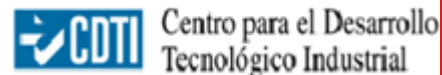
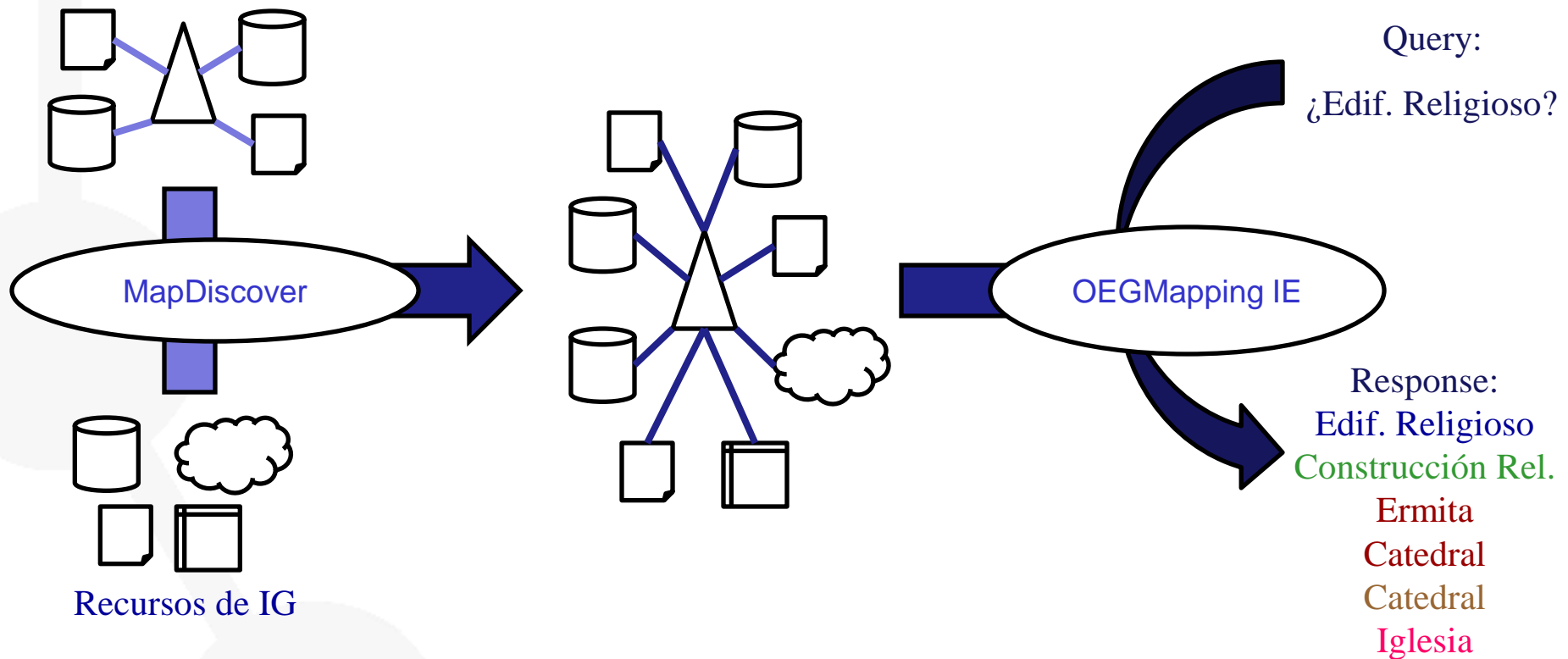
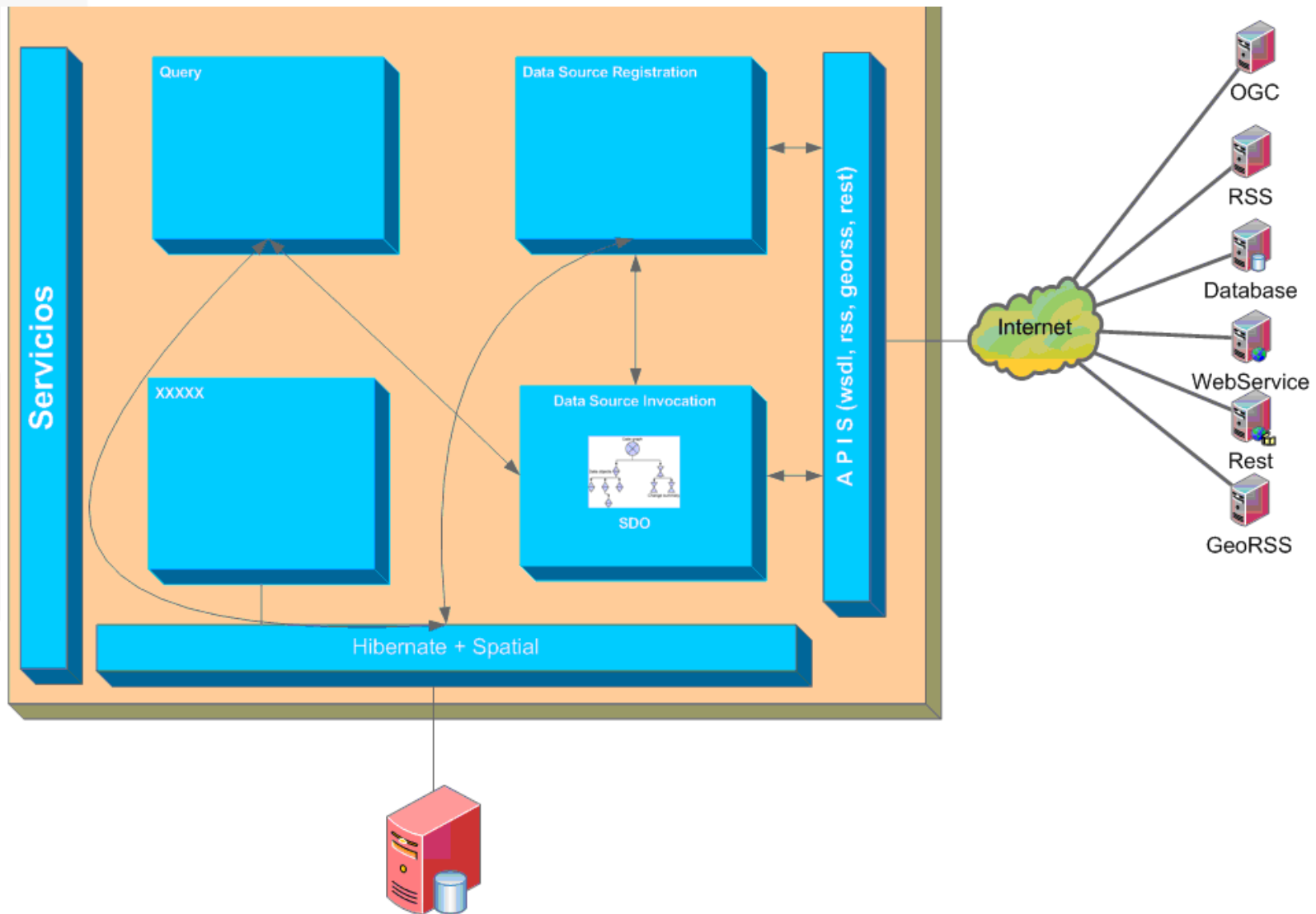


