



MapFish

**How to create a web 2.0 mapping application
with MapFish development framework ?**



- **Open Source solutions provider as editor and integrator**
- **Staff of 38 in Switzerland and France**
- **Camptocamp helps you move forward with the latest Open Source technologies**



Rennes



Lausanne

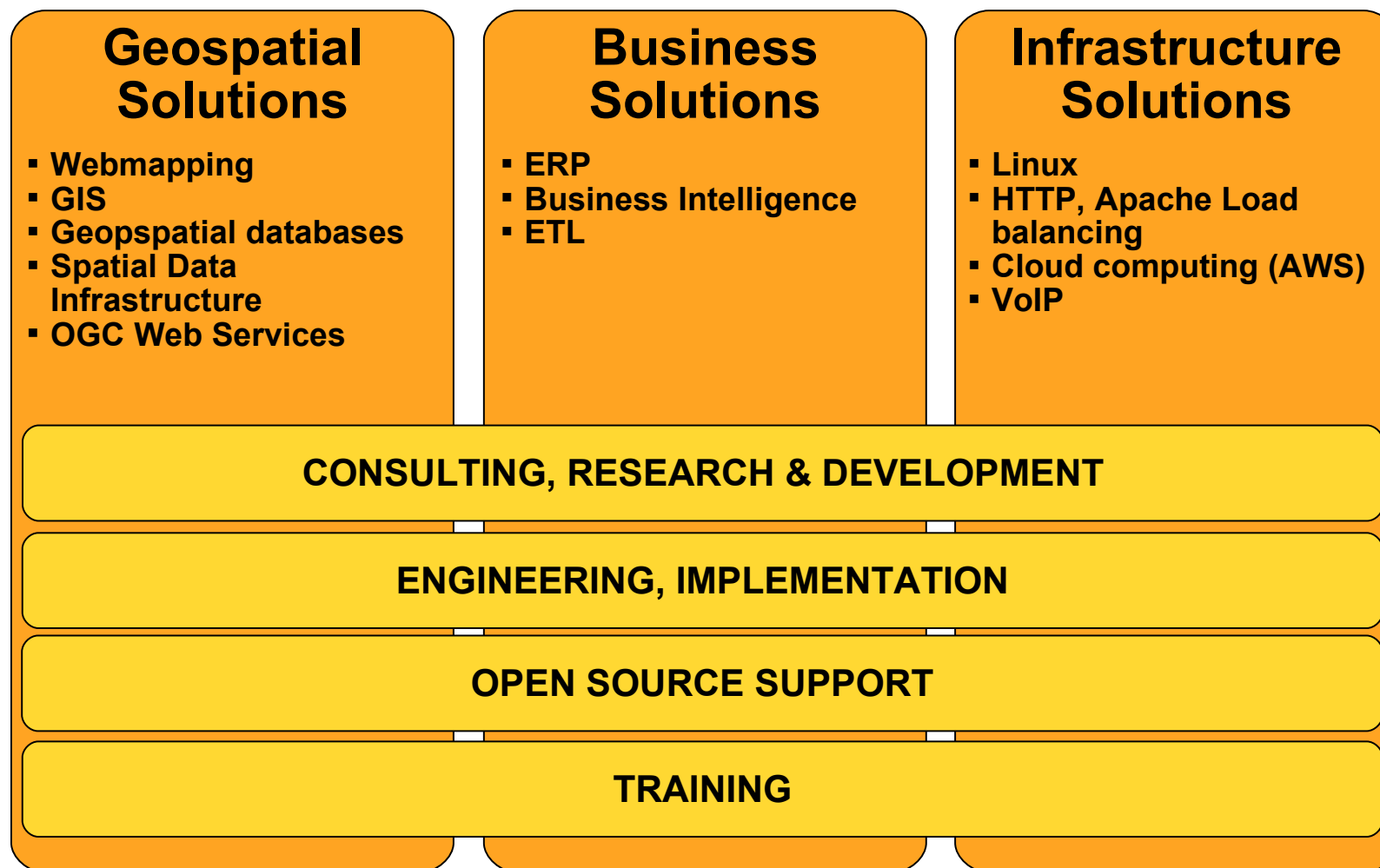


Chambéry



Toulouse

Camptocamp activity domains



What is MapFish ?

MapFish is an **easy-to-use** and extensible **web 2.0 mapping application framework**.

But, what is a **framework** ?

From wikipedia : “A framework is a basic conceptual structure used to **solve or address complex issues**.”

The framework aims to alleviate the overhead associated with common activities performed in **Web mapping development**.



More details about this framework?



Hi !

