



Running the internet, under-funded and under-staffed?

How to achieve a sustainable open source ecosystem



100 FREEDOMS OF FREE SOFTWARE

001 USE

010 STUDY

011 SHARE

100 IMPROVE

fsfe.org

vs.



Economic Sustainability

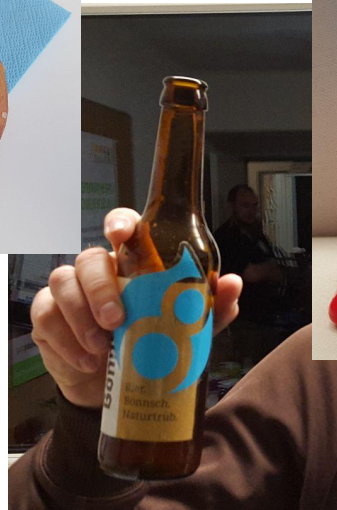
The project has funding to
continue operations



Economic Sustainability

The project has funding to continue operations for years to come.







Communicating securely with Mailvelope



Your sensitive data is securely protected by us.

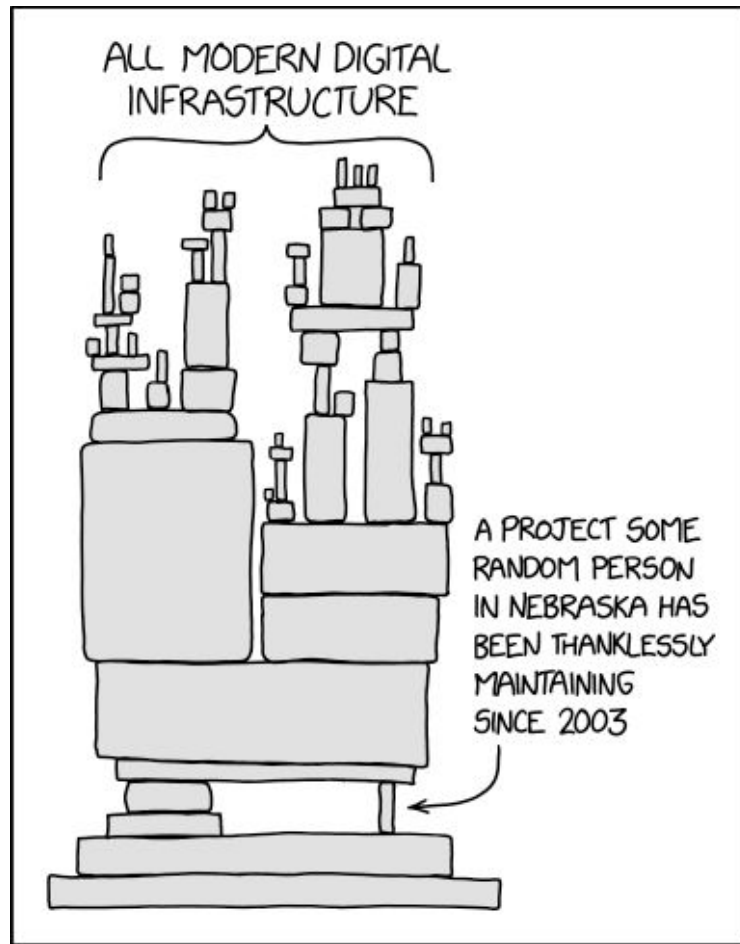


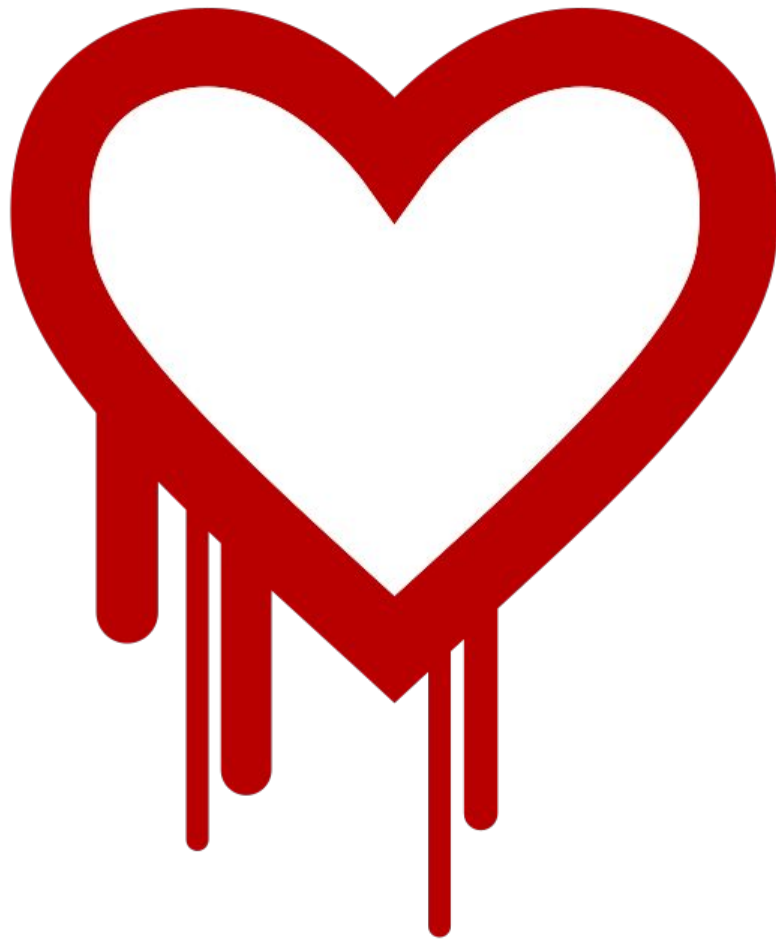
No unauthorized person can read your data on the way – not even your provider.



And best of all, it's so simple that anyone can join in.







Credit: Leena Snidate / Codenomicon, CC0, via Wikimedia Commons



“So the mystery is not that a few overworked volunteers missed this bug; the mystery is why it hasn’t happened more often.”

- [Steve Marquess](#), OpenSSL



10 years after

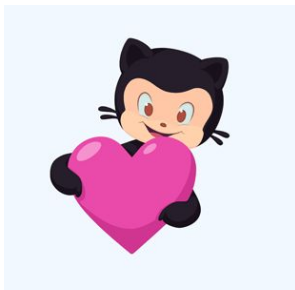


Internews

**Sovereign
Tech Fund**



**CORE
INFRASTRUCTURE
INITIATIVE**



Free and Open-Source Software
Sustainability Fund

And still...

- 96% of the surveyed codebases included OSS
- 77% of the code in the codebases was OSS
- 49% of code bases included OSS that had had no developer activity in the past two years
- 60% of open source maintainers describe themselves as “unpaid hobbyists.”
- 44% of all maintainers said they are the only person maintaining a project.

— Synopsys '24 Open Source Security Report
(audited > 1,700 codebases across 17 industries, [source](#))

— Tidelift study 2023,
<https://thenewstack.io/open-source-needs-maintainers-but-how-can-they-get-paid>



