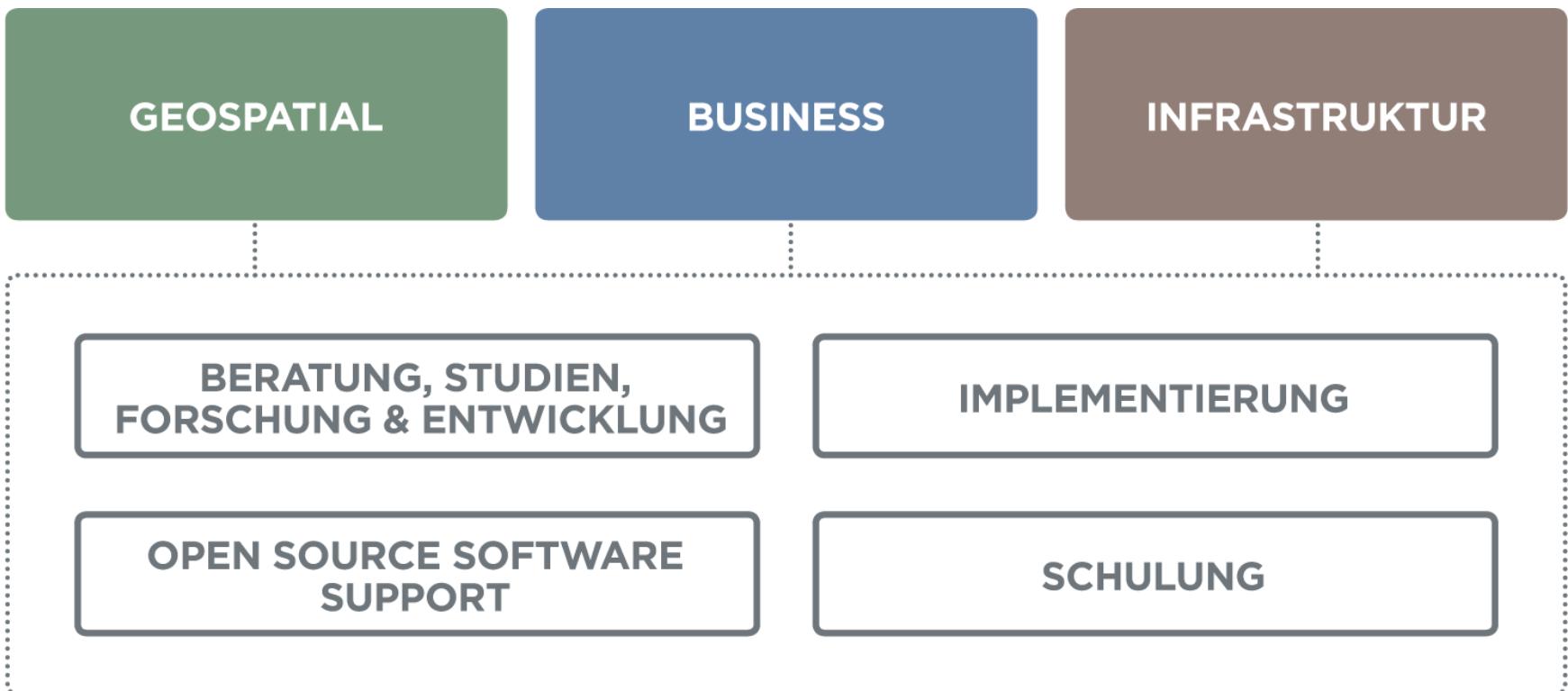


# Ablauf

- GeoMapFish - die Übersicht
- MapFish - das Framework dahinter
- GeoMapFish - im Detail
- GeoMapFish: Neuigkeiten Version 1.5 und 1.6
- Beispiele
- Ausblick - GeoMapFish 2

- Open Source Lösungen vom Editor und Integrator seit 2001
- >50Mitarbeiter
- Camptocamp bringt Sie mit den aktuellsten Open Source Technologien weiter...  
... bis an die Spitze der Innovation

# Camptocamp: 3 Abteilungen



# GeoMapFish - die Übersicht

- Generisches WebGIS
- Plugin-Basiert
- Anpassbar und Erweiterbar
- Zahlreiche Funktionalitäten
- OGC Standards-basiert
- Getragen von einer breiten User Gruppe (>20 Mitglieder)

# MapFish - das Framework dahinter



# MapFish - das Framework dahinter

- Komponenten basiert
- Server-seitige Komponenten in folgenden Programmiersprachen:
  - Pylons / Pyramid Python
  - Ruby on Rails / Ruby
  - Symfony PhP
  - Java
  - Andere Programmbibliotheken (GeoAlchemy, Shapely, iText, repoze.who ...)
- Client-seitig: GeoExt
  - OpenLayers JavaScript library
  - ExtJS JavaScript library

