Monthly Maturity Report: June 2025

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Organization:
Open Source Committee
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Cardano Ecosystem

Review Process	Approval
1st Pass: Tex M, OS Program Manager	✅**Approved**
2nd Pass: Christian T, Head of OSO	✅**Approved**

Summary

In June 2025, the Cardano open-source ecosystem entered a focused contraction phase following the delivery-heavy months of Q2. While total contributions declined across most activity metrics, code volume surged — with lines added and removed more than tripling. This shift reflects a transition from active feature delivery to architectural refinement and backlog resolution. IOHK remained the central engineering driver, while unaffiliated contributors re-emerged with notable activity.

The return of “Unknown” contributors marked a shift in attribution patterns, indicating the presence of new or unmapped participants. Repository-level distribution remained steady, with key infrastructure projects like cardano-cli, ouroboros-network, and cardano-ledger sustaining development. Contributor participation stayed globally distributed, with a significant increase from American time zones.

General Observations

Organizational Contributions

- IOHK led with 682 contributions and 46 authors — a −17.9% decline from May, while still maintaining ecosystem leadership.
- Tweag (−50%) and Well-Typed (−25%) saw decreased author presence, suggesting a transition to maintenance or inactivity.
- Unknown authorship rose by 200%, reflecting new unaffiliated contributors or unmapped GitHub accounts entering the ecosystem.

Repository Activity

- ouroboros-network (+129%) and cardano-cli (+56%) posted major gains in commit volume, indicating renewed focus on network and CLI tooling.
- cardano-ledger (−50%) and cardano-node (−68%) experienced significant drops, likely reflecting completed delivery milestones.
- plutus remained the top PR destination with 34 pull requests, despite a −37% decrease from May.

Pull Requests

- 259 PRs were submitted (−35.1%) across 17 repositories by 54 contributors.
- IOHK sustained its lead with 205 PRs, while Well-Typed and Quviq reduced output significantly.
- Unknown contributors submitted 17 PRs — a sharp increase from just 3 in May, suggesting improved onboarding or expanded unaffiliated activity.

Issue Lifecycle

- Total issues dropped by 72.8%, reflecting the end of May's backlog flush.
- Average resolution time fell from 202.5 days to just 7.9 days (−96.1%), indicating rapid triage of remaining open issues.
- cardano-node and ouroboros-consensus saw the highest issue engagement, confirming their status as protocol hotspots.

Contributor Participation

- Total contributions declined across the board, with 60 unique contributors (−17.8%) active in June.
- IOHK, Tweag, and Well-Typed remained key players, while Quviq held steady with 1 contributor.
- The rise in "Unknown" contributors highlights growing unaffiliated participation and potential new onboarding flows.

Geographic Representation

- Time zone activity continued to diversify, with UTC−5 (Americas) rising by +250% — the largest increase of any region.
- UTC−4 and UTC−6 also expanded, while UTC+1 through UTC+3 saw moderate declines.

- No single time zone dominated overall commit volume, maintaining a distributed global footprint.

Conclusion

June 2025 reflected a healthy stabilization period, marked by reduced surface-level activity and increased backend development. Contributor participation remained globally distributed, and repositories showed sustained focus on refinement and infrastructure. With core components under active development and new participants entering, Cardano's open-source foundation remains strong and well-positioned for momentum in Q3.

1. Github Overview

This section provides a comprehensive overview of activities and dynamics within the Github platform. It encompasses various metrics and statistics concerning the usage, engagement, and performance of projects and contributors.

Summary:

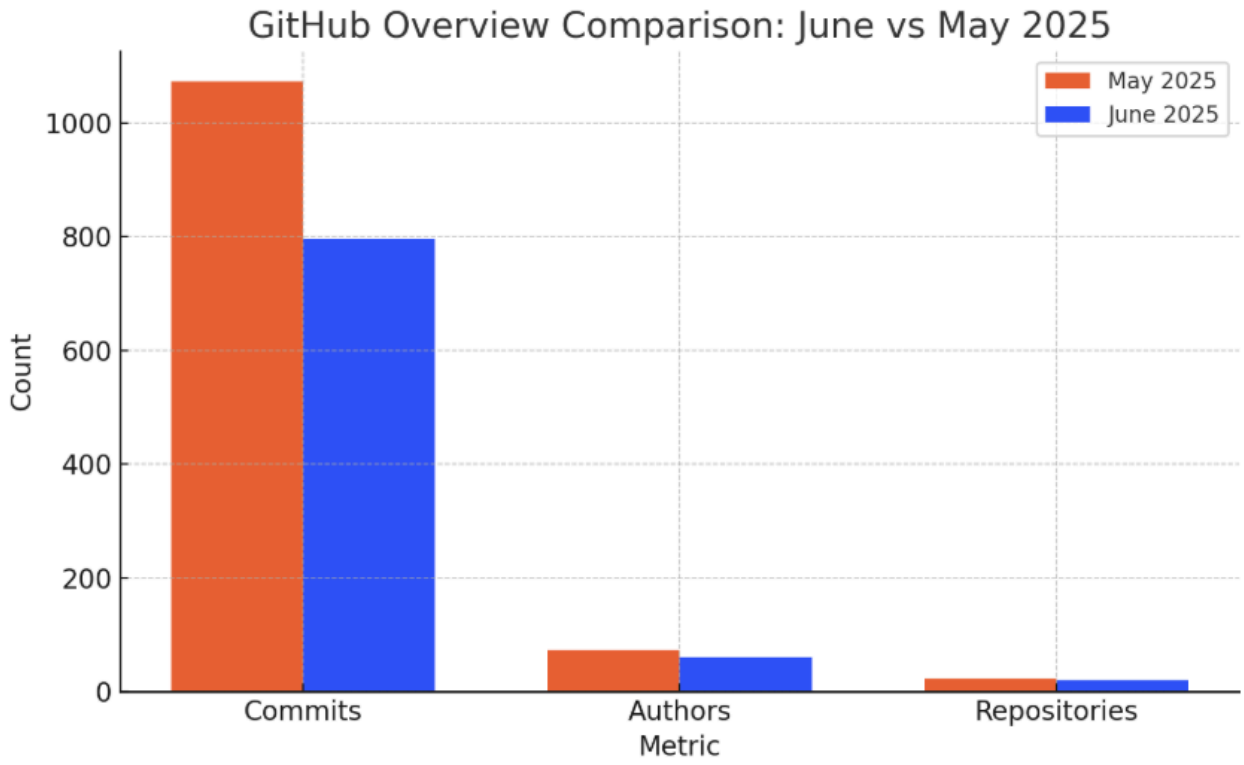
In June 2025, the Cardano open-source ecosystem experienced a moderate pullback in overall GitHub activity. Key indicators such as total commits (−25.8%), contributor count (−17.8%), and active repositories (−13.0%) all declined compared to May. This likely reflects a deceleration phase following several months of high output, with teams shifting from active feature implementation to consolidation, review, and refactoring. Despite the downturn, the ecosystem maintained a healthy baseline of engagement, showing that core development persists even in quieter periods.

Metric	June 2025	May 2025	Δ (%)
Total Commits	796	1,073	−25.8%
Unique Contributors	60	73	−17.8%
Active Repositories	20	23	−13.0%

Insights:

- Output contraction continues: Total commits dropped by 25.8%, reflecting a continued slowdown after the intense March–April delivery burst. This suggests the ecosystem is entering a stabilization or review phase.
- Participation remains broad but cooled: The number of unique contributors fell by 17.8%, likely signaling temporary disengagement from secondary contributors or a pause in onboarding momentum.
- Repository breadth narrowed slightly: With 3 fewer active repositories, workstreams appear to be consolidating, potentially focusing effort on key infrastructure or protocol repos.

