



# ¿Para que Estándares Abiertos sí Existe Software Libre y Abierto?

Dr. Luis Bermudez
Director del Programa de Certificación
Abril 26, 2013
Buenos Aires, Argentina

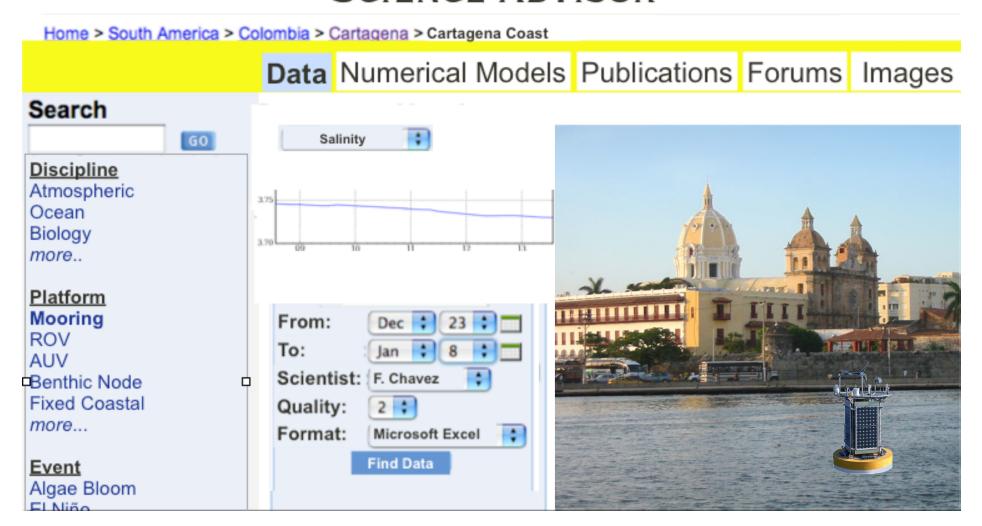
- Parte I: Una historia
- Parte II: Software Libre y abierto, y para que?
- Parte III: problemas
- Parte IV: Estandares abiertos
- Parte V: Para que estándares abiertos si existen sofware abierto?

## Por que y por que participar



#### Luis hace 10 años

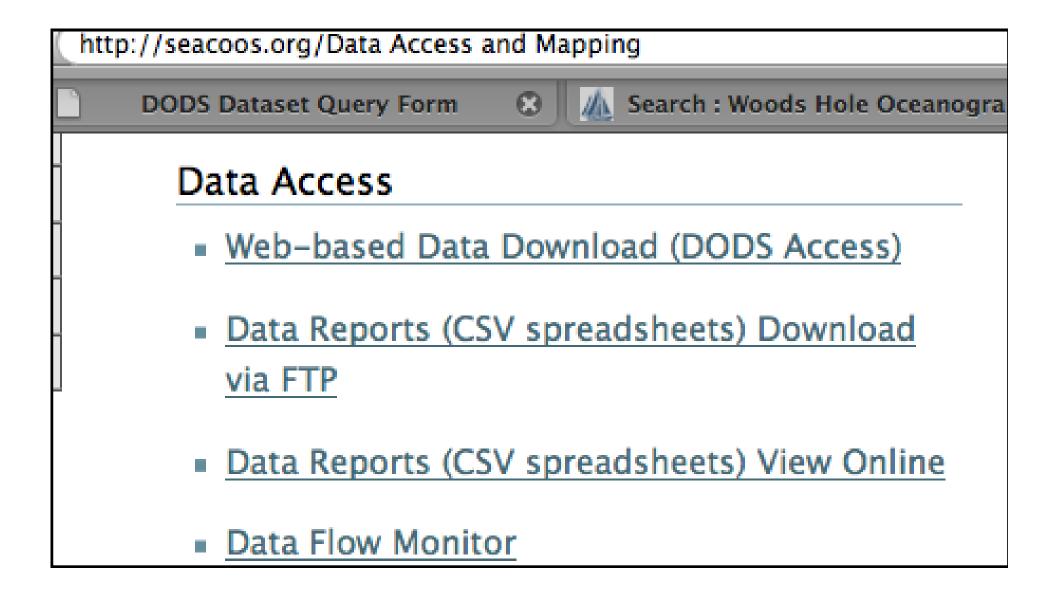
#### SCIENCE ADVISOR



## La Bahia de Monterey, California



#### SeaCOOS



#### MBARI SSDS

```
http://new-ssds.mbari.org:8080/servlet/GetOriginalDat
  ?deviceID=
  &startDataDescriptionVersion=
  &endDataDescriptionVersion=
  &startPacketSubType=
  &endPacketSubType=
  &startParentID=
  &endParentID=
  &startTimestampSeconds=
  &endTimestampSeconds=
  &lastNumberOfPackets=
  &numHoursOffset=
  &outputAs=
  &displayPacketHeaderInfo=
  &noHTMLHeader=<1 | 0 | true | false>
```

## MMI: Objectos Java

```
java.lang.String getASCII (java.lang.String URIDataset,
                 java.lang.String start,
                 java.lang.String end,
                 java.lang.String downLimit,
                 java.lang.String upLimit,
                 java.lang.String northLimit,
                 java.lang.String westLimit,
                 java.lang.String southLimit,
                 java.lang.String eastLimit,
                 java.lang.String verticalPositive)
                     Answers a String that encapsulates the Data in ASCII
                 format.
java.lang.String[] getMetadata(java.lang.String parameter,
                 java.lang.String source,
                 java.lang.String start,
                 java.lang.String end,
                 java.lang.String downLimit,
                 java.lang.String upLimit,
                 java.lang.String northLimit,
                 java.lang.String westLimit,
                 java.lang.String southLimit,
                 java.lang.String eastLimit,
                 java.lang.String verticalPositive)
                     Answers a String of metadata records in XML based
```

Subject: [oostech-service-definition-team] XML return values and function

calls

Date: March 30, 2006 3:39:26 PM CST

To: Ocean Observing Systems Technology Web Services Definition Team

Reply-To: Ocean Observing Systems Technology Web Services Definition Team

Hi All,

I think there are two nearly seperable problems that we have to answer:

- How to represent an observation
- How to ask for the observation

For problem 1) we've almost designed our own obs.xml, but I think we could

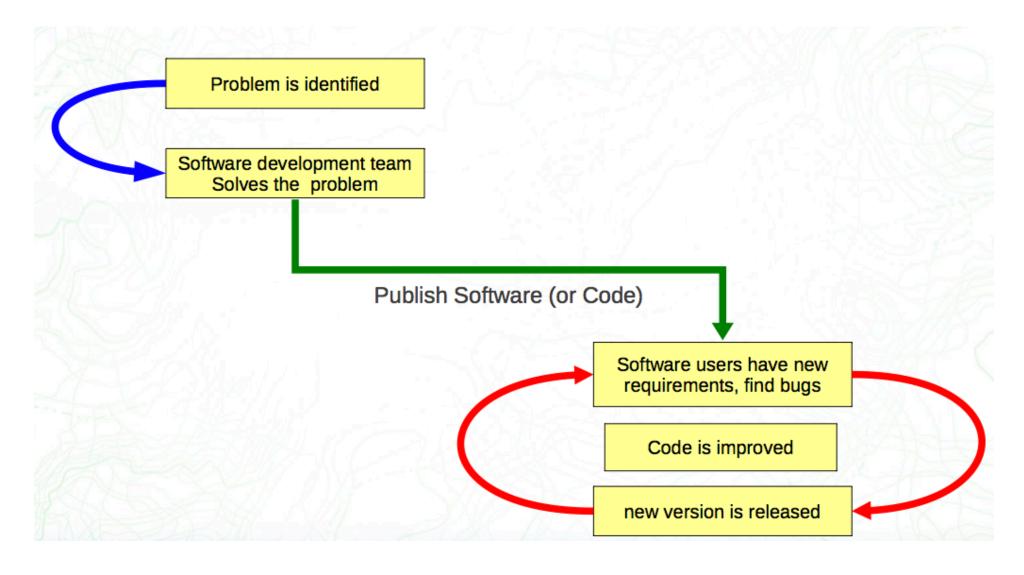
```
> > From: Luis Bermudez [mailto:bermudez at mbari.org]
> > Sent: Wednesday, April 12, 2006 5:08 PM
> > > To: Alexandre Robin
> > > Cc: SensorML Forum
> > Subject: Re: [SensorML] general SensorML description question
> > >
> > > Hi Alexandre,
> >
> > I encoded CF in OWL (available at <a href="http://marinemetadata.org/cf">http://marinemetadata.org/cf</a>).
> > > This was
> > posted in the CF list and we are going to use it to create
> > > relations with
> > other terminologies. I think this can be a good starting
> point for
> > > getting
> > > URIs for components and units.
> > >
> > We can also create one for ISO-19115 roles and qualifiers for
> > > terms, if
> > > there is yet not one available.
```

## Luis Hoy

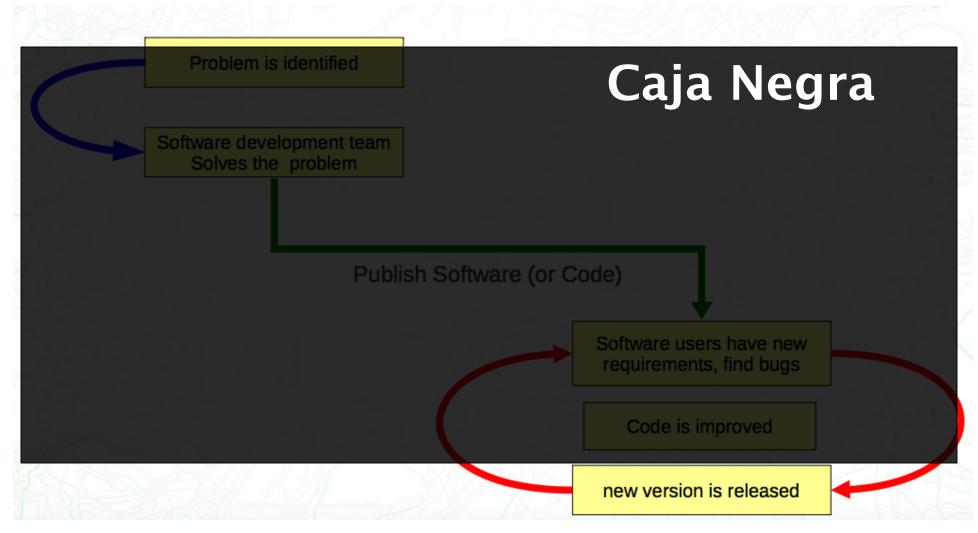


## Parte II: Software Libre y Abierto

#### Desarrollo de Software

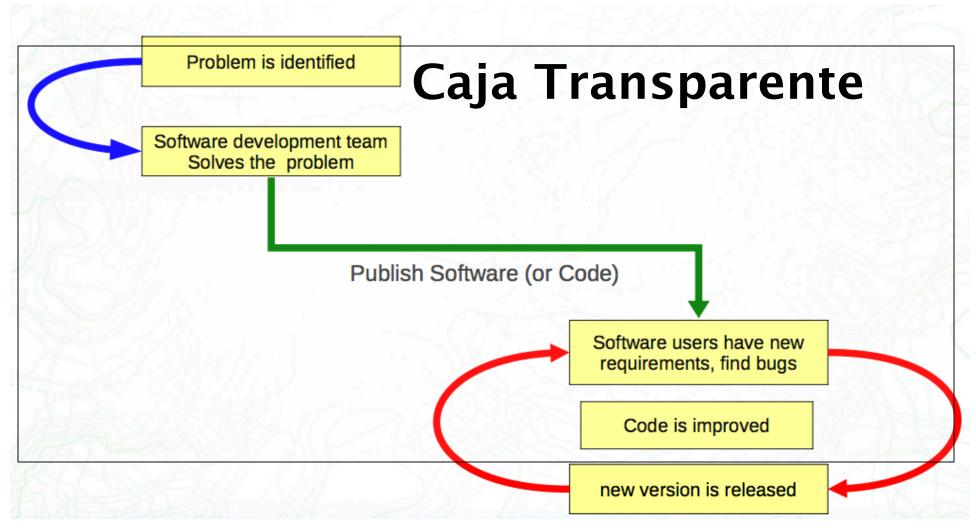


## Software Propietario



Quienes son los desarrolladores? Cuando esta planeado implementar funcion x?

#### Software Abierto



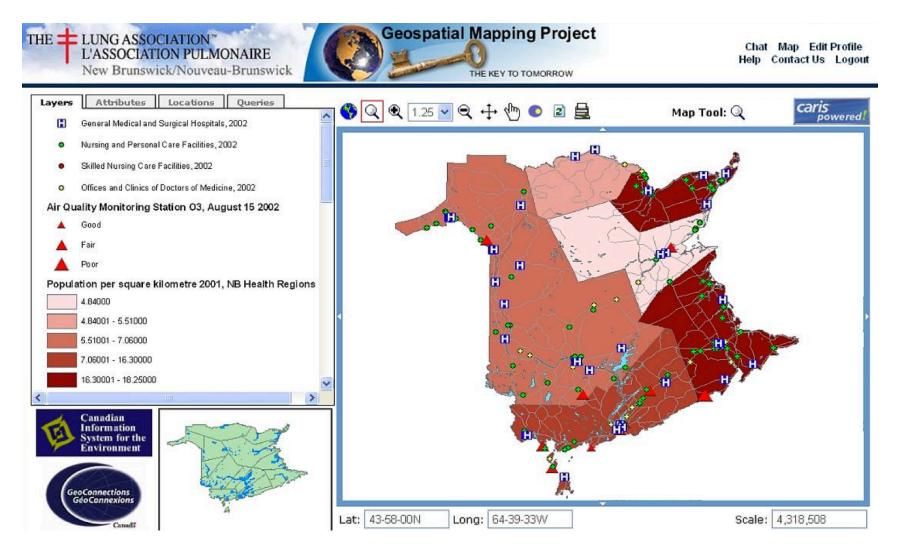
Se sabe todo, el proceso, las personas involucradas, planes, etc..

