



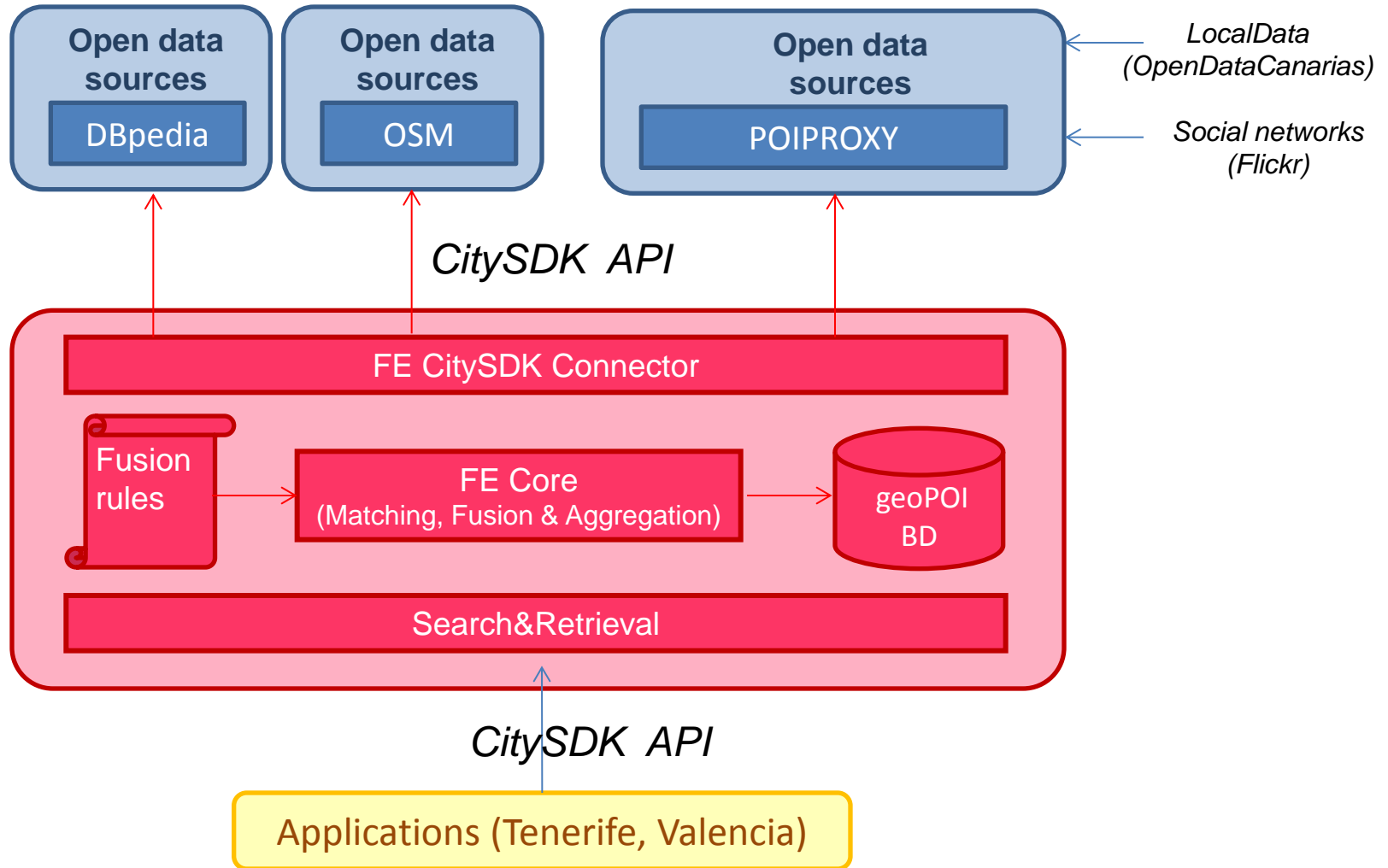
# Fusion Engine

**Carlos Palau, Miguel Montesinos**  
*UPV, PRO*

*[cpalau@dcom.upv.es](mailto:cpalau@dcom.upv.es), [miguel.montesinos@prodevelop.es](mailto:miguel.montesinos@prodevelop.es)*

- **FE Overview**
- **Configuration**
  - Fusion Rules
  - Mapping categories
- **Basic Example**

