



Inspire as a Framework for Cooperation
European SDI Best Practice in Dialogue
Krakow (Poland) June 22, 2010

IDERioja: Spatial Data Infrastructure of the Government of La Rioja (Spain)

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Gobierno de La Rioja (España)



**Gobierno
de La Rioja**

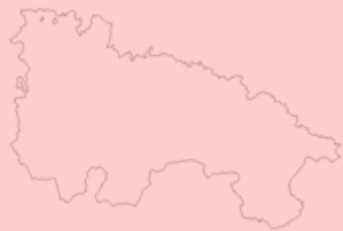
www.larioja.org



**Agencia del
Conocimiento y
la Tecnología**

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Europe



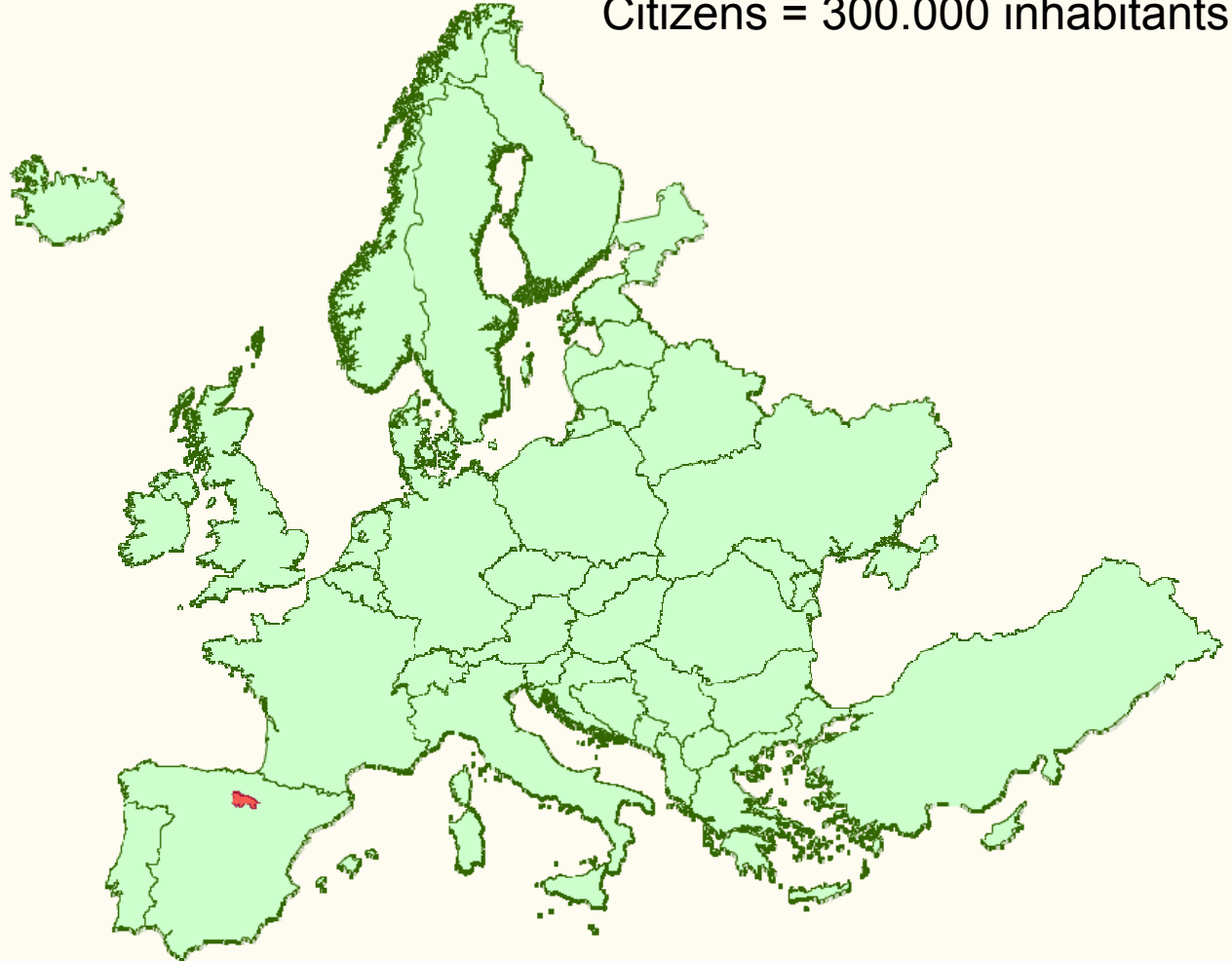
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Autonomous Region of La Rioja (Spain):

