



2016-11-09 JICA NSDI Seminar  
/ 2016-11-14 SSGCC

Presentation

on “coordination committee for NSDI in Japan”

# Geospatial Infrastructure and Open Innovation

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GSI International

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# Geospatial Information Authority of Japan (GSI)

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We're Japan's National Geospatial Information Authority



# Hello



**Hidenori  
FUJIMURA**

hfu

- [github.com/hfu](https://github.com/hfu)
- [facebook](#)



coordination

ownership

involvement

# coordination

# coordination

## History of Japan's coordination for NSDI

1	1995-01	Great Kobe earthquake
2	1995-09	Inter-ministerial committee on GIS
3	1996-	National Programs for GIS and NSDI
4	2002	Revision of Survey Act, to adopt ITRF94 (≒WGS84)
5	2003	GSI Maps (web maps by GSI) started
6	2007	<b>NSDI Act*</b> enacted * Basic Act on the Advancement of Utilizing Geospatial Information (地理空間情報活用推進基本法)
7	2008/2012	<b>NSDI Basic Plan** 2008-2012</b> ** Basic Plan for the Advancement of Utilizing Geospatial Information (地理空間情報活用推進基本計画)
8	2011-03	Great east Japan earthquake
9	2012/2016	<b>NSDI Basic Plan 2012-2016</b>
10	2016/	NSDI Basic Plan 2016- (in development)

# Structure of NSDI coordination based on NSDI Act

## NSDI Act

Article 9: The national government shall develop a NSDI Basic Plan. The national government shall also review the Plan.

Article 10: The national government shall make institutional arrangements for the cooperation among related administrative organizations ... for the development of NSDI Basic Plan and the implementation of policies based on the Plan.