The Economics of Open Source



Voluntary,
unpaid work



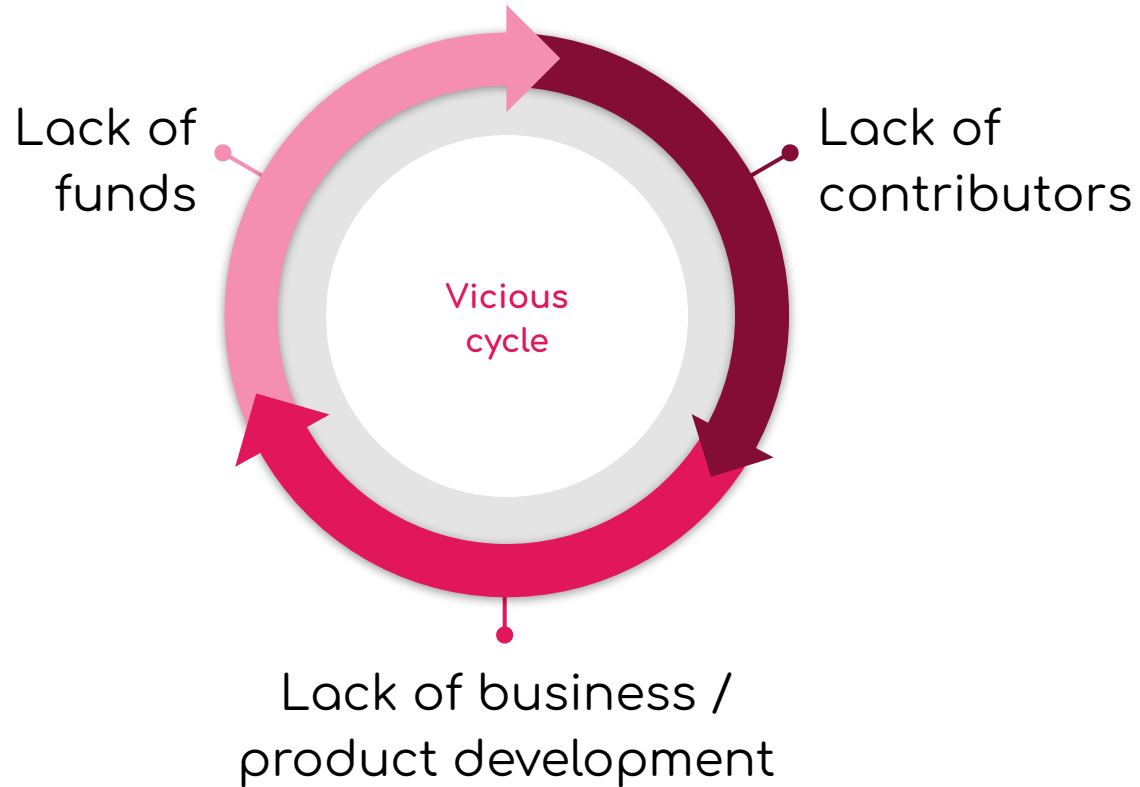
Voluntary,
unpaid work

The World's Email Encryption Software Relies on One Guy, Who is Going Broke

