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# Camptocamp Open Source experiences

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**Seven years of free and open source software experiences in a european company**

**Claude PHILIPONA**

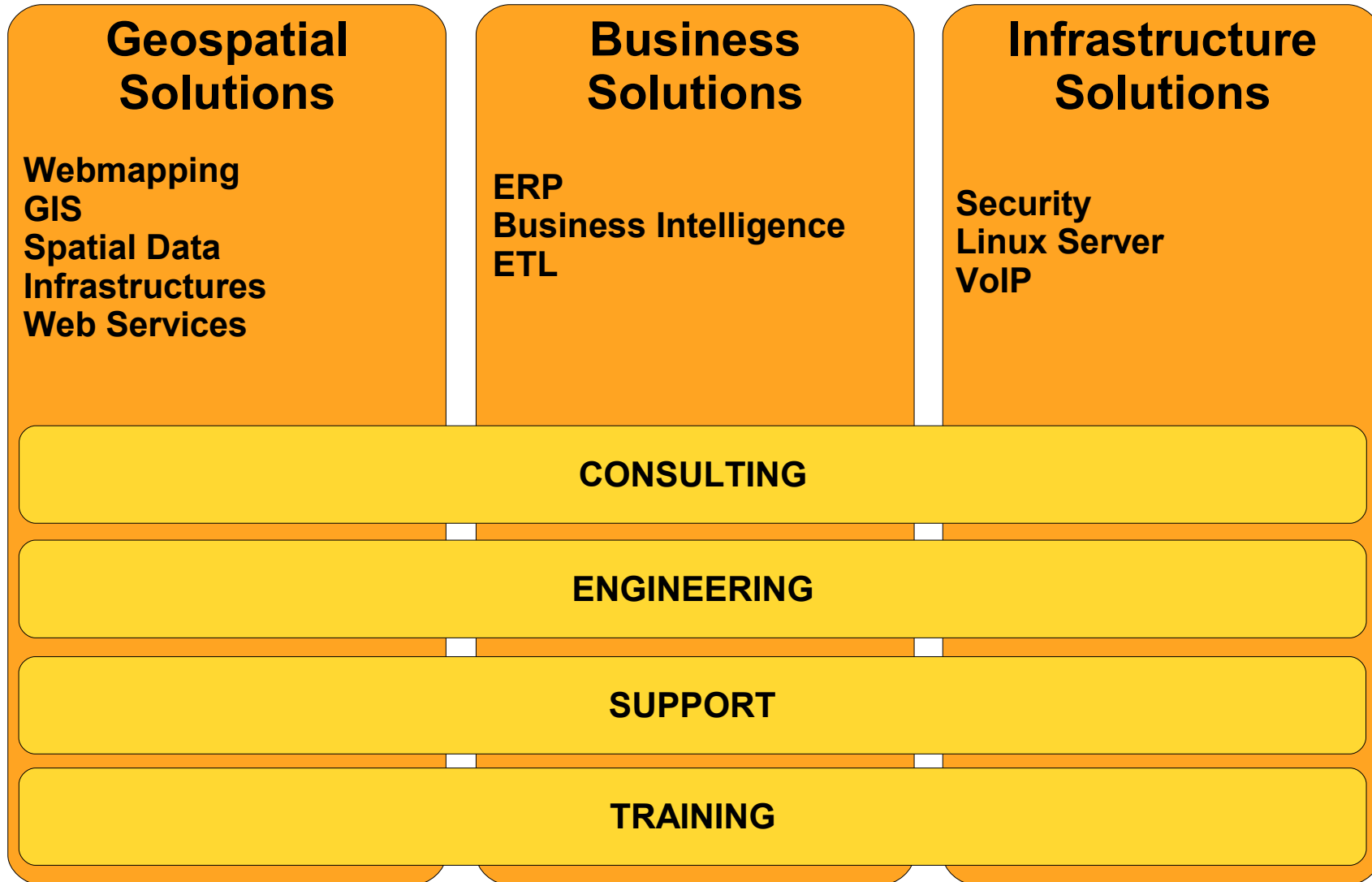
# Agenda

- Camptocamp presentation and history
- Open Source software situation in Europe
- Camptocamp Open Source contributions
  - Visualization software : CartoWeb & MapFish
  - Metadata management: GeoNetwork
  - Data processing: Spatial Data Integrator ETL
  - Business software management: OpenERP

