

OpenStreetMap and Humanitarian Mapping



Background map © [OpenStreetMap](#) contributors



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FLOSS activist since 2012

Volunteer in various Open Source projects

OpenStreetMap Mapper

OpenStreetMap activities coordinator at Wikimedia Italia



Local Chapters



Since 2005



Since 2016



Local Chapters are **non-profit organizations** dedicated to supporting the goals of the parent organization and project

OpenStreetMap



Background map © [OpenStreetMap](#) contributors



The project was founded by Steve Coast in UK in 2004

OpenStreetMap (OSM) is a free editable map of the world build from scratch by the work of volunteers and released with an open license.



- A **database** – the world's largest free geographic database
- A **map** – the Wikipedia of the maps
- A **project** – collaborative mapping
- A **community** – the largest community of volunteer mappers
- A **movement** – whose mission is to have free geographic data

OpenStreetMap



OpenStreetMap Foundation - OSMF

The OSMF is the nonprofit organization that supports OpenStreetMap and provides the necessary organizational backbone.



- **Doesn't** control the data
- **Doesn't** own the data
- **Doesn't** control the community
- Maintains the servers and services
- Does fundraising to support the project
- Organizes the annual conference
- Supports the Working Groups



Community

The essential element of OSM

A community member is any person who contributes to OSM in any way as long as it's consistent with the mission of the movement.

Community



State of the Map 2018 at Politecnico, Milano, Italy by Francesco Giunta
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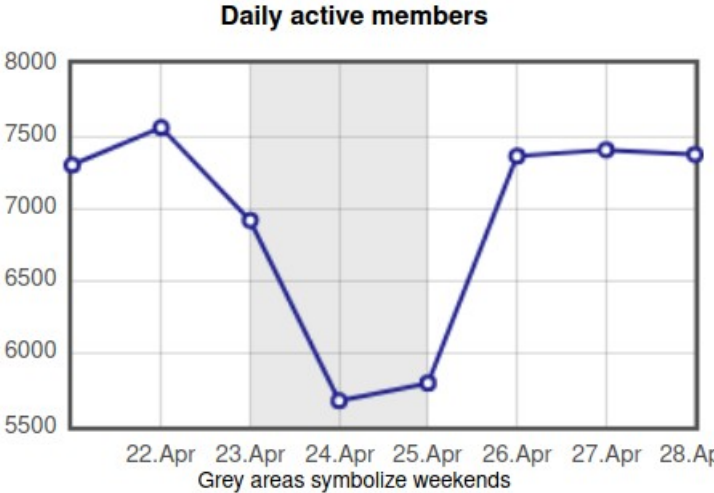
Limone Piemonte, 19-20 sept 2020 - Osmers meeting by Mbranco2 - License [CC BY-SA 4.0](https://creativecommons.org/licenses/by-sa/4.0/)
via Wikimedia Commons



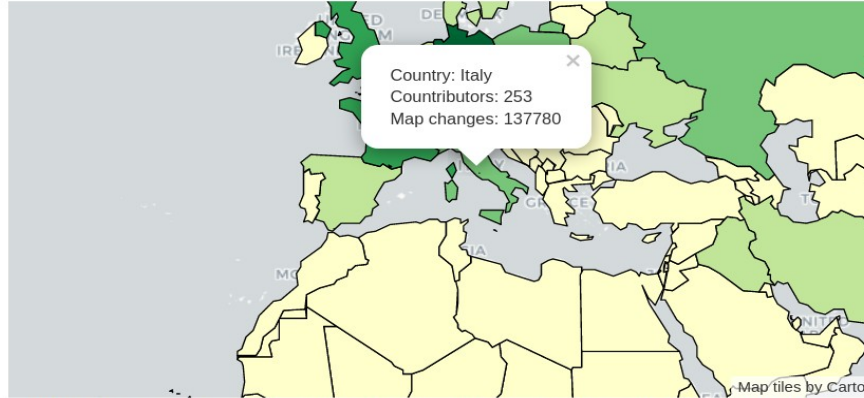
- Uploads new data data or does the quality control of the current data.
- Creates and updates the documentation of everything related to OSM.
- Develops technologies, tools and OSM based services in order to facilitate mapping.
- Helps expanding the community by building informal groups and local communities and organizing conferences, mapathons and other events.
- Does all the comunication, blogposts, news, social media ecc of everything that happens.
- Translates information, trainings, guides and documentation into all languages.