I'm MapFish Server

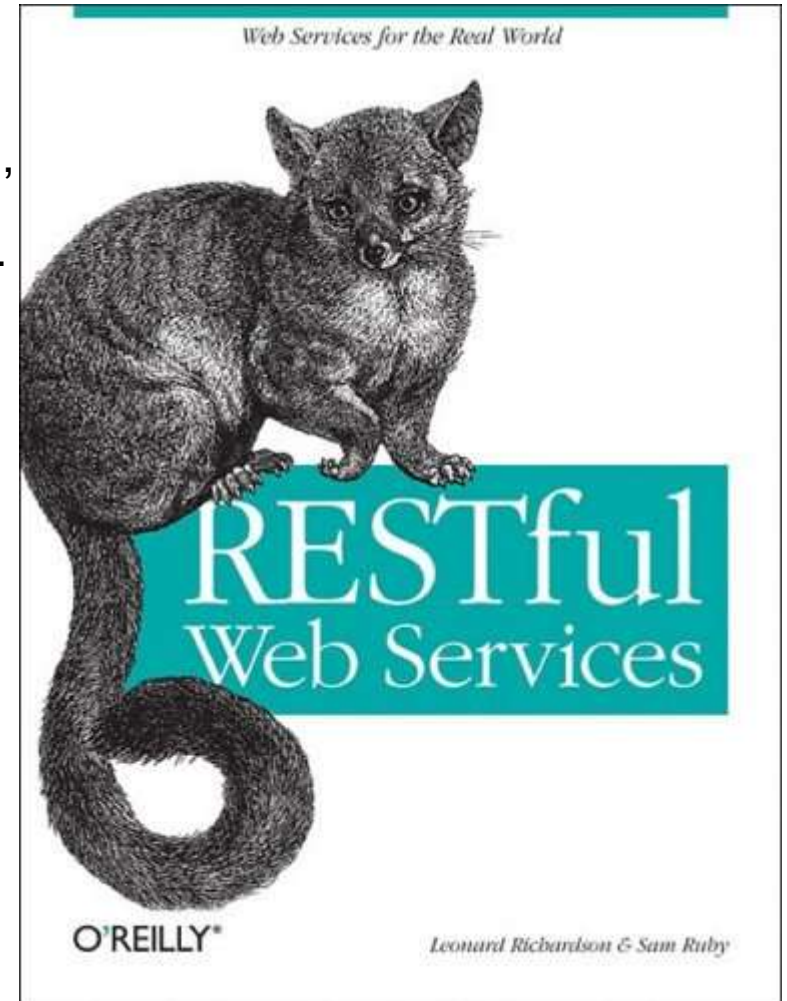
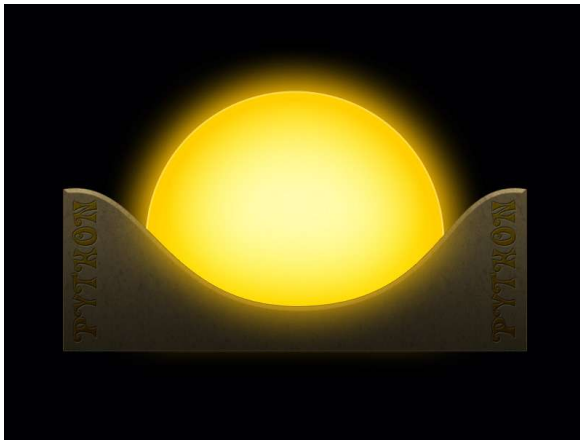
Hi !

I'm MapFish Client

MapFish Server

MapFish Server provides functionality to create easily **REST** services for spatial data (for **inserting**, **updating**, **querying** and **deleting** spatial data).

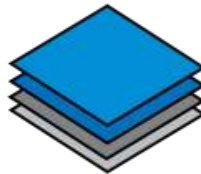
MapFish server extends the **Pylons** framework with geospatial-specific functionality and uses library like **Shapely** or **SqlAlchemy**.



MapFish Client

MapFish Client is a **Javascript Toolbox** used to allow the developer to create **Rich Internet Applications**.

The JavaScript toolbox is composed of the **ExtJS**, **OpenLayers**, **GeoExt** JavaScript toolkits, and specific components for interacting with **MapFish REST web services**.