Werner Koch's code powers the email encryption programs around the world. If only somebody would pay him for the work.

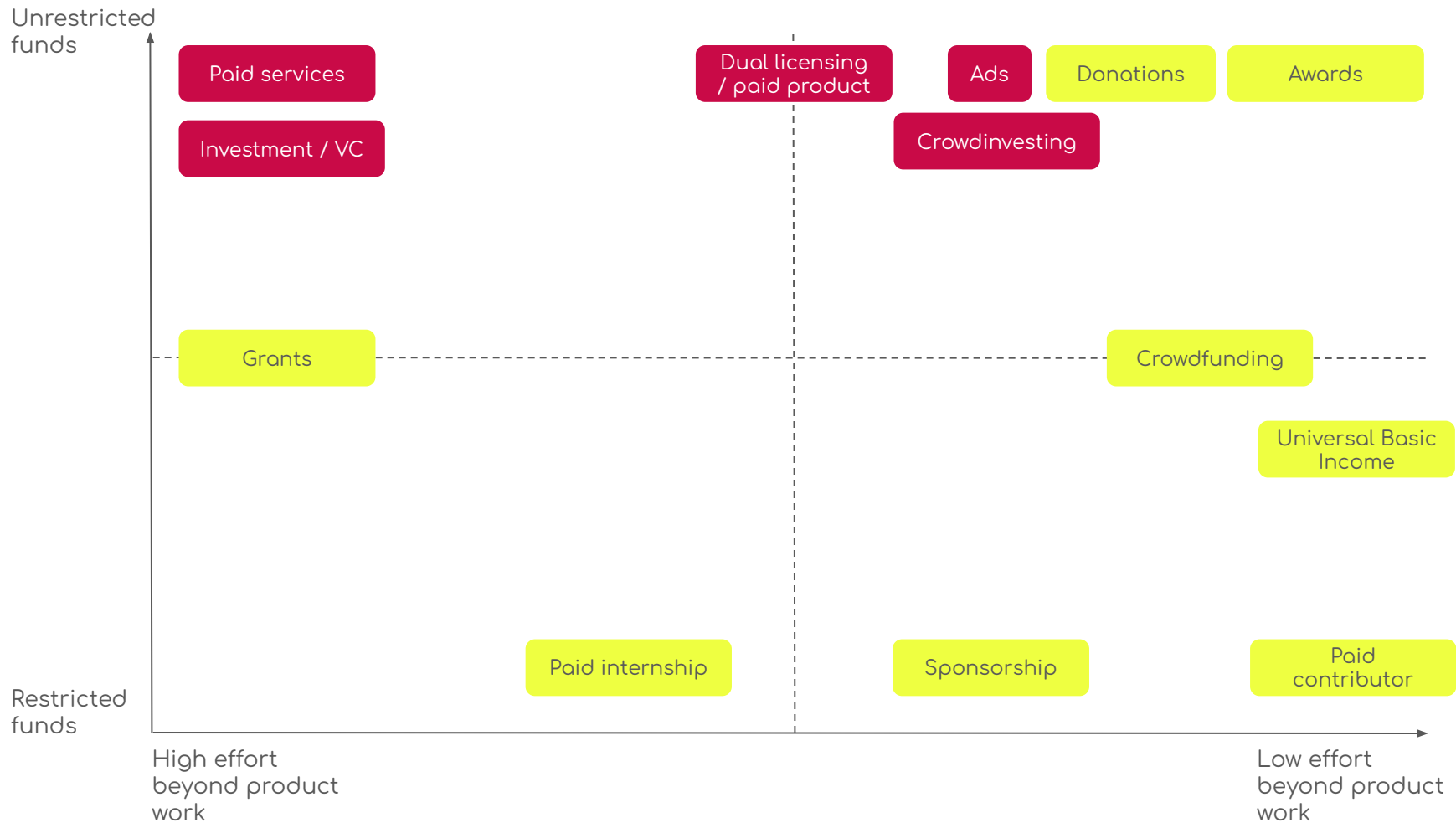
by Julia Angwin, Feb. 5, 2015, 11:24 a.m. EST





