GROUP ON
EARTH OBSERVATIONS
OPEN DATA
& OPEN KNOWLEDGE
Workshop

GROUP ON EARTH OBSERVATIONS

OSGeo: THE UNDERWATER PILLAR OF OPEN GEOKNOWLEDGE

Codrina Maria Ilie,
OSGeo Board of Directors member

About me

- Member of the Romanian geospatial community geo-spatial.org for more than 14 years
- Vice-president of Romanian OSGeo Local Chapter geo-spatial.org since 2015
- OSGeo Charter Member since 2013
- OSGeo elected director in the board (2020 - 2022, 2022 - 2024)
- Open Knowledge International Foundation collaborator since 2014
- GIS/RS scientist at TERRASIGNA since 2016

OSGeo

GEO GROUP ON EARTH OBSERVATIONS

Open Source Geospatial Foundation

Empower everyone with open source geospatial

Wait a second...! Open Source in this session, on Private Sector, VHR & Cloud Providers ?!

Free and Open Source Software Characteristics

- Software is created and maintained by a group of people
- Typically, managed by an “Executive Editor” of the project
- Source code of software is freely available to use and change
- Use of software is governed by an “open license”
- Software is generally available free of license charges

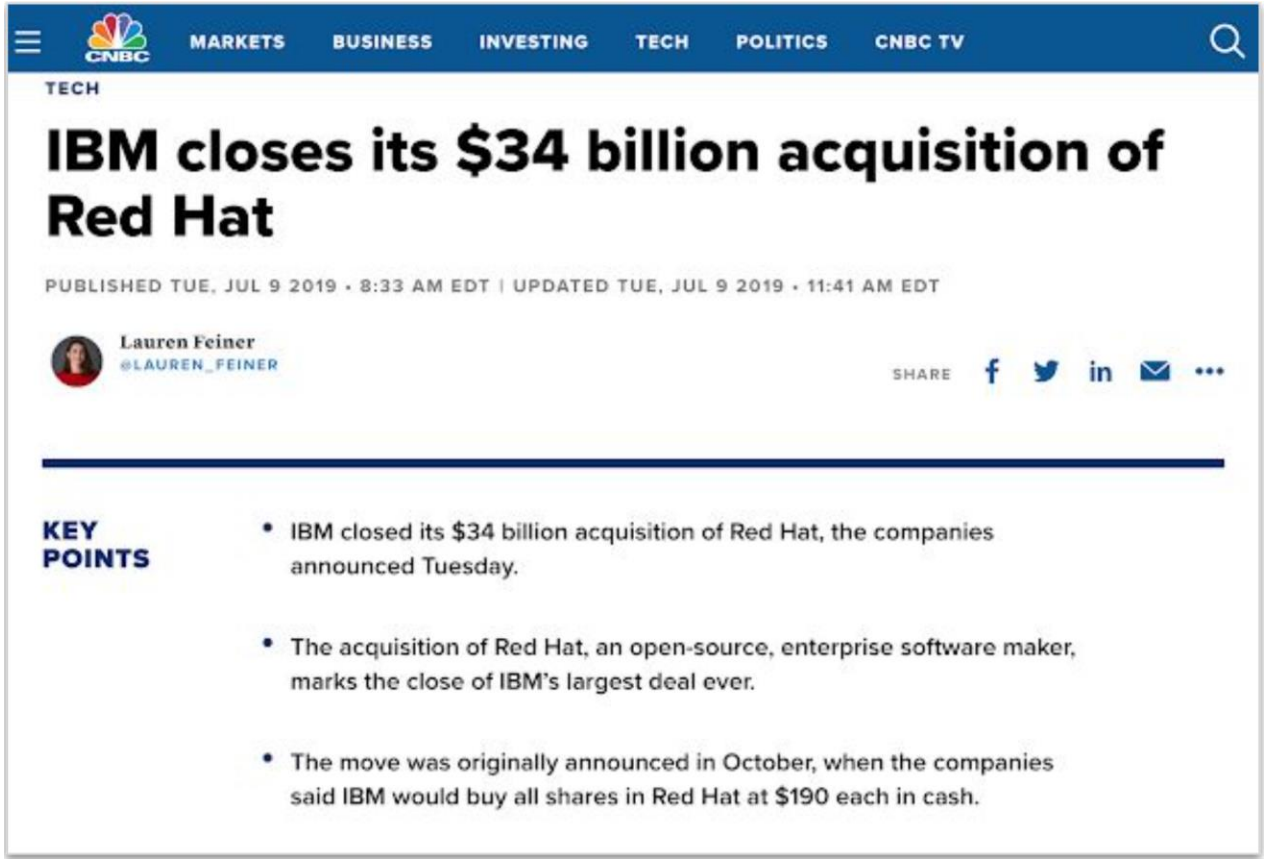
Slide credits: “Is it wrong to make money with FOSS4G technology?” talk at FOSS4G 2022 by Michael Terner, michael.terner@hexagon.com, @ternergeo

Free & Open Source Software for Geospatial	Free Puppies
Hardware/Cloud to run your FOSS4G software	Food
Your time to read and install software; and periodic software updates	Veterinary care
	Equip: leash, food bowl, dog bed, etc.
Obtaining specialized expertise for complex situations and/or problem solving; etc., etc.	Toys; etc., etc.

Slide credits: “Is it wrong to make money with FOSS4G technology?” talk at FOSS4G 2022 by Michael Terner, michael.terner@hexagon.com, @ternergeo