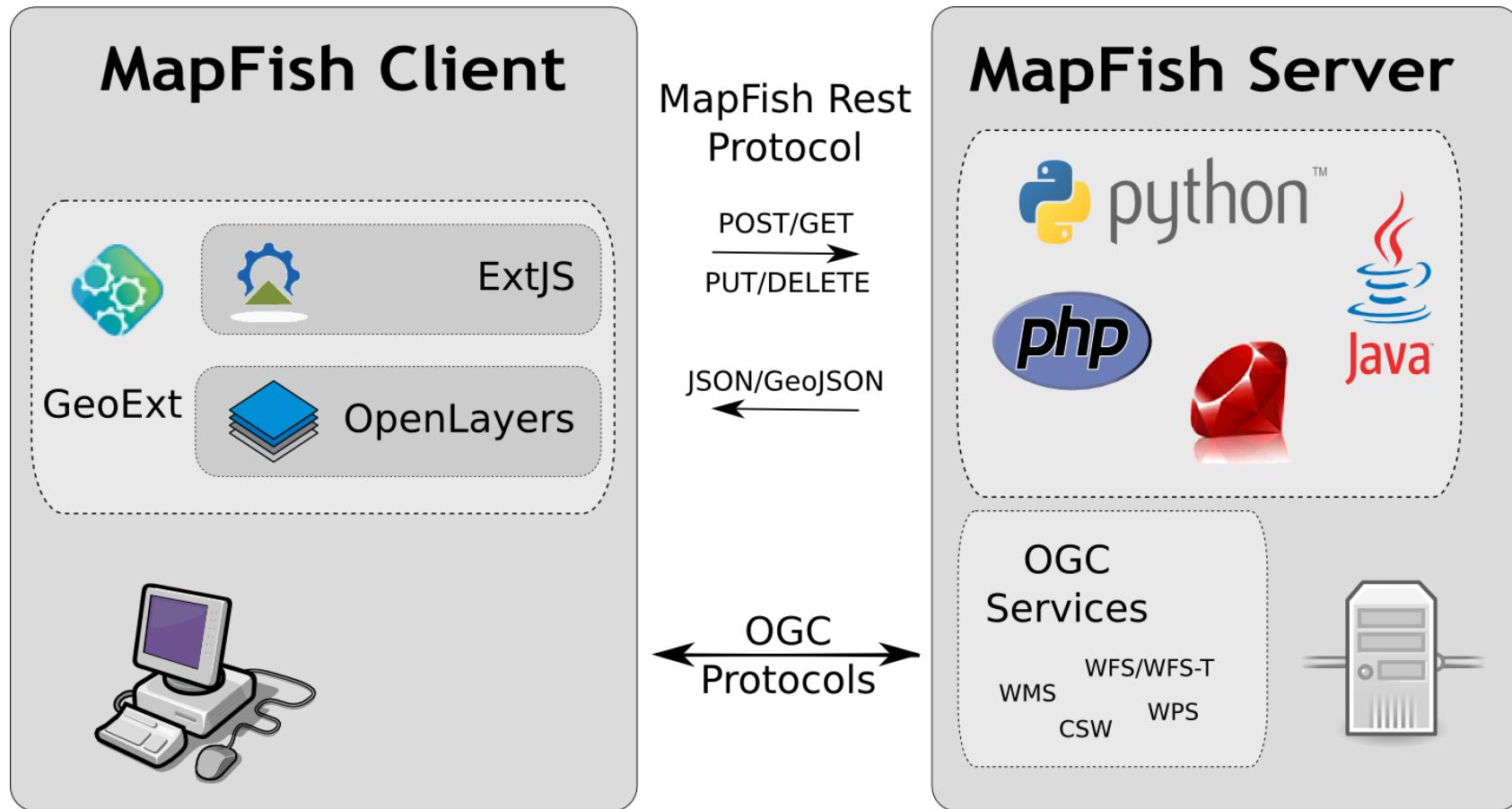
# MapFish - das Framework dahinter

Open Source (BSD)

und  
ein OSGeo-Projekt



# MapFish - das Framework dahinter



MapFish architecture

# GeoMapFish

**campocamp** INNOVATIVE SOLUTIONS BY OPEN SOURCE EXPERTS

DE - FR  
Calcul d'itinéraire - Mobile - API - XAPI

Print Dessin Legend Login

Themes

Themes

Find a theme or a layer

Administration

- Districts
  - Montpellier centre
  - Prés d'arènes
  - Port Marianne
  - Les Cévennes
  - Mosson
  - Hôpitaux-Facultés
  - Croix d'argent

Equipment

- Game area
- Camera

5 km

Zoom to: 1 : 200000

Aerial Map OSM Map

(c) OSM by-sa

1481800, 6891058

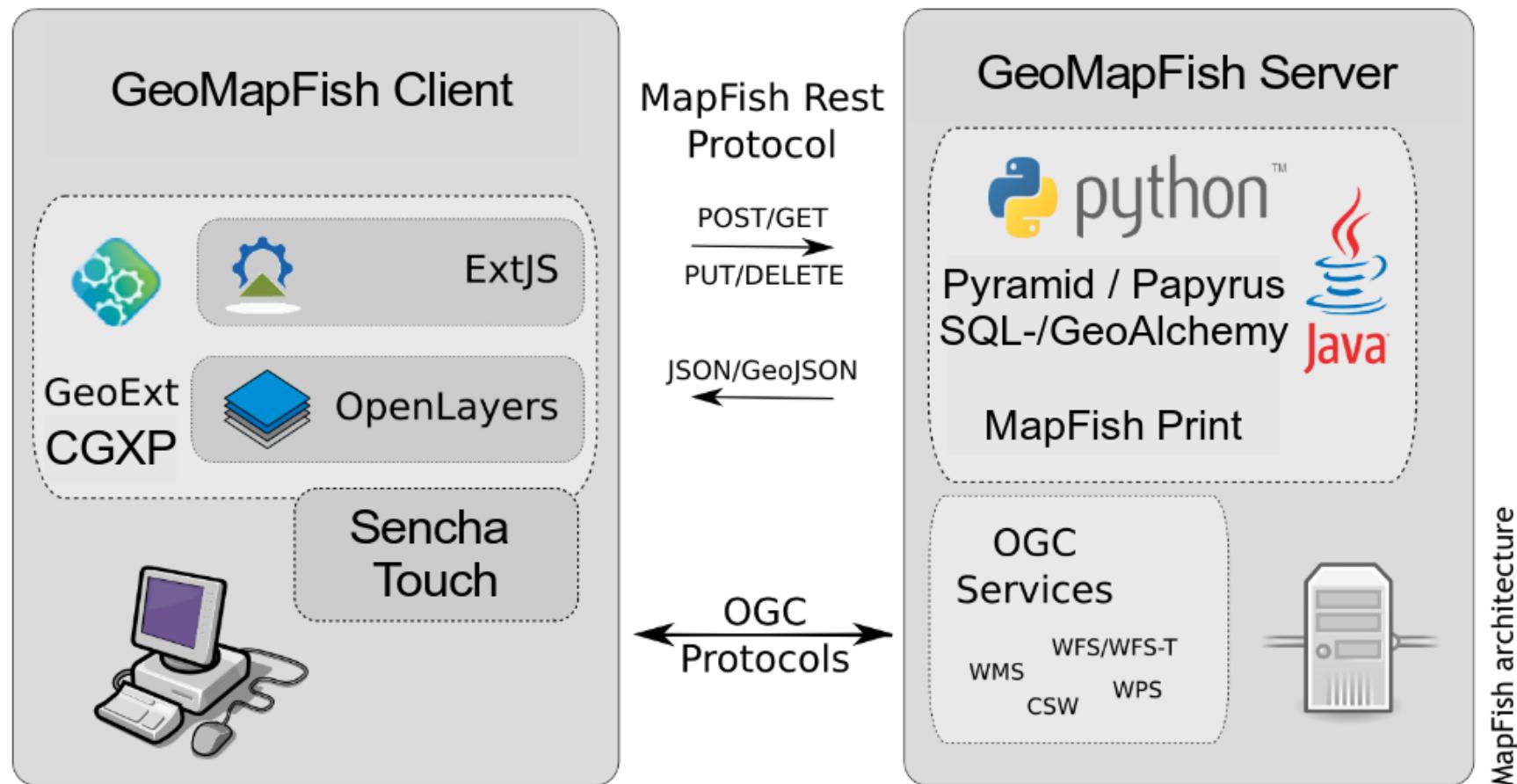
Add WMS Add KML

Contact - Développé par Campocamp.