Rich UI: <http://map.globe.admin.ch/>

File Edit View History Bookmarks Tools Help

http://map.globe.admin.ch/?lang=en

Google

GLOBE

Contact Register Deutsch | Français Italiano | English

Logout Site administrator Admin Page

Themes

- Bioindication
 - water quality
 - landscape quality
 - water sites
- Background
 - Administrative
 - Gemeinde
 - Bezirk
 - Kanton
 - Schweiz
 - Nationales Maps
 - Grays Nationales Maps
 - Aerial Images
 - None

Recenter on Coordinates +

Recenter +

Overview Map +

Scale = 1 : 100'000
Coordinates (m): 539000, 155645
@ swisstopo

create site

id	rivername	Y (East)	X (North)	delete
551	Ognona	553520	148181	delete
552	La Paudèze	542900	153900	delete
555	Vuachère	538900	151900	delete
556	La Sorge	533500	152700	delete

add a measure

datum	author	comment	Water quality	landscape	water temper	water O2 (mg)	water nitrate	water conduct	water pH	water alk
2007-04-12	CHCH4DID	milieu relevé par karine et Frédéric II		2						

GLOBE Switzerland
[Contact](#) | [Legal bases](#)

Done

camp

MapFish Status and License

Last stable **release 1.2**

PSC in construction & **incubation process** by OSGEO

New **WebSite**

License **GPLV3**, ongoing discussions

BSD for MapFish -> ExtJS is not shipped with MapFish anymore

GPLV3 -> as it is now



The MapFish Ecosystem

MapFishAPI to integrate MapFish application in other applications (CMS, Web site, ...) and to manage applicative **permalinks**

MapFish
Print to generate
PDF

Various implementations of **MapFish REST Protocol**:



MapFishAPI and permalinks

MapFish Demo
GeoNames Search +
Permalink +
API integration -

API configuration
☒ Show marker in the middle of the map
☒ Show popup in the middle of the map
Html content :

API Code source

```
<link rel="stylesheet" type="text/css" href="http://dev.mapfish.org/sandbox/cmoulet/MapFishApiDemo/mapfishapidemo/public/mfbase/openlayers/theme/default/style.css"/>
<script type="text/javascript" src="http://dev.mapfish.org/sandbox/cmoulet/MapFishApiDemo/mapfishapidemo/public/mfbase/ext/adapters/ext-base.js"></script>
<script type="text/javascript" src="http://dev.mapfish.org/sandbox/cmoulet/MapFishApiDemo/mapfishapidemo/public/MapFishApi/js/firefoxfix.js"></script>
<script type="text/javascript" src="http://dev.mapfish.org/sandbox/cmoulet/MapFishApiDemo/mapfishapidemo/public/mfbase/ext/ext-all.js"></script>
<script type="text/javascript" src="http://dev.mapfish.org/sandbox/cmoulet/MapFishApiDemo/mapfishapidemo/public/build/mapfish/MapFish.js"></script>
<script type="text/javascript">
Ext.onReady(function() {
  geo = new mymapfish.API();
  // createMap config parameters
  // div - div where to place the map
  // easting - center of the map, easting value
  // northing - center of the map, northing value
  // zoom - zoom level
  // bbox - bbox of the initial extent
  geo.createMap({
    div: 'mymap1',
    zoom: 14,
    easting: 16832322.20885,
    northing: -4011071.2777787
  });
  // showMarker config parameters
  // easting - position of the marker, default: map center
  // northing - position of the marker, default: map center
  // iconPath - path of a custom icon for the marker (url or relative), default: /mfbase/openlayers/img/marker-gold.png
  // recenter - define if the map has to be recentered at the marker position default: false
});
```

MapFish Print

Welcome to
Cycling in Switzerland

Enlarged map

Cycling in Switzerland

- Routes
 - National
 - Regional
- Sections
 - Local offers
 - Cycle rental
 - Cycle service
- Hiking in Switzerland
- Mountainbiking in Switzerland
- Skating in Switzerland
- Canoeing in Switzerland
- Rail, bus, boat
- Places
- Accommodation
- Shopping
- Places of interest