This suggests a shift: less output per contributor, but greater ecosystem participation and repo-level reactivation — a sign of distributed, early-phase workstreams re-emerging.


GitHub Overview Comparison: June vs May 2025
May 2025
June 2025
Count
1000
800
600
400
200
0
Commits
Authors
Repositories
Metric

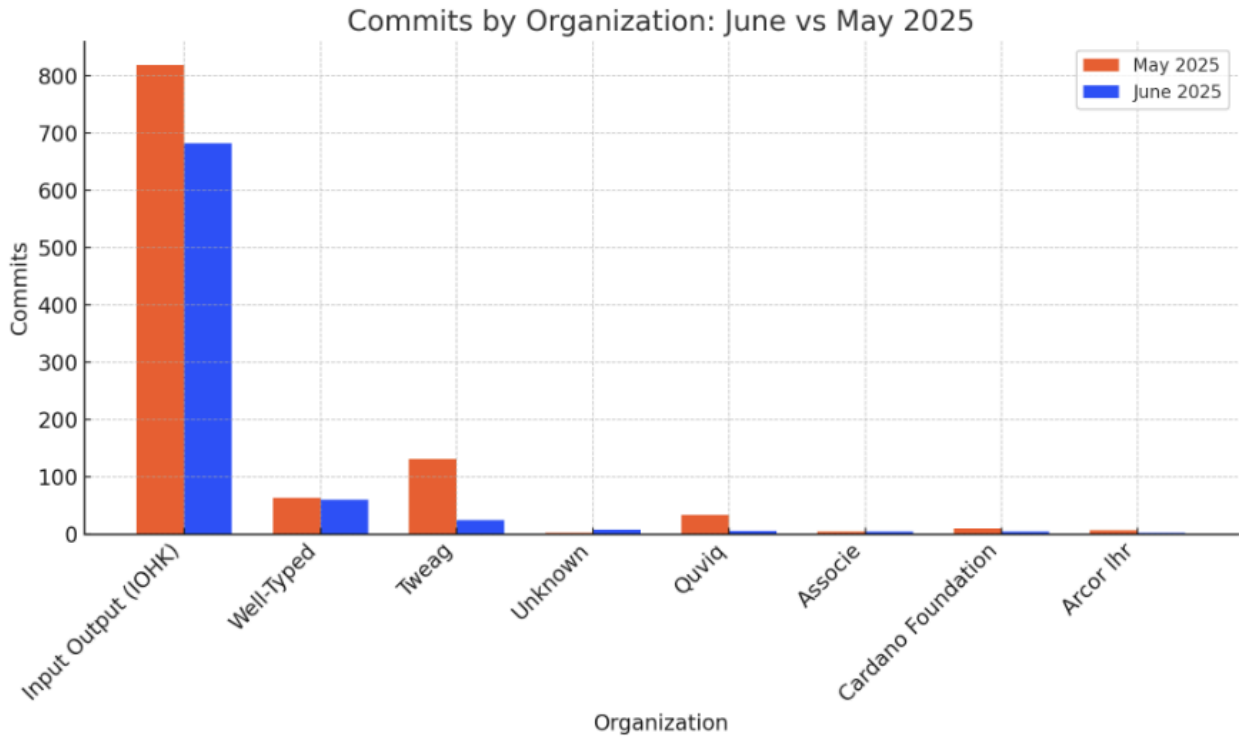
1.a) Organization Activity

Here is the data for how different organizations within the Cardano ecosystem were contributing to open-source projects during the current timeframe. Complete data available here in Bitergia.

Summary:
In June 2025, organizational activity showed an overall contraction across nearly all major participants. IOHK continued to lead but with reduced volume and contributors. Tweag experienced a steep decline following a major May spike, while Well-Typed maintained a steady presence. The re-emergence of "Unknown" contributors and the flattening of Quviq's engagement both suggest transitional dynamics within the contributor base.

Comparative Table: May vs. June 2025

Organization	June Commits	May Commits	Δ Commits (%)	June Authors	May Authors	Δ Authors (%)
Input Output (IOHK)	682	819	−16.7%	44	56	−21.4%
Well-Typed	60	63	−4.8%	3	4	−25.0%
Tweag	24	131	−81.7%	2	4	−50.0%
Unknown	7	2	+250.0%	5	2	+150.0%
Quviq	5	33	−84.8%	1	1	0.0%



Insights:

1. IOHK remained dominant but reduced both commits (−16.7%) and contributors (−21.4%). This contraction may signal a strategic cooldown or resource shift following intensive activity in previous months.

2. Tweag saw a sharp drop (−82%) in commit volume and lost half its authorship. The steep decline suggests the completion of a major workstream or funding milestone.

3. Well-Typed activity declined modestly, maintaining presence with consistent authorship, suggesting a steady maintenance or QA phase.

4. Unknown contributors tripled in authors (+150%), but their commit volume remains negligible. This may reflect onboarding or new account attribution not yet tied to formal orgs.

5. Quviq remained stable, holding one active author and dropping back after a peak in May — possibly indicating completion of a specialized verification task.

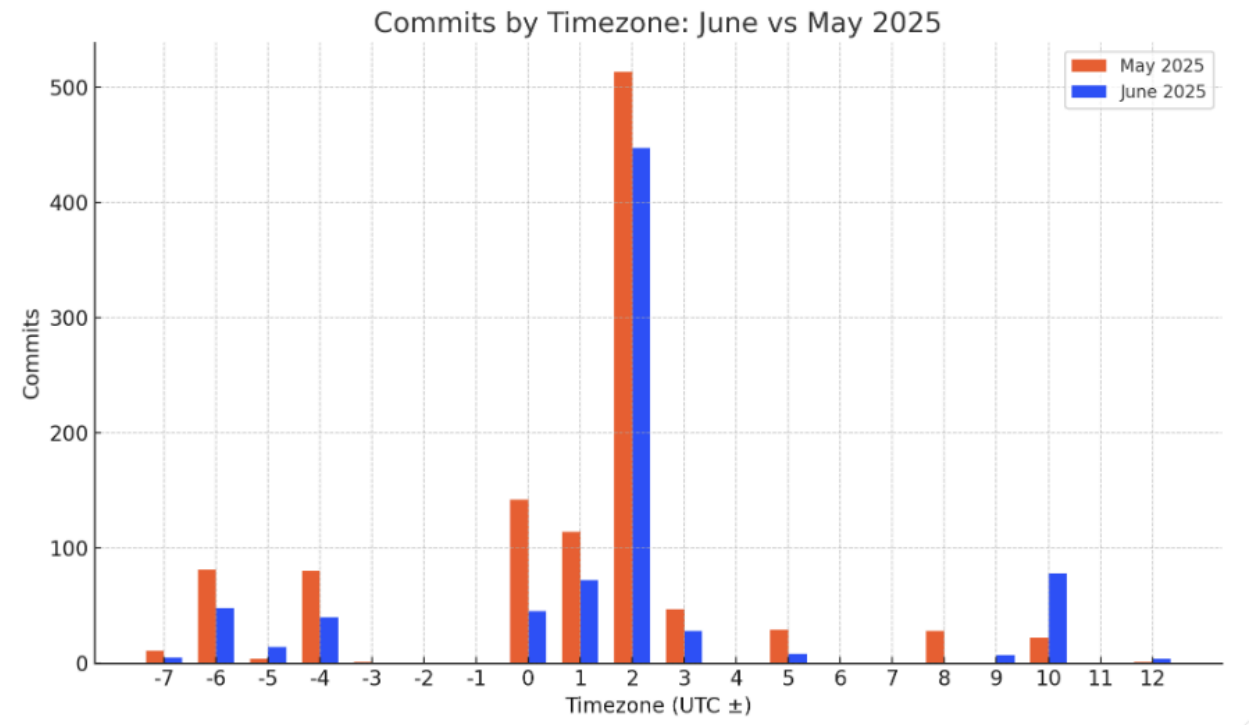
1.b) Commits by Timezone

Here is the data for commits per timezone. This view is important to understand how the contributors are spread geographically. Complete data available here in Bitergia.

