

A hand is shown holding a glowing blue wireframe globe, which is superimposed over a laptop screen. The background is a blurred image of a person's arm and hand reaching towards the laptop. The text is overlaid on the left side of the image.

OPEN DATA & OPEN KNOWLEDGE Workshop

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™](http://TERRASIGNA.com) since 2016



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



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 Turner, michael.turner@hexagon.com, @ternergeo

Open Source Software is Big Business

What happens in tech, influences geo



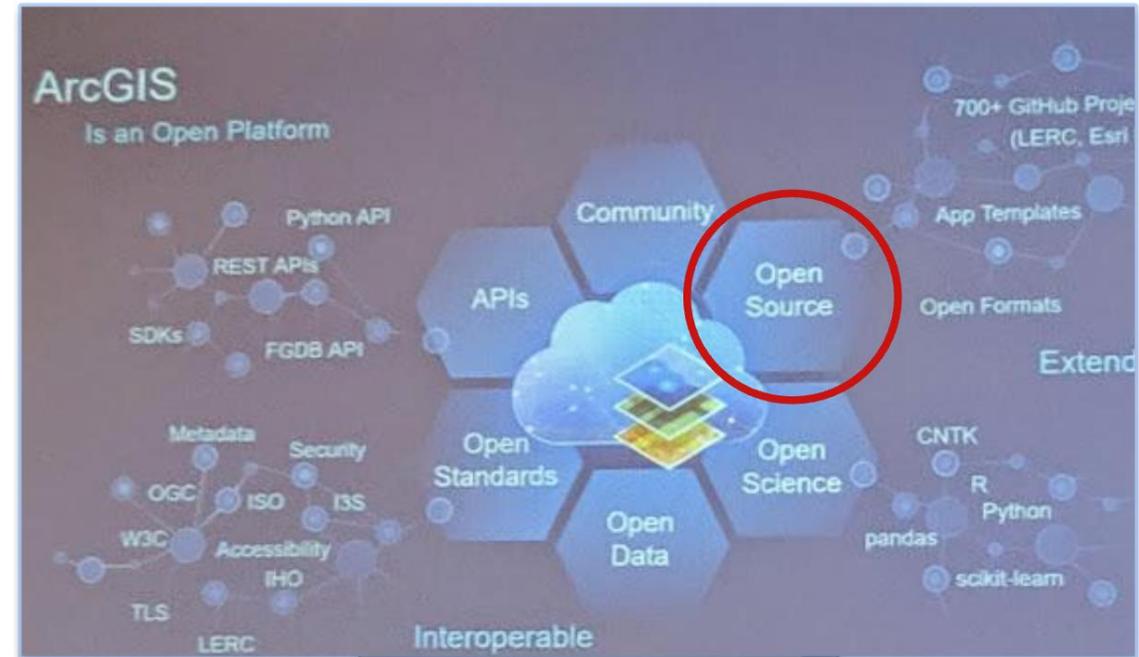
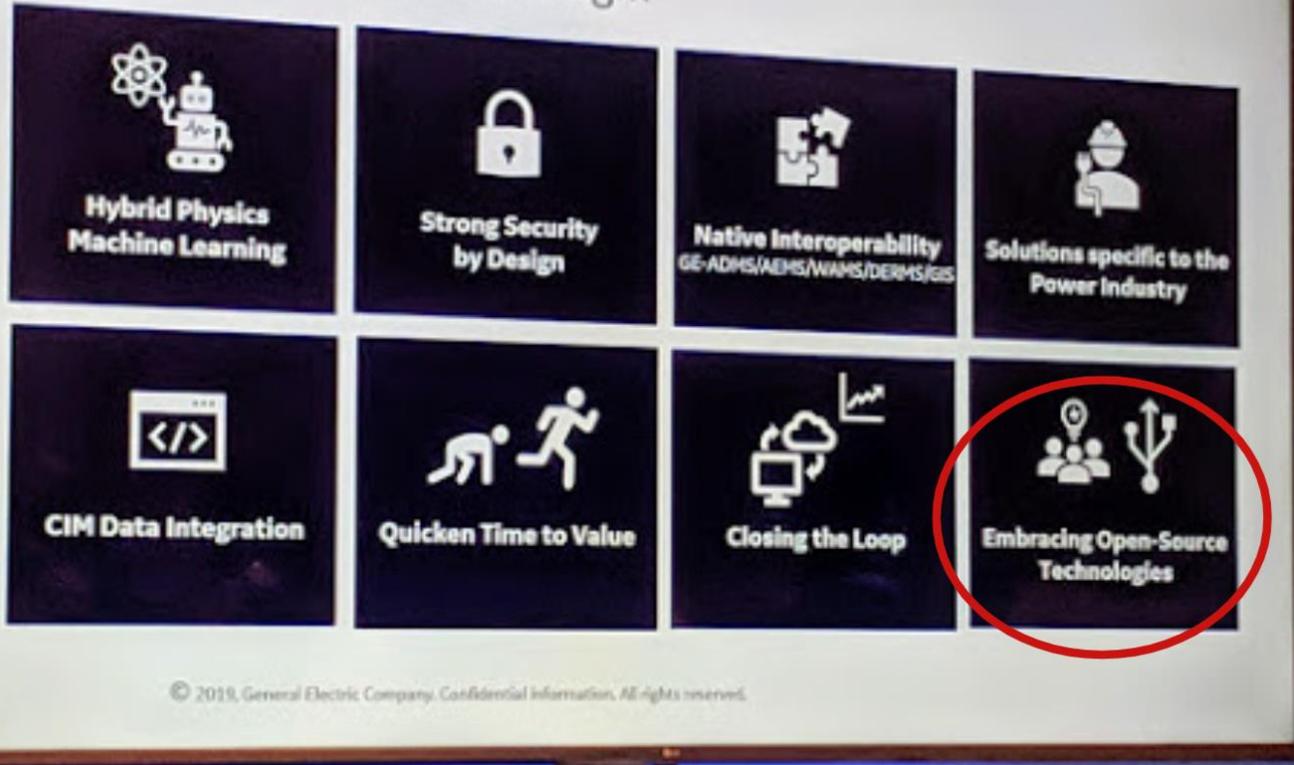
The screenshot shows a CNBC article page. At the top, there is a navigation bar with categories: MARKETS, BUSINESS, INVESTING, TECH, POLITICS, and CNBC TV. The article is categorized under 'TECH'. The main headline is 'IBM closes its \$34 billion acquisition of Red Hat'. Below the headline, it says 'PUBLISHED TUE, JUL 9 2019 • 8:33 AM EDT | UPDATED TUE, JUL 9 2019 • 11:41 AM EDT'. The author is Lauren Feiner (@LAUREN_FEINER). There are social media share icons for Facebook, Twitter, LinkedIn, and Email. Below the article, there is a 'KEY POINTS' section with three bullet 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 Turner, michael.turner@hexagon.com, @ternergeo

