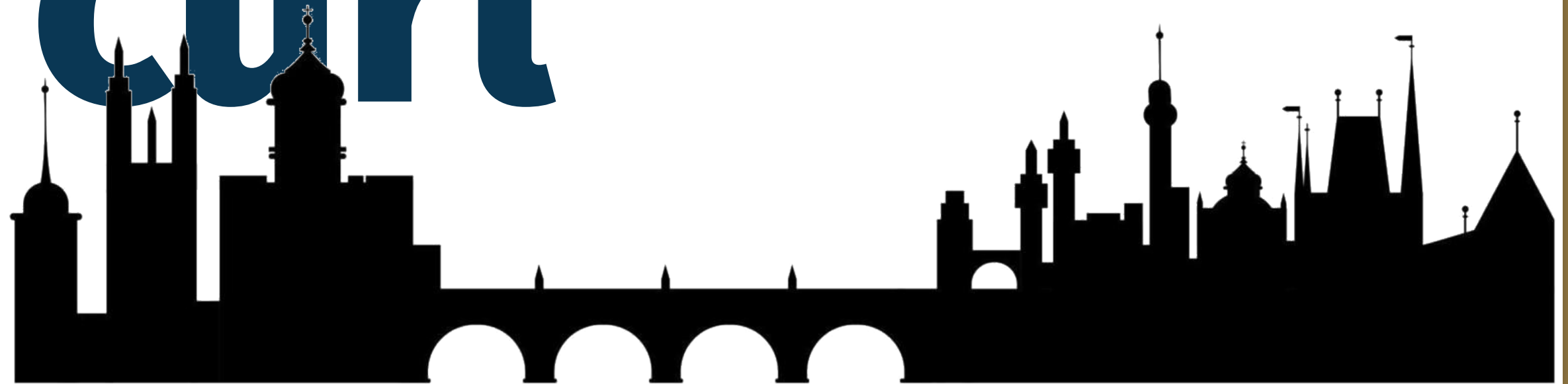


curl://up
2026

the state of

curl



last year

right now

next year



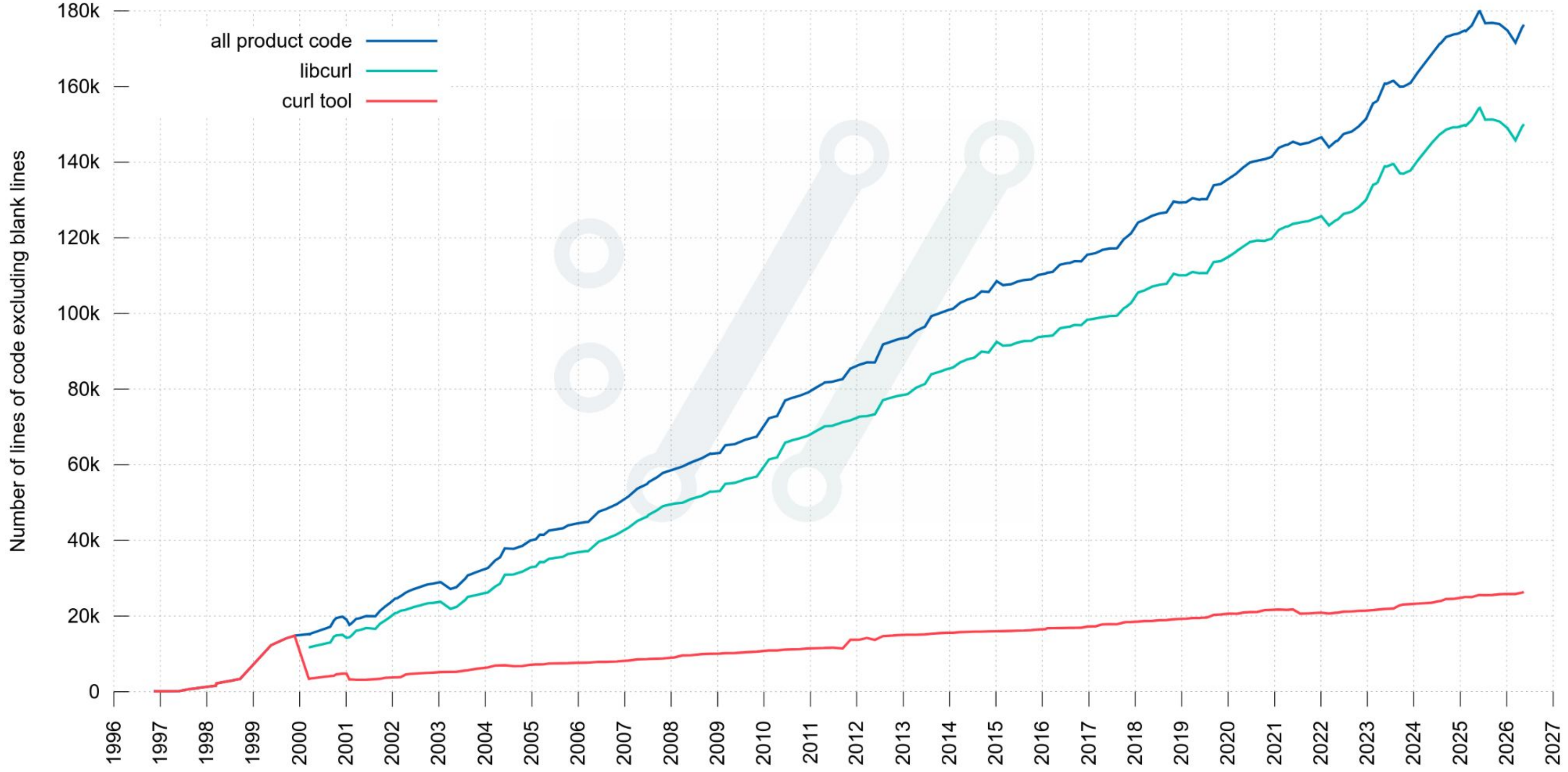
~~28~~ 30 years

Growth and size

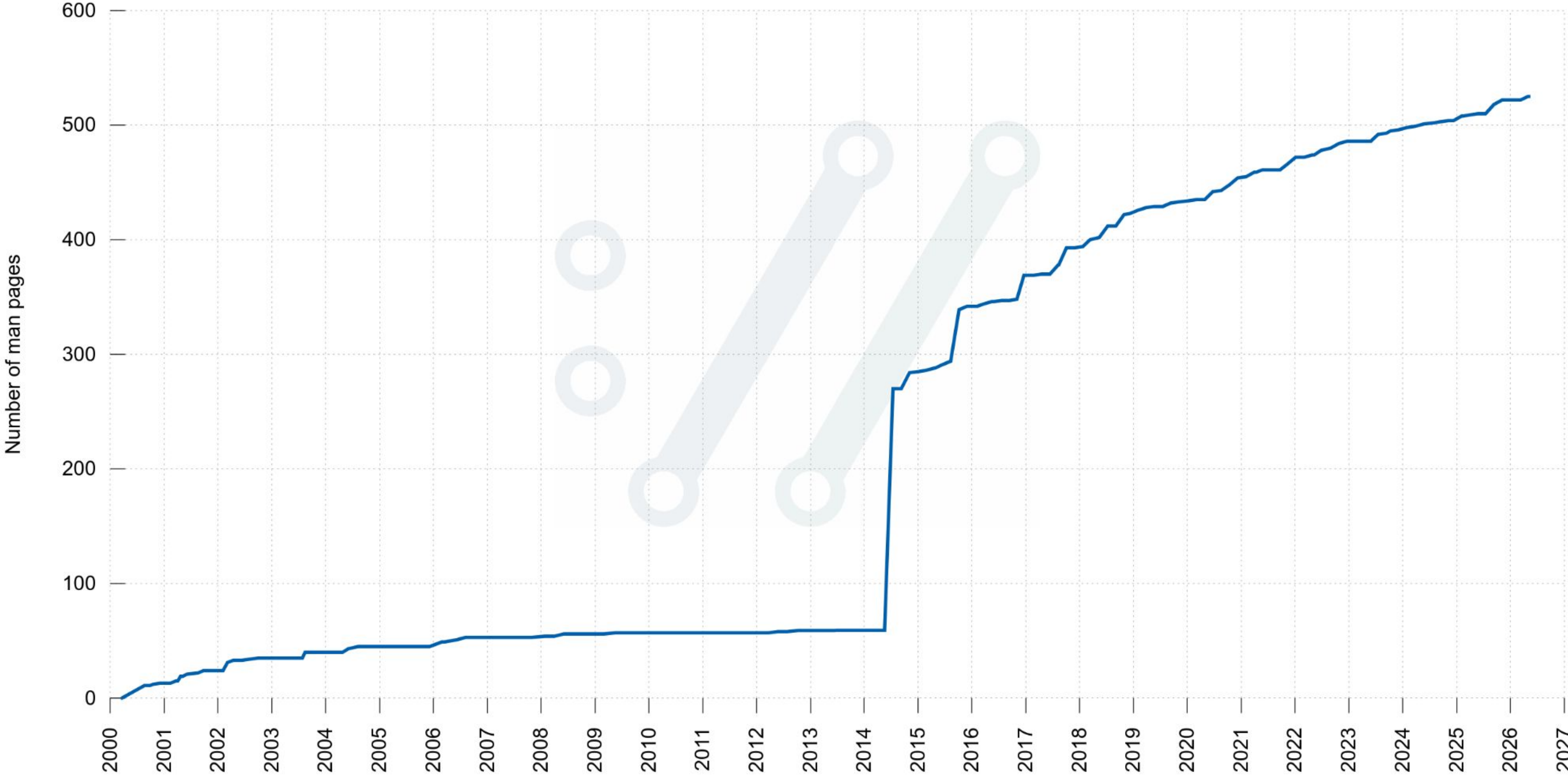
At 176K LOC and climbing

-3K (-2%) than last year

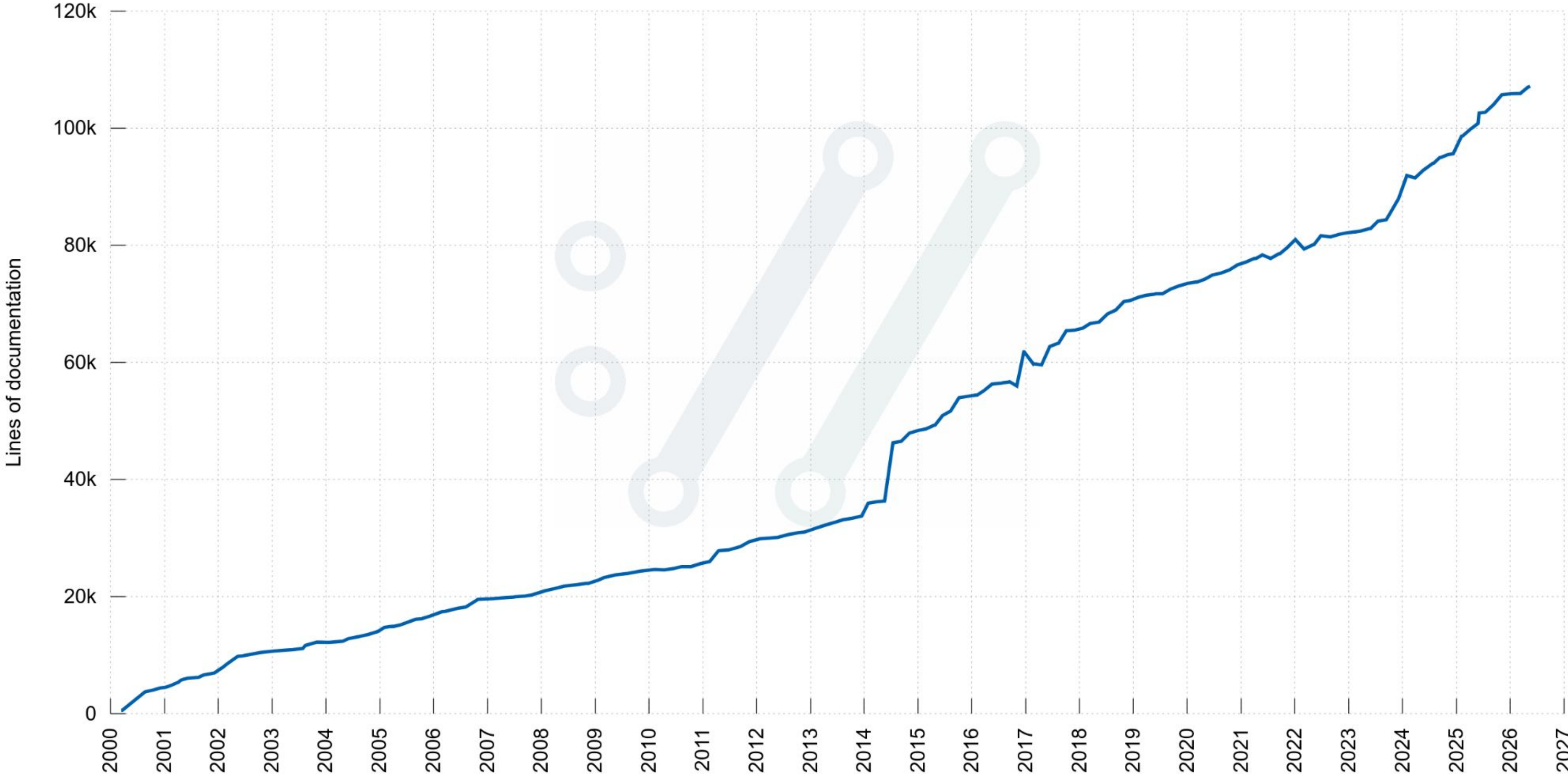
Lines of code (incl comments)



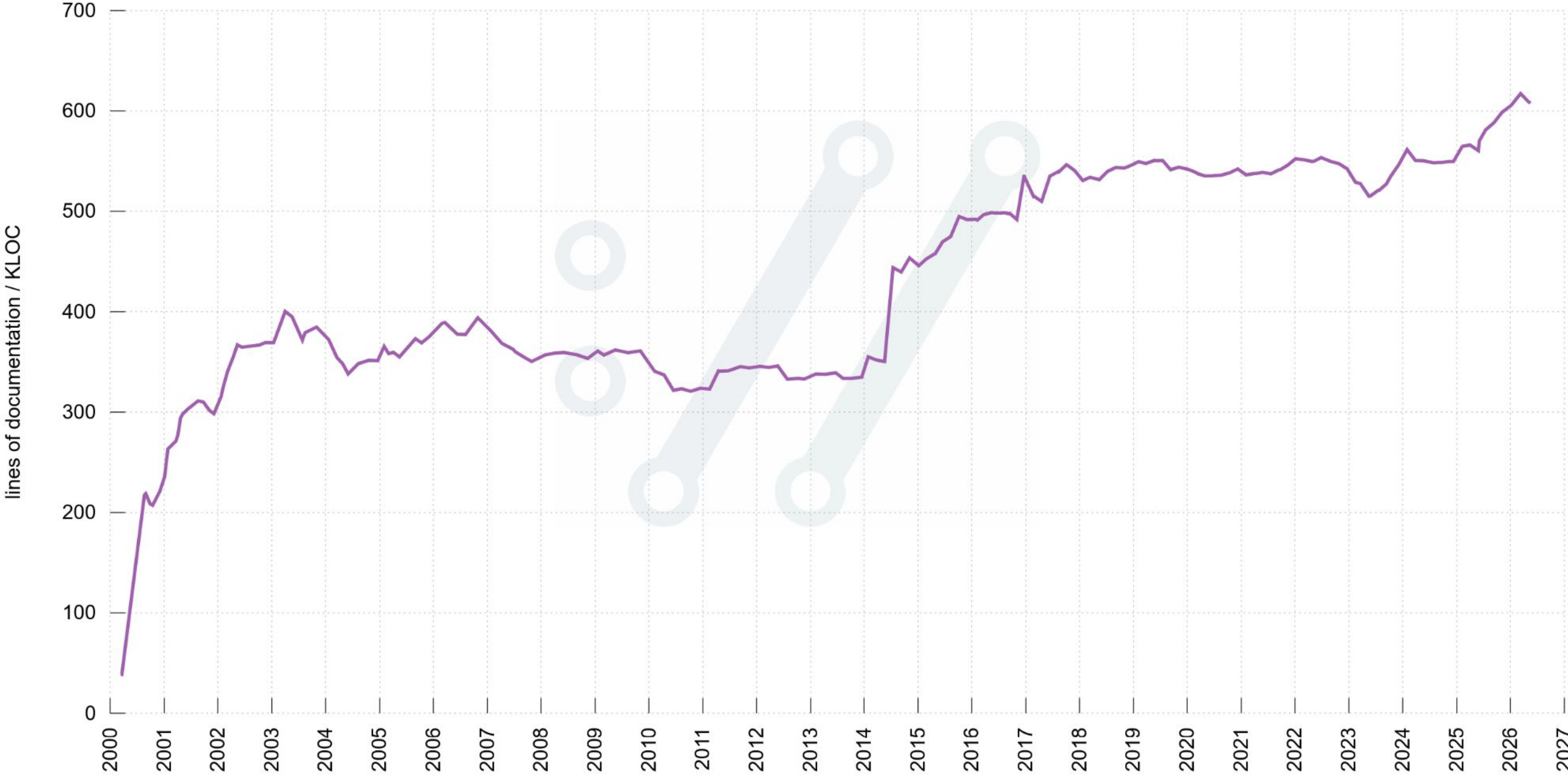
Man pages



Lines of documentation

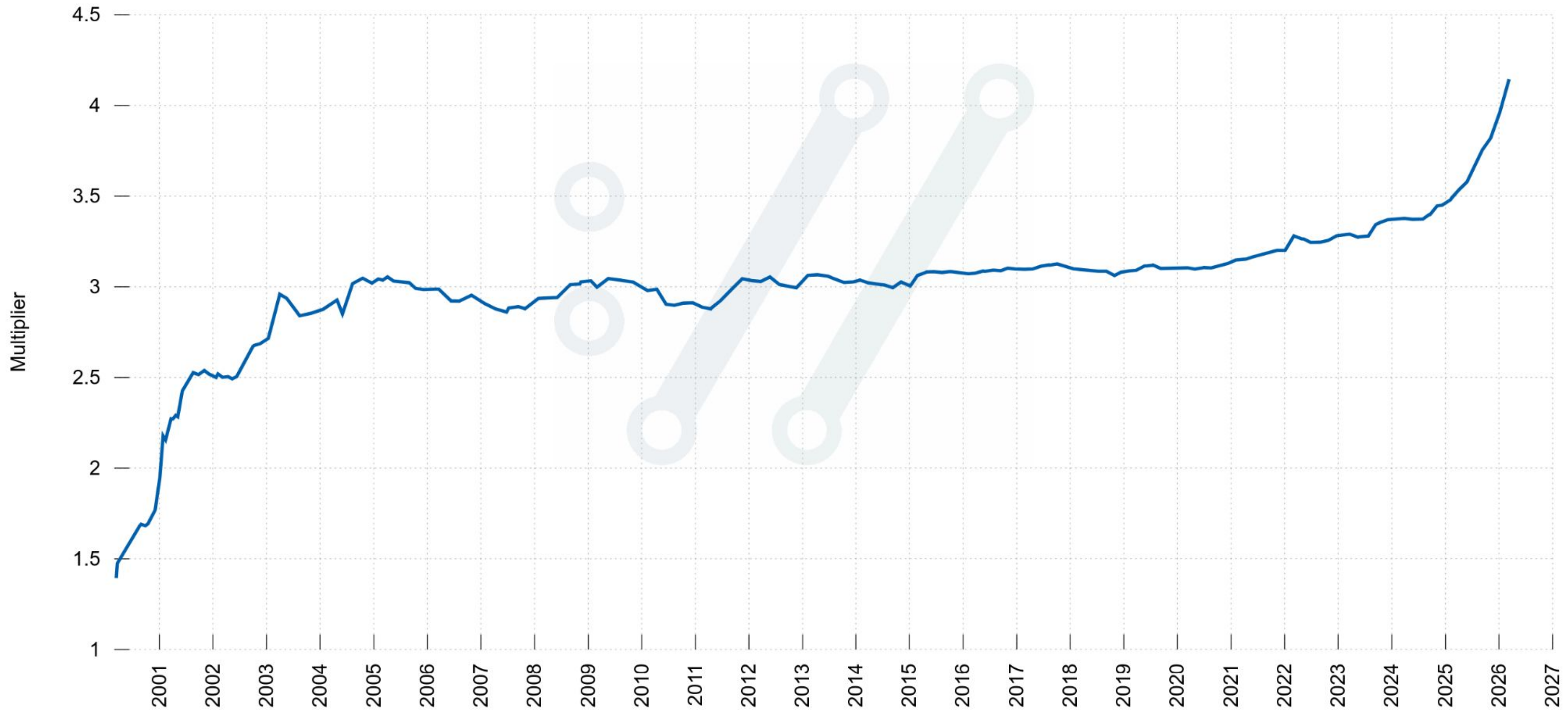


Lines of docs per KLOC



Added LOC per LOC still present

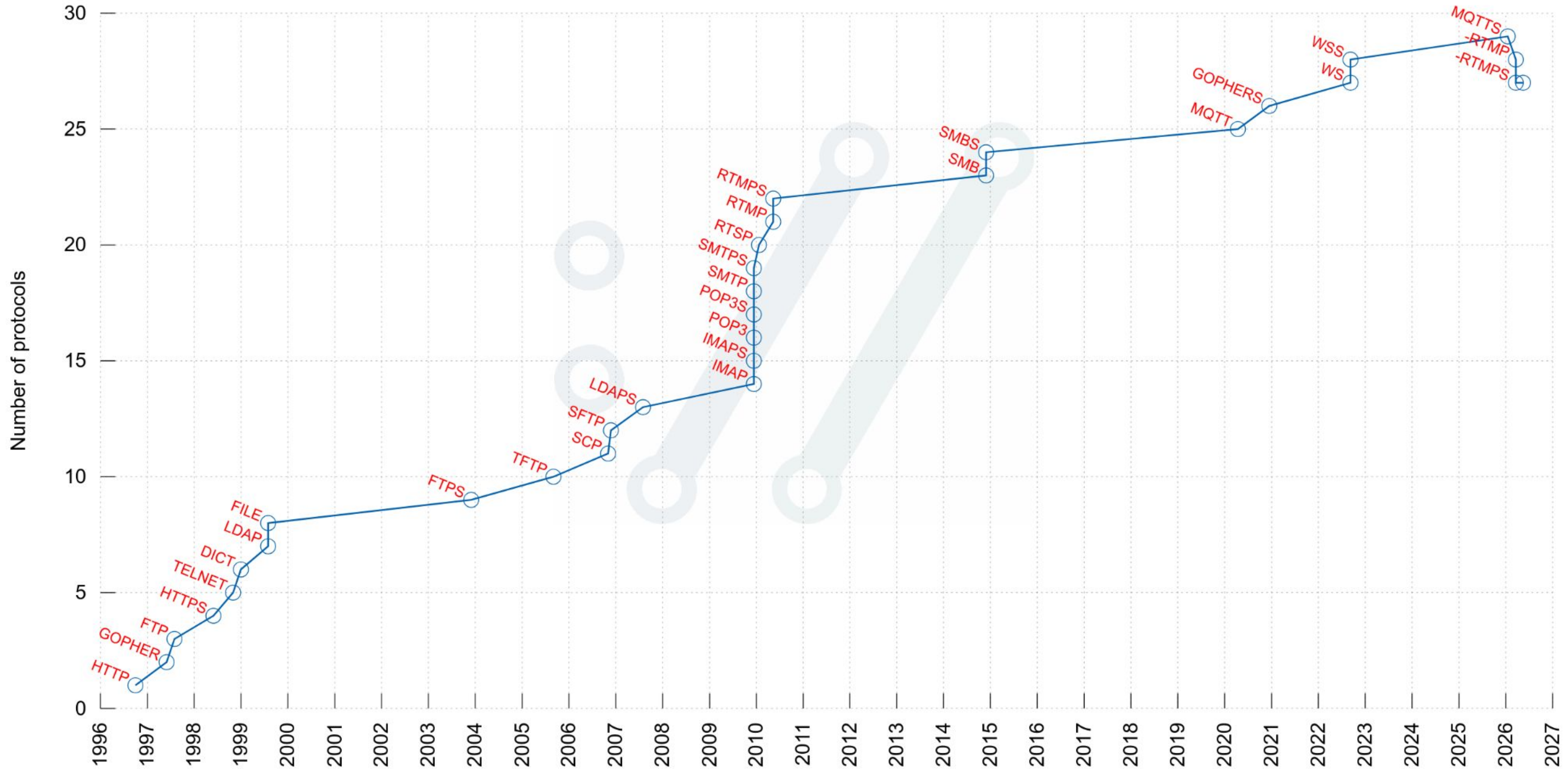
in product code only



27 transfer protocols

-1 since last year

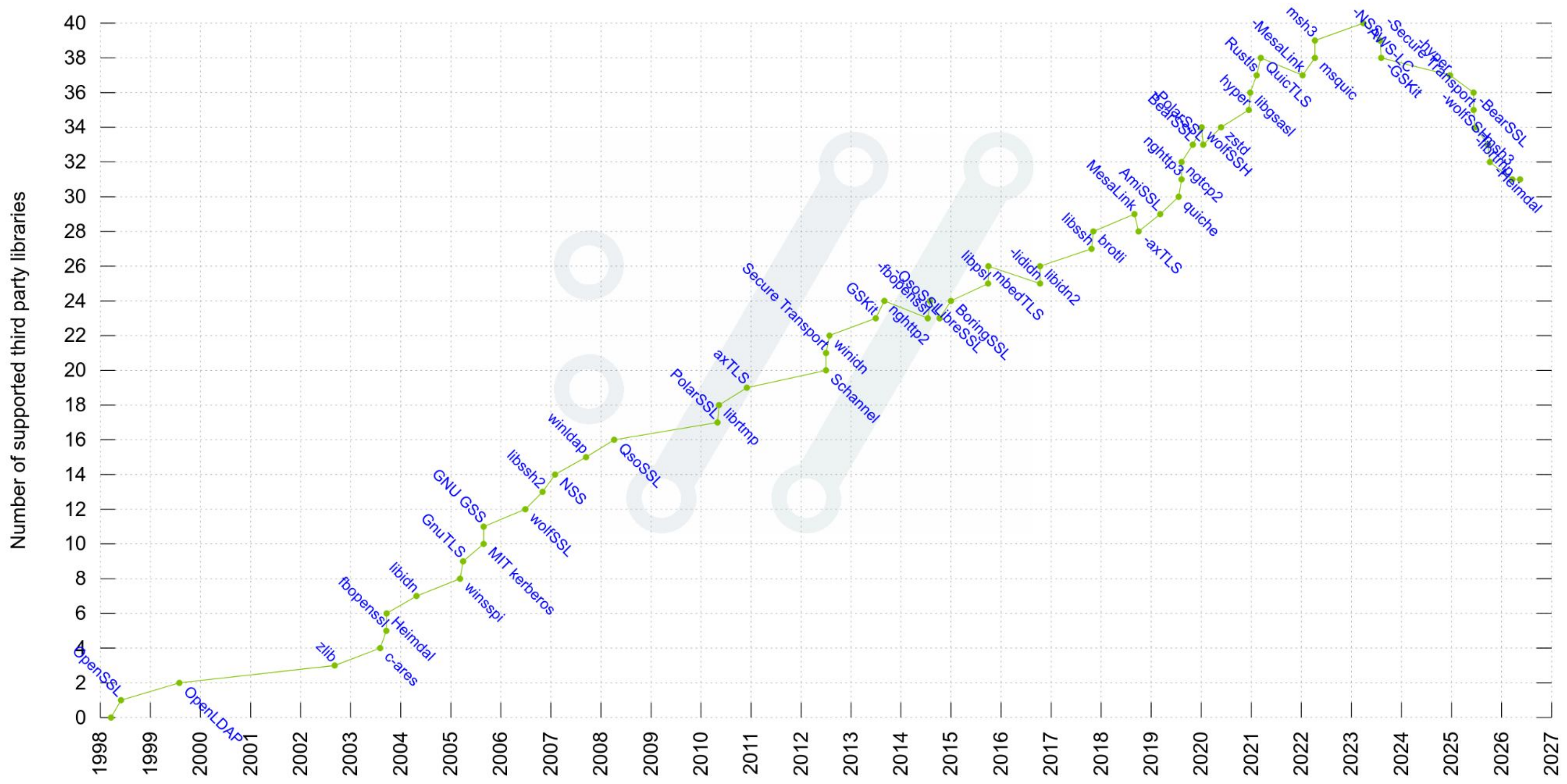
Transfer protocols



31 third party dependencies

-4 since last year

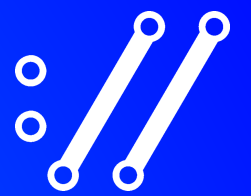
Third party libraries



111 operating systems

+5 since last year

111 operating systems



AIX	AmigaOS	Android	ArcaOS	Aros	Atari FreeMiNT	A/UX	Azure Sphere	BeOS	Blackberry 10
Blackberry Tablet OS	Cell OS	Cesium	CheriBSD	Chrome OS	Cisco IOS	DG/UX	DragonFly BSD	DR DOS	eCOS
FreeBSD	FreeDOS	FreeRTOS	Fuchsia	Garmin OS	Genode	Haiku	HardenedBSD	HP-UX	Hurd
IBM I	Illumos	Integrity	iOS	ipadOS	IRIX	KasperskyOS	Linux	Lua RTOS	Mac OS 9
macOS	Maemo	Mbed	Meego	Minoca	Micrium	MINIX	Moblin	MorphOS	MPE/iX
MS-DOS	NCR MP-RAS	NetBSD	NetWare	NextStep	Nintendo Switch	Nintendo 3DS	NonStop OS	NuttX	OpenBSD
OpenStep	Orbis OS	OS/2	OS21	PikeOS	Plan 9	PlayStation 3	PlayStation Portable	QNX	Qubes OS
ReactOS	Redox	RISC OS	ROS	RTEMS	Sailfish OS	SCO Unix	Serenity	SINIX-Z	SkyOS
SmartOS	Solaris	Sortix	SunOS	Syllable OS	Symbian	Tizen	TPF	Tru64	tvOS
uClinux	Ultrix	UNICOS	UnixWare	visionOS	VMS	vxWorks	watchOS	Wear OS	WebOS
Wii System Software	Wii U	Windows	Windows CE	Xbox System	Xenix	Zephyr	z/OS	z/TPF	z/VM
z/VSE									