Summary:
Geographic distribution of commit activity shifted in June 2025. While UTC−5 saw a surprising surge in volume, most other regions — particularly UTC−4, −6, and −7 — experienced a slowdown. The decline in overall timezone representation aligns with broader contraction trends seen across the ecosystem. However, the gains in UTC−5 may signal growing participation from North America.

Comparative Table: May vs. June 2025

Timezone (UTC±)	June Commits	May Commits	Δ Commits (%)
−7	5	11	−54.5%
−6	48	81	−40.7%
−5	14	4	+250.0%
−4	40	80	−50.0%
−3	0	1	−100.0%



Insights:

- UTC−5 spiked +250%, a clear outlier showing intensified activity from Eastern U.S. or Colombia/Brazil — possibly a new contributor or team.
- UTC−4 and −6 halved their output, indicating disengagement or project quiet periods from contributors in these time zones.
- UTC−7 (West Coast U.S.) dropped 54.5%, potentially linked to reduced testing, infrastructure, or DevOps participation.
- Timezone representation thinned, reflecting the same pattern seen in reduced total contributors and repositories across the ecosystem.

1.c) Per Repository Activity

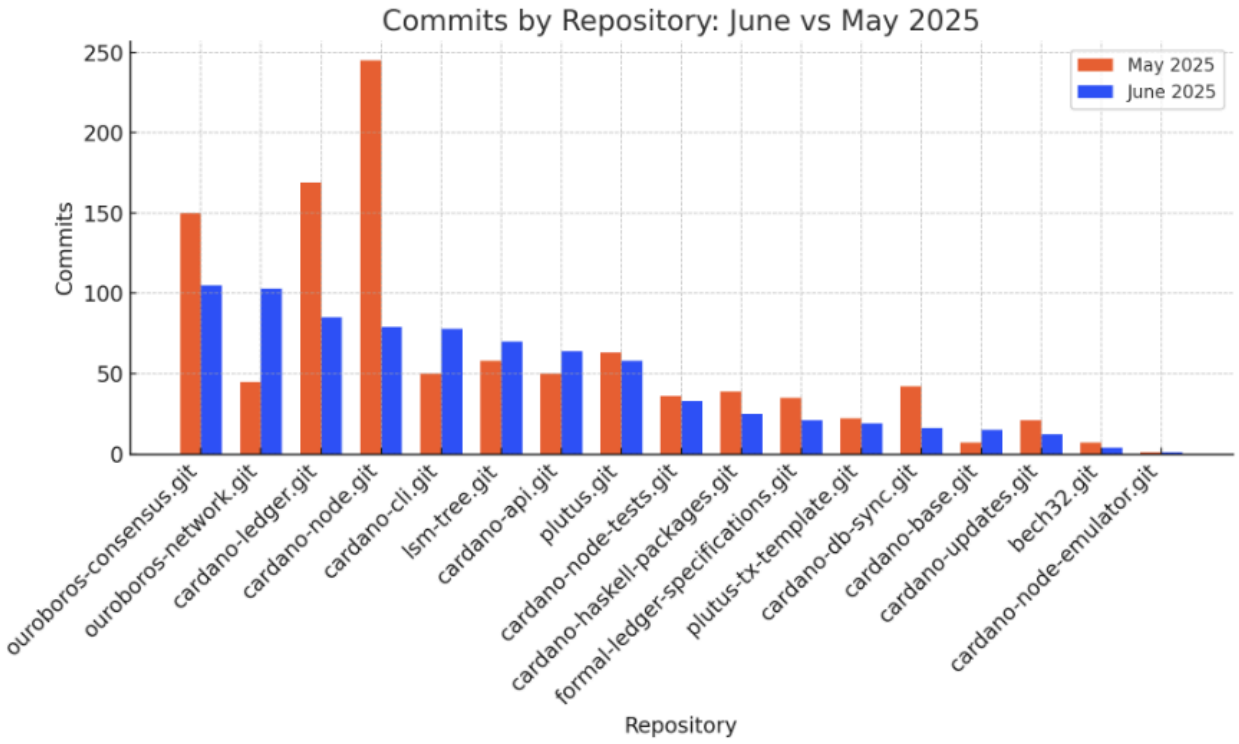
This section shows activity for each repository in Cardano open-source. Complete data available here in Bitergia.

Summary:

In June 2025, repository-level activity reflected a sharp realignment of development priorities. While overall volume declined, a few repos such as ouroboros-network and cardano-cli showed increased commit activity — hinting at active modules or focused sprints. Major protocol repositories like cardano-node and cardano-ledger experienced significant slowdowns, possibly following the completion of milestone implementations in May.

Comparative Table: May vs. June 2025

Repository	June Commits	May Commits	Δ Commits (%)
ouroboros-consensus.git	105	150	−30.0%
ouroboros-network.git	103	45	+128.9%
cardano-ledger.git	85	169	−49.7%
cardano-node.git	79	245	−67.8%
cardano-cli.git	78	50	+56.0%



Insights:

1. cardano-node and cardano-ledger both fell steeply, suggesting that core protocol sprints were completed in May, with June shifting to review or testing cycles.

2. ouroboros-network saw a 129% increase, potentially indicating renewed focus on networking, peer validation, or topology experiments.

3. cardano-cli commit volume jumped 56%, which may reflect CLI improvements tied to upcoming testnet or QA workflows.

4. Despite the slowdown, ouroboros-consensus remained the most active repo — indicating that consensus mechanism work is a consistent engineering priority.