## NSDI Basic Plan

Cabinet decision

## NSDI Steering Committee\*

\* Committee for  
the Advancement of Utilizing Geospatial  
Information



# 2 pillars of NSDI Act

## Geospatial Information

### Fundamental Geospatial Data

Disaster prevention facilities

Brittle houses

Residents who need supports

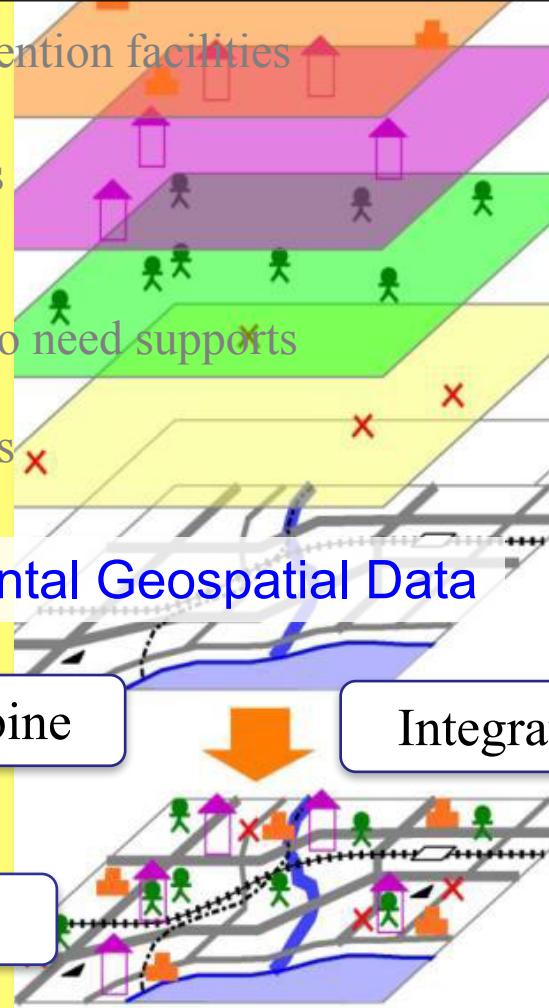
Blocked roads

### Fundamental Geospatial Data

Combine

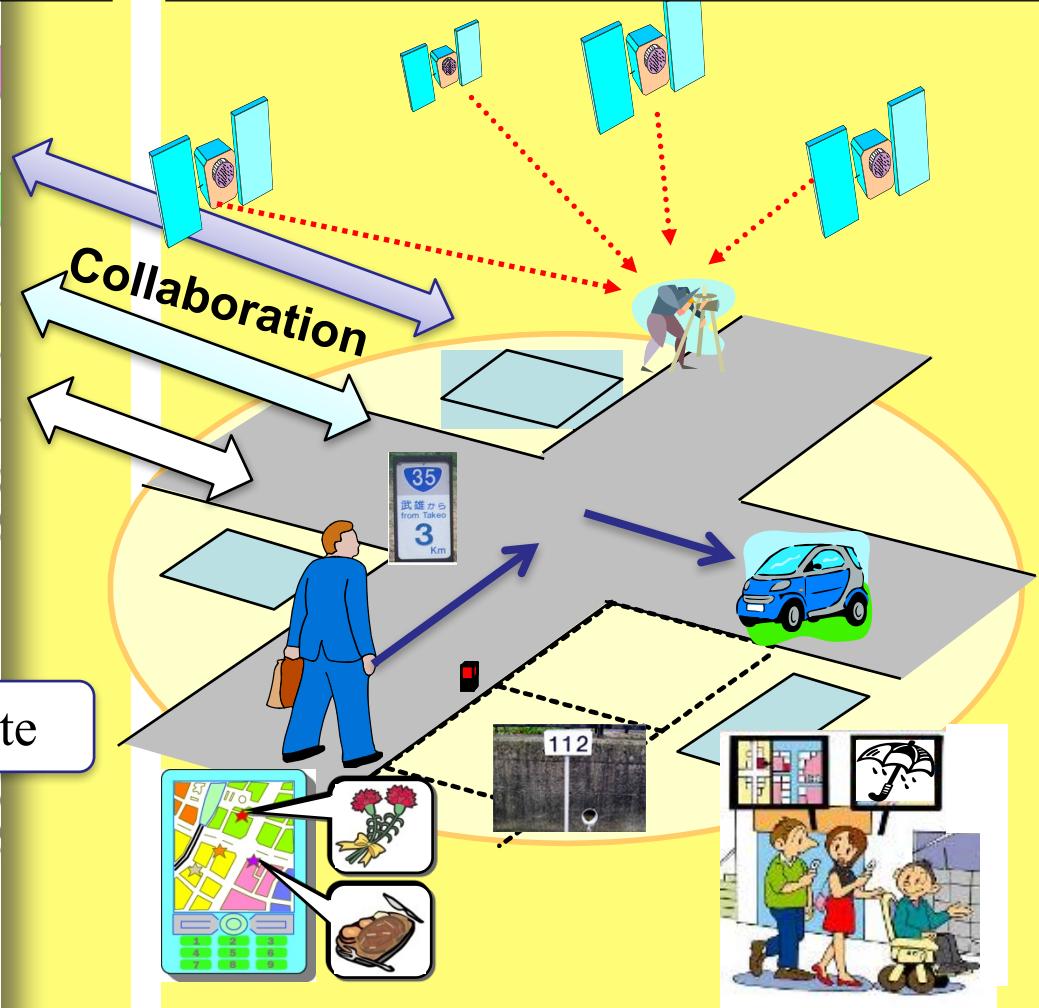
Integrate

Analyze



## Satellite Positioning

### Multi-GNSS Satellite Positioning



Promote comprehensive application measures

# national government

## ◆ responsibility

to develop and carry out comprehensive policies

## ◆ legal and other measures

taking legal, financial, and other measures

## ◆ enhancement of cooperation

taking necessary measures to enhance the liaison

# local governments

## ◆ responsibility

Developing and carrying out **policies** in harmony with the circumstances of their regions

# private sector

## ◆ efforts

to provide high quality geospatial information

to cooperate with the national and/or local governments in their policies

**cooperation**

# academic sector

research institutions such as universities

## NSDI steering committee\*

\* Committee for  
the advancement of Utilizing Geospatial Information

Chair: Deputy chief cabinet secretary  
(parliamentary and administration)

Acting: Assistant deputy chief cabinet secretary

Members: Bureau directors of relevant agencies  
including director-general of GSI

Secretariat: Cabinet, MLIT\* and GSI

\* National and regional policy bureau, ministry of  
land, infrastructure, transport and tourism

