CERN Viewpoint on CS3 Governance and Challenges

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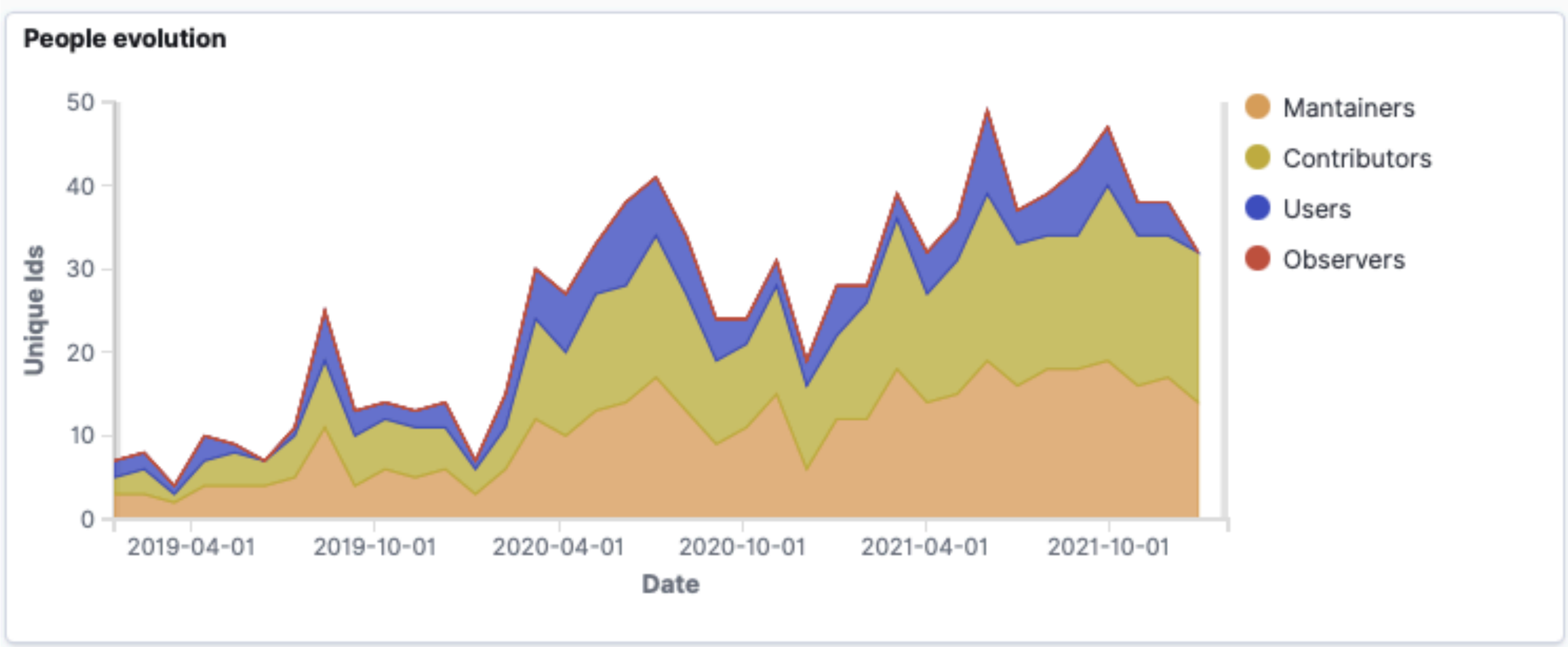
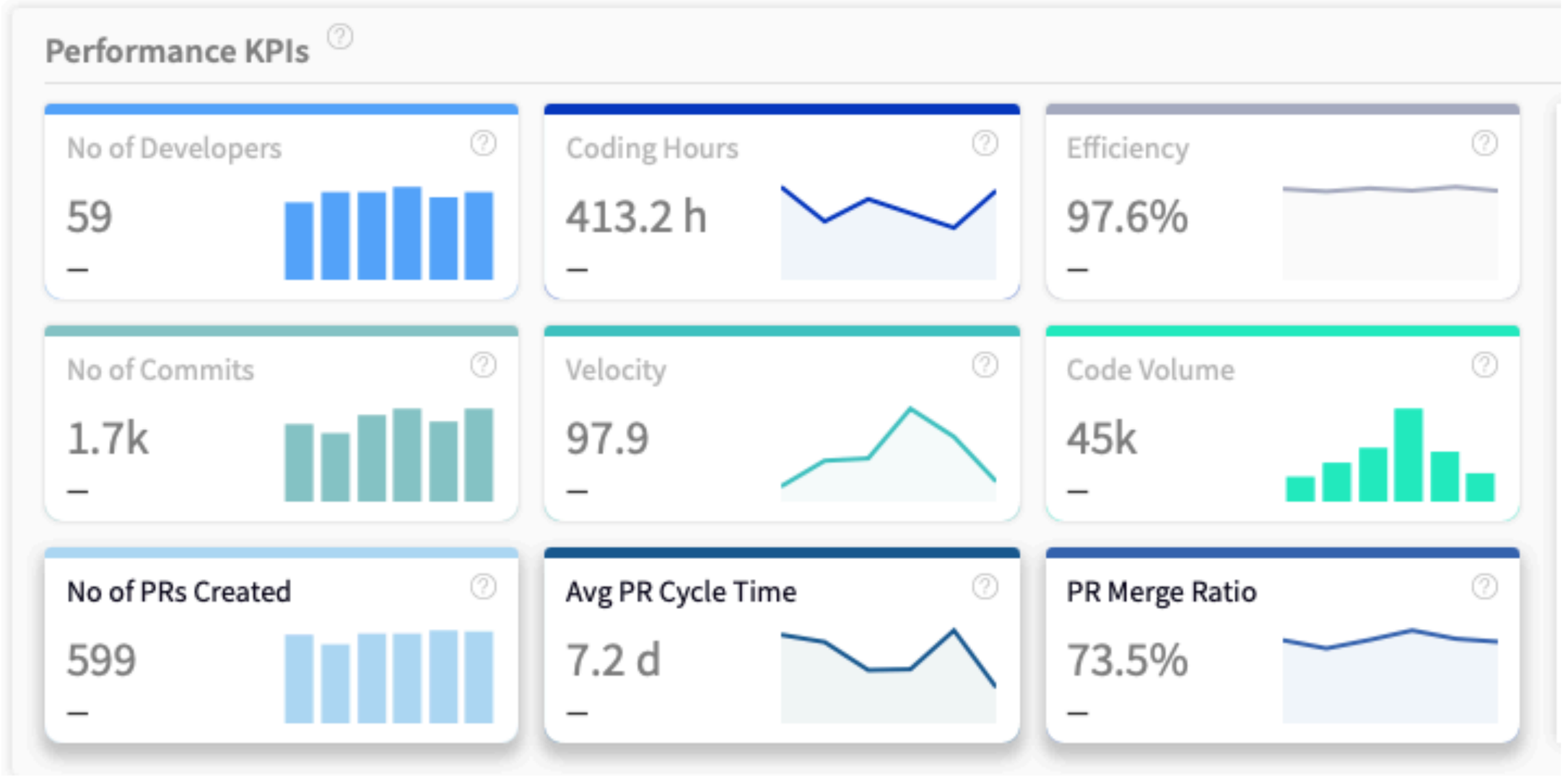
CS3 2022, 25th January

