



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

How to achieve a sustainable open source ecosystem

re:publica, May 29 2024 | Jutta Horstmann | CEO, Mailvelope



# 100 FREEDOMS OF FREE SOFTWARE

001 USE

010 STUDY

011 SHARE

100 IMPROVE

[fsfe.org](http://fsfe.org)

VS.



# Economic Sustainability

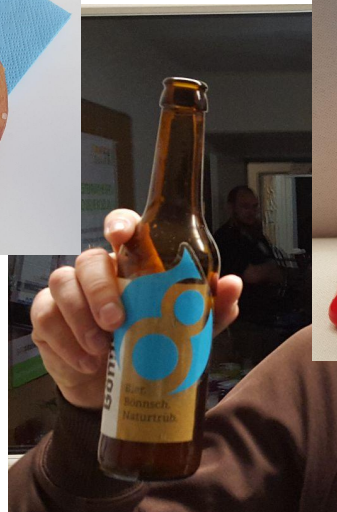
The project has funding to  
continue operations



# 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.

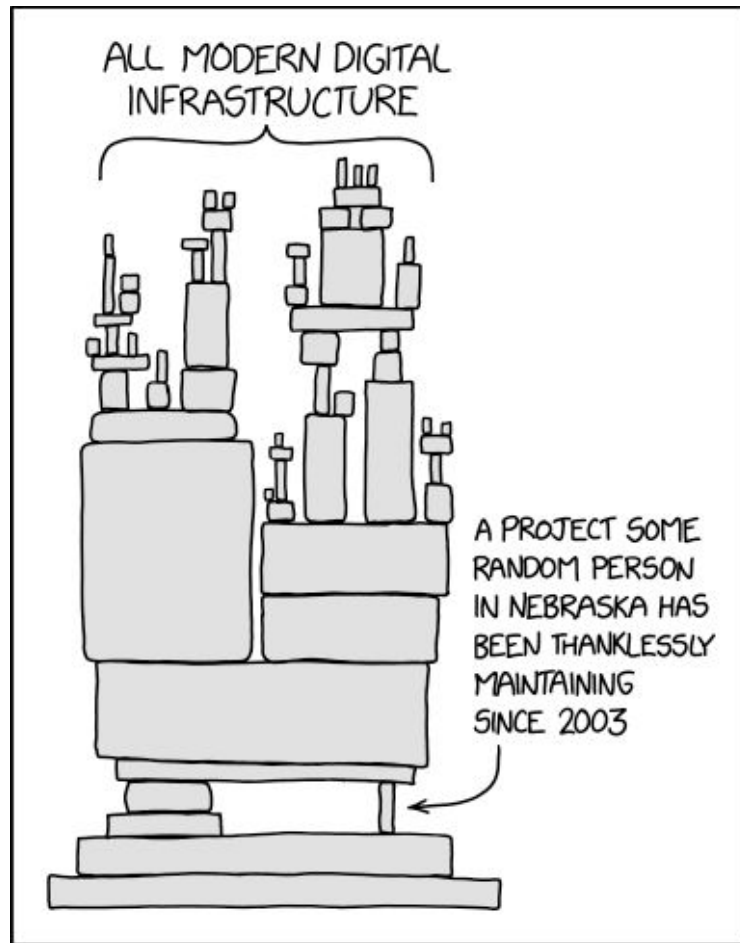


No unauthorized person can read your data on the way – not even your provider.