- España Virtual es un proyecto de I+D, subvencionado por el CDTI dentro del programa Ingenio 2010, orientado a la definición de la arquitectura, protocolos y estándares del futuro Internet 3D, con un foco especial en lo relativo a visualización 3D, interacción entre usuarios y a la introducción de aspectos semánticos.
- **Objetivo.** Sentar las bases de un futuro ecosistema de contenidos multimedia y servicios interactivos que reúna las tecnologías conocidas como Web 2.0 con los aspectos sociales, semánticos y los geográficos en una nueva generación de herramientas 3D de interacción con el mundo virtual

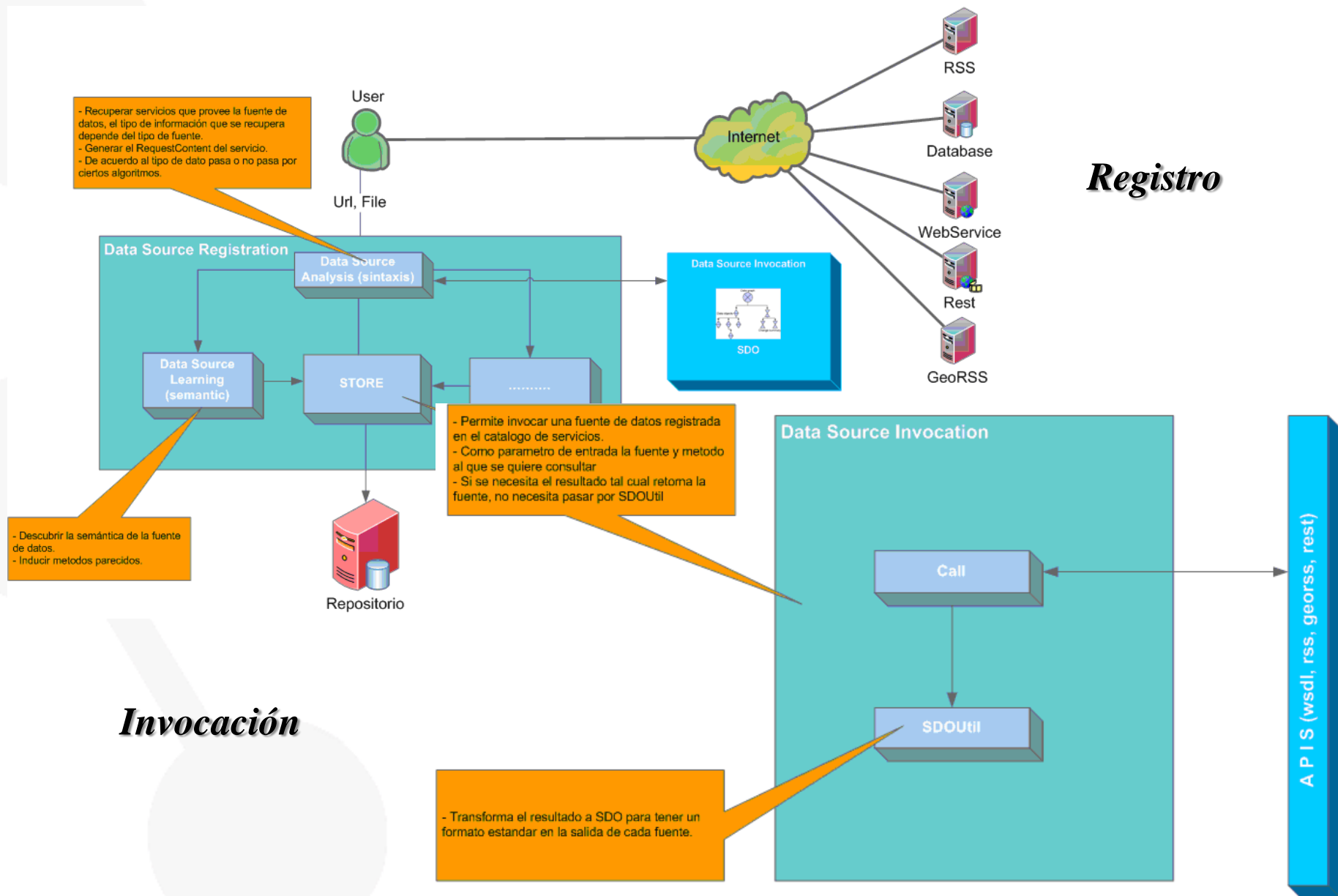




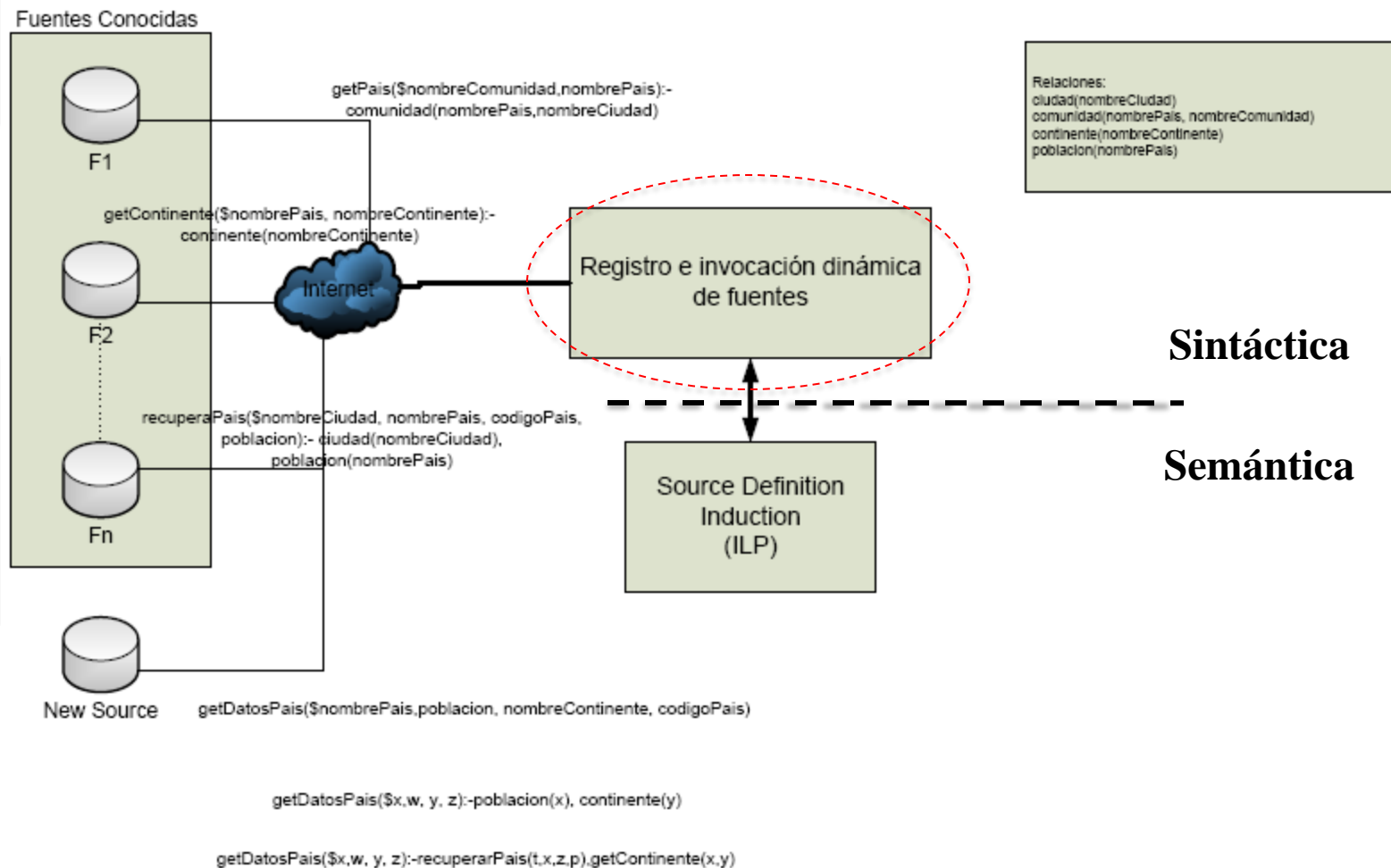
Procesado de fuentes de información no semántica ya existentes



Registro e Invocación de fuentes



Procesado de fuentes de información no semántica ya existentes



Generating mappings in NeOn Toolkit

*Geography.r2o x

View mappings

☒ All ☐ None

☒ Constant ☒ Smaller

☒ Concat ☒ Equal

☒ Get delimited ☒ Greater

Attribute operations

C Constant

Cc Concat

Gd Get delimited

Relation operations

S Smaller

E Equal

G Greater

Information

Start mapping by selecting the fields from the database and drag them to the attribute/relation of a concept