known to have run curl

28 CPU architectures

no change since last year

28 CPU architectures

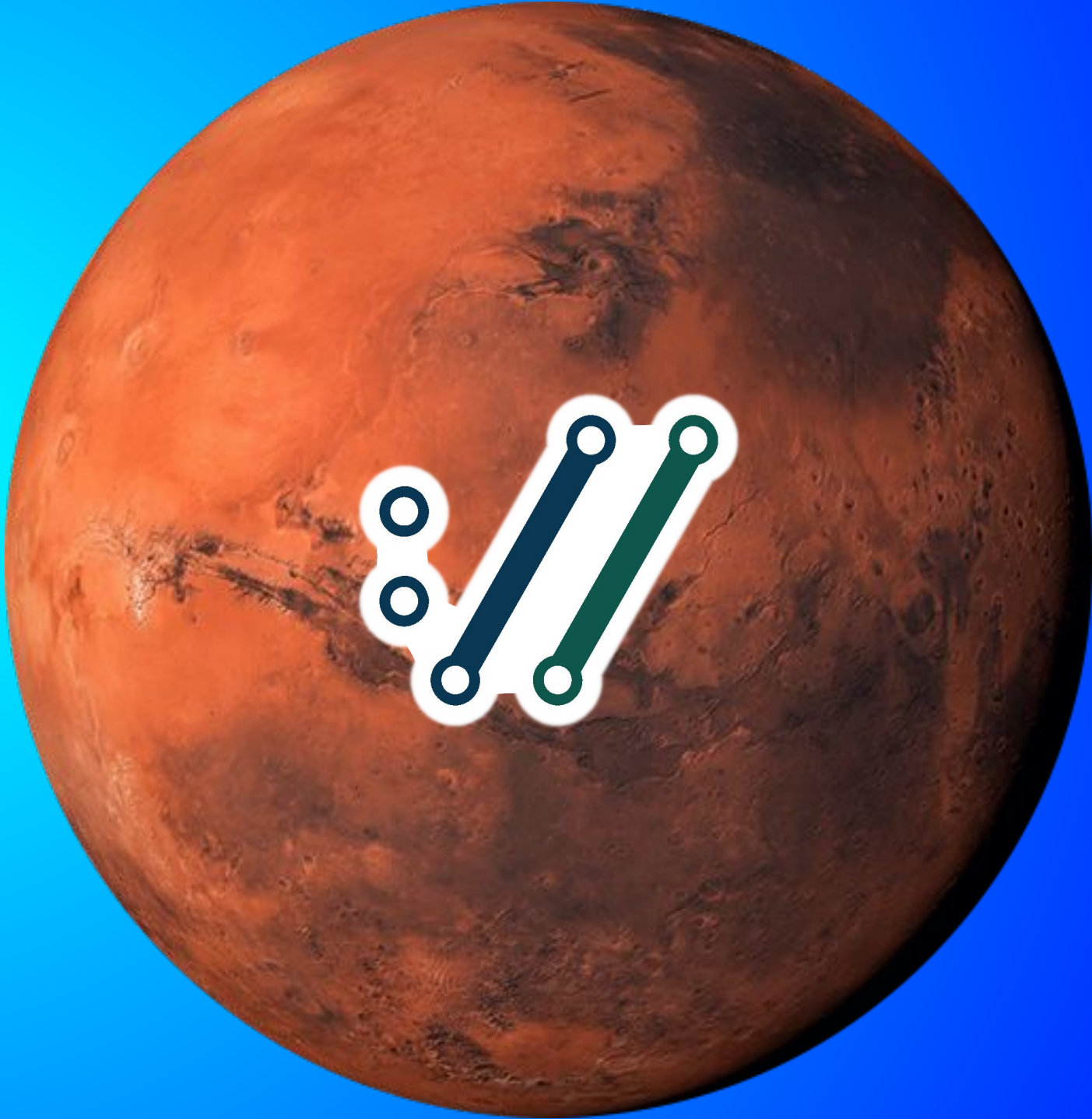
Alpha	ARC	ARM	AVR32	C-SKY	CompactRISC
Elbrus	ETRAX	HP-PA	Itanium	LoongArch	m68k
m88k	MicroBlaze	MIPS	Nios	OpenRISC	POWER
PowerPC	RISC-V	s390	SH4	SPARC	
Tilera	VAX	x86	Xtensa	z/arch	