## Software para que?



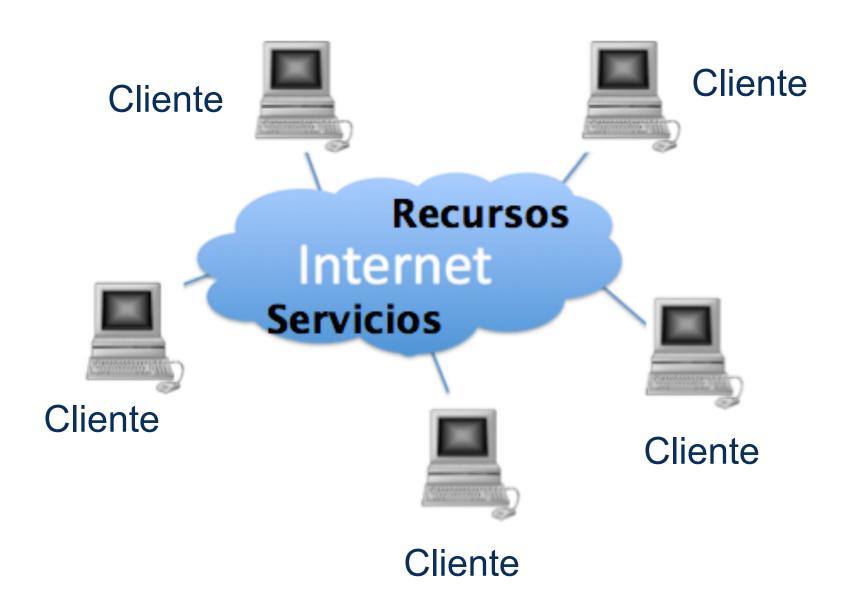
Publicar e Integrar Datos Geo Espaciales

## Software para que?



Publicar e Integrar Datos Geo Espaciales

## Transmision de Datos por la Web

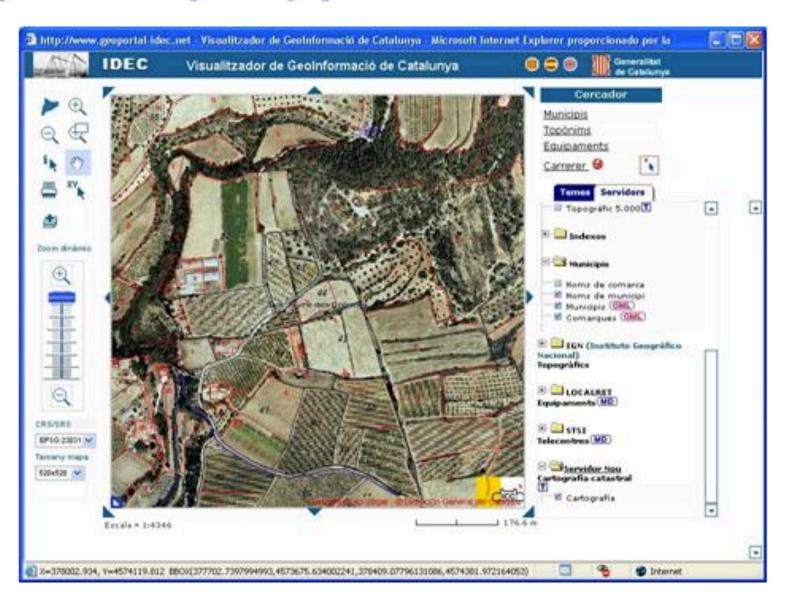


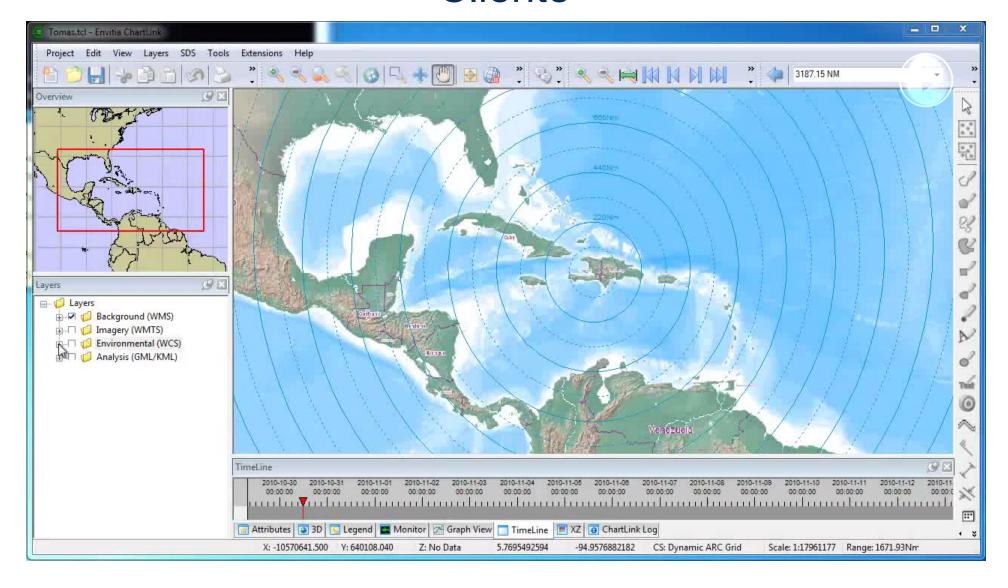




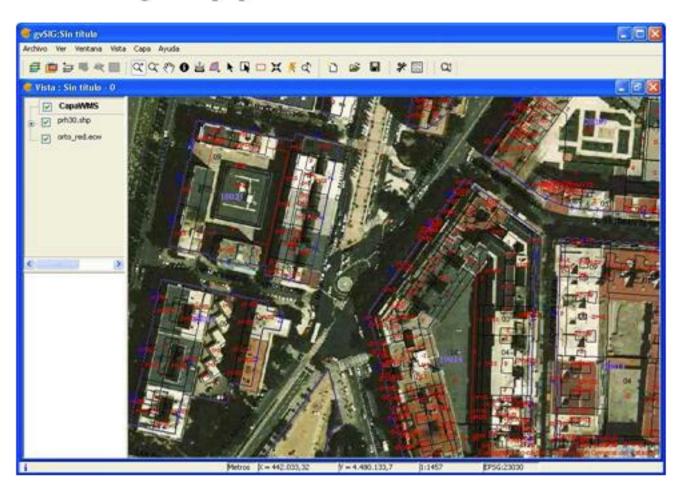


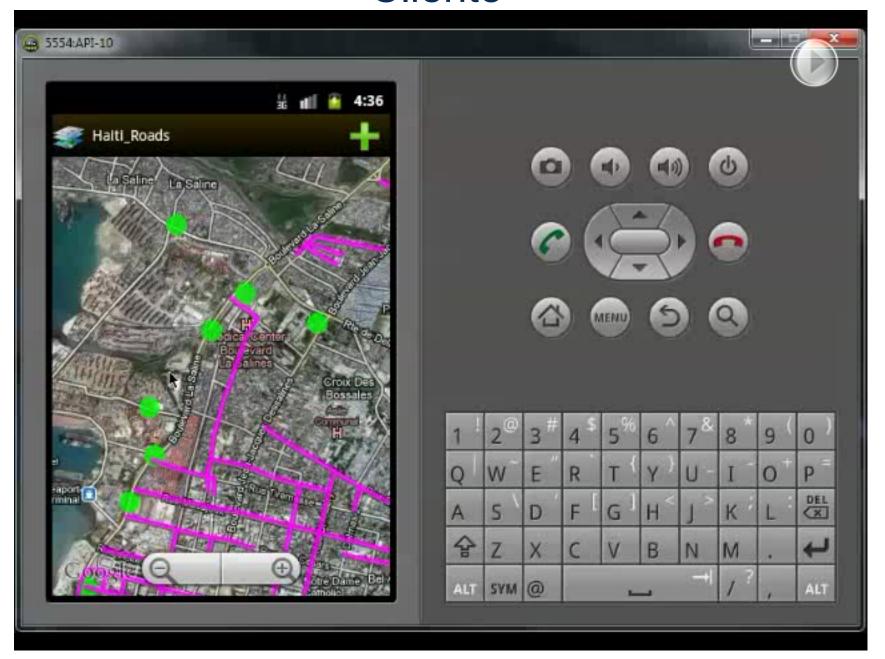
Geoportal de IDEC: http://www.geoportal-idec.net





GvSIG: Es un visualizador GIS de la Generalitat Valenciana. <a href="http://www.gvsig.gva.es/">http://www.gvsig.gva.es/</a>. La imagen siguiente muestra nuestra cartografía superpuesta a una ortofoto.