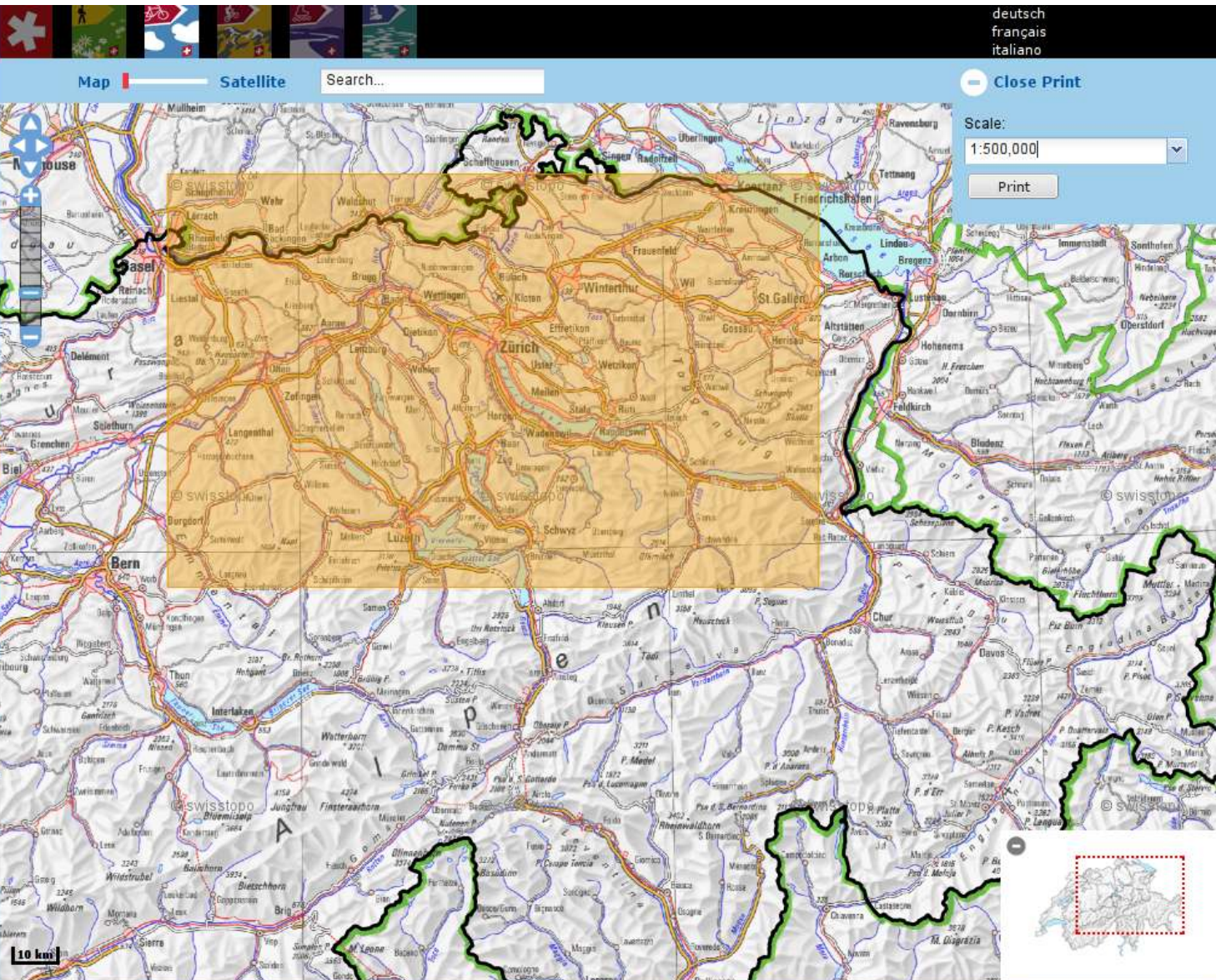
deutsch
français
italiano

Map Satellite Search...

Close Print

Scale:
1:500,000


Print



Coordinates (m): 695000, 279250 | Geodaten © swisstopo (DV084250.1)