Sustaining F/OSS: Business and Funding Models





Non-profit funding models

A developer gets paid

- Universal Basic Income
- Paid internship
- Paid contributor / maintainer

The project receives funds

- Grants
- Awards
- Crowdfunding
- Sponsorship
- Donations



For-profit business models

Paid services

- Consulting
- Training
- Custom development
- Certifications
- Packaging / Deployment
- Hosting
- eyeo / ABP case

→ Non-product work finances the product development

Paid product / dual licensing

- Freemium
- Open Core
- Software as a service (SaaS)

→ Product sales finance the product development



Examples



Adblock Plus

What is it?	Browser extension
What does it do?	Block ads, tracking, malware
License:	GPL
Developed by	Adblock Inc (subsidiary of eyeo GmbH)
Available since	2006

Funded by

- Ads: eyeo's Acceptable Ads revenue
- Freemium
- Donations



Drupal

What is it?	CMS / DXP
What does it do?	Framework for web content publishing
License:	GPL
Developed by	Community
Available since	2001

Funded by

- Donations
- Grants (Drupal association)
- Sponsorships
- Paid contributors
- Paid services



GnuPG

What is it?	Crypto engine implementing PGP standard
What does it do?	Encrypt & signs data and communications; key management system
License:	GPL
Developed by:	Werner Koch / g10 Code GmbH
Available since	1997



Funded by

- Public funds (Germany, for GPG4Win and VS-Desktop)
- Crowdfunding
- Donations (by larger companies like Stripe, Facebook)
- Paid services (g10 Code GmbH)



Mailvelope

What is it?	Browser extension
What does it do?	Encrypt webmail communications
License:	AGPL
Developed by	Thomas Oberndörfer, Mailvelope GmbH
Available since	2012

Funded by

- Grants
- Paid subscriptions (Mailvelope Business)



Mozilla Firefox

What is it?	Browser
What does it do?	Encrypt webmail communications
License:	Mozilla Public License (MPL)
Developed by	Mozilla Foundation & Mozilla Corporation
Available since	2004



Funded by

- Donations (Mozilla Foundation)
- Paid services / Ads (Mozilla Corporation, 81% (2022) from Google paying for making it the default search engine)



MySQL

What is it?	Database Management System
What does it do?	Stores and manages information in databases
License:	GPL and proprietary
Developed by	MySQL AB
Available since	1995

Funded by

- Donations (Mozilla Foundation)
- Paid product via dual licensing



Learnings

Longevity built on

- keeping it small
- finding a profitable paid services business model
- building a profitable paid services ecosystem
- dual licensing
- securing (unrestricted) grants
- securing (large) donations



Economic Sustainability

The project has funding to
continue operations
for years to come.



