



MapSwipe

2016-2022 Financial Report

This financial report, being the first, includes details from the entire 6 year history of MapSwipe.

Funding MapSwipe

Keeping the lights on

MapSwipe is an open source mobile app that is making mapping around the world more coordinated and efficient. People sometimes think the “free” of open source is equivalent to “free lunch” when it actually means freedom to do certain things with the software. The MapSwipe code is free and open but there are financial costs associated with keeping the app available and running smoothly.

We need to pay for the servers running the app infrastructure that sends satellite imagery for missions to contributors’ phones, keeps track of their swipes, and stores the resulting data output. A couple of core maintainers graciously volunteer time to help fix bugs and make minor updates; however, it is a lot of work to keep the app running securely on the latest versions of iOS and Android so we often need to pay for dedicated software developer support to tackle bigger issues and upgrades.

Receiving funds

MapSwipe can receive funds through our account on the [OpenCollective](#) platform. OpenCollective enables all kinds of groups to raise, manage, and spend money transparently. They connect MapSwipe with a fiscal host whom we pay a small percentage (10%) of the donations we receive, plus additional processing fees for credit card transactions. Having a fiscal host means we don’t have to legally incorporate, don’t have to hire financial support to figure out taxes, nor open a bank account.

A minor amount of funding comes directly from individuals. A significant amount of funding comes from nonprofits such as the humanitarian organizations that create missions in MapSwipe. Additionally, for-profit companies that use MapSwipe as an employee engagement opportunity are encouraged to contribute funding to offset the costs of their usage and support MapSwipe.

Some humanitarian organizations have supported MapSwipe financially in other ways. For example, the British Red Cross has supported MapSwipe by paying the costs of Google Cloud

Services since April 2017. The American Red Cross has directly contracted both the core maintainers and third party developers to build out new functionalities.

Transparency

When it comes to decisions about MapSwipe, the community is invited to start and join discussions on a Slack workspace, participate in a community call every two weeks, and help select a small governance team. The governance team's responsibilities include setting the direction of MapSwipe and voting on financial matters. A vote occurs regardless of if a financial matter is a contract that will be managed by a humanitarian organization partner or a direct payment out of the MapSwipe core funds. The governance team invites wider community feedback before a vote takes place and posts the results of the vote publicly.

Funds received via OpenCollective and paid out using the platform will be immediately visible as transactions on a public ledger. MapSwipe launched in 2016 but the account on OpenCollective was only set up in 2020; for this and other reasons not all financials are represented on the OpenCollective platform. For example, there are direct payments by supporting organizations to cloud service providers or software developers; such directly quantifiable contributions will be included in financial overviews such as this one.

Endless gratitude to our volunteers

Many, many, many hours have been volunteered by people and organizations around the world to make MapSwipe the amazing project that it is. Those efforts are not captured in this financial report as we don't have an effective way to quantify them. Any count would surely be an undercount. We are immensely grateful for the time and energy of volunteers that code, write documentation, teach people about MapSwipe, translate the app, and more. We are also immensely grateful for the community of users that collectively complete MapSwipe missions, creating data for organizations doing good.

A brief history of MapSwipe

2016

Médecins Sans Frontières (MSF), also known as Doctors Without Borders, awards an internal innovation fund award for the initial development and launch of MapSwipe. In the original mission type, users swipe through satellite images and tap an imagery tile once when they've located particular features such as buildings. Each set of imagery is viewed by at least three different users to create a mechanism for internal validation of results. This crowdsources the prioritization of areas for detailed mapping. Mappers on the [Tasking Manager](#) can be directed to areas flagged in a MapSwipe mission as having features of interest; they can spend more time tracing and less time panning across forest, desert, or other areas without the features.

2017

The Heidelberg Institute for Geoinformation Technology at Heidelberg University (HeiGIT) scales up their support for MapSwipe through development and maintenance of the

server-based software systems that process contributions in the app. They also provide the geospatial workflow that enables the integration of MapSwipe results into Humanitarian OpenStreetMap Team (HOT) Tasking Manager project creation.

