



PROFESSIONAL COMPETENCIES

DATA ACQUISITION

OPENSTREETMAP is global, crowd-sourced, free, and open source...

Integrated into:

- software services
- business models
- government spatial data infrastructures
- Academic research projects
- Humanitarian aid missions

Now you can use it to be creative...



OpenStreetMap provides map data for thousands of websites, mobile apps, and hardware devices

OpenStreetMap is built by a community of mappers that contribute and maintain data about roads, trails, cafés, railway stations, and much more, all over the world.

📍 Local Knowledge

OpenStreetMap emphasizes local knowledge. Contributors use aerial imagery, GPS devices, and low-tech field maps to verify that OSM is accurate and up to date.

🏠 Community Driven

OpenStreetMap's community is diverse, passionate, and growing every day. Our contributors include enthusiast mappers, GIS professionals, engineers running the OSM servers, humanitarians mapping disaster-affected areas, and many more. To learn more about the community, see the [OpenStreetMap Blog](#), [user diaries](#), [community blogs](#), and the [OSM Foundation website](#).

© Open Data

OpenStreetMap is *open data*: you are free to use it for any purpose as long as you credit OpenStreetMap and its contributors. If you alter or build upon the data in certain ways, you may distribute the result only under the same licence. See the [Copyright and License page](#) for details.

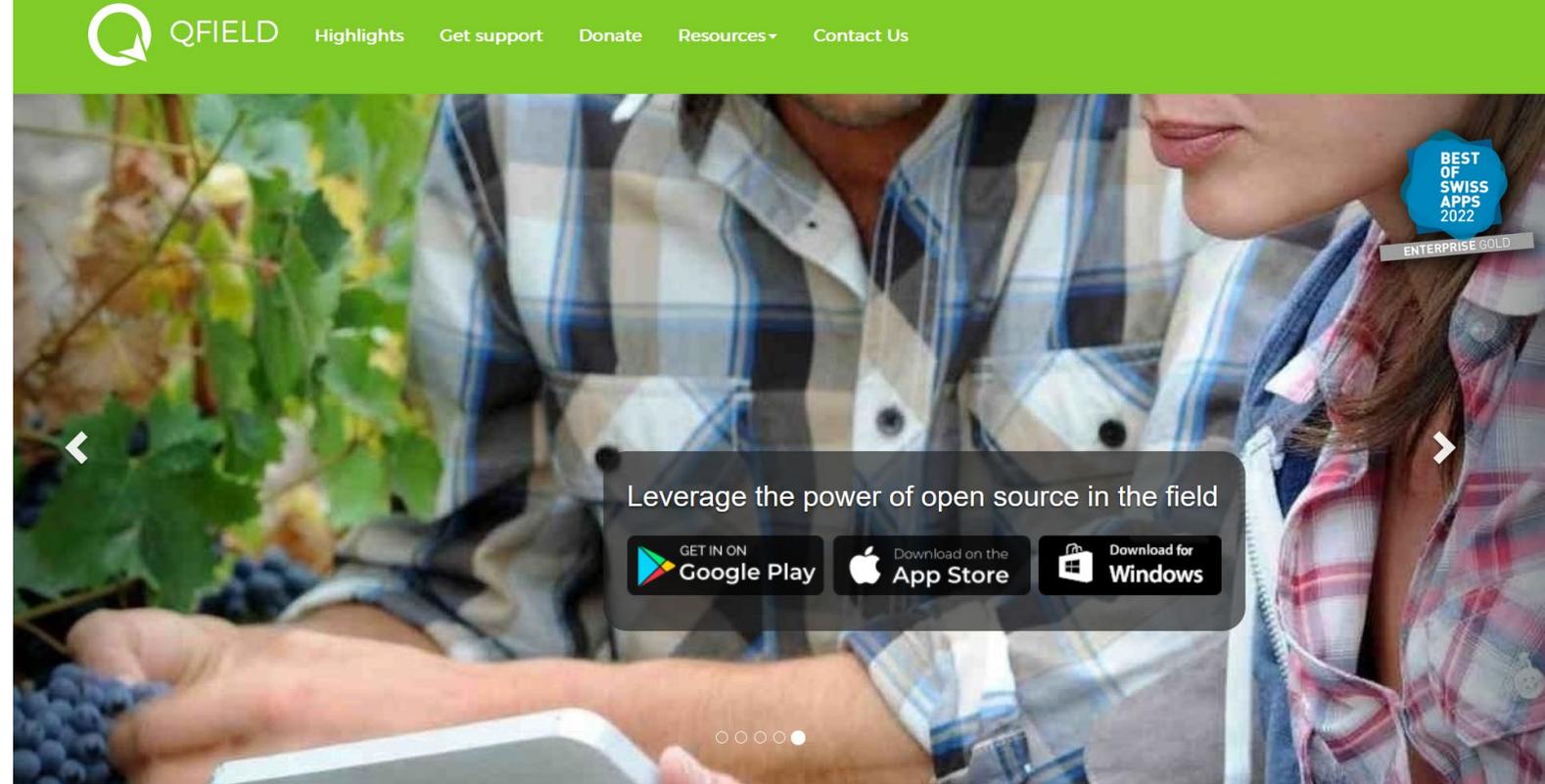
FIELD DATA COLLECTION

You have just practiced:

- Data collection plan
- Field data collection
- Data quality assurance and quality control

Professionals plan in desktop GIS and export to mobile apps

- ArcGIS Collector
- QFIELD



The most powerful and efficient way to manage your data on-the-go

QField is the leading professional fieldwork app, revolutionizing geospatial data collection and management. Recognized as a Digital Public Good, QField not only excels in enterprise and professional applications but also advances six [United Nations Sustainable Development Goals \(SDGs\)](#), promoting a sustainable and equitable future.