Why Open Source in the private sector?

The GE Grid Analytic Paradigm



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 Turner, michael.turner@hexagon.com, @turnergeo

ESA UNCLASSIFIED – For Official Use



2016



DOCUMENT

Request for Information

EO Exploitation Network of Platforms Architecture”



2023



04/07/2023



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.



FOSS4G 2023

login

Open Source for Geospatial Software Resources Platform for Geospatial Data Exploitation – OSS4gEO: community led Open Innovation at ESA and beyond



2023-06-29, 14:00–14:30 (Europe/Tirane), UBT F / N212 - Floor 3



Infrastructure for Spatial Information in Europe

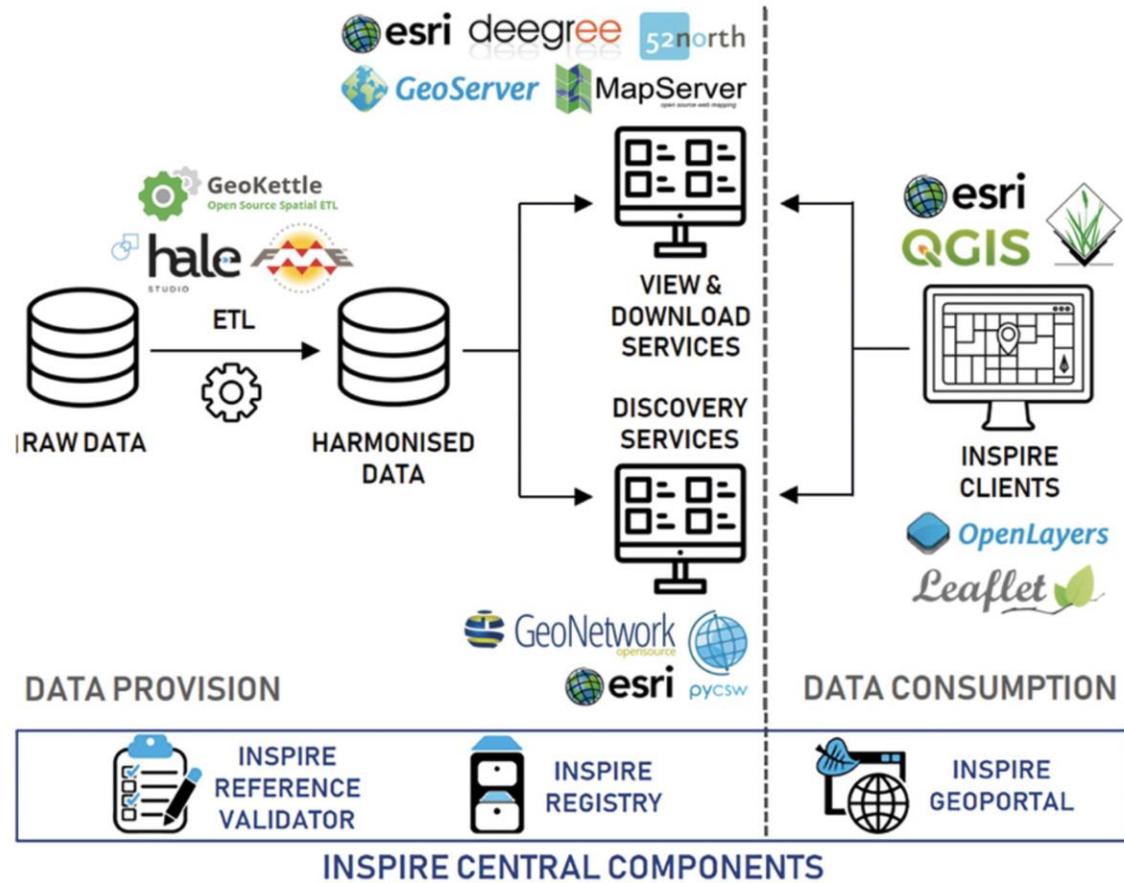
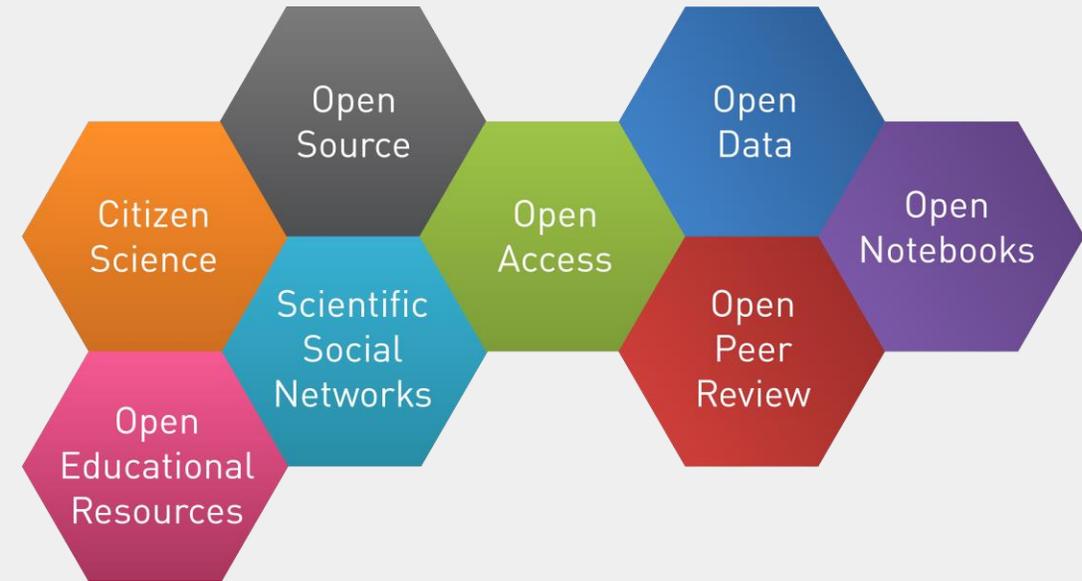