Open Source Software **is** Big Business

What happens in tech, influences geo



CNBC MARKETS BUSINESS INVESTING TECH POLITICS CNBC TV

TECH

IBM closes its $34 billion acquisition of Red Hat

PUBLISHED TUE, JUL 9 2019 • 8:33 AM EDT | UPDATED TUE, JUL 9 2019 • 11:41 AM EDT

Lauren Feiner
@LAUREN_FEINER

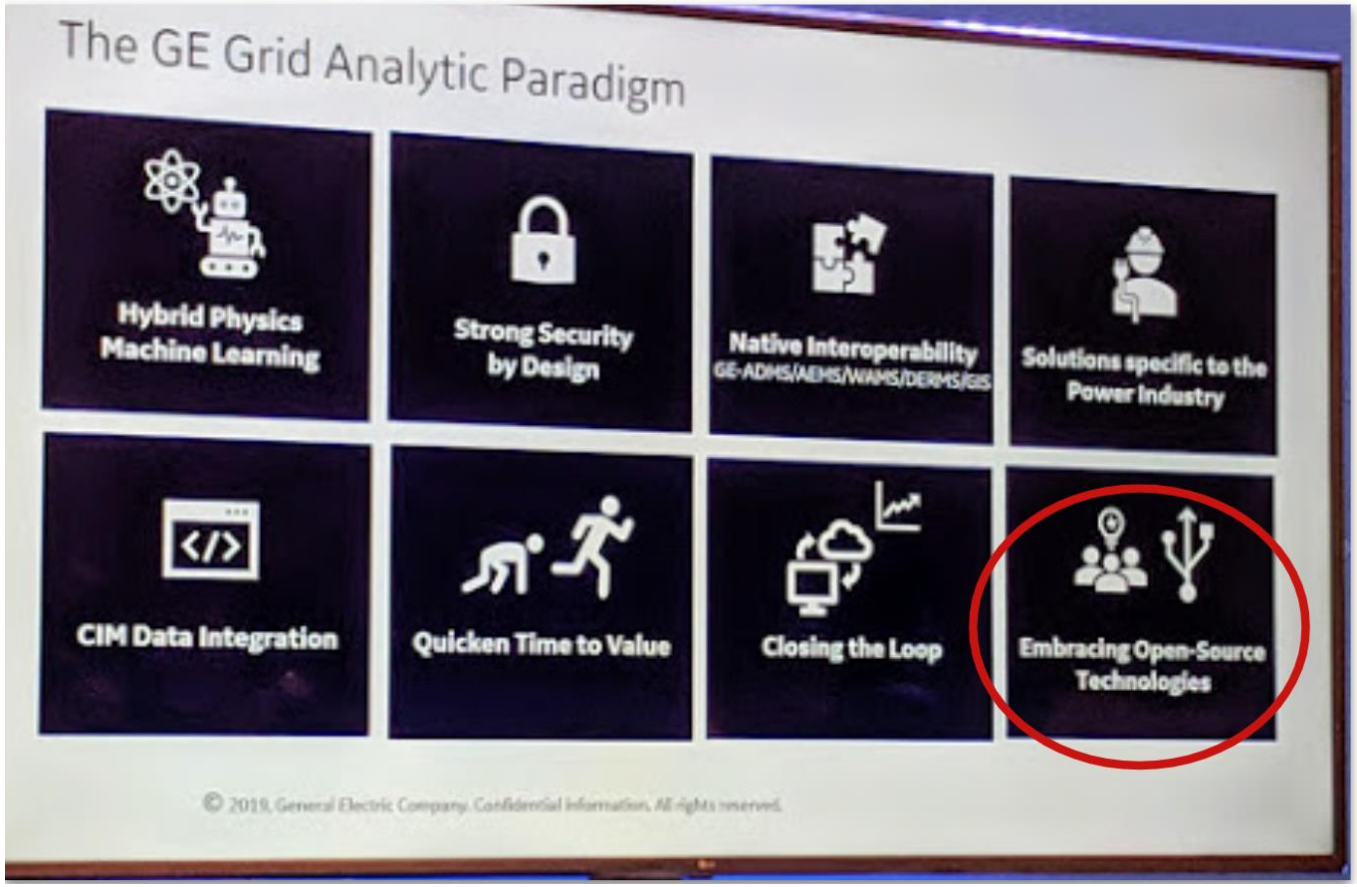
SHARE

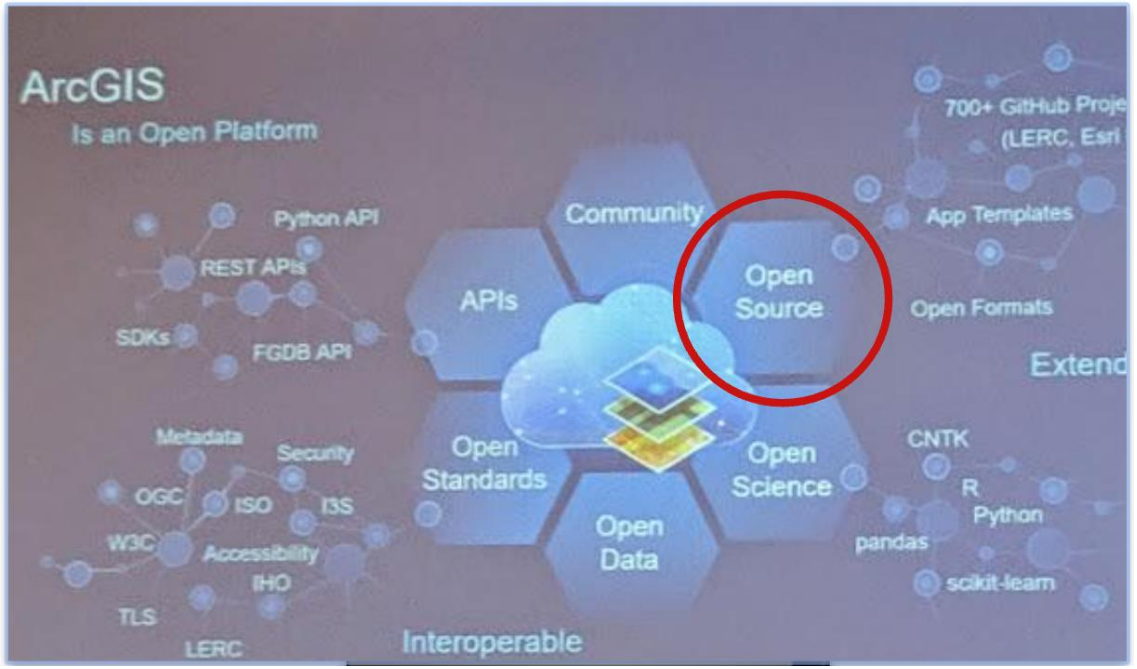
KEY POINTS

- IBM closed its $34 billion acquisition of Red Hat, the companies announced Tuesday.
- The acquisition of Red Hat, an open-source, enterprise software maker, marks the close of IBM's largest deal ever.
- The move was originally announced in October, when the companies said IBM would buy all shares in Red Hat at $190 each in cash.

Slide credits: "Is it wrong to make money with FOSS4G technology?" talk at FOSS4G 2022 by Michael Terner, michael.terner@hexagon.com, @ternergeo

Why Open Source in the private sector?





Because there's **increasing customer interest** in these technologies/approaches.