# Camptocamp, an Open Source Base Camp

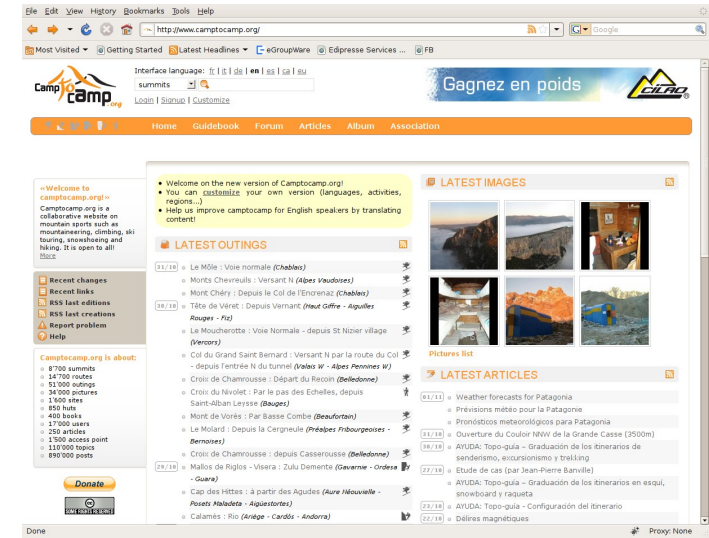
- **European Open Source company**
  - Founded in 2001
  - Switzerland : Camptocamp SA, Lausanne
  - France : Camptocamp France SAS, Chambéry and Toulouse
- **Staff of 42 employees**
- **About 50 to 70 % of growth per year since 2002**

# Camptocamp, an Open Source Base Camp



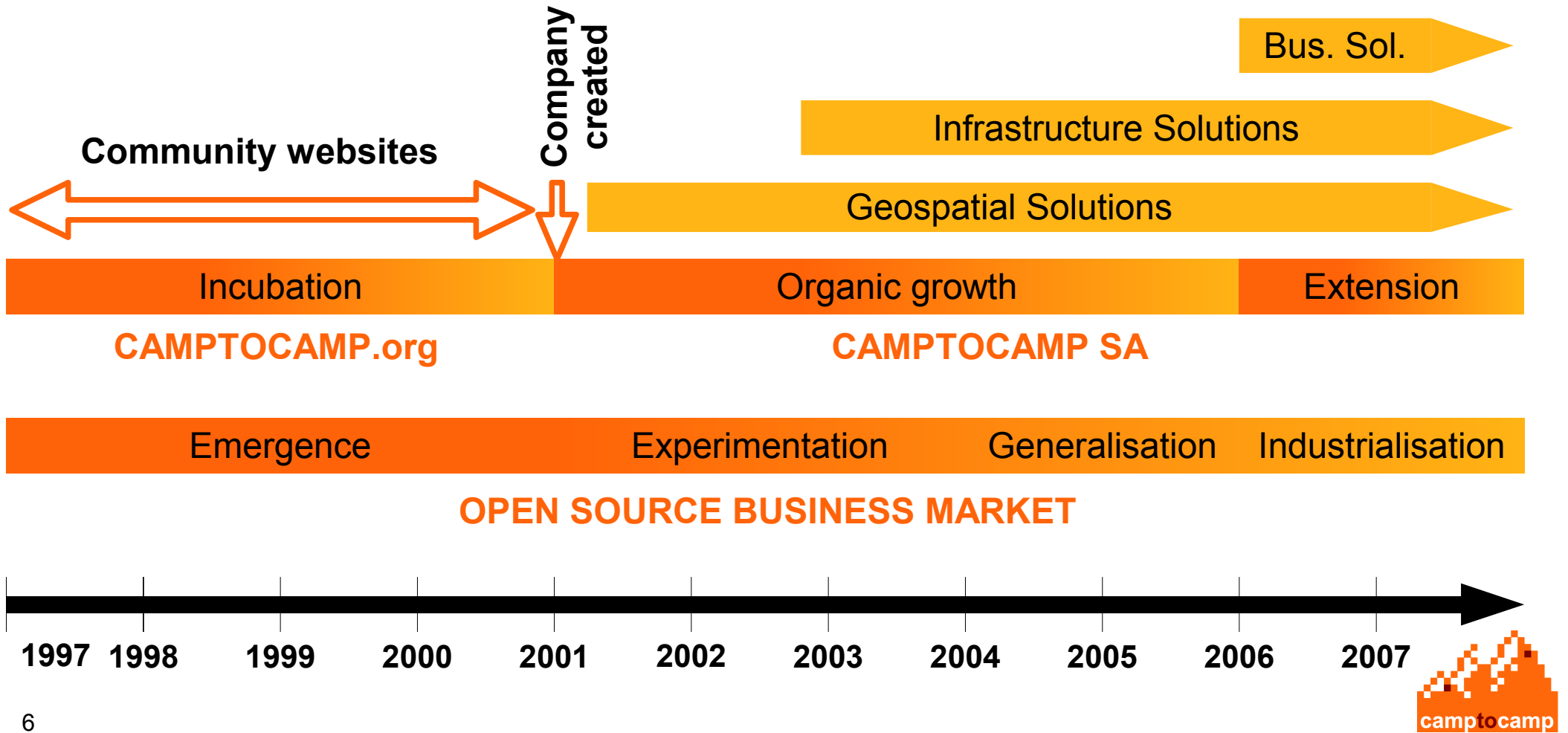
# Camptocamp history

- First started in 1995 as a personal project (camptocamp.org)
- Social Internet exchange platform for mountaineering sports
- Open source software used
- Now sites operated by a non-profit foundation
- Company started to offer services around FOSS (Free and Open Source Software)



# Camptocamp and Open Source evolution

- Camptocamp has followed the Open source market evolution since the beginning



# Open source evolution

- Camptocamp is following closely the evolution of Open source
- Think Tank event, Paris, September 2008
  - 80 Open Source world-class leaders
- Conclusions of the event:
  - Open source is a viable strategy for building a successful software company
  - The open source industry has matured to a point where vendors need to behave more like traditional commercial software vendors
  - Open source still has some maturing to do