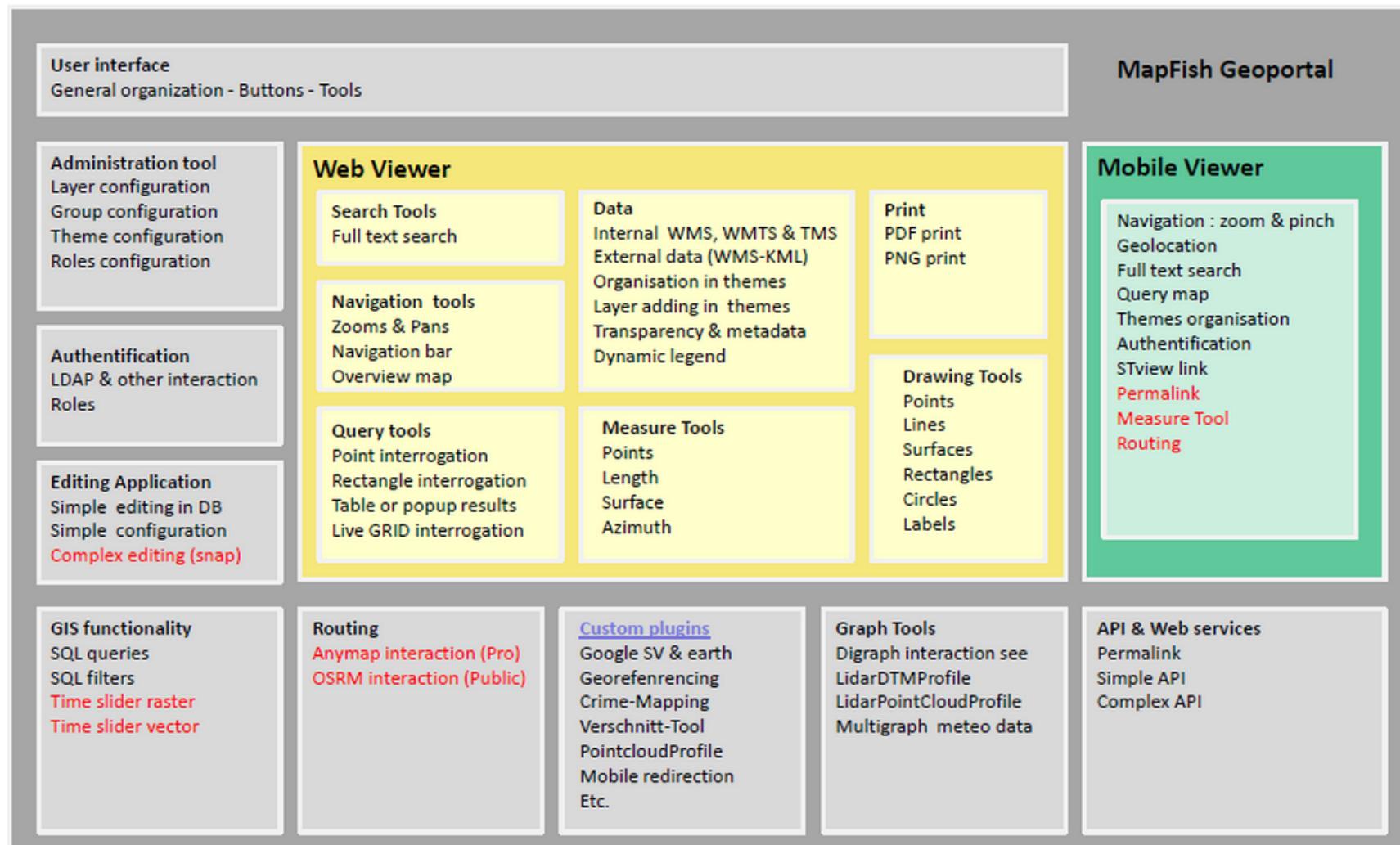
# GeoMapFish

- Generisches WebGIS
- Plugin-Basiert
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- OGC Standards-basiert
- Getragen von einer breiten User Gruppe (>20 Mitglieder)
- Open Source

# GeoMapFish: Architektur



# GeoMapFish: Funktionalitäten



# GeoMapFish: Funktionalitäten

- AddKMLFile
- Data Disclaimer
- Editing
- FeaturesWindow
- FullTextSearch
- GetFeature / Query
- GoogleEarthView
- LayerTree
- Legend
- Login / Auth
- Measure
- MouseCoordinates
- Permalink
- Print
- Profile

# GeoMapFish: Konfigurierbares Interface

 INNOVATIVE SOLUTIONS  
BY OPEN SOURCE EXPERTS

DE - FR  
Calcul d'itinéraire - Mobile - API - XAPI  
Print | Dessin | Legend | Login | Help

