OSPO and InnerSource
Metrics with CHAOSS

Ana Jiménez, Linux Foundation | Sean Goggins, University of Missouri

https://chaoss.community/
https://github.com/chaoss
@CHAOSSproj

https://innersourcecommons.org
https:/github.com/innersourcecommons

https://todogroup.org
https:/github.com/todogroup

```
const SPEAKER = [
  {
    name: 'Ana Jiménez Santamaría',
    username: 'anajsana',
  }
];
```

Project Manager at TODO Group, Linux Foundation

Formerly at Bitergia, Software Development Analytics firm

Former Master in Data Science (2019-2021)
Current Master in Front-End (2023- Ongoing)

Projects and communities I contribute to

InnerSource Commons · OPENCHAIN · TODO · CHAOSS

"The Open Source DevRel Report" Project Thesis: A set of Python scripts that gather, enrich, explore, model, and report GitHub data to measure Developer Communities (https://anajimenezsantamaria.gitlab.io/)

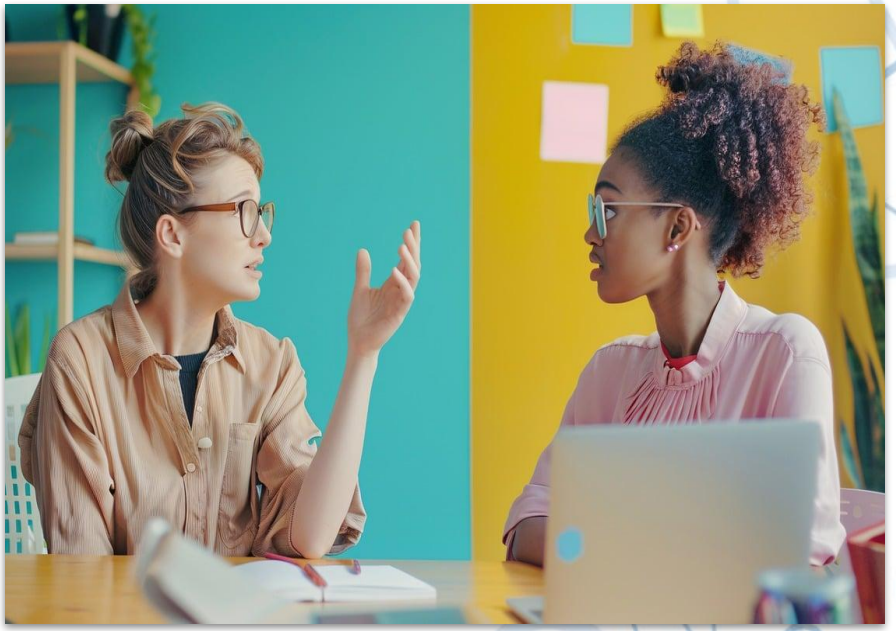
Co-Director, CHAOSS Project, Linux Foundation
Professor, Computer Science, University of Missouri

Maintainer, Augur Software at CHAOSS Project

What are the **cultural** and **operational** goals your organization tries to achieve?

How can be solved with **InnerSource** and/or **Open Source** practices?

What is needed to make it happen (Assets + Talent + Structure)



CHAOSS

ISPO (InnerSource Program Office)
Facilitates the adoption of InnerSource into company processes, tooling, and culture so that the company can achieve its InnerSource Goals

OSPO (Open Source Program Office)
Supports the company's integration of open Source operations in its Tech infrastructure and engineering processes

CHAOSS

Similarities & Differences

	Policy & Processes	Developer Engagement & Advocacy	Compliance Management	Education & Training	Business Units & C-level support
	Creating guidelines for contribution and use	Building and nurturing a community Promoting use	Ensuring legal compliance and security checks in the use and distribution of software or AI models	Building resources and training for effective participation	Advice, use cases, metrics, automation tools, resources
OSPO	Open Source Projects				
ISPO	Internal Projects				

How Should Your OSPO Work with InnerSource? - Russell Rutledge, InnerSource Commons Foundation & Ana Jiménez Santamaría, Linux Foundation (OSSummit NA, 2024)

Focus: codifying problems and metics

The “tooling” debate is for a different time (or after this talk)

G-Q-M / OKRs

Interconnected Goals

Business Objectives: C-Level Understanding

Open Source: Focusing on commodity tech stack

Maintainable Core Infrastructure

Shared costs.