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Legend

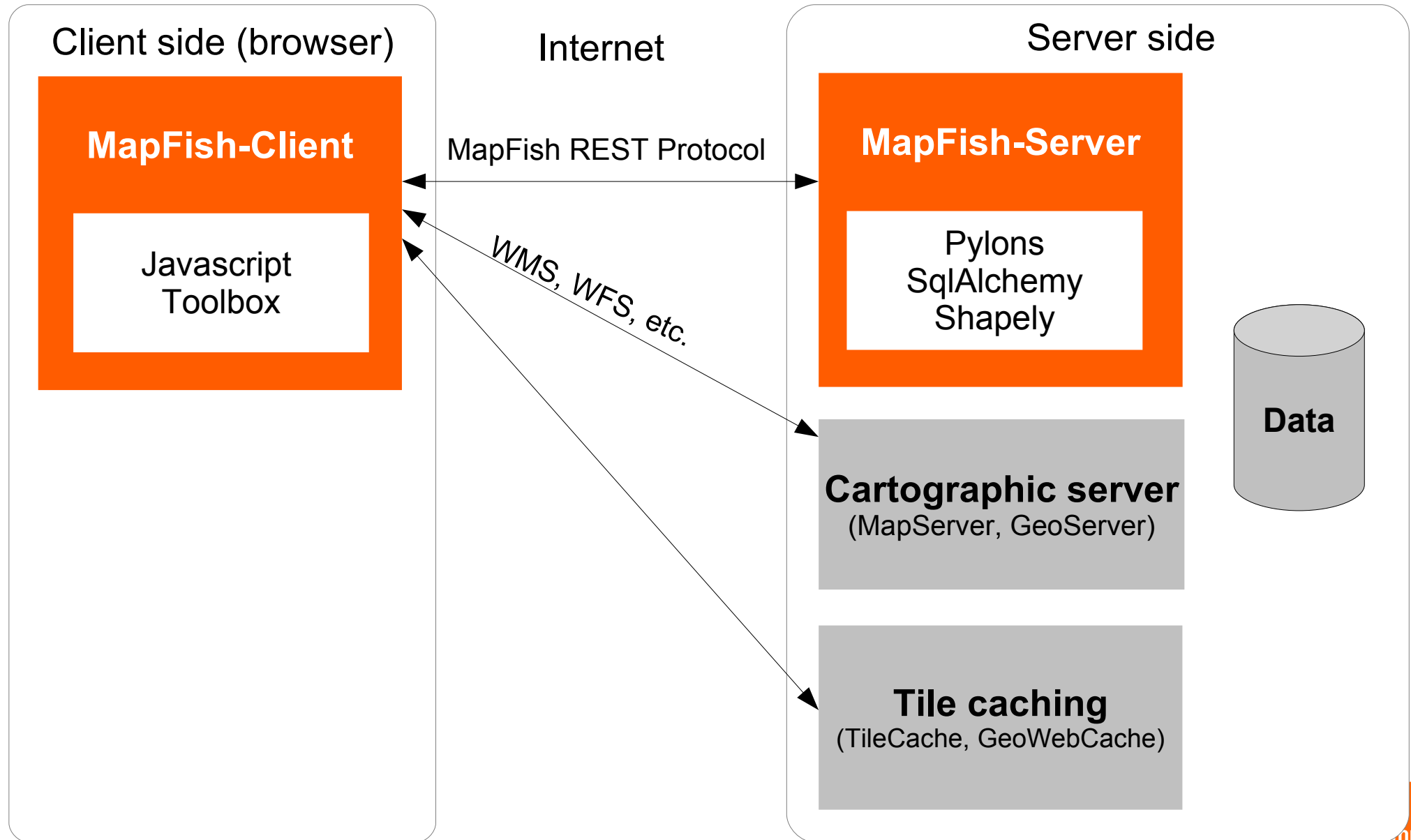


But, what can I do with MapFish Framework ?