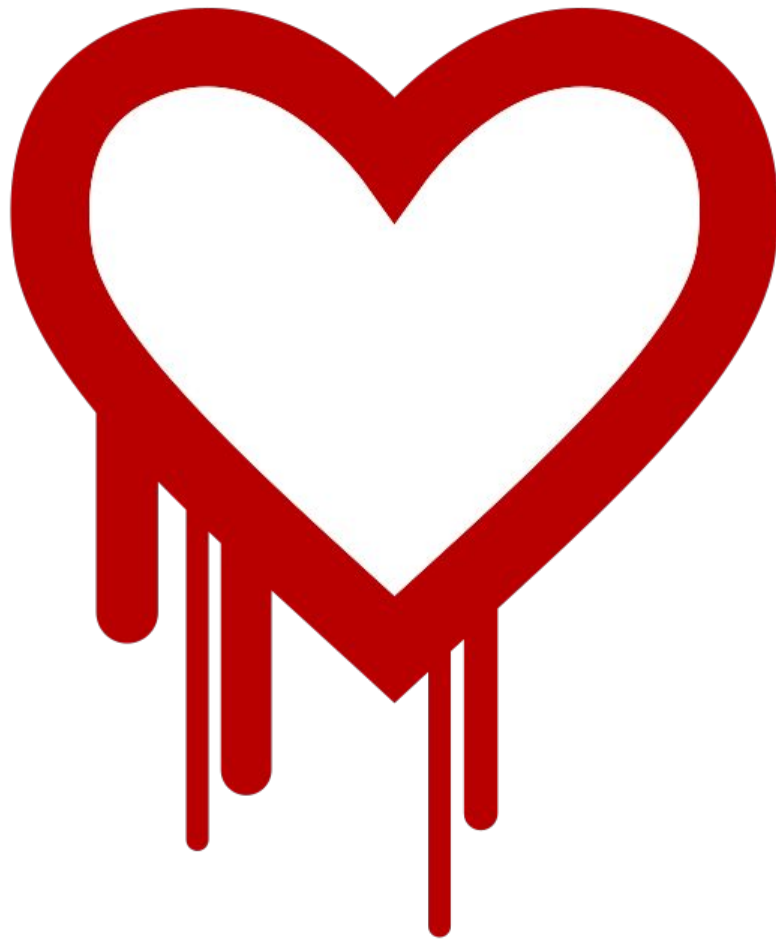


And best of all, it's so simple that anyone can join in.









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



OpenSSL



*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



# GnuPG

## 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



# Reactions

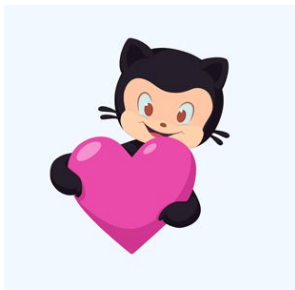


**Internews**

# Sovereign Tech Fund



**CORE  
INFRASTRUCTURE  
INITIATIVE**



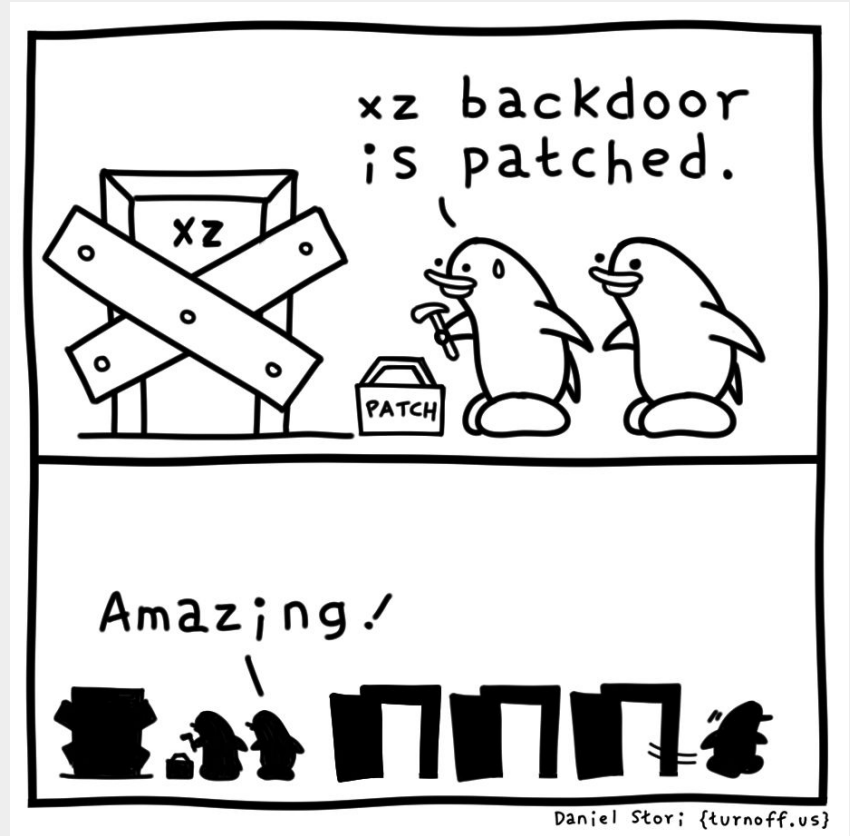
Free and Open-Source Software  
Sustainability Fund

# Log4j

Your next task is to figure out which applications in your org use log4j



# xz Utils



# The situation today

- 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>





How to make a living from  
building Open Source software?



