

prosPar

a Geographic UI for Prospect-to-Partner Relationships Management



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Electricité De France (EDF) is the historical french electricity utility.

EDF R&D is a mutualised entity for all the EDF Group.

ICAME (our department) deals with commercial entities of the EDF group.

A part of our work is to bring web mapping to projects, essentially with FOSS4G tools.



Camptocamp is a service-oriented editor and integrator of Open Source software applications for Geospatial Solutions, Business Solutions, and Infrastructure Solutions.

MapFish, originally from Camptocamp, is going to be pushed as an OSGeo project.



- **prosPar** is a web2.0 application currently being developed at **Electricité De France R&D**, in partnership with **Camptocamp**.
- It aims at providing a geographic UI to represent and query relationships between our clients and craftsmen partners.
- **Why does EDF have craftsmen partners ?**



White Certificates



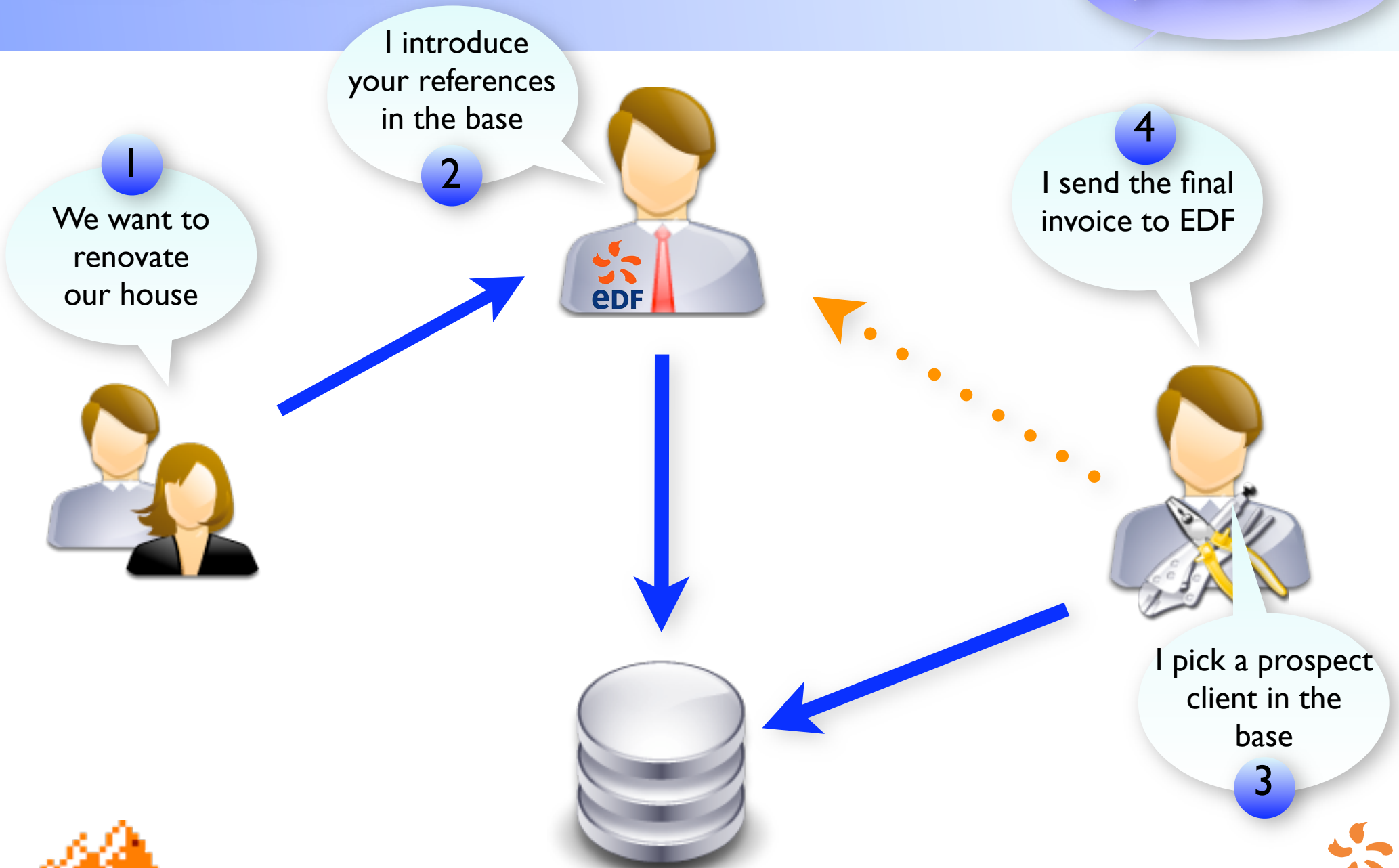
mercredi 21 octobre 2009

- Documents certifying that a certain reduction of greenhouse gas emission has been attained.
- Following the Kyoto conference, energy companies have to produce a quota of white certificates.
- How a company which doesn't produce a lot of greenhouse effect gas can gather its share of white certificates ?
- But white certificates can be obtained by different ways ...



The Process

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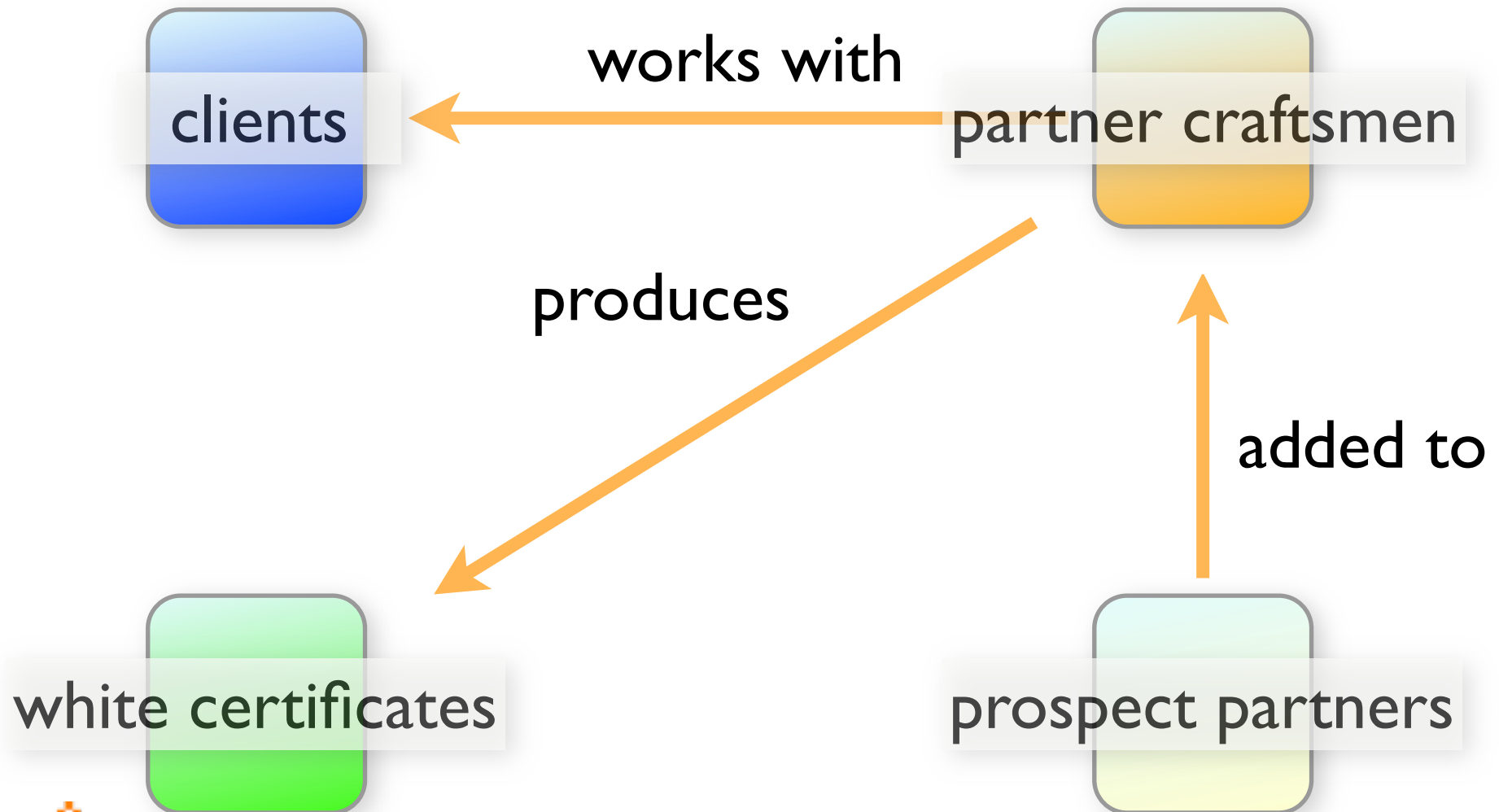