Figure 11. Overview of frequently used software tools for the provision (left) and the consumption (right) of INSPIRE data

Source: JRC, 2021.




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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.

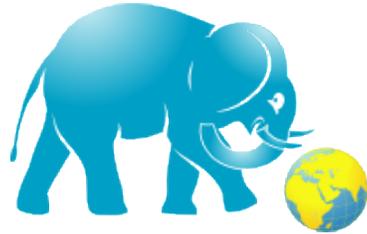
Strategic Objectives

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. (2022). Creative Commons Attribution 4.0 License. <https://doi.org/10.5281/zenodo.5225076>



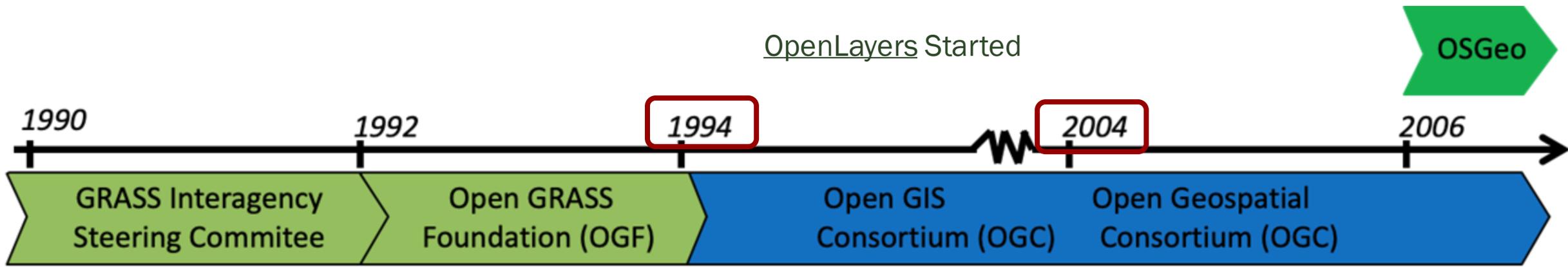


Empower everyone with open source geospatial

- 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](#) >

[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

Web Mapping

pygeoapi

MapServer

deegree