Themes

Themes

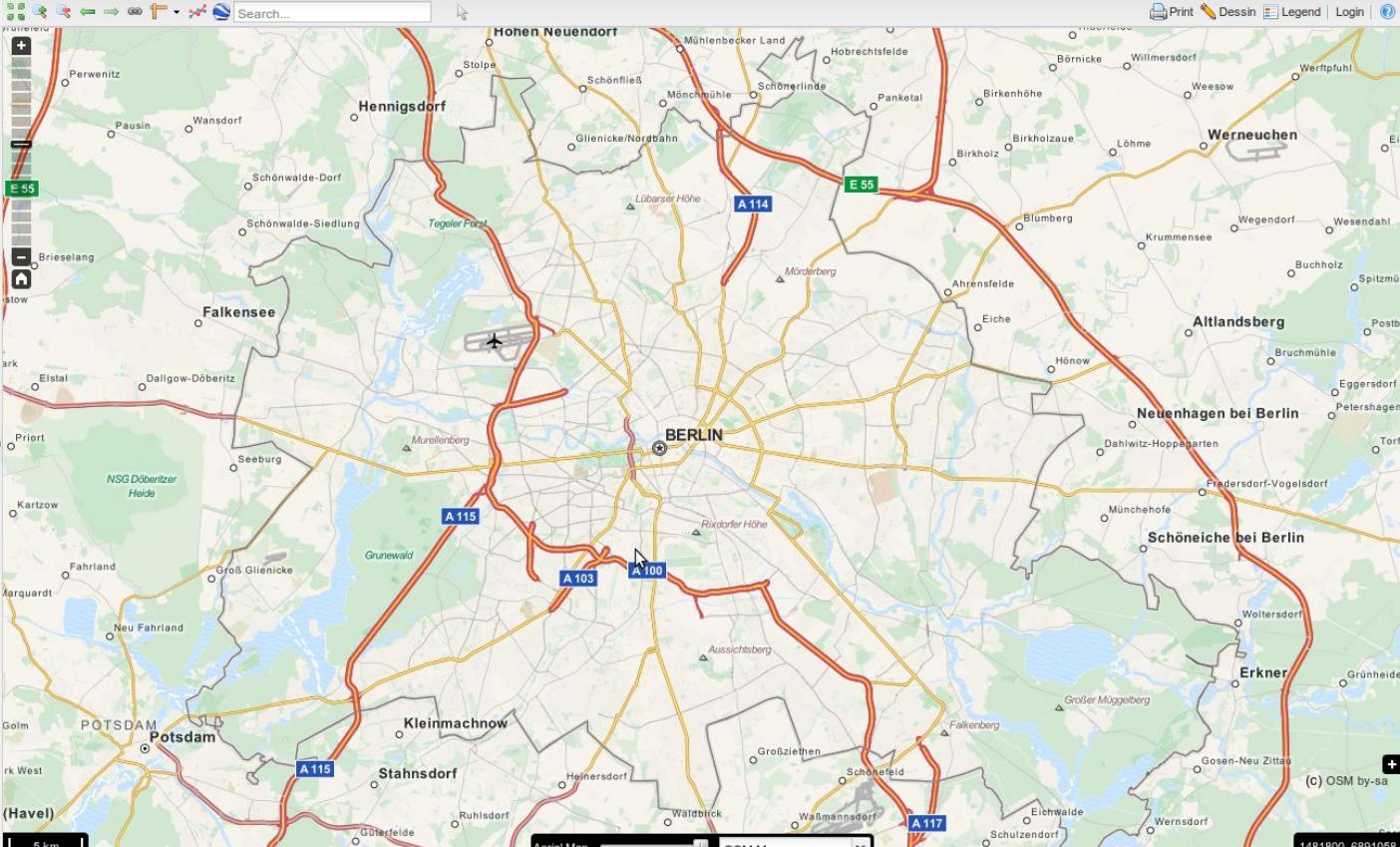
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Aerial Map | OSM Map