The British Red Cross accepts responsibility for hosting the MapSwipe app and it is moved to their account from the MSF account on the Apple App Store and Google Play.

2018

Some time has passed without a MapSwipe app release, and Laurent Savaète begins volunteering to complete much needed maintenance.

2019

Benni Herfort, Johnny Henshall, and Jess Bergman add their volunteering efforts to Laurent's and they finish MapSwipe v2.0 in September. This massive accomplishment revitalizes the app. They fix issues, implement much needed updates, and reduce running costs with system design efficiencies. Their volunteer efforts lay the foundation for future interest and investments by various organizations.

The Humanitarian OpenStreetMap Team (HOT) funds a change detection mission type. In this new mission type, users compare imagery from two dates. Use-cases include assessing for damages by comparing pre- and post-disaster imagery, or searching for deforestation.

2020

As part of a World Bank project using MapSwipe for a solid-waste mapping initiative, they fund general work on the app and the addition of a functionality for private missions. This new functionality is useful for sensitive imagery or research projects that require only a specific group of users to contribute.

2020

MapSwipe launches an OpenCollective account in order to receive contributions of general funds for the project.

2021

The MapSwipe community comes together to establish a governance structure and select the first governance team.

The American Red Cross funds the finalization and launch of the footprint review mission type; this lets us engage MapSwipe users in quality checks of the accuracy of individual feature outlines.

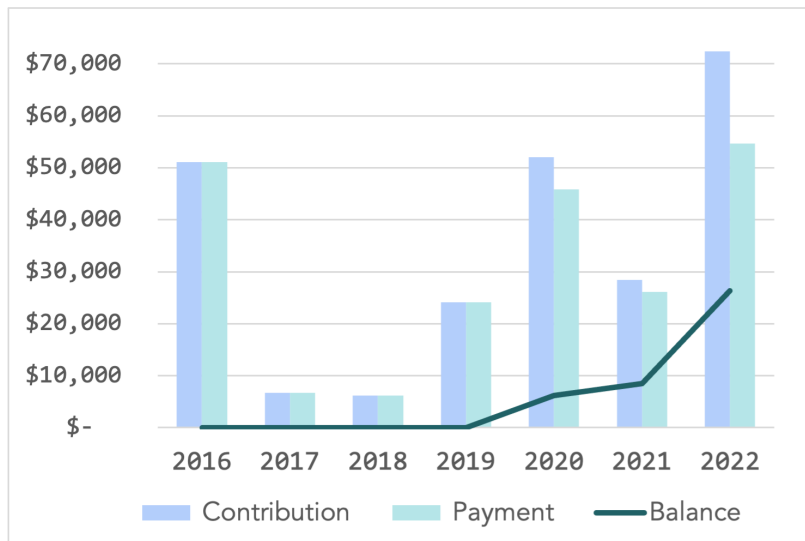
2022

The American Red Cross funds the addition of a login option using an OSM account, new analytics, the addition of a groups feature that allows users to aggregate their contributions with others for easier tracking, an improved profile page in the app, and contribution tracking pages online.

We fund two sets of “hackdays” in which Benni Herfort and Laurent Savaëte make improvements to the database structure and server infrastructure for cost savings. We change provider for some of our infrastructure from Google Cloud Services to Hetzner.

The MapSwipe community selects a new governance team, with one team member changing.