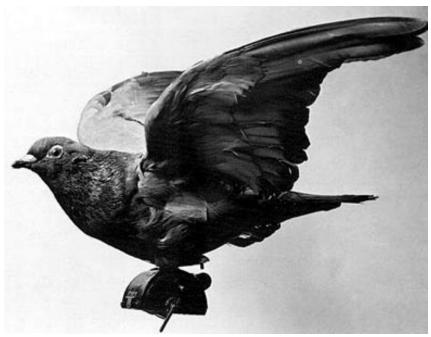




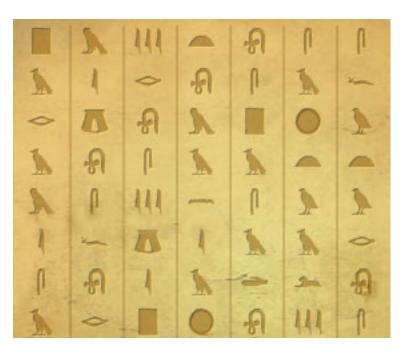
## Parte III: Algunos Problemas

#### Protocolos no necesariamente son consistentes

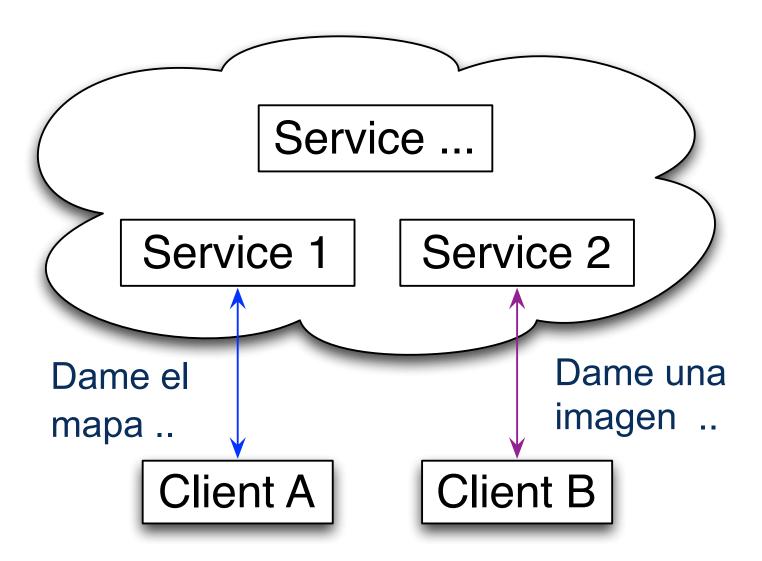


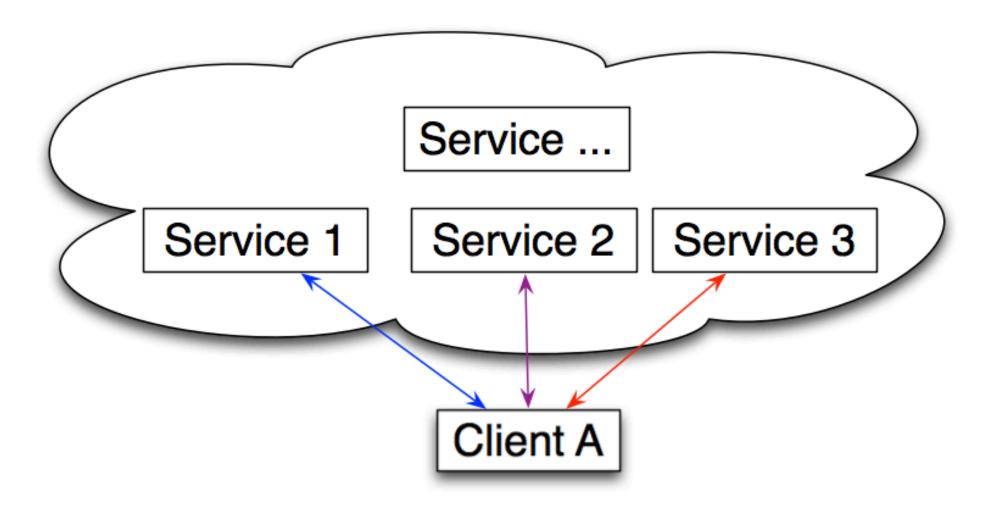


### Mensajes no necesariamente son consistentes

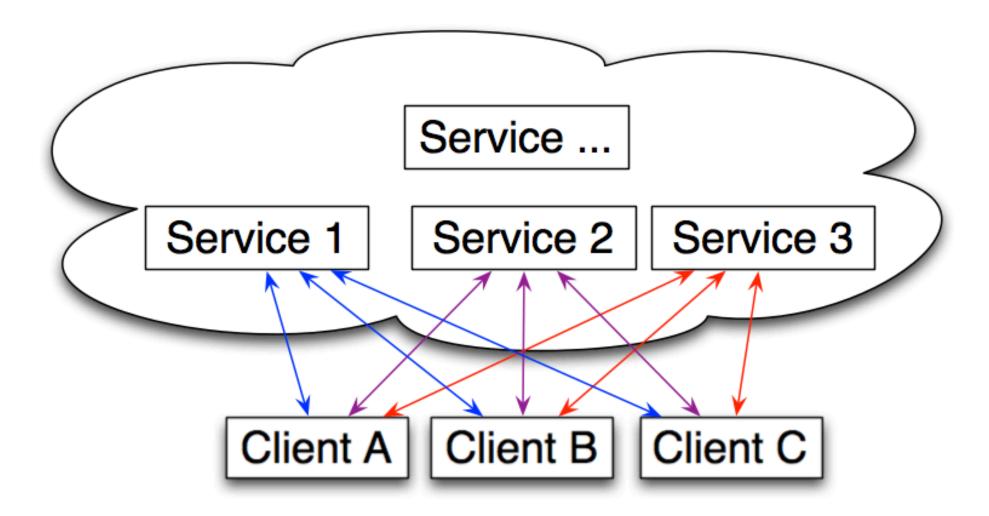








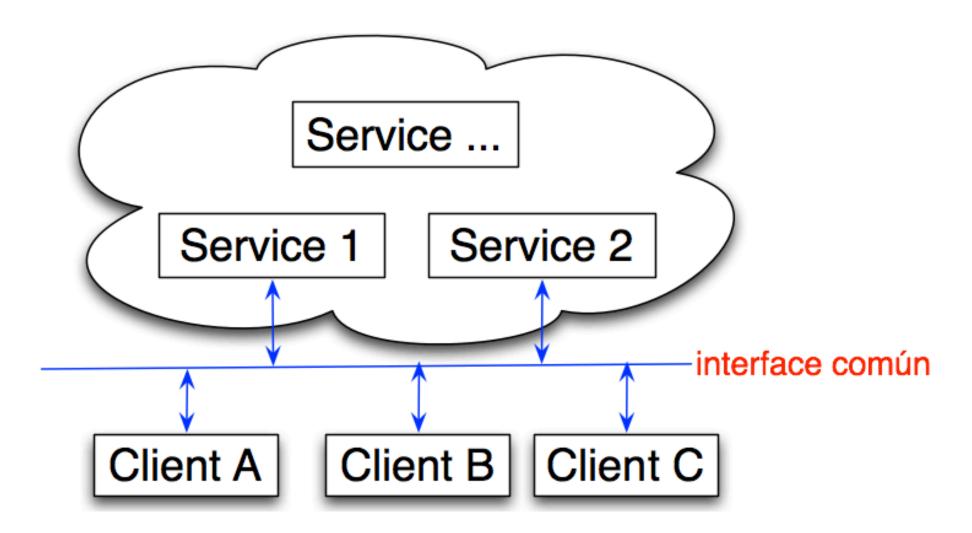
Humm.. Se necesita un súper multiprotocolo cliente!



Desperdicio de recursos... y no se ve me bien.



Estrategia Espagueti



## No es suficiente ser software libre y abierto

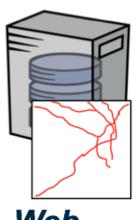
Es necesario implementar Interfaces comunes

## Parte IV Estándares Abiertos

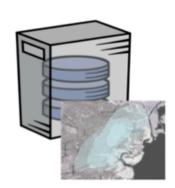
**Cuales Interfaces?** 

## Get Feature via web Requests

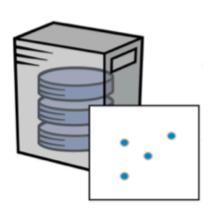




Web Feature Service



Web Coverage Service



Sensor **Observation** Service



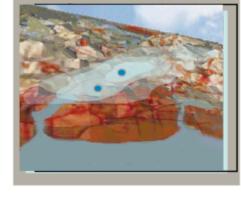






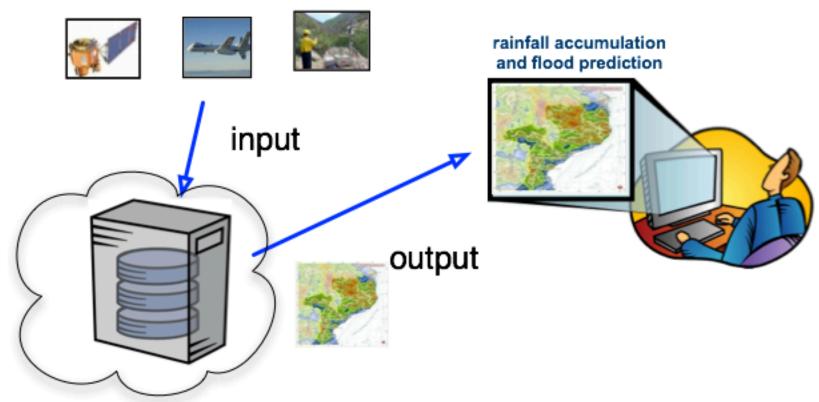


Web Map Service



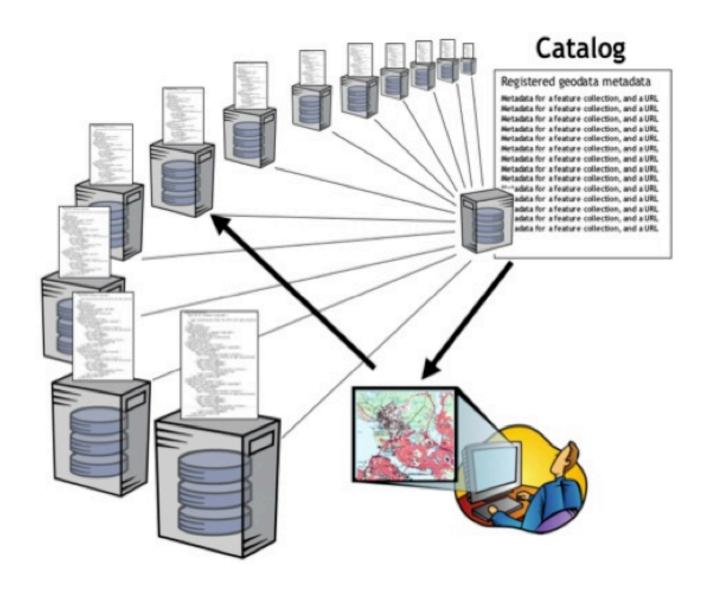


# Web Processing Service (WPS)

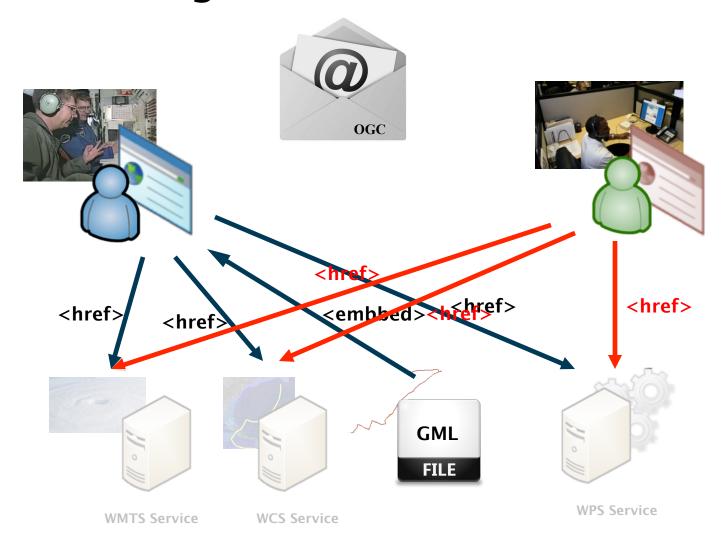


Web Processing Service (WPS) - Model Running

## Catalogue Services for the Web (CSW)



# OWS Context Document Communicating the context between clients





# Geopackage



**Open Platform independent** 





#### **Estandares OGC son Abiertos**

- Gratuitos y públicos