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2. Areas of Code

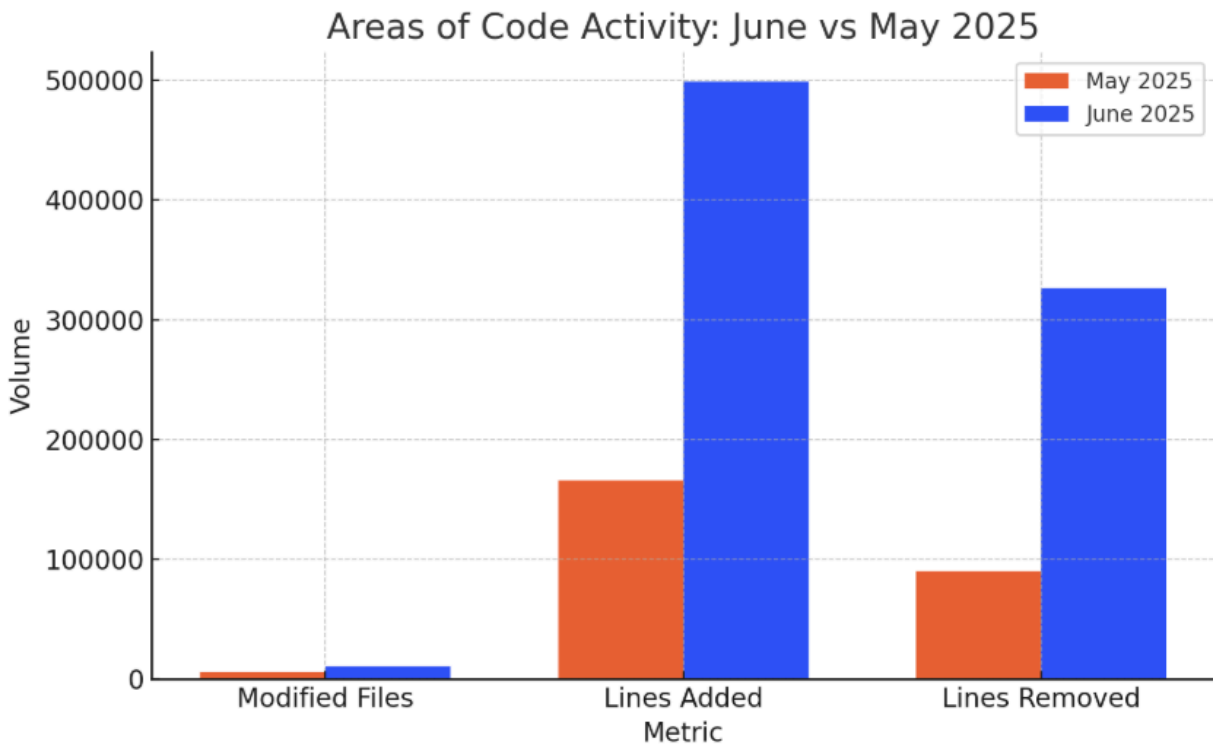
This category outlines the diverse areas and aspects of code development and management within the Github environment.

Summary

June 2025 marked a significant rebound in raw code volume across the Cardano open-source ecosystem. Modified files nearly doubled (+82.1%), and both lines added (+200.1%) and removed (+263.0%) surged — suggesting an intense round of development, refactoring, or large-scale feature merging. This counters the broader decline in commits and contributors, implying deeper code changes by a smaller, more concentrated contributor base.

Comparative Table: Code Volume (Top Orgs)

Metric	June 2025	May 2025	Δ (%)
Modified Files	10,608	5,825	+82.1%
Lines Added	498,826	166,199	+200.1%
Lines Removed	326,621	89,967	+263.0%



Insights:

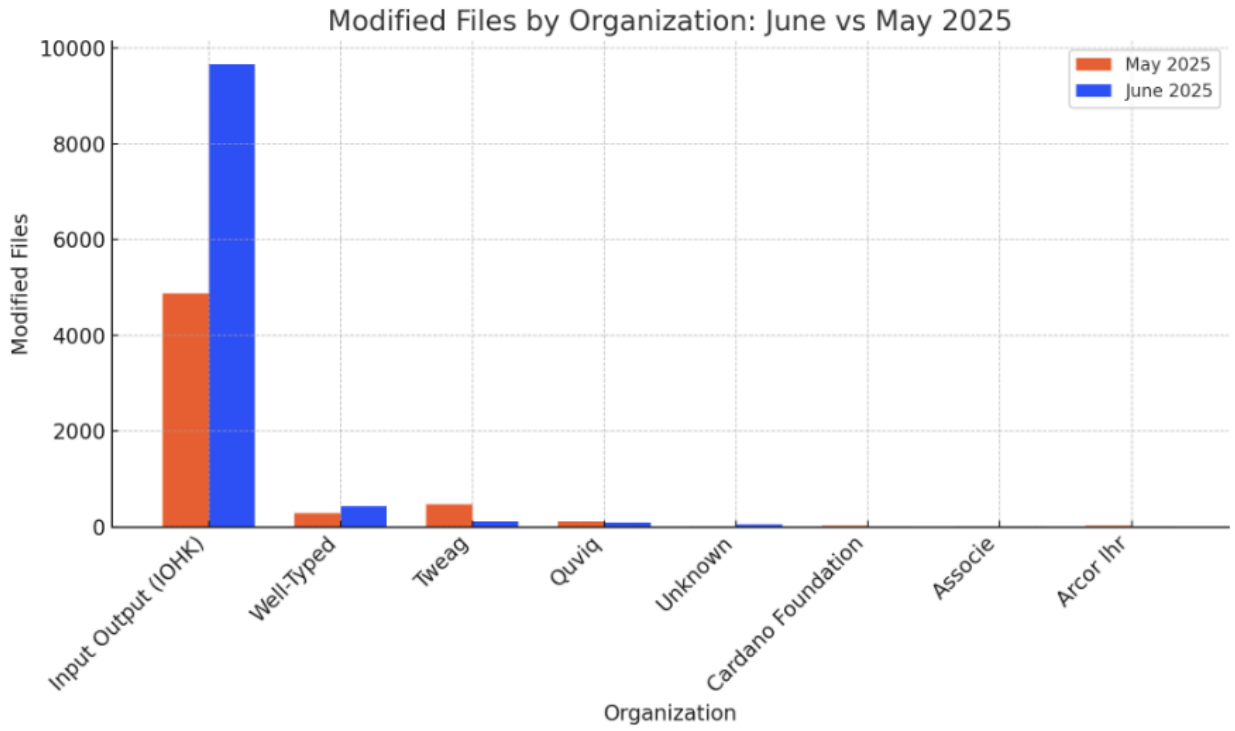
- Code churn exploded — both lines added and removed more than tripled, likely tied to foundational updates, backlog merging, or feature modularization.
- File-level activity grew by 82%, reflecting a much broader surface area of engagement across the ecosystem despite fewer commits and authors.
- Fewer contributors, more code per person — this section supports a pattern of deep, sweeping updates being carried out by a smaller engineering group.

2.a) Projects

Summary:
June 2025 showed a sharp divergence in file modification activity across key organizations. IOHK and Well-Typed significantly increased their code footprint, with IOHK nearly doubling its file edits. In contrast, Tweag and Quviq scaled back after strong May activity. The reappearance of "Unknown" contributors with an outsized file delta suggests new untagged entities or transitional accounts influencing the dataset.

Comparative Table: Modified Files by Organization

Organization	June Files	May Files	Δ Files (%)
Input Output (IOHK)	9,671	4,872	+98.5%
Well-Typed	424	287	+47.7%
Tweag	116	471	−75.4%
Quviq	89	119	−25.2%
Unknown	44	2	+2100.0%



- IOHK surged +99% in file edits, suggesting large-scale feature implementation or codebase cleanup, maintaining its leadership role.
- Well-Typed's output grew nearly 50%, pointing to continued refinement cycles or onboarding of new workstreams.
- Tweag sharply declined (−75%), consistent with a wind-down phase or paused development after heavy May activity.
- Unknown contributors expanded dramatically, which may indicate newly attributed or bot activity not yet mapped to known organizations.