# Open Source view : Europe vs North America

Concept/Idea	European View	North America View
Primary reason for adopting Open Source.	Avoid vendor lock-in.	Cost.
Key driver of commercial Open Source business creation.	Creation of a local software industry.	Venture capital/entrepreneur driven to create a big business and make money for investors.
Dual licensing business models.	Not true open source. Proprietary business models using Open Source for PR and marketing.	Widely accepted as the most common Open Source business model.
Software sales model.	Channel oriented: Integrators, Value added	Direct.
Open Source business models.	Service and support subscription focused; 100% open source software.	US companies don't want to be in the services business. The focus is on products, typically proprietary add-ons or an Enterprise Edition paired with an Open Source product edition.
Expectations around "Open Source" products.	All code is available under Open Source. There is often a community governance of community participation model.	Same, but not necessarily all products are available under an Open Source license. Commercially licensed versions of the products are commonly available. Projects are managed by a commercial vendor.

## ■ What about Asia and Japan?

L. Augustin, Think Tank 2008



# Camptocamp Open Source Strategy

- Not only integrator but active actor of Open Source
- Participate and contribute to Open Source projects
- Camptocamp developers contribute to many projects:
  - OpenLayers, Mapfish, CartoWeb
  - MapServer, Geoserver, GeoTools
  - GeoNetwork, Spatial Data Integrator
  - Secure OWS
  - TinyERP
  - Puppet
  - ...
- Some examples of Camptocamp contributions are shortly presented in the following slides (only samples)

# CartoWeb

- Open Source WebMapping application using Mapserver and implementing a client/server SOAP architecture
- Started in 2001
- Mature project, several hundreds implementations known
- Version 3.5 published in September 2008
- <http://www.cartoweb.org>
  
- PgDijkstra was first developed in 2004 to implement routing in CartoWeb.  
(PgDijkstra was then extended to PgRouting by Orkney)

# MapFish is

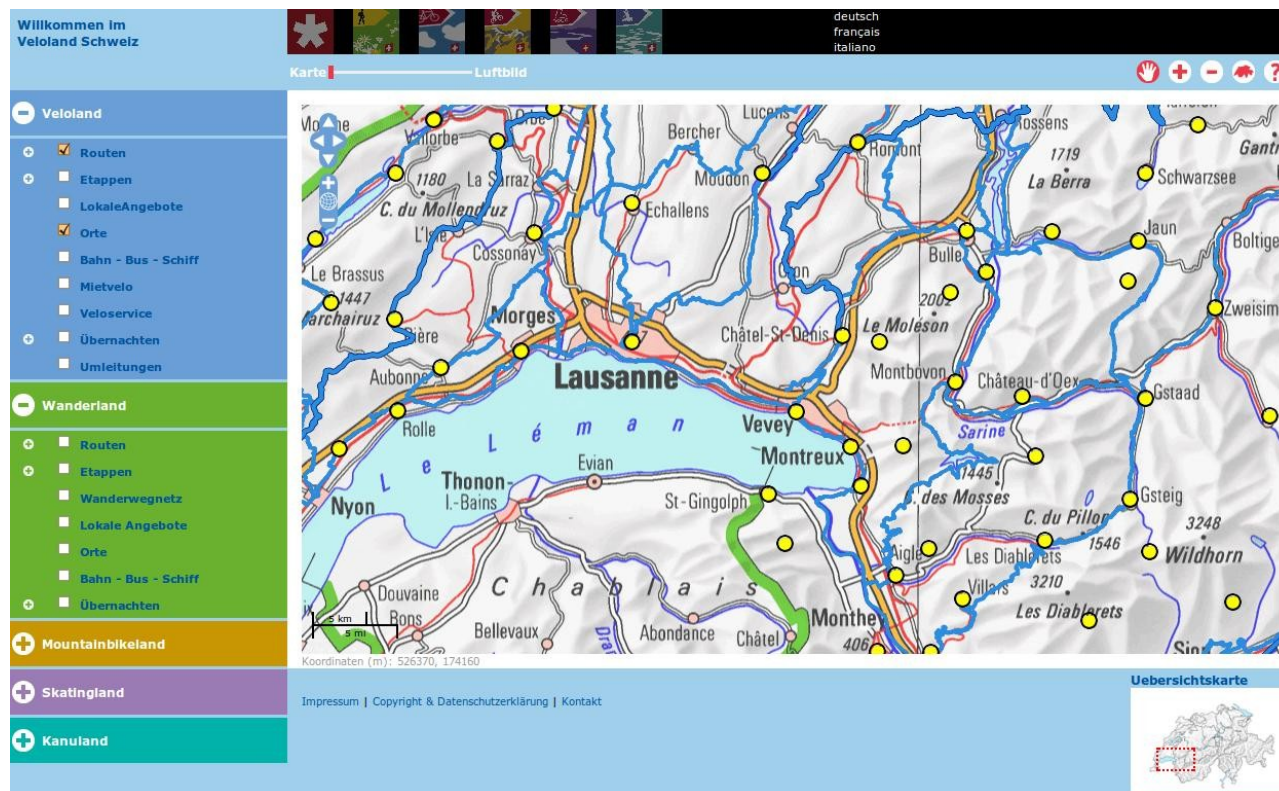
- Not an evolution of CartoWeb
- Open-source (GPL and LGPL)
- A toolkit for developing web-mapping applications
- Not an application
- Makes WEB 2.0 mapping applications building easy
- Based on:
  - The Pylons Python web-development framework
  - The OpenLayers JavaScript library
  - The ExtJS JavaScript library
  - Other excellent libraries (SQLAlchemy, Shapely, iText, ...)
- <http://www.mapfish.org>
-