Streamline your processes and boost productivity with QField's seamless ecosystem. Whether you're in remote locations or managing large-scale projects, our tools have you covered.

Work efficiently



Survey and digitise data in no time. QField is the professional mobile app for QGIS, allowing users to deploy their existing projects to the field.

Be anywhere



Edit your data on the go. Seamless integration with [QFieldCloud](#) allows your team to work on your projects anywhere anytime.

Open anything



Open a wide range of spatial data formats, connect to industry-leading spatial databases and consume standardised geoweb services.

DATA VISUALIZATION WITH WEB MAPS

- Google Maps: <https://mymaps.google.com>

- Leaflet:

Open Source JavaScript library for programming interactive “slippy” maps

Automatically generate with **QGIS2WEB** plugin or with packages in R + Python

Started by one Ukrainian programmer in 2010:
[Volodymyr Agafonkin](#)



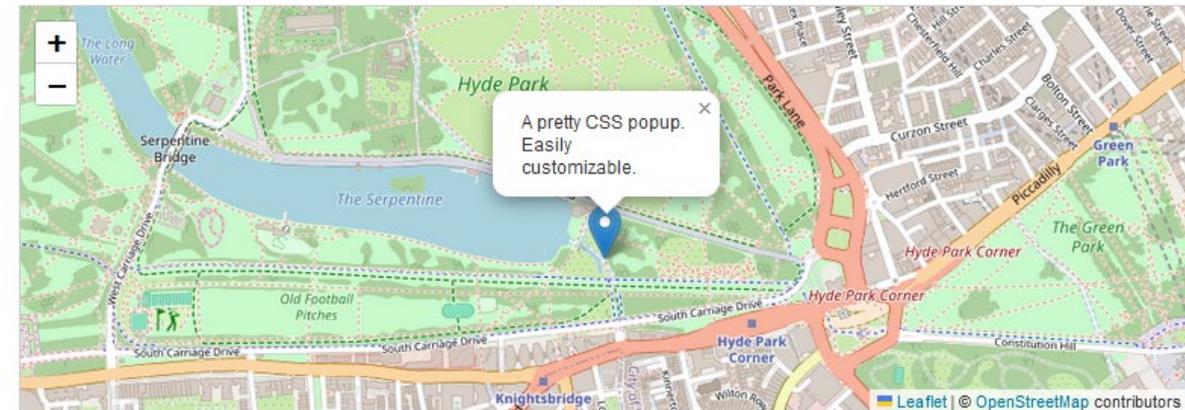
an open-source JavaScript library
for mobile-friendly interactive maps

[Overview](#) [Tutorials](#) [Docs](#) [Download](#) [Plugins](#) [Blog](#)

May 18, 2023 — [Leaflet 1.9.4](#) has been released!

Leaflet is the leading open-source JavaScript library for mobile-friendly interactive maps. Weighing just about 42 KB of JS, it has all the mapping [features](#) most developers ever need.

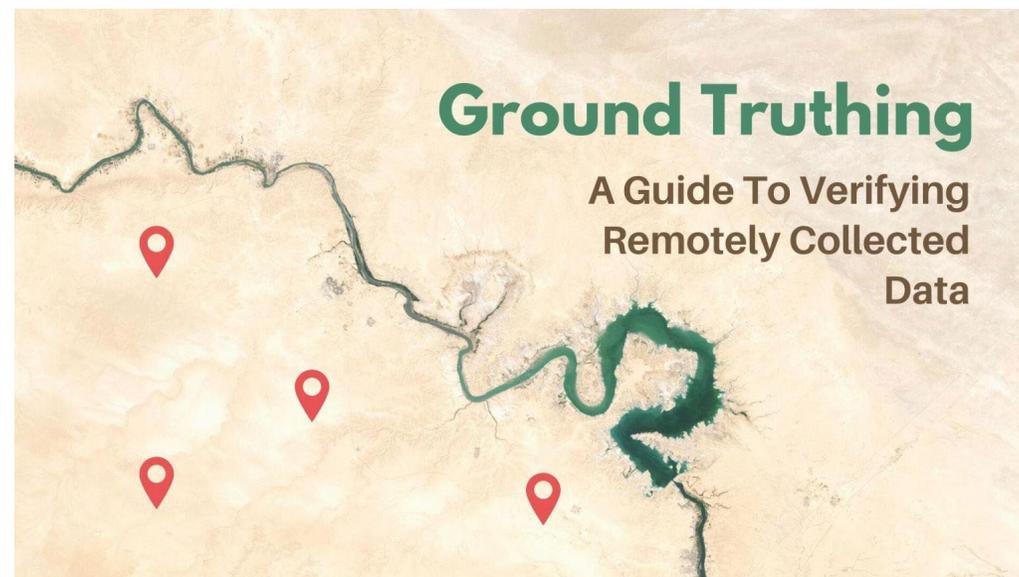
Leaflet is designed with *simplicity*, *performance* and *usability* in mind. It works efficiently across all major desktop and mobile platforms, can be extended with lots of [plugins](#), has a beautiful, easy to use and [well-documented API](#) and a simple, readable [source code](#) that is a joy to [contribute](#) to.



DATA QUALITY + METADATA

- **QAQC:** Quality analysis and quality control
- **Ground Truth:** Verify data quality through field surveys: does the GIS data appropriately and accurately represent reality?
- **Metadata**
- **Open Science / FAIR Data**
- **Counterfactual:** “clean” data provided by professor or book publisher for every exercise

FGDC.GOV
FEDERAL GEOGRAPHIC DATA COMMITTEE



This site is your gateway to major announcements by federal agencies that support open science initiatives, programs, and events.