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3. Issues

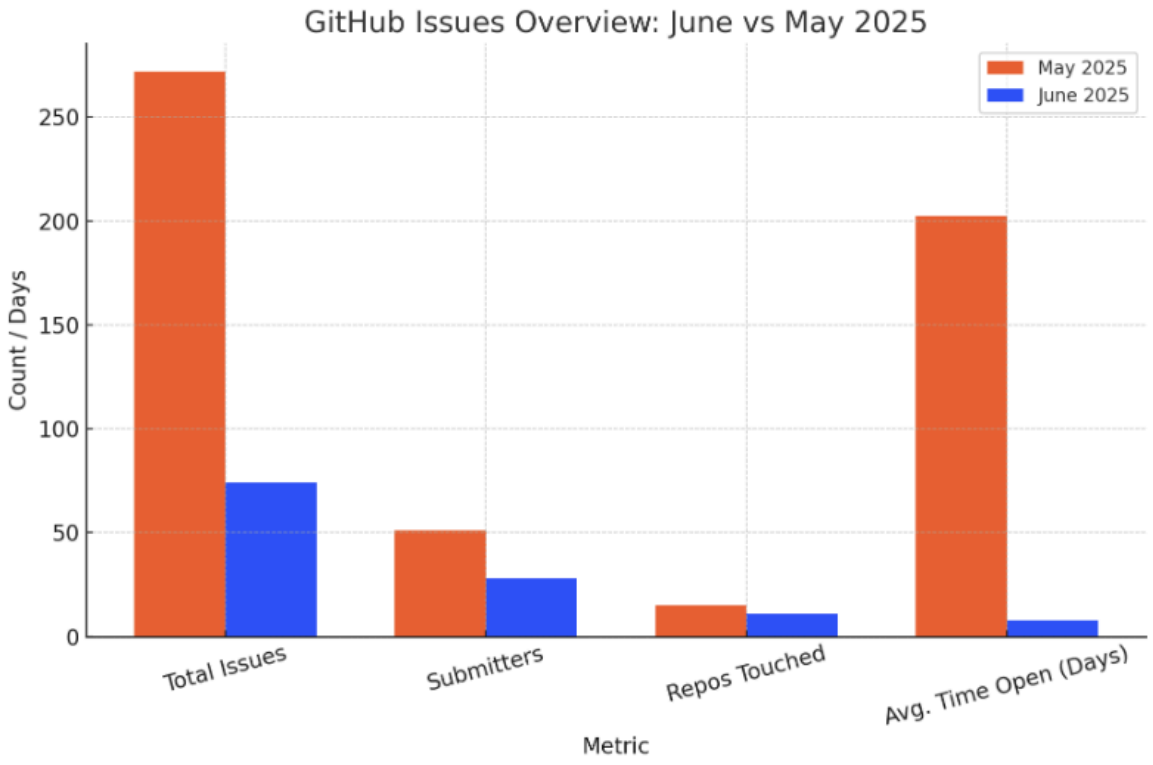
This segment revolves around the identification, tracking, and resolution of issues within Github projects. It encompasses discussions on problem-solving methodologies, issue management practices, and related metrics.

Summary

In June 2025, issue activity sharply declined across all core metrics. Total issues dropped by 72.8%, with fewer submitters, reduced repository coverage, and a major decrease in average time open. This contraction follows May's backlog flush and signals a return to normal QA cycles. The steep drop in average open time (−96.1%) suggests that most remaining issues are being triaged and resolved quickly.

Comparative Table: Issues Overview (Derived Totals)

Metric	June 2025	May 2025	Δ (%)
Total Issues	74	272	−72.8%
Unique Submitters	28	51	−45.1%
Repositories Touched	11	15	−26.7%
Avg. Time Open (Days)	7.9	202.5	−96.1%



Insights:

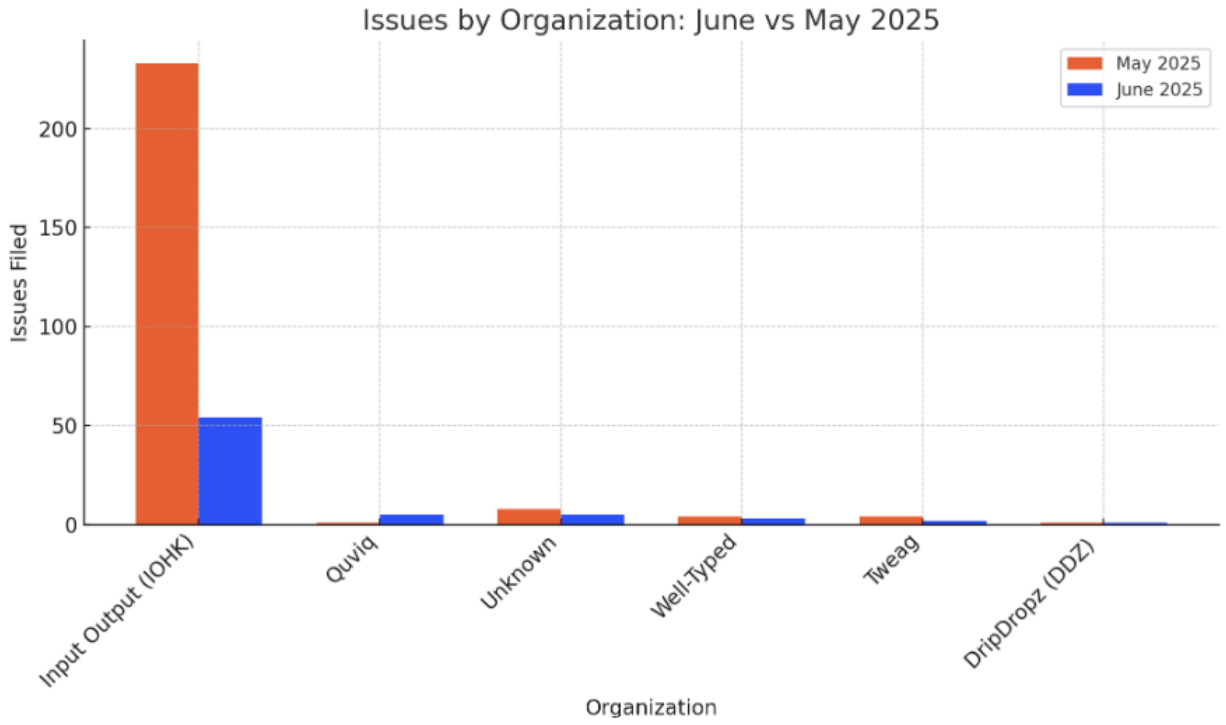
- Issue volume dropped 73%, as the intense backlog cleanup observed in May wound down, returning issue reporting to normal levels.
- Average open time fell dramatically — from over 200 days to just under 8 — confirming that the remaining issues are more recent and actively maintained.
- Submitter and repo coverage declined, likely due to fewer audit-related reports and a more stable codebase entering QA maintenance mode.

3.a) Organizations

Summary:
June 2025 reflected a sharp cooldown in issue generation across most contributing organizations. IOHK, the top submitter, saw a 77% drop in reported issues and resolved them far more quickly than in May. All organizations demonstrated drastically lower median open times, indicating faster triage cycles and a clean exit from May's backlog resolution period.