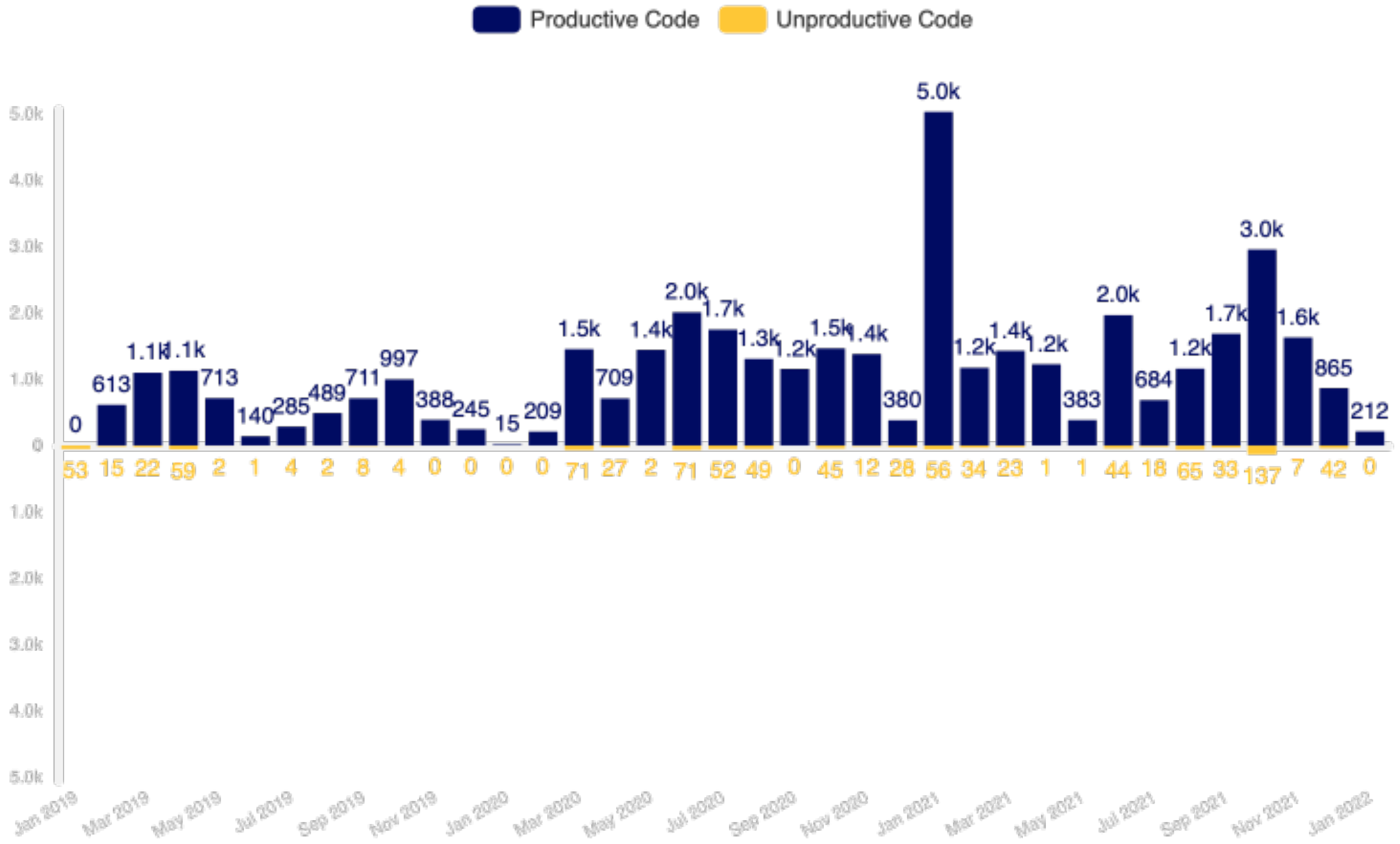
Why are we here today?