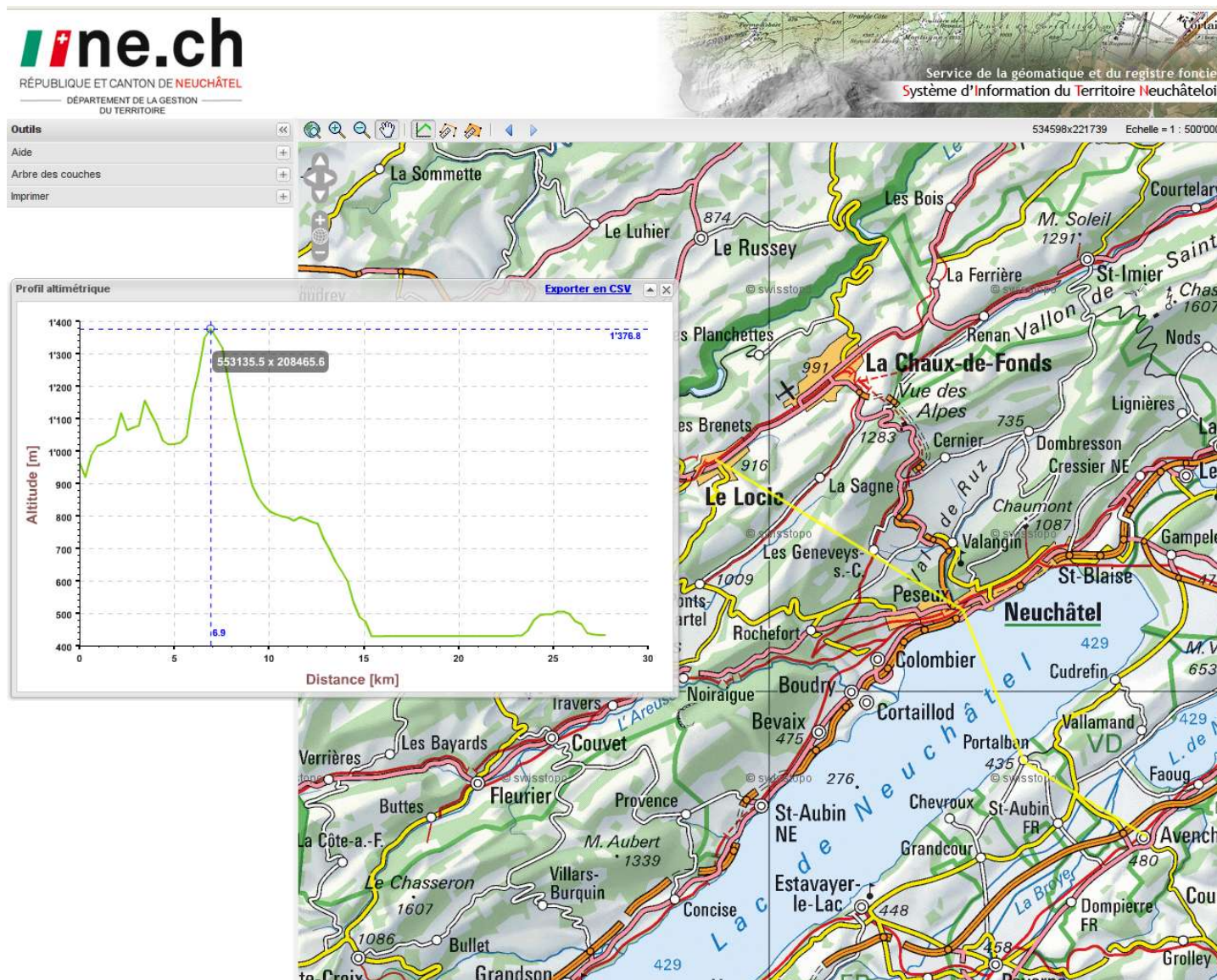


... create MapFish applications !

MapFish Application – General architecture



Profile



Veloland

Willkommen bei Veloland Schweiz

Themen schließen

Veloland

Routen

☒ National
 ☒ Regional

☐ Etappen
 ☒ Lokale Angebote
 ☒ Mietvelo
 ☐ Veloservice

Wanderland

Mountainbikeland

Skatingland

Kanuland

Bahn - Bus - Schiff

Orte

Übernachten

Sehenswürdigkeiten

+

Suchen...

+

Drucken

2 Treffer

Rhone-Route Andermatt—Genève

Die Rhone-Route durchmisst das Wallis vor imposanter Bergkulisse auf reizvollen und ruhigen Wegen entlang der Rhone. Sie führt vorbei an den Palmenpromenaden des Lac Léman und den malerischen Lavaux-Rebbergen und endet in der Weltstadt Genf.

Markierung entfernen
Mehr Information

Jura-Route Basel—Nyon

Die Jura-Route führt durch geheimnisvolle Landschaften, einsame, tannenbestandene Hochebenen und stille Täler mit quirligen Bächen. Auf einer einmaligen Route radeln Sie abseits der Hektik durch weite Hügelszüge von Basel an den Lac Léman.

Route markieren
Mehr Information

1

2

1

7

10 km

Koordinaten (m): 512150, 134300

Impressum | Copyright & Datenschutzerklärung | Kontakt

Legende

camptocamp

IRSN

IRSN : WebSesure - Mozilla Firefox

Fichier Édition Affichage Historique Marque-pages Outils ?

http://figeac/wsgi/mesure/index

À la une

Courrier :: Boîte de réc...

IRSN : WebSesure

Page d'accueil de Mozill...

Form Handling - Pylons ...

Manpage of ZIP

[irsn_sesure] View of /t...

IRSN : WebSesure

IRSN
INSTITUT
DE RADIOPROTECTION
ET DE SÛRETÉ NUCLÉAIRE

Etude et
surveillance
de la radioactivité
dans l'environnement

Nous contacter

Menu

Le Portail de la Mesure de la Radioactivité dans l'Environnement

Sur ce territoire sont représentés 1151 points de mesures

Données des réseaux de surveillance et d'étude

Bilans de la surveillance exercée par l'IRSN

Gérer l'affichage

Recherche simple Recherche avancée

☒ Milieu atmosphérique
☒ Milieu biologique
☒ Milieu eau
☒ Milieu minéral

Exécuter

Afficher / Masquer des référentiels

☒ Principaux sites nucléaires

Mesures effectuées sur la zone sélectionnée

Tableau des prélèvements

Nature	Radionucléide	Unité
Milieu atmosphérique		
Milieu biologique		
Algues	Beryllium 7	Bq par kg
Algues	Beryllium 7	milliBq par mètre carré
Algues	Plomb 210	Bq par kg
Algues	Plomb 210	milliBq par mètre carré
Algues	Potassium 40	Bq par kg
Algues	Potassium 40	milliBq par mètre carré
Mollusques (chair, entier)	Beryllium 7	Bq par kg

Type de prélèvement : Plomb 210

0 60 120 180 240 300 km

Accès Dom-Tom

http://figeac/wsgi/mesure/index#

démarrer

SSH, Telnet ...