# The Economics of Open Source



Voluntary,  
unpaid work



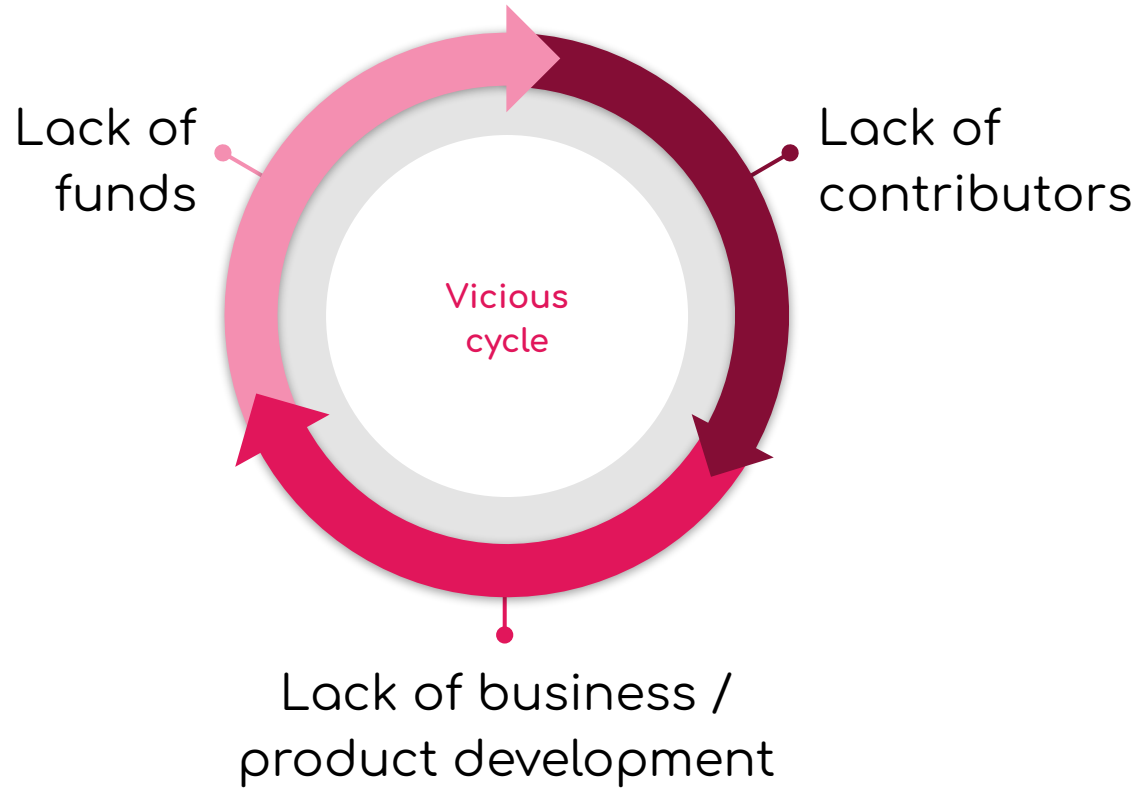