Beware!

- Tip jars / Gig economy
- Restricted funds
- Short-term grants
- Grant writing overhead
- Donation taxation



How about...

funding Open Source maintainers with public money from (corporate) taxes?

applying licensing that requires you to pay money when you build commercial tooling on top of OSS?



International Women's Day

What Open Source
sustainability
means for us

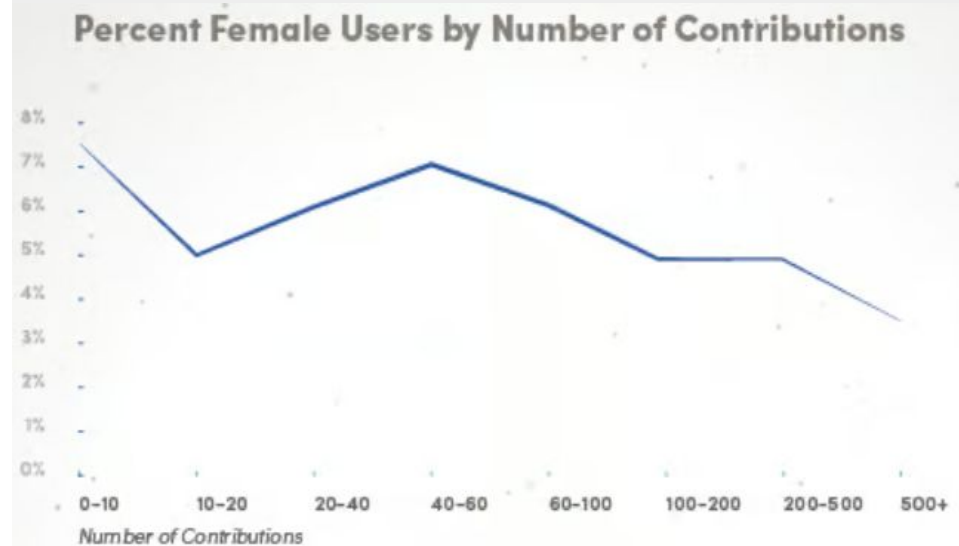
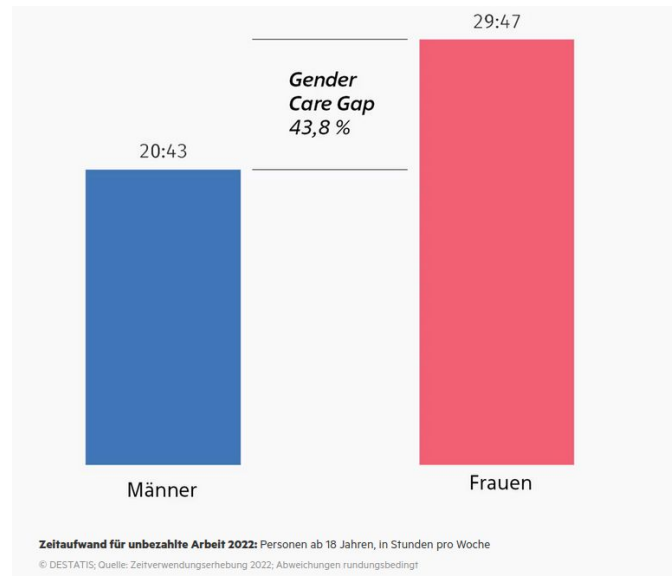


< 10%

female contributors to
Open Source repositories

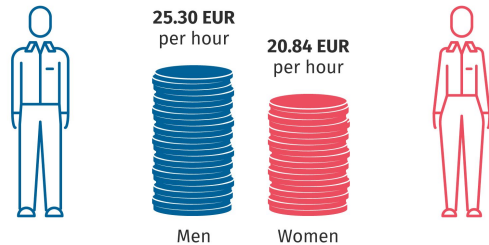
Sources: <https://www.toptal.com/open-source/is-open-source-open-to-women>,
<https://community.sap.com/t5/open-source-blogs/women-in-open-source/ba-p/13508760>,
<https://www.computer.org/csdl/magazine/co/2022/12/09963732/1lz0RZM9Wbm>





Gross average earnings, 2023

for calculating the gender pay gap



Open Source
sustainability
enables
diversity.



Source: Created by Midjourney



Thank you!

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