Comparative Table: Issues by Organization

Organization	June Issues	May Issues	Δ Issues (%)	Median Open (June)	Median Open (May)	Δ Median Open (%)
Input Output (IOHK)	54	233	−76.8%	8.1 days	216.8 days	−96.3%
Quviq	5	1	+400.0%	0.5 days	31.4 days	−98.5%
Unknown	5	8	−37.5%	6.7 days	102.1 days	−93.5%
Well-Typed	3	4	−25.0%	14.2 days	305.6 days	−95.4%
Tweag	2	4	−50.0%	13.2 days	89.0 days	−85.2%



Insights:

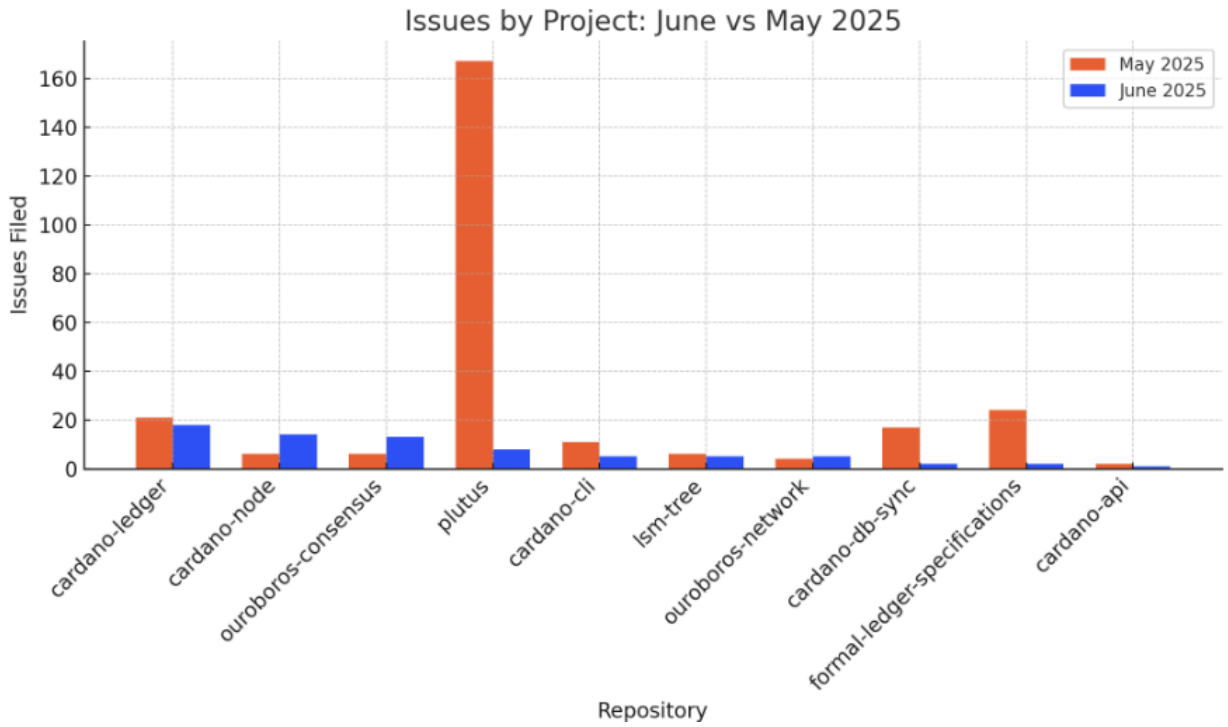
1. IOHK drove most issue activity but saw a 77% drop month-over-month — suggesting less new QA or audit activity and far faster responsiveness.
2. Quviq's issue count rose sharply (+400%), though total volume remains low. Their median open time dropped below a day, signaling immediate resolutions.
3. All organizations showed drastically lower open durations, a strong indicator of improved triage and resolution processes following May's backlog closures.

3.b) Projects

Summary:
June 2025 showed a return to normal issue behavior at the repository level. The huge spike in Plutus issues seen in May subsided, while other repositories like cardano-node and ouroboros-consensus experienced significant increases in newly opened issues. All repositories reported vastly lower median open times — affirming faster triage cycles across the board.

Comparative Table: Issues by Project

Repository	June Issues	May Issues	Δ Issues (%)	Median Open (June)	Median Open (May)
cardano-ledger	18	21	−14.3%	6.3 days	91.5 days
cardano-node	14	6	+133.3%	8.9 days	108.4 days
ouroboros-consensus	13	6	+116.7%	5.3 days	195.7 days
plutus	8	167	−95.2%	9.9 days	238.8 days
cardano-cli	5	11	−54.5%	22.3 days	175.8 days



Insights:

1. cardano-node and ouroboros-consensus saw major increases in new issues (+133% and +117%, respectively), possibly reflecting deep QA cycles on consensus and networking components.

2. plutus activity normalized, down 95% after May's anomaly, which likely included large-scale backlog closure or legacy issue migration.

3. Median open times collapsed across all repositories, showing a strong system-wide reduction in lingering or unresolved issues.

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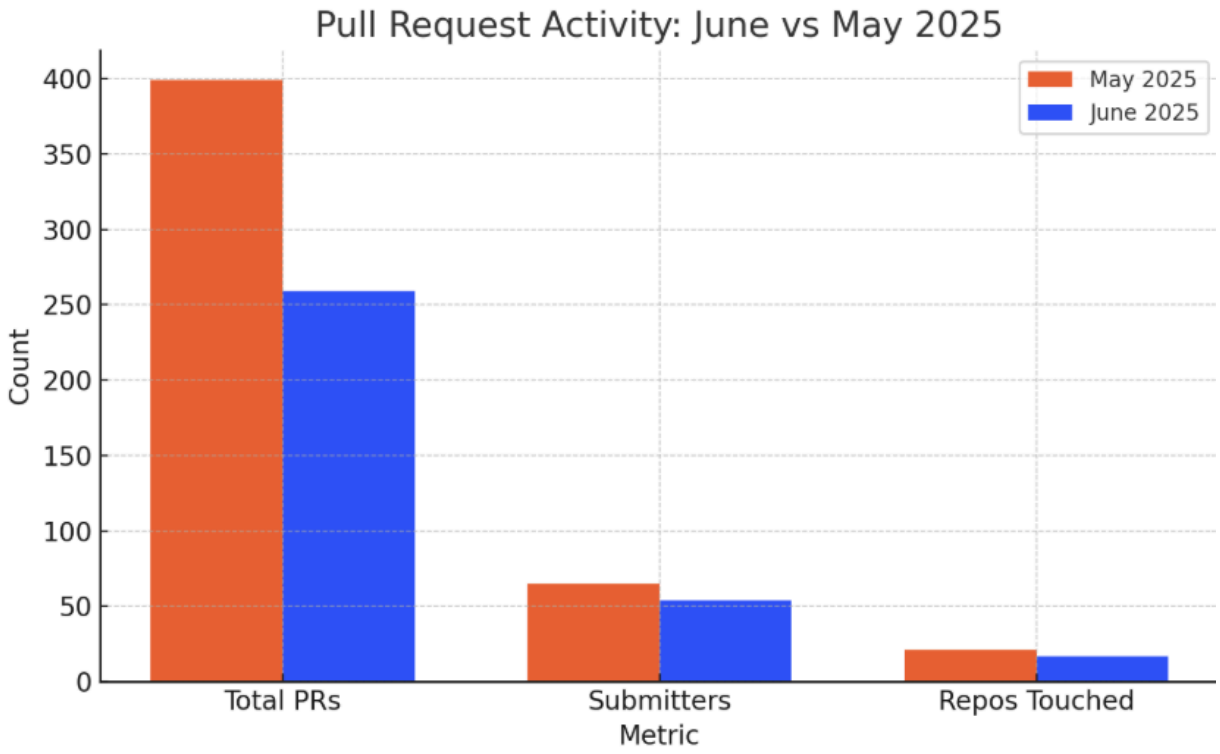
4. Pull Requests

Summary:

June 2025 marked a cooldown in pull request activity across the ecosystem. Total PRs dropped by 35%, with a corresponding decline in submitters and repository coverage. These numbers align with a broader contraction phase across most indicators, suggesting completion of prior milestones and a shift into refinement, testing, or pause phases for many teams.

Comparative Table: May vs. June 2025

Metric	June 2025	May 2025	Δ (%)
Total PRs Submitted	259	399	−35.1%
Unique Submitters	54	65	−16.9%
Repositories Touched	17	21	−19.0%



Insights:

- PR volume dropped by over a third, reflecting a broader engineering deceleration after intense Q2 development surges.
- Submitter count declined more gently (–17%), suggesting continued engagement from core contributors, even as overall throughput dipped.
- Repo coverage contracted by 4 repos, indicating some teams shifted to code freeze, QA, or documentation phases.