Balance by year



Year	End balance
2020	6,183.92
2021	8,523.04
2022	26,318.49

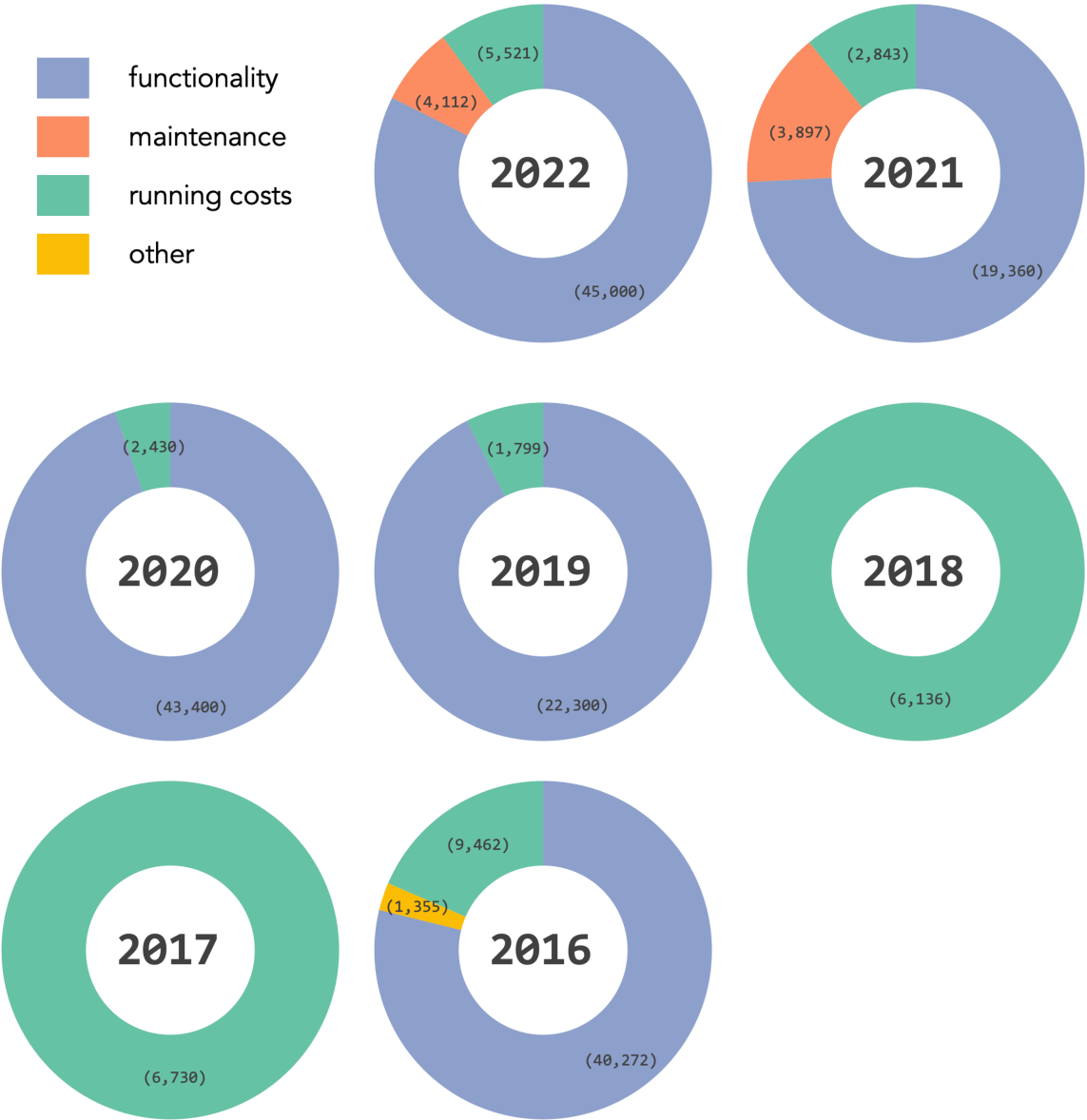
There was no system in place for keeping a balance prior to 2020 and the launch of an OpenCollective account. In 2022 we saw both the largest annual investments in MapSwipe and the largest annual increase to our balance. General contributions help us more consistently maintain and efficiently run the app.

Funding for humanitarian work can be unpredictable. We want to maintain a buffer to cover running costs and for maintenance for a period of at least 1.5 years in case the amount and/or frequency of financial contributions changes. Also, we want to be prepared against unforeseen events that may temporarily spike costs.

The governance team will be working with the community in 2023 to explore a MapSwipe roadmap, determining what major improvements we think should be implemented, and evaluating how much we think we can invest in those improvements from our core funds versus relying on specific grant, or otherwise earmarked, funding.