# MapFish is

- Tightly coupled to OpenLayers
  - Several MapFish developers are OpenLayers developers
  - New release of OpenLayers  $\implies$  New release of MapFish
- OGC-compliant
  - The MapFish JavaScript components relying on web services (search, editing) are based on the OpenLayers protocol abstraction
- Modular
  - The client and server parts are decoupled
  - MapFish defines a RESTful protocol for creating, reading, updating and deleting features, the representation format used is GeoJSON

# Mapfish

- MapFish has quite advanced features:
  - Offline support – based on Gears
  - PDF printing – features printed as vectors, rotated maps, scalebar, legends, tables, template-base



# GeoNetwork

- Metadata Catalog software (OsGeo project)
- Supports all the major standards
- Camptocamp is currently adding major features to GeoNetwork which are needed for the Swiss national geocatalog
- <http://geonetwork-opensource.org/>

GeoNetwork - The portal to spatial data and information-Demonstration catalogue - Mozilla Firefox

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http://cftp-geocat2.demo-camptocamp.com/geonetwork/srv/en/main.home

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geocat.ch geographic catalogue

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- Audio/Video
- Case studies, best practices
- Conference proceedings
- Datasets
- Directories
- Interactive resources
- Maps & graphics
- Other information resources
- Photo

RECENT CHANGES GeoRSS

- Das Inventar historischen Verkehrswege der Schweiz IVS
- Kellen
- ivs\_punktobjekt
- Lokale Bedeutung: viel Substanz
- Lokale Bedeutung: Substanz
- Lokale Bedeutung: Verlauf
- Regionale Bedeutung: viel Substanz
- Regionale Bedeutung: Substanz
- Regionale Bedeutung: Verlauf
- Nationale Bedeutung: viel Substanz

Aggregate Results matching search criteria : 1-10/13 (page 1/2), Sort by Relevance

Logo HYDROLOGICAL BASINS IN AFRICA (SAMPLE RECORD, PLEASE REMOVE!)

Abstract Major hydrological basins and their sub-basins. This dataset divides the African continent according to its hydrological characteristics. The dataset consists of the following information:- ...

Keywords watersheds, river basins, water resources, Africa, AQUASTAT, AWRD, Africa

Metadata Download Interactive Map

Identification info

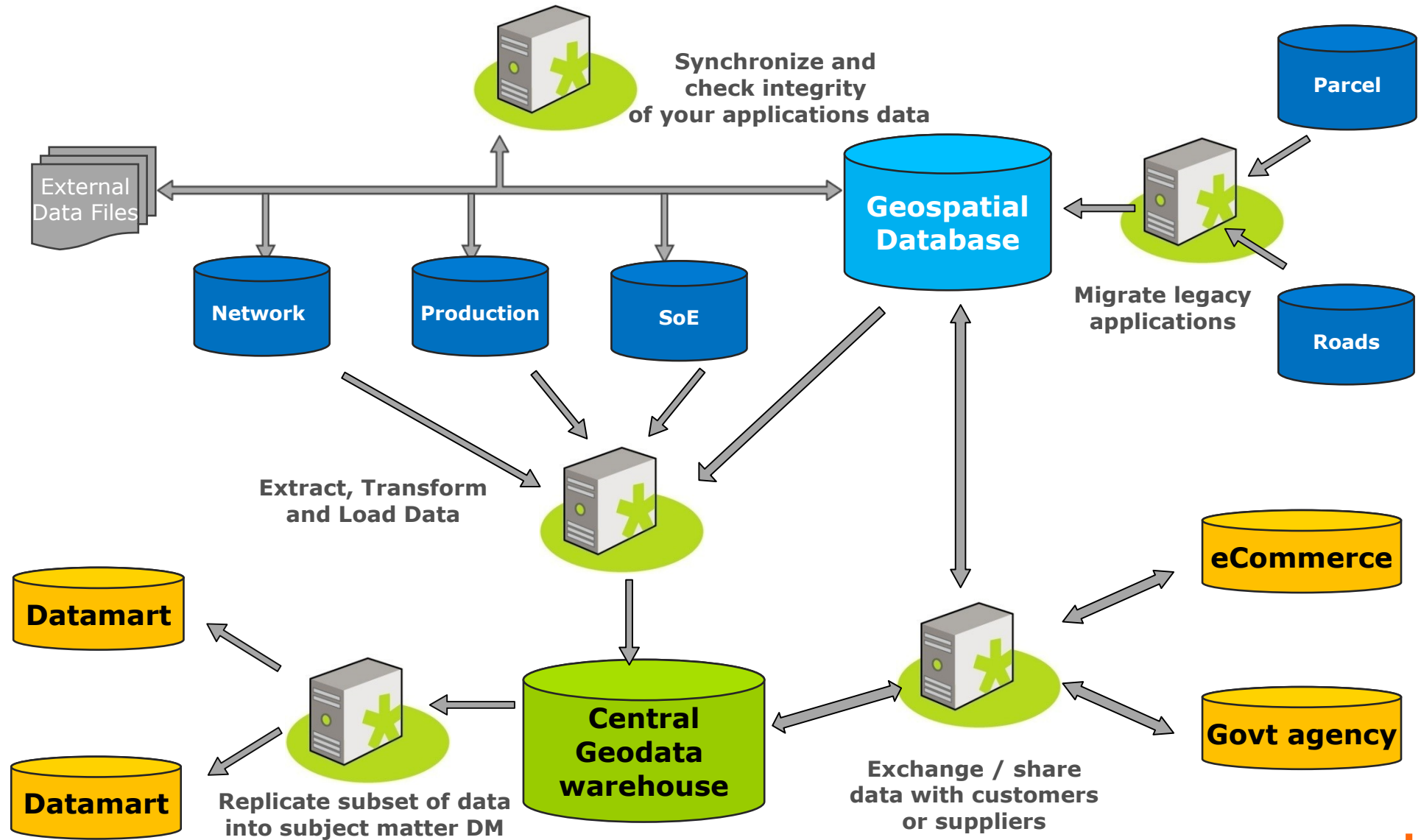
Title	Hydrological Basins in Africa (Sample record, please remove!)
Date	2000-07-19T14:45:00
Date Type	creation
Edition	First
Presentation Form	mapDigital
Abstract	Major hydrological basins and their sub-basins. This dataset divides the African continent according to its hydrological characteristics. The dataset consists of the following information:- numerical code and name of the major basin (MAJ_BAS and MAJ_NAME); - area of the major basin in square km (MAJ_AREA); - numerical code and name of the