Mes documents

xml - sigweb@fi...

IRSN : WebSes...

IRSN : WebSes...

Spatial Data Int...

Microsoft Excel ...

FR

08:23

Coffee. What else ?



Is it difficult to install ?

1. Download a script
2. Execute this script

That's it !

Supported platform: Windows, Linux (Mac OS working, but not officially supported)



Diversity of applications and functions



Search

Welcome to
Cycling in Switzerland

Enlarged map

Cycling in Switzerland

Routes

National

Regional

Sections

Local offers

Cycle rental

Cycle service

Hiking in Switzerland

Mountainbiking in Switzerland

Skating in Switzerland

Canoeing in Switzerland

Rail, bus, boat

Places

Accommodation

Shopping

Places of interest

Map

Satellite

Béranges

Béranges
(VD) - La Tour-de-Peilz

Berawis
(GR) - St. Antonien Ascharina

Berbel
(VS) - Münster (VS)

Berberg
(ZH) - Turbenthal

Berch
(TI) - Peccia

Berchen
(ZH) - Dachsen

Berchenaux
(JU) - Vermes

Bercher
(VD) - Bercher

Berchères
(VD) - Malanallud

Print

deutscheschweizerischitaliano

10 km

Coordinates (m): 687475, 227325 | Geodaten © swisstopo (DV084250.1)

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Legend

How can I create my first MapFish application ?

1. Create a MapFish server
2. Create a MapFish client

That's it !

Layer Tree

The screenshot displays a web mapping application interface. The main map area shows a region in Brittany, France, with various towns and roads labeled. A red rectangle highlights a specific area near Quimper. The right sidebar contains a 'Couches affichées' (Displayed Layers) section with three layers: 'Sentiers littoraux' (unchecked), 'Communes' (checked), and 'Scan 1000' (checked). Each layer has a visibility range and an 'Actions' dropdown. Below the layers is a button 'Ajouter des couches'. At the bottom of the sidebar, there are sections for 'Recentrage par GeoNames' and 'Recentrage par Référentiels'. The bottom of the interface features a 'Résultats de requête' (Query Results) table with three columns: 'DEPARTEMENT', 'TRONCON_GERE_PAR', and 'STATUT_DU_TRONCON'. The table shows four rows of data, all from 'Finistère' and managed by 'DDE29'. Below the table, there is a link to 'Effacer' (Erase) and a count of '157 résultats' (157 results). The bottom right corner has 'Zoom' and 'Export CSV' links.

Couches affichées

- ☐ Sentiers littoraux
Visibilité : de 1:200 à 1:2 000 000
- ☒ Communes
Visibilité : de 1:200 à 1:2 000 000
- ☒ Scan 1000
Visibilité : de 1:250 000 à 1:2 000 000

Ajouter des couches

Recentrage par GeoNames

Aller à :