- An inner grassroots community of developers inside the CS3 Community has been formed in the last 2 years



https://cauldron.io/project/5580?from_date=2021-01-25&to_date=2022-01-25&tab=overview


Performance KPIs
No of Developers
59
–
Coding Hours
413.2 h
–
Efficiency
97.6%
–
No of Commits
1.7k
–
Velocity
97.9
–
Code Volume
45k
–
No of PRs Created
599
–
Avg PR Cycle Time
7.2 d
–
PR Merge Ratio
73.5%
–


Productive Code
Unproductive Code
5.0k
4.0k
3.0k
2.0k
1.0k
0
1.0k
2.0k
3.0k
4.0k
5.0k
0 613 1.1k 1.1k 713 140 285 489 711 997 388 245 15 209 1.5k 709 1.4k 2.0k 1.7k 1.3k 1.2k 1.5k 1.4k 380 5.0k 1.2k 1.4k 1.2k 383 2.0k 684 1.2k 1.7k 3.0k 1.6k 865 212
53 15 22 59 2 1 4 2 8 4 0 0 0 0 71 27 2 71 52 49 0 45 12 28 56 34 23 1 1 44 18 65 33 137 7 42 0
Jan 2019
Mar 2019
May 2019
Jul 2019
Sep 2019
Nov 2019
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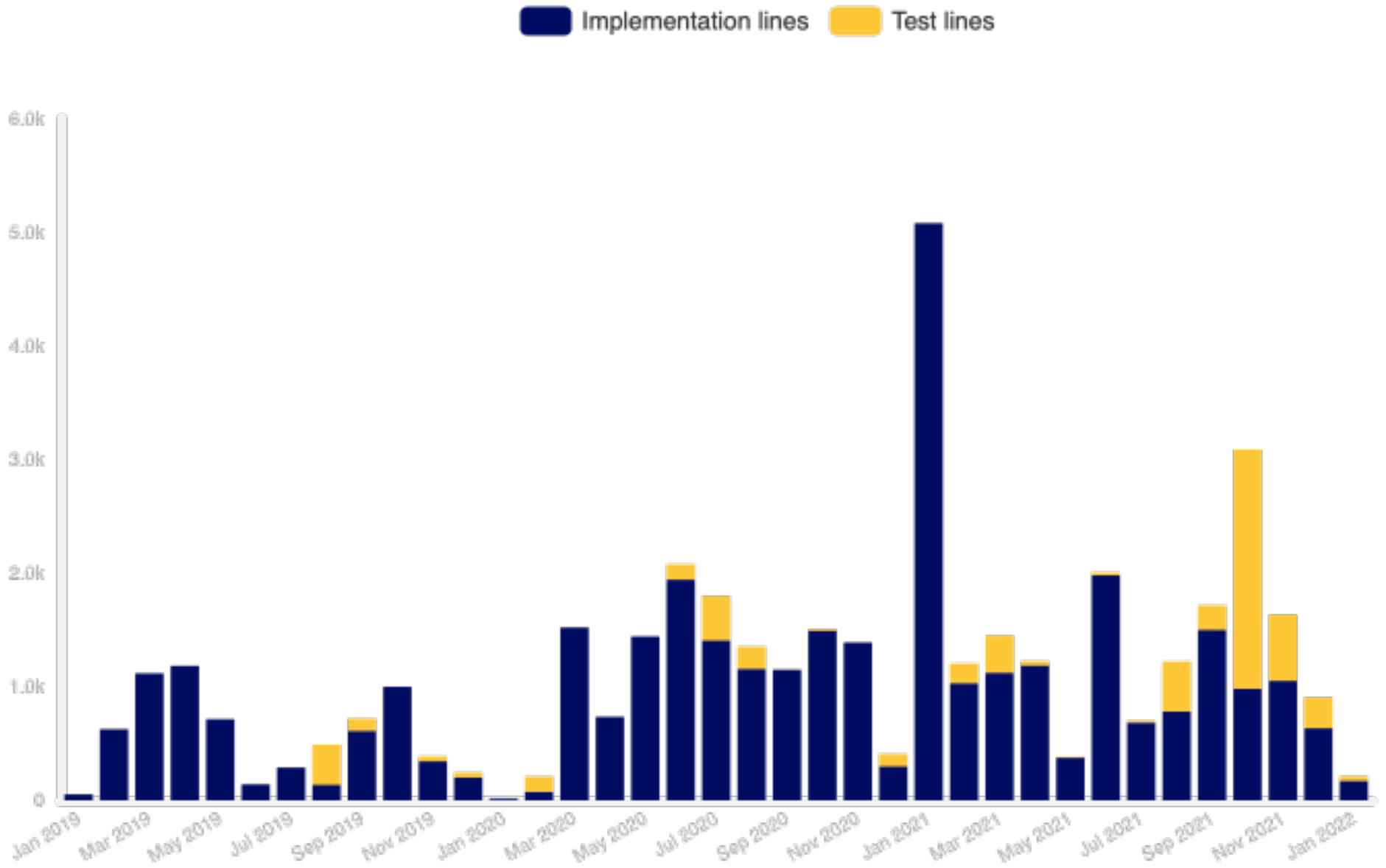
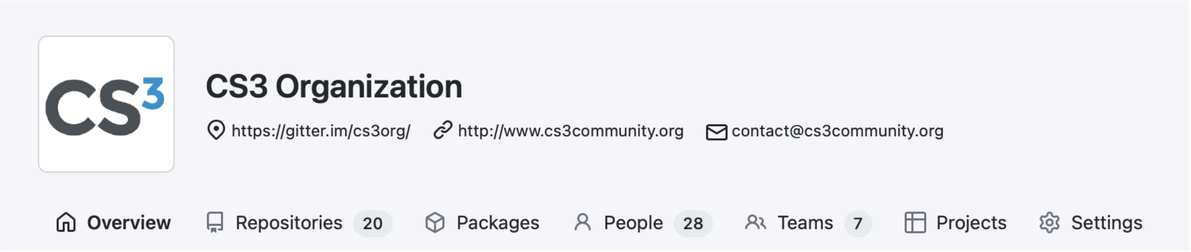
Sep 2020
Nov 2020
Jan 2021
Mar 2021
May 2021
Jul 2021
Sep 2021
Nov 2021
Jan 2022