La Rioja = 5.000 Km²

Citizens = 300.000 inhabitants



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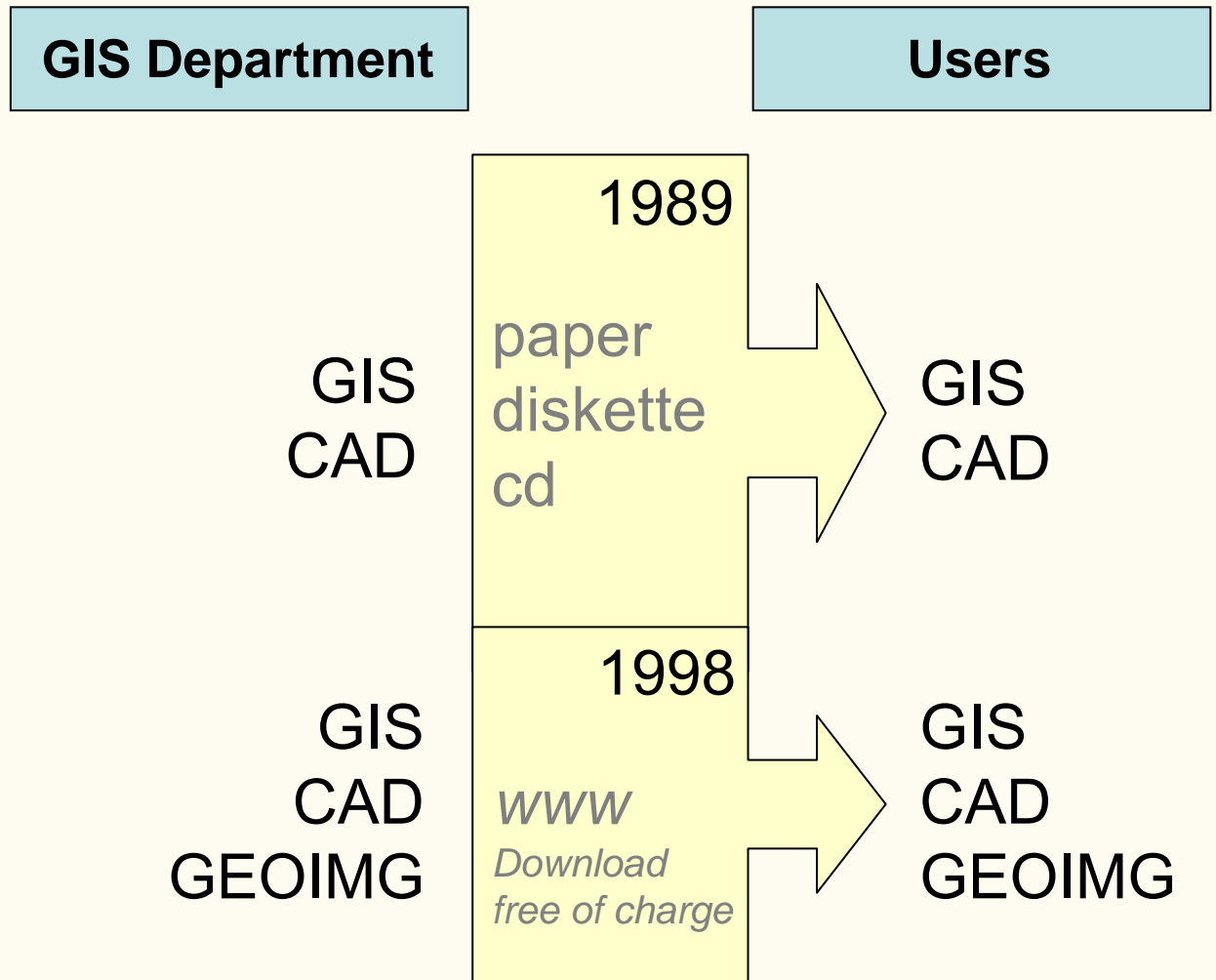
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Geographic Information: Distribution