Database: geography

Expand all Collapse all

type filter text

Delete mapping

Ontology: Geography

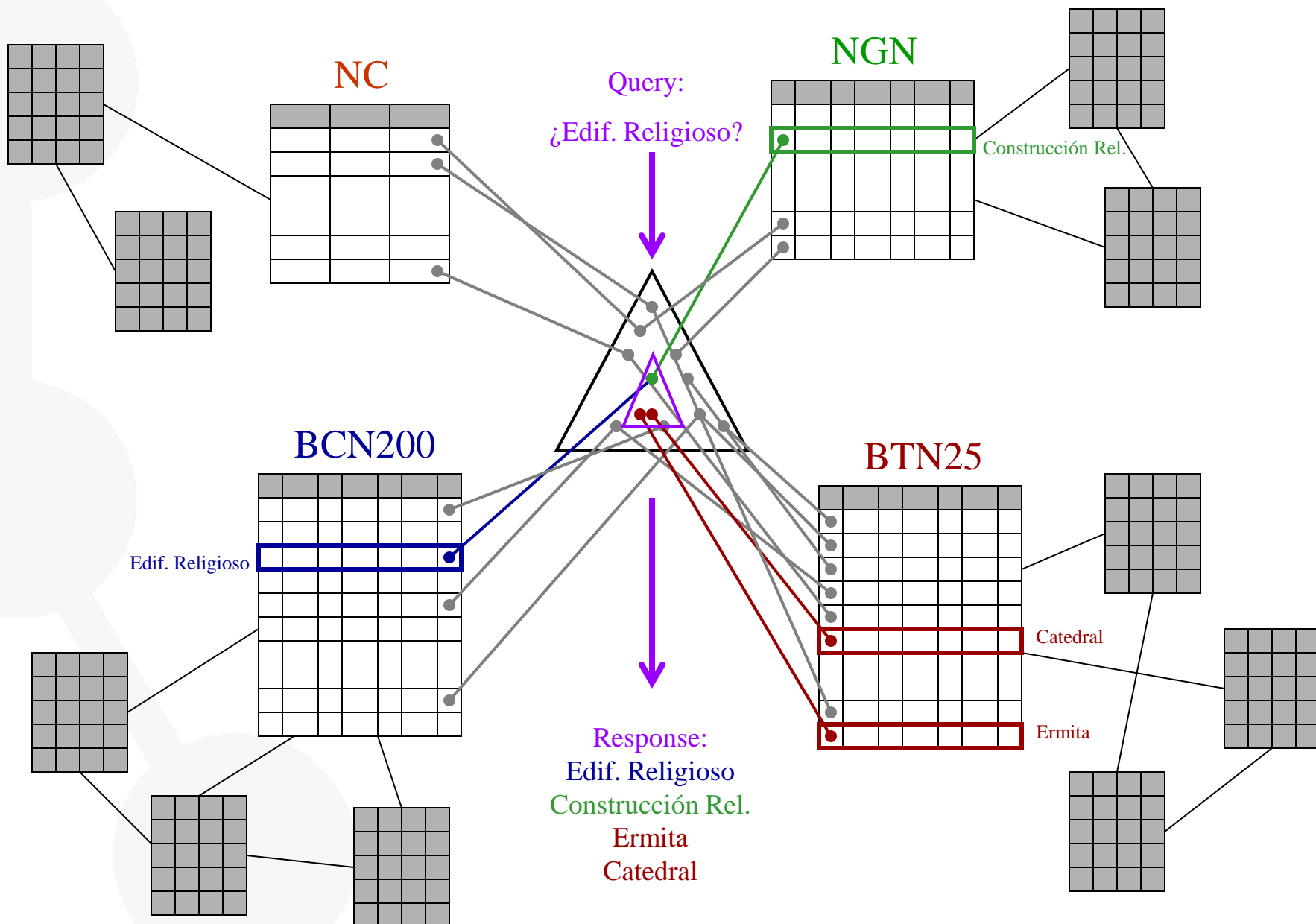
Expand all Collapse all

type filter text