Geographic information  
systems WG

Satellite positioning  
WG

Geospatial project  
promotion WG

### Review Teams

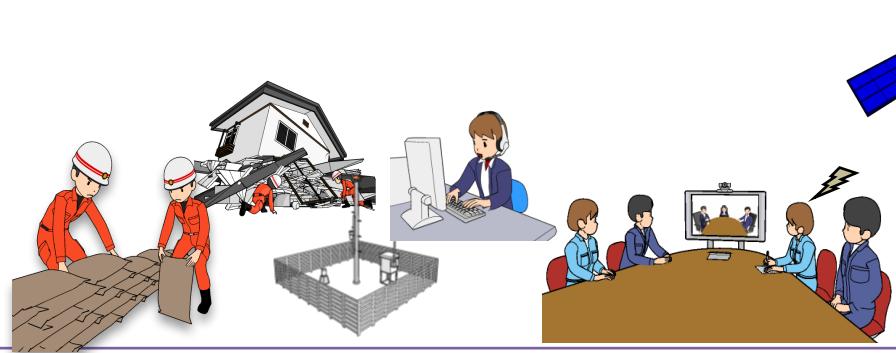
- RT on protecting personal information and intellectual property
- RT on national security
- RT on development and update of fundamental geospatial data

### Promotion Teams

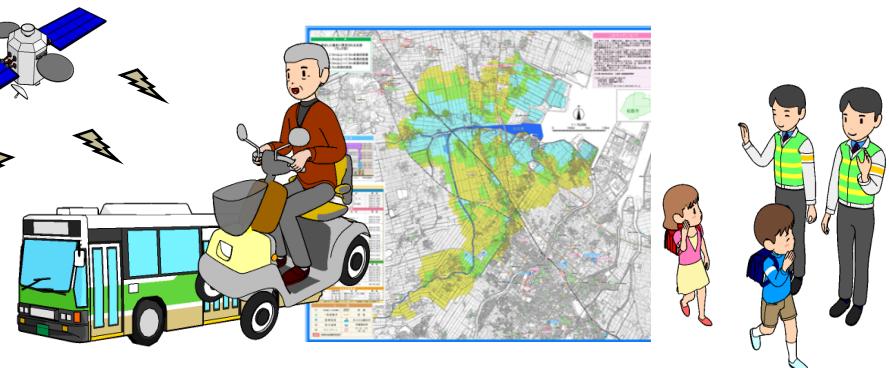
- PT for utilization of geospatial information center
- PT for advancement of disaster prevention system
- PT for IT-based agriculture, forestry and fisheries
- PT for vitalization of communities and small and mid-size enterprises
- PT for overseas development

## Approaches for realizing the Geospatial Society

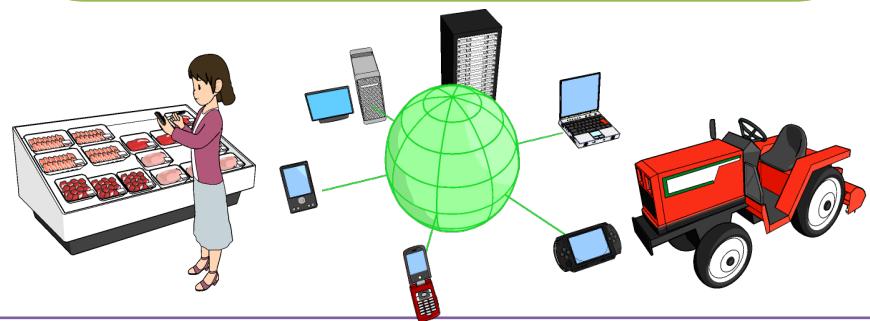
sustainable and disaster-resilient land use



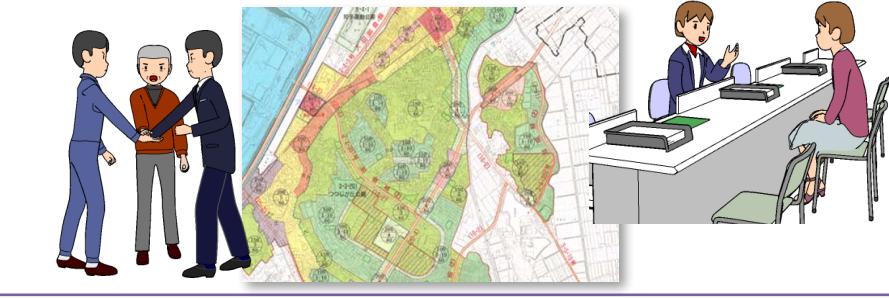
high-quality, safe, and secure living



new services and industries



greater efficiency and quality of govt. services



## Goal #1 on geographic information system

developing seamless  
geospatial information  
to meet society's  
needs and  
applications to new  
uses