Expenditure categories by year

(all amounts shown are in USD)



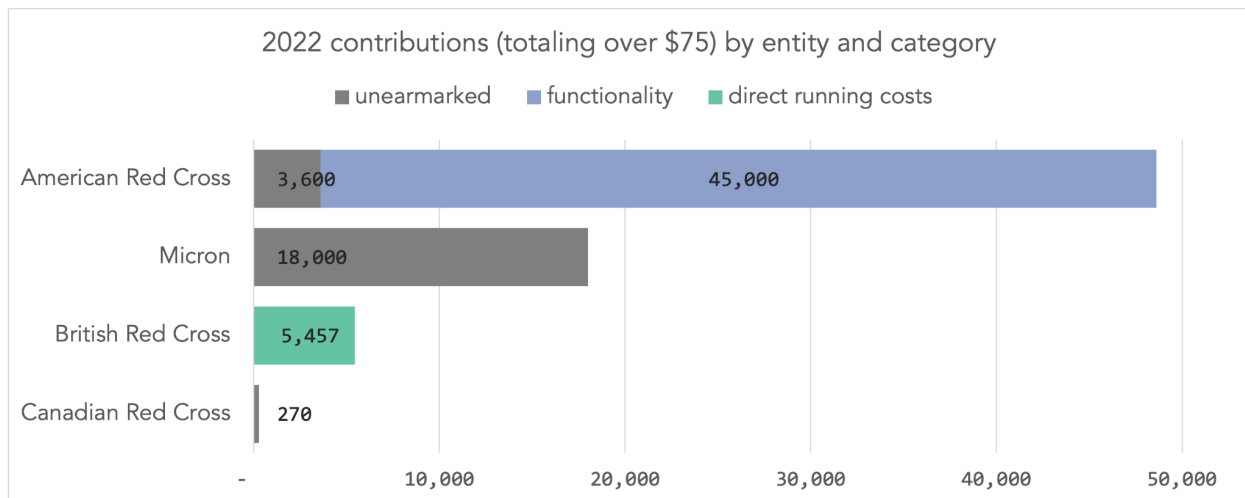
Some maintenance costs have been built into functionality improvements. That is, a project adding something new to MapSwipe will also include security and dependency updates.

As we continue to grow the MapSwipe community, grow the amount of data created, add new functionalities we expect to see a continued increase in running costs.

Detailed breakdown of those financially involved

2022 contributions and payments

All reported amounts are in USD. Transactions through OpenCollective are in USD. When records are not in USD (for example, British Red Cross payments to Google Cloud) they are converted using the average exchange rate for the year as provided by Exchange Rates UK. Please note that this summary does not include the time freely given by volunteers. The contribution amounts represent the amount available to MapSwipe reduced by any payment processor fees or host fees (from Open Collective) which are detailed in the following section on overhead.



	Contribution	Payment	Grand Total
Corporate donor	18,000.00		18,000.00
Micron	18,000.00		18,000.00
Individual	100.81	(7,611.92)	(7,511.11)
Dan Joseph	8.41		8.41
Laurent Savaète		(7,611.92)	(7,611.92)
Peter Masters	45.12		45.12
Sam Colchester	47.28		47.28
Organizational partner	54,327.08	(1,500.00)	52,827.08
American Red Cross	48,600.00		48,600.00
British Red Cross	5,457.08		5,457.08
Canadian Red Cross	270.00		270.00
HeiGIT		(1,500.00)	(1,500.00)
Project partner		(40,000.00)	(40,000.00)
Togglecorp		(40,000.00)	(40,000.00)
Service provider		(5,520.52)	(5,520.52)
Google Cloud		(5,457.08)	(5,457.08)
Hetzner Cloud		(63.44)	(63.44)
Grand Total	\$72,427.89	(\$54,632.44)	\$17,795.45