OpenLayers

GeoMoose

Mapbender

PyWPS

GeoServer

Spatial Databases

PostGIS

[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

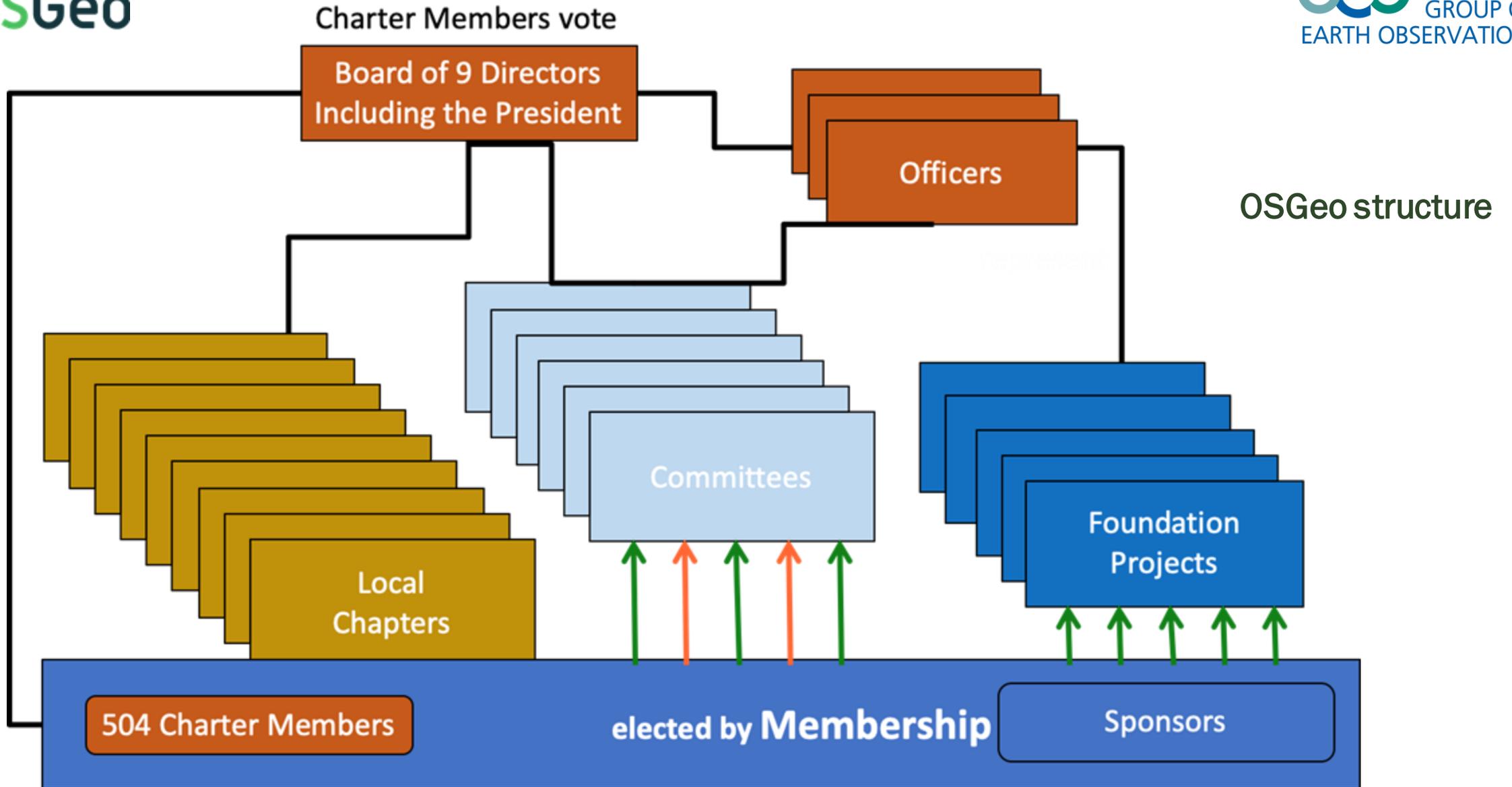
GeoServer Client PHP
Loader
GeoHealthCheck
Portable GIS
TEAM Engine

Spatial Databases

Giswater
MobilityDB
rasdaman

Web Mapping

GeoExt
GC2/Vidi
GeoWebCache
MapGuide Open Source
mapfish
Geomajas
ZOO-Project
istSOS



- 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 @



-
- [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/>



[News](#) [Wiki](#)

[Projects](#) ▾

[Resources](#)

[About OSGeo](#) ▾

[Initiatives](#) ▾

[Home](#) » [Foundation News](#) » [2021 OSGeo UN Committee Educational Challenge](#)

[← Back to news](#)