IDERioja Project: Goals

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Internal

- Centralized Geographic Information (GI) management
- Corporative system
- To extend GI use to all users and applications
- Collect GI only once and maintain up to date
- Every department maintains/edits its spatial data

* GI = Geographic Information

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IDERioja Project: Goals

Internal

- Centralized Geographic Information (GI) management
- Corporative system
- To extend GI use to all users and applications
- Collect GI only once and maintain up to date
- Every department maintains/edits its spatial data

External

- To provide users with quality GI up to date
- Different channels to access data
- Spatial data searching based on metadata
- Access and edit GI via Internet

* GI = Geographic Information

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Current status:

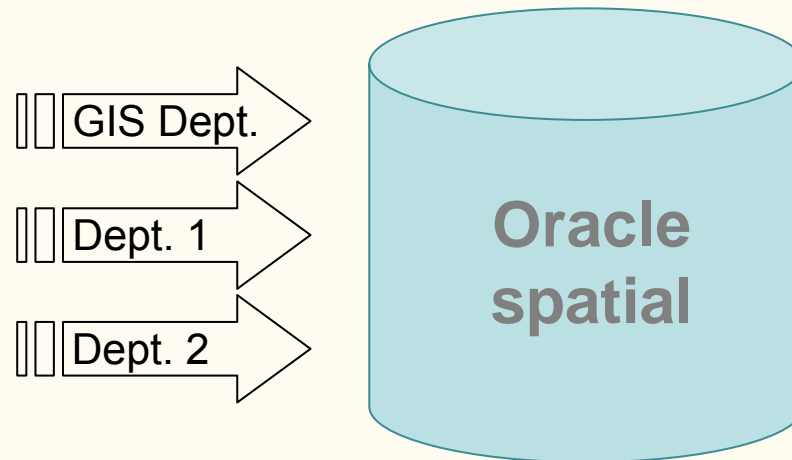
1 - Only technical experts can access GI

Goal:

1 - All civil servants and applications should use GI

Solution:

1 - GI must be stored in a RDBMS (Oracle Spatial)



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Current status:

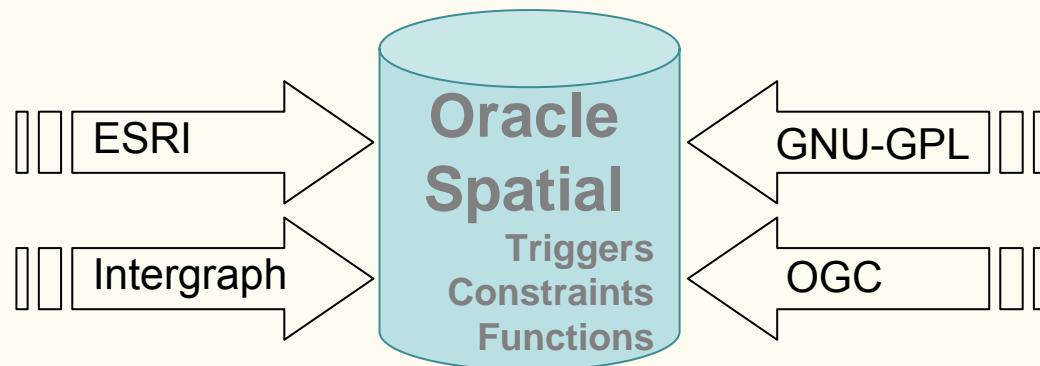
- 2 - Different users utilize different geomatic software
- 3 - DB administration by geomatic software means: “mutual incompatibility data access” (DB slave)