# What is ETL? Extract / Transform / Load

- ETL is a process in Data Warehousing
- « How to get data in ? » is ETL process name.
- [http://en.wikipedia.org/wiki/Extract,\\_transform,\\_load](http://en.wikipedia.org/wiki/Extract,_transform,_load)

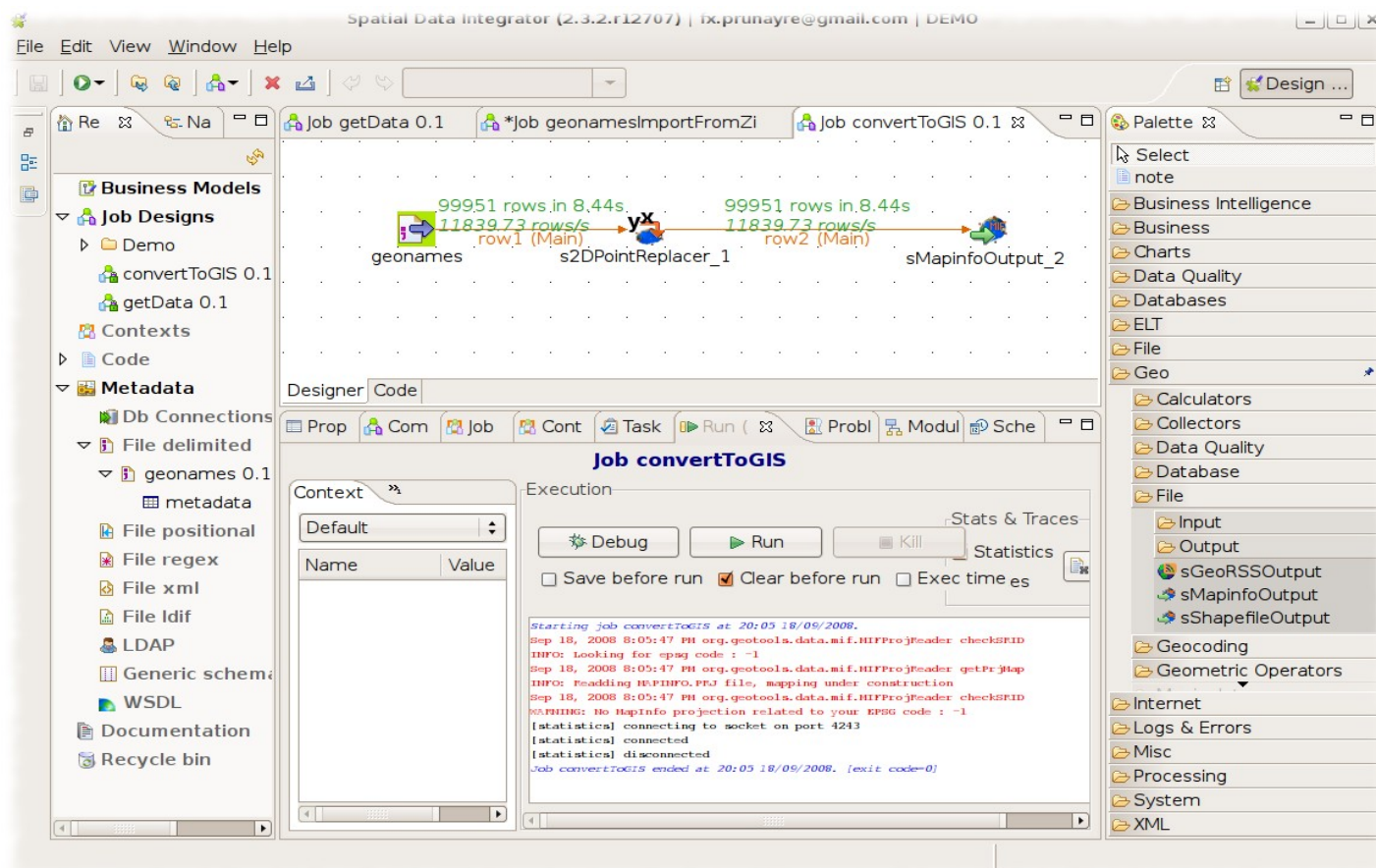


# Spatial Data integration



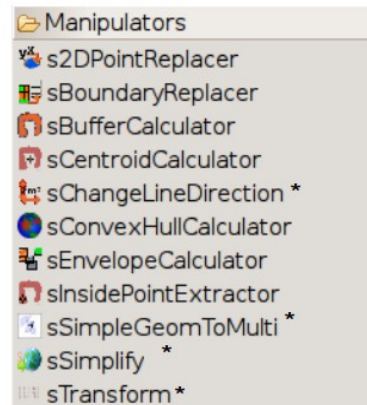
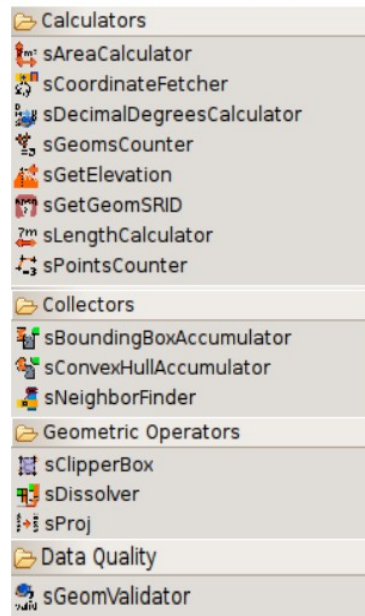
# Spatial Data Integrator

- Spatial ETL based on Talend Open Studio ETL
- Supports Geospatial data transformers
- <http://www.spatialdataintegrator.com/>

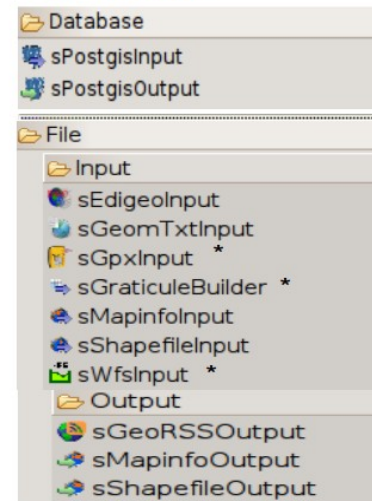


# Spatial Data Integrator features

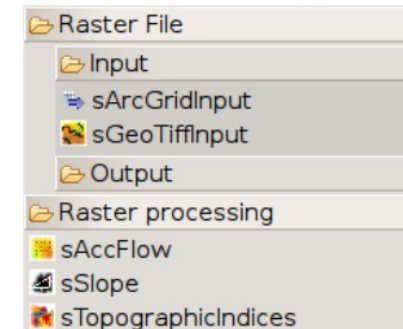
## Feature manipulation



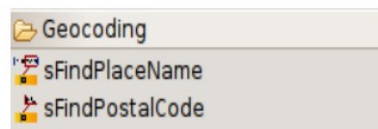
## Formats



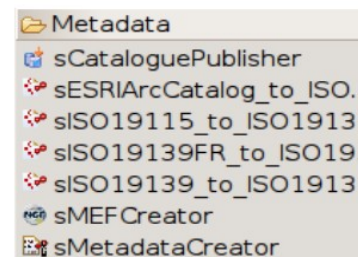
## Raster processing\*



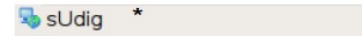
## Geocoding



## Metadata



## Viewer



# Open Source ERP: OpenERP

- Open Source is also present in Business products
- ERP: Enterprise Resource Planning
- CRM: Customer Resource Management
- OpenERP is an Open Source ERP /CRM:
  - Accounting
  - Finance
  - Production
  - Sales
  - Project management
  - Timesheet
  - .....
- <http://www.openerp.com/>



# OpenERP

The screenshot displays the Tiny ERP web interface. At the top, there is a menu bar with options: File, User, Form, Options, Plugins, Shortcuts, and Help. Below the menu is a toolbar with icons for New, Save, Delete, Find, Back, Forward, View, Reload, Menu, Action, Print, Attachment, and Close. The main content area is titled "My Sold Projects" and shows the details for a project named "chtopo\_tsm" with code "1624".