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- A way for EDF to get white certificates is to connect its customers to companies or **craftsmen** whenever they call us when they intend to have some work reducing their energy consumption done in their house.
- Here comes the process of allowing craftsmen to pick up clients, controlling their ongoing relationship and finally putting the white certificate in the validating process.





- **spatial requests** : what are the craftsmen available around an incoming customer ?
- a **regional view** : where do I need to enrol new craftsmen ?
- where are my **potentials** in terms of white certificates ?
- a new friendly way to explore databases.



Couches d'informations

- Partenaires
- Partenaires potentiels
- Projets
- Fiches de Fin de Travaux

Rechercher des Partenaires

Correspondre à toutes ces conditions :

- Nb clients > 0
- ECS = true
- intersection avec [blue square]

+ condition + condition spatiale + groupe

Résultats de requête sur la couche Partenaires

Id	Nom	NAF	SIREN	SIRET	Adresse	Code postal	Commune	Nb clients	CUMAC	Nb de visites	Animateur	Entité
45642	le bourhis ...	453e	453 666 109	45366610...	rue helene...	29300	quimperle	2	0	0	Alain GUI...	DCPP Ouest
55617	inclex	453f	494 038 730	49403873...	4 place de...	56420	plumelec	1	0	0	Jean-Mar...	DCPP Ouest
31328	larhantec ...	453a	483 275 723	48327572...	4 rue de la...	22660	trevou tre...	1	99185	0	Yves QU...	DCPP Ouest
45407	ceotherbe	528e	353 380 134	35338013...	13 rue de l...	56300	ceotherbe	75	117440	0	Alain GUI...	DCPP Ouest

13 résultats

- at the beginning it was decided that :
 - data would be provided only by means of **OGC webservices** (WMS and WFS) with no server-side developments
 - the presentation work would be done client-side only
- the ideas behind this choice are :
 - OGC webservices reuse (any compliant client)
 - cartographic server agnostic application
 - initial implementation focuses on simplicity



- PostgreSQL/PostGIS
- Geoserver as OWS provider

server side

- Mapfish + OpenLayers + GeoExt

client side



□ prosPar provides :

□ geographic layers with manager

□ sophisticated filters

□ linked layers

□ grid presentation for data and csv export



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Sophisticated Filters


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<http://projects.opengeo.org/styler>

Rechercher des Partenaires

Correspondre à ces conditions :

Nb clients > 0

intersection avec 

Correspondre à ces conditions :

Chauffage bois = true

Chaudiere = true



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Sophisticated Filters

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conjunction
or
disjunction

filter relaxing

condition
removal

Rechercher des Partenaires

Correspondre à toutes ces conditions :

Nb clients > 0

intersection avec

Correspondre à une de ces conditions :

Chauffage bois = true

Chaudiere = true

+ condition + groupe

+ condition + condition spatiale + groupe

Export CSV Recherche



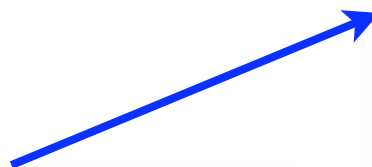
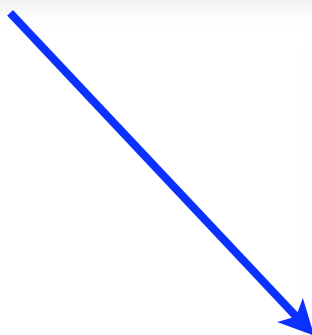
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Sophisticated Filters

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spatial condition



group of conditions

Rechercher des Partenaires

Correspondre à toutes ces conditions :

- Nb clients > 0
- intersection avec
- Correspondre à une de ces conditions :
 - Chauffage bois = true
 - Chaudiere = true

+ condition + groupe

+ condition + condition spatiale + groupe

Export CSV Recherche



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- Linked layers address those sorts of questions:

show me the white certificates associated with this craftsman

or

show me the clients this craftsman has contacted

The answers are shown on 2 new layers.