Goal:

- 2 - Users can use any geo-software (Independence)
- 3 - GI must be compatible with DB administration

Solution:

- 2 - DB administration forbidden to geomatic software
- 3 - Internal processes make GI compatible



* GI = Geographic Information
DB = Data Base

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Current status:

- 4 - GI edited only by Cartographic Department
- 5 - Management applications without graphical interface can't access the GI

Goal:

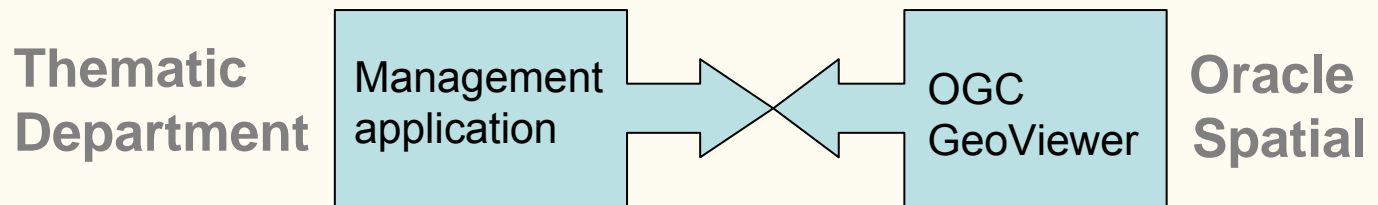
- 4 - GI accesible for all users and applications
- 5 - Each Thematic Department edits and updates its GI

Solution:

- 4 - To develop an OGC compatible GeoViewer
- 5 - Fine tuned GeoViewer responses

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* GI = Geographic Information
OGC = Open Geospatial Cons.

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Current status:

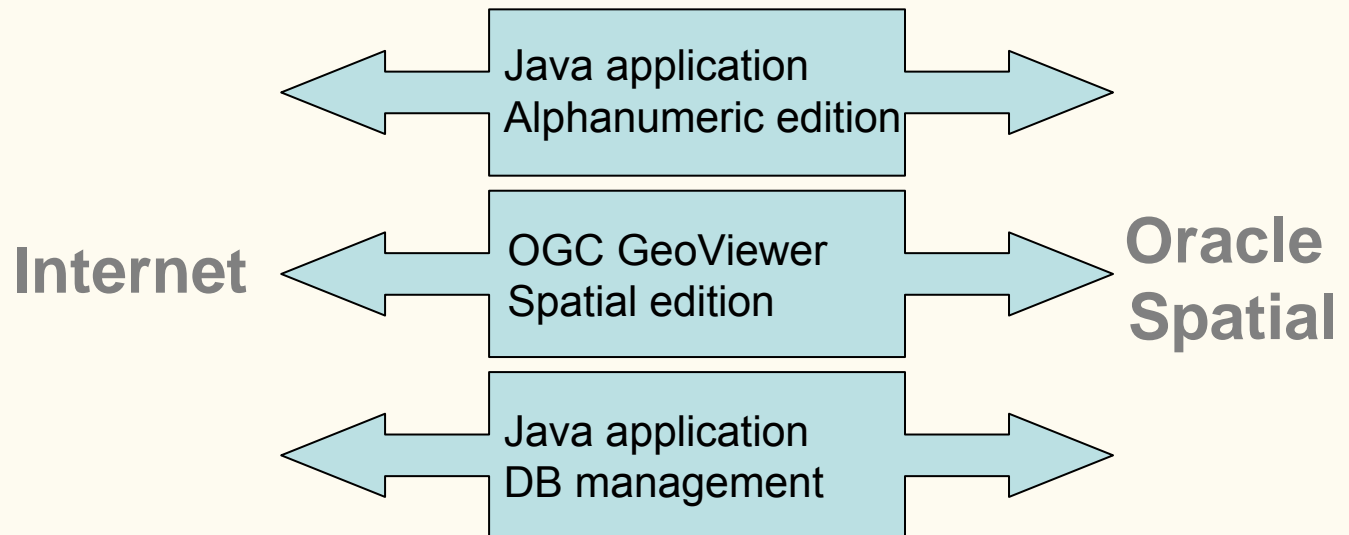
6 - External users can't access to GI

Goal:

6 - External queries and editing possible

Solution:

6 – To develop a Java Application to access spatial and alphanumeric data and DB management, via Internet



* GI = Geographic Information
DB = Data Base

Buscar

Desplegar

Colapsar

Salir

GEOGRAPHIC DATABASE _ FREE ACCESS (Note- Application recommended for advanced users) (001)

PHYSICAL ENVIRONMENT

NATURAL RESOURCES

ENVIRONMENTAL QUALITY

POLUTION AND WASTE (INSPIRE. Annex III.5)

Vulnerable areas to nitrate pollution

LAND MANAGEMENT

PROTECCIÓN

FORESTACIÓN

SPATIAL

Towns

Thematic

BUILDINGS

TRANSPORT

SERVICES

AGRICULTURE

INDUSTRIAL

COMMUNICATIONS

INDUSTRIAL

ADMINISTRATIVE



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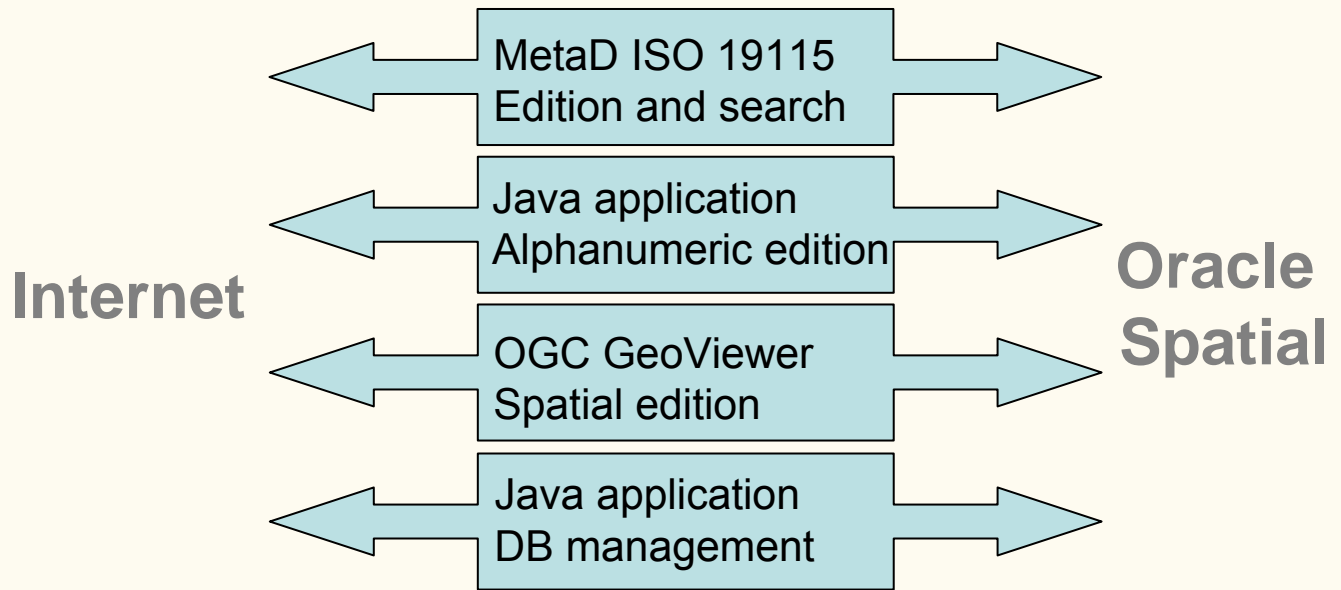
7 - Spatial data selection based only on the web menu

Goal:

7 - Data search based on data-metadata association

Solution:

7 - ISO 19115 indoor MetaData management in Oracle



* DB = Data Base
OGC = Open Geospatial Cons.