Slide credits: "Is it wrong to make money with FOSS4G technology?" talk at FOSS4G 2022 by Michael Terner, michael.terner@hexagon.com, @ternergeo

OSGeo

esa

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ESA UNCLASSIFIED – For Official Use

esa

2016

tep thematic exploitation platform

DOCUMENT

Request for Information

EO Exploitation
Network of Platforms
Architecture”

ESA OPEN SOURCE POLICY

Open Source Software (OSS) is computer software recognised by the Open Source Initiative (OSI), whose source code is made available under a copyright licence that allows users to use, study, change, and improve the software, and to redistribute it in a modified or unmodified form.

The use of OSS world-wide has increased significantly in the last decade to the point that OSS plays today an essential role in all industrial sectors and government, including space and defence.

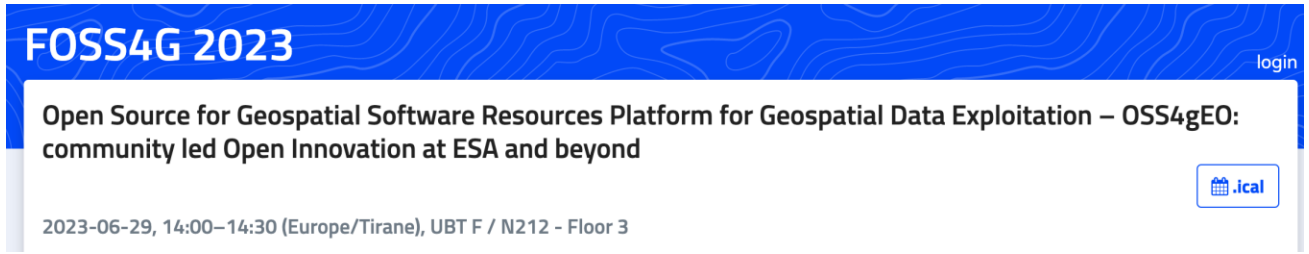
This trend is due to the generally perceived benefits of OSS, namely:

- increases software quality;
- reduces development and maintenance costs for the individual users;
- avoids vendor lock-in;
- facilitates rapid evolution of the software;
- encourages reuse of software;
- fosters industrial competitiveness;
- develops lucrative consulting, training and support services offering.

SS4gE

2023

EOEPCA
BETTER ACCESS TO EARTH OBSERVATION



Infrastructure for Spatial Information in Europe

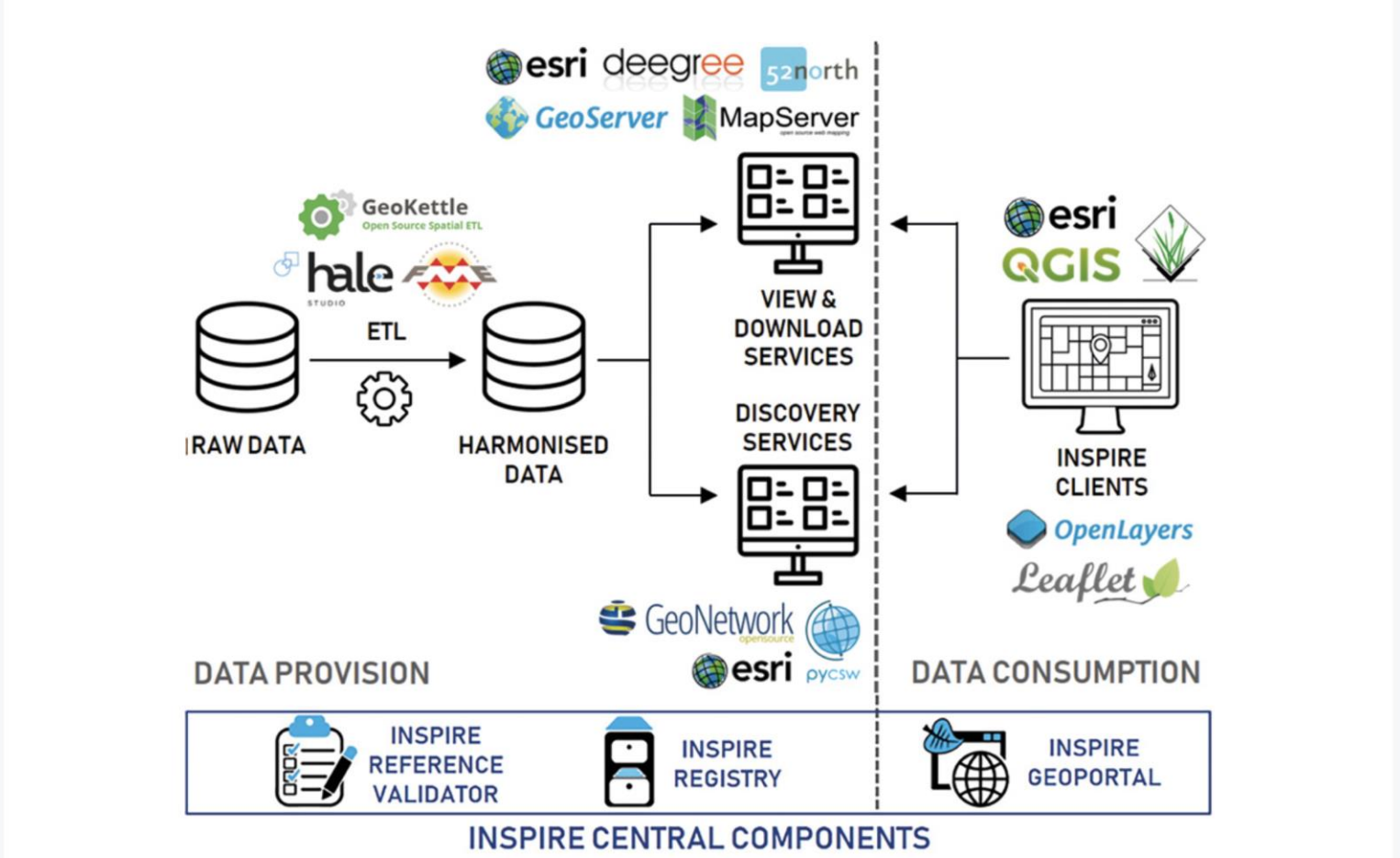
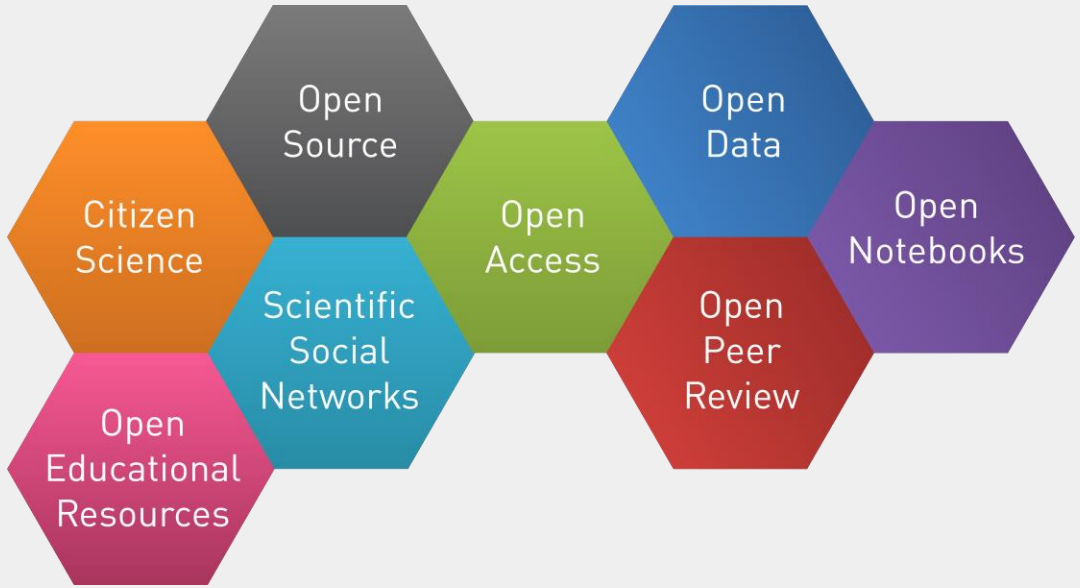