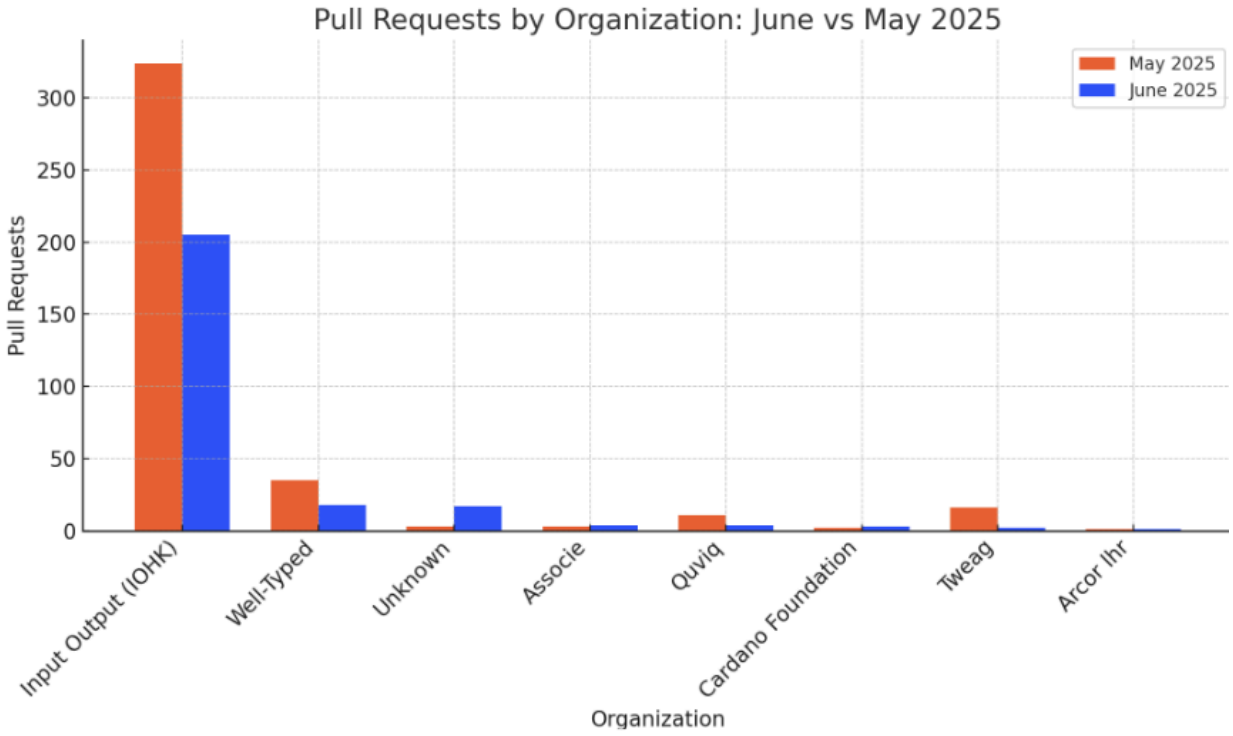
4.a) PR by Organizations

Summary:

June 2025 saw a notable shift in pull request contributions across organizations. IOHK and Well-Typed both significantly reduced their PR volume, aligning with broader ecosystem contraction. Meanwhile, the "Unknown" category spiked in activity, likely due to newly onboarded contributors not yet mapped to formal orgs. Quviq and Associe remained minor contributors, with mixed changes.

Organizational Pull Requests – Summary

Organization	June PRs	May PRs	Δ PRs (%)
Input Output (IOHK)	205	324	−36.7%
Well-Typed	18	35	−48.6%
Unknown	17	3	+466.7 %
Associe	4	3	+33.3%
Quviq	4	11	−63.6%
Organization	**June PRs**	**May PRs**	**Δ PRs (%)**



Insights:

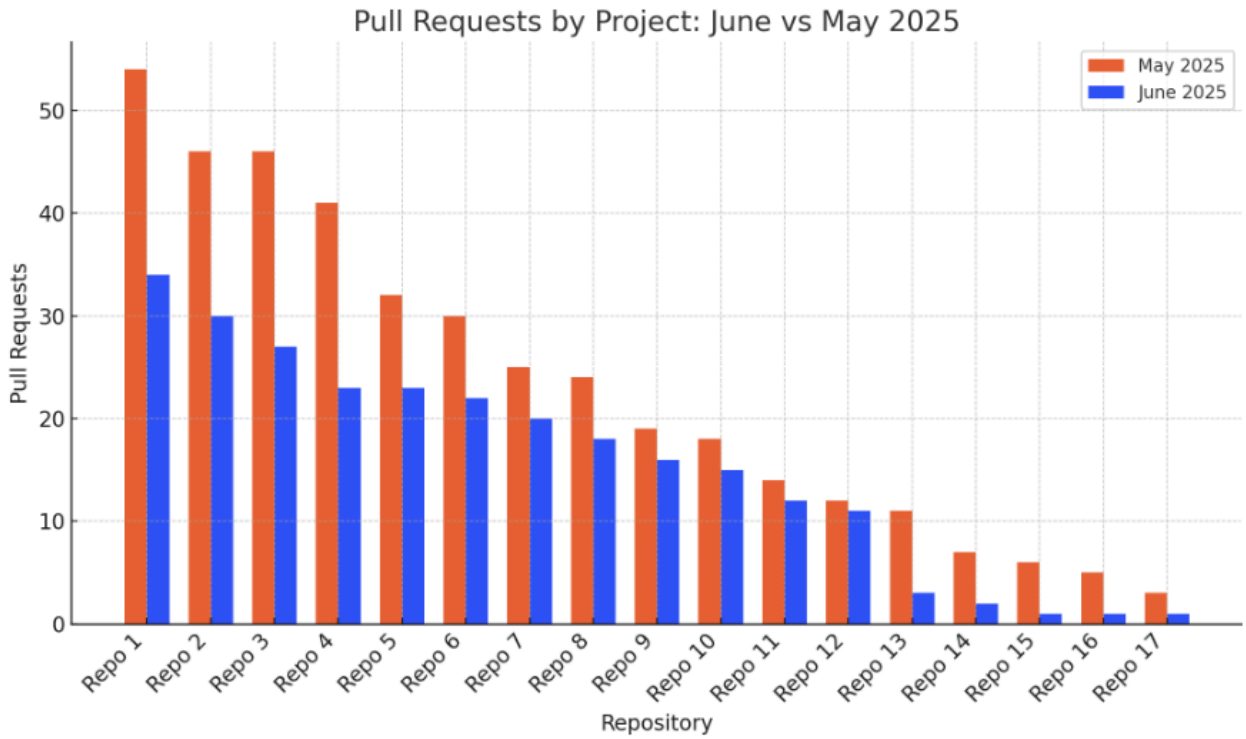
- IOHK dropped nearly 37% in PRs but still led the ecosystem with 205 — sustaining high throughput even in a quieter month.
- Well-Typed output halved, likely signaling the end of a feature phase or temporary resource shift.
- "Unknown" contributors surged, reinforcing the narrative of fresh contributors or bot-attributed accounts submitting unaffiliated PRs.
- Quviq's PRs dropped by two-thirds, potentially completing their scoped engagement for the month.