The user is able to query further those layers using the standard GUI.



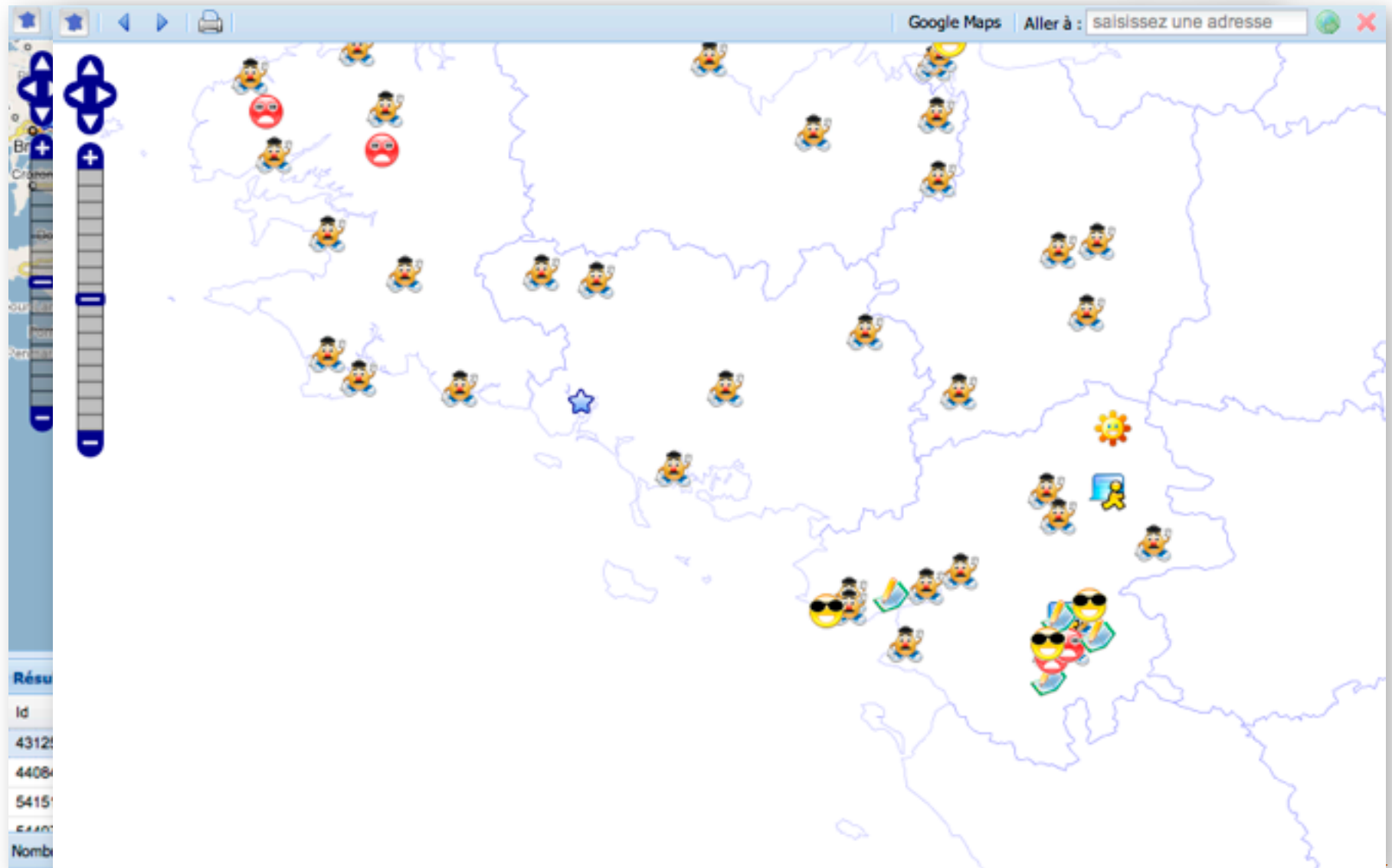
Départements Aller à : saisissez une adresse