Features upstream

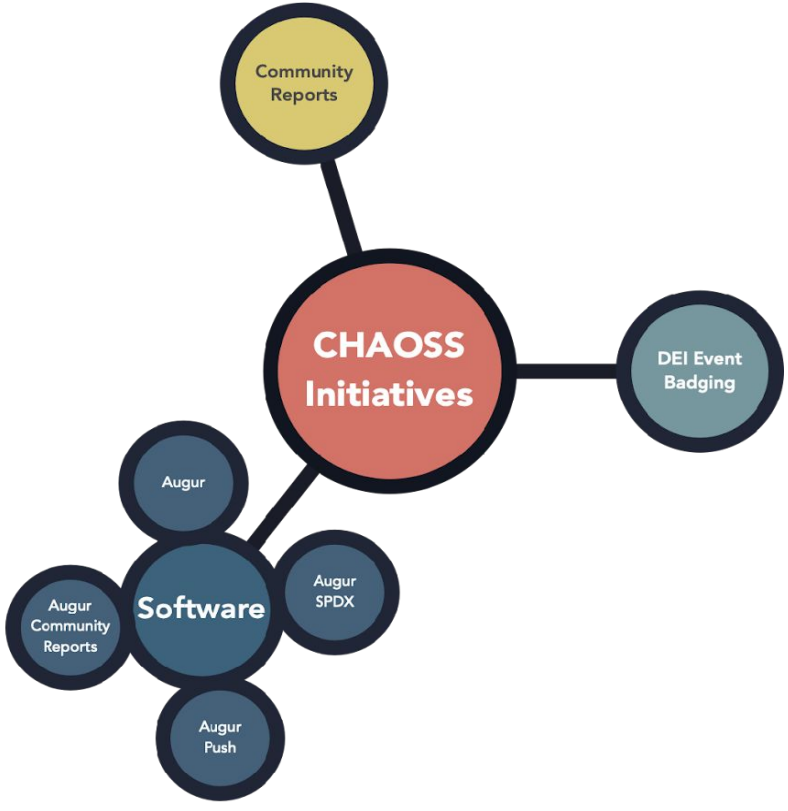
Sustaining Talent

Building OSS

Reputation

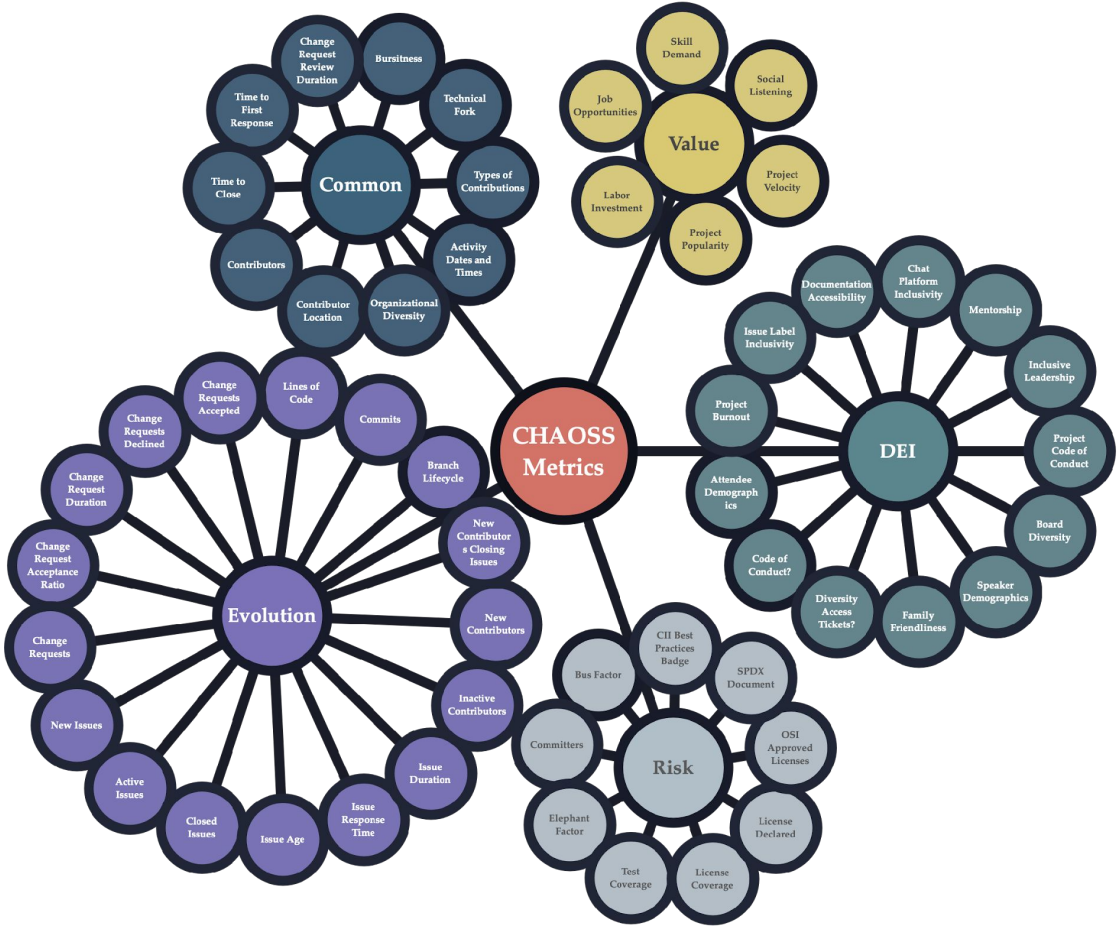
What do you want to know? → What data is accessible? → Thoughtful execution of data analysis