- Sin problemas con patentes y propiedad intelectual
- Sin licencia
- Proceso basado en consenso
- Ninguna sola entidad controla ningún estándar

http://wiki.osgeo.org/wiki/ Open\_Source\_and\_Open\_Standards

# Parte V: Para que estándares abiertos si existe sofware abierto?

- Abre oportunidades
- La fiesta es mejor

## Para que estándares abiertos?

- Abre oportunidades
- La fiesta es mejor

## Abre Oportunidades

"What OGC brings to the table is...
everyone has confidence we won't
take advantage of the format or
change it in a way that will harm
anyone... Governments like to say
they can publish to OGC KML instead
of Google KML"

Michael Weiss-Malik, Google KML product manager



#### MINISTRY OF REGIONAL DEVELOPMENT AND PUBLIC WORKS

Sofia 1202, Bulgaria, St. St. Cyril and Methodius Str. 17-19 Tel:+ 359 2 9405 382, Fax:+ 359 2 987 07 37

Sofia, Bulgaria......2006

#### 1.22

#### ...

# GIS software - Mapping, data use, and analysis along with editing and geoprocessing capabilities

SUBJECT OF NATU THE BOR

OUR REI

- OGC standards compliant, COM standards and ISO standard 19115, Geographic Information—Metadata compliant;
- To support different development environments: JavaScript, VBScript, Visual Basic, VBA, C++, Visual Studio.NET.
- Options for additional customization.

