

# CHAOSS Practitioner Guides for Healthy & Sustainable Projects

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<https://chaoss.community/about-chaoss-practitioner-guides/>

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# Thank You!



**ALFRED P. SLOAN  
FOUNDATION**



**FORD  
FOUNDATION**



# Whoami



- Geek, traveler, reader
- 20+ yr tech career focused on community & open source (VMware, Intel, Puppet, ...)
- OpenUK Board
- CHAOSS Board and Maintainer
- CNCF TAG Contrib Strategy co-chair
- PhD on Linux kernel collaboration

Photos by Mom, [Josh Bancroft](#), [Don Park](#)



# Agenda

- Overview
- Responsiveness
- Contributor sustainability
- Organizational participation
- Security

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# CHAOSS: Community Health Analytics for Open Source Software

## We are:

- An Open Source, Linux Foundation Project
- Globally distributed with 2000+ members in Slack
- A lovely place to spend your time

## We are NOT:

- Not focused on medical health
- Not for-profit with any specific mandate
- Not only focused on code contributions

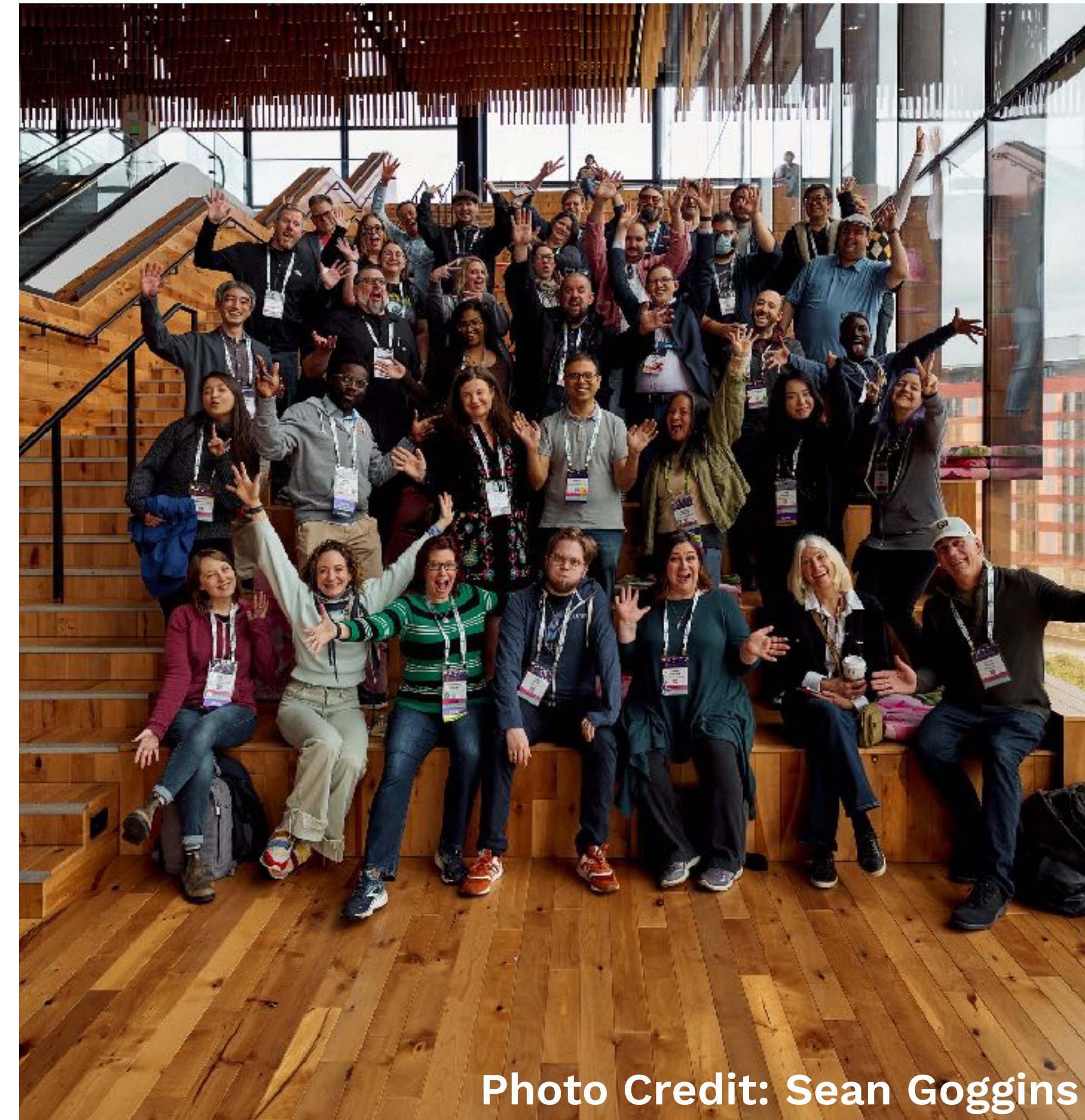


Photo Credit: Sean Goggins

@geekygirl dawn



# Join Us!

**Context WGs:** OSPOs, Academic / Uni, Scientific, Data Science, UN SDGs

**Metrics WGs:** Metrics Development, DEI

**Chapters:** CHAOSS Africa, CHAOSS Asia, CHAOSS Latam, CHAOSS Balkans

**Programs:** DEI Event Badging and Project Badging

**Software:** Augur and GrimoireLab

**And More!**



# Avoid the Tsunami

People get overwhelmed  