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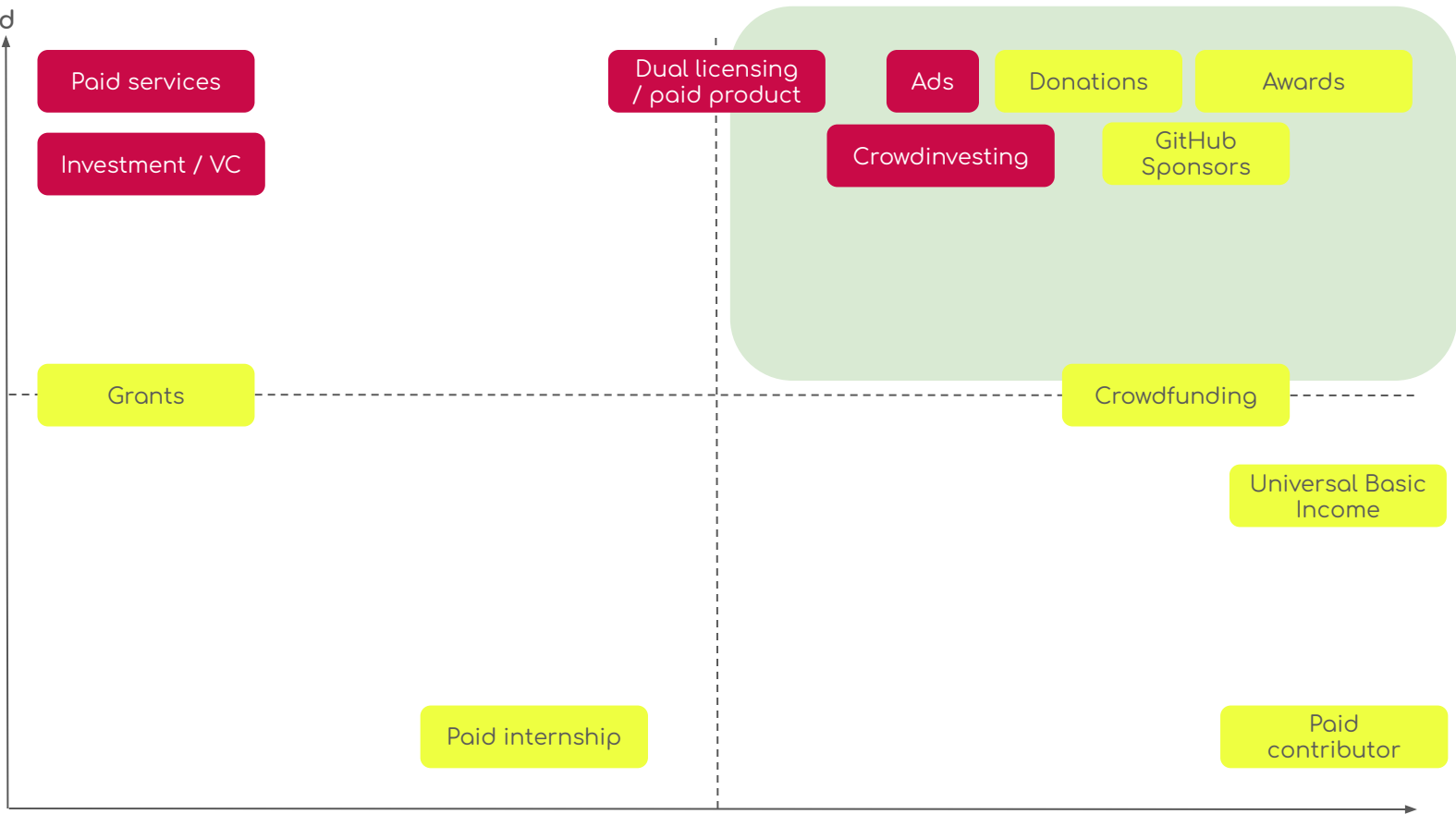