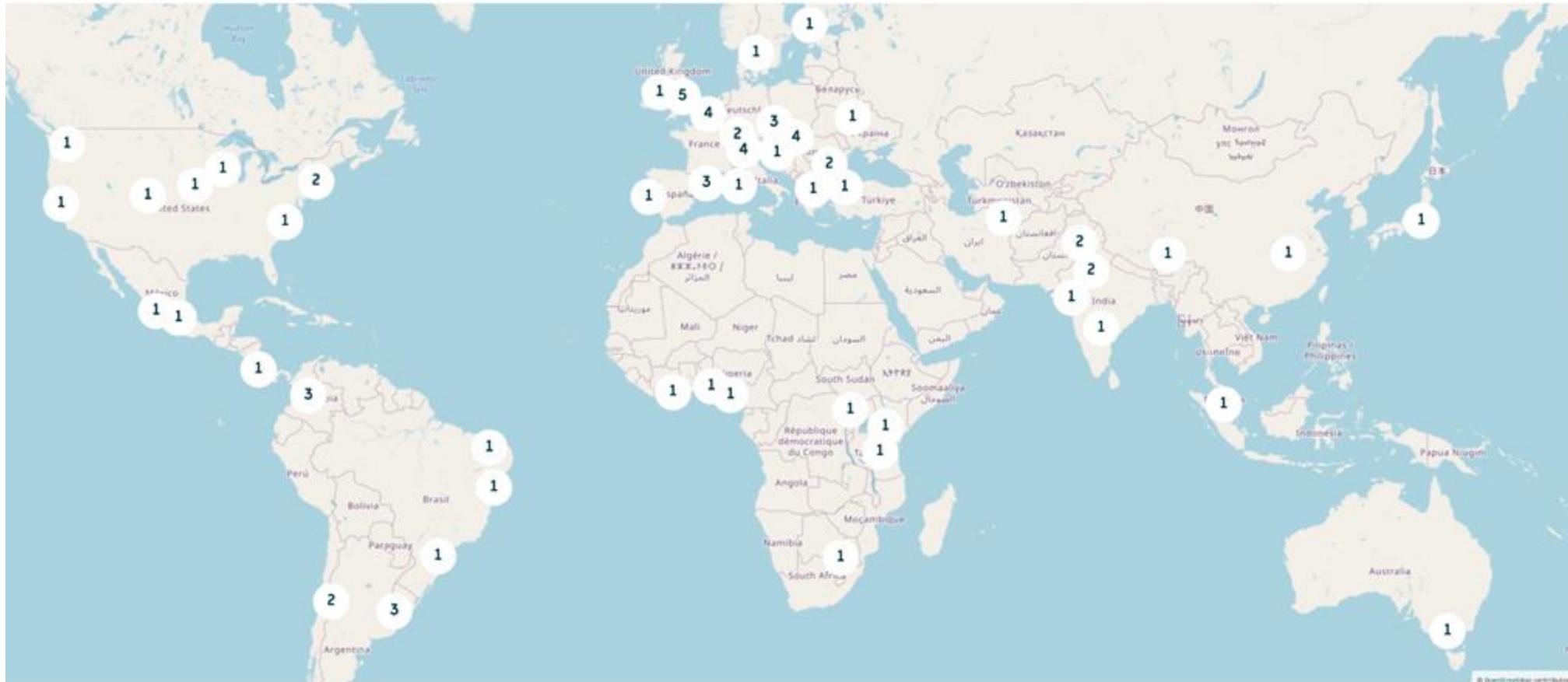
2021 OSGeo UN Committee Educational Challenge

Proposals are invited for developing open geospatial educational material for two challenges with a prize money of USD 3,000 each, sponsored by OSGeo.



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

Geo for All Labs





Memorandum of Understanding





[Foundation News](#) [Collaboration with Group on Earth Observations \(GEO\)](#)

[← Back to news](#)

Collaboration with Group on Earth Observations (GEO)

[GEO](#)[FOSS4G](#)