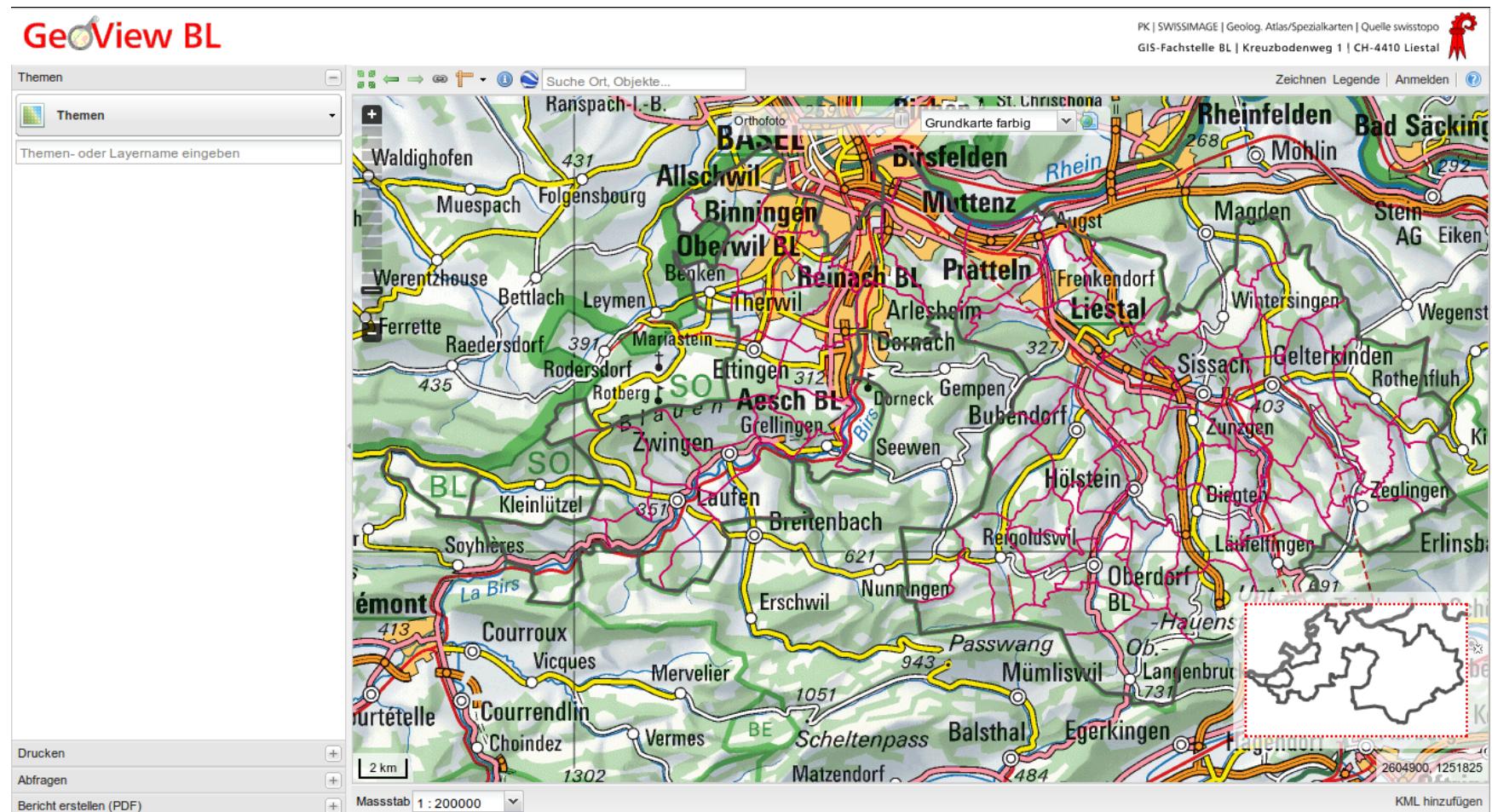
(c) OSM by-sa

1481800, 6891058

Add WMS | Add KML

Contact - Développé par Campocamp.

# GeoMapFish: Konfigurierbares Interface



# GeoMapFish: Konfigurierbares Interface

Géoportal du Système d'Information du Territoire Neuchâtelois

Accueil - Thèmes - Géodonnées - Géoservices - Version mobile - Aide - Liens - Contact

Recherche et localisation

Rechercher un lieu ou un objet géographique

Choix des données

Thème : Plan de ville

- Points d'intérêt
  - Administration
  - Culture / loisirs
  - Points de collectes / Déchetterie
  - Santé
  - Services
  - Sport
  - Transports
- Plan de ville
  - Communes
  - Adresses
  - NPA
  - Axes de coordonnées
- Fonds de plan
  - OpenStreetMap
  - Cartes et plans topographiques
  - Hybride - ortho et plan

Ajouter d'autres données du SITN dans ce thème:

Rechercher des données...

Ajouter des données externes dans ce thème:

Ajouter KML Ajouter couche WMS

Informations dépourvues de foi publique, © SITN, swisstopo DV 571.4, OpenStreetMap

Coordonnées (CH-1903) - Y : 528300, X : 199250

1 : 400000

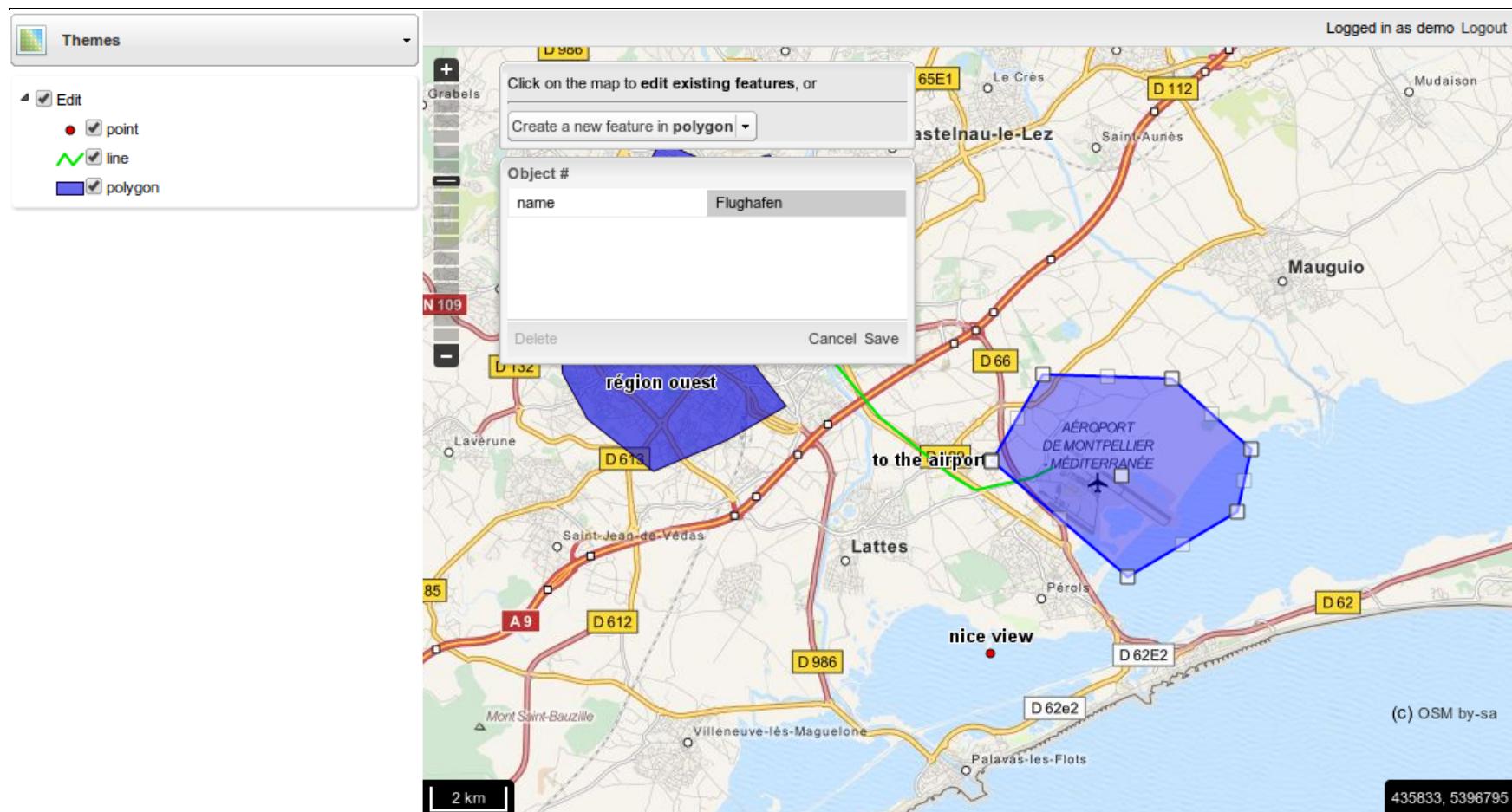
The screenshot shows a detailed map of the Neuchâtel region in Switzerland. The map features a 3D perspective view of the terrain, with blue areas representing lakes and green/yellow areas representing land. Towns and cities are marked with black dots and labeled. A legend on the left side of the map provides symbols for different types of data layers, such as administration, culture, points of collection, health, services, sports, and transport. A sidebar on the left contains a tree view of selected themes, including 'Points d'intérêt', 'Plan de ville', and 'Fonds de plan'. The top right corner features the 'ne.ch' logo with the text 'RÉPUBLIQUE ET CANTON DE NEUCHÂTEL'. The bottom right corner shows coordinate values (Y: 528300, X: 199250) and a scale of 1:400000.