by a wall of metrics and  
are not sure where to start

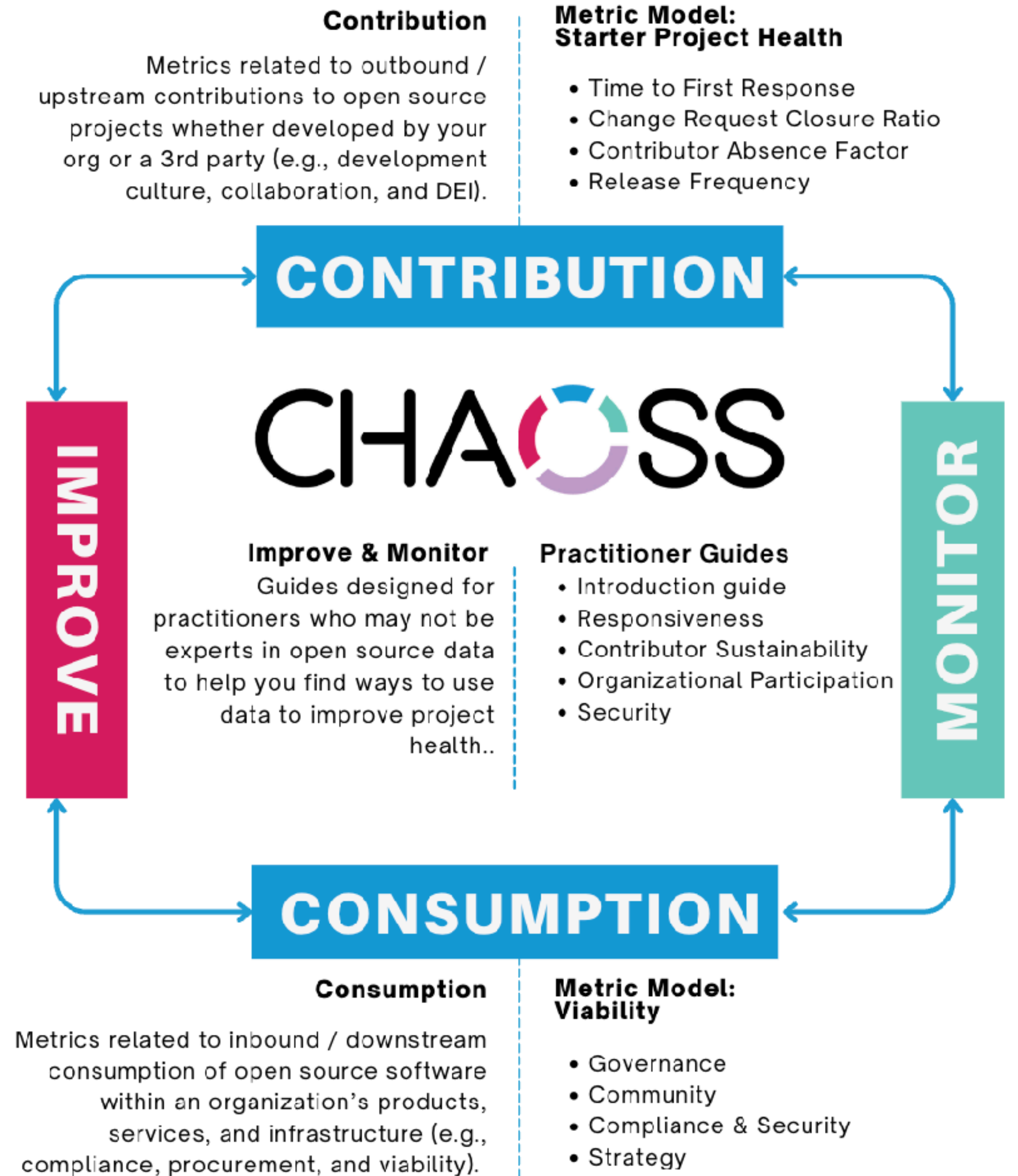


Photo by [Matt Paul Catalano](#) on [Unsplash](#)



# CHAOSS Resources

Practitioner Guides  
and collections of  
metrics to improve the  
health of your projects





# Metrics Require Interpretation

## Practitioner Guides:

- Introduction
- Responsiveness
- Contributor Sustainability
- Organizational Participation
- Security
- More guides coming soon



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# Metrics Strategy

Think strategically  
about what you  
want to accomplish and  
customize your metrics.