## Goal #2 on satellite positioning, navigation and timing

development and  
utilization of quasi-  
zenith satellite systems  
(QZSS) inside and  
outside Japan

## Goal #4 on sustainable and resilient land use

recovery from the Great  
east Japan earthquake  
and contribution to  
sustainable and  
disaster-resilient  
land-use

## Goal #3 for penetration in society

Further penetration and establishment  
of the geospatial information in society

## Specific measures towards the Geospatial Society

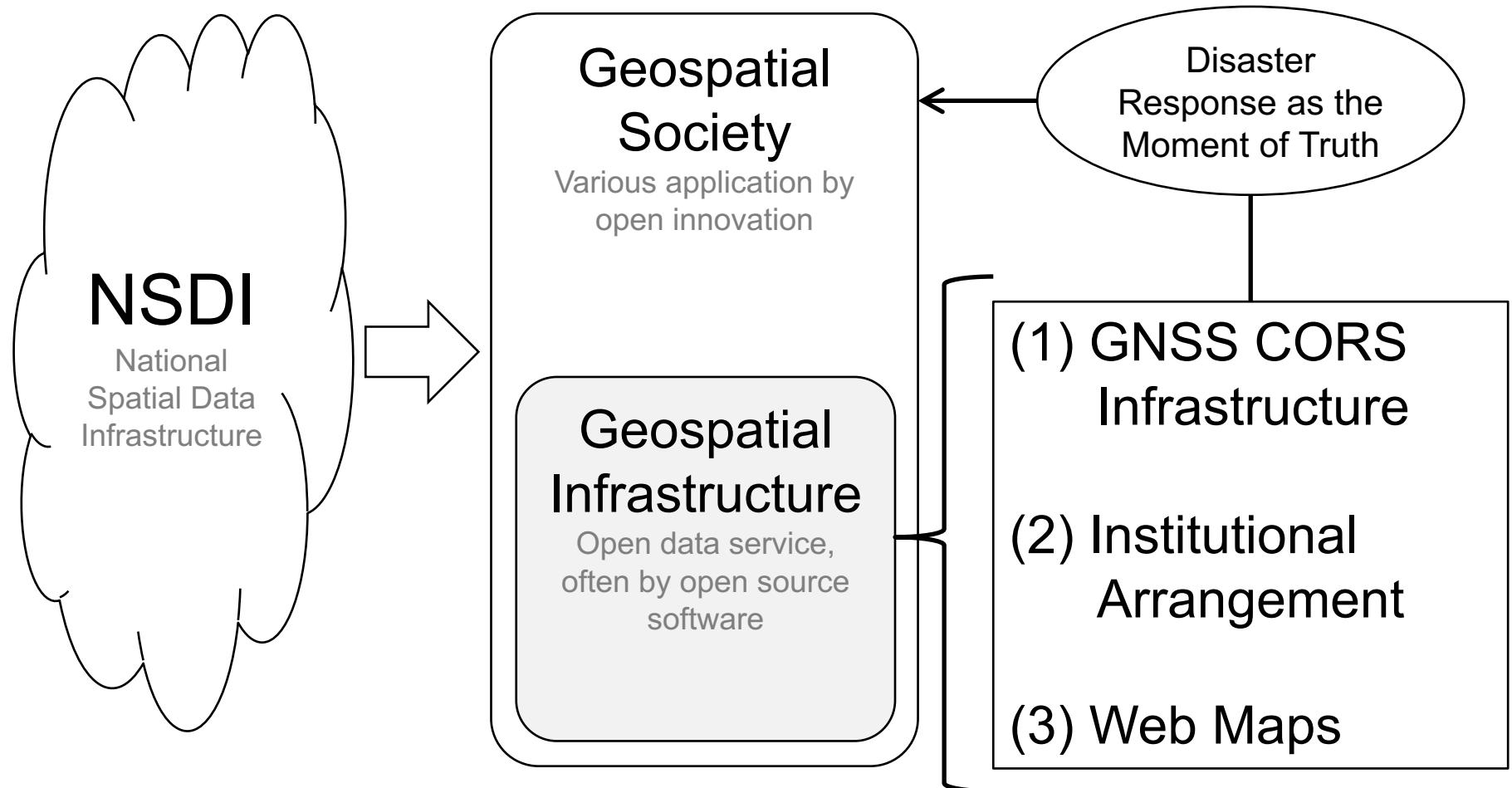
*This concludes the introduction of the coordination committee for NSDI in Japan.*

# ownership

of specific measures

# ownership

GSI broke down our contribution to NSDI into 3 components.  
**ownership** and **involvement** matters, to implement NSDI.