# GeoMapFish: Konfigurierbares Interface

The screenshot shows a map of the Yverdon-les-Bains area, integrated into a larger Géoportal interface. The map displays a mix of orthophoto imagery and vector data, including roads, rivers, and administrative boundaries. Key locations labeled include La Mothe, Vuitebœuf, Orges, Giez, Grandson, Lac de Neuchâtel, Montagny-près-Yverdon, Yverdon-les-Bains, Cheseaux-Noréaz, Villars-Epeney, Cuarny, Pomy, Belmont-sur-Yverdon, Ursins, Orzens, Cronay, Molondin, Chêne-Pâquier, Rovray, Yvonand, and Rovray. The map also shows parts of the A1 and A2 motorways. A legend on the left indicates themes like 'Quartiers d'Yverdon' and 'Bâtiment projeté'. The top right corner features the 'Système d'information du territoire Yverdon-les-Bains' logo. A small inset map in the bottom right corner shows the location of the Yverdon-les-Bains area within the canton of Vaud, Switzerland.

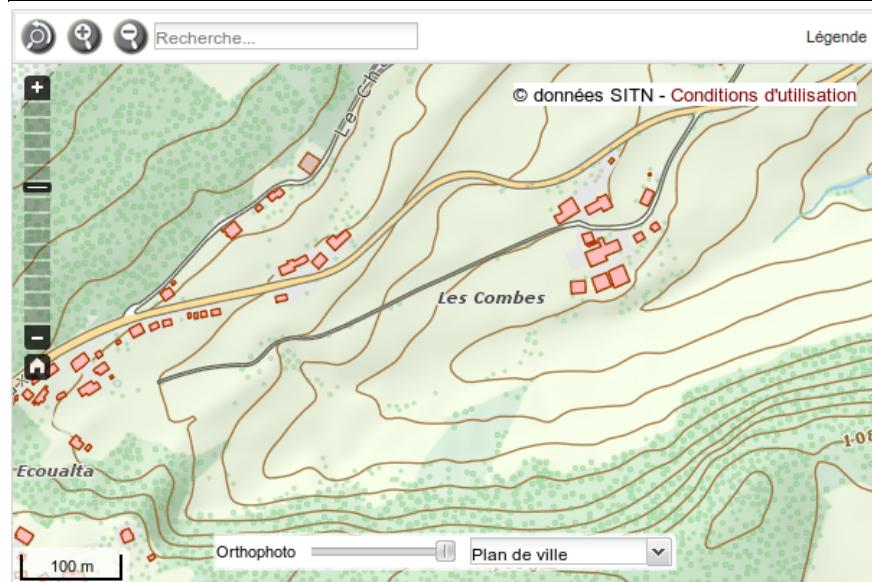
# GeoMapFish: weitere Interfaces

## Editieren



# GeoMapFish: weitere Interfaces

## API



```
var map = new sitn.Map({
  div: 'map1', // id de l'élément qui va contenir la carte
  zoom: 8, // niveau de zoom
  center: [544500, 210100] // coordonnées sur lesquelles la carte doit être centrée
});
```