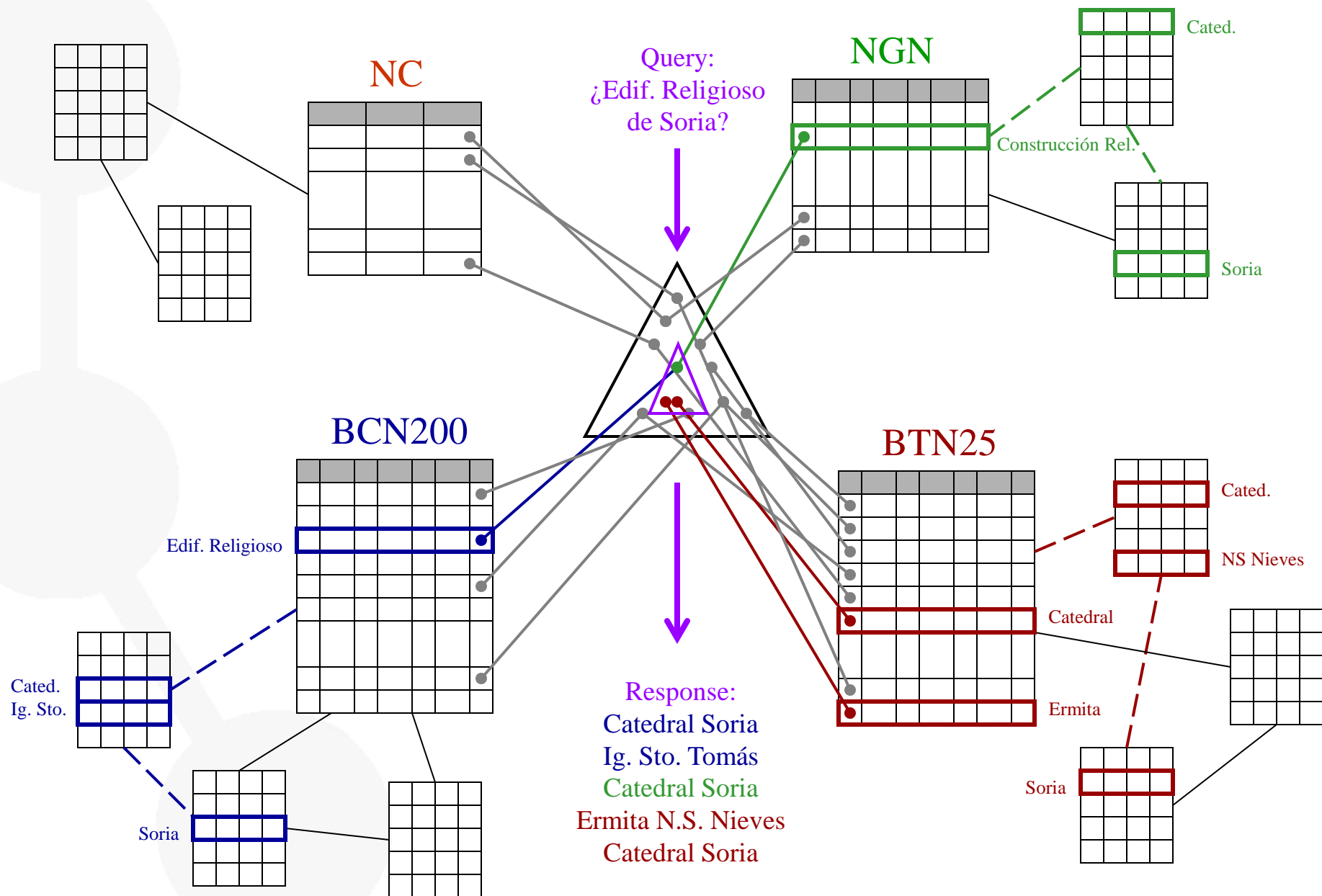
The screenshot displays the NeOn Toolkit interface for generating mappings between a database schema and an ontology. The interface is divided into several sections:

- View mappings:** A panel on the top left with checkboxes for 'All', 'None', 'Constant', 'Smaller', 'Concat', 'Equal', 'Get delimited', and 'Greater'.
- Attribute operations:** A panel on the top left with buttons for 'Constant' (C), 'Concat' (Cc), and 'Get delimited' (Gd).
- Relation operations:** A panel on the top left with buttons for 'Smaller' (S), 'Equal' (E), and 'Greater' (G).
- Information:** A panel on the top right with the text: 'Start mapping by selecting the fields from the database and drag them to the attribute/relation of a concept'.
- Database: geography:** A panel on the bottom left showing a list of database tables and their attributes. The 'country' table is selected, showing attributes: 'id' (PK), 'id_continent', 'code', 'name', and 'area'. The 'region' table is also visible with attributes: 'id' (PK), 'id_country', 'name', and 'area'.
- Ontology: Geography:** A panel on the bottom right showing a list of ontology classes and their attributes. The 'Location' class is selected, showing attributes: 'code', 'area', 'name', 'has_country', 'has_region', 'code', 'area', and 'name'.
- Mapping Diagram:** A central workspace showing a mapping between the database attributes and the ontology attributes. Lines connect the 'id' attribute of the 'country' table to the 'code' attribute of the 'Location' class, and the 'id_continent' attribute of the 'country' table to the 'code' attribute of the 'Continent' class. The 'code' attribute of the 'country' table is mapped to the 'code' attribute of the 'Country' class. The 'name' attribute of the 'country' table is mapped to the 'name' attribute of the 'Country' class. The 'area' attribute of the 'country' table is mapped to the 'area' attribute of the 'Country' class. The 'id_country' attribute of the 'region' table is mapped to the 'code' attribute of the 'Country' class. The 'name' attribute of the 'region' table is mapped to the 'name' attribute of the 'Country' class. The 'area' attribute of the 'region' table is mapped to the 'area' attribute of the 'Country' class.

Generating Linked Data with R2O



Generating Linked Data with R2O



Detección de instancias duplicadas

- *mismo tipo fenómeno e instancia*
 - *Río Ebro* vs. *Río Ebro*
- *misma instancia y diferente tipo fenómeno*
 - *Caño* de Guadamar vs. *Río* Guadamar
- *misma instancia y no coincidencia de tipología de fenómeno*
 - *Ría* Oria vs. *Río* Oria
- *misma instancia, pero fenómeno "y" \subset "z"*
 - *Riachuelo* \subset *Arroyo* - *Riachuelo* de la Cañada vs. *Arroyo* de la Cañada
- *misma instancia, pero fenómeno "y" \supset "z"*
 - *Aguas corrientes* \supset {*Río*, *Arroyo*, *Rambla*, etc.}

- Simple algorithm

```
Disambiguation(User u, Tag t, Resource r)
  Vcontext = createContextVector(Voc(t), Context(u, t, r))
  Sense mostSimilarSense = null
  maxSimilarityValue = 0
  For each s in Senses(t) do
    Vsense = createSenseVector(Voc(t), Terms(sense))
    similarityValue = cosine(Vcontext, Vsense)
    If similarityValue > maxSimilarityValue then
      mostSimilarSense = sense
      maxSimilarityValue = similarityValue
    end if
  End for
  Return mostSimilarSense
```

- Exploiting a tag store provided by the University of Southampton, which already has terms associated to dbpedia entries

Some user x has tagged a picture r with the tags *ice*, *iceskating*, *nottingham*, and *skating*.