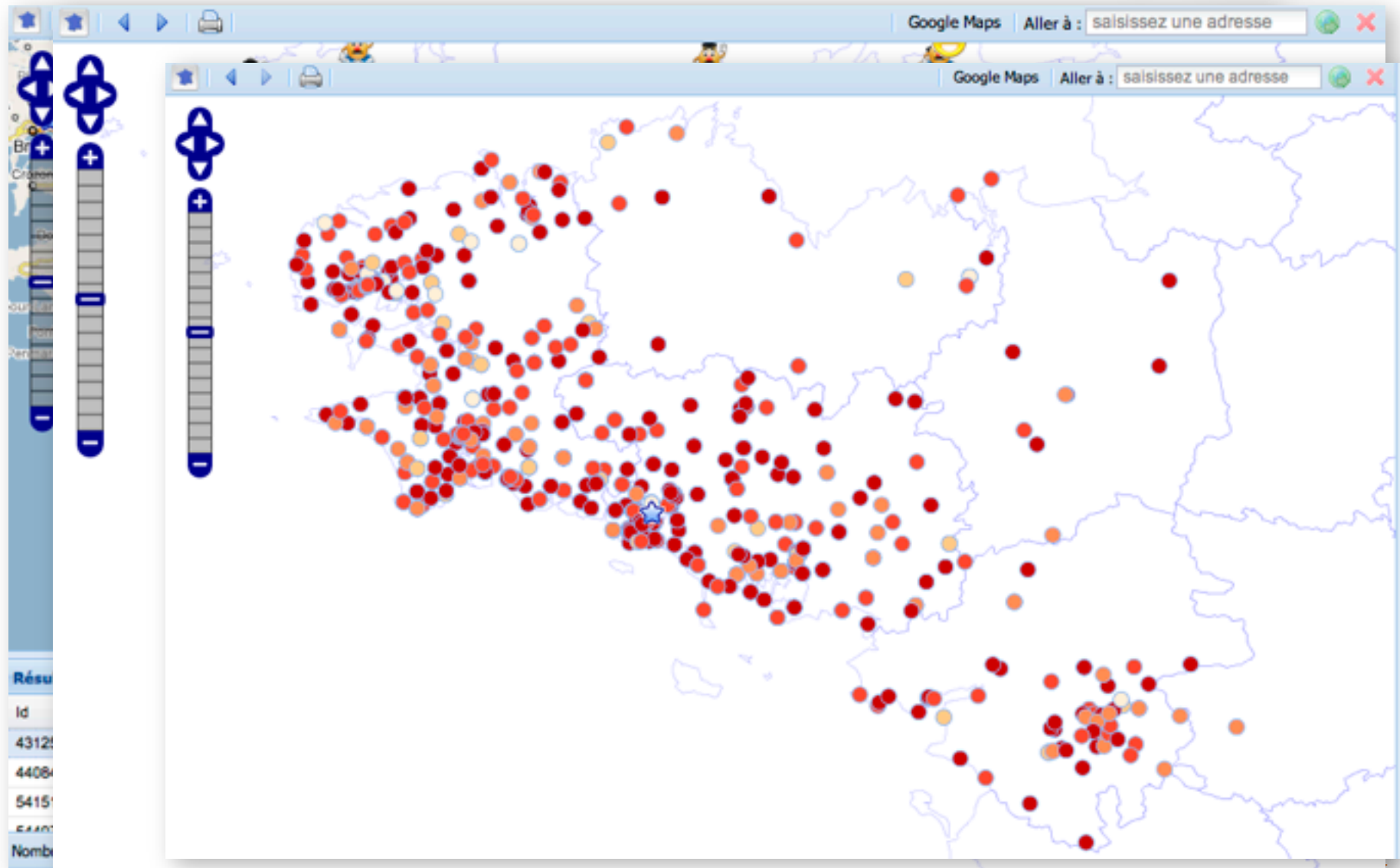
Résultats de requête sur la couche Partenaires