**Project Details:**

- Nom du projet :  Code :
- Coord. de projet :
- Vendeur :
- Société qui facture :
- Type :
- Client :
- Devise de facturation :
- Contact :
- Tx de facturation :

**Categories & details:**

- Classification :
- Département :
- Type de service :
- Début du projet :
- Fin du projet :
- Date fin garantie :
- Projet parent :

**Right Sidebar (Tools):**

- Gantt Representation
- Project Description
- Liste des lignes analytique
- Get Project Invoices
- Create Blank Invoice
- Create Futur Invoice
- Open planning
- Opened tasks
- Related Sale Order
- Linked Analytic Account
- All Tasks
- Undone Tasks

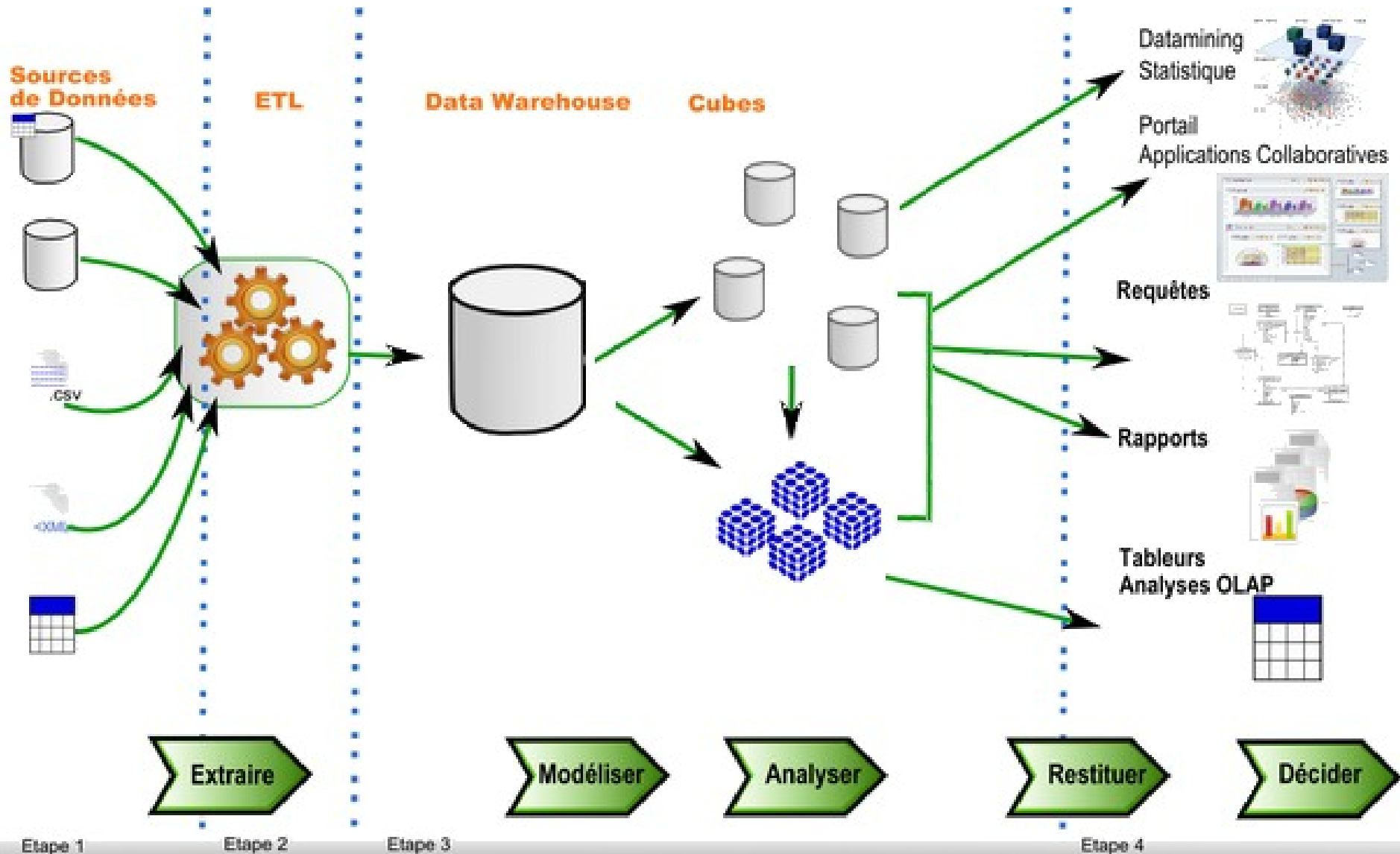
**Bottom Status Bar:**

Record: 1 / 1 - Editing document (id: 441) State:   
http://tinyerp.camptocamp.com:8069 [tinyerp\_prod] Claude Philipona Requests: No request

# Geo Business Intelligence

- Camptocamp vision about future of geospatial information systems:
  - Geospatial Data often treated independently from business data
  - Spatial and non-spatial data need to be more tightly combined to create added value information
- Geospatial Business Intelligence is the way to include geo-information in the global decision making process
  - Add geospatial aspects to BI