*These are what we take ownership for Geospatial Society.*

**involvement**  
of more partners to promote innovation

# involvement

We try involve more partners by:



## ➤ Open Data

- We follow the Open Data Policy of the Government of Japan (compatible with CC-BY)
- In addition, Survey Act applies to core data.

## ➤ Open Source

- We use Open Source for (1) lowering running cost and for (2) promoting development of domain-specific applications.
- We also develop open source software available at GitHub.

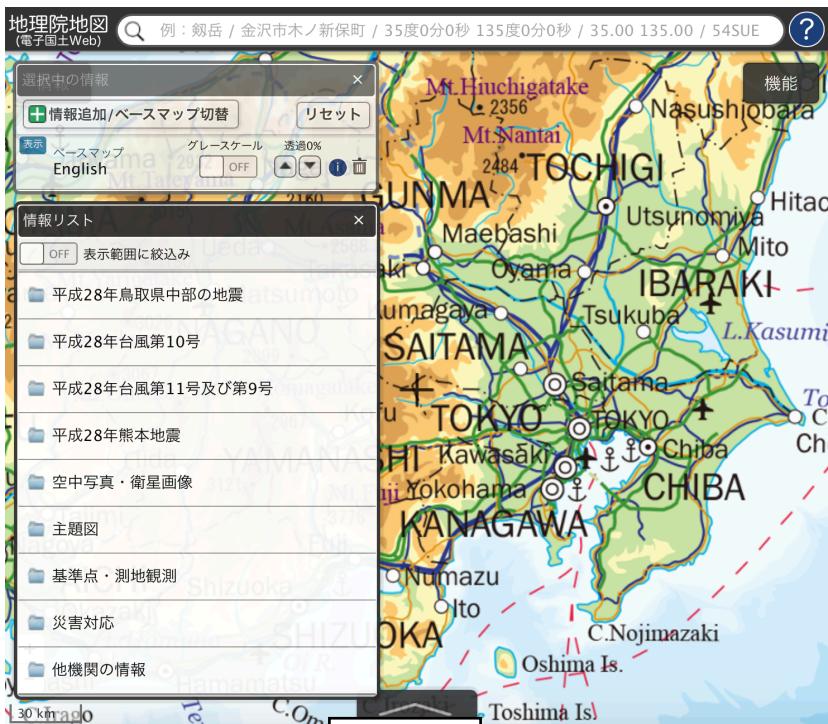
## ➤ Open Innovation

- We run a community of geospatial developers who use our data – GSI Maps Partner Network.
- We participate in existing community events such as FOSS4G Tokyo/Kansai, Code for Japan Summit, and GitHub Universe.

We import great open source software developed also in Ukraine

<http://maps.gsi.go.jp/>

Our geoportal “GSI Maps” provides approximately 1,600 layers as tiles or GeoJSON files.



Leaflet/Leaflet

 JavaScript library for mobile-friendly interactive maps

 ★ 16,466  2,822

<http://bit.ly/tokyo-vt>

Global Map data in binary vector tiles, to promote wider application (in development.)