Implementation lines
Test lines
6.0k
5.0k
4.0k
3.0k
2.0k
1.0k
0
Jan 2019
Mar 2019
May 2019
Jul 2019
Sep 2019
Nov 2019
Jan 2020
Mar 2020
May 2020
Jul 2020
Sep 2020
Nov 2020
Jan 2021
Mar 2021
May 2021
Jul 2021
Sep 2021
Nov 2021
Jan 2022

CS3Org houses many projects



CERN relationship to these projects

- **OCM protocol/APIs**: initiated in 2014 and initially co-managed by GEANT, ownCloud and CERN. Progress stalled so in 2020 we proposed to move the repository to CS3ORG and organise further activities with involvement of the larger CS3 community, especially EFSS vendors (Owncloud, Nextcloud, Seafile). Today, we're an active maintainer of OCM under the CS3 umbrella in collaboration with other parties.

- **Reva**: CERN is the creator of this software and we're an active maintainer of it in collaboration with other parties

- **CS3APIs**: CERN is the creator of these APIS and an active maintainer in collaboration with other parties

- **WOPIServer**: CERN is the creator of the project and today we're an active maintainer in collaboration with other parties

Victim of its own success

- These projects to have become turnkey solutions for the needs of the CERNBox service at CERN
- and today we're glad that they are used by more and more actors (most notably ScienceMesh and ownCloud) under an open source context
- We (CERN) do not wish to become a bottleneck into the release process of new versions
- We seek that **active** and **collaborating** actors help co-leading these projects, under the following principles

On what principles of governance we should stand for?

CERN standpoint

- The governance board has to be **multilateral**, involving actors from **industry** and **research**
- How to become a member of the governance board?
  - to **show interest** and to **actively contribute**
  - **to honour** the **neutrality** of the projects
  - to **respect** each other despite differences
- The role of the governance committee?
  - **Oversight** and **set the direction** of the projects
  - **Reconcile** clashing objectives
  - **Ensure** a **fair** and **respectful collaboration**

What are the challenges to face?
On the CS3APIS

- The APIs are **perceived as complex**: difficult to understand what set of methods are needed to achieve a certain function
- We propose to **improve this perception by knowledge-sharing**:
  - providing practical examples and how-to tutorials
  - specify what APIs are needed for each function
    - Ex: API XYZ for Data Transfers, API for OCM invitation workflow
  - Provide more context about design decisions

What are the challenges to face?

On the Reva server

- **Reconcile traditional deployment** models (systemd, static configuration, ...) with **cloud deployments** (k8s, dynamic port allocations, ...)
- **Reduce API layer to bare minimum** and push derivative services (like OCS) to now-stablished external software (OCIS, ScienceMesh IOP, ...)
- **Simplify architecture:** removing gateway service to avoid API duplication, ...
- **Document** and provide how-to and practical examples

“Everything should be made as simple as possible, but not simpler.”

Albert Einstein