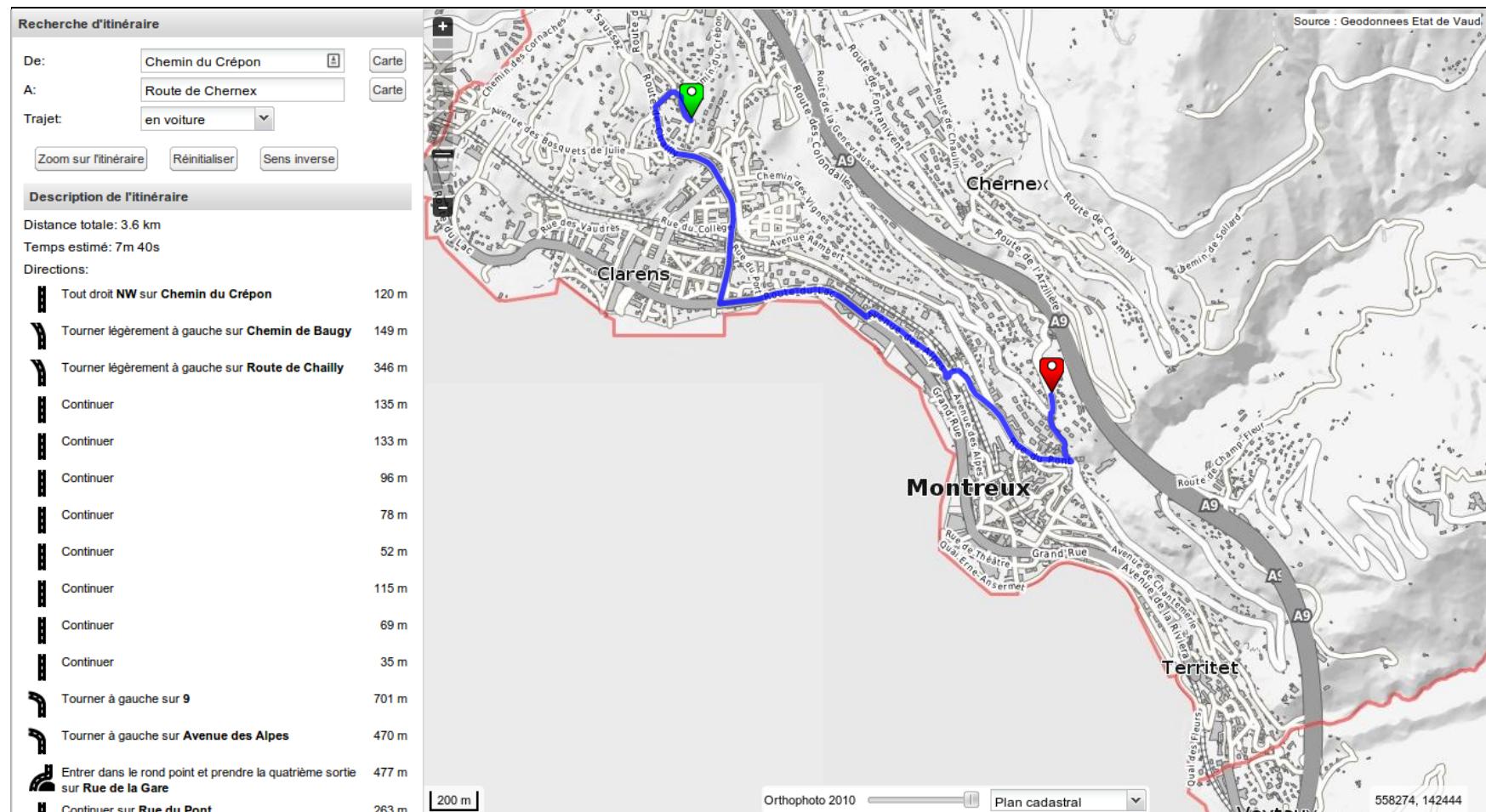
# GeoMapFish: weitere Interfaces

Mobile



# GeoMapFish: weitere Interfaces

## Routing



# GeoMapFish: Neuigkeiten der aktuellen Version

- 
- WFS-T Support
- Publizieren von WMS / WFS Services
- Suchfarbe ändern
- Geolokalisierung auch auf Desktop
- "Gehe zu" Button
- neues Kompilierungstool
- PostGIS 2 Support, Mapserver 7 Support
- ... und viele weitere

# **GeoMapFish: weitere Komponenten**

Deploy - übertragen der Applikation und/oder der Daten auf andere Server mit einem einzigen Befehl

OGC Services: MapServer, QGIS Mapserver, GeoServer, ...

Datenbank-Anbindung: PostgreSQL / PostGIS, Oracle, ...

Anbindung an ein SSO, LDAP, eigenes Authentification System

# **GeoMapFish: weitere Komponenten**

Cyber Geo-Administration: Formulare mit geographischer Komponente

Print, Reporting mit **MapFish Print**

Vorberechnung / Caching mittels **TileCloud Chain**

Eigene REST-Services / Python-Webdienste

# Online Portale und Beispiele

GeoView BL (Kanton Basel-Landschaft)

SITN (Kanton Neuenburg)

RegioGIS Berner Oberland

Gemeinde Thun

Cartorivera

Stadt Morges

Gemeinden Pully/Paudex/Belmont

Stadt Yverdon

Kanton Jura

and more...

# Weitere Beispiele

- map.geo.admin
- map.schweizmobil.ch
- Luxemburg National Map
- plan.epfl.ch

# Geoportal map.geo.admin.ch

 Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra  
In collaboration with the cantons

Full screen Report problem Help Mobile version EN ▾  
Color map ▾

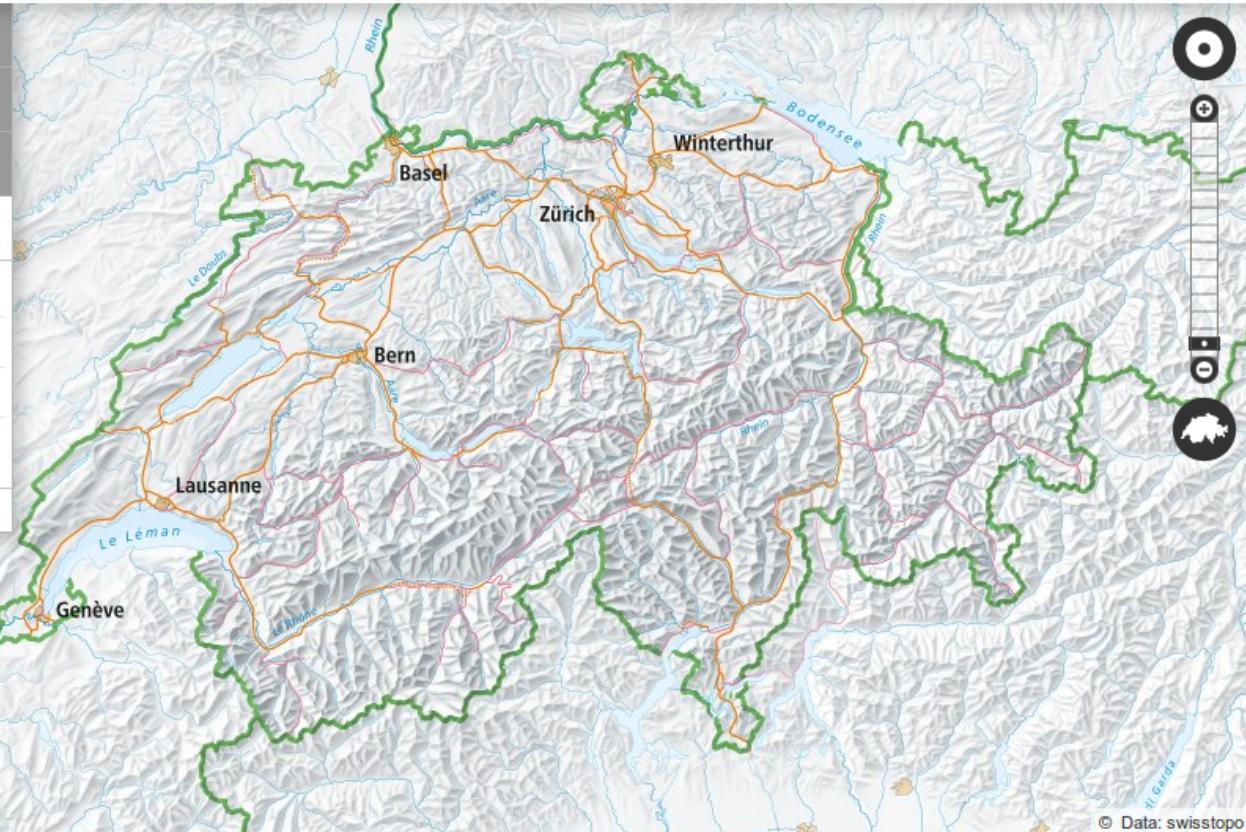
Share | Print | Tools

Geocatalog Change topic ⓘ  
Base information and Planning  
Nature and Environment  
Population and Economy

Selection  
No layer in the map  
Close menu

50km CH1903+ / LV95 ▾

Search location, maps, coordinates ...