Figure 11. Overview of frequently used software tools for the provision (left) and the consumption (right) of INSPIRE data

Source: JRC, 2021.


Open Source
Open Data
Citizen Science
Open Access
Open Notebooks
Scientific Social Networks
Open Peer Review
Open Educational Resources

NASA SCIENCE
SHARE THE SCIENCE
Science Topics
News
For Researchers
Learners
Get Involved
Citizen Science
About Us
For Researchers
Overview
FAQ
Solicitations
SMD Bridge Program
ROSES Blog
NAC Science Committee
NASA Postdoc Program
More
OPEN-SOURCE SCIENCE INITIATIVE
Overview
Why Do Open Science?
Transform to Open Science (TOPS)
SMD AI Initiative
Core Data and Computing Services Program
Transform to Open Science (TOPS)
The Transform to Open Science (TOPS) mission is a NASA initiative designed to rapidly transform agencies, organizations, and communities to an inclusive culture of open science. TOPS is part of NASA's Open-Source Science Initiative. NASA's TOPS mission will allow us to create a scientific culture that is ready for 21st century challenges.
Strategic Objectives
Open Science creates more advanced and inclusive research faster, builds a more just and equitable world, and ensures that minds from all walks of life can participate in science. TOPS is NASA's ambitious plan to accelerate open science practices. It's a 5 year journey that will:
Accelerate major scientific discoveries
Broaden participation by historically excluded communities
Increase understanding and adoption of open science principles and techniques
TOPS
NASA
TOPS. (2022). Creative Commons Attribution 4.0 License.
https://doi.org/10.5281/zenodo.5225076

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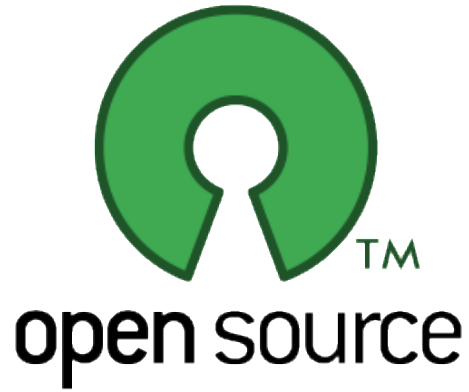
accumulo

HIVE

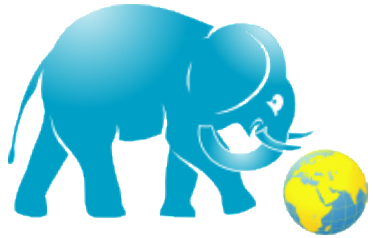
PostGIS

PostgreSQL

GeoServer


open source

cassandra



rasdaman
raster data management

APACHE
HBASE

R

hadoop

GeoTrellis

SNAP

Spark
mongoDB

OGC®
Making location count.

OSGeo

GEO GROUP ON EARTH OBSERVATIONS

Empower everyone with open source geospatial

- OSGeo is a not-for-profit software foundation
  - ***Provides*** *financial, organizational and legal support to the broader open source geospatial community.*
  - ***Mission*** *is to foster global adoption of open geospatial technology by being an inclusive software foundation devoted to an open philosophy and participatory community driven development.*
  - ***Serves*** *as an independent legal entity to which community members can contribute code, funding and other resources, secure in the knowledge that their contributions will be maintained for public benefit.*

2001 – OSSIM initial revision in CVS

PostGIS started

GeoNetwork opensource started

GeoServer started

2002 – Quantum GIS initial revision in CVS

GEOS initial revision in CVS

2003 – Community MapBuilder started. End of life in 2008

Release of Mapbender under the GNU GPL license

gvSIG was started

2004 – uDig was started

2005 – MapGuide Open Source

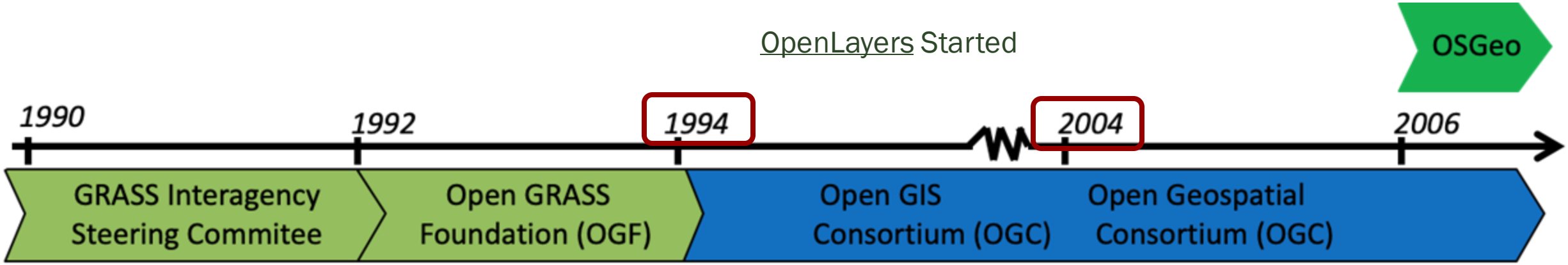
2006 – Mapbender gets first bits in CVS

OpenLayers Started

CVS

SVN

GIT



Slide credits: Graphics by Markus Neteler, Ten years of OSGeo , XVII Meeting degli utenti italiani di GRASS e GFOSS, Parma, 11-12 Feb 2016