# FE Overview

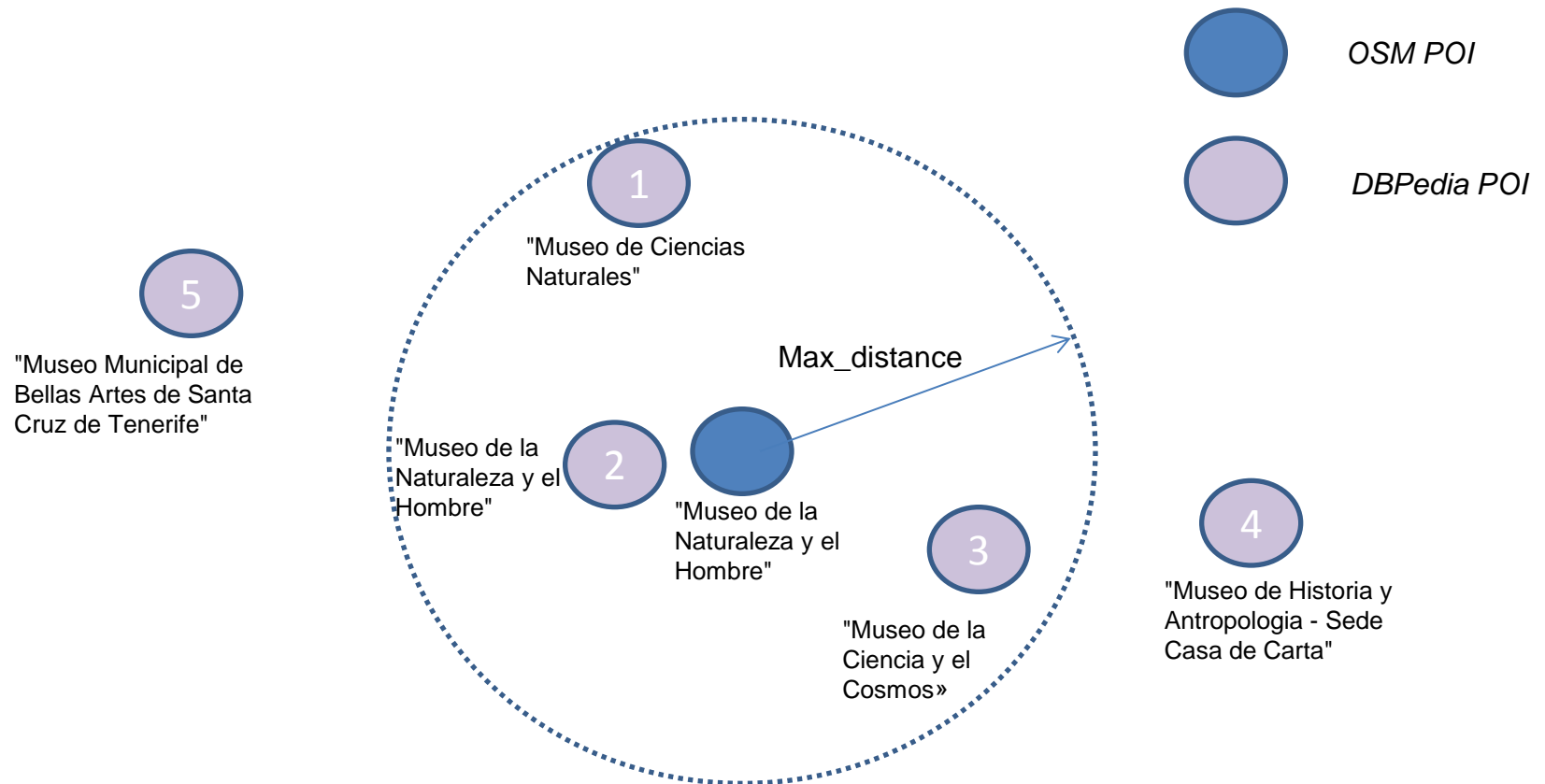


# Configuration. Fusion rules

```
<?xml version="1.0"?>
<fusion_rules city="tenerife" bbox="28.402909,-16.438604,28.564655,-16.161199" fe_version="1.0">
  <fusion_rule category="museum" limit="50">
    <general_settings>
      <location>
        <source>poiproxy.local</source>
        <source>dbpedia</source>
      </location>
      <name>
        <source>poiproxy.local</source>
        <source>dbpedia</source>
      </name>
      <description>
        <source>dbpedia</source>
        <source>poiproxy.local</source>
      </description>
      <image>
        <active>true</active>
        <limit>10</limit>
        <source>flickr</source>
      </image>
    </general_settings>
    <specific_settings>
      <max_distance>50</max_distance>
      <similarity_percentage>70</similarity_percentage>
    </specific_settings>
  </fusion_rule>
</fusion_rules>
```

Priorities when setting location,  
name, description and images

# POI matching (distance and name)



- Distance discards POIs 4,5
- Name discards POIs 1,3
- There are many name-matching algorithms (currently used: Monge & Elkan)

# Configuration. Mapping categories

- There is a common category that has to be matched with the corresponding category in the data source

dbpedia.properties

**museum**=museum  
**shop**=shopping  
**monument**=tourism  
**accommodation**=accommodation  
**restaurant**=food

Category (e.g. tourist\_info) might not be available

Category (e.g. shop) might match with multiple subcategories

osm.properties

**museum**=museum  
**shop** = mall, book\_shop, supermarket, clothes, jewelry, tattoo, computer, furniture, antiques, mobile\_phone, car,sports, music, gift, laundry, travel\_agency  
**monument**=monument  
**tourist\_info**=information  
**accommodation**=hotel, hostel, motel, camping  
**restaurant**=restaurant

# Basic example. Tenerife. 5 categories

## Museum

12 POIs poiproxy.local

2 POIs DBPedia

20 s

13 POIs (1 match)

## Tourist info

42 POIs poiproxy.local

42 POIs (no fusion, one source)

43 s

## Accommodation

50 POIs poiproxy.local

50 POIs (no fusion, one source)

1'05 s

## Monument (16 subcategories OSM)

23 POIs poiproxy.local

2 POIs DBPedia

1 min

25 POIs (0 matches)

## Shop (16 subcategories OSM)

26 POIs (11:mall , 15: sports)

0 POIs DBPedia

1 min

26 POIs (0 matches)

## › **Mediafi**

› <http://mediafi.org/?portfolio=fusion-engine>

## › **Code in github**

› [https://github.com/satrd/poi\\_fusion\\_engine2](https://github.com/satrd/poi_fusion_engine2)