Order From CHAOSS : : Initatives

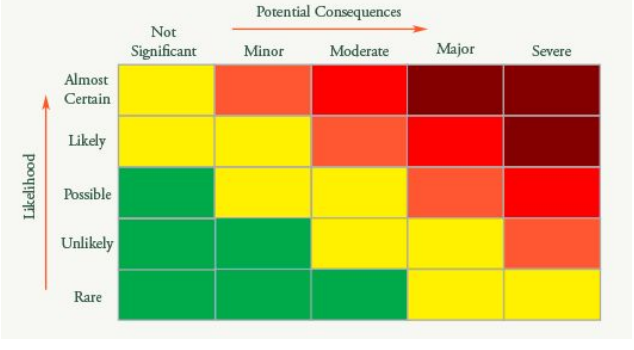


April 20, 2021

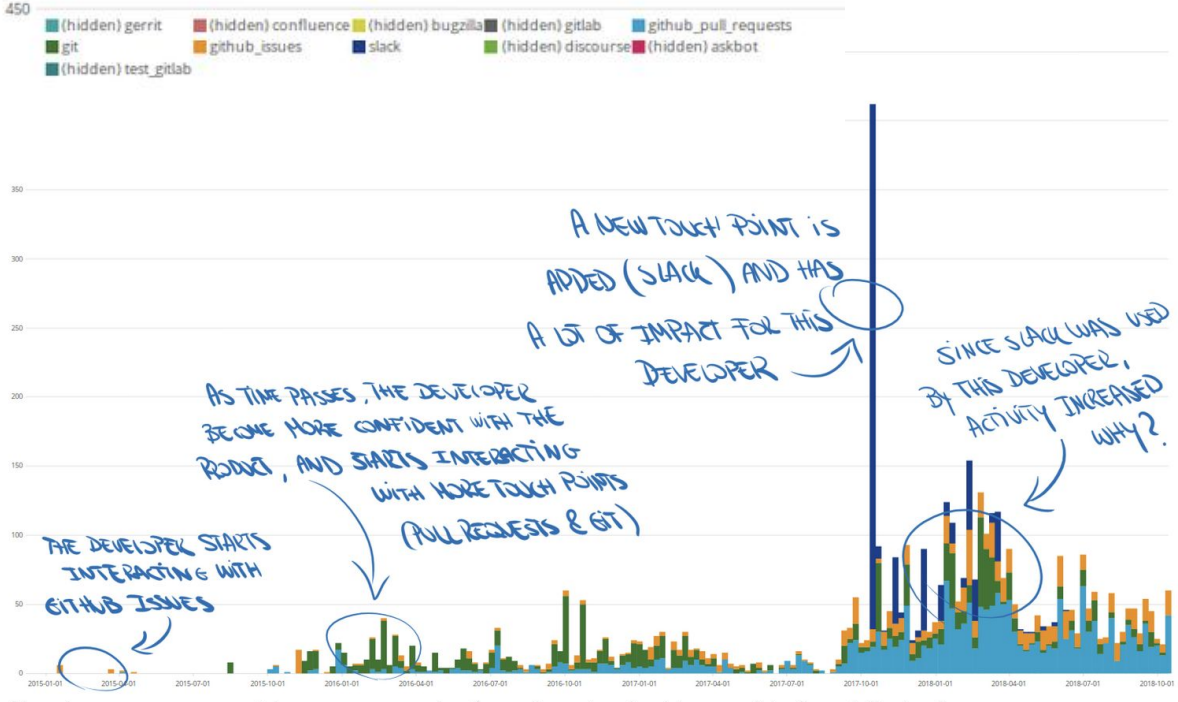
Order From CHAOSS : : A Sampling of 88 Metrics



Each metric lives in a different square on the risk metrics for every project



Using CHAOSS Metrics and Tools to Tell Stories



Developer engagement journey example: from "most valuable user" to "contributor".