Projects: osgeo.org/projects/

- OSGeo projects:
  - *official projects passed graduation through incubation committee*
  - ***21 projects** (+1 heritage project)*

- Community projects
  - *the barrier for community projects is lower than for official ones, but they also need confirmation by incubation committee*
  - ***28 community** projects*

OSGeo Projects

OSGeo Projects ›

Community projects ›

View all projects ›

Choose a project ›

OSGeo Projects

Content Management Systems
GeoNode

Desktop Applications
Marble
gvSIG Desktop
QGIS Desktop
GRASS GIS

Geospatial Libraries
PROJ
GeoTools
Orfeo ToolBox
GDAL/OGR
GEOS

Metadata Catalogs
GeoNetwork
pycsw

Other
OSGeoLive

Spatial Databases
PostGIS

Web Mapping
pygeoapi
MapServer
deegree
OpenLayers
GeoMoose
Mapbender
PyWPS
GeoServer

OSGeo Community Projects

OSGeo Projects ›

Community projects ›

View all projects ›

Choose a project ›

Community projects

Desktop Applications

OSGeo4W

Opticks

Geospatial Libraries

PROJ-JNI

GeoStyler

Open Data Cube

Mesh Data Abstraction Library (MDAL)

actinia

Pronto Raster

OWSLib

FDO

OSSIM

pgRouting

Metadata Catalogs

Other

GeoServer Client PHP Loader

GeoHealthCheck

Portable GIS

TEAM Engine

Spatial Databases

Giswater

MobilityDB

rasdaman

Web Mapping

GeoExt

GC2/Vidi

GeoWebCache

MapGuide Open Source

mapfish

Geomajas

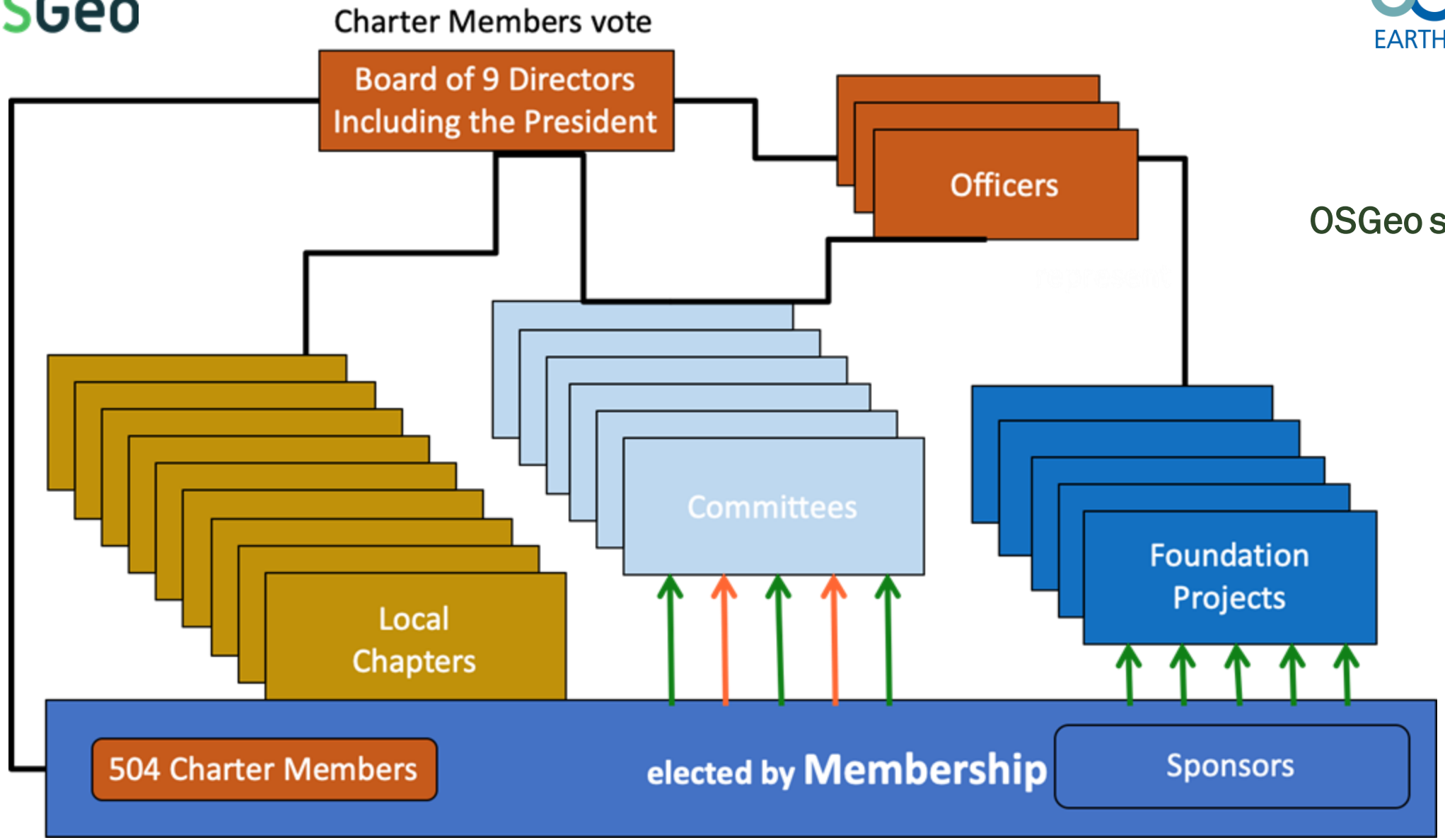
ZOO-Project

istSOS

OSGeo

GEO GROUP ON EARTH OBSERVATIONS

OSGeo structure



Slide credits: Graphics by Markus Neteler, Ten years of OSGeo , XVII Meeting degli utenti italiani di GRASS e GFOSS, Parma, 11-12 Feb 2016. Updated 2022