✓ (2) Identificador del fichero de metadatos		
+i	Metadato_CAR_000000023	Vista Oracle composición de las masas de agua de elementos hidro
+i	Metadato_CAR_000000024	Vista Oracle composición de los tramos de elementos hidrográficos
+i	Metadato_CAR_000000026	Tabla Oracle con información acerca del tipo, cuenca hidrográfica y C
+i	Metadato_CAR_000000027	Tabla Oracle con información acerca del tipo, cuenca hidrográfica y C

Buscar | Desplegar todo | Colapsar todo | Recargar | Generar Xml | Imprimir | Salir

Resumen: Metadato_CAR_000000106

Título	
Masas de agua de elementos hidrográficos: IDE_HIDRO_MASAS_ED50	
Resumen	
Vista Oracle obtenida a partir de la tabla Oracle IDE_HIDRO_MASAS, contiene únicamente la geometría ED50. La existencia de esta vista permite utilizar todas las herramientas	
Tema	Idioma
008 Información geocientífica 012 Aguas interiores	spa Spanish
Responsable del conjunto de datos	
(375) Nombre de la persona Gonzalo López García	
(376) Nombre de la organización Dirección General de Política Territorial Consejería de Turismo, Medio Ambiente y Política Territorial Gobierno de La Rioja	
Fecha de referencia de los datos 2006-03-03	
Sistema de referencia	Localización
UTM ED50 zona 30N: EPSG: 42,692685553440000	-3,239614012310000 41,867756965400000
Resolución espacial 5.000	
Tipo de representación	Formato
001 Vector	Sólo consulta

Recargar | Cancelar | Imprimir

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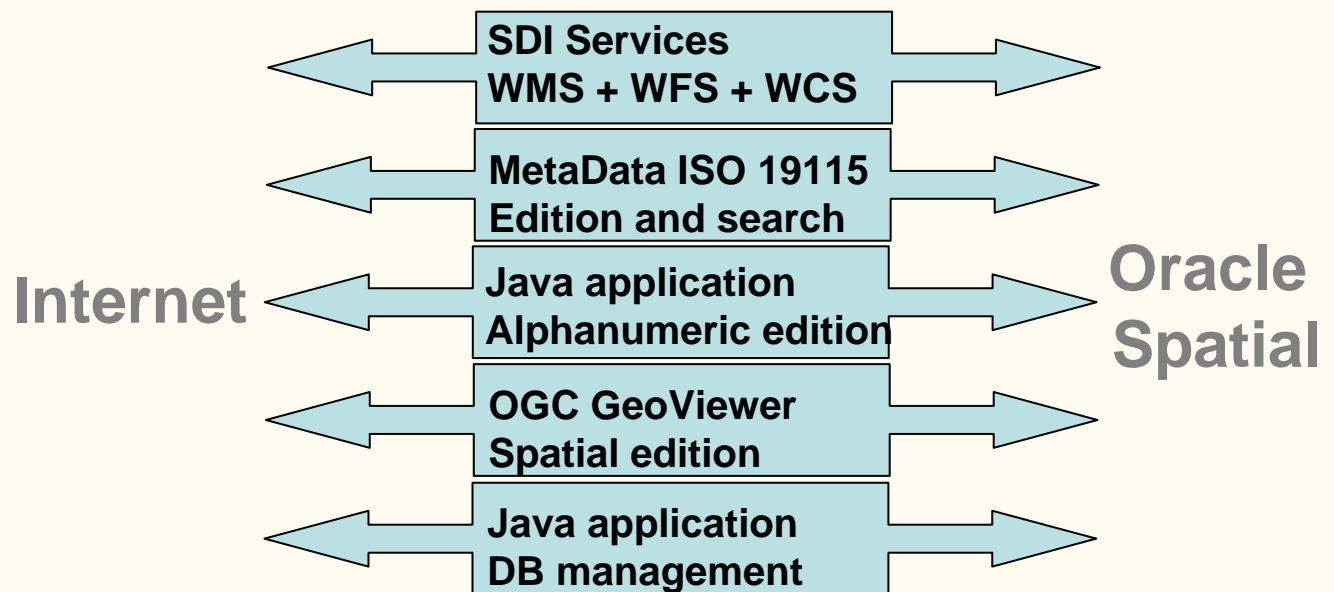
8 - Some users don't use the IDERioja web site