https://bitergia.com/blog/metrics/kpis-and-metrics-for-devrel-programs/

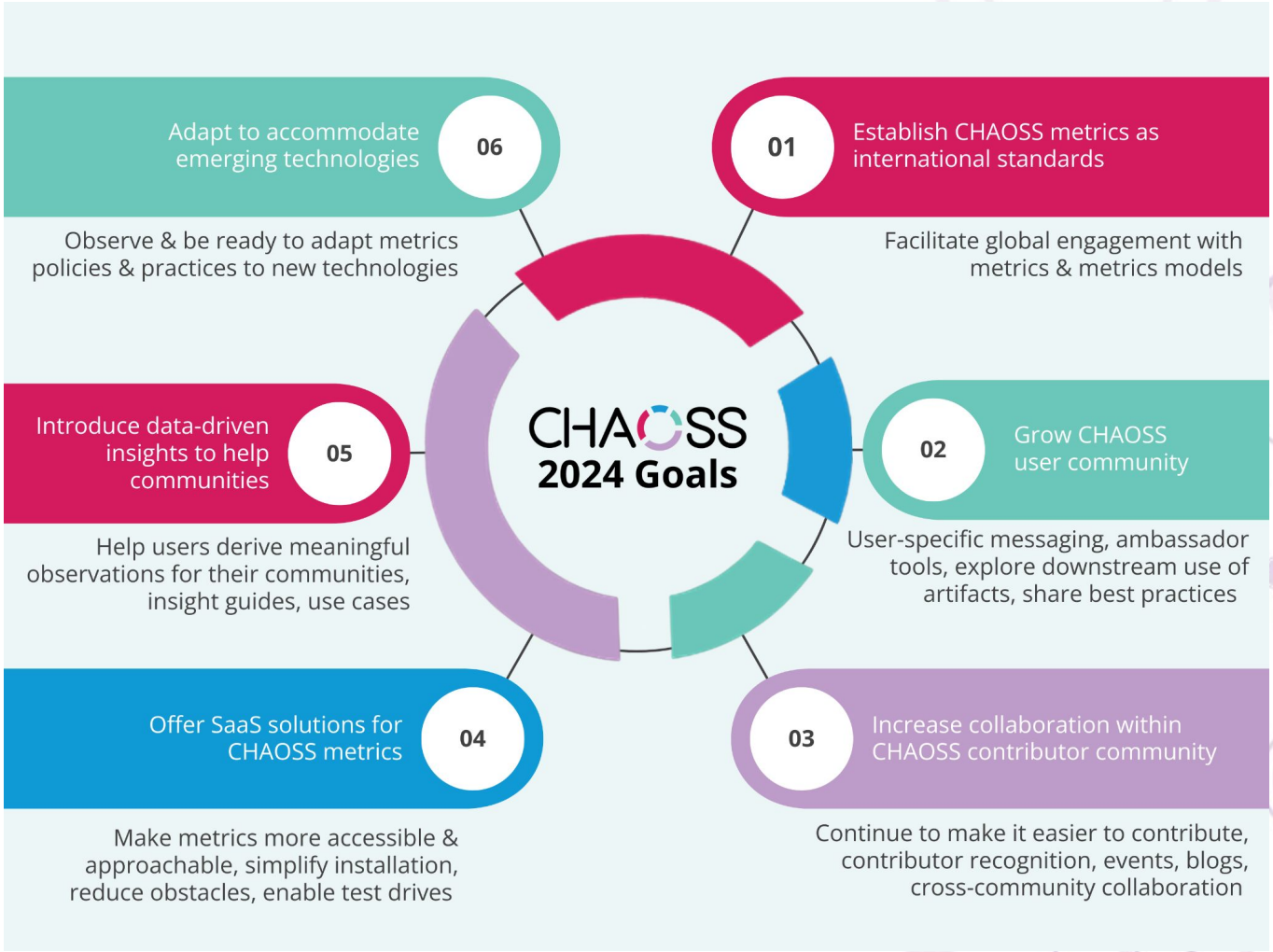
Heat

Light

Love

CHAOSS

CHAOSS


CHAOSS
2024 Goals
01
Establish CHAOSS metrics as international standards
Facilitate global engagement with metrics & metrics models
02
Grow CHAOSS user community
User-specific messaging, ambassador tools, explore downstream use of artifacts, share best practices
03
Increase collaboration within CHAOSS contributor community
Continue to make it easier to contribute, contributor recognition, events, blogs, cross-community collaboration
04
Offer SaaS solutions for CHAOSS metrics
Make metrics more accessible & approachable, simplify installation, reduce obstacles, enable test drives
05
Introduce data-driven insights to help communities
Help users derive meaningful observations for their communities, insight guides, use cases
06
Adapt to accommodate emerging technologies
Observe & be ready to adapt metrics policies & practices to new technologies

CHAOSS

augur

Data Engineering Designed for Data Science

Data Engineering

- Contributors
- Commits
- Issues
- Change/Pull/Merge Reqeusts
- Change Request Review
- Events: Person and Repo
- Releases
- Repo-Metadata
- Dependencies
- Licensing

Relational Database

Artificial Intelligence

- Repository Clusters
- Discourse Types
- Anomaly Prediction
- Message Classification
- Change Request Prediction