- Working with our partners:

  - ***Open Source:*** *a collaborative approach to software development.*
  - ***Open Data:*** *freely available information to use as you wish*
  - ***Open Standards:*** *avoid lock-in with interoperable software*
  - ***Open Education:*** *removing the barriers to learning and teaching*
  - ***Open Science:*** *share data and software for responsible research*

OSGeo - Google Summer of Code

https://wiki.osgeo.org/wiki/Google_Summer_of_Code_2022_Ideas

Google Summer of Code 2022 Ideas

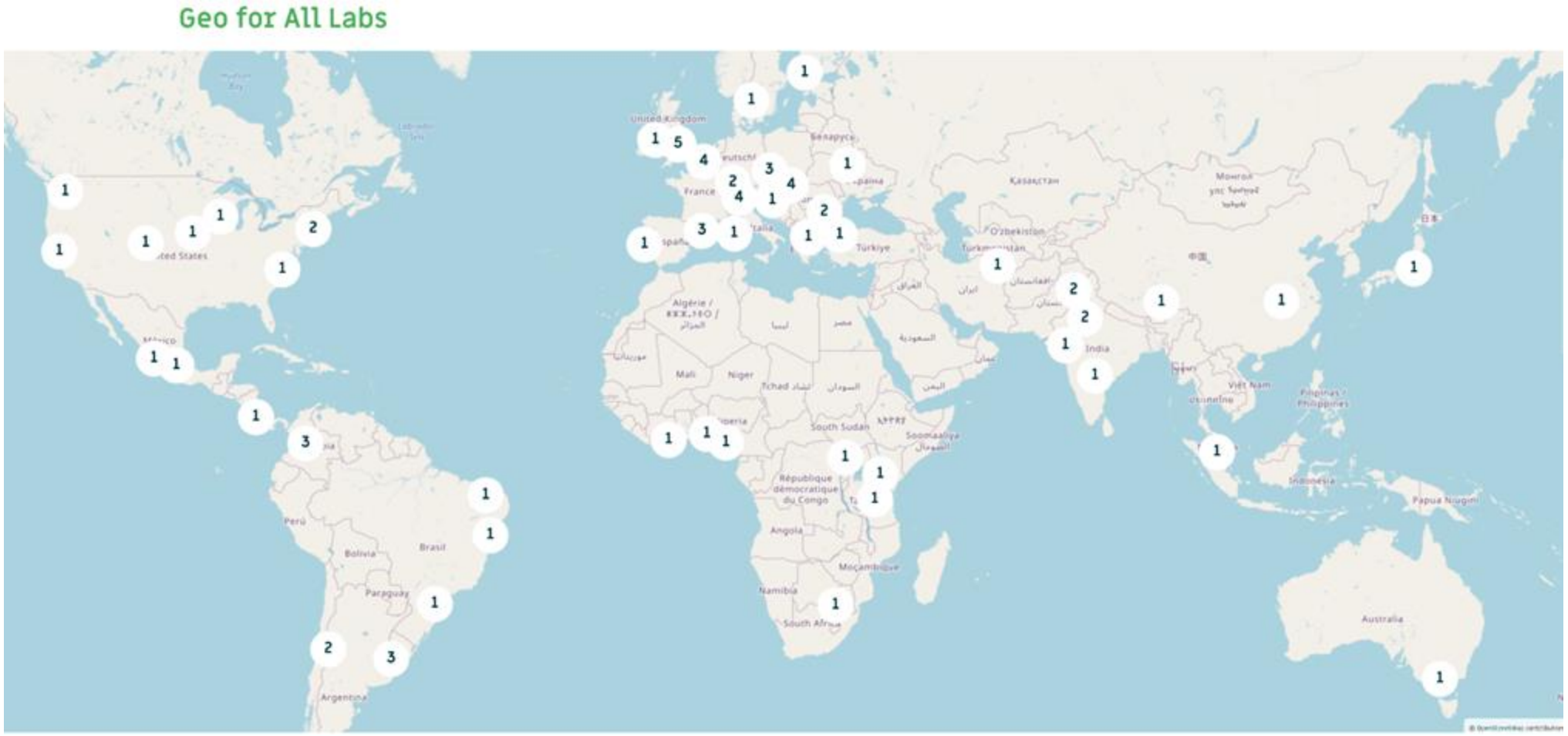
Google Summer of Code @ OSGeo

- Back to the main OSGeo Google Summer of Code 2022 wiki page.
- See also ideas from 2021,2020, 2019, 2018, 2017, 2016, 2015, 2014, 2013, 2012, 2011, 2010, 2009, 2008, 2007.

OSGeo - United Nations

https://www.osgeo.org/foundation-news/2021-osgeo-un-committee-educational-challenge/

https://www.osgeo.org/initiatives/geo-for-all/



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Memorandum of Understanding

OGC® Making location count.

isprs

AGILE Association of Geographic Information Laboratories in Europe

U.S. DEPARTMENT OF THE INTERIOR · MARCH 3, 1849 ·

HOT

youthmappers

AGU100 ADVANCING EARTH AND SPACE SCIENCE

SCITECH PARK

GLTN GLOBAL LAND TOOL NETWORK

TIB AV-PORTAL

ICA ACI International Cartographic Association Association Cartographique Internationale

University Consortium for GEOGRAPHIC INFORMATION SCIENCE

LH KOREA LAND & HOUSING CORPORATION

IGU UGI

OSGeo

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Projects Resources About OSGeo Initiatives Community

Foundation News Collaboration with Group on Earth Observations (GEO)

Back to news

GEO FOSS4G

Collaboration with Group on Earth Observations (GEO)