#### Particular Requirements:

- Mapping and analysis tools
- Interactive mapping
- Map-based query and tools
- Direct read of vector data formats / .shp, coverages, GeoDB, SDC Data, VPF Data, OGC WMS

ON







Softwa	are Engineering	
4.1	Standards Based	The MSSI software solution design should follow formal industry standards and best practices.  It should work with the well-defined protocols and formats to link system components and facilitate the exchange of data using OLEDB, XML, SOAP/Web Services,
		data using OLEDB, XML, SOAP/Web Services, http, OGC WMS, WFS, WCS and GML. All AD- SDI specified standards should be adhered to.



#### Ministry of Defence Defence Standard 00-102

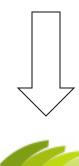
#### **ANNEX H**

Index (a)	MOD User (b)	Standards and Profiles Name and Version (c)	Standards and Profiles Description (d)	Standard Controlling Organisatio (e)
127	MetO	KML 2.2	Keyhole Mark up Language (KML) is an XML language focused on geographic visualization, including annotation of maps and images. Geographic visualization includes not only the presentation of graphical data on the globe, but also the control of the user's navigation in the sense of where to go and where to look.	OGC
128	All	OGC Styled Layer Descriptor (SLD) 1.0	This document explains how the Web Map Server specification can be extended to allow user-defined symbolization of feature and coverage	OGC
129		OGC Styled Layer Descriptor (SLD) 1.1	data.	OGC
130	All	OGC Web Coverage Service Implementation	This document specifies how a Web Coverage Service (WCS) serves to describe, request, and deliver multi-dimensional coverage data over the World Wide Web. This version of the Web Coverage Service is limited to	OGC

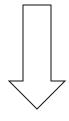
#### Diseminación de Información Geográfica en Australia Occidental



20 Agencias







1000 organizaciones



Kylie Armstrong
Business Development
Western Australian Land Information Authority
Landgate, Australia

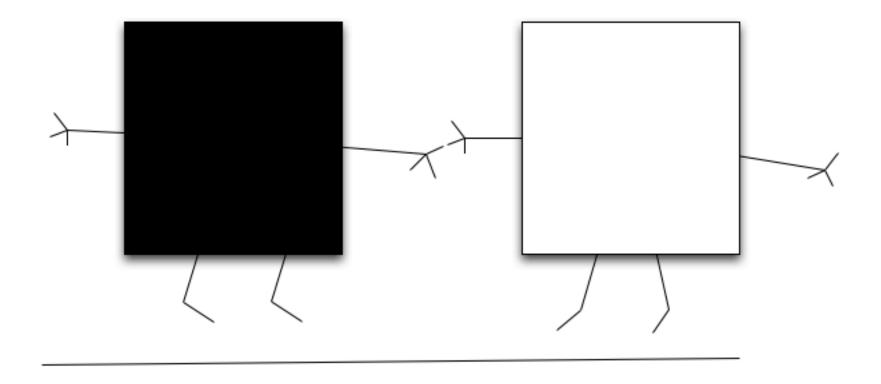
"Cuando se provee servicios web espaciales en nombre de 20 organizaciones gubernamentales para más de 1.000 organizaciones que utilizan sus propios sistemas espaciales, se necesitan estándares."

"Ha sido fundamental para nuestro éxito, usar las normas internacionalmente reconocidos como ISO y los servicios Web OGC"

# La Fiesta es Mejor



## La Fiesta es Mejor



Software libre y propietario pueden bailar juntos



#### SERVICIOS DISPONIBLES

Coberturas de la Tierra 2000-2002

ArcGIS Server 9.3

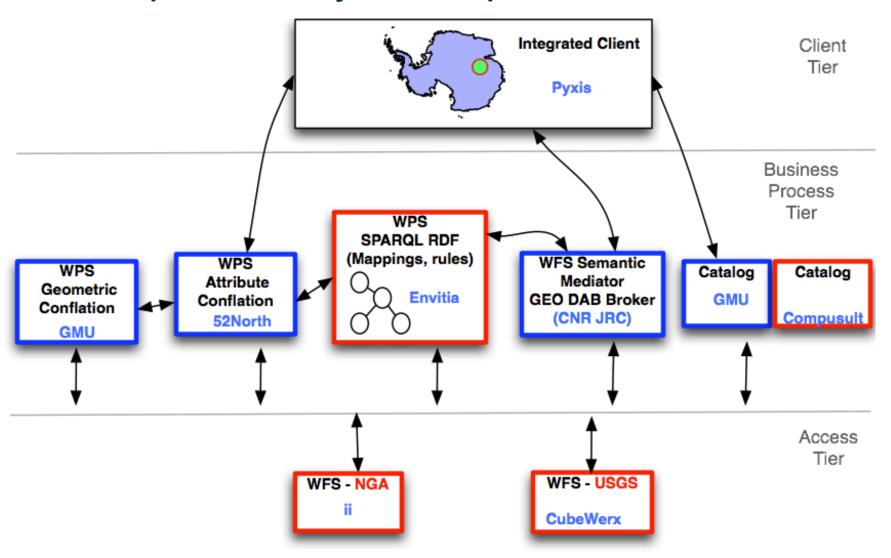
http://mapas.parquesnacionales.gov.co/arcgis/services/coberturas/MapServer/WMSServer?

Geoserver 2.1-RC5

http://mapas.parquesnacionales.gov.co:9090/geoserver/pnn\_4\_naturaleza/wms?

Cabarturas da la Tiarra 2005 2007

#### Arquitectura y Participantes en OWS-9



Software libre y propietario pueden bailar juntos



#### HOME CONTACTUS ABOUT USHAHIDI SWIFTRIVER

Categories: 2007 Elections Academic Awards Badges Checkins Code Releases Communi Crowdmap CrowdmapID Crowdsorcerers Crowdsourcing Data Deployment Design Devel Elections Evaluation Events How to Help Jobs Kenya Localization Mali Mapping Resour News Partnerships Peace efforts Plight of the Displaced Podcasts Product Random Though Research Security Services Strategy SwiftRiver Team Testing Uchaguzi Uncategorized Video Violence

#### How OGC's Open GeoSMS serves for Disaster Management

[Guest blog post by Kuo-Yu slayer Chuang from Tawain's Industrial Technology Research Institute, ITRI.]