2 planets

no change since last year

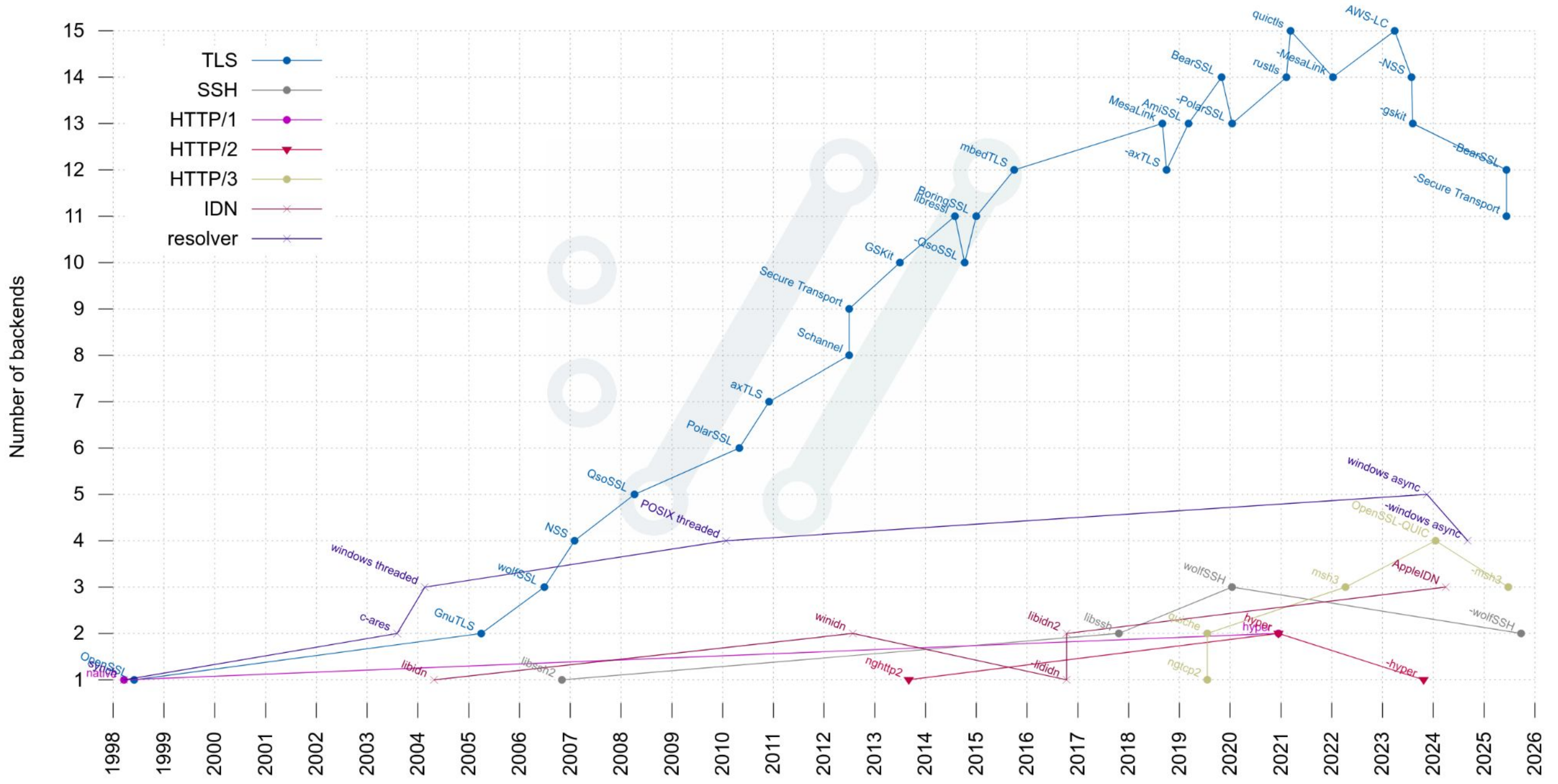
2 planets



Planets known to have run curl

11 TLS backends (-1)
2 QUIC+HTTP/3 backends (-2)
3 resolver backends (-1)
2 SSH backends (-1)
3 IDN backends

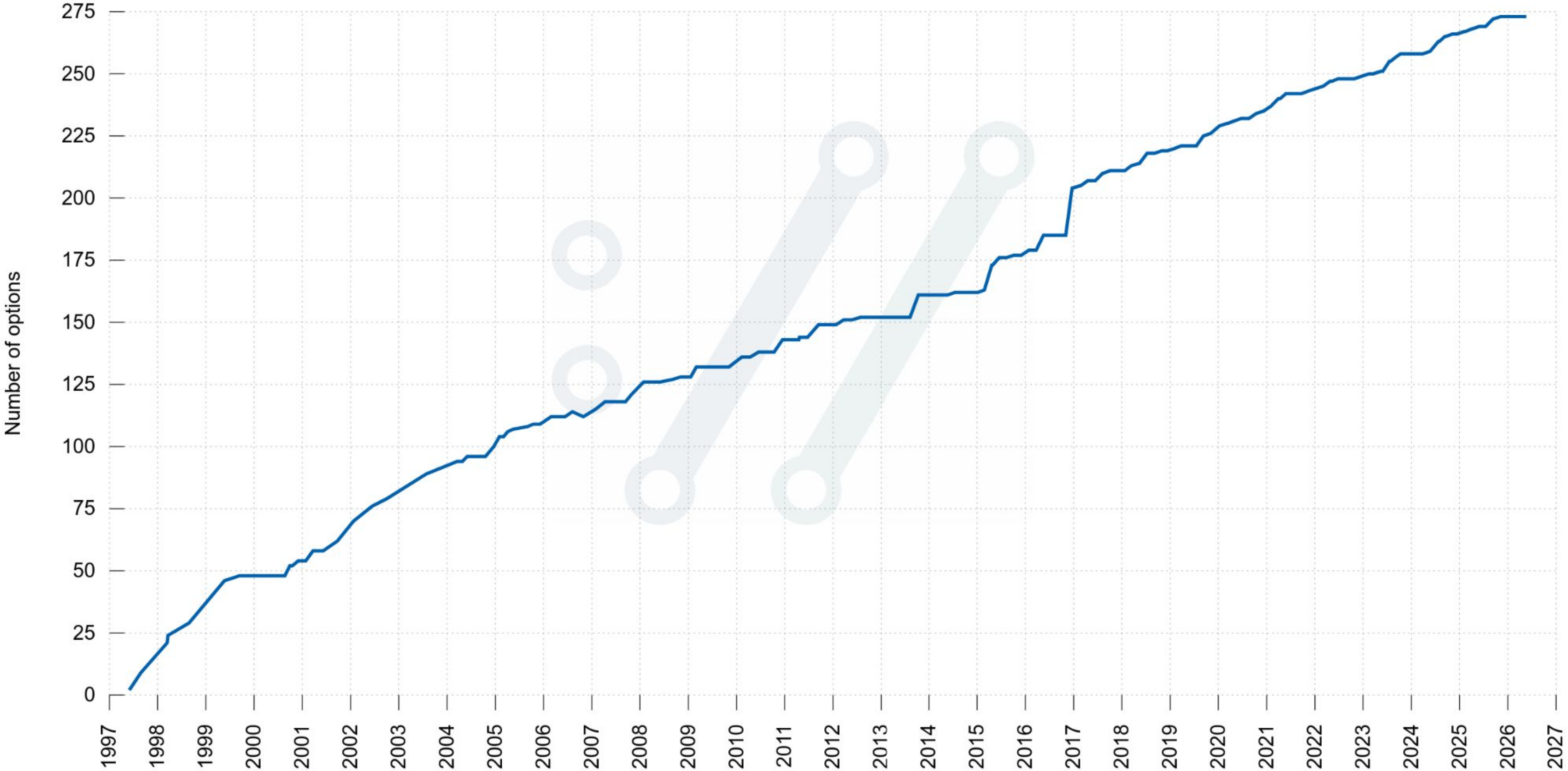
backends



273 command line options

+6 since last year

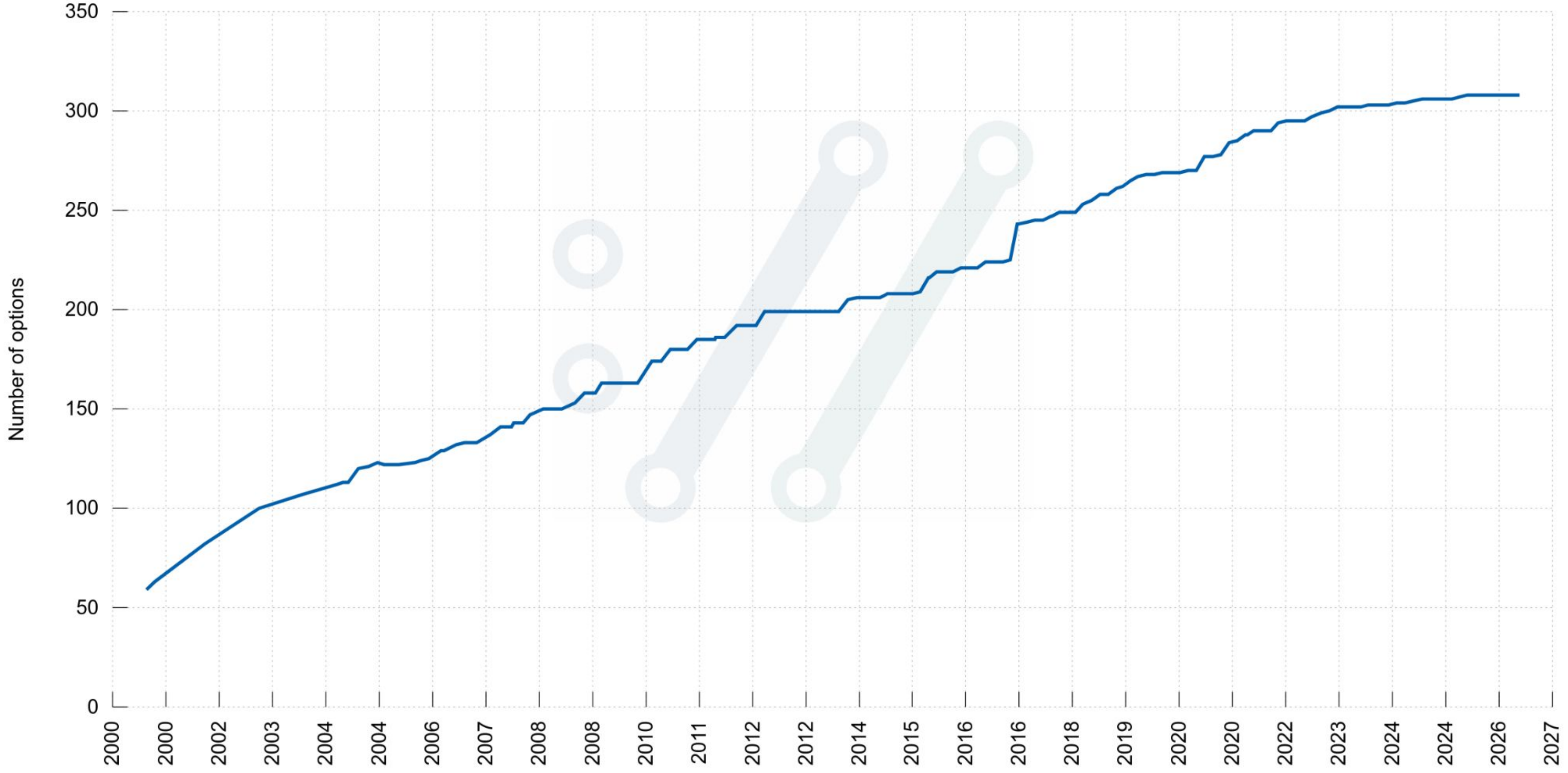
Command line options



308 curl_easy_setopt options

+1 since last year

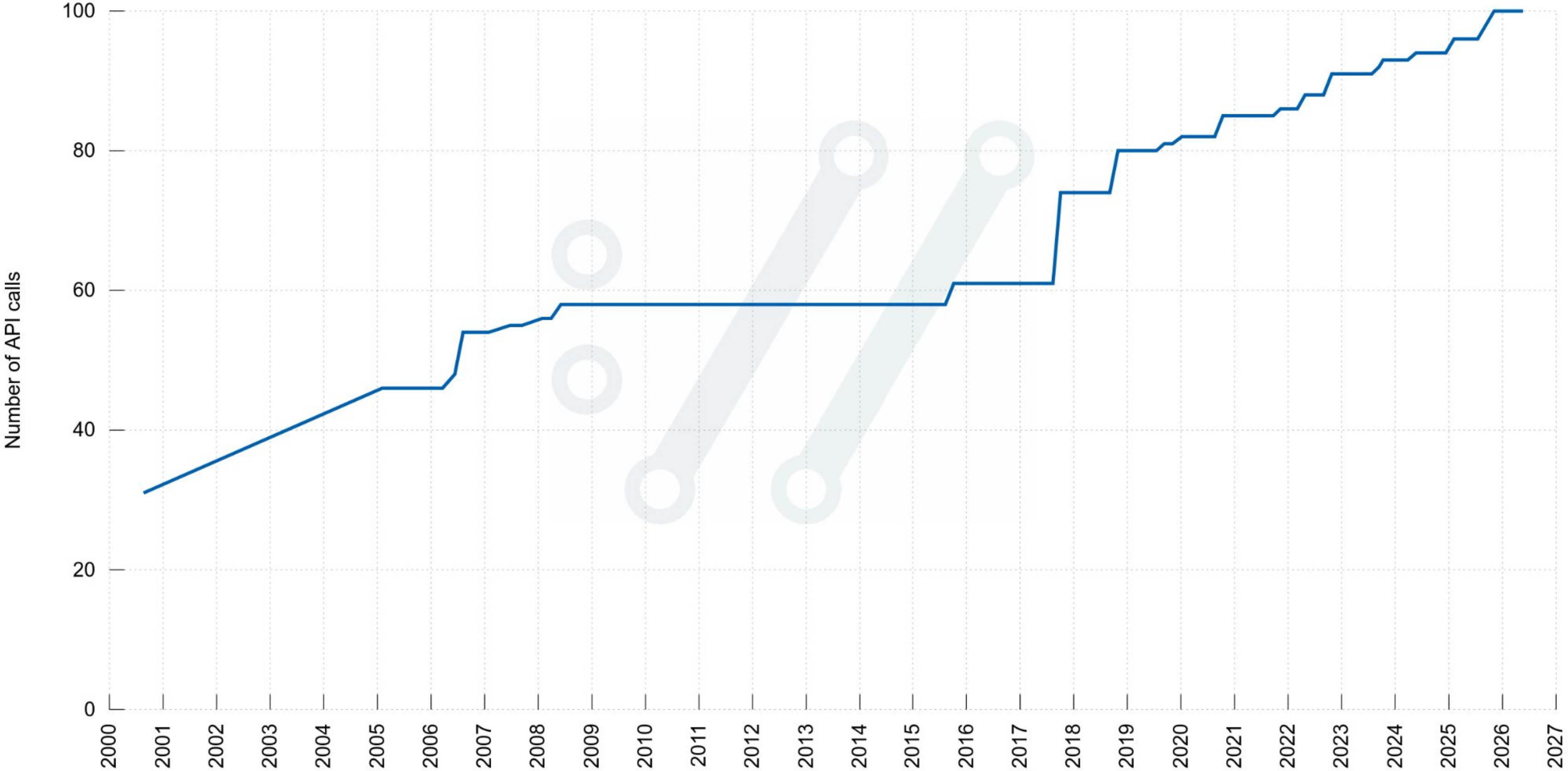
easy setopt options



100 API calls

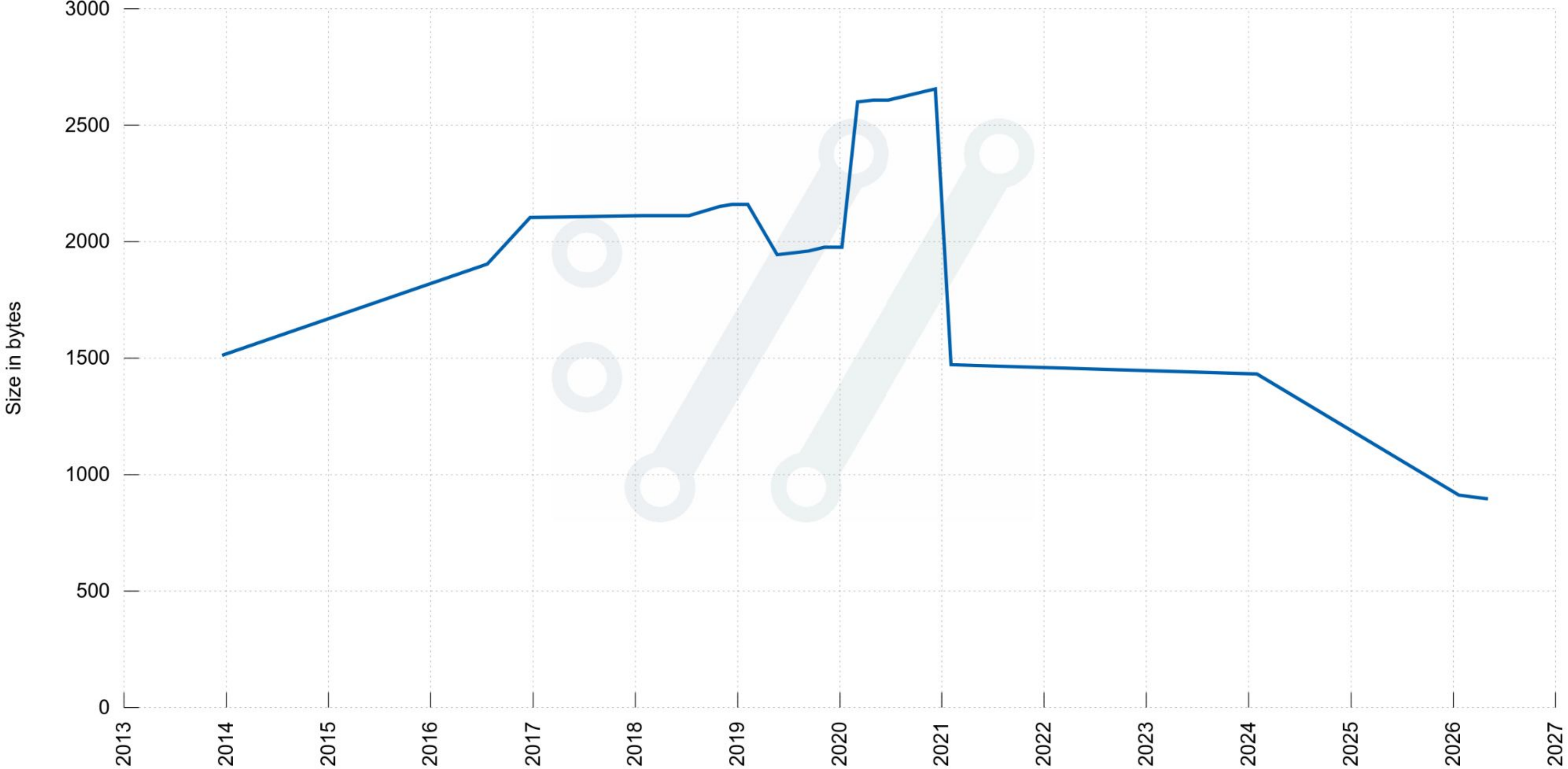
+4 since last year

API calls in libcurl

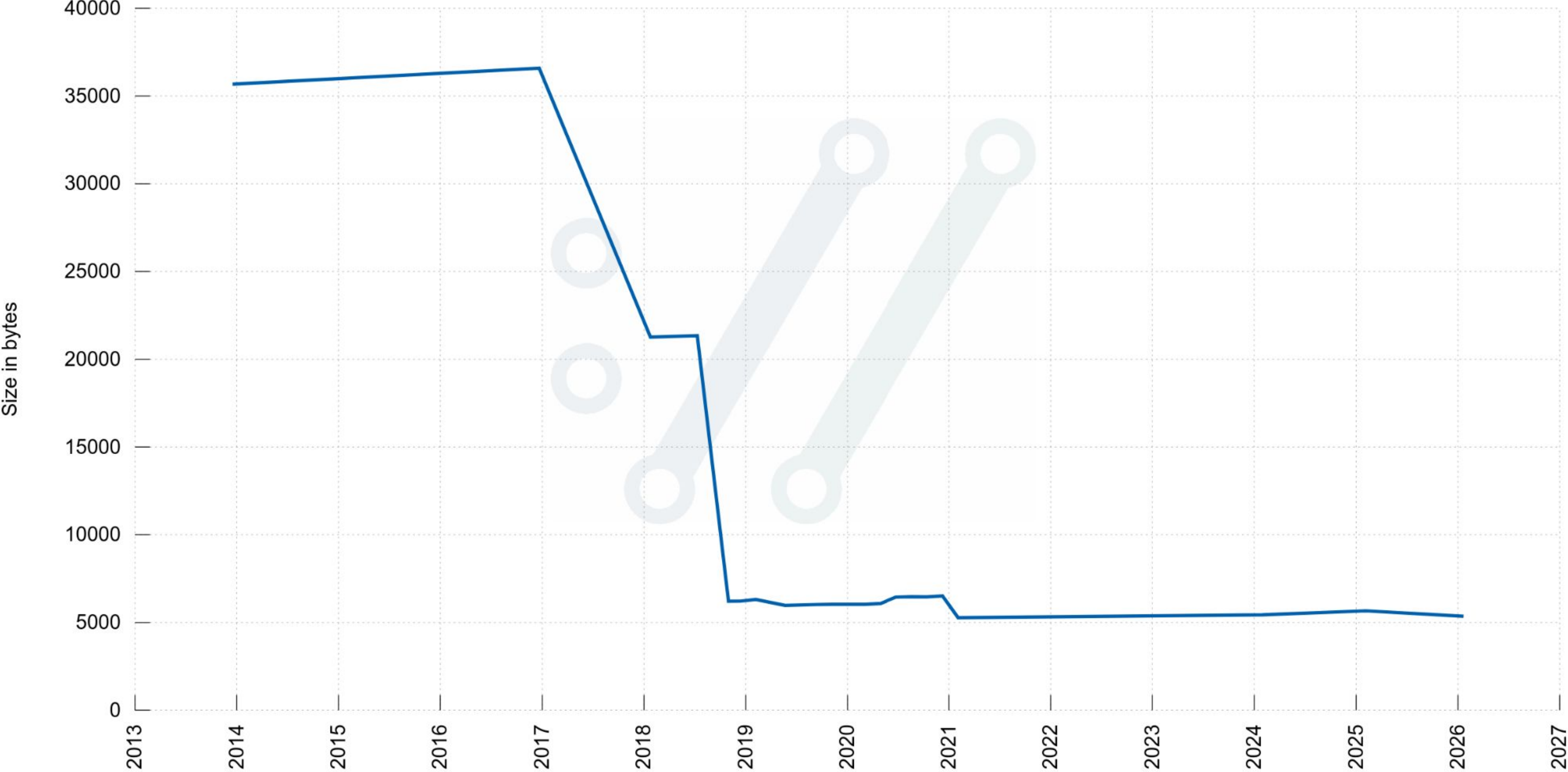


Binary sizes

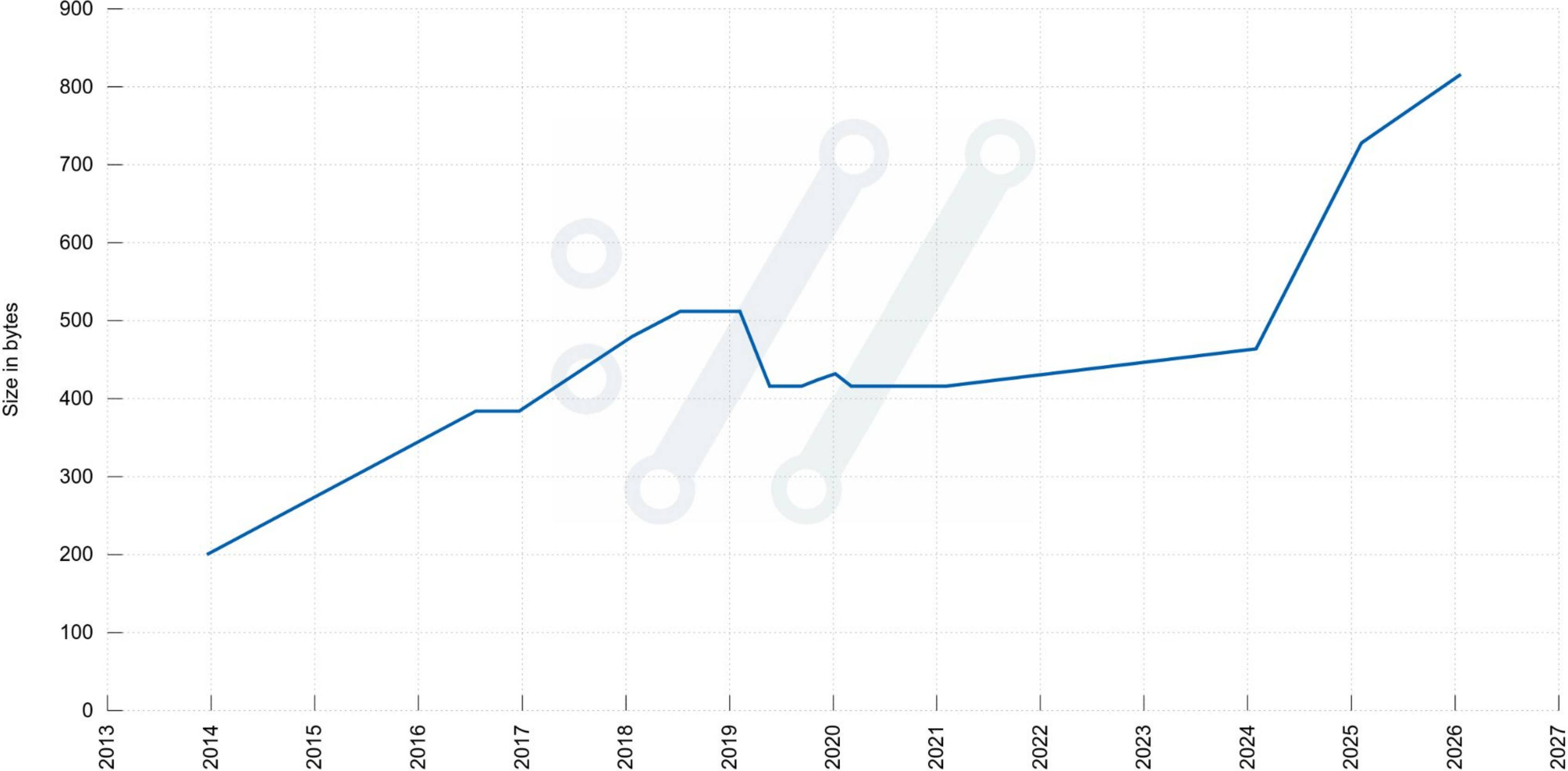
connectdata struct size



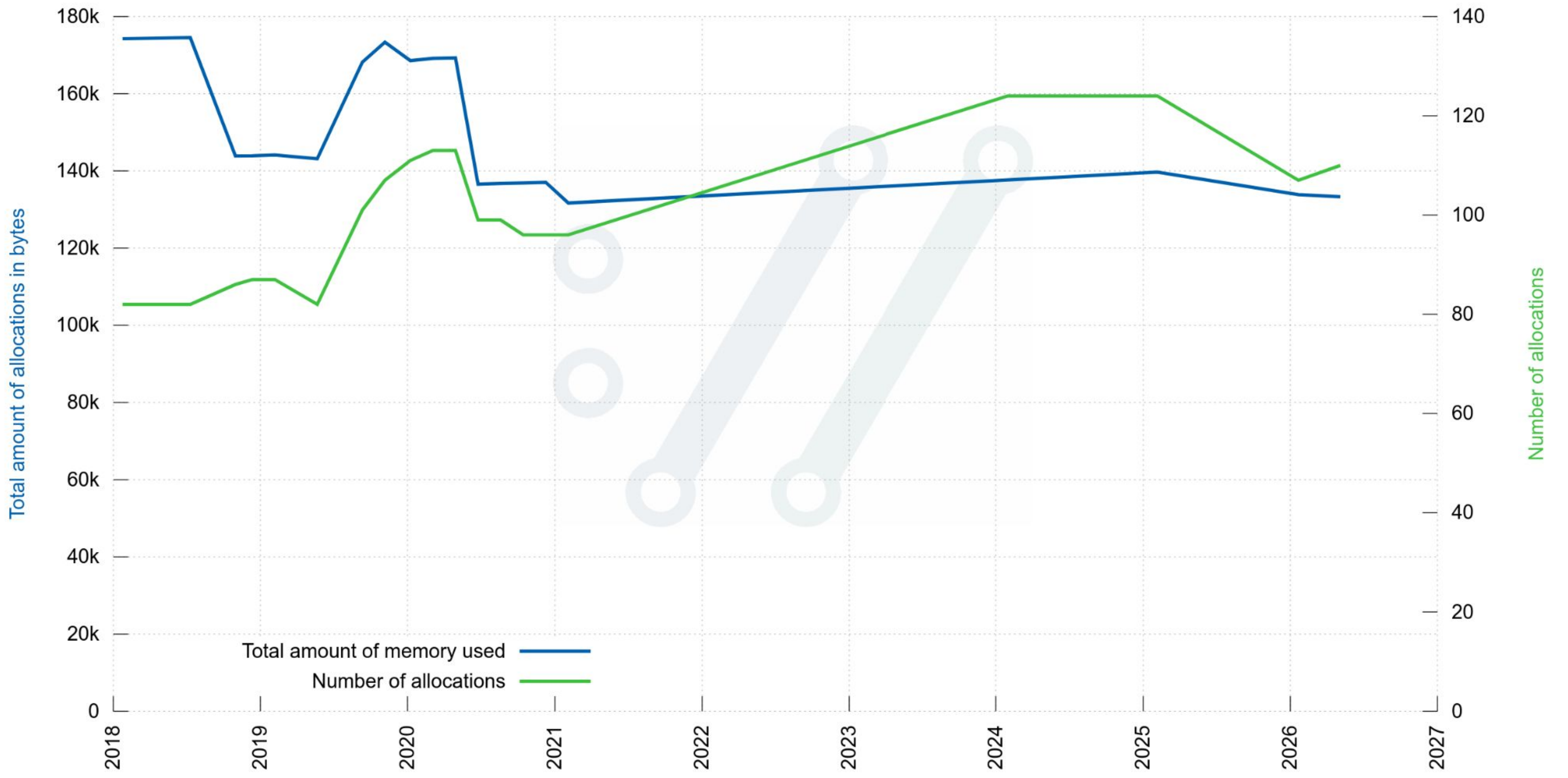
Easy handle struct size



Multi handle struct size



512MB download alloc spend



Quality and testing

OSS-Fuzz

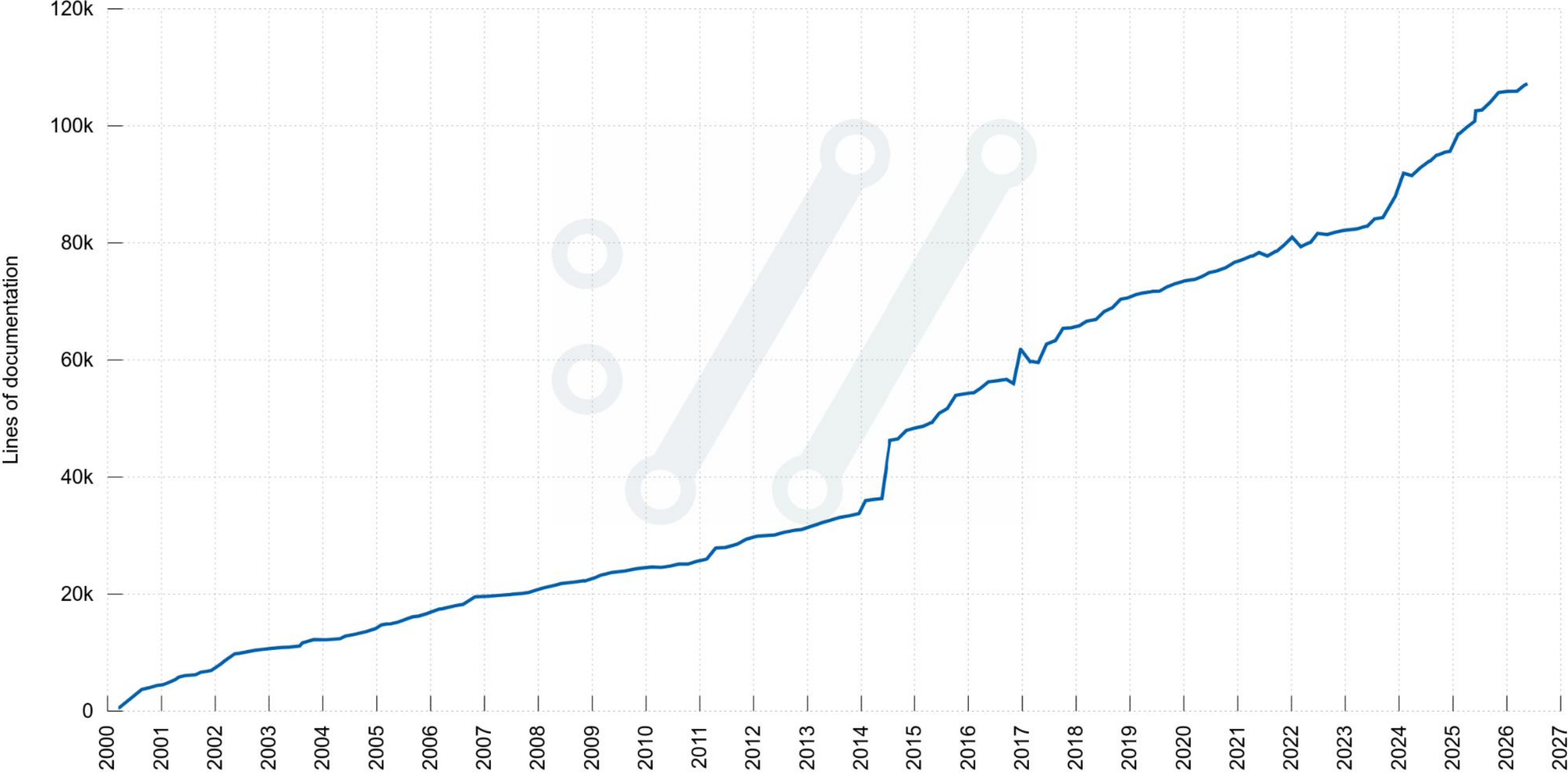
Flatlined the last several years

A handful triggers the last year

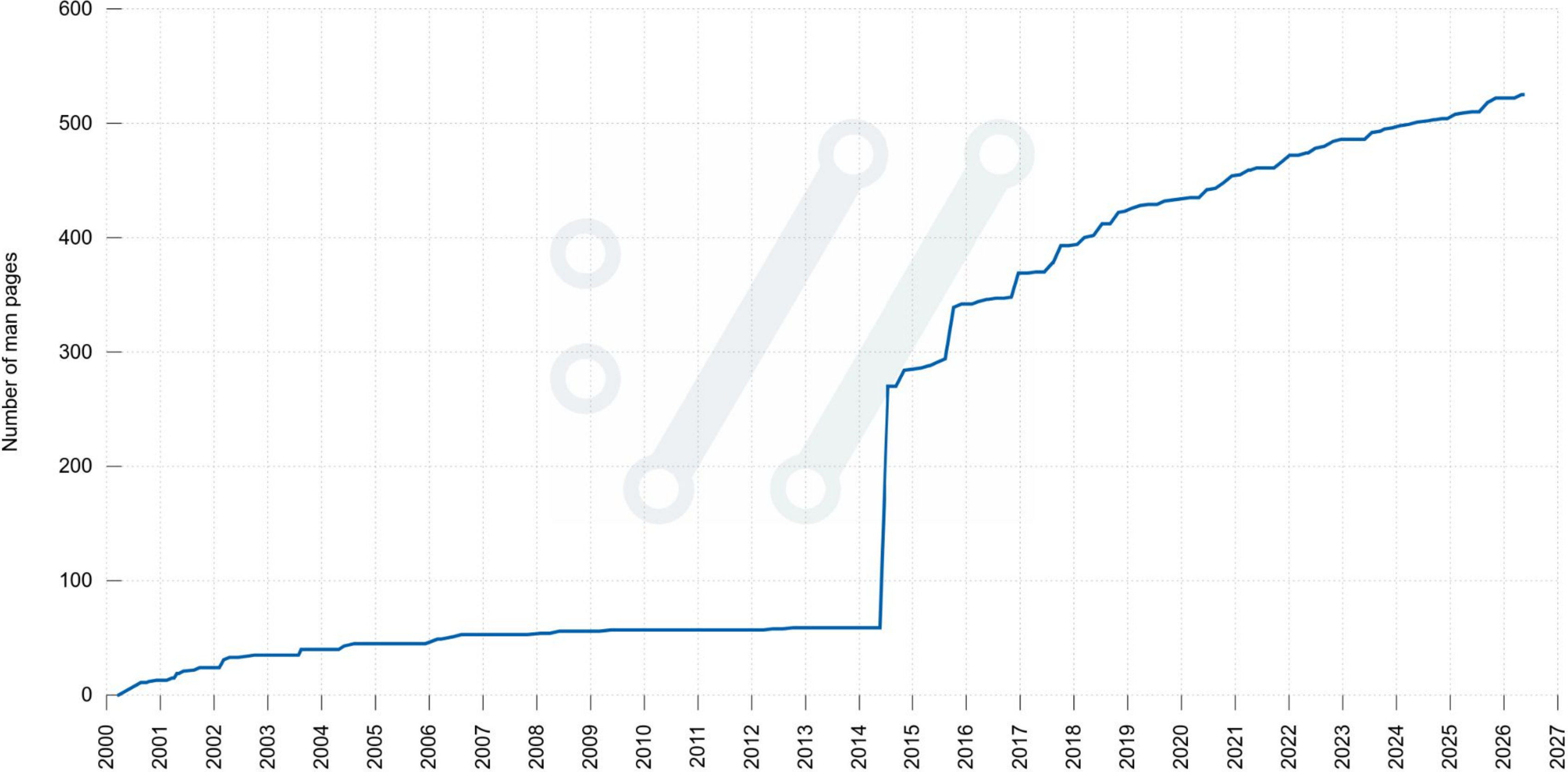


documentation

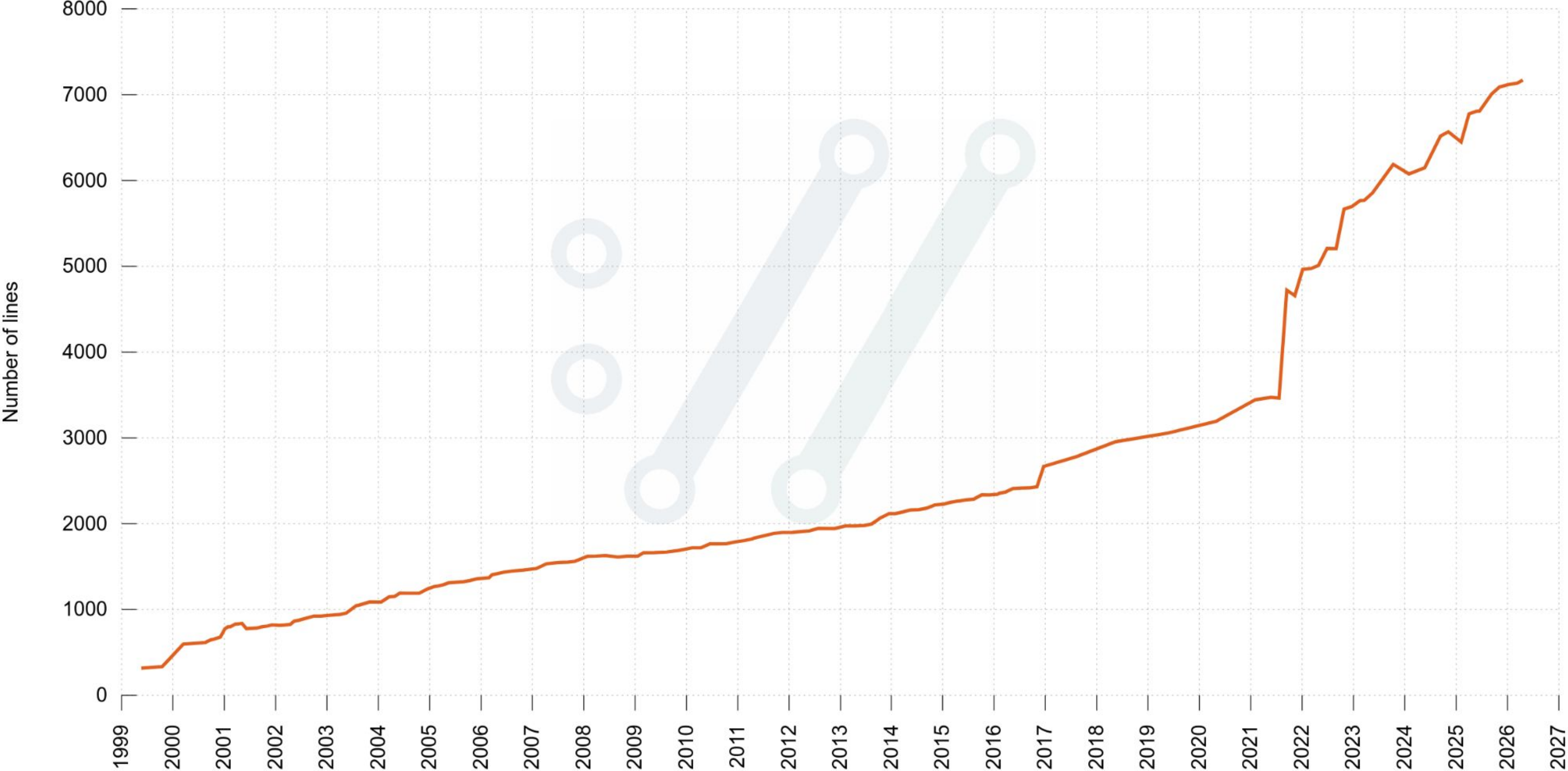
Lines of documentation



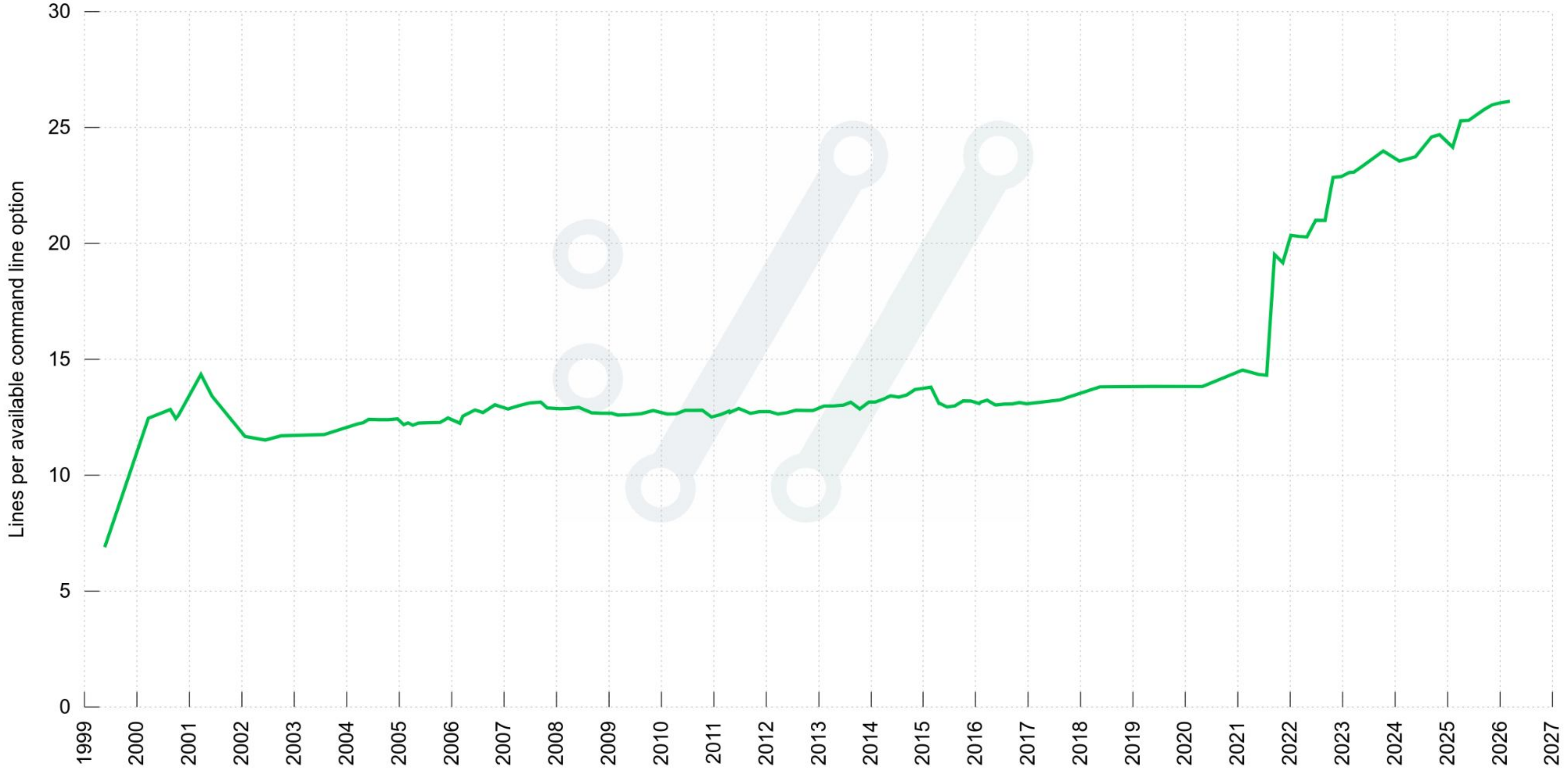
Man pages



Number of lines in the curl.1 man page



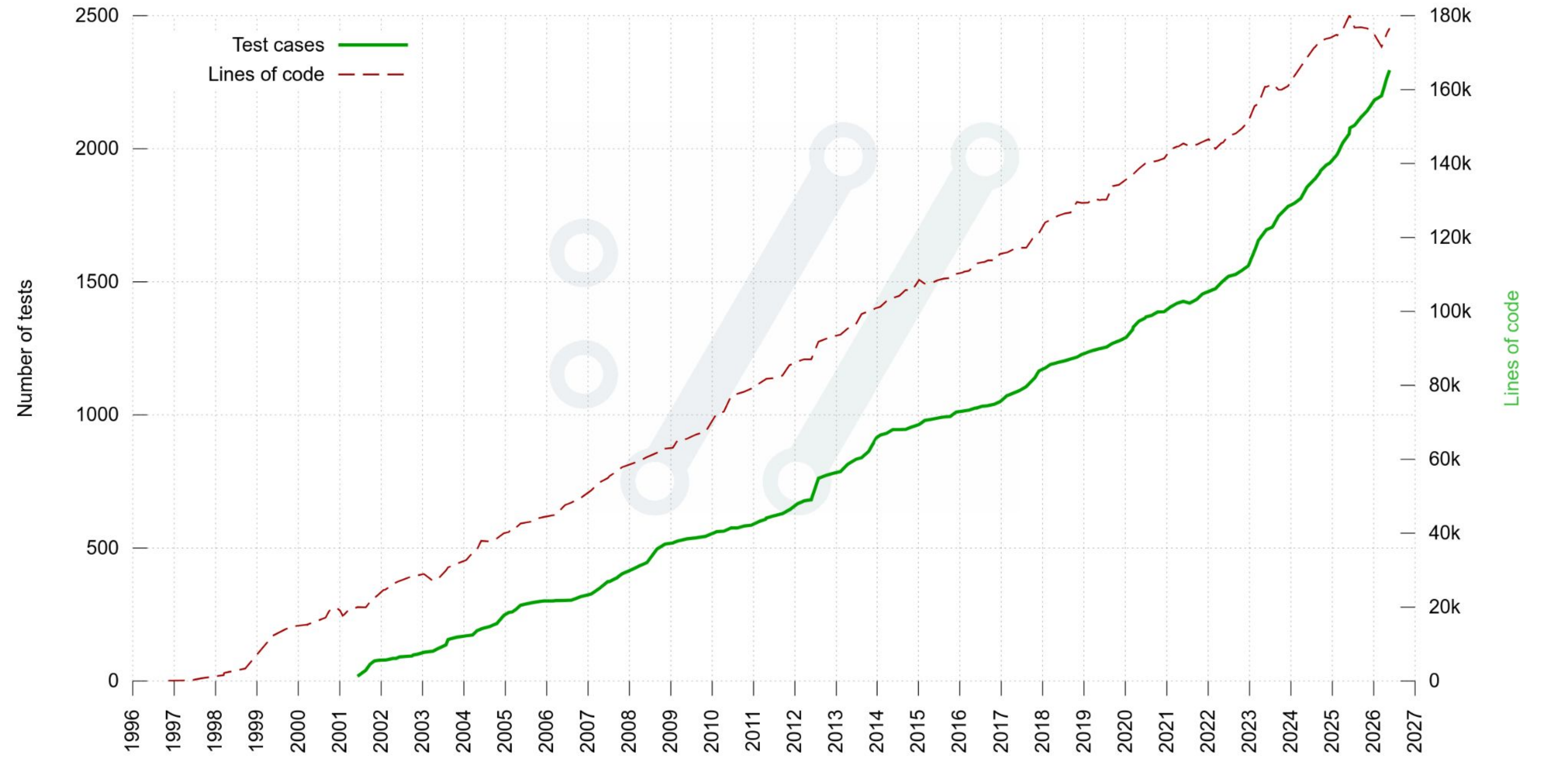
Lines in curl.1 man page per command line option