The Defacto Standard for Open Source Health Data Science and AI

Augur: A Path to Data Science

Mountains of Data

6 Years of Data Carpentry

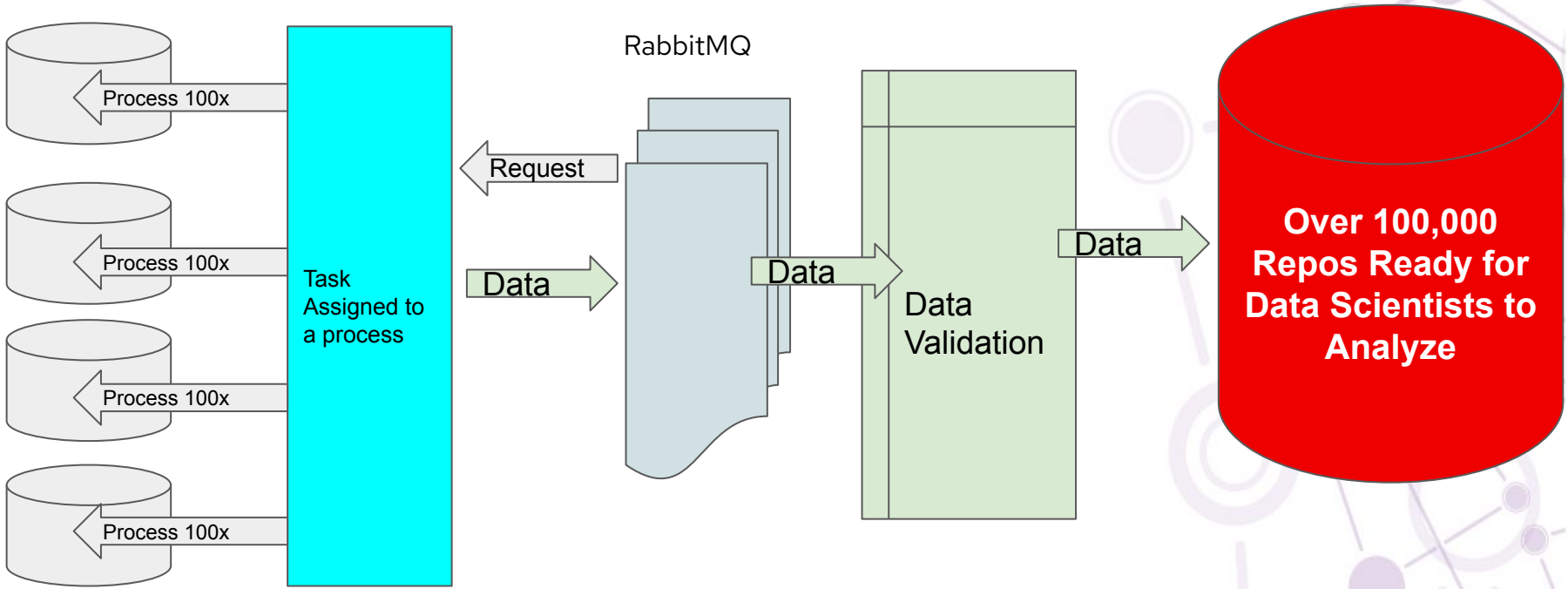
Structured Data

Validated Data

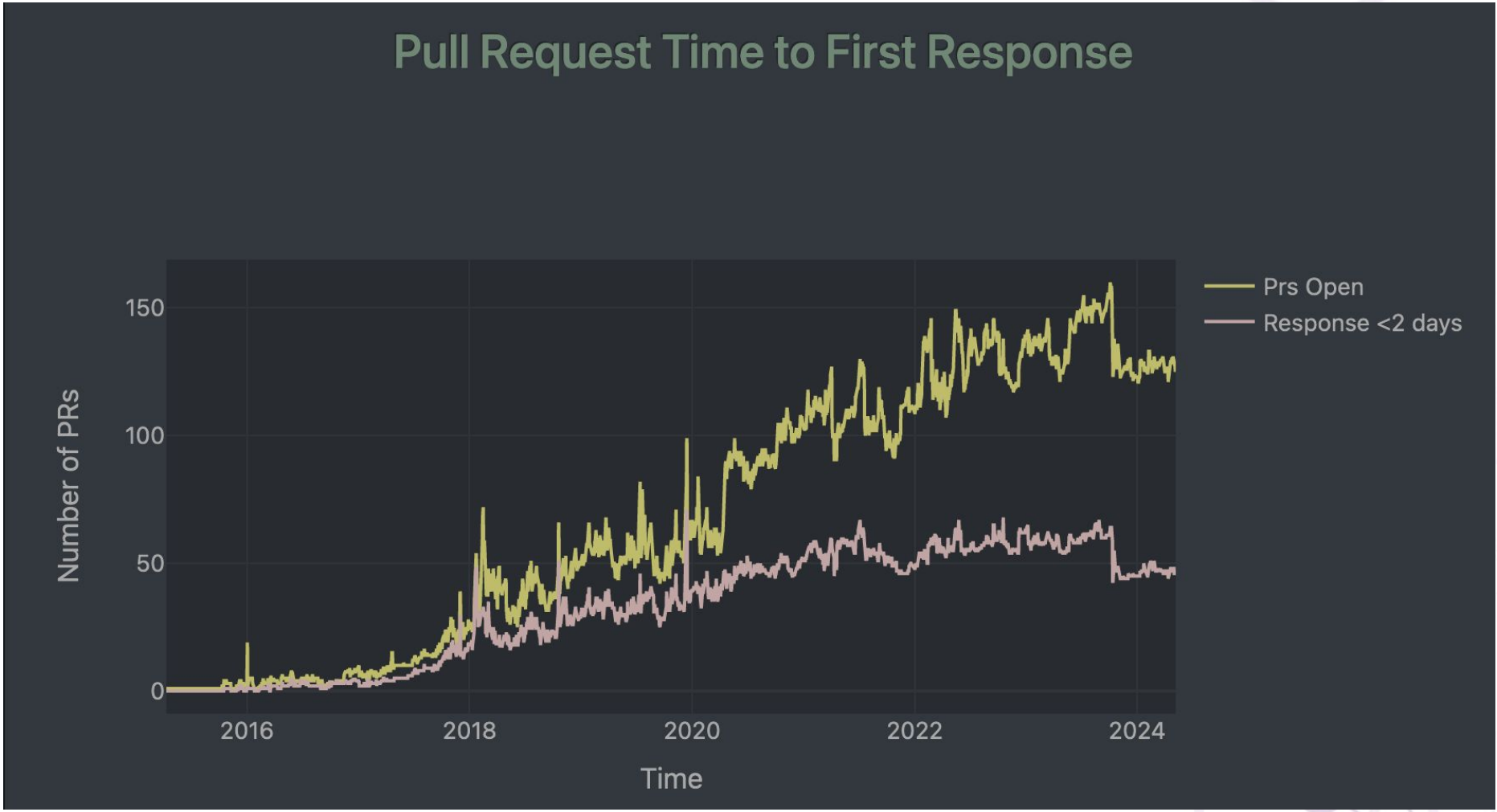
https://metrix.chaoss.io : A Hosted CHAOSS Software Solution