Vladimir Agafonkin  
mourner

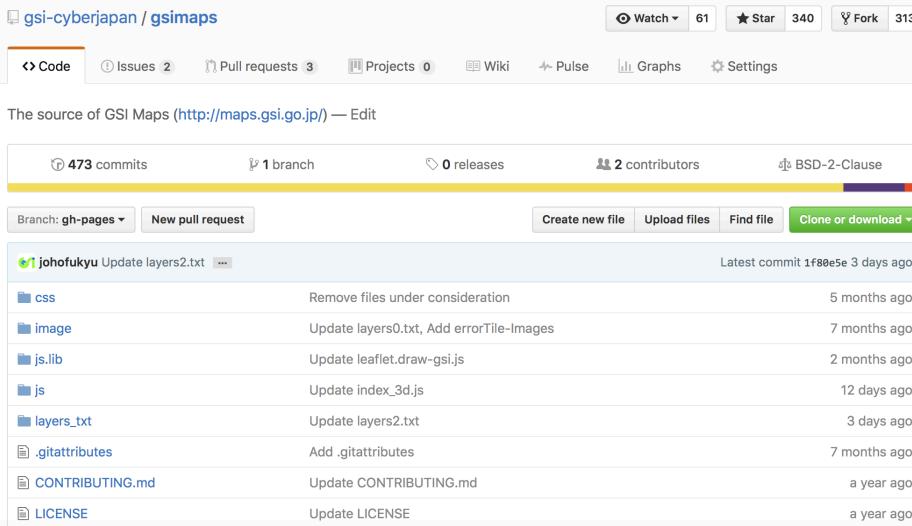
mapbox/mapbox-gl-js

Interactive vector maps in the browser, powered by WebGL

 ★ 1,314  279

# We share our code

<https://github.com/gsi-cyberjapan/gsimaps>



The source of GSI Maps (<http://maps.gsi.go.jp/>) — Edit

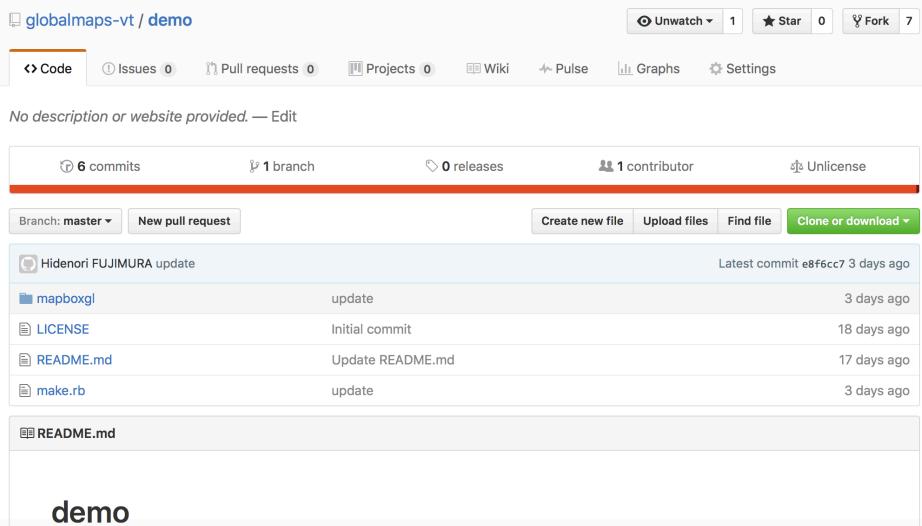
473 commits · 1 branch · 0 releases · 2 contributors · BSD-2-Clause

Branch: [gh-pages](#) · [New pull request](#) · [Create new file](#) · [Upload files](#) · [Find file](#) · [Clone or download](#)

johofukyu Update layers2.txt · Latest commit [1f80e5e](#) 3 days ago

File	Description	Time Ago
css	Remove files under consideration	5 months ago
image	Update layers0.txt, Add errorTile-Images	7 months ago
js.lib	Update leaflet.draw-gsi.js	2 months ago
js	Update index_3d.js	12 days ago
layers_txt	Update layers2.txt	3 days ago
.gitattributes	Add .gitattributes	7 months ago
CONTRIBUTING.md	Update CONTRIBUTING.md	a year ago
LICENSE	Update LICENSE	a year ago