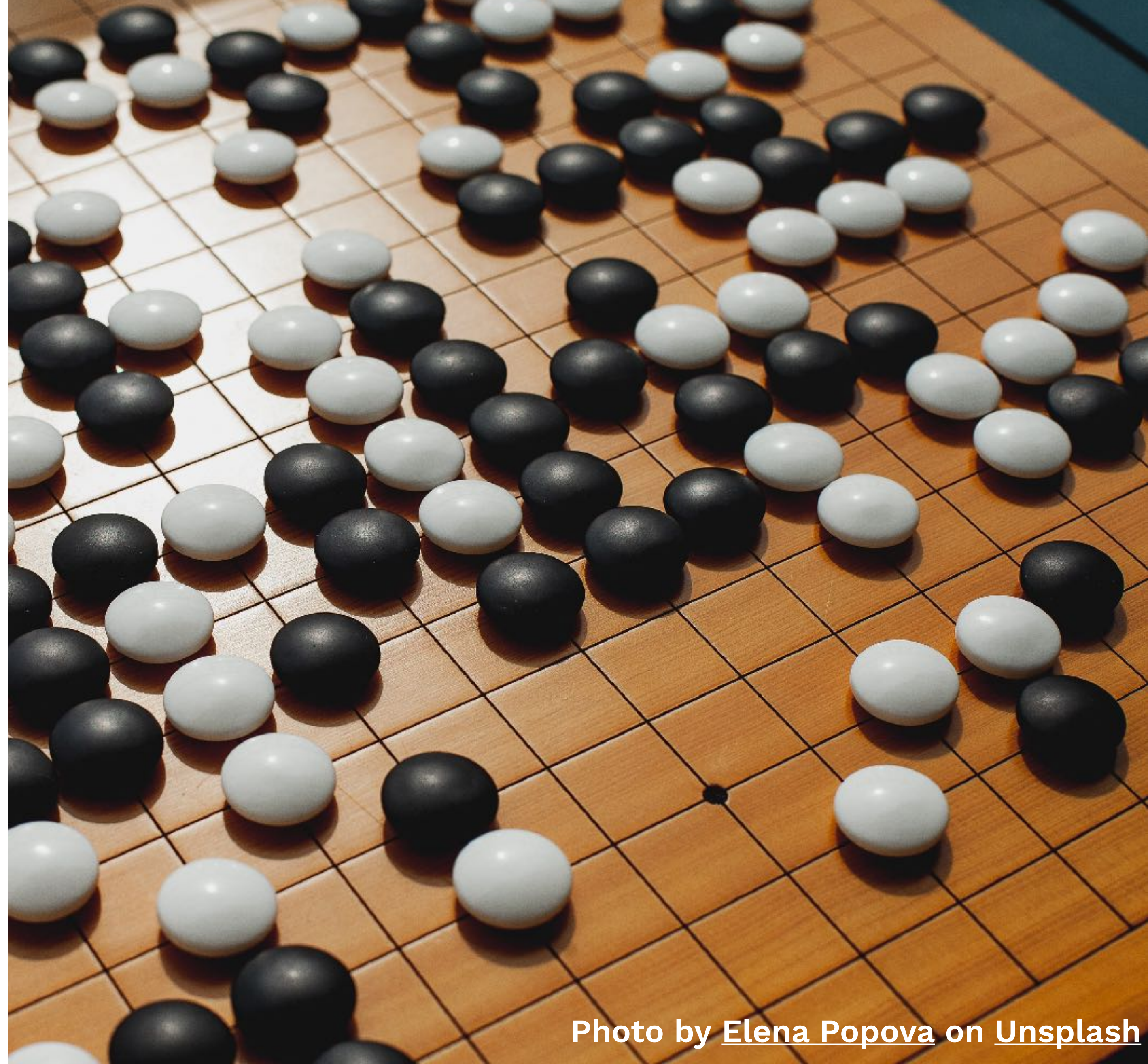


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# Collaborate with Your Community

A project's maintainers and contributors can help interpret your metrics and make the best improvements for that project.



Image by the CNCF  
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# Responsiveness

Projects that can keep up  
with contributions will  
be more sustainable

Key metrics:

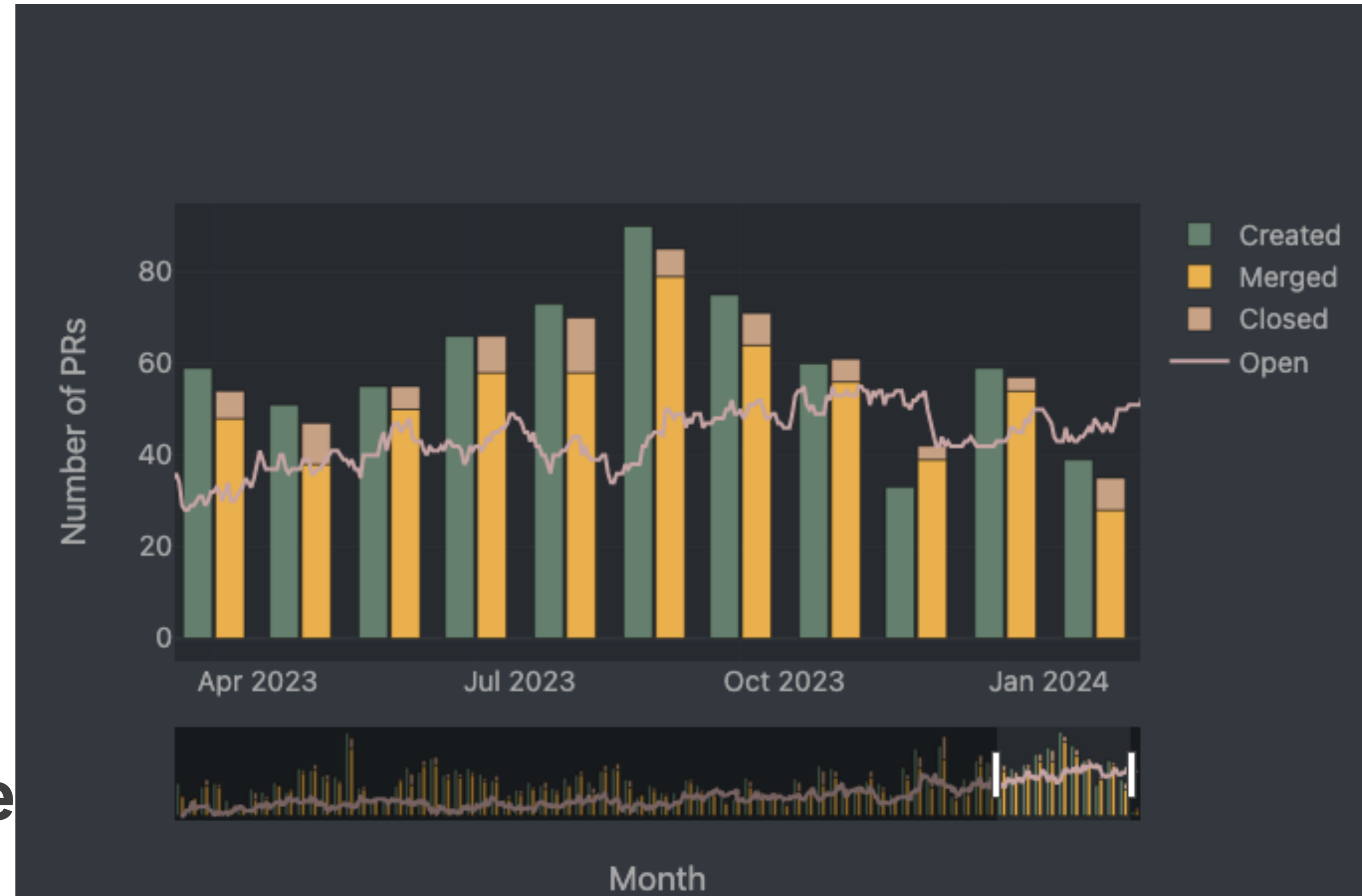
- Time to First Response
- Time to Close
- Change Request Closure Ratio





# Responsiveness

Improve responsiveness by setting expectations, promoting contributors into maintainers, and using templates to improve contribution quality





# Contributor Sustainability

Projects without enough contributors to sustain them are at risk of failure.

Key metrics:

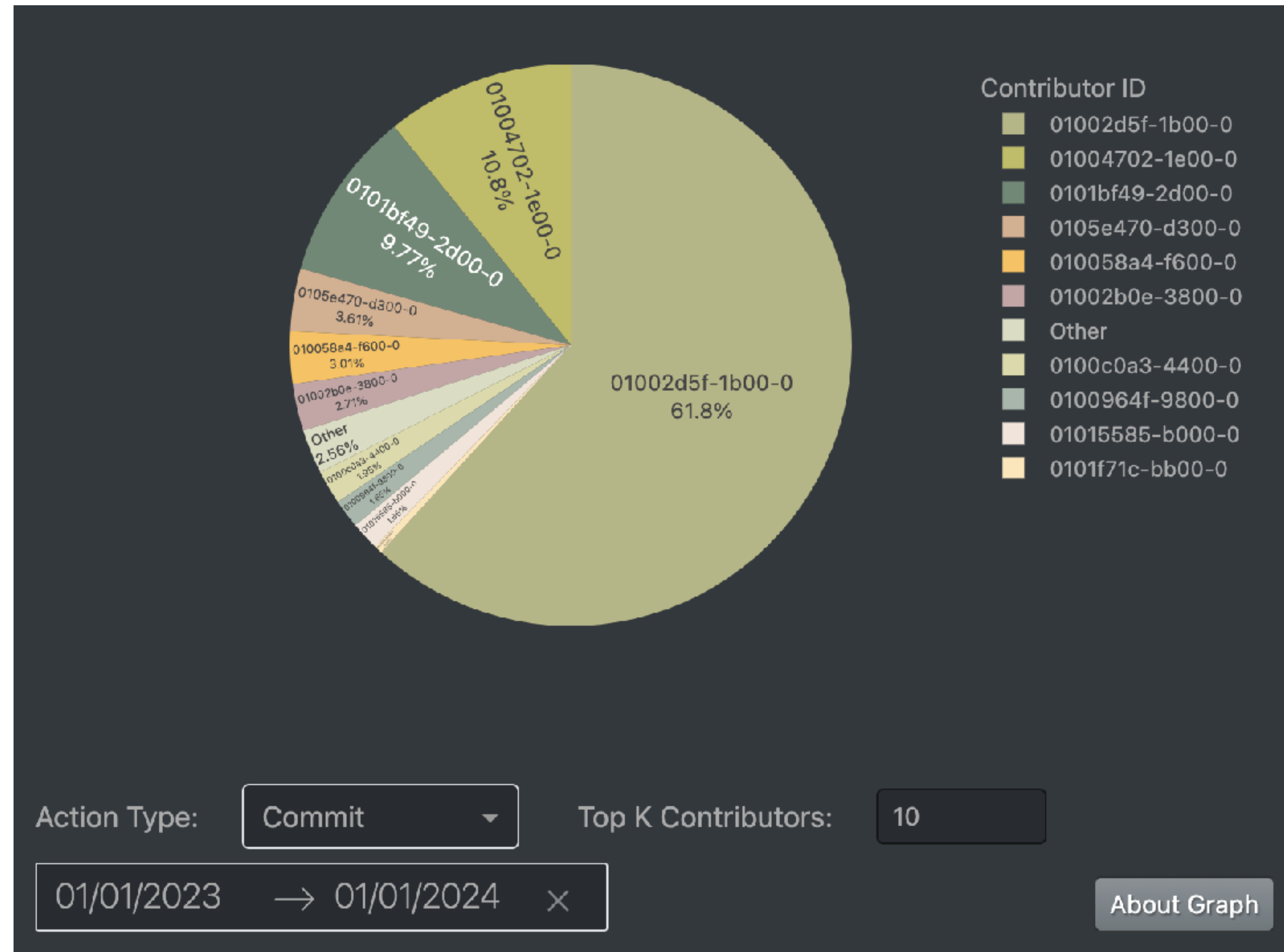
- Contributor Absence Factor (Bus Factor)
- Contributors
- Types of Contributions





# Contributor Sustainability

Improve by recruiting new contributors & promoting maintainers including non-code roles, and improve contributing / onboarding guides