Full Metrics Data: Open Source and Hosted

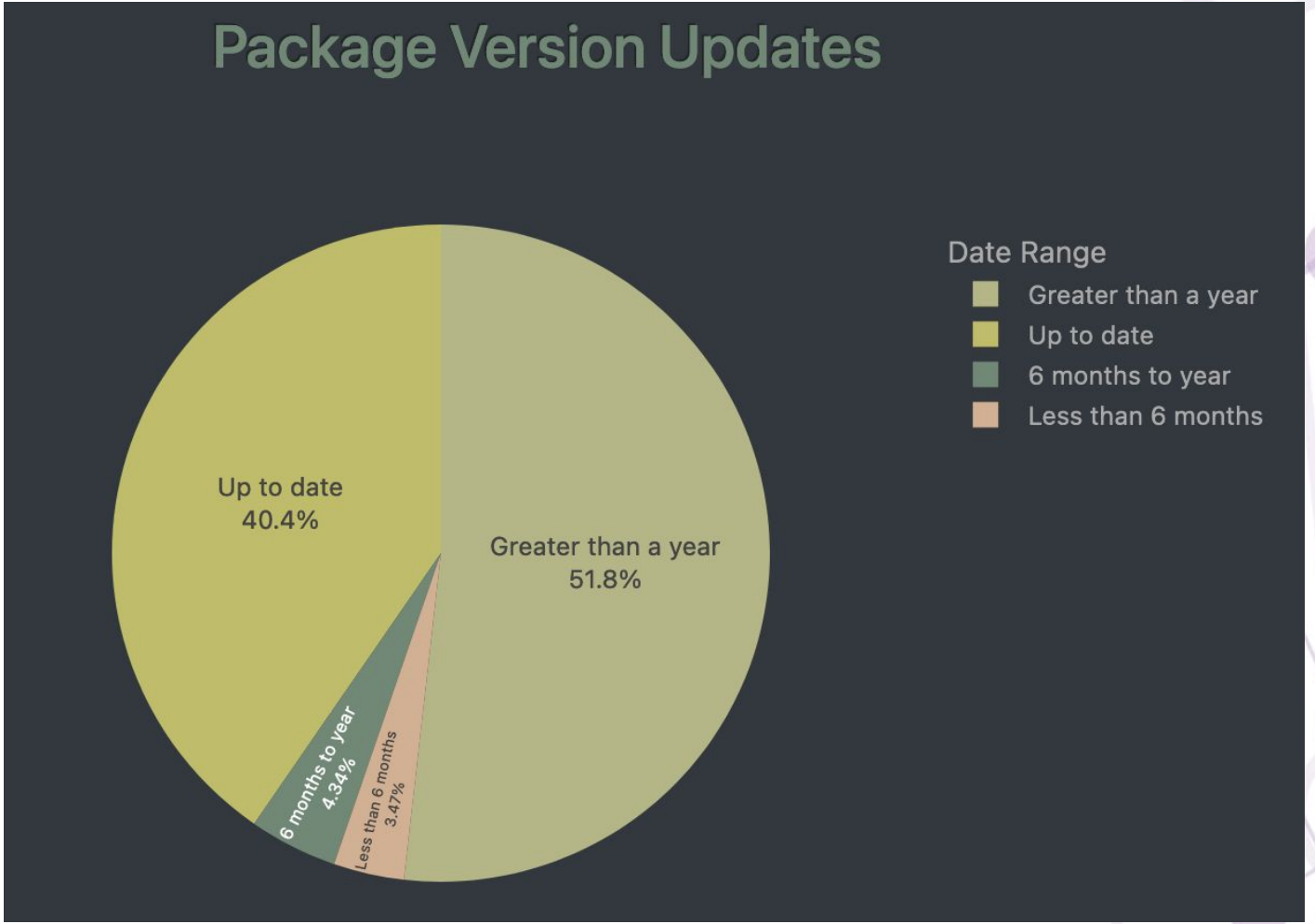
Augur: Scalable, Robust

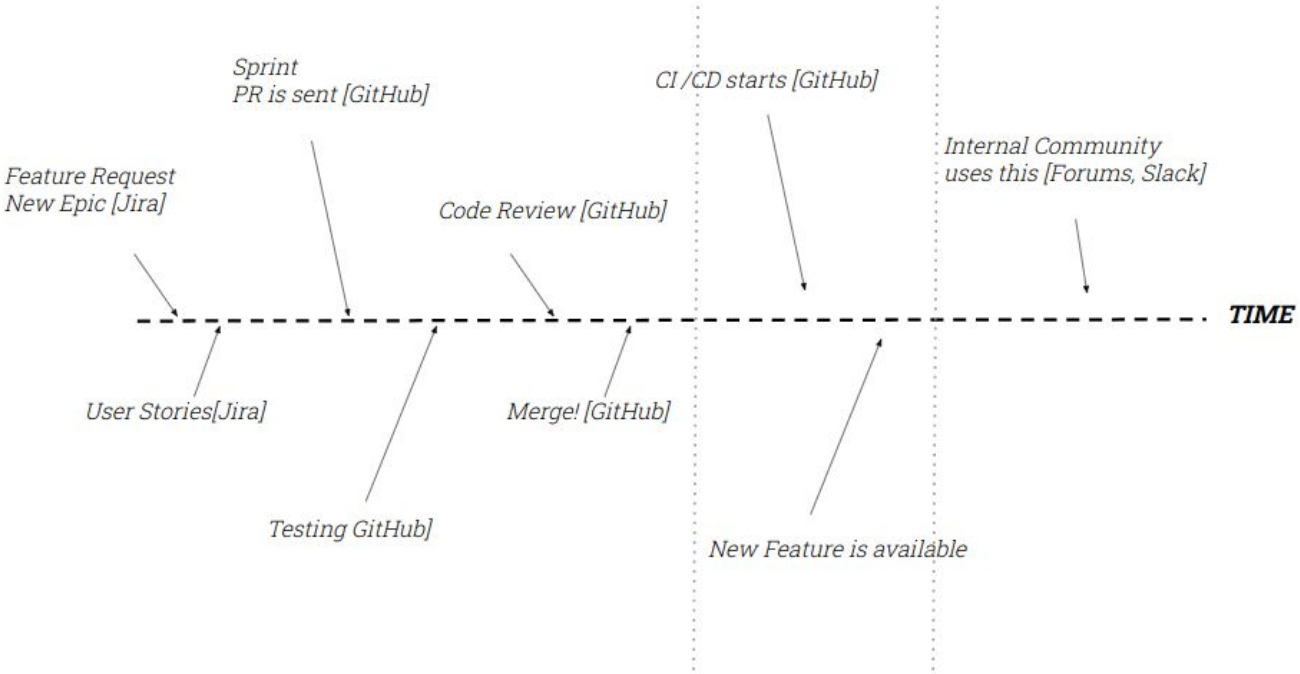


CHAOSS


Pull Request Time to First Response
Number of PRs
150
100
50
0
2016
2018
2020
2022
2024
Time
Prs Open
Response <2 days

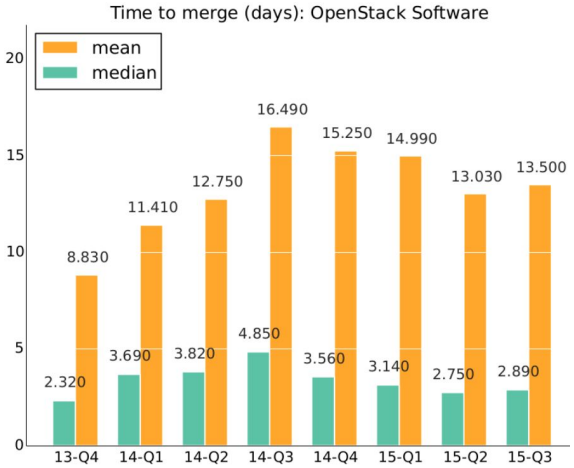
CHAOSS


Package Version Updates
Date Range
Greater than a year
Up to date
6 months to year
Less than 6 months
Up to date
40.4%
Greater than a year
51.8%
6 months to year
4.34%