More than **7 million users** around the world



Classification by amount of [contributors](#) [contributors per population](#) [contributors per area](#) [mapping activity](#)



Notice: The changeset's bbox center is utilized for counting. This can cause inaccuracies between ~2% and ~10%.

No.	Country	Contributors (organised)	Created elements	Modified elements	Deleted elements
1.	Germany	899 (2%)	110139	66292	11706
2.	United States	768 (30%)	452283	97280	53260
3.	Indonesia	577 (24%)	276458	56703	5741
4.	France	426 (0%)	56398	27040	7202
5.	Brazil	424 (38%)	152946	58841	7100
6.	United Kingdom	299 (10%)	75117	40842	5811
7.	Mexico	269 (89%)	49612	48658	2115
8.	Italy	253 (1%)	121336	16442	11682
9.	Russia	229 (3%)	109125	40737	11267
10.	Poland	207 (0%)	169371	24915	17216

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OpenStreetMap Project

- The data
- The main website - www.openstreetmap.org
- Technologies and services for collaborative mapping

The OSM data

"Data" refers to every information in the OSM database.

OpenStreetMap are released under the [Open Database License \(ODbL\)](#)

*It is possible to use OpenStreetMap data freely for any purpose, even commercial, with the only condition to **attribute the project** and use the same license for any derived data.*

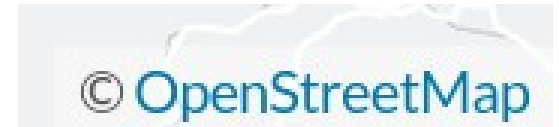


Attribution

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Map data © OpenStreetMap contributors



www.openstreetmap.org/copyright



www.opendatacommons.org/licenses/odbl



Are there different ways of mapping?

➔ Indoor mapping/Armchair mapping



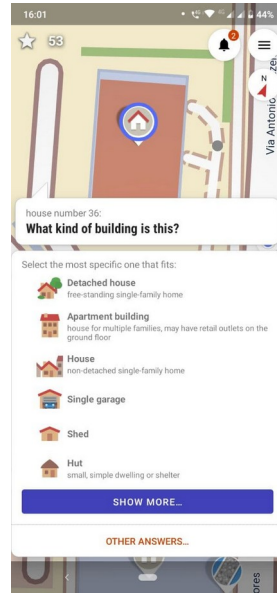
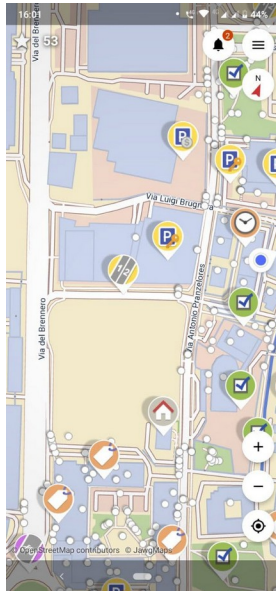
➔ Outdoor mapping

- GPX
- field papers
- phone apps
- pictures for street view

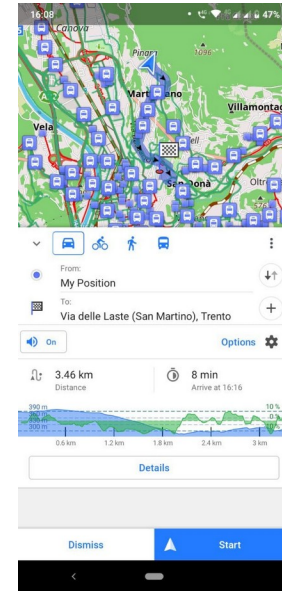
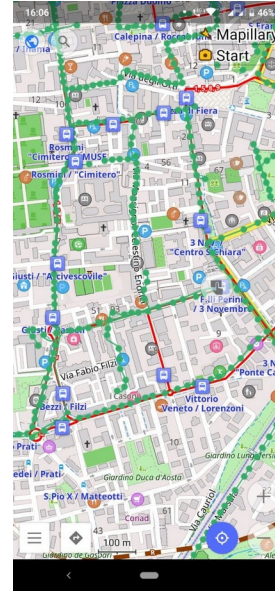