Goal:

8 - To offer geographic services in other environments

Solution:

8 - SDI Services: WMS+WFS(2009)+WCS(2009)...



<http://wms.larioja.org/request.asp>

The screenshot displays the INSPIRE Geoportal interface. At the top, there is a header with the INSPIRE logo on the left, the text "INSPIRE Geoportal the EU portal for Geographic Information" in the center, and the JRC (Joint Research Centre) and European Commission logos on the right. Below the header, there are navigation links for "geoportal", "contact", and "legal notice".

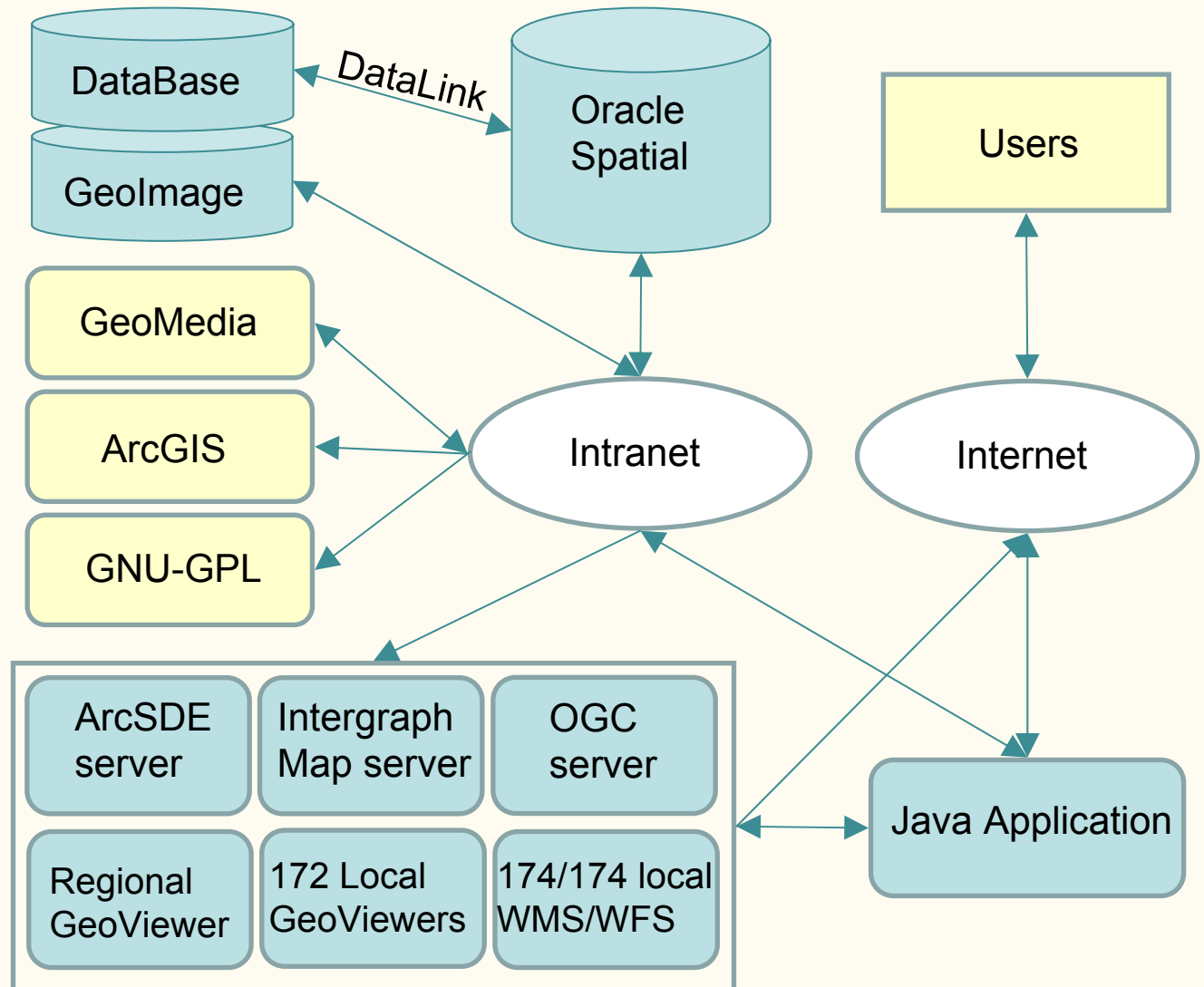
On the left side, there is a "Add themes" section with a list of themes, each with a checked checkbox and a blue circular icon:

- IDERIOJA Gobierno de La Rioja O**
- Tramos de elementos hidrograficos**
- Reserva de la biosfera**
- Municipios**
- Demis**

The main map area shows a topographic map of the La Rioja region. The map features a color-coded elevation scale from green (low) to brown (high). Key locations labeled on the map include Estella, Logroño, Arnedo, and Cervera Del Rio Alhama. Elevation points are marked with a cross and a number: 4639, 7431, 6719, 7310, 7100, 5768, 2113, and 5607. The map is surrounded by a toolbar with various icons for navigation and map manipulation.

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IDERioja Project: Architecture



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IDERioja Project: Software solution

Open Source

- Web development: PHP
- Mapping services: MapServer (Minnesota)
- Viewers: Openlayers
- OGC services: MapServer (Minnesota)
- GIS desktop: gvSIG

Proprietary

- Database: Oracle Spatial
- SDI Management: Java application
- Alphanumeric edition: Java application

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IDERioja Project: Other achievements



Java application
Alphanumeric edition

- User application access management
- Oracle spatial user/role management
- Spatial index analysis and regeneration
- Oracle database monitoring
- Personal data access auditing
- Web site contents management News / RSS
- GeoViewer customization
- GNSS Net Services

SDI Services
WMS + WFS + WCS

+172/174 Local Administration WMS/WFS

OGC GeoViewer
Spatial edition

+174/174 Local Administration GeoViewers

* GNSS = Global Navigation Satellite System

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http://www.iderioja.org



Number of SDI layers	2709
Number of WMS layers	2627
Number of WFS layers	2627
Web access	695
IDE access	320
Downloads	621

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IDERioja Project: Outfitted!

Internal targets

- ✓ Geographic information management centralized
- ✓ Corporative system
- ✓ To extend GI use to all users and applications
- ✓ Maintain GI up to date
- ✓ Every department maintains and edits its spatial data



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IDERioja Project: Outfitted!



Internal targets

- ✓ Geographic information management centralized
- ✓ Corporative system
- ✓ To extend GI use to all users and applications
- ✓ Maintain GI up to date
- ✓ Every department maintains and edits its spatial data

External targets

- ✓ To provide updated GI
- ✓ Many channels to access data
- ✓ Metadata based searching
- ✓ Access and edit GI via Internet

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IDERioja Project: Future

Technical developments

- Integration of 1:5000 topographical cartography model
- Incorporation of new OGC services
- Compatibility with visual environments (Google maps)
- Compatibility with mobile-phone applications

Data

- To extend data, formats and services offer

Institutional relations

- Cooperation with other Public Administrations
- Incorporation of Private Companies
- Cooperation with Academic Institutions

* OGC = Open Geospatial Cons.

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2004 CUORE Award

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Gracias por su atención
Dziękujemy za uwagę
Thank you for your attention

<http://www.iderioja.org>

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gonzalo.lopez@larioja.org
ricardo.corredor@conocimientoytecnologia.org



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