# SchweizMobil map.schweizmobil.ch

The screenshot shows a detailed topographic map of the Alpine Passes Trail Stage 4, specifically the section from Vrin to Cab. Scaletta SAT. The map features contour lines, mountain peaks labeled with elevations (e.g., Piz Medel, Piz Caschlegna, Piz Vial, Piz Ferri), and various passes. A red line highlights the trail route, which includes numbered waypoints (1 through 5) and several green dashed lines representing alternative routes or connecting trails. A yellow circle marks the current location at Vrin. On the left side, there is a sidebar with various travel categories and services, such as Hiking In Switzerland (which is checked), Cycling In Switzerland, Mountainbiking In Switzerland, Skating In Switzerland, Canoeing In Switzerland, Rail | Bus | Boat, Accommodation, Services (which is also checked), and Weather. The top of the page has a navigation bar with links for Switzerland Mobility, a search bar, and language options (deutsch, français, italiano). The bottom of the page includes a footer with partner logos, coordinates, and legal links.

# SchweizMobil map.schweizmobil.ch

The image shows a 3D perspective view of a Swiss mountain landscape, likely the Alps, with deep valleys and snow-capped peaks. Overlaid on the terrain are numerous green dashed lines forming a complex network of trails, representing hiking routes. A sidebar on the left provides navigation and tourism information:

- Search... Place Route Service Coord.
- 3D Map Photo Grey
- Print
- Share
- My Tours**
  - Hiking in Switzerland
  - Cycling in Switzerland
  - Mountainbiking in Switzerland
  - Skating in Switzerland
  - Canoeing in Switzerland
  - Rail | Bus | Boat
  - Accommodation
  - Services
  - Weather
- Plan your own tours

At the bottom of the map, there is a compass rose and a small circular icon with a person's head profile. The footer contains links to various partners and a legend.

# Geoportal map.luxembourg.lu

The screenshot displays the Geoportal map.luxembourg.lu interface. At the top left is the coat of arms of Luxembourg and the text "LE GOUVERNEMENT DU GRAND-DUCHÉ DE LUXEMBOURG". A search bar at the top right contains the placeholder "Search addresses, parcels, layers ...". To the right of the search bar are icons for user profile, globe, and a grid.

The main area is a map of Luxembourg with several layers visible:

- LAYERS**: A sidebar on the left lists "Background layer" (selected) as "basemap\_2015\_global". It also includes sections for "MY LAYERS (3)" and "CATALOG".
- Geographical Location**: A section titled "Theme: MAIN" with a "Changer" button. It lists "Administrative units" (Municipalities, Cantons, Districts, Country), "Cadastral data", "Addresses", and "Topographical Maps".
- Map Content**: The map shows administrative boundaries in orange, roads in grey, and place names in black. Specific locations labeled include Useldange, Boevange-Sur-Attert, Mersch, Lintgen, Lutzweiler, Insel, Walferdange, Niedaranven, Junglinster, Betzdorf, Kehlen, Septfontaines, Tuntange, Saeul, Koerich, Kopstal, and Steinfort. There are also several red circular icons with train symbols, likely representing train stations or stops.
- Tools and Options**: A toolbar at the bottom includes icons for "DRAW", "MEASURE", "PRINT", and "SHARE". Below the toolbar are buttons for "LINK 1", "LIEN 2", and "LIEN 3". At the very bottom are buttons for "LAYER", "MY MAPS", and "INFOS".

# Campus Plan der EPFL plan.epfl.ch

**EPFL**  
ÉCOLE POLYTECHNIQUE  
FÉDÉRALE DE LAUSANNE

**YOU ARE** **BY SCHOOL** **ABOUT EPFL**

Person Place EPFL Web

Find a place

English Français

Search Points of Interest Routing Print Measure Reset Link Help

**A** Arrêts M1 EPFL  
**B** Musée Bolo  
 Disabled  
Let's go! Reset

**A** Departure from level 0

- 1 Down the ramp to level -1 57 m
- 2 Up the stairs to level 0 123 m
- 3 Up the stairs to level 1 137 m
- 4 Down the stairs to level 0 492 m

**B** Arrival to level 571 m

  
Detailed description: The map shows the EPFL campus layout with various buildings labeled (AA, BM, LE, GG, GR, PO, PH, GE, BI, CH, MA, ME, SV, AI, AN, DIA, BC, EL, PP, RLC). It includes streets like Rue du Tir Fédéral, Rue J.-R. Perretet, Rue J.-D. Colladon, Allée de Suisse, and Rte des Noyettes. A red dashed line indicates the walking route from point A (Arrêts M1 EPFL) to point B (Musée Bolo). An inset map in the bottom right corner shows the location of the EPFL campus within the city of Lausanne.

Zoom + -

View 3D Street View Map Satellite

Places EPFL Campus IMT Neuchâtel ECAL Renens Aula Cour Middle East Basel CHUV Maillerer

webmaster.map@epfl.ch

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# Ausblick

## GeoMapFish 2 !

- NGeo - Kombination Openlayers 3 mit Angular / Bootstrap
- Responsive - 1 Applikation für alle Geräte
- Bewährt - Aufbau auf den Erfahrungen des schweiz. Bundesgeoportals map.geo.admin.ch
- 3D - Fliessender Übergang und Synchronisation zwischen 2D und 3D

# GeoMapFish Community

Projekt: <http://www.geomapfish.org/>

<http://twitter.com/mapfish>  
#mapfish

Code: [https://github.com/campy/c2cgeoportal/](https://github.com/campy/c2cgeoportal)

User Gruppe: <https://sites.google.com/site/geomapfishusergroup/>

MapFish Print: <http://www.mapfish.org/doc/print/index.html>

# Danke für die Aufmerksamkeit!

*Kontakt:*

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... oder am Open Source Stand

**to camp**  
**camptocamp**

INNOVATIVE SOLUTIONS  
BY OPEN SOURCE EXPERTS