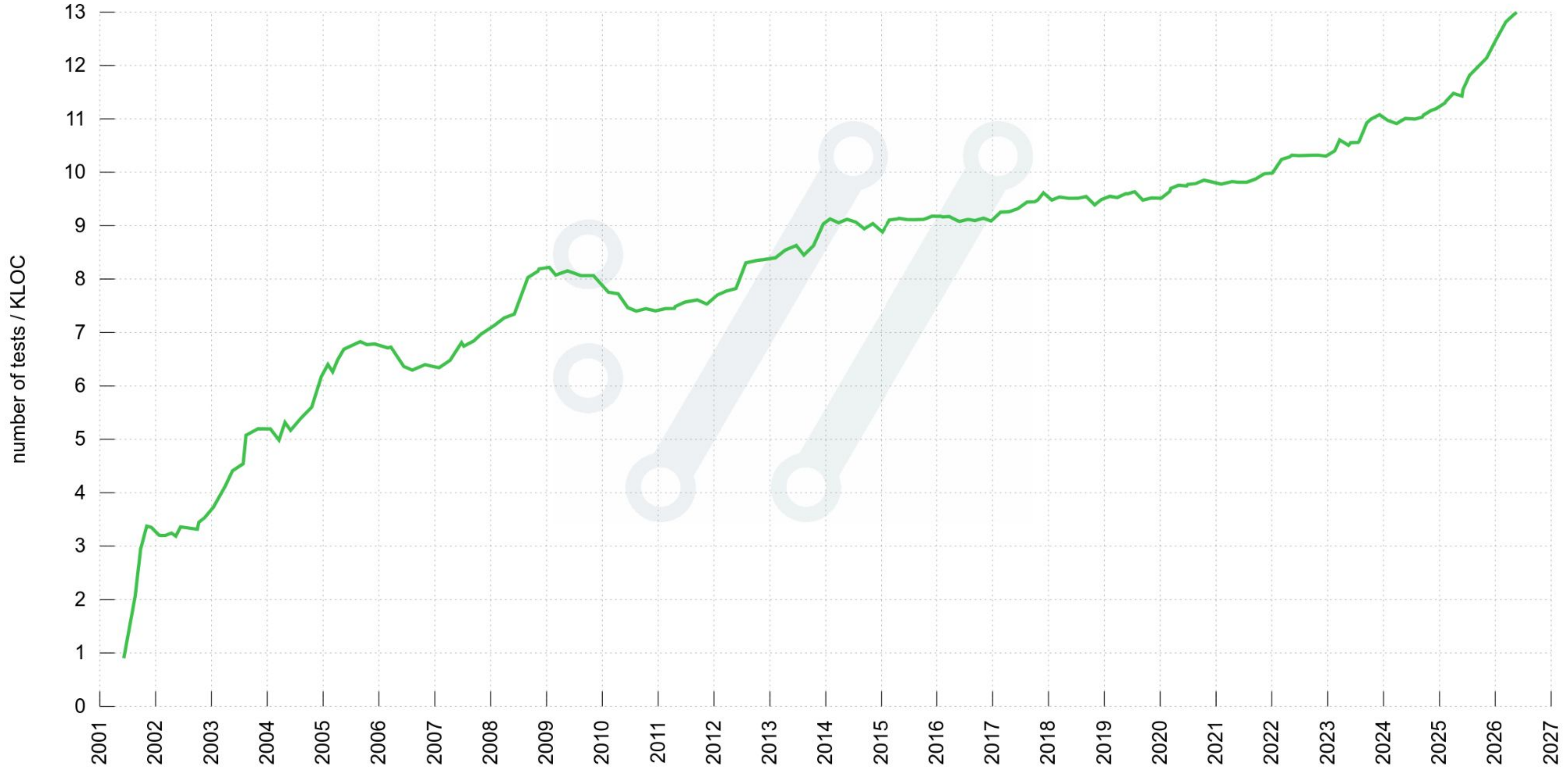
2295 test cases

+255 (12.5%) since last year

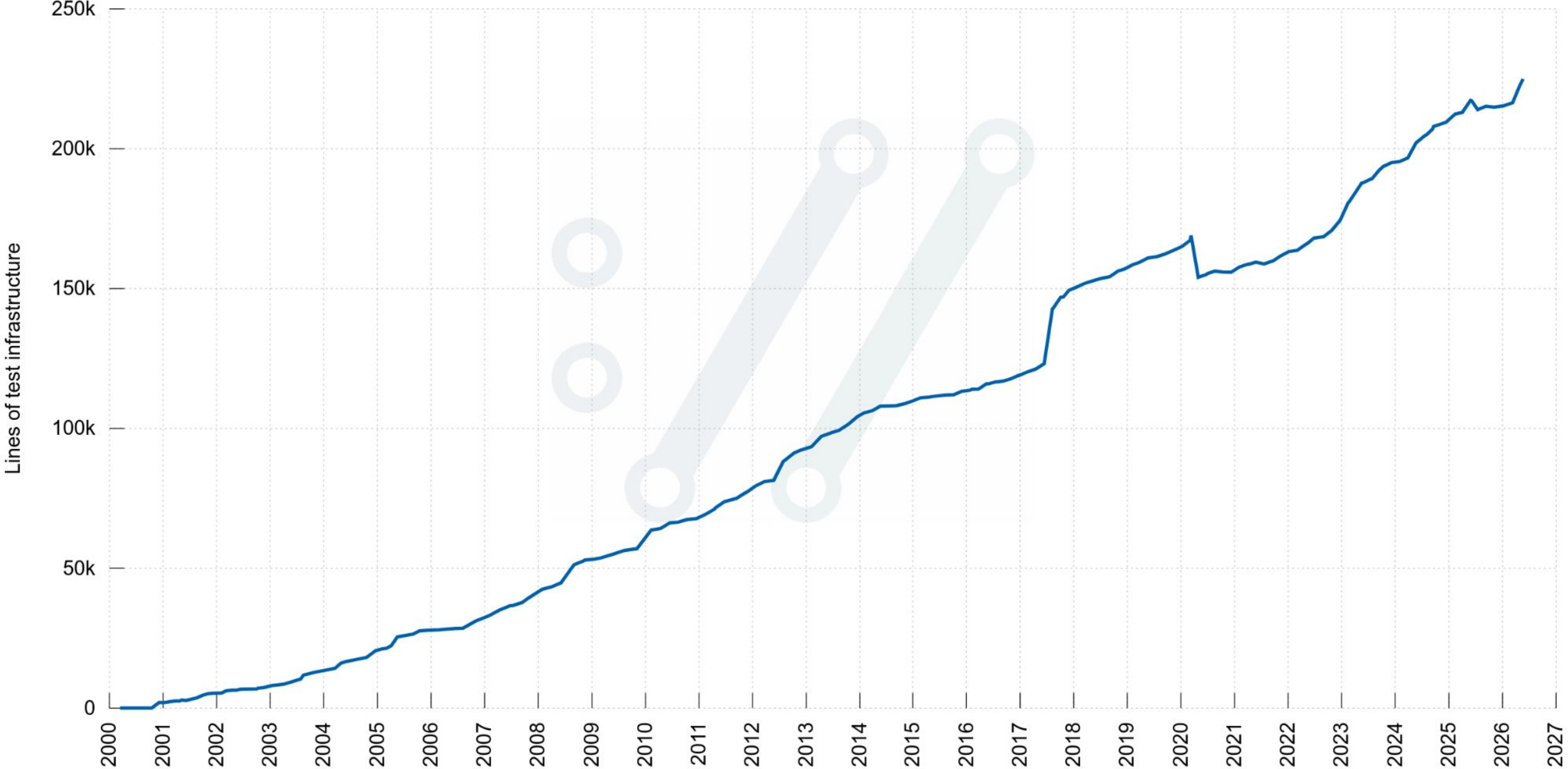
Test cases



Number of test cases per KLOC



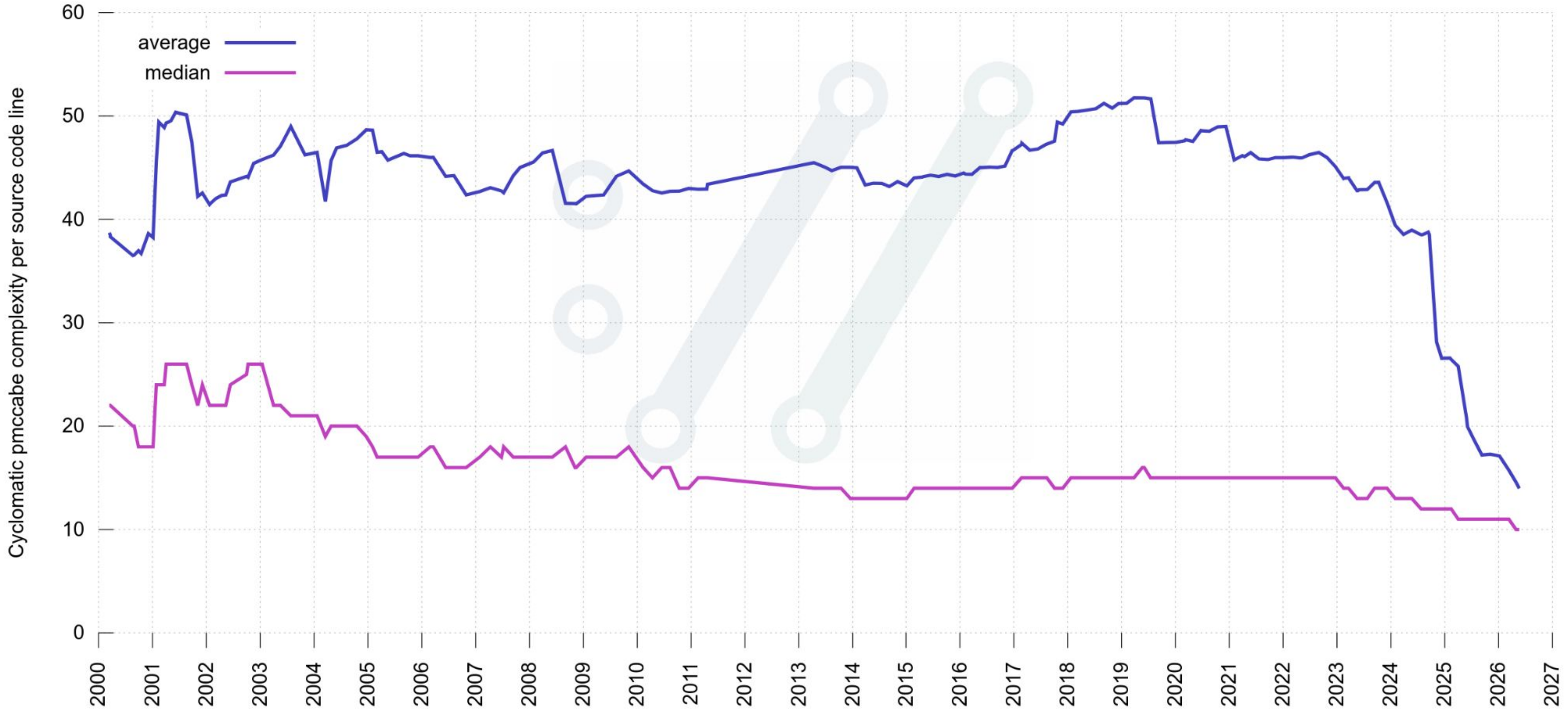
Lines of test infrastructure



Complexity

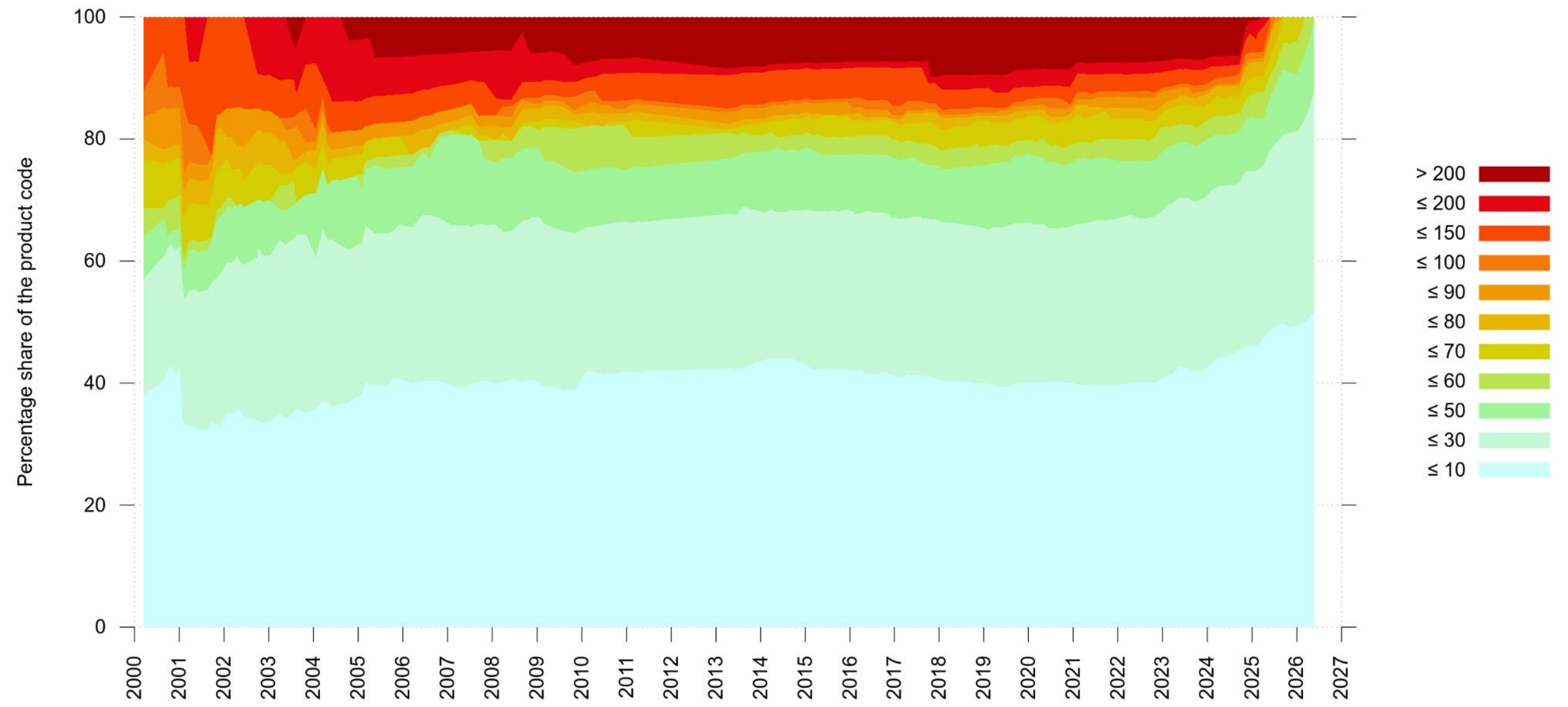
Source code line complexity

Average and median cyclomatic complexity per production source code line



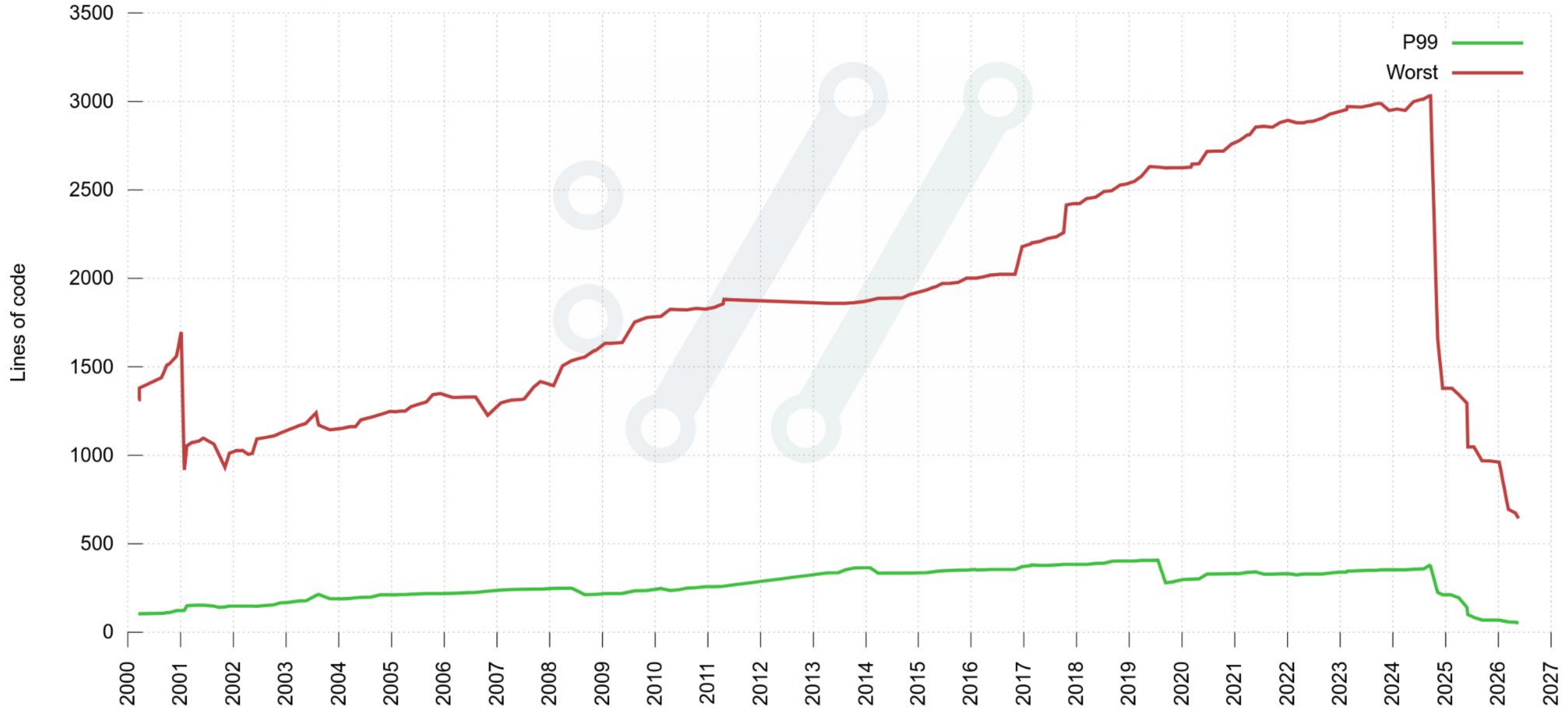
Complexity distribution

How big share of the source code is considered how complex



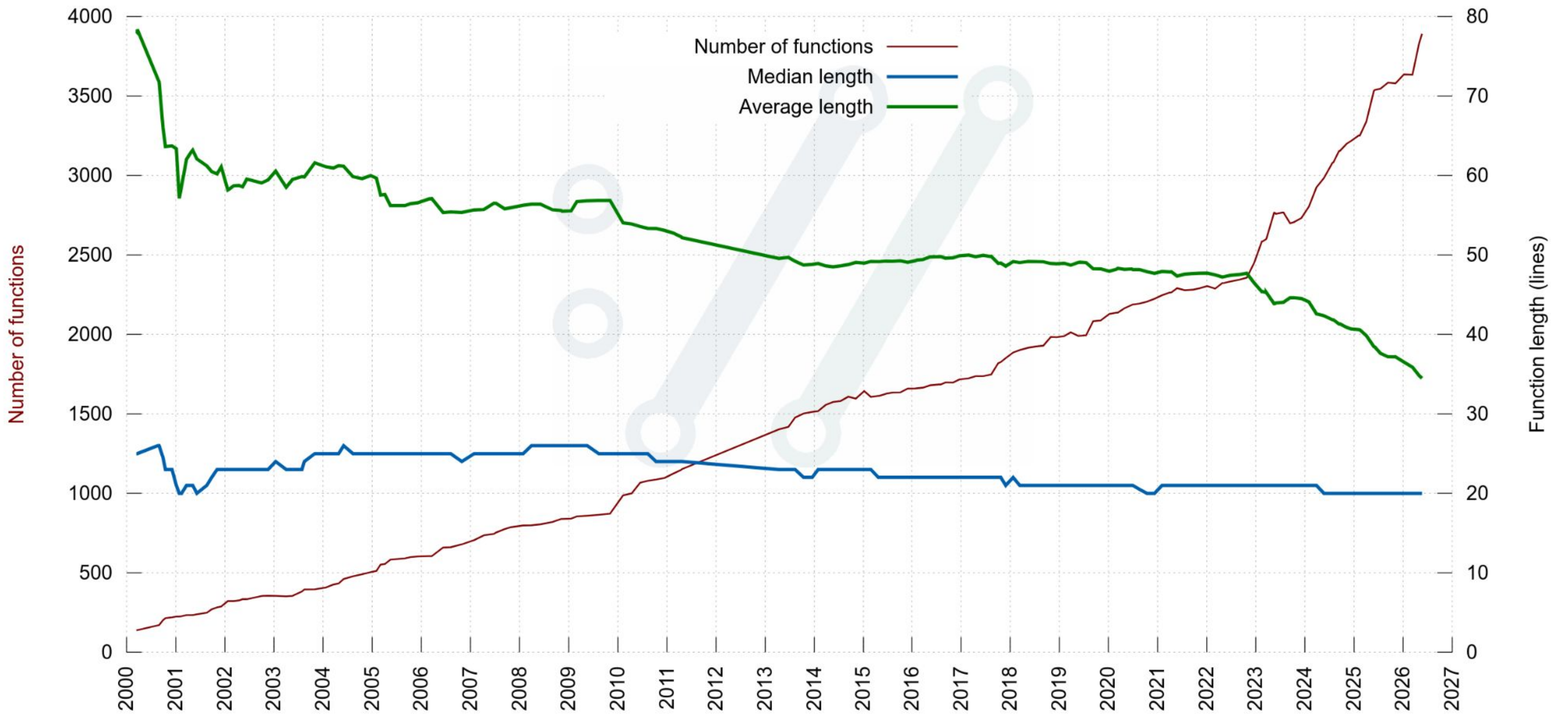
Function length

Lines of code for the 99th percentile and worst function. Includes comments and blank lines.