Less than 6 months
3.47%



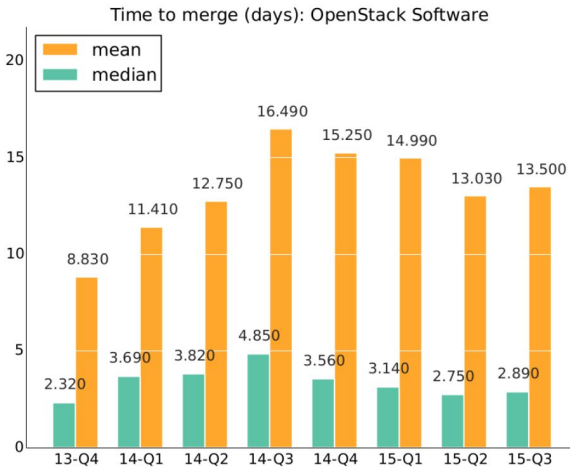
Based on the DORA Community Open Discussion on Code Review by Daniel Izquierdo - https://dora.community/blog/2024-02-08-1

GrimoireLab
Code Review

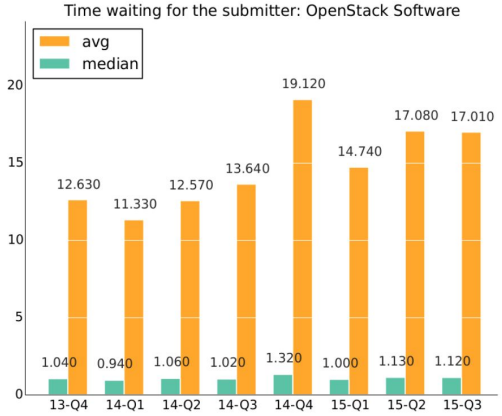


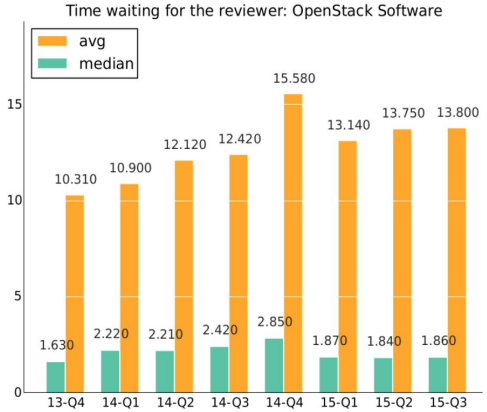
Time to merge - Code Review.
OpenStack Activity Report by
OpenStack Foundation and Bitergia

GrimoireLab
Code Review



Time to merge - Code Review.
OpenStack Activity Report by
OpenStack Foundation and Bitergia