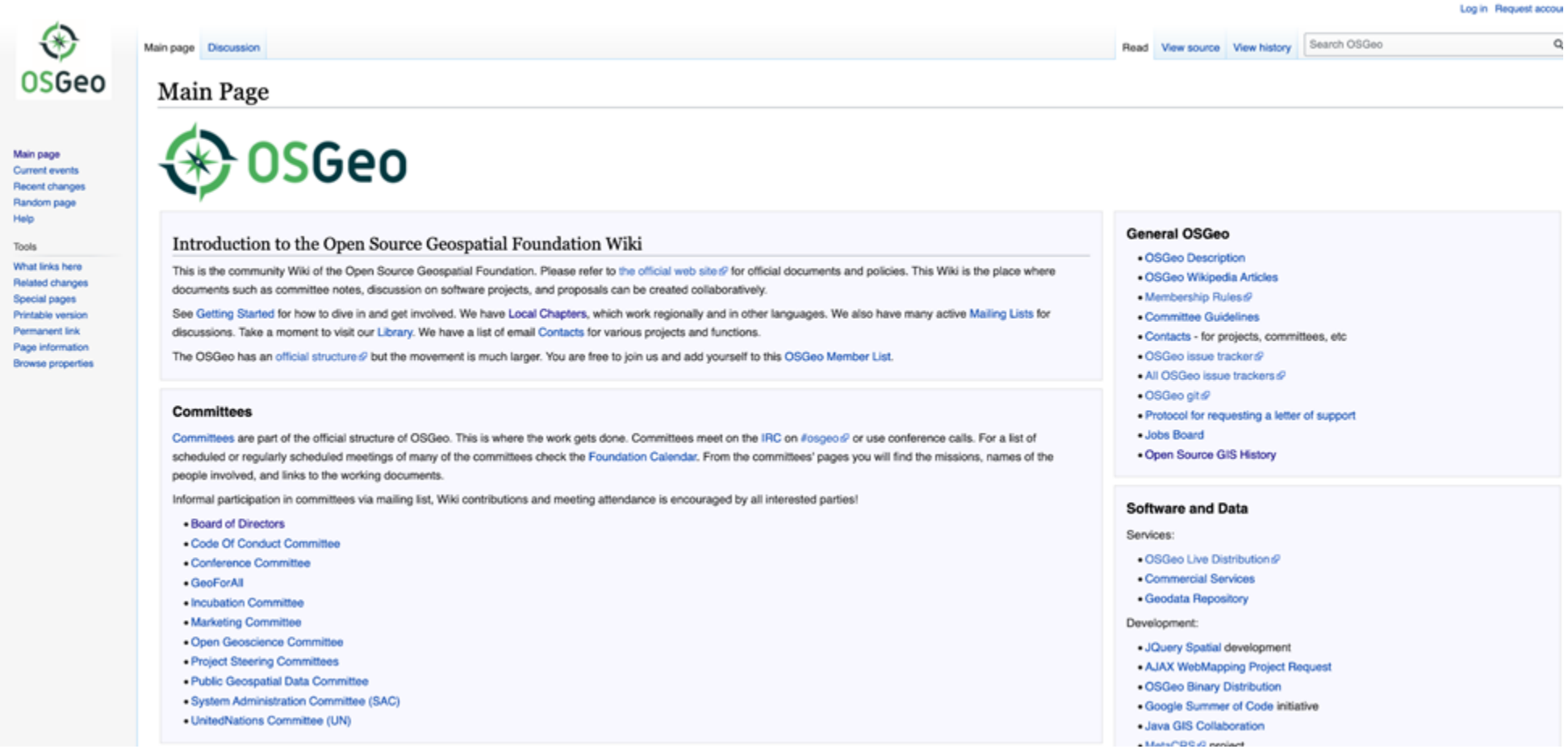
The Group on Earth Observations (GEO) and the Open Source Geospatial Foundation (OSGeo) are collaborating around their shared visions of openness. For GEO this means open data, open standards, and open science; for OSGeo this means free and open source software.

2021-04-21

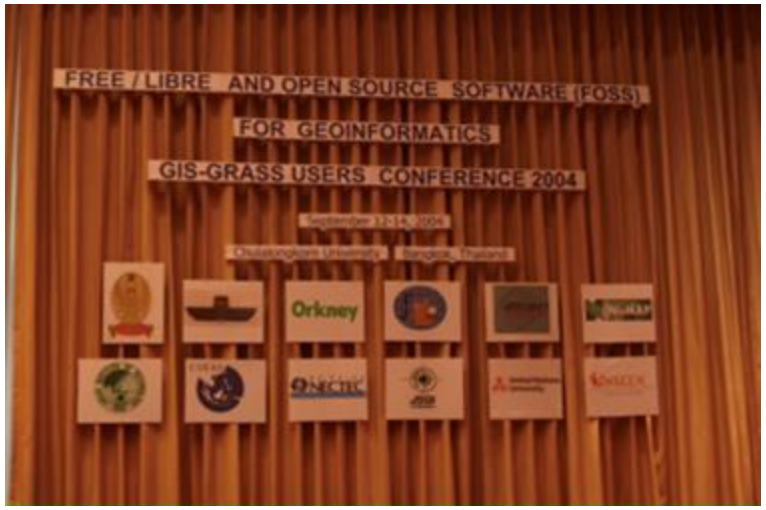
Share this

Traceability & Transparency

Meetings agenda & minutes - IRC/ Jitsi
https://wiki.osgeo.org/wiki/Board_of_Directors#Board_Activities_and_Meetings
Decisions : https://www.loomio.org/g/kdSmIwxu/osgeo-board
Budget - https://wiki.osgeo.org/wiki/OSGeo_Budget_2023



May the FOSS be with you!



https://gisws.media.osaka-cu.ac.jp/grass04/

2006 Lausanne (Switzerland), 2007 Victoria (Canada), 2008 Cape Town (South Africa), 2009 Sydney (Australia), 2010 Barcelona (Spain), 2011 Denver (United States of America), 2013 Nottingham (United Kingdom), 2014 Portland (United States of America), 2015 Seoul (South Korea), 2016 Bonn (Germany), 2017 Boston (United States of America), 2018 Dar es Salaam (Tanzania), 2019 Bucharest (Romania), 2021 Buenos Aires (Argentina), 2022 Firenze (Italy), **2023 Prizren (Kosovo)**

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GEO GROUP ON EARTH OBSERVATIONS

FOSS4G 2019,

Bucharest, Romania

OSGeo

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INNOVATIVE SOLUTIONS BY OPEN SOURCE EXPERTS

GEOCAT
GOVERNMENT GEOGRAPHIC DATA PUBLISHING

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terrestris

Bronze sponsors

MAMMOTH
GEOSPATIAL

Büro für Geoinformatik
meggsimum

Kaplan
Open Source

LINE 45

CHARTWELL

How 2 Map

“We are a Do-Ocracy”