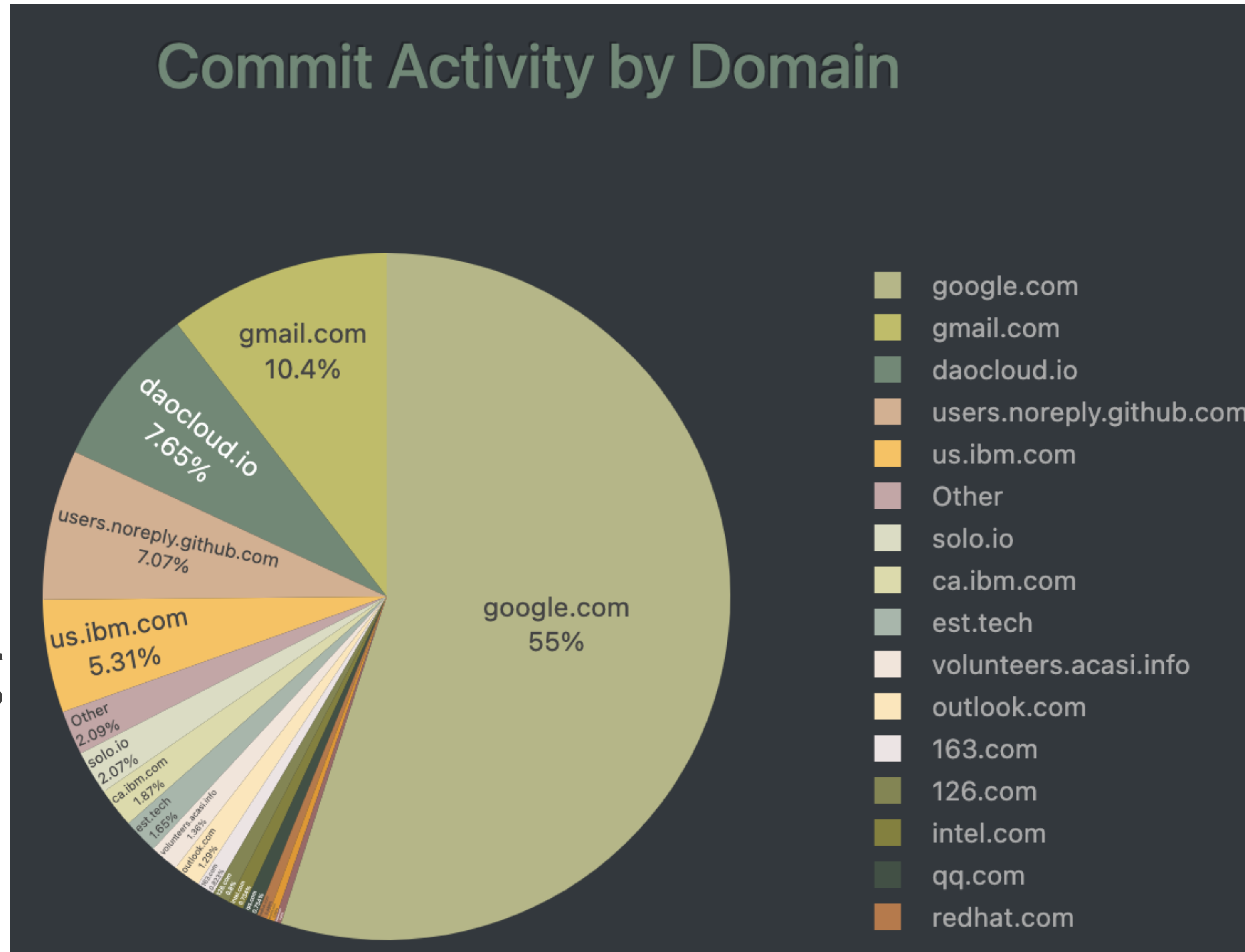






# Organizational Participation

Improve by recruiting contributors from other organizations, improving transparency, encouraging employees to contribute





# Security

A proactive approach to security increases trust and improves sustainability.

## Key metrics:

- OpenSSF Best Practices
- Libyears
- Release Frequency





# Security

Improve by securing your repo, creating a security policy, updating dependencies, and cutting releases with security fixes

OSSF Scorecard	
Check Type	Score
Aggregate Score	7.3
Binary-Artifacts	10
Branch-Protection	-1
CI-Tests	10
CII-Best-Practices	5
Code-Review	7
Contributors	10
Dangerous-Workflow	10
Dependency-Update-Tool	10
Fuzzing	0
License	10
Maintained	10
Packaging	10
Pinned-Dependencies	0
SAST	10
Security-Policy	4
Signed-Releases	-1
Token-Permissions	0
Vulnerabilities	10

Repo General Info	
Section	Info
License	MIT License
Code of Conduct	File found
Contributor Guidelines	File found
Security Policy	File found
Number of Releases	129
Last Release Date	2024-04-28
Avg Time Between Releases	12.0 Days
Star Count	572
Fork Count	840
Watcher Count	22
Issues Enabled	True



# Final Thoughts

**Building healthy and sustainable open source projects is challenging. Identify issues using metrics and proactively improve before you have a crisis.**







Photo by [Isaac Smith](#) on [Unsplash](#)



# THANK YOU!

## Any Questions?

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