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

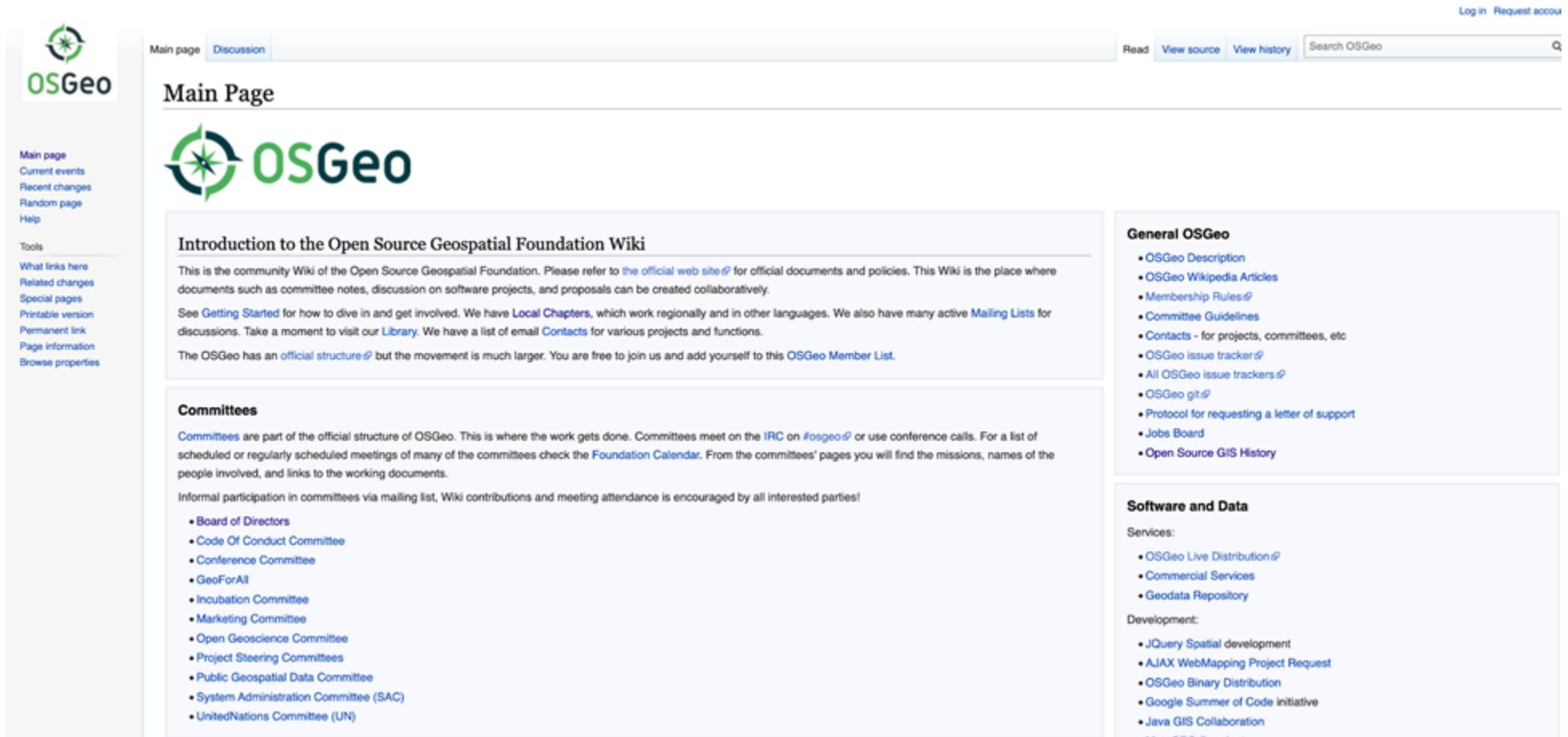
[Share this](#)

Meetings agenda & minutes - IRC/ Jitsi

https://wiki.osgeo.org/wiki/Board_of_Directors#Board_Activities_and_Meetings

Decisions : <https://www.loomio.org/g/kdSmlwxu/osgeo-board>

Budget - https://wiki.osgeo.org/wiki/OSGeo_Budget_2023



The screenshot shows the OSGeo Wiki Main Page. At the top right, there are links for "Log in" and "Request account", and a search bar labeled "Search OSGeo". Below the search bar are tabs for "Main page" and "Discussion". The main heading is "Main Page" with the OSGeo logo. The main content area is titled "Introduction to the Open Source Geospatial Foundation Wiki" and contains text about the community Wiki, official documents, and collaborative work. It also mentions "Getting Started" for new users, "Local Chapters", "Mailing Lists", and "Library". A note states that the OSGeo has an official structure but the movement is larger, and users are free to join and add themselves to the OSGeo Member List.