# Sustaining F/OSS: Business and Funding Models



Unrestricted funds

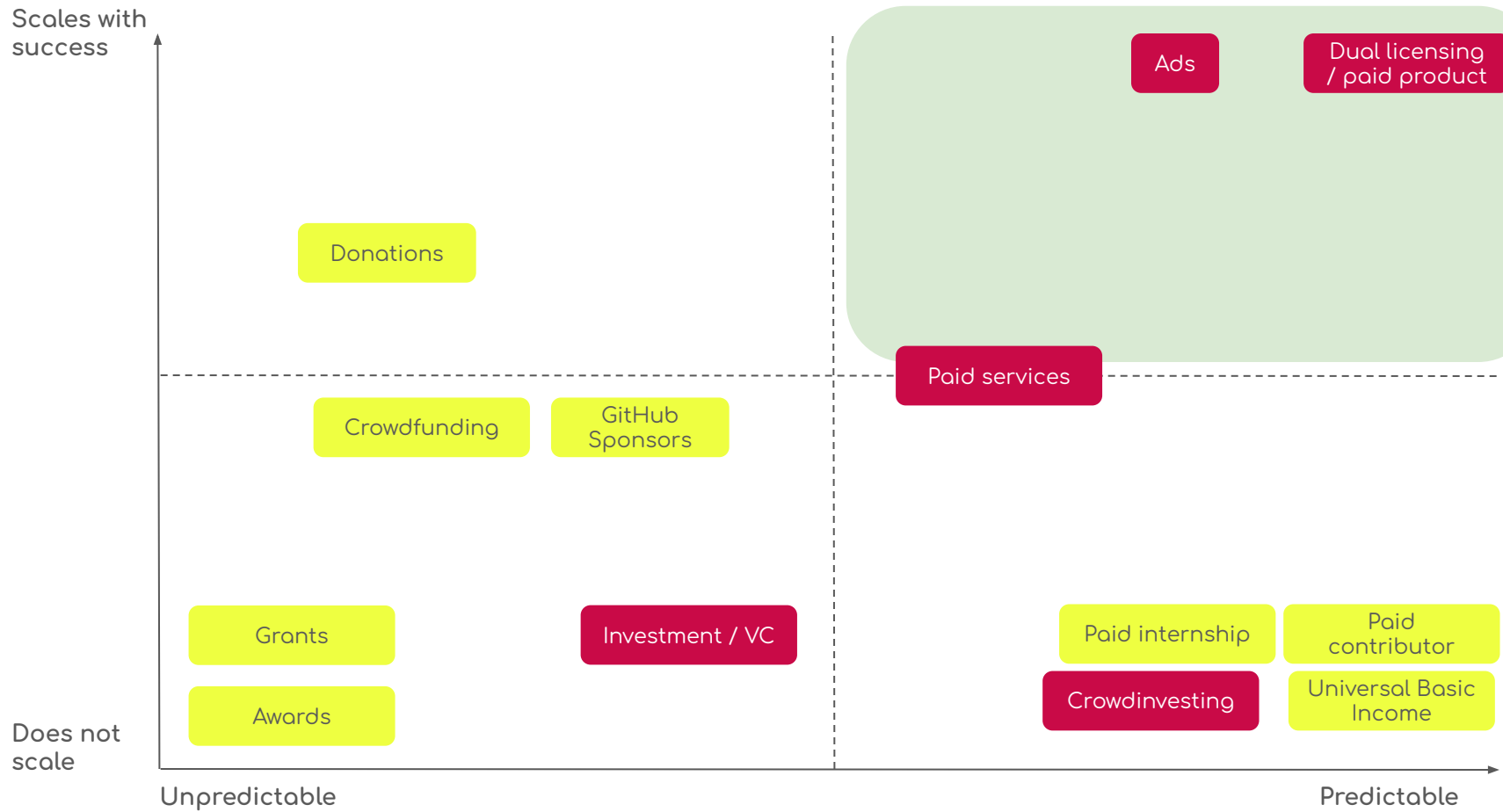
Restricted funds



High effort beyond product work

Low effort beyond product work







# 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 / paid services: 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 contract (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 the organization 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 offerings on top of OSS?



# Licensing

“I want everyone to be able to use my code only for non-commercial purposes.”

- Commons Clause: <https://commonsclause.com>
- Sustainable License:  
<https://manishrjain.com/sustainable-license-faq>
- Heather Meeker: <https://heathermeeker.com/about-me/>



# 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>



# 18%

Gender pay gap: In Germany, women earn 18% less than men.

(2022, DESTATIS)



9h

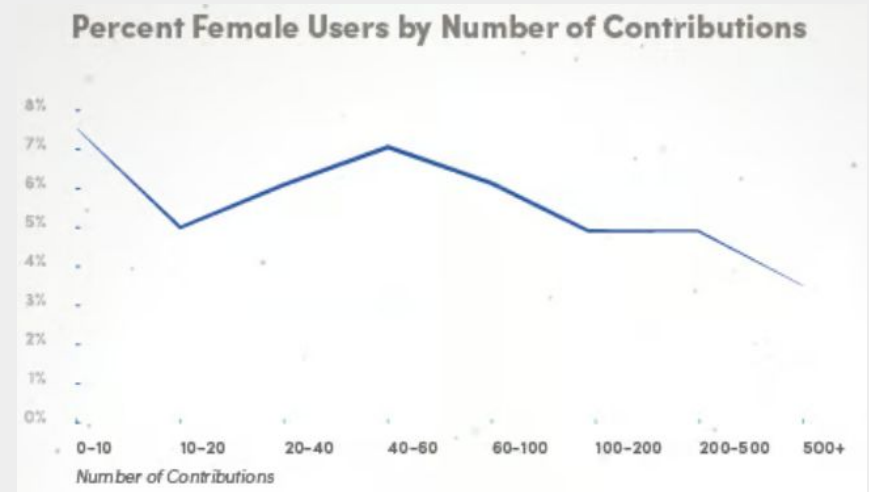
Gender care gap: Per week, women work 9h more unpaid than men do.

(2022, DESTATIS, Germany)





How can one expect women to contribute to Open Source when that means spending spare time we don't have, on another topic we are not going to be paid for?



<https://www.toptal.com/open-source/is-open-source-open-to-women>

Open Source  
sustainability  
enables  
diversity.



Source: Created by Midjourney



# Thank you!

Jutta Horstmann

CEO, Mailvelope GmbH

[jutta@mailvelope.com](mailto:jutta@mailvelope.com)

<https://www.linkedin.com/in/jhorstmann/>

@smphr (Mastodon)

PGP: [89D1 69A3 ECAD CA3D A4E6 F3A7 DFA4 EE0F 9113 4859](https://www.mailvelope.com/pgp/89D169A3ECADCA3DA4E6F3A7DFA4EE0F91134859)



Mailvelope GmbH

<https://www.mailvelope.com>

@mailvelope (X, Mastodon)

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