I'm Kuo-Yu slayer Chuang from ITRI, a government funded research institute in Taiwan. We developed an open standard for exchanging location information via SMS among mobile devices called Open GeoSMS, which has currently been adapted officially by Open Geospatial Consortium (OGC). Several use cases of this standard are shown with the following video:

# Open Geospatial Consortium (Consorcio Geoespacial Abierto)



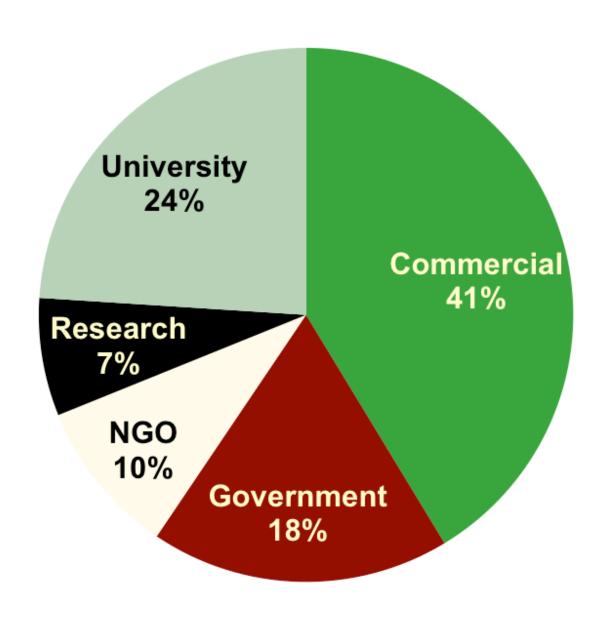
Única organización con miembros en la industria que se enfoca en estándares de localización



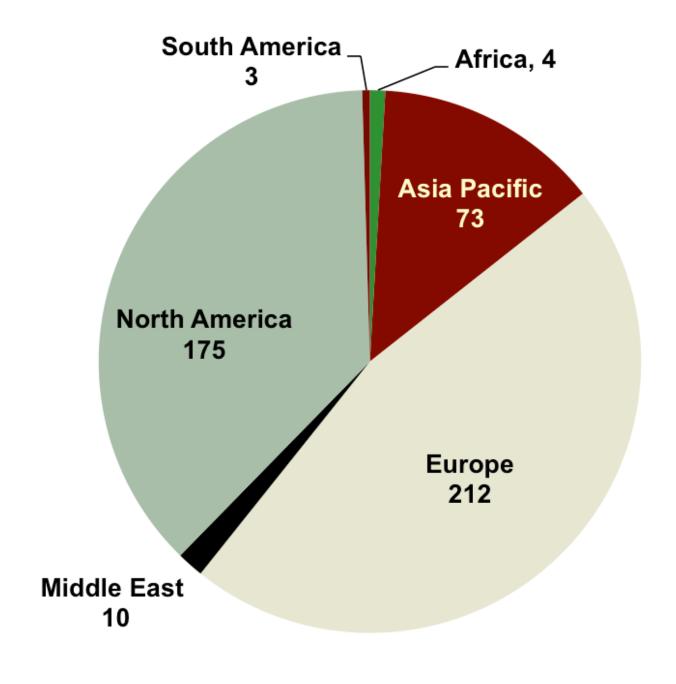
# Foro + Proceso



#### 475+ miembros & 4000+ Individuos



#### 475+ miembros & 4000+ Individuos



#### Miembros en América Latina

- Fundação CPqD (Brazil)
- Instituto Geográfico Agustín Codazzi (Colombia)
- Ministerio de Bienes Nacionales Secretaria Ejecutiva SNIT (Chile)
- INFOCAM (México)
- Instituto Nacional de Estadística y Geografíca INEGI (México)
- CentroGeo (México)
- Universidad Autónoma del Estado de México (México)

## 700+ Implementaciones



# Implementing ▼ Registered Products All Registered Products Implementation Statistics View By Specification Compliant Products Register Your Products

#### All Registered Products

Register now or update your product listing.

Implementation Statistics

228 Organizations

730 Products

341 OGC Compliant Listings

4253 Self-Registered Implementation Listings

## Colaboración y Coordinación











































#### Acuerdo





#### I. DESCRIPTION OF PROGRAM

- 1. The purpose of our relationship is to keep each other well informed of our respective activities and directions. so that our activities may be coordinated in such a way as to maximize the achievement of our respective mission and goals.
- 2. The appointed liaison of each Party shall generally keep each other informed of the planned activities, future direction and proposed initiatives and work product of his/her organization.
- 3. To help stimulate dialog on standards topics of mutual interest, OGC provides OSGeo with six one year Individual Memberships in the OGC at no charge, to be awarded to qualifying OSGeo members based on a selection process to be conducted by OSGeo.
- 4. OSGeo will collaborate with OGC to identify open source technologies that can be used as reference implementations for and to validate compliance tests developed for OGC adopted standards. For those reference implementations developed by OSGeo members that: 1) pass OGC Compliance test procedures, and 2) are selected for use by OGC as a reference implementation (or are among the two additional tests used by OGC to validate the Compliance test for public use), the OGC will waive the Trademark License fee associated with Compliance certification. This fee is typically paid by the developer on an annual basis. This waiver will remain in effect for that version of software.
- 5. OGC and OSGeo will work closely to coordinate with OGC membership regarding new standards and standards changes that may be required as a result of open source programs.







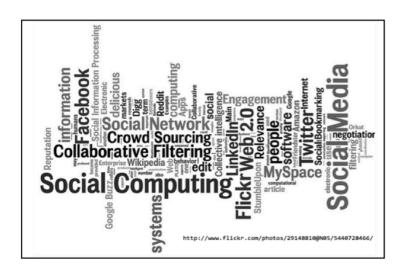
OSGeo will collaborate with OGC to identify open source technologies that can be used as reference implementations

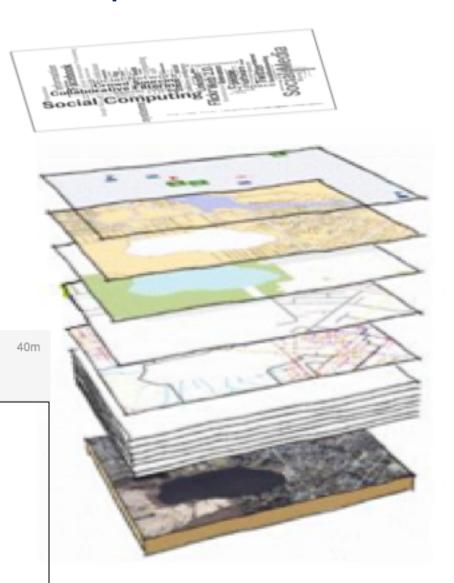
## Algunas Ventajas de ser Miembros

http://www.opengeospatial.org



#### Miembros Ponen Requerimientos





ncl svy002231080 @nclsvy002231080
Chapelle Jean Bosco in haiti inundated
Expand Reply 13 Retweet \* Favorite \*\*\* More

NGA GNS
Place name = Jean
Place type = ..:NGA:PPL
Gml:pos = 18.91 -72.58
(EPSG:4326)

# Miembros reciben financiamiento para avanzar prototipos

#### 2012

**GMU Participation in OGC OWS-9 Initiative** 

PI: Liping Di

Funding Agency: Open Geospatial Consortium

5/1/2012-12/31/2012.



May 14 - PYXIS is pleased to announce its selection to provide further support within Open Geospatial Consortium Open Web Services test bed...



52° North participates in the Aviation, CCI and CITE threads.

- Aviation: 52° North's task is to work on WPS implementation and documentation with respect to closing the gaps in the current specification. Particular focus is on ondemand processing of aviation data as an addition to the previously exercised data centric focus in the aviation domain.
- Cross-Community Interoperability (CCI): Data fusion and data provenance are the focus of 52° North's activities. 52° North tackles the problems of merging geometries from various data sources and documenting the original data sources.
- Compliance (CITE): Development of SOS 2.0 and SPS 2.0 reference implementations that will be tested to become reference implementations.

Commissioned/Funded by:Open Geospatial Consortium, Inc.