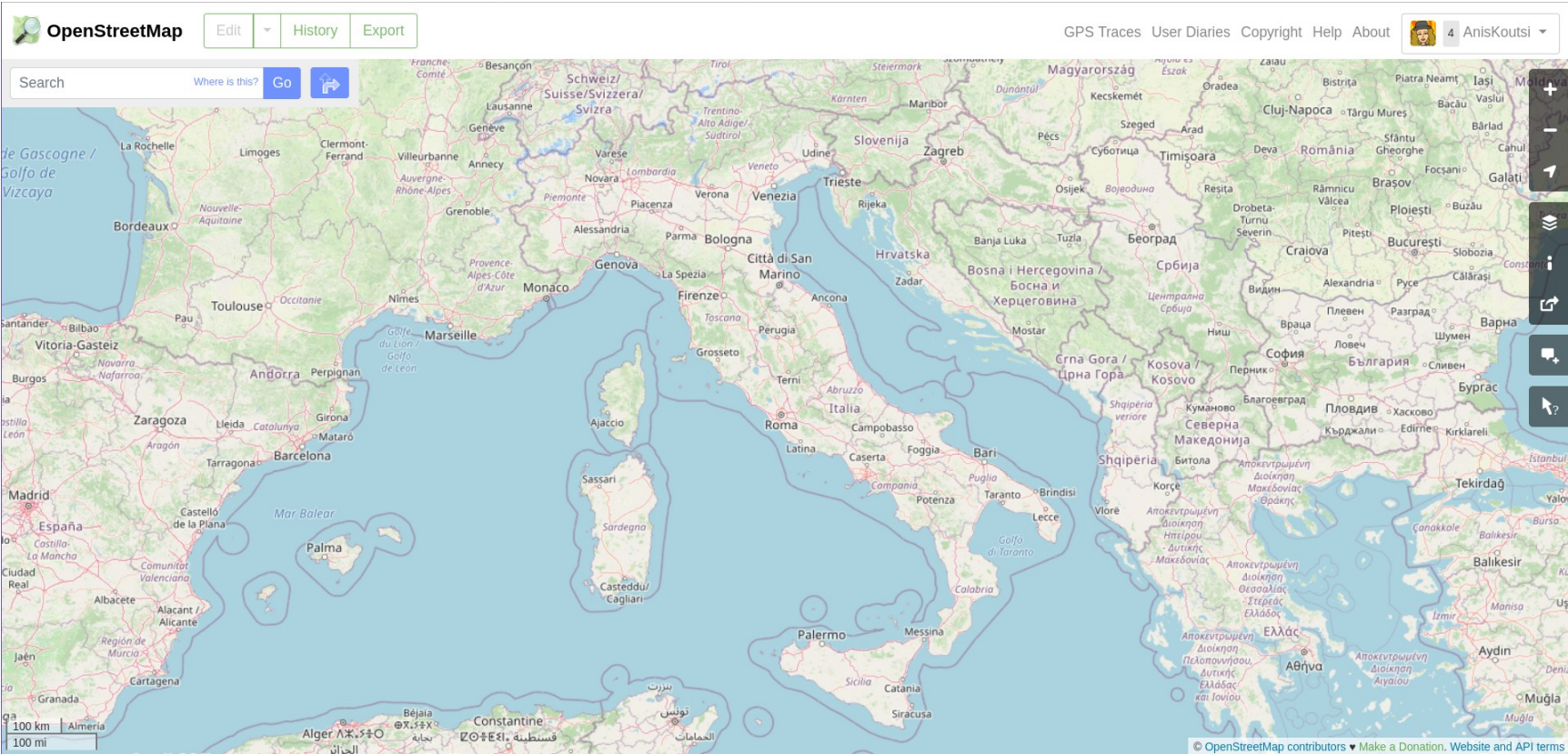
StreetComplete



OsmAnd



Main website



<https://www.openstreetmap.org/>



ID Editor



JOSM – Java OpenStreetMap



File Edit View Mode Tools Selection Presets Imagery Windows Audio Help

Key	Value
leisure	park
name	Hofgarten
wikidata	Q874662
wikimedia_commons	File:Innsbruck, Hofga...
wikipedia	de:Hofgarten (Innsbr...