# Business Intelligence process



# MapFish - GeoBI

**Département Isere**

Population totale : 1093786  
 Superficie : 7431.44 km<sup>2</sup>  
 Densité : 147.18358756849278 h/km<sup>2</sup>

Choisissez un Découpage:  
 Canton

Couche socio-démographique  
 Eleves etudiants de 15 ans ou +

Indicateur  
 Indicateur Global de Présence

**Legende**

**Indicateur Global de Présence**

+ de 8	- de 592
6 à 8	de 592 à 964
4 à 6	de 964 à 1772
2 à 4	de 1772 à 2513
- de 2	+ de 2513

Export SIG   Exporter   Gestion des projets

Carte   Liste

**Informations**

Nom : Grenoble  
 Population : 153426 habitants  
 Surface : 18.13 km<sup>2</sup>  
 Socio-demo : 27874  
 Services : 26

anpe (2)	cij (1)
cpam (6)	centre impots (6)
cg (1)	pmi (6)
tresorerie (1)	
mission locale (1)	
mjd (1)	
gendarmerie	

Scale = 1 : 567K  
 888521.56250, 2024991.00000

Nom : Grenoble

# MapFish – GeoBI

**Département Isere**

Choisissez un Découpage:  
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- de 2

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- + de 2513

Export SIG   Exporter   Gestion des projets

Carte   **Liste**

Name	Population	Score	Elèves étudiants de 15 ans ou +
⊕ Vienne	184592	8.32	15701
⊖ Grenoble	696234	52.36	82893
⊕ Allevard	6304	0.16	392
⊕ La Mure	13567	0.36	924
⊕ Rives	29229	0.48	2512
⊕ Pont-En-Royans	5611	0.16	344
⊕ Echirolles-Est	738	0	72
⊕ Domene	26073	0.48	2086
⊕ Voiron	42234	3.2	3781
⊕ Vizille	28199	0.36	2733
⊕ Roybon	5549	0.04	430
⊖ Grenoble	153426	10.4	27874
⊖ Grenoble	153426	10.4	27874
⊕ Saint-Etienne-De-Saint-Geoirs	10215	0.04	858
⊕ Vinay	7930	0.08	592
⊕ Fontaine	23323	0.64	1889
⊕ Clelles	1464	0.04	84
⊕ Saint-Martin-D'Herès	35769	0.64	8447
⊕ Villard-De-Lans	9966	0.36	776
⊕ Corps	1595	0.04	96
⊕ Vif	34374	0.48	3259
⊕ Le Bourg-D'Oisans	10534	0.32	497
⊕ Saint-Laurent-Du-Pont	10345	0.16	700
⊕ Echirolles	32811	1	3006
⊕ Goncelin	19187	0.8	1489
⊕ Valbonnais	1550	0.04	84
⊕ Saint-Egreve	24614	0.64	2513
⊕ Meylan	29965	0.16	4611
⊕ Fontaine-Sassenage	13145	0.16	1233
⊕ Tullins	11460	0.04	812
⊕ Mens	2584	0.16	156
⊕ Le Touvet	23279	0.16	2076
⊕ Monestier-De-Clermont	3906	0.16	316
⊕ Fvbens	19528	0.36	2437

# MapFish – GeoBI

**Département Isere**

Population totale : 1093786  
Superficie : 7431.44 km<sup>2</sup>  
Densité : 147.183587568492

Choisissez un Découpage:  
Canton

Couche socio-démographique  
Elevés etudiants de 15 ou +

Indicateur  
Indicateur Global de Présence

**Legende**

Indicateur Global de Présence

- + de 8
- 6 à 8
- 4 à 6
- 2 à 4
- de 2

Elèves étudiés (+)

- de 5
- de 59
- de 96
- de 17
- + de

**Gestion des indicateurs**

Indicateur Global de Présence

CDC Numérique

Aucun commentaire

Services concernés:  
Conseil général  
ANPE, réseau local  
Mission locale et Permanence d'accueil, d'information et d'orientation (PAIO)

Nouveau Enregistrer Copier Supprimer

**Bibliothèque des indicateurs**

Désignation	Créé par	Publié
Culture	CDC Numérique	
Développement Durable	CDC Numérique	
Education Primaire et Secondaire	CDC Numérique	
Emploi et Formation	CDC Numérique	
Enseignement Supérieur	CDC Numérique	
Handicap	CDC Numérique	
<b>Indicateur Global de Présence</b>	CDC Numérique	
Jeunesse	CDC Numérique	
Nouvelles Technologies	CDC Numérique	
Personnes Agées	CDC Numérique	
Petite Enfance	CDC Numérique	
Santé	CDC Numérique	
Sport	CDC Numérique	
essai_jef_pub	CDC Numérique	

Créé par: dupont (1)

Indic I1 dupont

Scale = 1 : 567K  
765721.56250, 1974791.00000

Nom : Grenoble

Export SIG Exporter Gestion des projets

# Questions and discussion

- Thank you for your attention
- Discussion is open
  
- Contact:
  - Claude Philipona
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  - +41 21 619 10 11
  - [www.camptocamp.com](http://www.camptocamp.com)