# Miembros pueden acceder a todos los recursos del Portal – Archivos

Go Back			
	File / Director Conducting Site-	_	
Title Contains:	cloud		
Creator Contains:		OGC #:	
Description Contains:		Artifact #:	
Search Directories:	Include    Exclude    Only Directories		
	Click for Advan	ced Search	
	Searc	:h	

2011 Reed RAL/RISA (IS in the Cloud Workshop

21030504 Mundodeo OOC Cloud

21 A cloud based peopatial computing infrastructure at a glance

22 A Companion of Platform as a Service (PasS) Clouds with a Detailed Reference

23 A Companion of Platform as a Service (PasS) Clouds with a Detailed Reference

24 Architecture Service

25 Cloud

26 Cloud Computing IPT

27 Companion of Cloud Computina Approches. Amazon Web Services vs. Coople

Apple Engine

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Apple Engine

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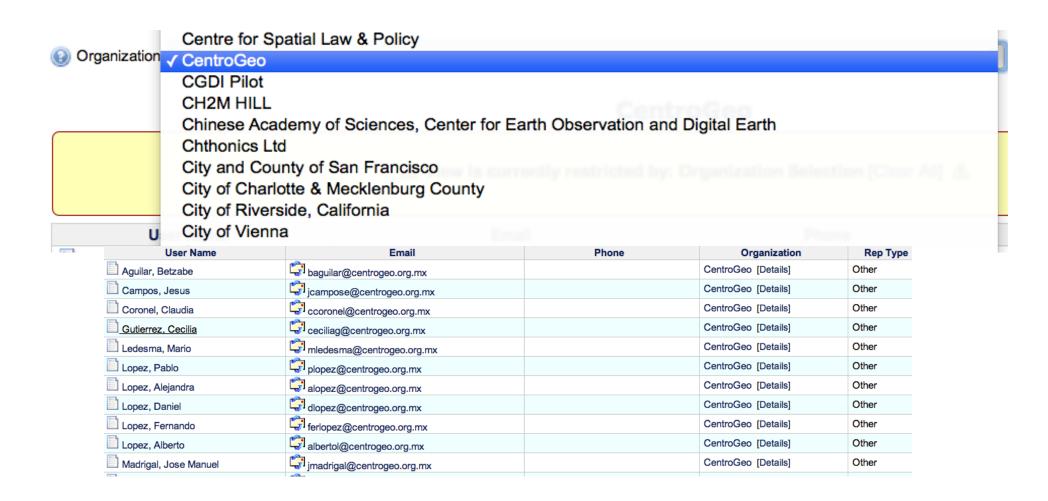
21 Coople Engine

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21 Coople E

Search found 31 files matching criteria Search found 5 directories matching criteria

# Miembros pueden acceder a todos los recursos del Portal 4000+ usuarios





Jump

#### http://external.opengis.org/twiki\_public/ILAFpublic

ILAFpublic

■ Log In or Register

**Toolbox** 

Reate New Topic

∃ Index

Search

Changes

Notifications

RSS Feed

Statistics

Preferences

Webs

AviationDWG

CATdiscuss

ClimateChallenge2009

GML

HydrologyDWG

ILAFpublic

JapanAssistance

Main

MassMarket

MetOceanDWG

NREwg

 $\triangle$ 

You are here: OGC Public Wiki > ILAFpublic Web > WebHome (02 Aug 2011, AthinaTrakas) Edit Attach



# Bienvenido a la web pública de OGC ILAF

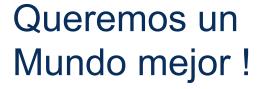
Bienvenidos a la wiki publica del Foro Iberico y Latino-Americano del Open Geospatial Consortium.

(Welcome to the public wiki of the Iberian and Latin-American Forum group of the Open Geospatial Consortium)

#### **Noticias**

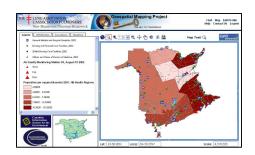
- OGC reduce cuotas de afiliación para organizaciones en paises en desarrollo. Ver Noticia y mas informaciones.
- INSPIRE nos invita a participar en una consulta sobre las recomendaciones del Spatial Data Services Working Group. Ver nuestra página de debate sobre INSPIRE.
- INSPIRE actualiza la documentación técnica sobre los Servicios de Localización y Visualización. Ver nuestra página de debate sobre INSPIRE.
- Presentación con las principales conclusiones de la reunión OGC ILAF del Día de la Interoperabilidad.
- Josep Lluís Colomer, Subdirector Técnico del Institut Cartogràfic de Catalunya, ha sido elegido miembro del Global Advisory Council ("the Council") de OGC.



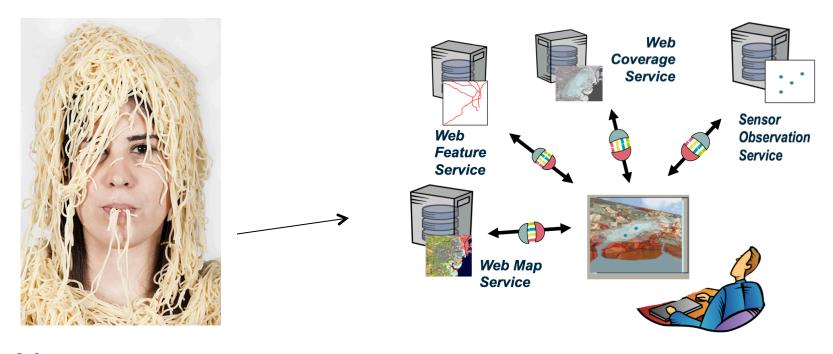




Participar



Integrar y publicar datos geospaciales



No estamos a favor de la estrategia espagueti

Usando Estandares Abiertos



Estandares Abiertos Abre Oportunidades



#### MINISTRY OF REGIONAL DEVELOPMENT AND PUBLIC WORKS

Sofia 1202, Bulgaria, St. St. Cyril and <u>Methodius</u> Str. 17-19 Tel:+ 359 2 9405 382, Fax:+ 359 2 987 07 37

Sofia, Bulgaria.

OUR REF.: PUI

SUBJECT: INV OF NATURE P THE BORDER



#### Ministry of Defence Defence Standard 00-102

**Issue 1 Publication Date 10 October 2008** 

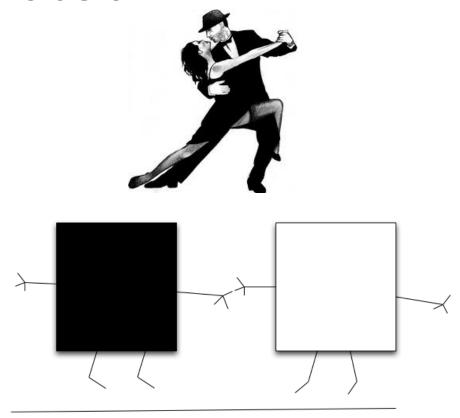
ANNEX H

	ANNEAT				
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130	All	OGC Web Coverage	This document specifies how a Web Coverage Service (WCS) serves to describe, request, and deliver multi-dimensional coverage data over the World Wide Web. This version of the Web Coverage Service is limited to		



Estandares Abiertos
Permiten que software
libre y libre y libre y abiertos y libre y abiertos... puedan

comunicarse entre si como una milonga



## Preguntas?

Ventajas de unirse al consorcio OGC http://www.opengeospatial.org/ogc/join/levels

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