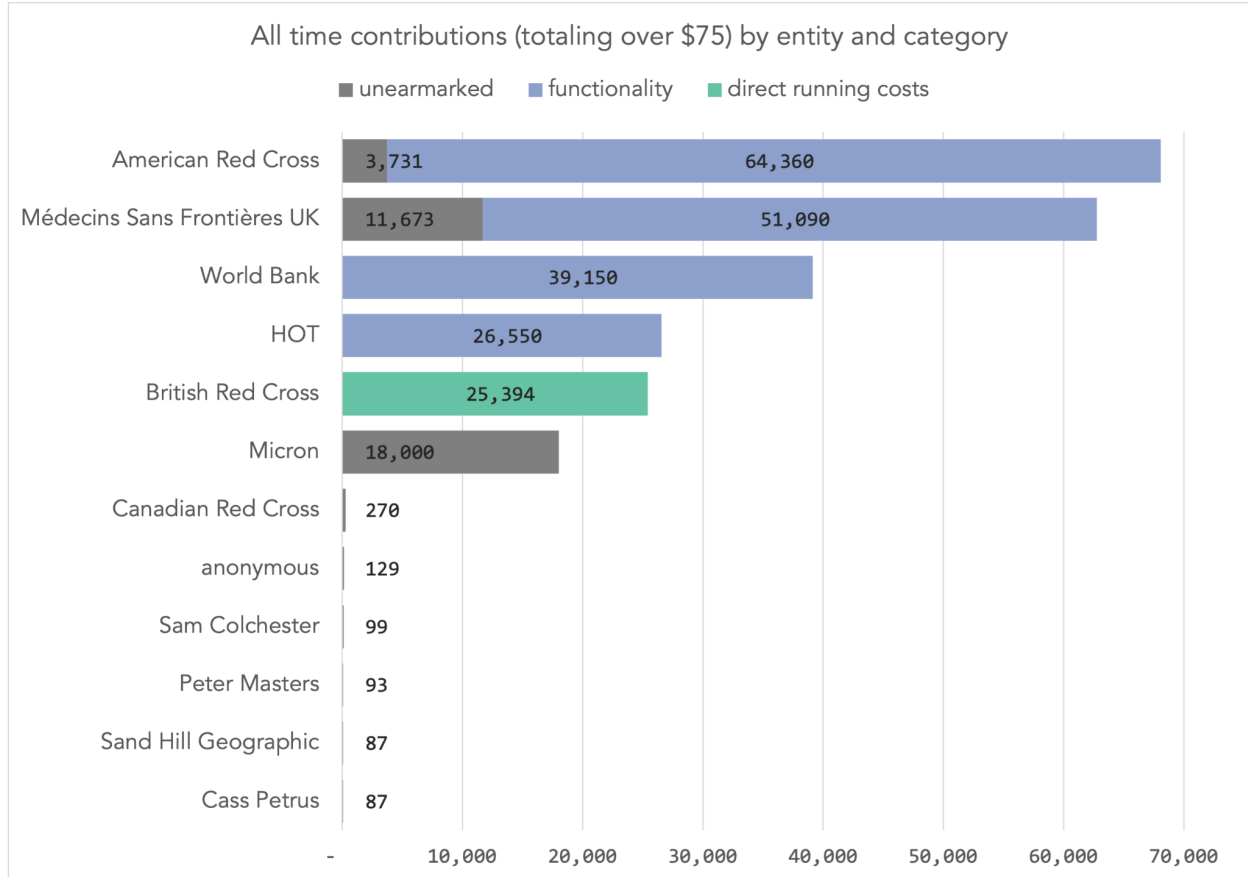
Overhead on 2022 contributions

These were included in the contributions but went to cover costs of using OpenCollective; payment processor fees for credit card transactions and host fees are the 10% paid to our fiscal host on the platform. For example, Micron's contribution was \$20,000: \$18,000 available to MapSwipe as shown in the summary table + \$2,000 in host fees shown below.

	Payment processor fees	Host fees
Corporate donor	0.00	(2,000.00)
Micron	0.00	(2,000.00)
Individual	(16.19)	(13.00)
Dan Joseph	(0.59)	(1.00)
Peter Masters	(8.88)	(6.00)
Sam Colchester	(6.72)	(6.00)
Organizational partner	0.00	(430.00)
American Red Cross	0.00	(400.00)
Canadian Red Cross	0.00	(30.00)
Grand Total	(\$16.19)	(\$2,443.00)

All time (2016 - 2022) contributions and payments

All reported amounts are in USD. Transactions through OpenCollective are in USD. When records are not in USD (for example, British Red Cross payments to Google Cloud) they are converted using the average exchange rate for the year as provided by Exchange Rates UK. Please note that this summary does not include the time freely given by volunteers. The contribution amounts represent the amount available to MapSwipe reduced by any payment processor fees or host fees (from Open Collective) which are detailed in the following section on overhead.