<i>ice</i>	
dbpedia/resource/Ice	0,911
dbpedia/resource/Ice_(comics)	0,735
<i>skating</i>	
dbpedia/resource/Artistic_roller_skating	0,671
dbpedia/resource/Figure_skating	0,569
dbpedia/resource/Freestyle_slalom_skating	0,000
dbpedia/resource/Ice_skating	0,893
dbpedia/resource/Road_skating	0,451
dbpedia/resource/Roller_skating	0,394
dbpedia/resource/Skateboarding	0,197
dbpedia/resource/Snowboarding	0,000
dbpedia/resource/Speed_skating	0,549
dbpedia/resource/Tour_skating	0,831
<i>nottingham</i>	
dbpedia/resource/East_Nottingham_Township,_Pennsylvania	0,000
dbpedia/resource/Elizabeth_I_of_England	0,000
dbpedia/resource/Nottingham	0,750
dbpedia/resource/Nottingham,_New_Hampshire	0,386
dbpedia/resource/Nottingham_Cooperative	0,524
dbpedia/resource/Nottingham_Township,_Harrison_County,_Ohio	0,000
dbpedia/resource/Nottingham_Township,_Pennsylvania	0,000
dbpedia/resource/Nottinghamshire	0,428
dbpedia/resource/Sheriff_of_Nottingham	0,640
dbpedia/resource/West_Nottingham_Township,_Pennsylvania	0,000

Folksonomy and Ontology Evolution

africa amsterdam animals **architecture** art august australia baby ba
bird **birthday** black blackandwhite blue boston bw california c
canada canon car cat chicago china christmas church
cute dance day de dog england europe family festival film
food france friends fun garden geotagged germany gi
halloween hawaii hiking holiday home honeymoon house india ireland

Evolve in time



africa amsterdam animals **architecture** art august australia baby band barcelona beach berlin
bird **birthday** black blackandwhite blue boston bw california cameraphone camping
canada canon car cat chicago china christmas church city clouds color concert
cute dance day de dog england europe family festival film florida flower flowers
food france friends fun garden geotagged germany girl girls graffiti green
halloween hawaii hiking holiday home honeymoon house india ireland island italy japan
july june kids la lake landscape light live london macro may me mexico mountain mountains
museum music nature new newyork newyorkcity night nikon nyc ocean paris
park party people photo photography photos portrait red river rock rome san
sanfrancisco scotland sea seattle show sky snow spain spring street summer
sun sunset taiwan texas thailand tokyo toronto tour travel tree trees trip uk urban
usa vacation vancouver washington water wedding white winter yellow york zoo