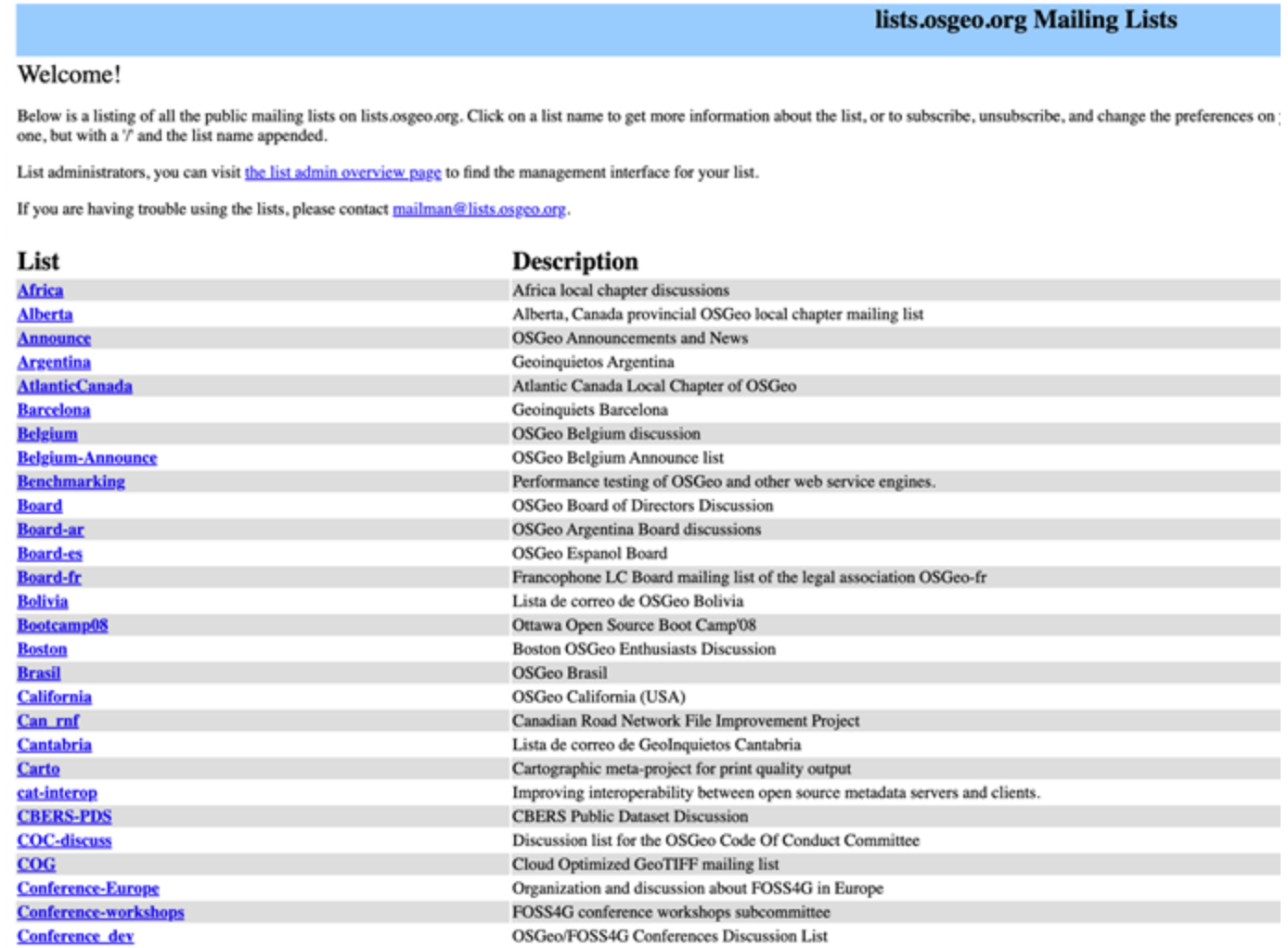
- Join/contribute to a Project: code, sponsorship, documentation writing, translations, presentations/workshops, bug reports, use in classroom etc.
- Join a committee
- Join an initiative (GeoForAll, GSoC, Travel Grant, Standards)
- Host/organize events (code sprints)
- Outreach: Help maintain the web site, contact governments/organizations to promote FOSS.
- Get involved in Partnership buildup (e.g. Sponsorship, Standards, OGC, MOUs)
- Join/build Local Chapters

Thank you!

@codrinal
codrina@geo-spatial.org

discuss@lists.osgeo.org

https://twitter.com/OSGeo



lists.osgeo.org Mailing Lists

Welcome!

Below is a listing of all the public mailing lists on lists.osgeo.org. Click on a list name to get more information about the list, or to subscribe, unsubscribe, and change the preferences on
one, but with a '/' and the list name appended.

List administrators, you can visit the list admin overview page to find the management interface for your list.

If you are having trouble using the lists, please contact mailman@lists.osgeo.org.

List	Description
Africa	Africa local chapter discussions
Alberta	Alberta, Canada provincial OSGeo local chapter mailing list
Announce	OSGeo Announcements and News
Argentina	Geoinquietos Argentina
AtlanticCanada	Atlantic Canada Local Chapter of OSGeo
Barcelona	Geoinquiets Barcelona
Belgium	OSGeo Belgium discussion
Belgium-Announce	OSGeo Belgium Announce list
Benchmarking	Performance testing of OSGeo and other web service engines.
Board	OSGeo Board of Directors Discussion
Board-ar	OSGeo Argentina Board discussions
Board-es	OSGeo Espanol Board
Board-fr	Francophone LC Board mailing list of the legal association OSGeo-fr
Bolivia	Lista de correo de OSGeo Bolivia
Bootcamp08	Ottawa Open Source Boot Camp'08
Boston	Boston OSGeo Enthusiasts Discussion
Brasil	OSGeo Brasil
California	OSGeo California (USA)
Can_rnf	Canadian Road Network File Improvement Project
Cantabria	Lista de correo de GeoInquietos Cantabria
Carto	Cartographic meta-project for print quality output
cat-interop	Improving interoperability between open source metadata servers and clients.
CBERS-PDS	CBERS Public Dataset Discussion
COC-discuss	Discussion list for the OSGeo Code Of Conduct Committee
COG	Cloud Optimized GeoTIFF mailing list
Conference-Europe	Organization and discussion about FOSS4G in Europe
Conference-workshops	FOSS4G conference workshops subcommittee
Conference_dev	OSGeo/FOSS4G Conferences Discussion List