Median and average function size

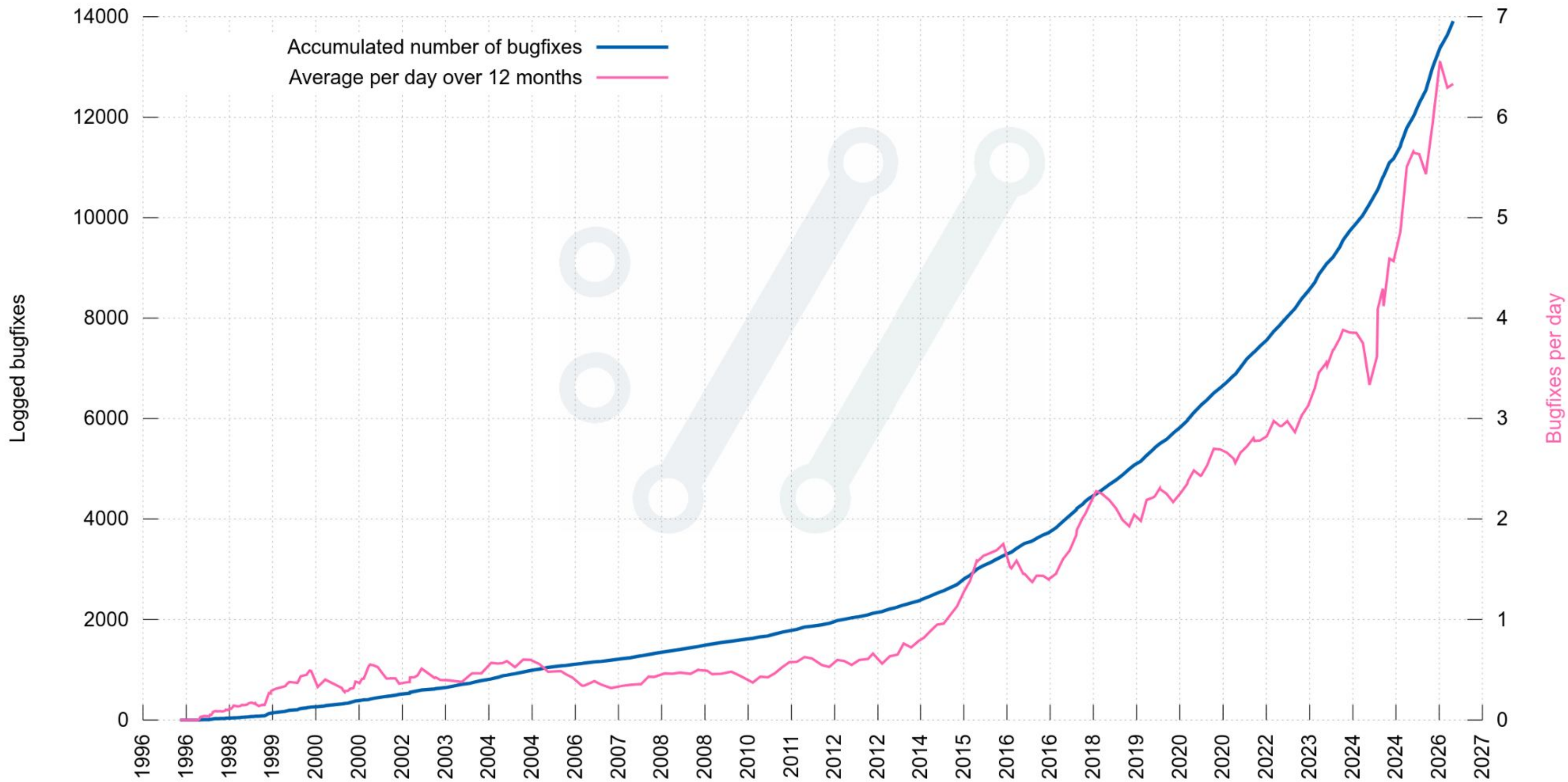
including comments and blank lines



13,914 bugfixes

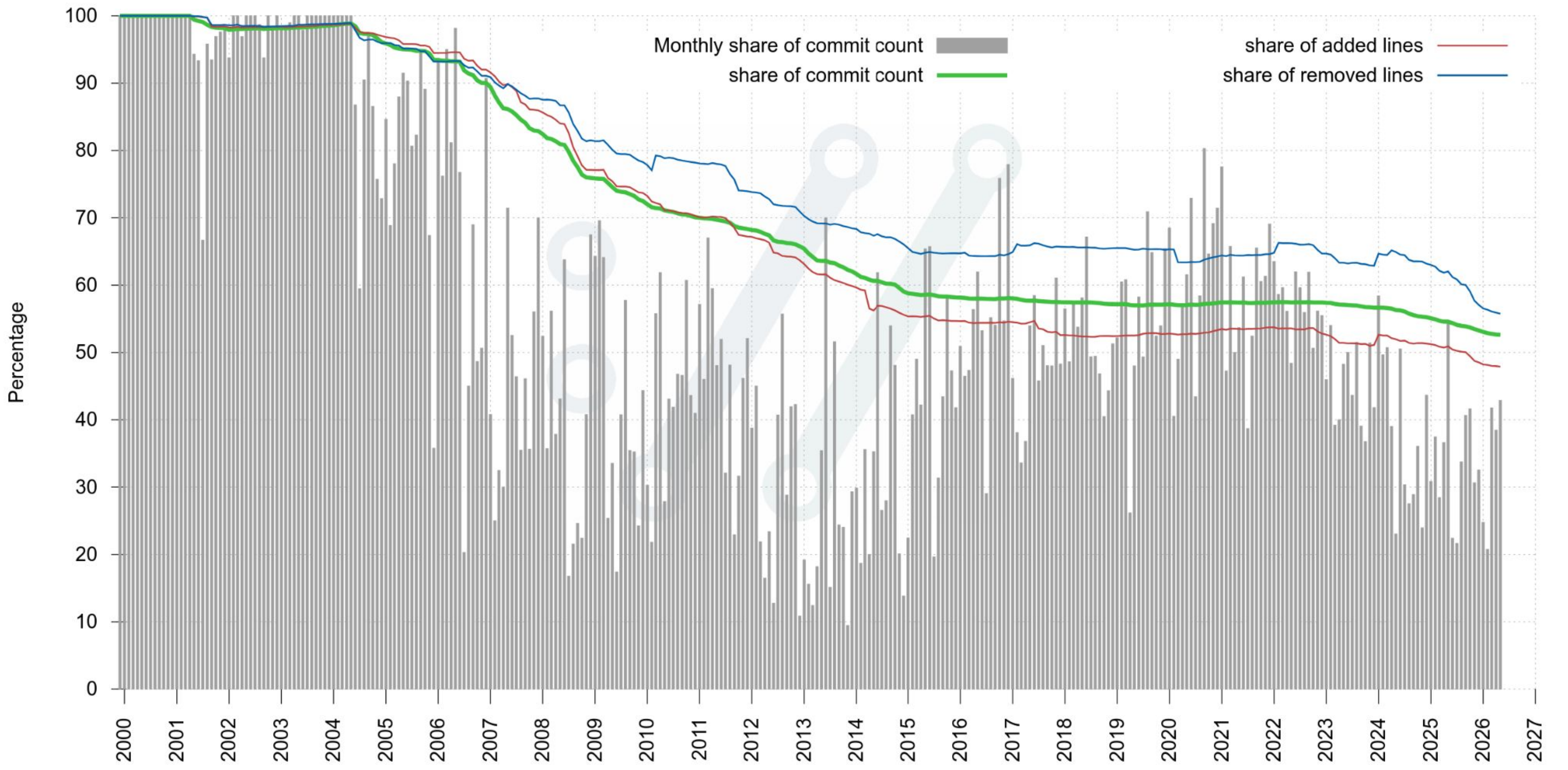
+2128 (+18%) since last year

Bugfixes

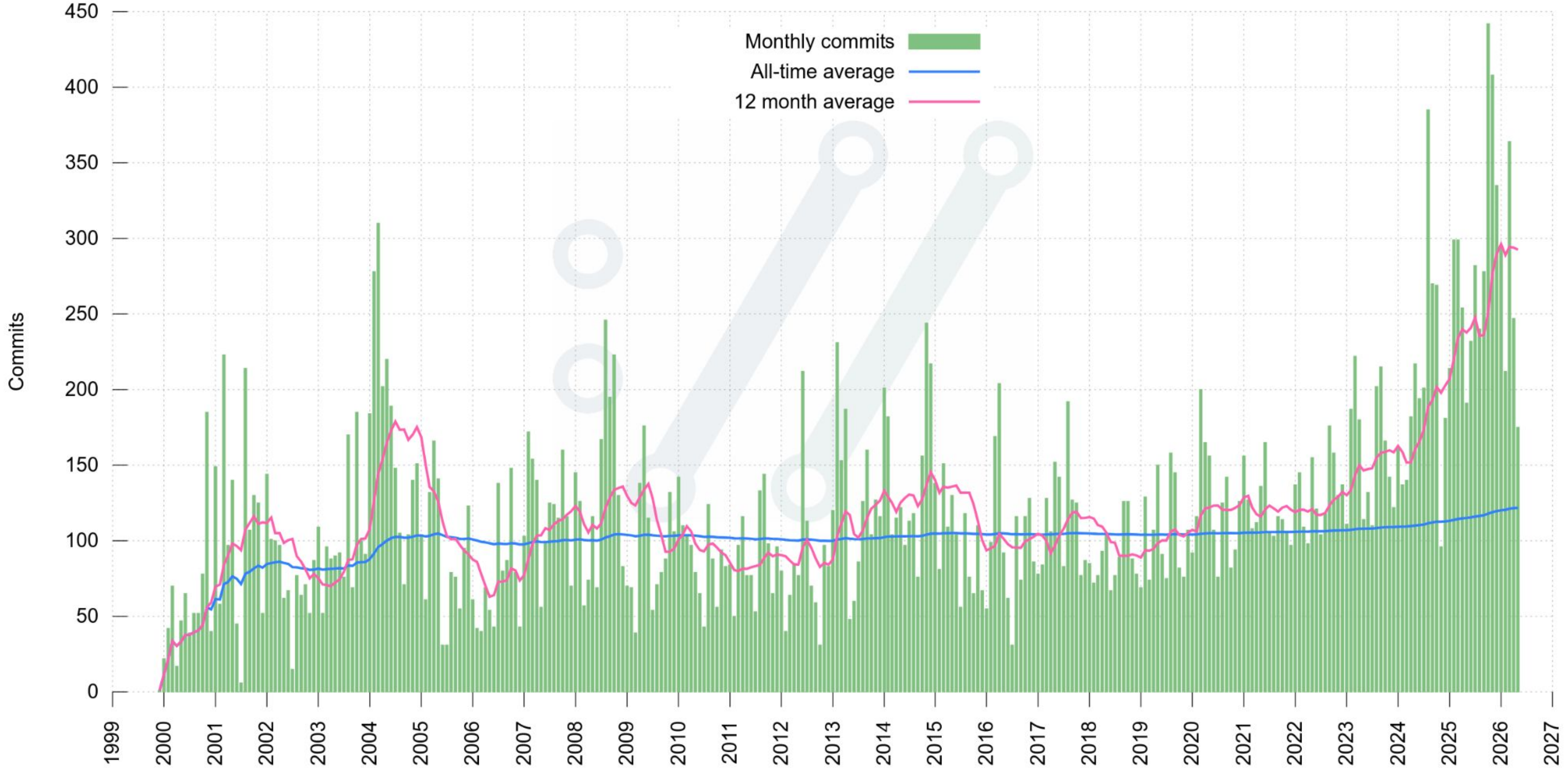


Commits, frequency and whom

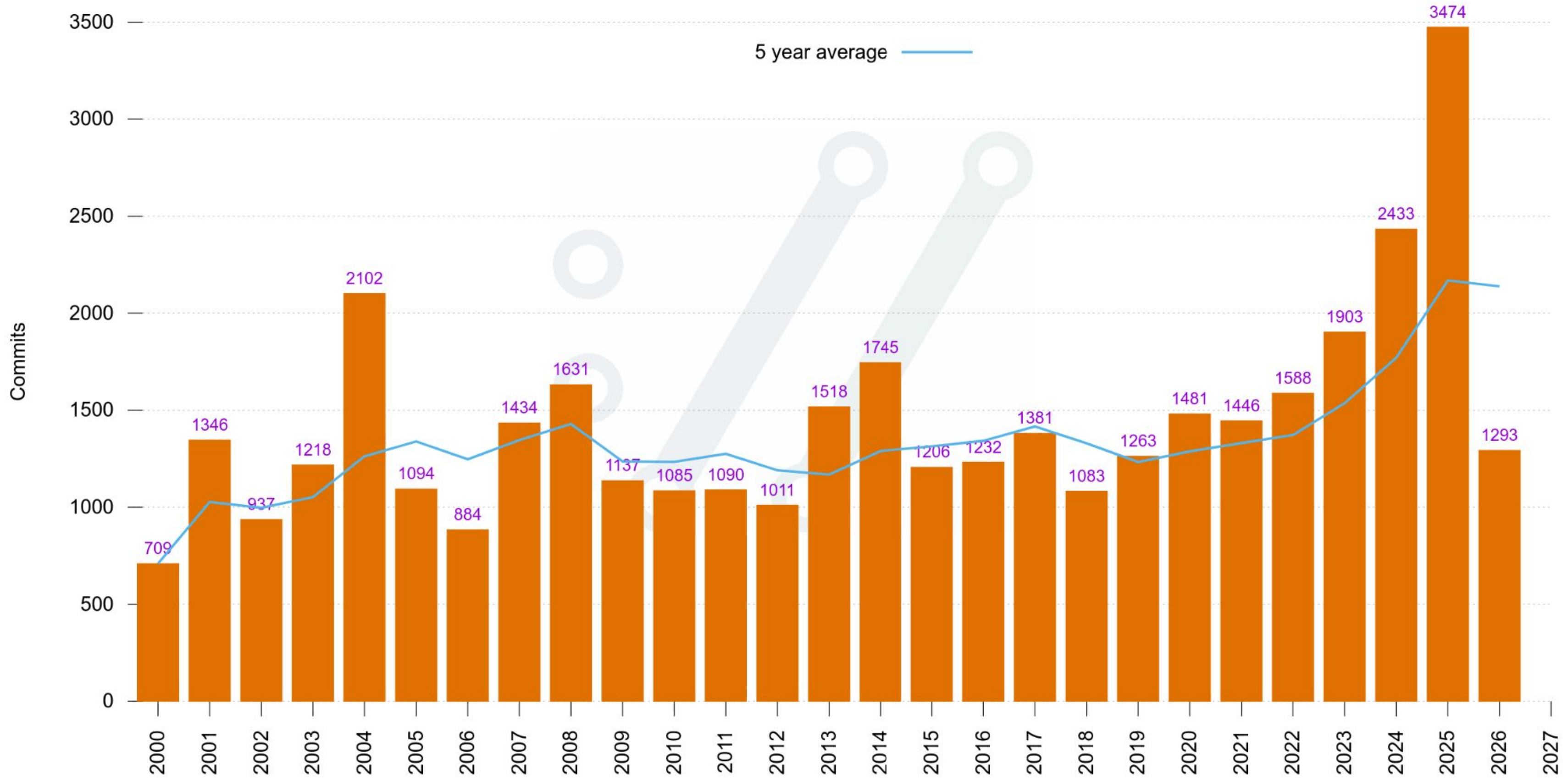
Daniel Stenberg's share of authored commits



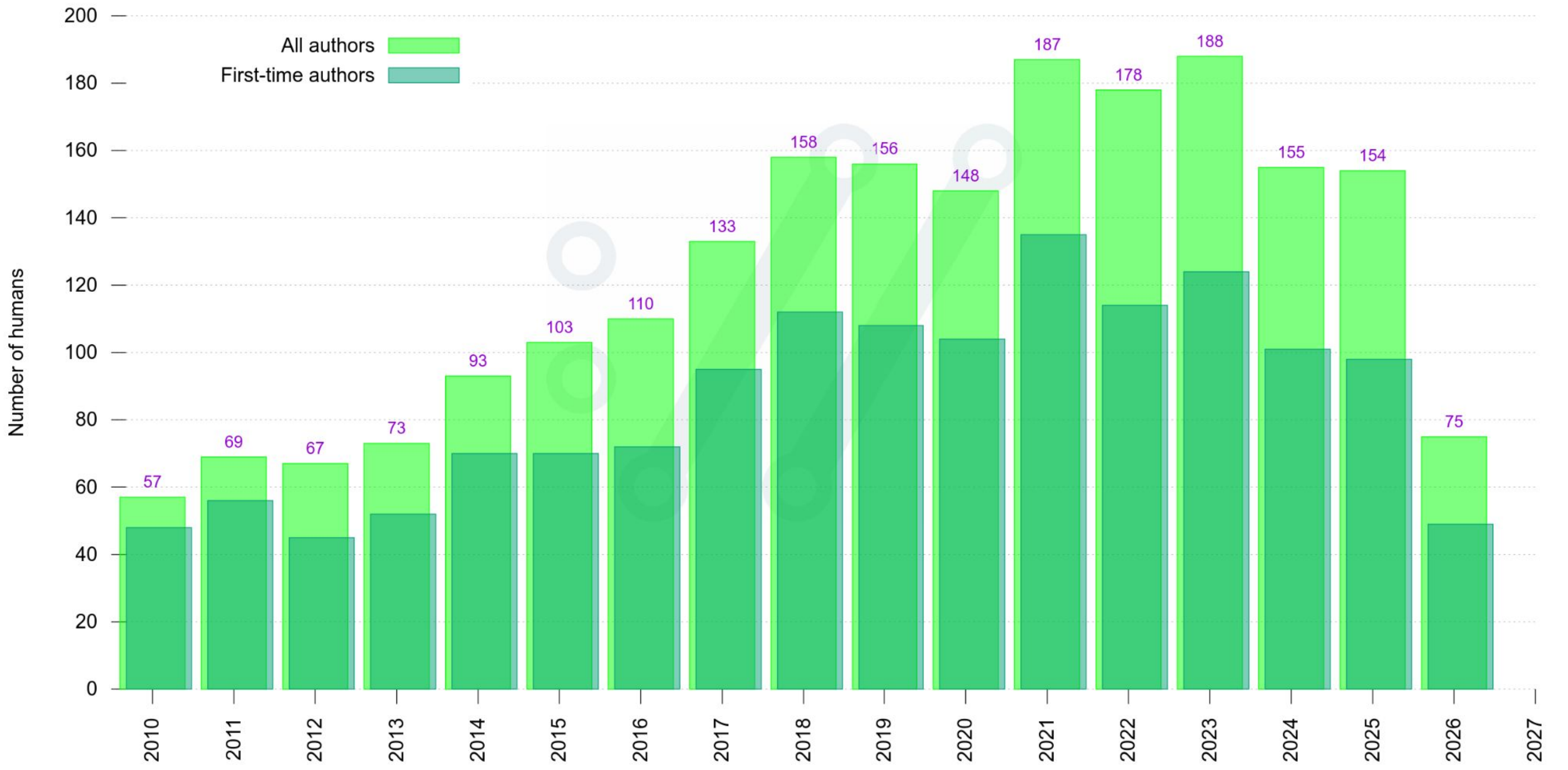
Commits per month



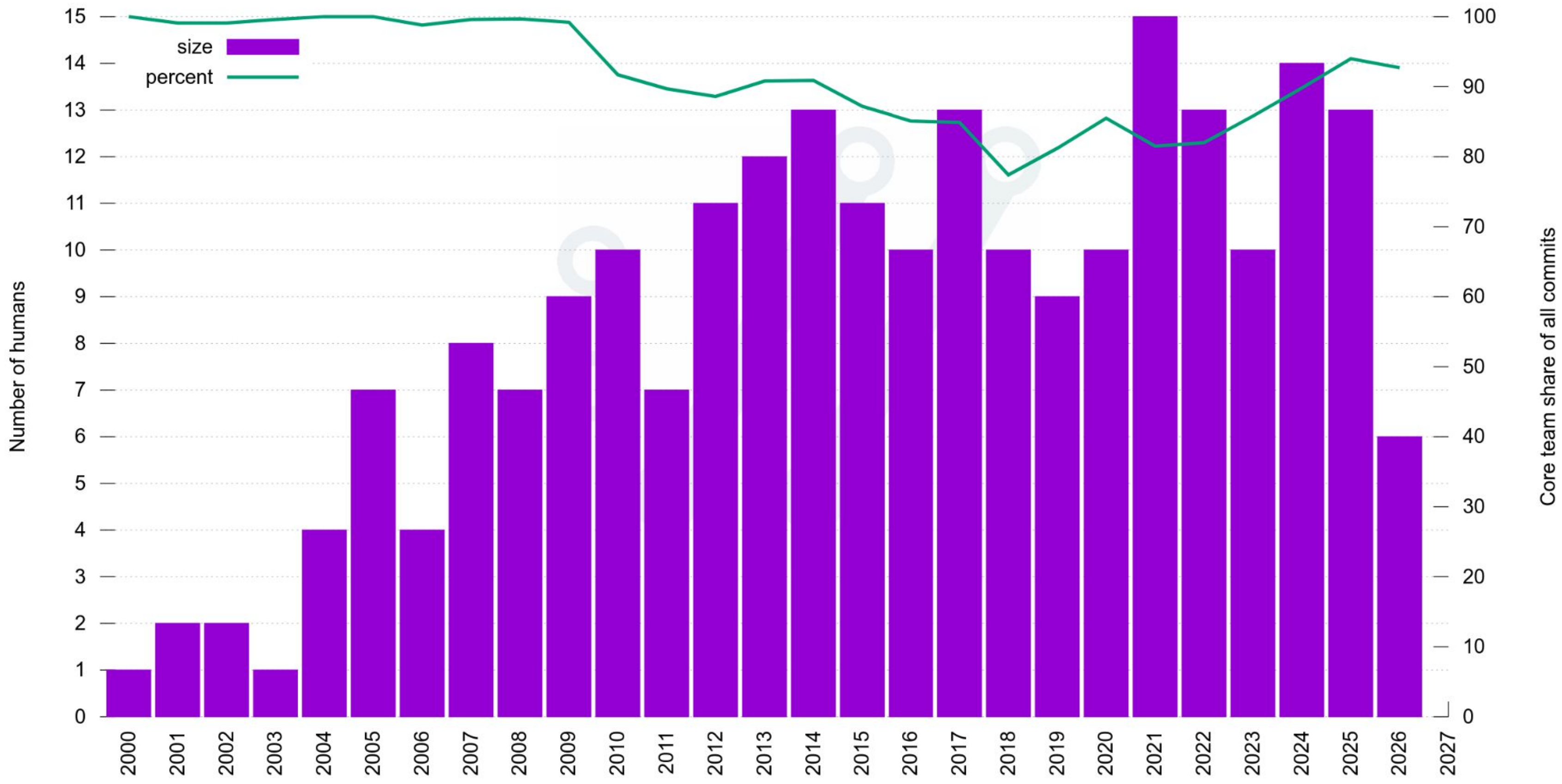
Commits per year



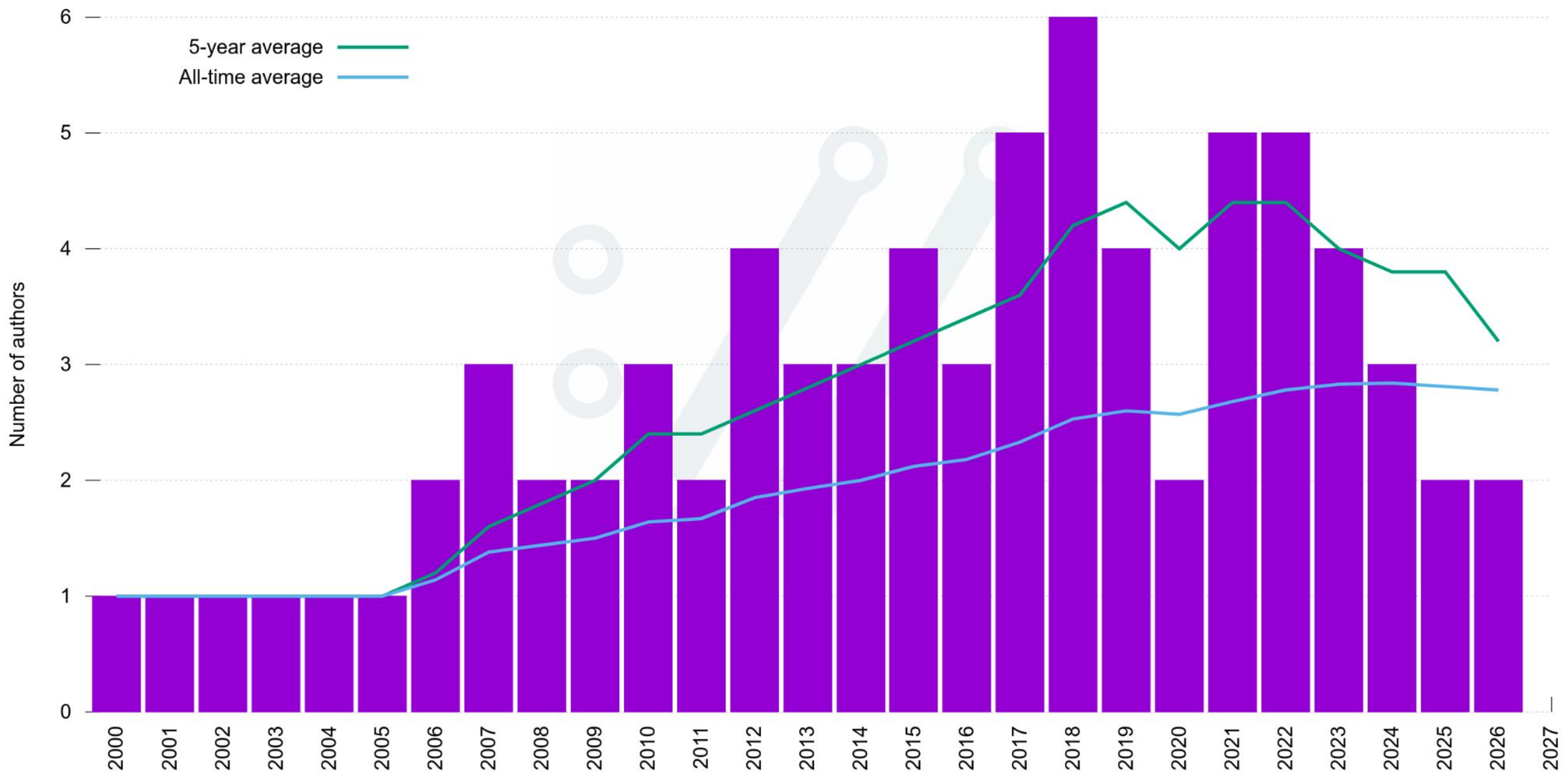
Commit authors per year



Core team size (10+ commits within the calendar year)



Number of persons authoring 70% of the commits

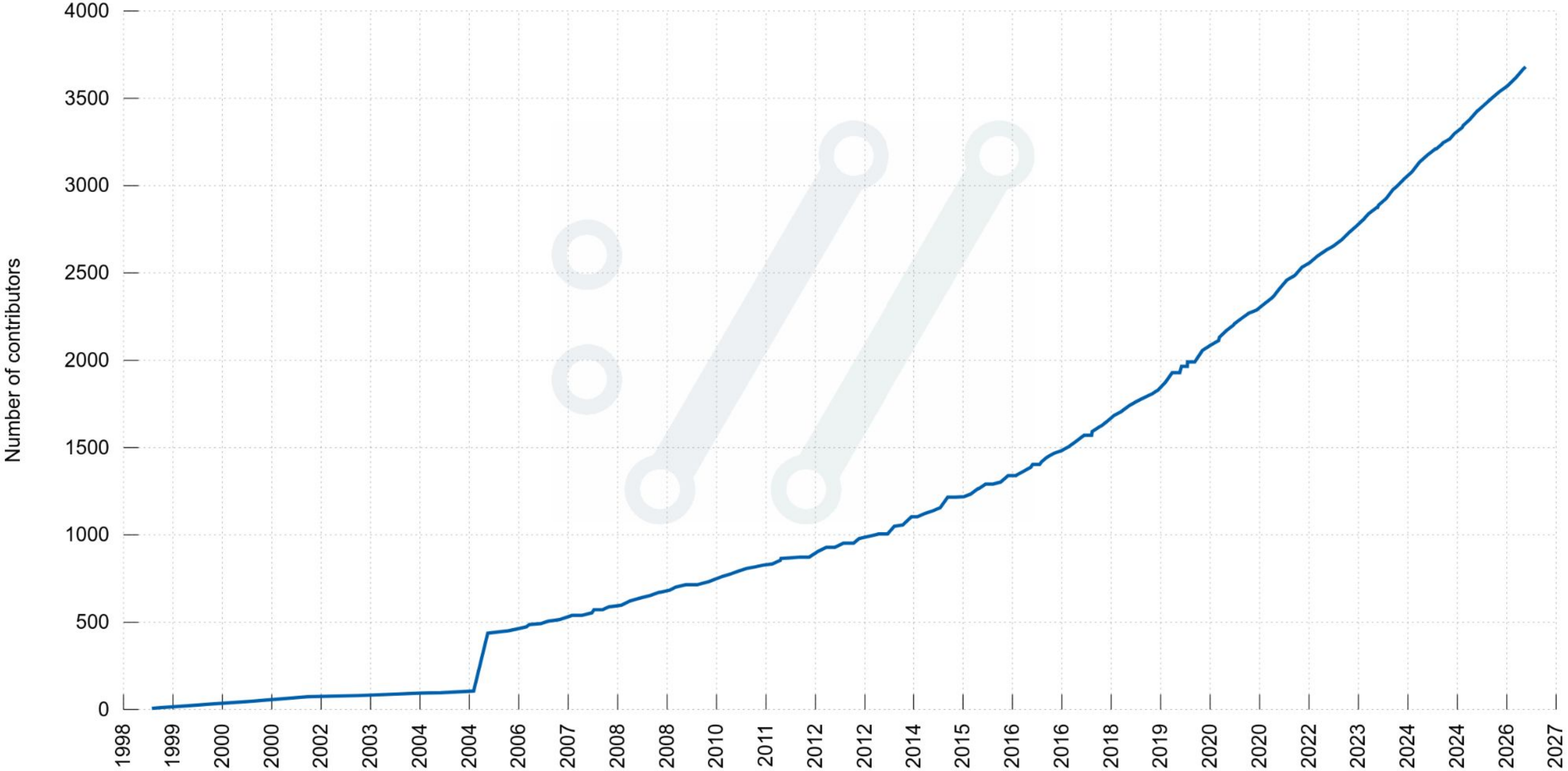


Newcomers and oldies

3,687 contributors

+288 (+8.5%) since last year

Contributors



1,476 authors

+107 (+7.8%) since last year

Top-20 curl authors last twelve months



- 1504 Viktor Szakats
- 1195 Daniel Stenberg
- 390 Stefan Eissing
- 121 renovate[bot]**
- 38 Xiaoke Wang
- 27 Joshua Rogers
- 26 Dan Fandrich
- 19 Jay Satiro
- 17 Yedaya Katsman
- 16 dependabot[bot]**
- 13 Patrick Monnerat
- 12 Daniel McCarney
- 9 Max Dymond
- 9 Samuel Henrique
- 7 Christian Schmitz
- 6 Andrew Kirillov
- 4 David Zhuang
- 4 Kai Pastor
- 3 Fabrício Canedo
- 3 James Fuller



Top-20 curl authors all-time

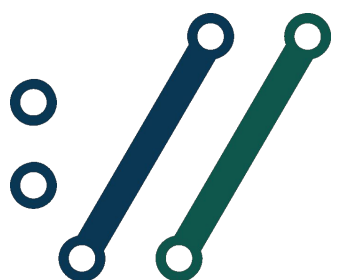


- 20382 Daniel Stenberg
- 3007 Viktor Szakats
- 2587 Yang Tse
- 1916 Steve Holme
- 1448 Dan Fandrich
- 1040 Stefan Eissing
- 776 Jay Satiro
- 662 Guenter Knauf
- 498 Gisle Vanem
- 461 Marc Hoersken
- 405 Marcel Raad
- 363 Patrick Monnerat
- 255 Kamil Dudka
- 217 Daniel Gustafsson
- 213 renovate[bot]**
- 150 Tatsuhiro Tsujikawa
- 84 Michael Kaufmann
- 83 Alessandro Ghedini
- 77 Fabian Keil
- 70 Nick Zitzmann