<https://github.com/globalmaps-vt/demo>



No description or website provided. — Edit

6 commits · 1 branch · 0 releases · 1 contributor · Unlicense

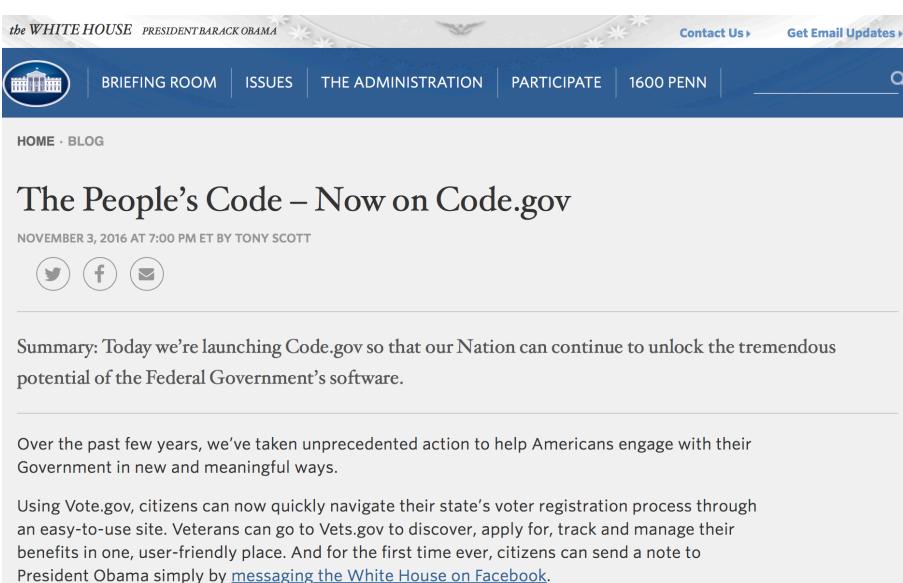
Branch: [master](#) · [New pull request](#) · [Create new file](#) · [Upload files](#) · [Find file](#) · [Clone or download](#)

Hidenori FUJIMURA update · Latest commit [e8f6cc7](#) 3 days ago

File	Description	Time Ago
mapboxgl	update	3 days ago
LICENSE	Initial commit	18 days ago
README.md	Update README.md	17 days ago
make.rb	update	3 days ago

[README.md](#)

**demo**



**the WHITE HOUSE** PRESIDENT BARACK OBAMA

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## The People's Code – Now on Code.gov

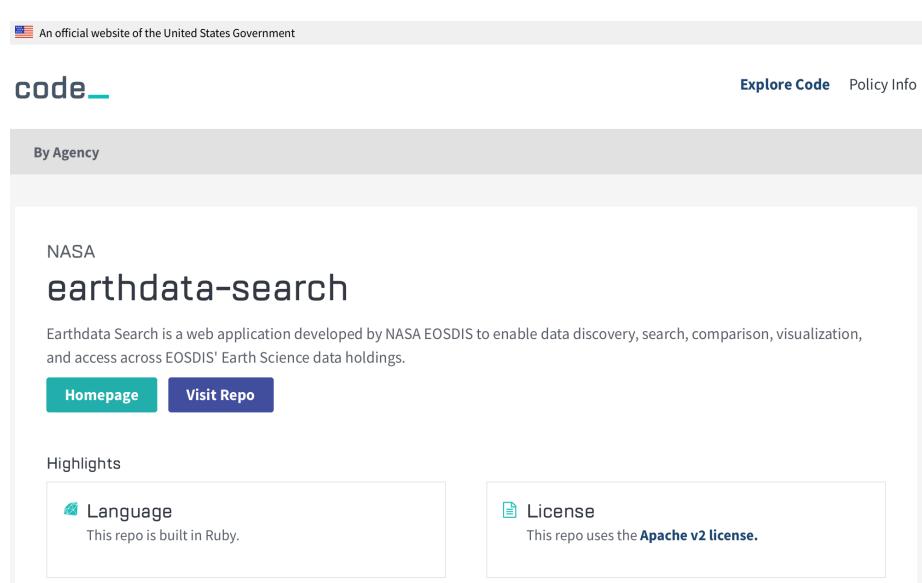
NOVEMBER 3, 2016 AT 7:00 PM ET BY TONY SCOTT

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**Summary:** Today we're launching Code.gov so that our Nation can continue to unlock the tremendous potential of the Federal Government's software.

Over the past few years, we've taken unprecedented action to help Americans engage with their Government in new and meaningful ways.

Using Vote.gov, citizens can now quickly navigate their state's voter registration process through an easy-to-use site. Veterans can go to Vets.gov to discover, apply for, track and manage their benefits in one, user-friendly place. And for the first time ever, citizens can send a note to President Obama simply by [messaging the White House on Facebook](#).



An official website of the United States Government

**code\_**

Explore Code · Policy Info

By Agency

**NASA**

## earthdata-search

Earthdata Search is a web application developed by NASA EOSDIS to enable data discovery, search, comparison, visualization, and access across EOSDIS' Earth Science data holdings.

[Homepage](#) · [Visit Repo](#)

Highlights

**Language**  
This repo is built in Ruby.

**License**  
This repo uses the [Apache v2 license](#).

**coordination**

**ownership**

**involvement**

are all important.

Let's involve everyone and each other, **in order to catch up with changing technology trend**, for wider and better application of our geospatial information.