Committees

Committees are part of the official structure of OSGeo. This is where the work gets done. Committees meet on the IRC on #osgeo or use conference calls. For a list of scheduled or regularly scheduled meetings of many of the committees check the [Foundation Calendar](#). From the committees' pages you will find the missions, names of the people involved, and links to the working documents.

Informal participation in committees via mailing list, Wiki contributions and meeting attendance is encouraged by all interested parties!

- [Board of Directors](#)
- [Code Of Conduct Committee](#)
- [Conference Committee](#)
- [GeoForAll](#)
- [Incubation Committee](#)
- [Marketing Committee](#)
- [Open Geoscience Committee](#)
- [Project Steering Committees](#)
- [Public Geospatial Data Committee](#)
- [System Administration Committee \(SAC\)](#)
- [UnitedNations Committee \(UN\)](#)

General OSGeo

- [OSGeo Description](#)
- [OSGeo Wikipedia Articles](#)
- [Membership Rules](#)
- [Committee Guidelines](#)
- [Contacts](#) - for projects, committees, etc
- [OSGeo issue tracker](#)
- [All OSGeo issue trackers](#)
- [OSGeo git](#)
- [Protocol for requesting a letter of support](#)
- [Jobs Board](#)
- [Open Source GIS History](#)

Software and Data

Services:

- [OSGeo Live Distribution](#)
- [Commercial Services](#)
- [Geodata Repository](#)

Development:

- [jQuery Spatial development](#)
- [AJAX WebMapping Project Request](#)
- [OSGeo Binary Distribution](#)
- [Google Summer of Code initiative](#)
- [Java GIS Collaboration](#)
- [MetaOSGEO project](#)

Left sidebar:

- [Main page](#)
- [Current events](#)
- [Recent changes](#)
- [Random page](#)
- [Help](#)
- **Tools**
- [What links here](#)
- [Related changes](#)
- [Special pages](#)
- [Printable version](#)
- [Permanent link](#)
- [Page information](#)
- [Browse properties](#)

May the FOSS be with you!



Presented by FOSS/GRASS 2004 International Organizing Committee

Free/Libre and Open Source Software for Geoinformatics: GIS-GRASS Users Conference

Held at Chulalongkorn University
Department of Survey Engineering
Patumwan
Bangkok, Thailand
10330

September 12 - 14, 2004

ABOUT THE CONFERENCE

The Free/Libre and Open Source Software (FOSS) for Geoinformatics: GIS - GRASS Users Conference will be held in Bangkok, Thailand, 12-14 September 2004. An extended successor to a long series of GRASS-GIS Users Conferences (last held on September 2002 in Trento, Italy), the series will be in Asia for the first time. The conference joins GRASS developers and users worldwide to foster closer relations, and to share ideas for improving software and applications. (Unlike at closed-source software users meetings, anyone can turn findings of this meeting into new code and improved applications.) The Bangkok conference will cover all aspects of FOSS for Geoinformatics, in addition to GRASS itself. Thus the aim of the conference is twofold: (a) exchange of experiences between GRASS users and developers and (b) provide first-hand information on FOSS capabilities for developing national/local spatial data infrastructures, with emphasis on Asian countries. One unique aspect of the conference will be the **INSTALLFEST**. Bring your computer (or buy one in Bangkok), install GRASS and other geoinformatics software, and begin to use it, all at the conference!

Venue and Organizers

The conference is being organized by the Faculty of Engineering, Chulalongkorn University, Thailand, with support from several other institutions. The Organizing Committee includes prominent experts in FOSS for Geoinformatics.



<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)



FOSS4G 2019,
Bucharest, Romania



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Bronze sponsors



MAMMOTH
GEOSPATIAL



[How 2 Map](#)

- 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



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

Thank you!

@codrinal 

codrina@geo-spatial.org

discuss@lists.osgeo.org

<https://twitter.com/OSGeo>