Id	Nom	NAF	SIREN	SIRET	Adresse	Code postal	Commune	Nb clients	CUMAC
43125	ouest energie	453c	438 965 535	43896553500018	359 rue jacque	56850	caudan	70	7663123
44084	clim var froid	292f	351 154 109	35115410900026	allée des cyp				5657800
54151	techni-climat	453f	492 504 774	49250477400018	2 chemin de trets	13590	meyreuil	17	491300
54407	lumbert energie	351e	410 803 881	41080388100022	28 allée de France	08370	maucourt	28	1518

Nombre maximum d'objets atteint (400)







A Generic Application ?

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- The client-side code is **generic**.
- To achieve this, the application uses a XML configuration file which specifies:
 - an access to the data
 - which attributes are to be presented, used for filtering, come with a list of their occurrences
 - which layers are linked and how





- Thanks to the XML configuration file and a Python script we produce:
 - a javascript configuration file
 - a bunch of JSON files with unique values



- The operation has to be repeated every time the data changes



The XML Description

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```
config.xml
1 <?xml version="1.0" encoding="UTF-8"?>
2 <configdesc>
3   <connexion>
4     <host>cle85a1.der.edf.fr</host>
5     <port>5432</port>
6     <base>web2</base>
7     <user>postgres</user>
8     <pwd>turing</pwd>
9   </connexion>
10  <layers>
11    <layer name="SOEE" displayIfNotLinked="true">
12      <name>edfgeo:soee</name>
13      <label>Fiches de Fin de Travaux</label>
14      <table>prospar.soe</table>
15      <geom>the_geom</geom>
16      <atts>
17        <att visi="true" select="true" liste="true">
18          <name>statut_fft</name>
19          <label>Statut FFT</label>
20        </att>

```



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The XML Description

prosPar

```
config.xml
48 >>>> </att>-
49 >>>> <att select="true" liste="true">-
50 >>>>> <name>departement</name>-
51 >>>>> <label>Département</label>-
52 >>>>> </att>>>>> -
53 >>>> </atts>-
54 >>>> <linked>-
55 >>>>> <linkedName>default</linkedName>-
56 >>>>> <toLayer>Partenaires</toLayer>-
57 >>>>> <withId>siret</withId>-
58 >>>>> <matchingField>code_siret</matchingField>-
59 >>>>> </linked>-
60 >>>> </layer>-
61 >>>> <layer name="partenaire" displayIfNotLinked="true">-
62 >>>>> <name>edfgeo:partenaire</name>-
63 >>>>> <label>Partenaires</label>-
64 >>>>> <table>prospar.partenaire</table>-
65 >>>>> <geom>the_geom</geom>-
66 >>>>> <atts>-
67 >>>>>> <att visi="true">> -
```



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The XML Description

prosPar

```
config.xml
186 </att>
187 <att select="true" liste="true">
188 <name>nt_tele_gestion</name>
189 <label>Tele-gestion</label>
190 </att>
191 </atts>
192 <linked>
193 <linkedName>default</linkedName>
194 <toLayer>Partenaires</toLayer>
195 <withId>id</withId>
196 <matchingField>id_acteur</matchingField>
197 </linked>
198 <send layerType="Partenaire">
199 <labelAtt>nom</labelAtt>
200 <link from="id_acteur" to="id"/>
201 <link from="code_siret" to="siret"/>
202 </send>
203 </layer>
204 <layer name="projet" displayIfNotLinked="true">
205 <name>edfgeo:projet</name>
206 <label>projets</label>
```



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- OWS lacks some features, e.g. :
 - WFS : get distinct values ?
 - WFS : describeFeatureType with pretty attribute name ?
 - Feature joins between WFS layers ?
- Workarounds:
 - a batch database extraction
 - generated javascript
 - pre-join via ETL and new layer



Alternate choices ?

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- Is "100% OWS" the right choice ?
- What about an application developed on top of [Mapfish server](#) or [GeoDjango](#) ?



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Questions ?

- Pictures :

<http://www.flickr.com/photos/brianlewandowski/370350990/sizes/1/>