Identify relationships

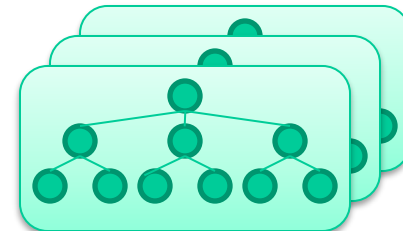
Between tags

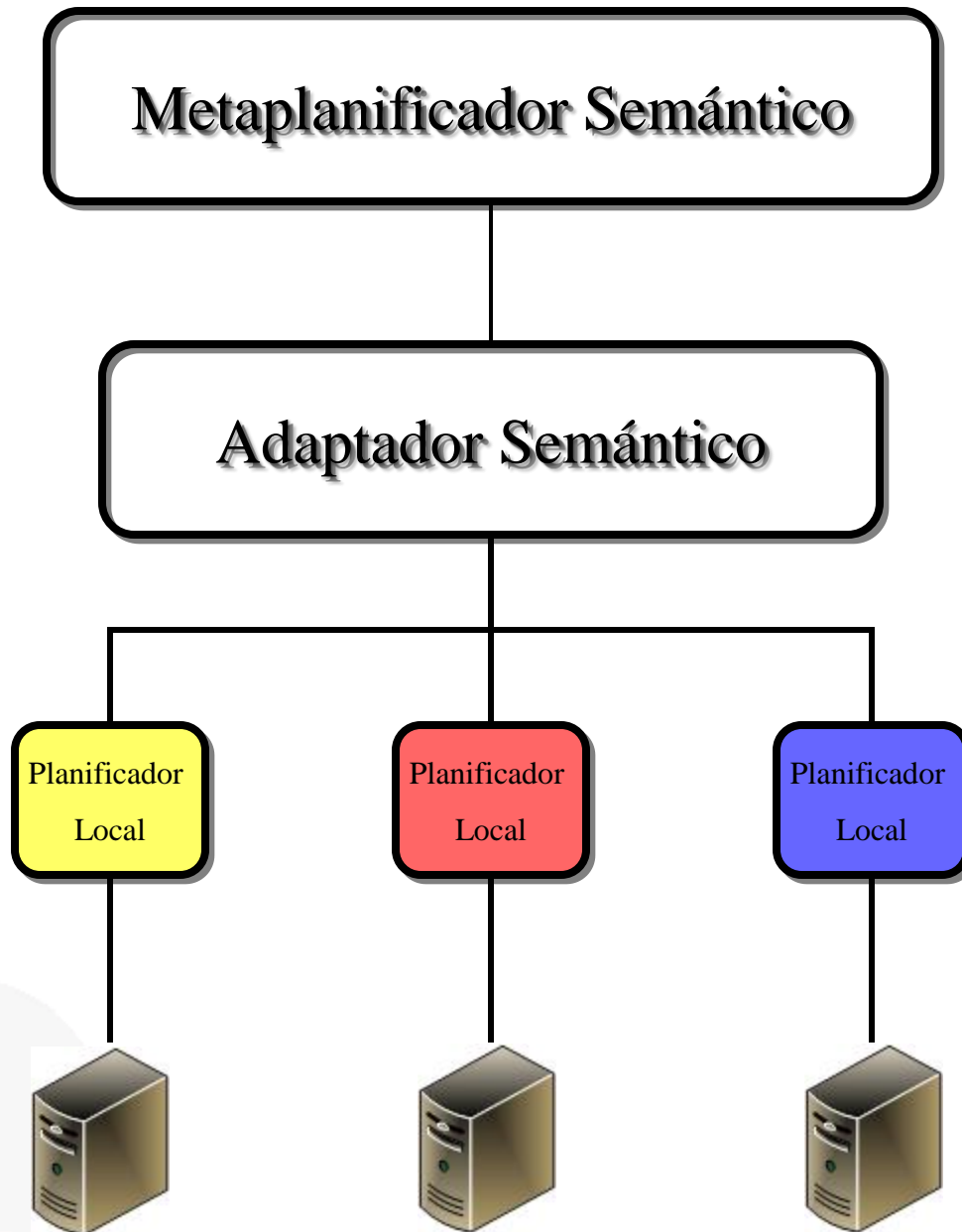
Add new knowledge



Synchronize

changes





- **Planificadores Locales**

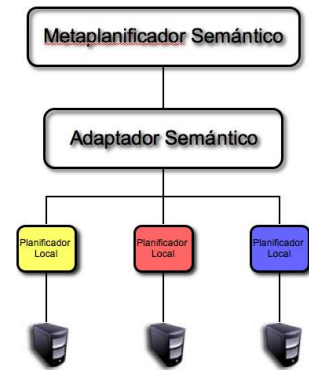
- Ligados al middleware escogido
- *Fura: grupos cola de tareas asociadas a recursos*

- **Adaptador Semántico**

- Oculta los detalles de cada PL
- Traduce las acciones del MP a las diferentes API de los PL
- Actúa como anotador de metadatos referentes a las capacidades y estados de los PL (recursos, servicios y trabajos)

- **Metaplanificador Semántico**

- Mejora del rendimiento en entornos distribuidos
- Lleva a cabo razonamientos para la toma de decisiones a partir de los metadatos anotados
- *Fura: elección del grupo cola cuya estimación de tiempo sea menor.*





Anotador Híbrido Beta

Ingrese un Recurso

El Anotador Híbrido de España Virtual tiene como objetivo permitir que cualquier usuario, sin necesidad de un grado de conocimiento alto en tecnologías de la Web Semántica ni de procesamiento de lenguaje natural, pueda realizar un gran número de anotaciones sobre diversos recursos disponibles en la Web (textos, imágenes, videos, etc.). Por anotaciones entendemos conjuntos de metadatos en forma de etiquetas (tags), información RDF e información lingüística sobre la información disponible.

Durante el proceso de enriquecimiento de la información esta herramienta permite hacer búsquedas semánticas en la Web, con la finalidad de conseguir información adicional de los recursos anotados, procedente de fuentes de información semánticas como DBpedia, Sig.ma, etc.

Ingrese una URL:

 Anotar

Anotar una URL:

 Explorar

 Subir