Recentrage par Référentiels

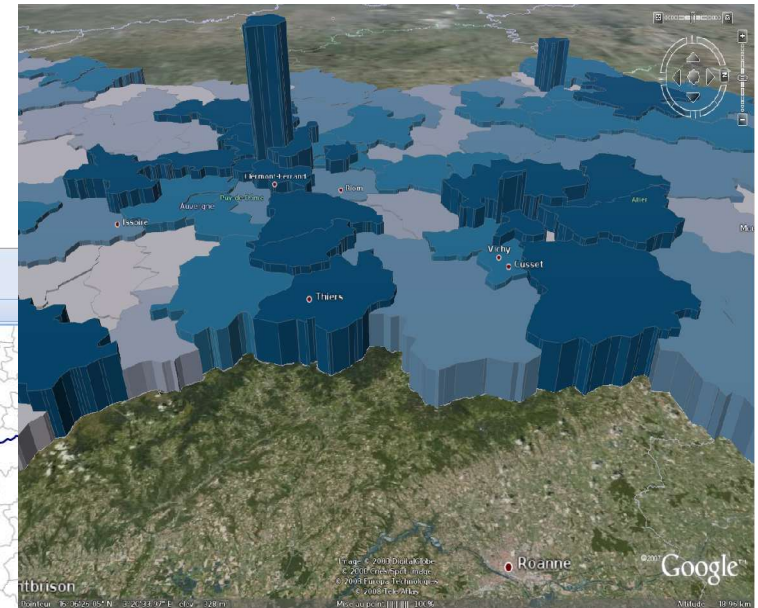
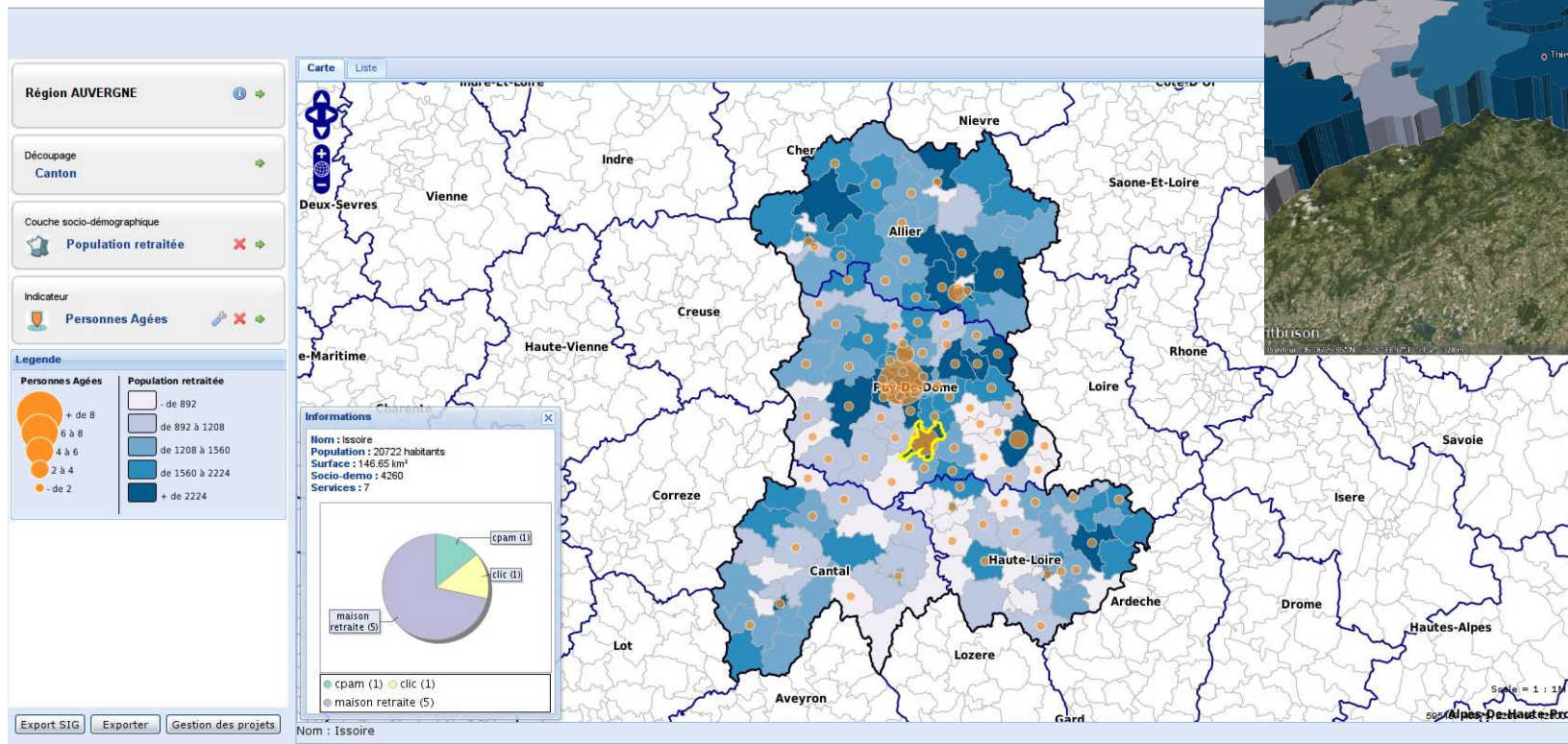
Résultats de requête

DEPARTEMENT	TRONCON_GERE_PAR	STATUT_DU_TRONCON
Finistère	DDE29	Sentier ouvert sur autres terrains publics
Finistère	DDE29	Sentier ouvert sur autres terrains publics
Finistère	DDE29	Sentier ouvert sur autres terrains publics
Finistère	DDE29	Sentier ouvert sur autres terrains publics

Effacer 157 résultats

Zoom Export CSV

GeoStatistic





Thank you for your attention

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