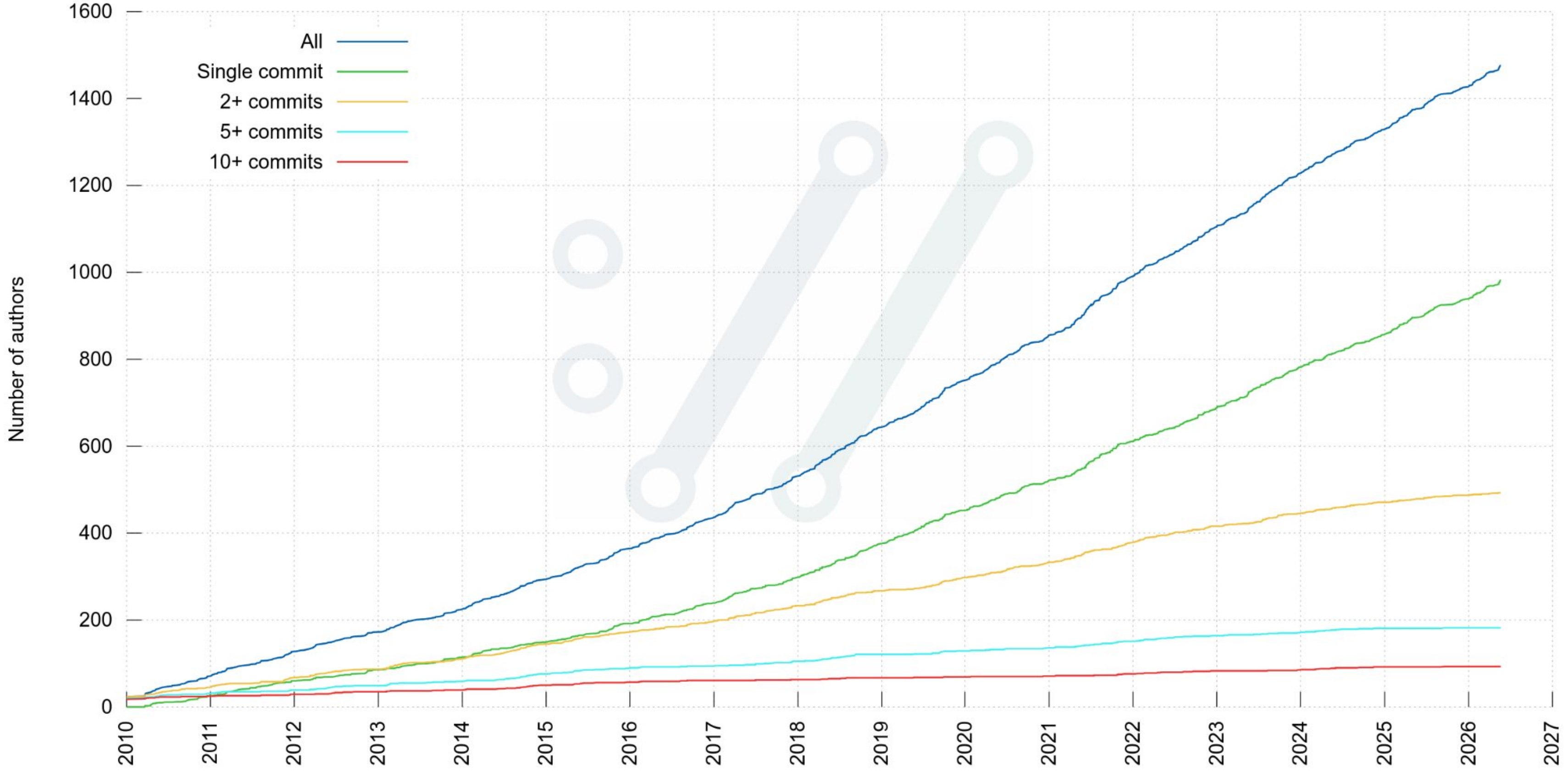


The curl committers last 12 months

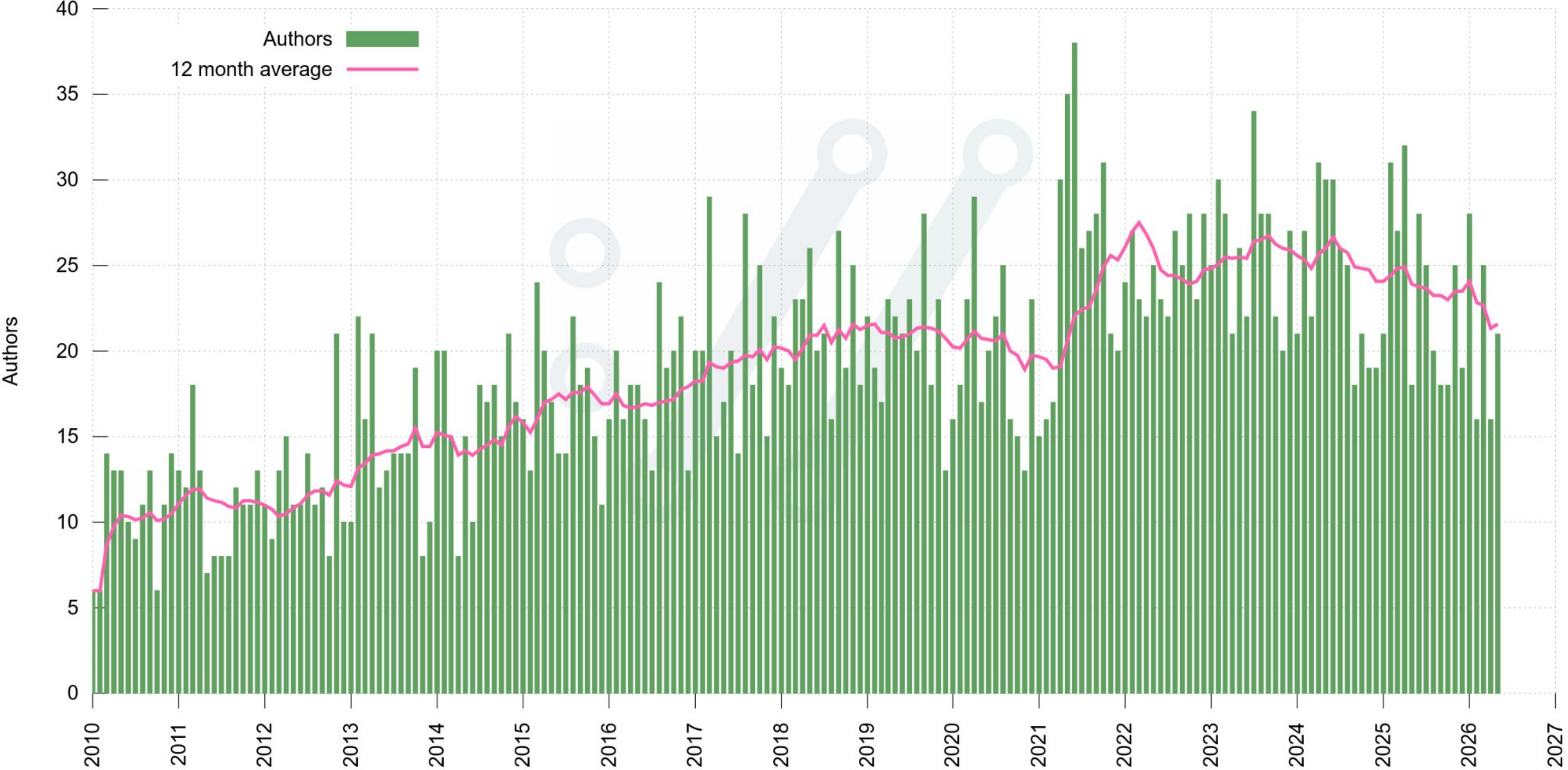
- 1870 Daniel Stenberg
- 1635 Viktor Szakats
- 33 Jay Satiro
- 27 Dan Fandrich
- 9 Max Dymond
- 2 Marcel Raad
- 1 Daniel Gustafsson



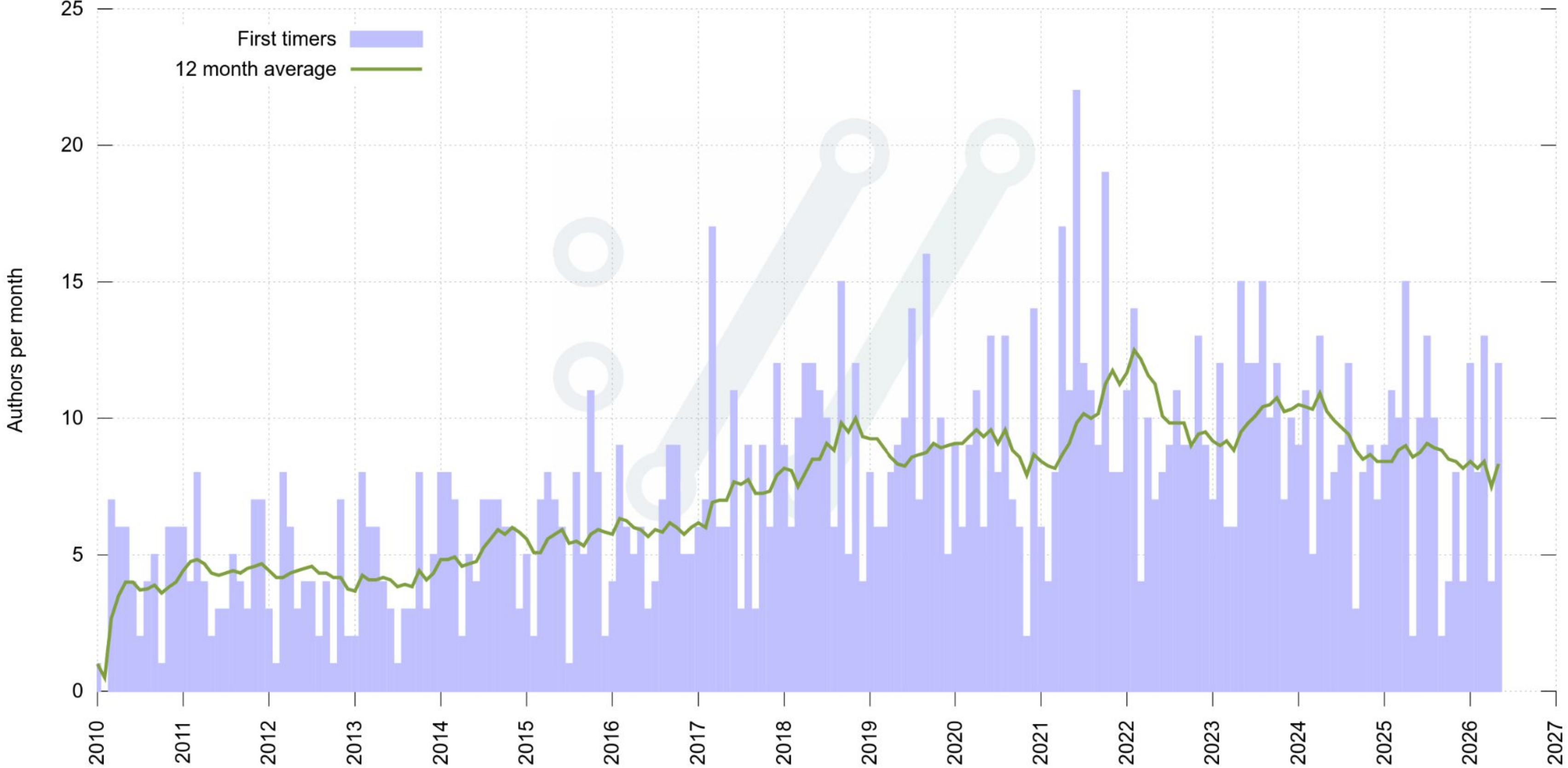
Commit authors



Authors per month

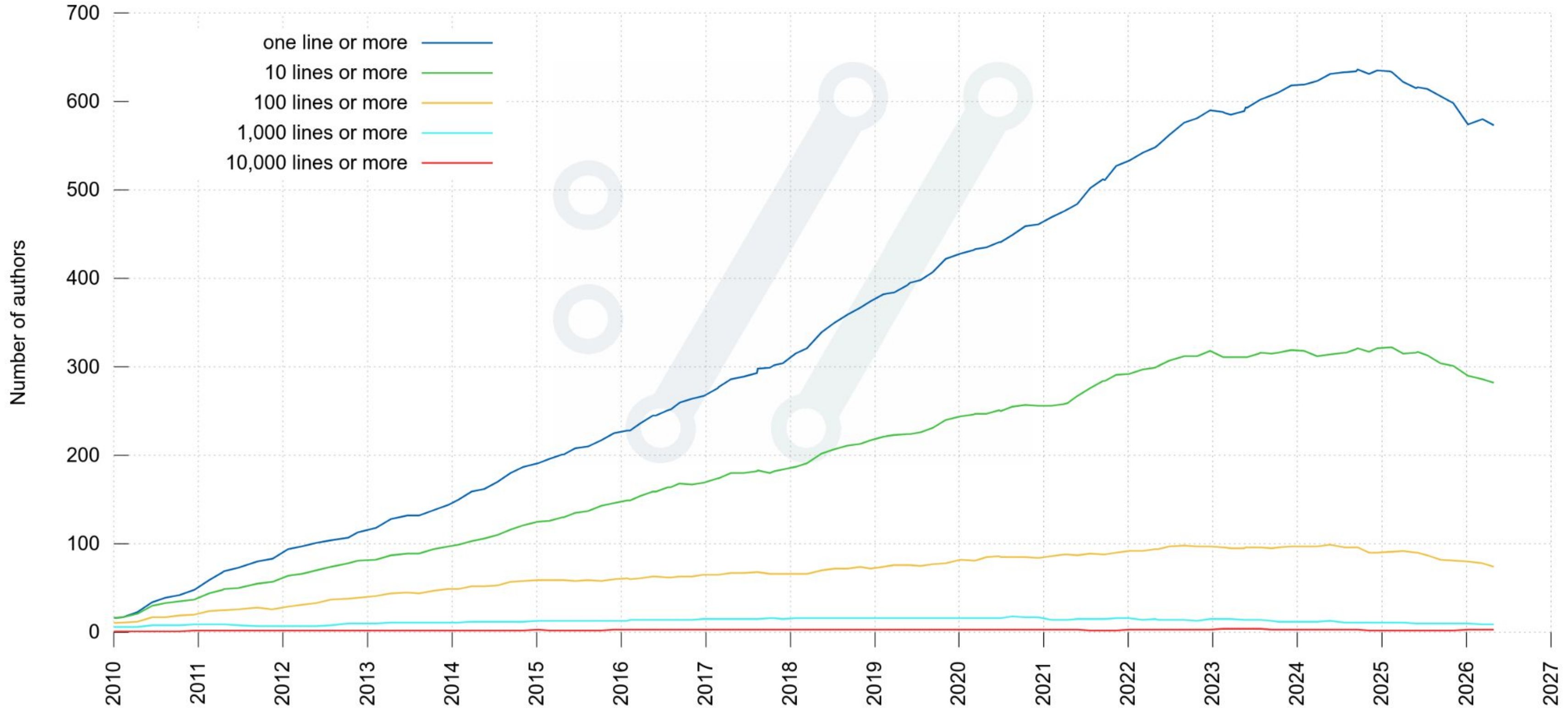


First time commit authors



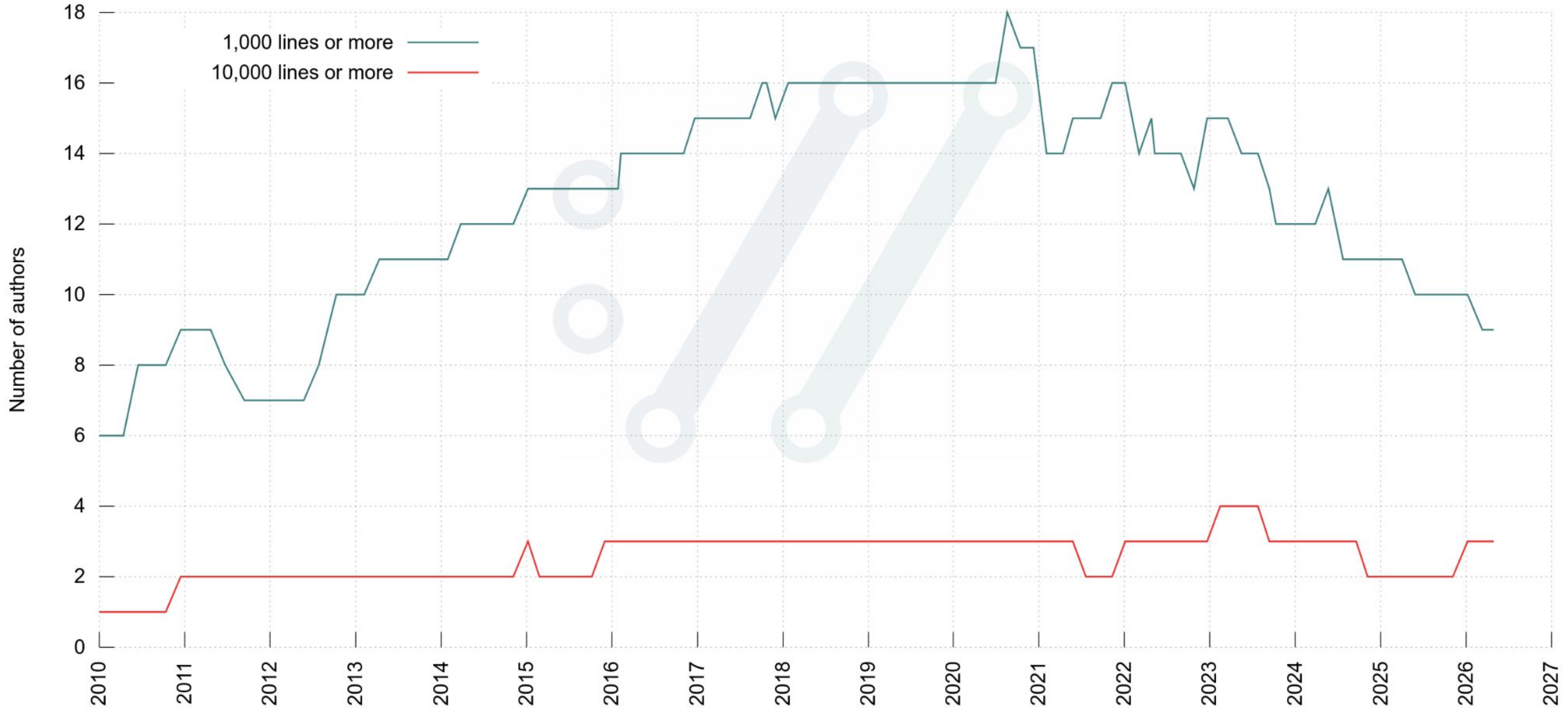
Authors with code left in product code

lines attributed to them by git blame -CCC

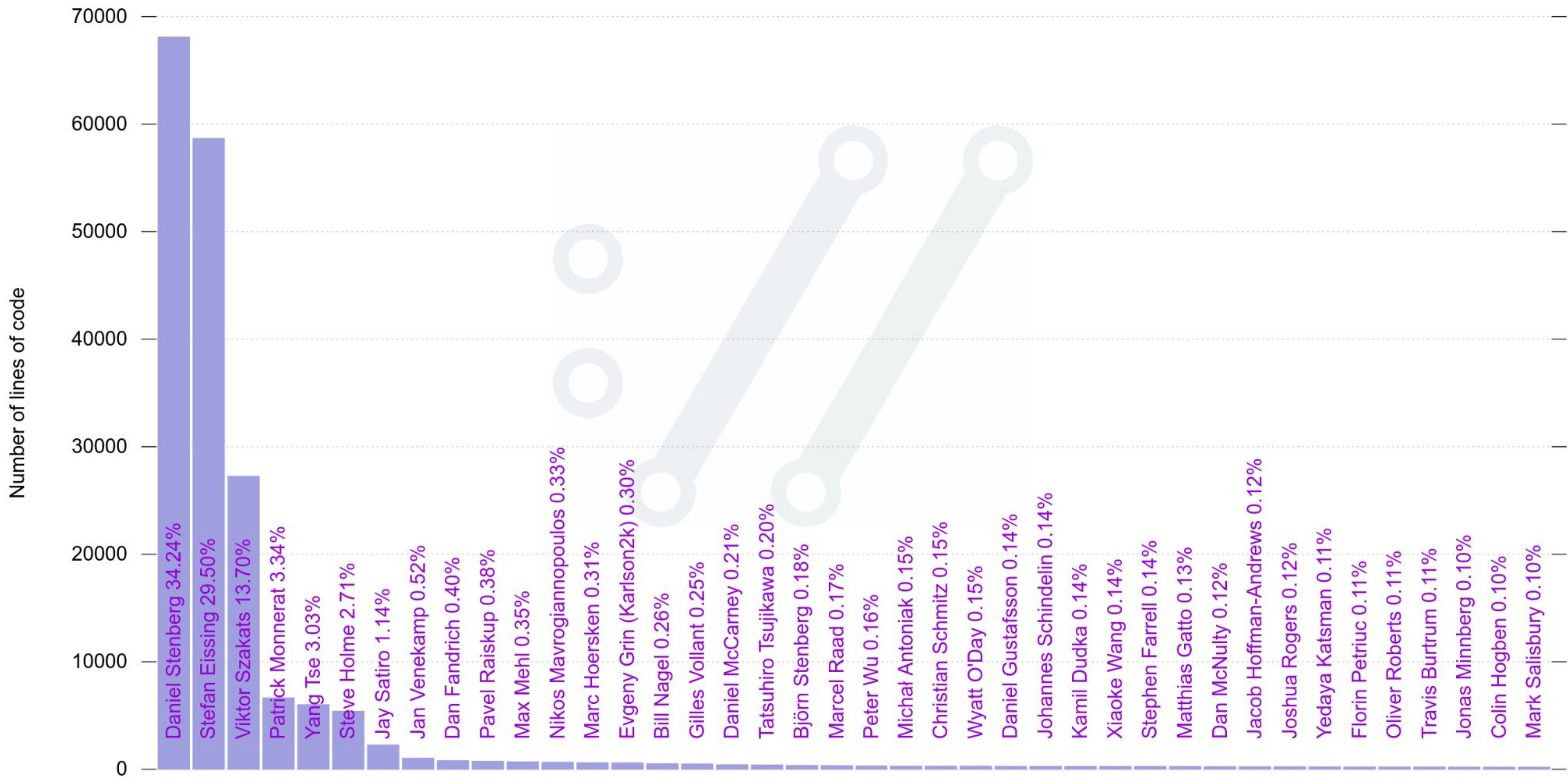


Authors with code left in product code

1K or more lines attributed to them by git blame -CCC



Top-40 authors with production code remaining in master



Maintainers

People in the GitHub curl org

Björn Stenberg

James Fuller

Michael Kaufmann

Dan Fandrich

Jay Satiro

Nick Zitzmann

Daniel Gustafsson

Marc Hörsken

Stefan Eissing

Daniel Stenberg

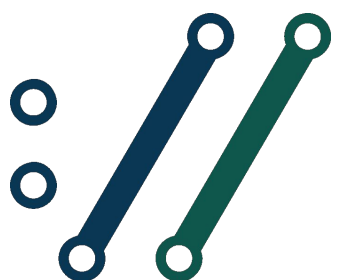
Marcel Raad

Tatsuhiko Tsujikawa

Jakub Zakrzewski

Max Dymond

Viktor Szakats



Core team + curl security team

Dan Fandrich

Daniel Gustafsson

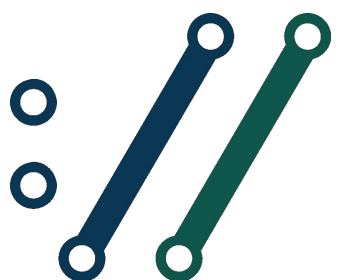
Daniel Stenberg

James Fuller

Max Dymond

Stefan Eissing

Viktor Szakats



Adding and removing

Idle members (create alumni team without rights?)

What is “idle” ?

New eager contributors?