	Contribution	Payment	Grand Total
Corporate donor	18,086.80		18,086.80
Micron	18,000.00		18,000.00
Sand Hill Geographic	86.80		86.80
Individual	630.38	(97,104.55)	(96,474.17)
(initial dev team)		(40,272.48)	(40,272.48)
anonymous	128.55		128.55
Cass Petrus	86.80		86.80
Chris Baldock		(900.00)	(900.00)
Dan Joseph	8.41		8.41
Davidson Davidson	21.10		21.10

	Contribution	Payment	Grand Total
Ine Hendriks	16.92		16.92
Jan Burnell	59.97		59.97
Janet Helleberg	36.00		36.00
Jess Bergmann		(5,650.00)	(5,650.00)
Johnny Henshall		(9,887.00)	(9,887.00)
Laurent Savaëte		(40,395.07)	(40,395.07)
maGIScian	16.92		16.92
Michael Crino	43.25		43.25
Mike Spaans	8.26		8.26
Peter Masters	92.68		92.68
Ramona	3.98		3.98
Sam Colchester	99.28		99.28
Stefan	8.26		8.26
Organizational partner	183,067.98	(37,842.63)	145,225.35
American Red Cross	68,090.82		68,090.82
British Red Cross	25,394.05		25,394.05
Canadian Red Cross	270.00		270.00
HeiGIT		(36,487.43)	(36,487.43)
HOT	26,550.43		26,550.43
Médecins Sans Frontières UK	62,762.68	(1,355.20)	61,407.48
Project partner	39,150.00	(44,750.00)	(5,600.00)
Ovio		(4,750.00)	(4,750.00)
Togglecorp		(40,000.00)	(40,000.00)
World Bank	39,150.00		39,150.00
Service provider		(34,919.50)	(34,919.50)
DNS provider		(62.50)	(62.50)
Google Cloud		(34,793.56)	(34,793.56)
Hetzner Cloud		(63.44)	(63.44)
Grand Total	\$240,935.16	(\$214,616.68)	\$26,318.49

All time (2016 - 2022) overhead on contributions

These were included in the contributions but went to cover costs of using OpenCollective; payment processor fees for credit card transactions and host fees are the 10% paid to our fiscal host on the platform. For example, Micron's contribution was \$20,000: \$18,000 available to MapSwipe as shown in the summary table + \$2,000 in host fees shown below.

	Payment processor fees	Host fees
Corporate donor	(3.20)	(2,010.00)
Micron		(2,000.00)
Sand Hill Geographic	(3.20)	(10.00)
Individual	(53.62)	(76.00)
anonymous	(6.45)	(15.00)
Cass Petrus	(3.20)	(10.00)
Dan Joseph	(0.59)	(1.00)
Davidson Davidson	(1.40)	(2.50)
Ine Hendriks	(1.08)	(2.00)
Jan Burnell	(3.03)	(7.00)
Janet Helleberg	(4.50)	(4.50)
maGIscian	(1.08)	(2.00)
Michael Crino	(1.75)	(5.00)
Mike Spaans	(0.74)	(1.00)
Peter Masters	(15.32)	(12.00)
Ramona	(0.52)	(0.50)
Sam Colchester	(13.22)	(12.50)
Stefan	(0.74)	(1.00)
Organizational partner		(1,741.54)
American Red Cross		(414.54)
Canadian Red Cross		(30.00)
Médecins Sans Frontières UK		(1,297.00)
Grand Total	(\$56.82)	(\$3,827.54)

This report has been compiled and approved by the current MapSwipe governance team:

- *Benni Herfort (HeiGIT)*
- *Dan Joseph (American Red Cross)*
- *Johnny Henshall (British Red Cross)*
- *Jorieke Vyncke (Médecins Sans Frontières)*
- *Laurent Savaete (Volunteer)*

4 February 2023