Layers: [1] Data Layer 1

Tags: 5 / Memberships: 0

Geography/Land use/Park ...

Sel.: Rel.:0 / Ways:1 / Nodes:0

Hofgarten (20 nodes)

47.2731789 11.4011539 1,1 km (no object)

ctrl to toggle; Shift-Ctrl to rotate selected; Alt-Ctrl to scale selected; or change selection



JOSM screenshot showing Hofgarten Innsbruck

Photo by Simon Legner (User:simon04), CC BY-SA 2.0 via Wikimedia Commons



Who uses OSM?



<https://welcome.openstreetmap.org/about-osm-community/consumers/>





Humanitarian OpenStreetMap Team





Humanitarian
OpenStreetMap
Team



non-profit organization
active since 2010

304,529

Community Mappers^①

135,734,540

Total Map Edits^①

102,531,253

Buildings Mapped^①

2,402,117

Roads Mapped (KM)^①

Humanitarian mappings, such as HOT's, are embedded in the context of emergencies caused by environmental disasters or humanitarian crises, and involve the upload of information to the maps to facilitate the operations of emergency responders.

<https://www.hotosm.org/>





Venezuela

Click on the country to see the details

Countries with ● Projects ○ Active tasks ● Members

OUR WORK

COUNTRIES WE WORK IN

LOCATIONS MAPPED



Impact Areas

- Disaster Risk Reduction
- Gender Equality
- Environment
- Clean Energy
- Transportation
- Sustainable Cities
- Public Health
- Water & Sanitation
- Poverty Elimination
- Refugee Response
- Disaster Response

Difficulty level ▾

Any project ▾

More filters

Sort by ▾

Showing 14 of 3,380

 URGENT #9143 COVID-19 - Saint Andrew, Kingston, Jamaica The 2020 Atlantic Hurricane Season began June 1st. HOT has been 2165 total contributors Beginner Mapper	 URGENT #9509 COVID-19 - Bankass Cercle UPDATE 2 - Buildings, Landuse, Roads, Water HOT has been requested to map areas in Mali susceptible to, or 230 total contributors Intermediate Mapper	 URGENT #10116 Zambia Local Impact Governance Activity - Mpika District-08 The USAID Local Impact Governance Activity will help Zambia 1640 total contributors Beginner Mapper	 URGENT #10748 South Sudan COVID Vaccination Pilot - Yambio Roads As COVID vaccines start arriving in low- and middle-income COVAX 159 total contributors Intermediate Mapper	 URGENT #10749 South Sudan COVID Vaccination Pilot - Makpandu-Madebe Roads As COVID vaccines start arriving in low- and middle-income COVAX 25 total contributors Intermediate Mapper
URGENT #10756 Rivers State -Ogba-Egbema-Ndoni LGA -Citizen Science Mapathon for Flood The month of April is a global Citizen Science Month I with exciting Citizen 588 total contributors	 HIGH #5808 #5808 #UniBonn - Mapping buildings to improve disaster preparedness Collaborative mapping of Buildings (hospitals, schools, and fire 877 total contributors	HIGH #6665 Cucuta Colombia #MigrationCrisis Colombia has seen an influx of refugees moving through the country. 3055 total contributors	 HIGH #6979 Missing Maps: Forecast-based Action in Central Asia Central Asia is a region which is especially prone to natural disasters. 1195 total contributors	 HIGH #7815 Diaca, Mocimboa Da Praia - Roads Since 2017, the Cabo Delgado province has experienced ongoing 78 total contributors



UN Mappers

The project aims to overcome the problems of lack of topographic data in the field mission areas for delivering accurate and up-to-date base information, for the missions peacekeeping, to the users and stakeholders.



wiki.openstreetmap.org/wiki/Unite_Maps_Initiative/UN_Mappers





Crowd2Map Tanzania is a mapping project set up to improve the maps of rural Tanzania to fight **female genital mutilation (FGM)** and improve development of the region.