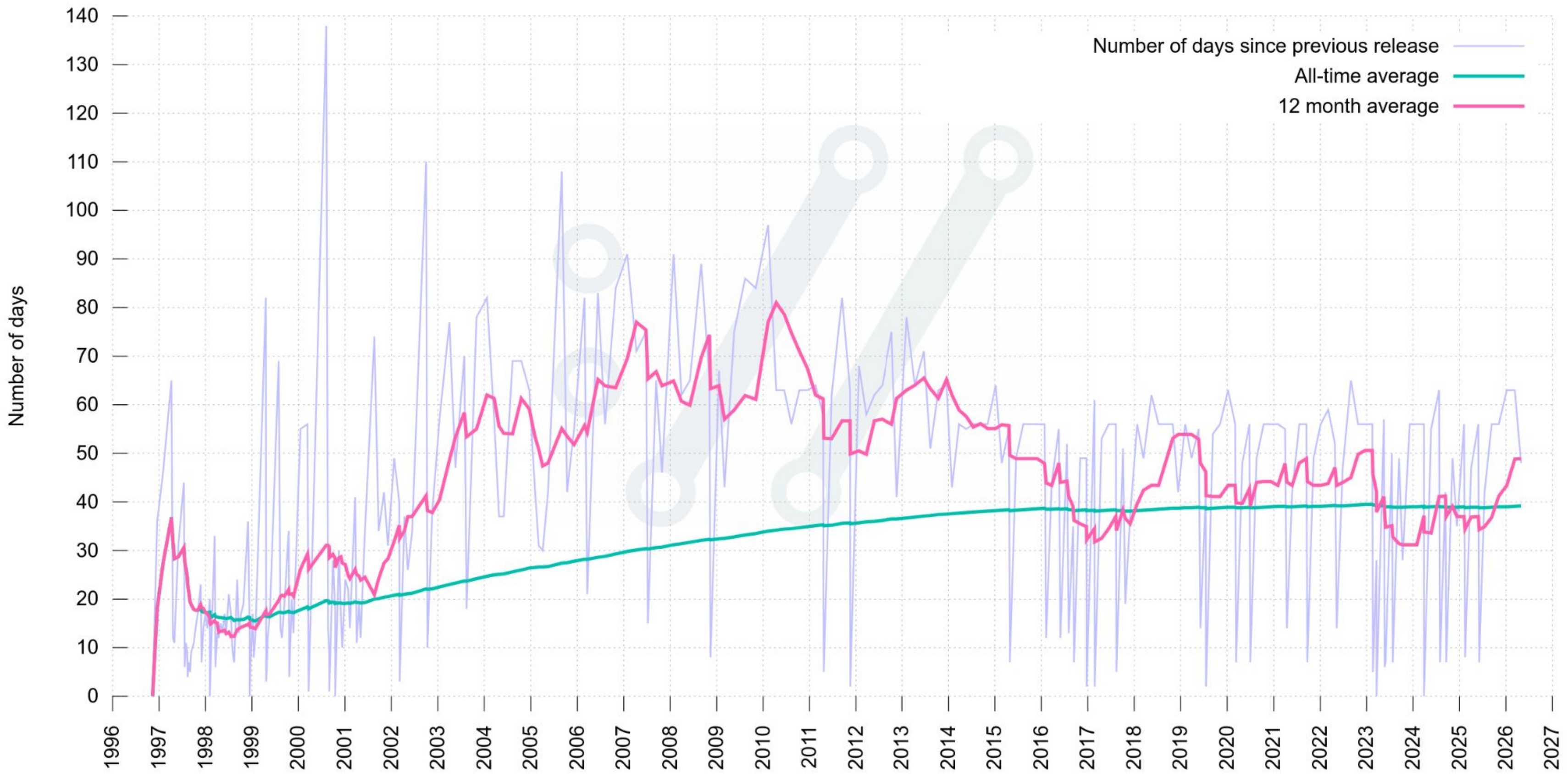
Vague requirements

Vague responsibilities

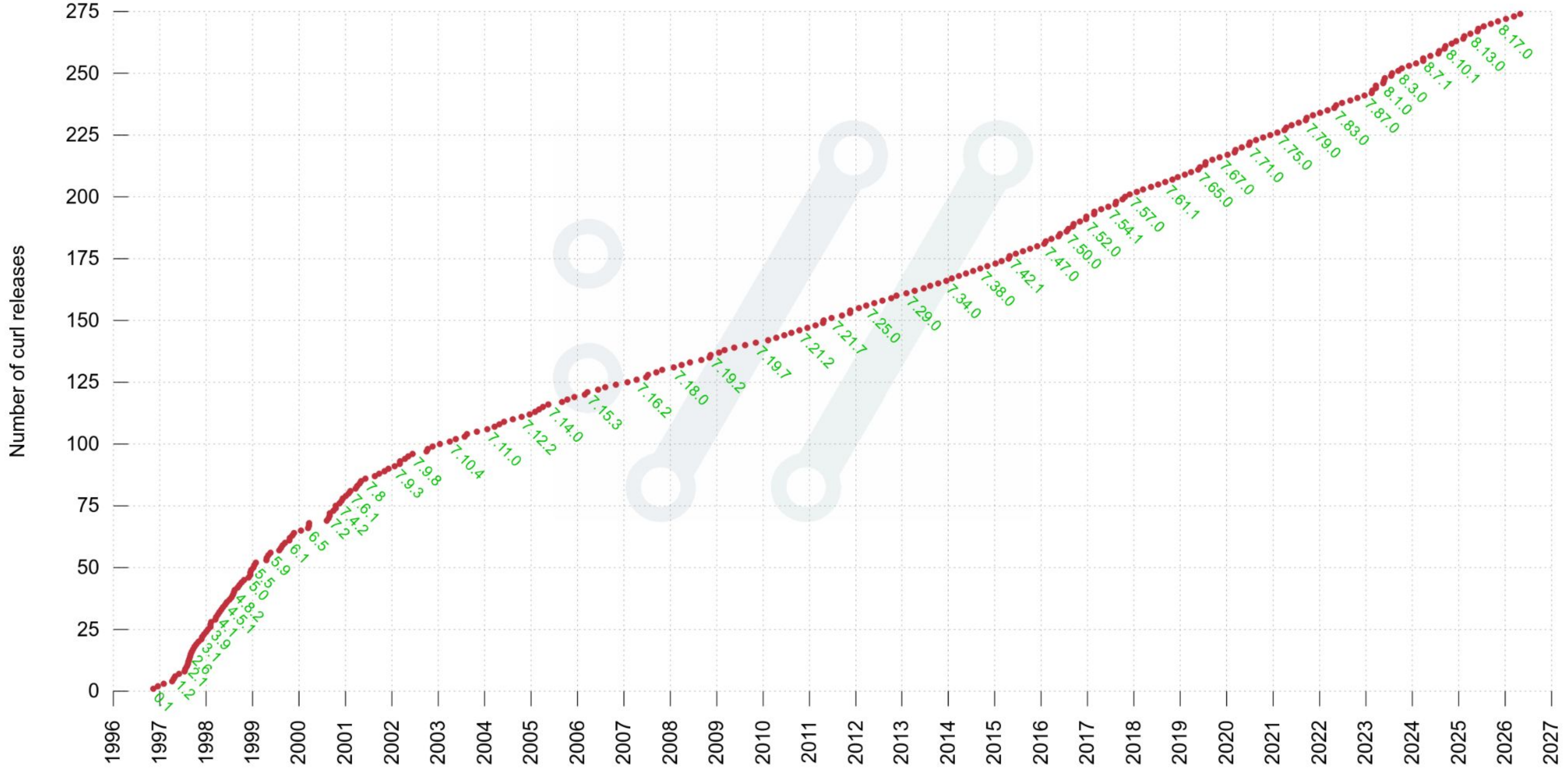


Releases

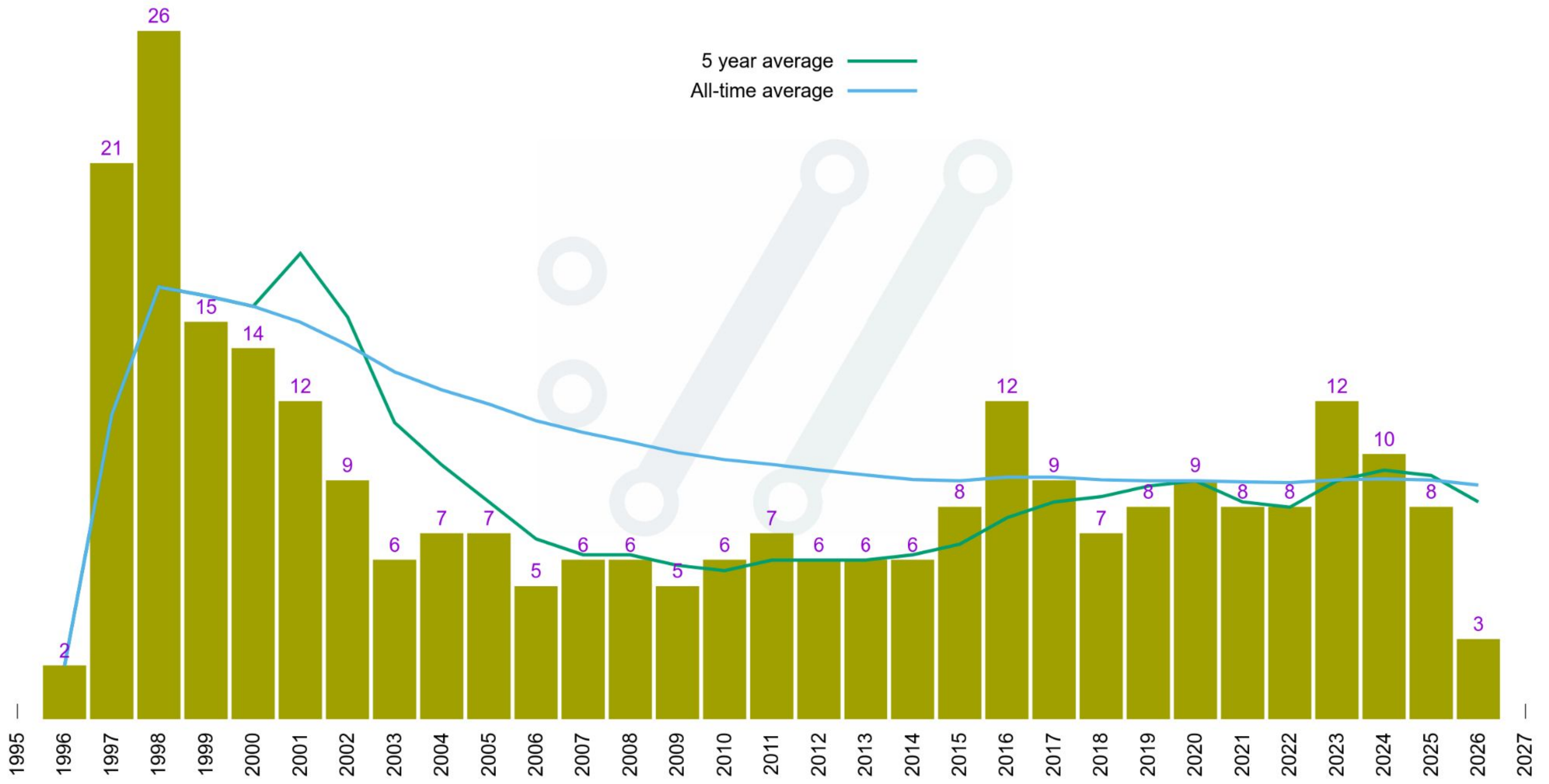
Days between releases



releases

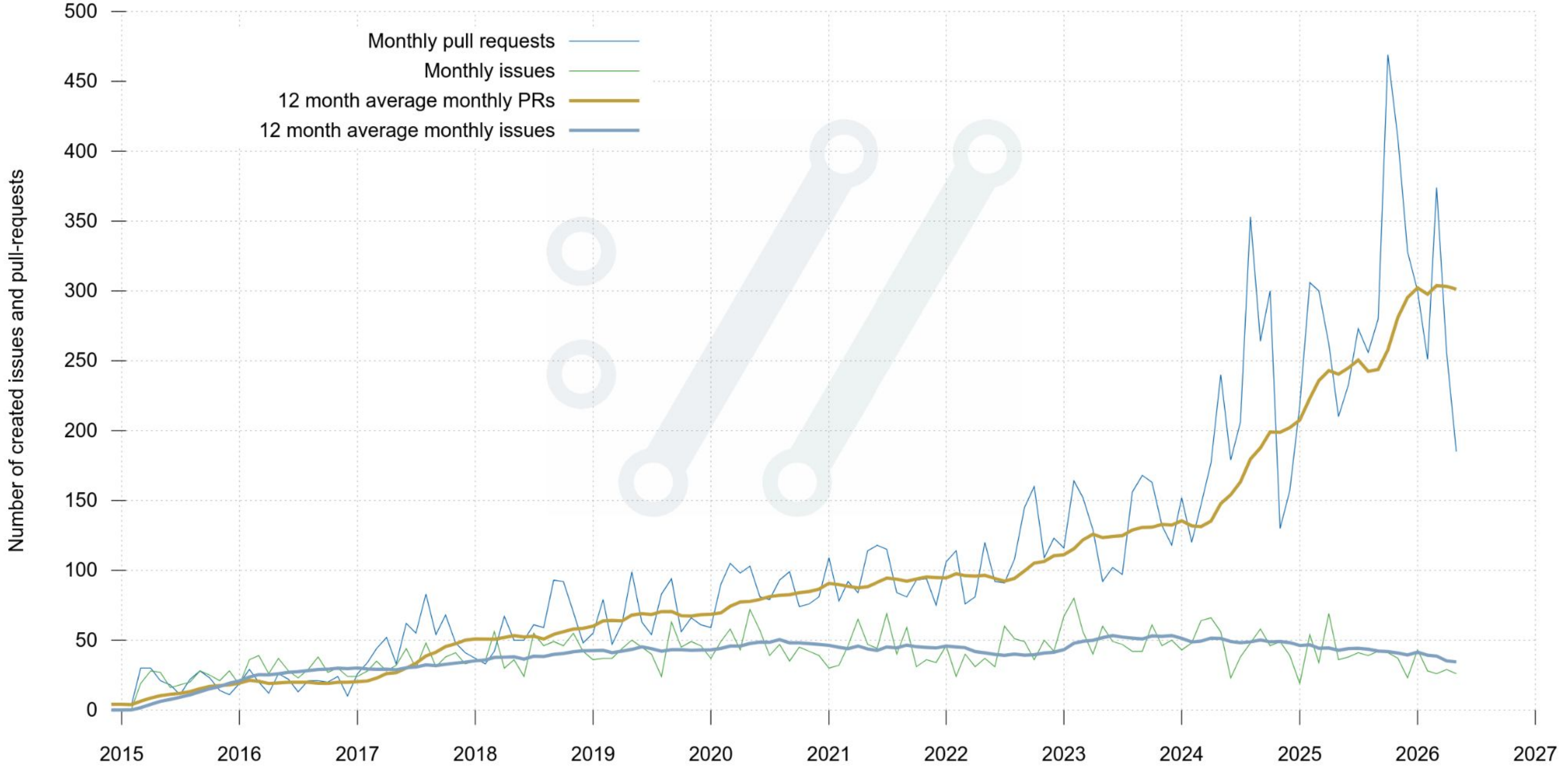


releases per year

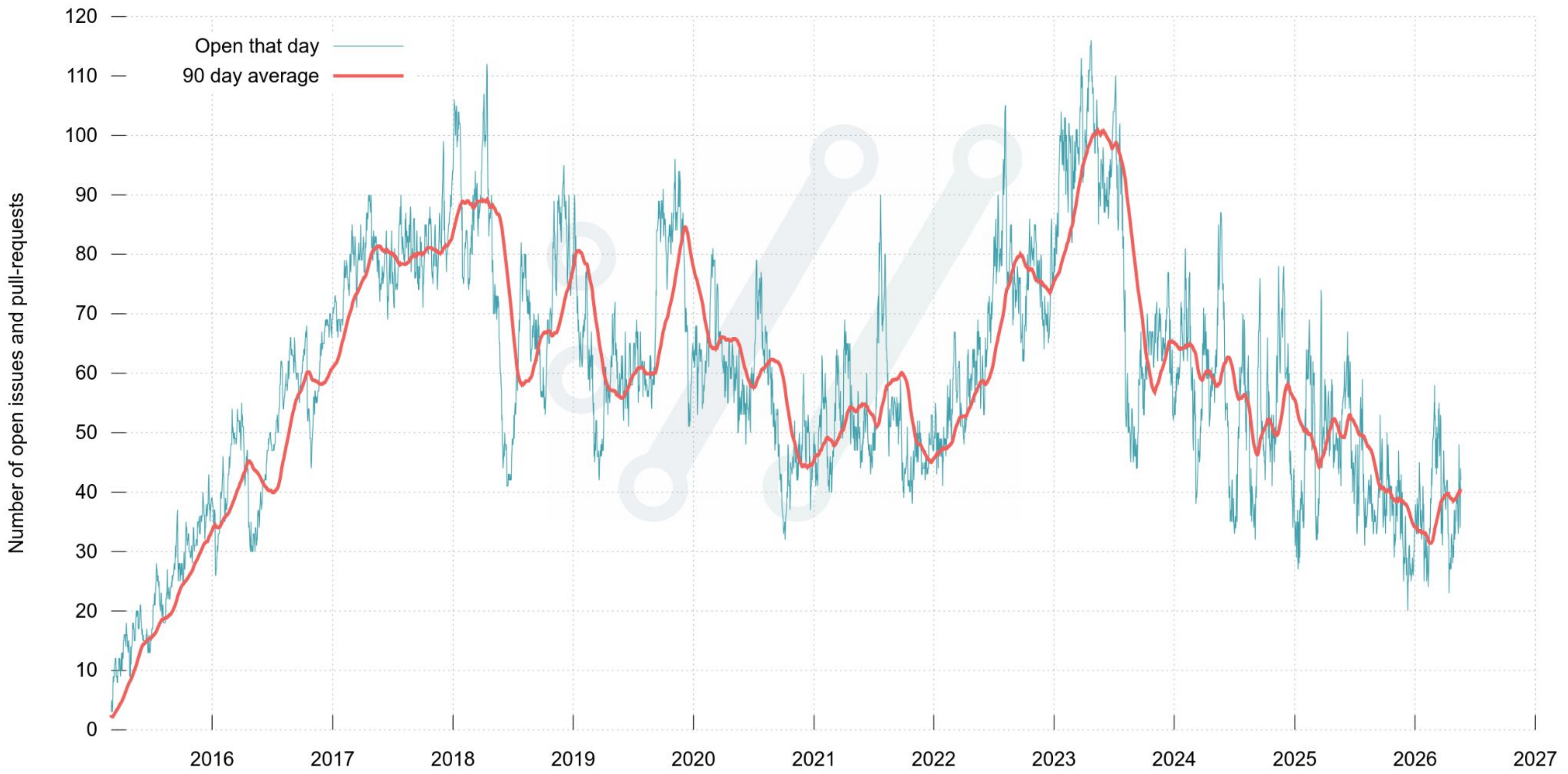


Activity

GitHub: created issues + pull-requests

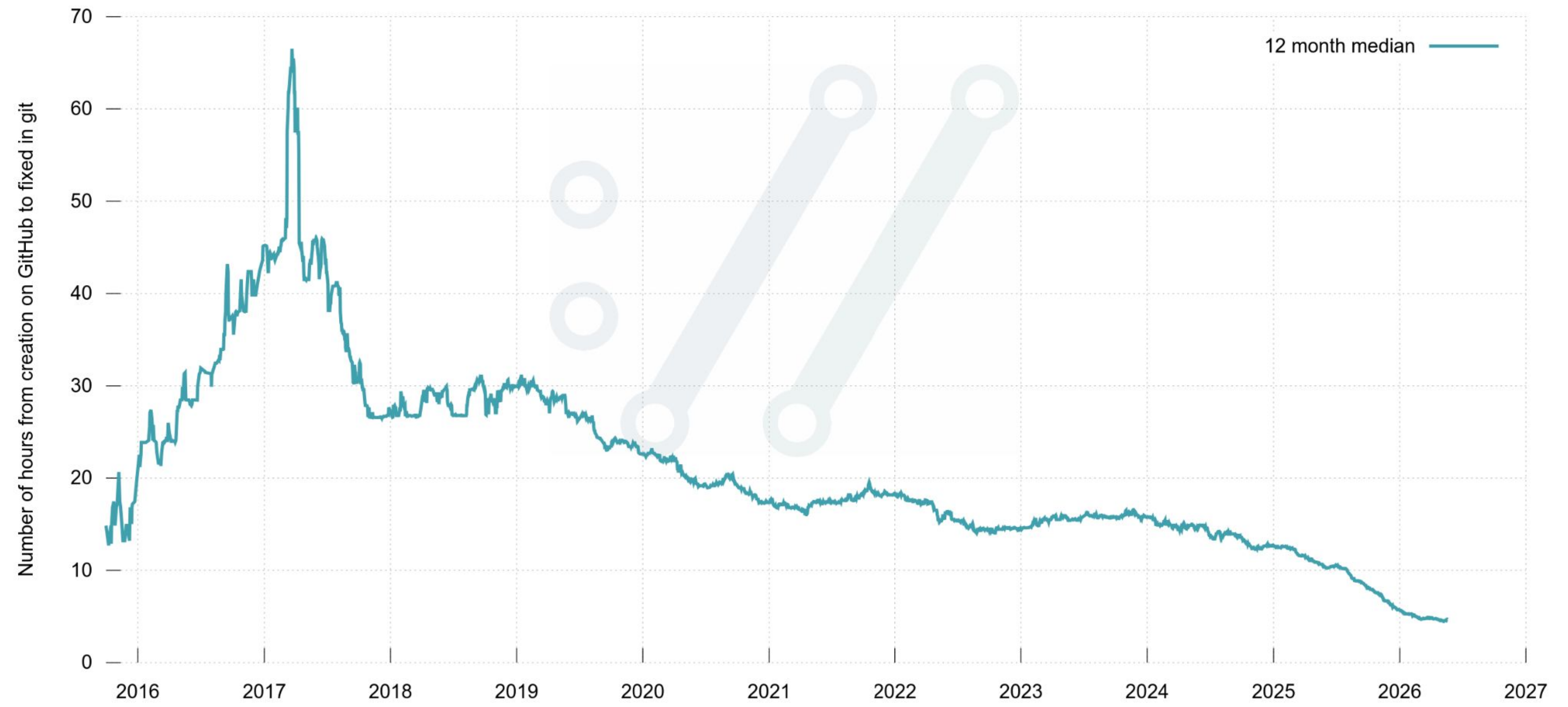


GitHub: open issues and pull requests

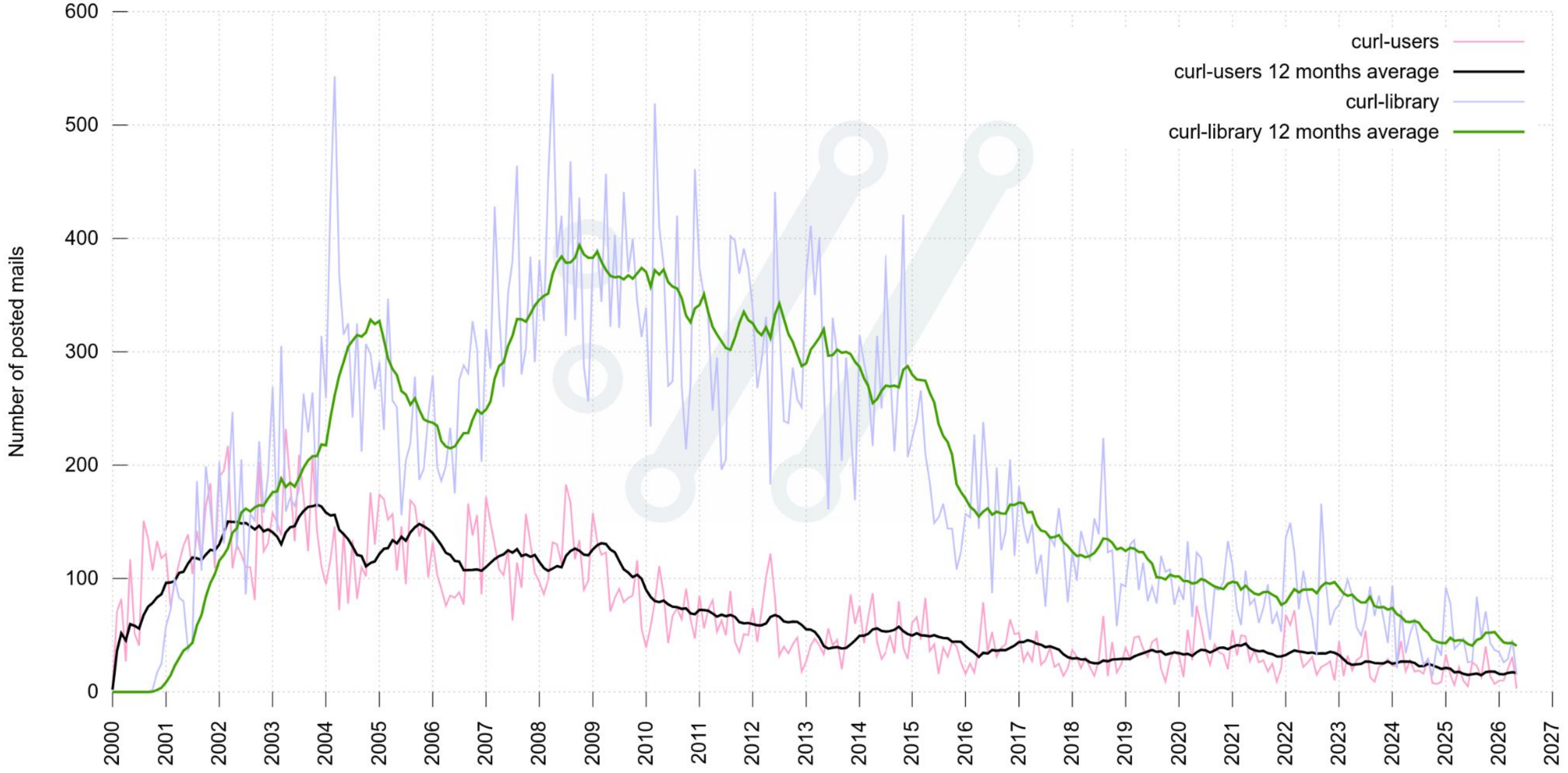


GitHub: issue life time until fixed

For issues closed via a git commit message keyword



Mailing list posts per month



The users' view

Annual user survey

What is used, what is ignored

What is good, what is bad

What should be added, what should be removed

How are we doing

Will/should run “soon”

What should we ask users this year?



curl.se web traffic

Fastly makes our lives easier - since 2017

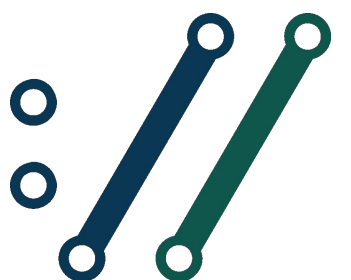
890 TB the last 12 months (+35%)

118 billion requests

0.01% of requests are a tarball download (~12 million)

Fast web site, close to most users

No ads, no logs, no cookies, no tracking, very little stats

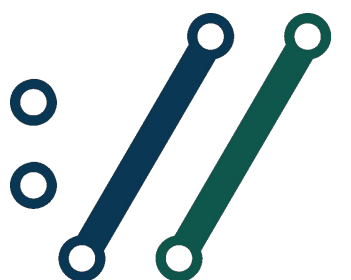


GitHub

41,935 GitHub Stars (+4,242)

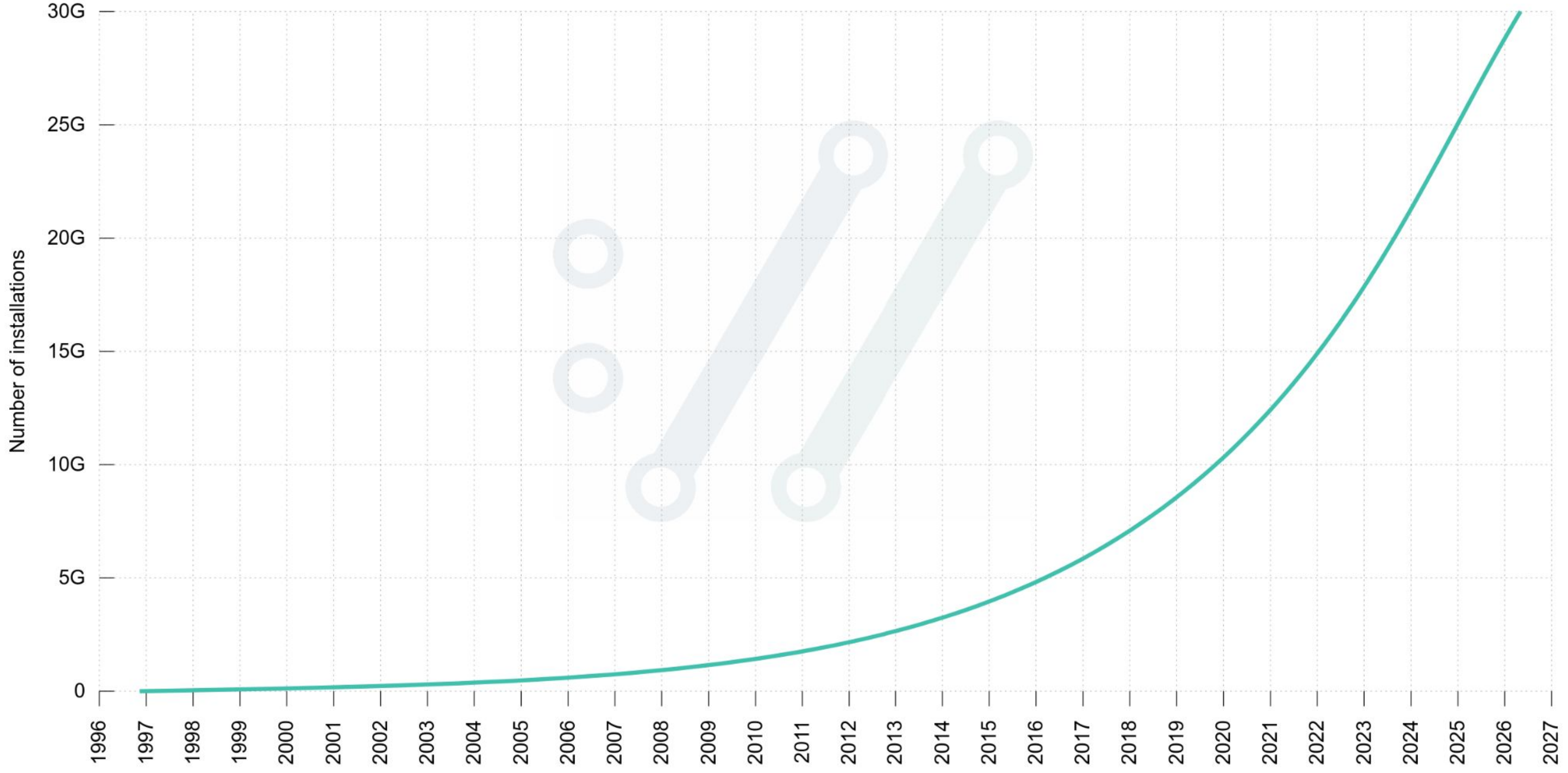
7,205 forks (+532)

54,285 git clones/day (up from 23,900)



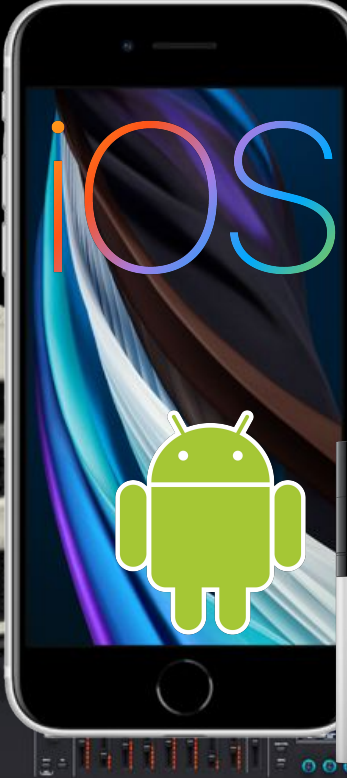
Thirty billion installations

Number of installs globally





Windows 10



FORTNITE



ROBLOX



Elsie could just barely hear the toll of Big Ben in the distance. Four o'clock. A decent enough time for breaking the law. But when the law wasn't fit, was it really a bad thing to break it? Slipping around a corner, Elsie pulled the letter from her pocket. Although London was only an hour's ride by omnibus or carriage from her home in Brookley, she was not far from her neighborhood.