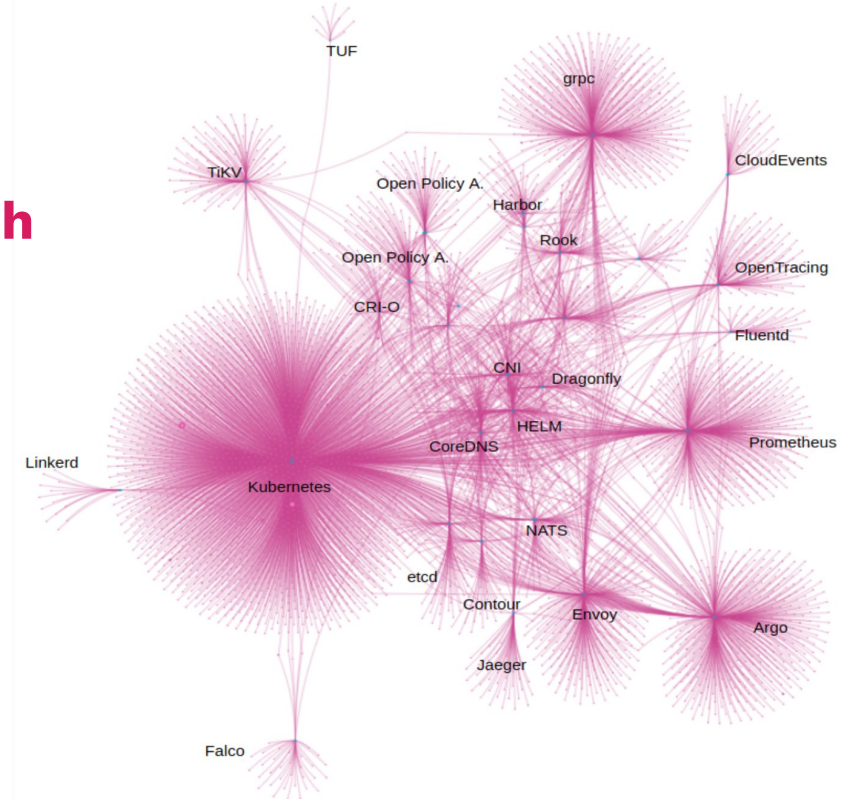




Submitter

Reviewer

GrimoireLab
Relationship Graph



Collaboration chart across projects. CNCF - D. Mueller and D. Izquierdo-Cortazar, "From Art to Science: The Evolution of Community Development," in IEEE Software, vol. 36, no. 6, pp. 23-28, Nov.-Dec. 2019, doi: 10.1109/MS.2019.2936177. keywords:

CHAOSS

The **OSPO Metrics working group** aims to advance how organizations understand the value that open source projects can provide as well as the value of these programs / initiatives. A joint effort between CHAOSS and TODO Group

https://chaoss.community/kb/working-groups/

The **ISPO working group** support ISPOs with materials needed to establish themselves, educate partners and stakeholders, and scale InnerSource in their respective company.

https://github.com/InnerSourceCommons/ispo-working-group

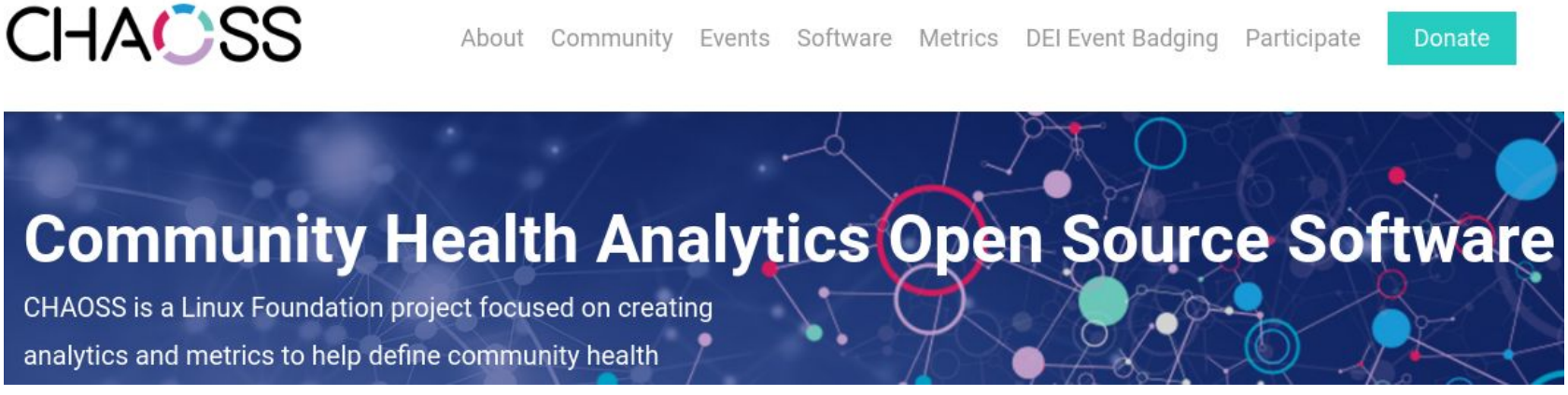
CHAOSS

TODO

InnerSource Commons

Discussion: Meetings, Slack. **Meetings**: CHAOSScon
Code: https://github.com/chaoss **Podcast:** CHAOSSCast
chaoss.community/about
chaoss.community/participate

How to Participate



Discussion: Mailing Lists, Meetings, Slack. **Meetings**: CHAOSScon

Code: GitHub. **Podcast:** CHAOSSCast

chaoss.community/about

chaoss.community/participate

CHAOSS

THANK YOU