The project is completely based on volunteer work and has trained over 16,000 remote mappers from all over the world to map from satellite images and over 3000 field mappers to add their local knowledge to these base maps.



crowd2map.org





MISSING MAPS

Missing Maps is a project led by a collective of organizations working towards a common goal of creating accessible map data where humanitarian organizations are operating.

It's objective is to map the most vulnerable places in the developing world, in order that international and local NGOs, and individuals can use the maps and data to better respond to crises affecting the areas.



missingmaps.org





Is a global community of students, researchers, educators, and scholars that use public geospatial technologies to highlight and directly address development challenges worldwide. YouthMappers was envisioned to fulfill the demand for open geospatial data access in all parts of the world.

Youthmappers is formed by a worldwide network of 264 student-led chapters.



youthmappers.org





PoliMappers is a volunteer students' association founded in December 2016, based at Politecnico di Milano in Milano, Lombardia, Italy. The mission of the group is to train and motivate the next generation of volunteer mappers and to do mapping using free and open source software within the university as well as primary and secondary schools.



polimappers.github.io



Want to know more?

- [Humanitarian OpenStreetMap Team 2016 Video](#)
- [OpenStreetMap: The map that saves lives | CNBC International](#)
- [How Maps Are Preventing Female Genital Cutting](#)
- [Missing Maps – Digital Mapping from Accenture with Médecins Sans Frontières](#)
- [OpenStreetMap is a community of communities – Podcast & article](#)

Where to find more info & updates

Get in touch with the OSM communities via mailing lists



Talk-it	openstreetmap list - italiano
Talk-it-appulo-lucana	OpenStreetMap Italy regional talk list for Basilicata and Puglia - Lista regionale della Basilicata e della Puglia
Talk-it-bici	OpenStreetMap Italy bicycle talk - Lista italiana per discutere di elementi legati alla bicicletta
Talk-it-cai	OpenStreetMap Italian Alpine Club - Discussioni riguardanti la convenzione con il CAI
Talk-it-fvg	OpenStreetMap Italy regional talk list for Friuli Venezia Giulia - Lista regionale del Friuli Venezia Giulia
Talk-it-lazio	OpenStreetMap Italy regional talk list for Lazio - Lista regionale del Lazio
Talk-it-liguria	OpenStreetMap Italy regional talk list for Liguria - Lista regionale del Liguria
Talk-it-lombardia	OpenStreetMap Italy regional talk list for Lombardy - Lista regionale della Lombardia
Talk-it-marche	OpenStreetMap Italy regional talk list for Marche - Lista regionale delle Marche
Talk-it-piemonte	OpenStreetMap Italy regional talk list for Piemonte - Lista regionale del Piemonte
Talk-it-sardinia	OpenStreetMap Italy regional talk list for Sardinia - Lista regionale della Sardegna
Talk-it-sicilia	OpenStreetMap Italy regional talk list for Sicily - Lista regionale della Sicilia
Talk-it-southtyrol	OpenStreetMap Italy regional talk list for South Tyrol - Lista regionale dell' Alto Adige - Regionale Mailingliste für Südtirol
Talk-it-trentino	OpenStreetMap Italy regional talk list for Trentino - Lista regionale del Trentino
Talk-it-veneto	OpenStreetMap Italy regional talk list for Veneto - Lista regionale del Veneto

<https://lists.openstreetmap.org/listinfo>



Weekly OSM related news
Translated in 12 languages

weeklyosm.eu

Guides & Documentation

learnOSM

Learn OpenStreetMap Step by Step



Beginner's guides on how to start contributing and use different tools.

learnosm.org/en



Main source of OSM related information for beginner and experienced mappers.

https://wiki.openstreetmap.org/wiki/Main_Page

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