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chromeOS

curl runs in all devices



NETFLIX

PLAYERUNKNOWN'S BATTLEGROUNDS



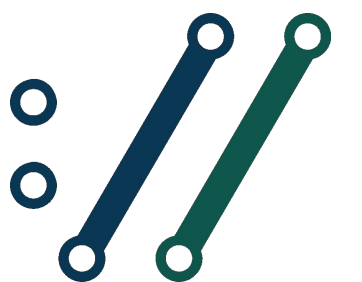
MARVEL SPIDER-MAN



Are they real?

Most of those users never participate or contribute

We might as well consider them imaginary



Money

Finances and sponsors

curl is not a legal entity

Open Collective holds our funds

Daniel is employed by wolfSSL

wolfSSL offers commercial curl services

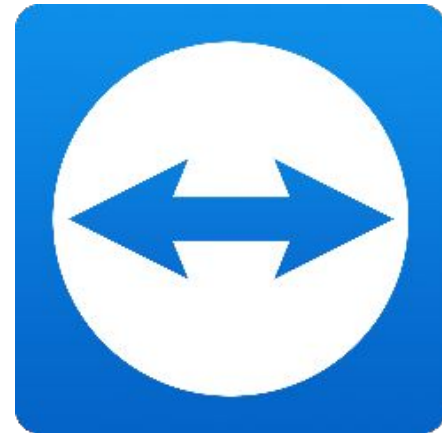


wolfSSL

Top curl sponsors



wolfSSL



TeamViewer

GitHub

kirei



elastic

Balance May 21, 2026













\$133,506 USD
(+10,286 USD)

Top financial contributors

2026

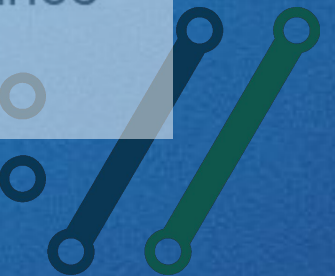
Organizations

- | | | | | | |
|---|---|---|----|--|---|
| 1 |  | GitHub Sponsors
\$58,712.77 USD
since Oct 2020 | 2 |  | Elastic
\$39,500 USD
since Nov 2019 |
| 3 |  | Indeed
\$20,050 USD
since Dec 2019 | 4 |  | Cybozu
\$19,767 USD since
Jun 2021 |
| 5 |  | Backblaze
\$15,600 USD since
Jan 2020 | 6 |  | Airbnb
\$13,424 USD since
Sep 2019 |
| 7 |  | Bloomberg
\$10,000 USD since
Mar 2023 | 8 |  | Open Broadcaste...
\$10,000 USD since
Feb 2026 |
| 9 |  | Icons8
\$9,400 USD since
Aug 2018 | 10 |  | Crosswordsolver
\$7,900 USD since
Oct 2019 |

2025

Organizations











- | | | | | | |
|---|---|---|----|---|---|
| 1 |  | GitHub Sponsors
\$42,036.29 USD
since Oct 2020 | 2 |  | Elastic
\$33,000 USD
since Nov 2019 |
| 3 |  | Indeed
\$20,050 USD
since Dec 2019 | 4 |  | Cybozu
\$16,517 USD since
Jun 2021 |
| 5 |  | Backblaze
\$15,600 USD since
Jan 2020 | 6 |  | Airbnb
\$11,253 USD since
Sep 2019 |
| 7 |  | Bloomberg
\$10,000 USD since
Mar 2023 | 8 |  | Icons8
\$8,100 USD since
Aug 2018 |
| 9 |  | Crosswordsolver
\$6,600 USD since
Oct 2019 | 10 |  | Premium Minds
\$6,500 USD since
Dec 2019 |



Top financial contributors

2026

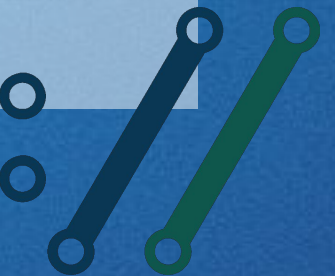
Individuals

- | | | | | | |
|---|---|--|----|--|---|
| 1 |  | Comcast
\$21,000 USD since Apr 2021 | 2 |  | Hackerone Inc
\$17,892 USD since Jul 2022 |
| 3 |  | Wei Ming
\$7,900 USD since Nov 2019 | 4 |  | Admin MiniTool
\$6,800 USD since Aug 2019 |
| 5 |  | conet Deutschlan...
\$5,900 USD since Jul 2021 | 6 |  | iBoysoft
\$4,500 USD since Aug 2022 |
| 7 |  | Christian Schmitz
\$4,200 USD since May 2022 | 8 |  | Bitwarden
\$2,491.11 USD since Feb 2024 |
| 9 |  | Flutter Enterprises
\$2,400 USD since Feb 2024 | 10 |  | Guest
\$2,350 USD since Dec 2025 |

2025

Individuals

- | | | | | | |
|---|---|--|----|---|--|
| 1 |  | Comcast
\$21,000 USD since Apr 2021 | 2 |  | Hackerone Inc
\$17,892 USD since Jul 2022 |
| 3 |  | Admin MiniTool
\$6,800 USD since Aug 2019 | 4 |  | Wei Ming
\$6,600 USD since Nov 2019 |
| 5 |  | Babel GmbH
\$4,600 USD since Jul 2021 | 6 |  | Christian Schmitz
\$3,600 USD since May 2022 |
| 7 |  | iBoysoft
\$3,300 USD since Aug 2022 | 8 |  | Hityah
\$1,500 USD since Jan 2024 |
| 9 |  | Flutter Enterprises
\$1,500 USD since Feb 2024 | 10 |  | S.C.O.P. Cadoles
\$1,383 USD since Jul 2023 |



Expenses

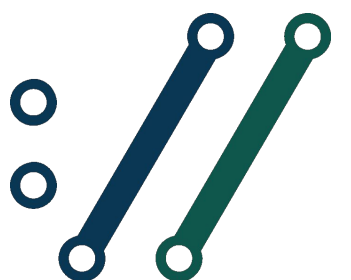
curl.se hosting

curl up – venue, travel and lodging

Stickers

Development (Dan F, Stefan, Viktor, ...)

More?

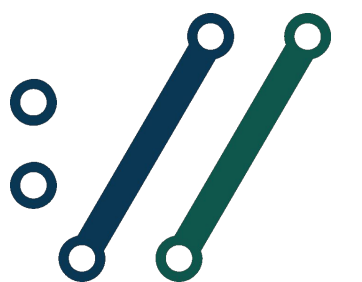


Sponsored

curl.se CDN (Fastly)

CI services (Teamviewer, GitHub)

Anycast DNS (kirei)



Other news in and around the project

Removals

- Secure Transport (removed in 8.15.0)
- BearSSL (removed in 8.15.0)
- msh3 (removed in 8.16.0)
- winbuild build system (removed in 8.17.0)
- Windows CE (removed in 8.18.0)
- Support for Visual Studio 2008 (removed in 8.18.0)
- OpenSSL 1.1.1 and older (removed in 8.18.0)
- Support for Windows XP (removed in 8.19.0)
- OpenSSL-QUIC (removed in 8.19.0)
- CMake 3.17 and older (removed in 8.20.0)
- RTMP (removed in 8.20.0)
- SMB (became opt-in in 8.20.0)
- NTLM (became opt-in in 8.20.0)
- c-ares < 1.16.0 (removed in 8.20.0)

EXPERIMENTAL

HTTPS-RR

ECH

HTTP/3 with quiche

rustls

SSL session import/export



release candidates

(news last year)

three separate snapshots leading up to release

seems to make a difference

the Debian team has been instrumental

Happier eyeballs

Name resolver thread pool

Separate name lookups for IPv4 vs IPv6

Faster connection setup

Weekly video meetings

informal

weekly

for coordination

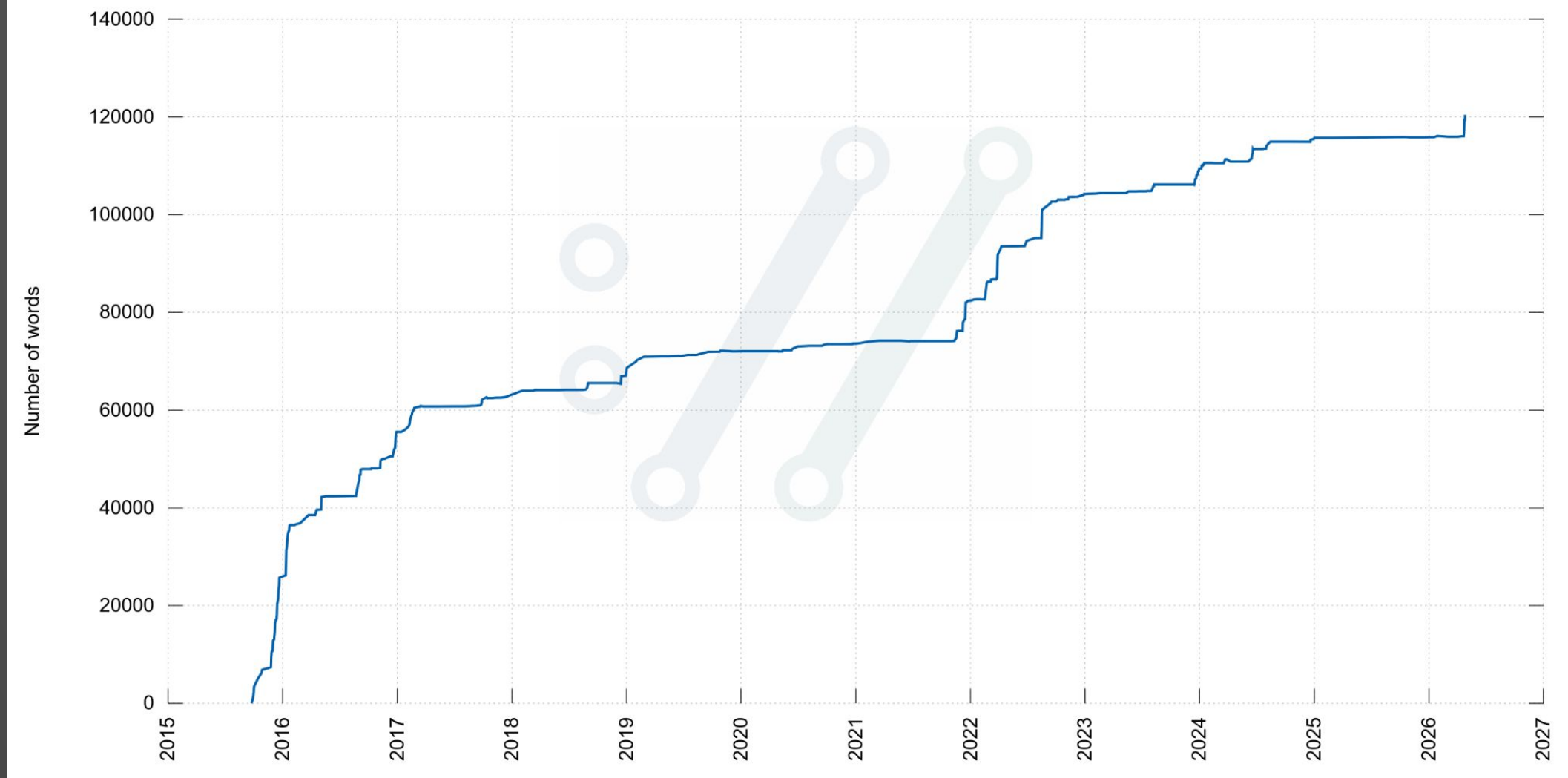
semi-open for everyone



everything curl

119,478 words (+4,500)

Number of words in everything curl

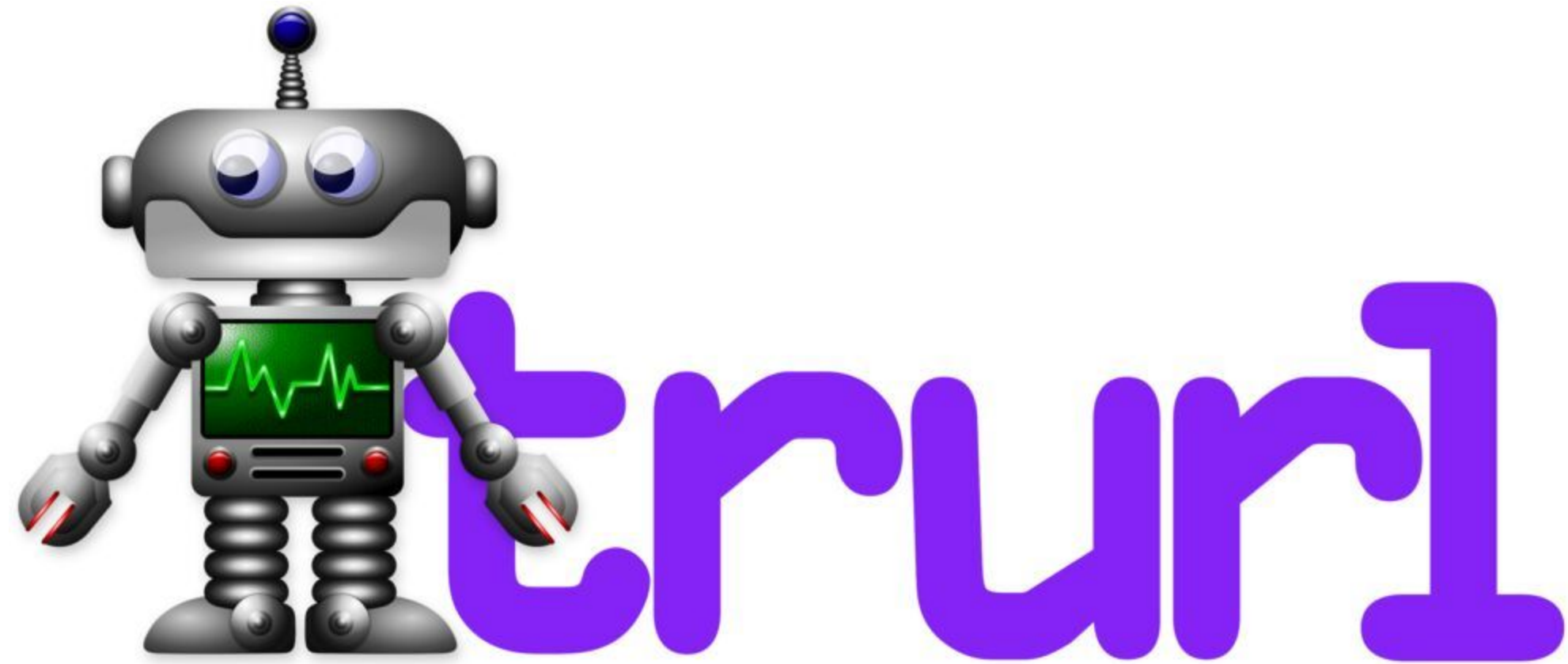


Everything

curl!

The complete guide to all there is to know about the curl project

Daniel Stenberg



parse, manipulate and output URLs and parts of
URLs

wcurl10



download a URL

Less good

Less good

~~✗ Flaky CI~~

~~✗ Slow CI~~

✗ Vulnerabilities

✗ Regressions

✗ Test gaps

✗ Could use more people who stick around

My (Daniel's) role



What I think I do for curl

I help keeping **the vision** – what curl and libcurl *should* do

I do curl **development** and fix problems – for fun and profit

I **support users** and developers experiencing problems or bugs

I **review code** and suggestions

I'm **guiding the architecture** of existing and future features

I **document how things work** and should work

I **inform project members** and the outside world about news and things we work on

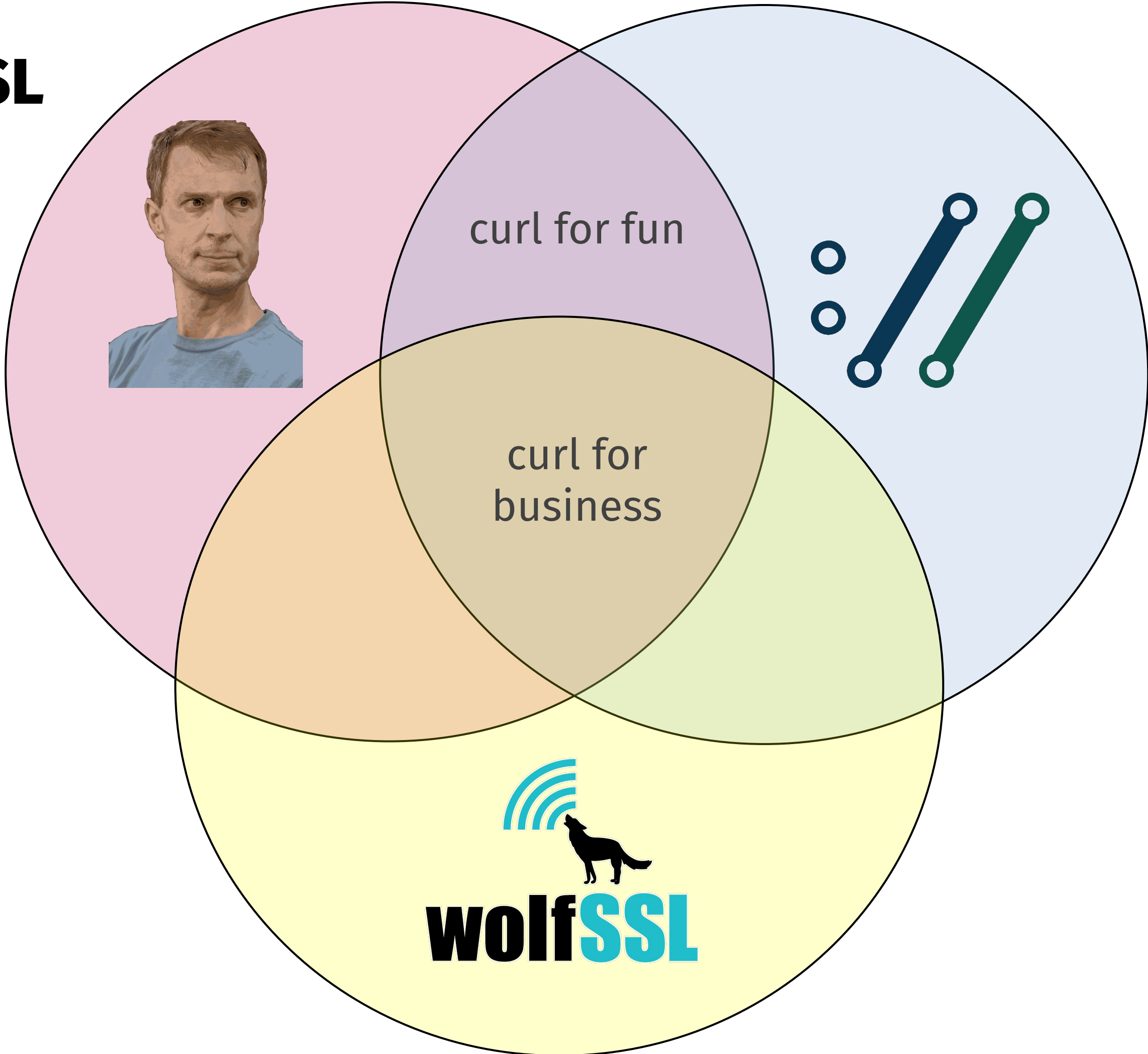
I aim to **master the protocols** curl works with

I **admin and host** the web site, mailing list and random services

I often serve as a **public face** for the project. It is sometimes said to be “mine” (it isn't)

I **talk** about the project publicly

Me, curl and wolfSSL



BDFL

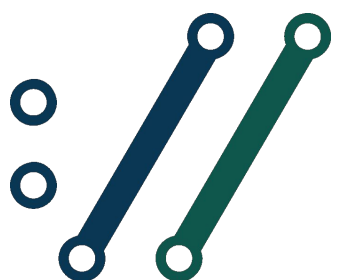
Benevolent Dictator For Life

I am a dictator of sorts

I want to make decisions and act on them based on consensus

When possible

For life?



Future



upcoming in 2026

More tests

More CI jobs

Tighten security + a bazillion of CVEs

Releases every eight weeks

Introduce more developers

Most changes driven by contributors

upcoming removals

TLS-SRP

SMB

NTLM

local crypto implementations

continue to trim off weak parts



upcoming additions

Take HTTPS RR and ECH forward
HTTP/3 over old proxies
older HTTP over HTTP/3 proxies
RFC 9421 HTTP Message Signatures

Everything will be networked

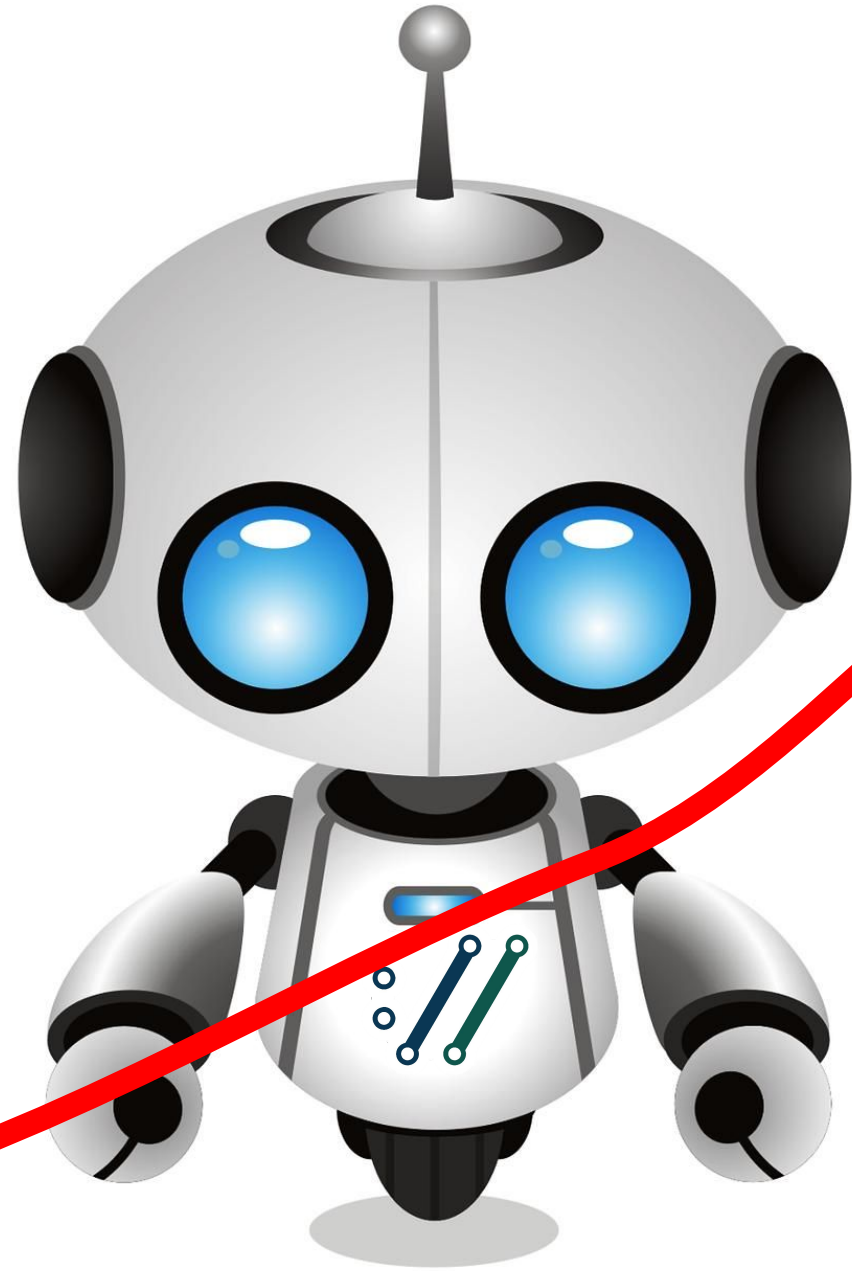
If it isn't powered now, it will be soon

If it is powered, it will be networked

If it is networked, it needs Internet access

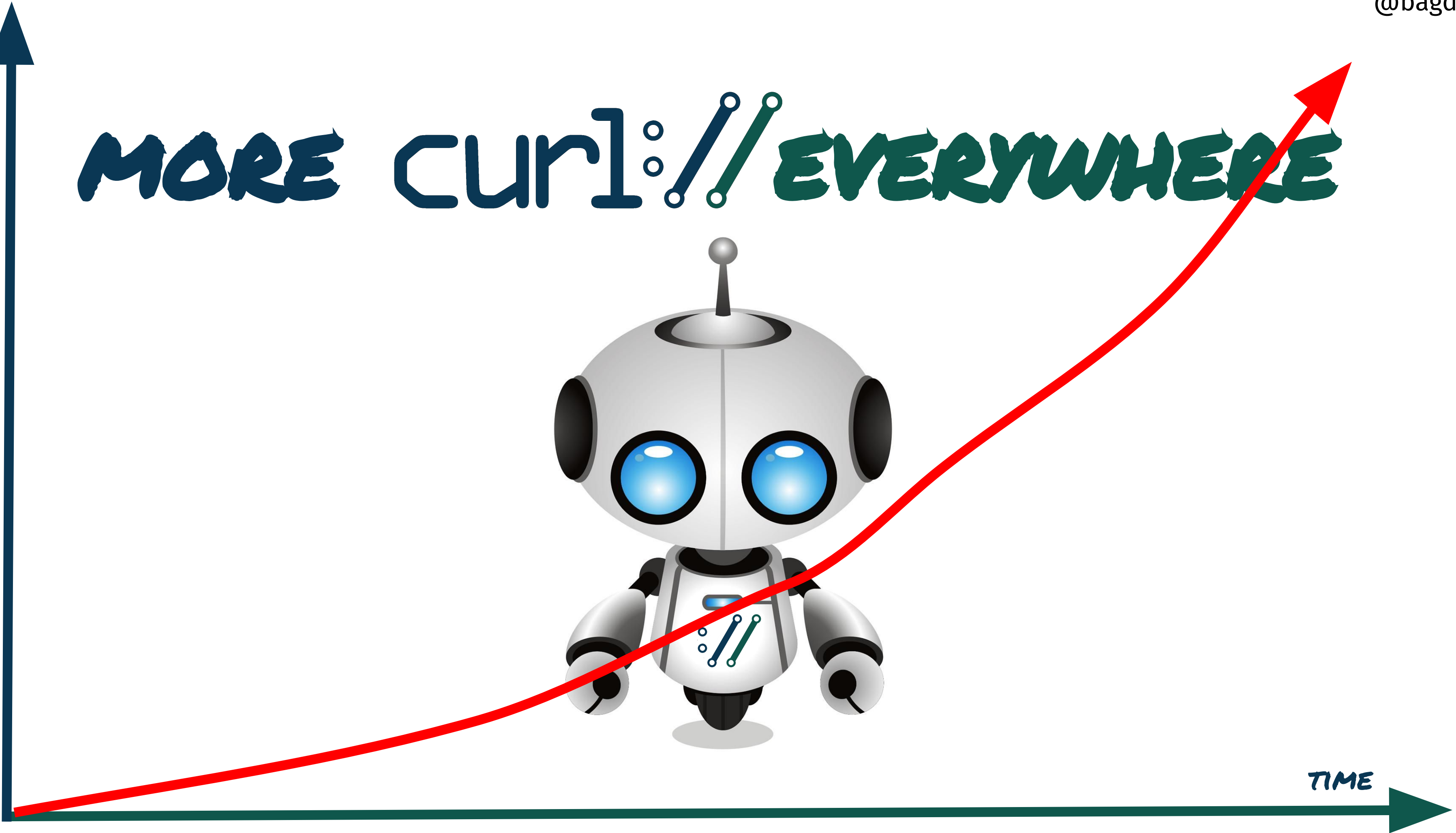
If it needs Internet access, curl can help

MORE curl:// EVERYWHERE



STUFF

TIME



We are not done yet