4.b) PR by Projects

Pull request activity declined consistently across the top repositories in June 2025. All major contributors posted fewer PRs, continuing the broader slowdown observed across the ecosystem. While the volume remained healthy, the uniform drop suggests teams are wrapping up major workstreams or operating in QA/refinement phases.

Top 5 Repositories by PRs (June)

Repository	June PRs	May PRs	Δ PRs (%)
plutus	34	54	−37.0%
cardano-ledger	30	46	−34.8%
cardano-api	27	46	−41.3%
cardano-cli	23	41	−43.9%
cardano-node-tests	23	32	−28.1%



Insights:

- All top repositories experienced PR declines, ranging from −28% to −44%, consistent with cooling development momentum.

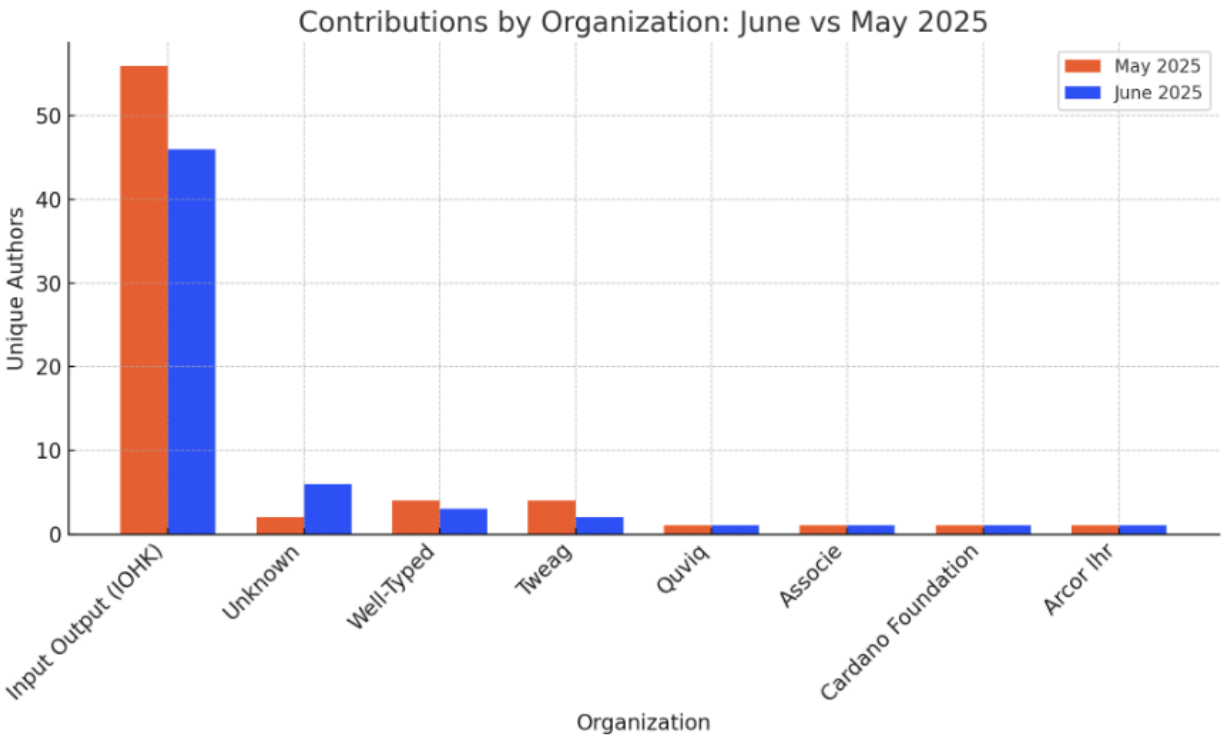
- Repo 1 remained the top PR recipient, though its volume dropped 37%, suggesting completion of a key workstream.
- No single repo bucked the trend, indicating the PR drop is ecosystem-wide rather than project-specific.

5. Analysis of Contributors by Organization

Summary:
Contributor activity declined across most formal organizations in June 2025. IOHK remained the leading contributor group despite a 17.9% reduction in authorship. Tweag and Well-Typed saw continued drops, while "Unknown" contributors tripled — suggesting increased unaffiliated or new participants entering the ecosystem.

Comparative Table: Contributors by Organization

Organization	June Authors	May Authors	Δ Authors (%)
Input Output (IOHK)	46	56	−17.9%
Unknown	6	2	+200.0%
Well-Typed	3	4	−25.0%
Tweag	2	4	−50.0%
Quviq	1	1	0.0%



Insights:

- **IOHK retained leadership**, contributing 46 authors, though down nearly 18% — consistent with broader volume declines across the board.
- **Unknown contributors rose 200%**, likely driven by unaffiliated developers or new GitHub accounts participating without mapped org identities.
- **Tweag and Well-Typed both continued a downward trend**, with author count halving in Tweag's case — pointing to paused or completed engagements.

Glossary

Report Technical Definitions:

- **Repository(Repo):** In Git, a repository, often abbreviated as "repo," is a storage space where your project's files and their entire revision history are stored. It typically includes various files such as source code, documentation, images, and more. Repositories can be either local (on your computer) or remote (hosted on a server like GitHub, GitLab, Bitbucket, etc.).
- **Issue:** An issue is a feature request, bug report, task, or any other item that needs to be tracked within a project. In Git repositories hosted on platforms like GitHub or GitLab, issues are commonly used for discussing and tracking tasks or problems related to the project. They can include labels, assignees, comments, and other metadata to facilitate collaboration and organization.
- **Pull Request (PR):** A pull request is a proposed change that a user wants to merge into a target branch of a repository. It's commonly used in distributed version control systems like Git to facilitate code review and collaboration. When a developer completes a feature or fixes a bug in a separate branch of the repository, they can initiate a pull request to merge their changes into the main branch or another designated branch. Pull requests often include a summary of the changes, discussions, reviews, and automated checks.
- **Contributor:** A contributor is anyone who participates in a project by making contributions such as code changes, documentation improvements, bug fixes, feature enhancements, etc. Contributors can be individuals or organizations, and their contributions can take various forms, from writing code to providing feedback, reporting issues, or reviewing pull requests.
- **Git:** Git is an open-source distributed version control system designed to handle everything from small to very large projects with speed and efficiency. It allows multiple developers to work on the same project simultaneously, coordinating their work through branching, merging, and version tracking. Git is widely used in software development for managing source code revisions and collaborating on projects.
- **GitHub:** GitHub is a web-based platform that provides hosting for Git repositories and offers collaboration features such as issue tracking, pull requests, code review, and project management tools. It's one of the most popular platforms for hosting Git repositories and facilitating collaboration among developers and teams. GitHub also provides additional features like wikis, continuous integration, and deployment services.
- **Commit:** In Git, a commit is a snapshot of the changes made to the files in a repository at a specific point in time. It represents a single revision or change set and includes a unique identifier (SHA-1 hash), a commit message describing the changes, and a pointer to the previous commit(s). Commits are fundamental to version control in Git, as they allow developers to track changes, revert to previous states, and collaborate on code changes.
- **Organization:** In Git and GitHub, an organization refers to a group or entity that can own repositories, manage access permissions, and collaborate on projects. Organizations are often used by companies, open-source projects, or groups of developers to centralize their repositories and manage their collective work. Organizations on GitHub can have multiple members with varying levels of access, allowing for collaborative development within a structured environment.
- **Project:** A project in the context of Git and GitHub typically refers to a specific software development endeavor or initiative. It encompasses all the related tasks, code,

documentation, issues, and resources needed to achieve a particular goal. Projects are often organized within repositories on GitHub, where developers can collaborate, track progress, manage tasks, and share code. A project may involve multiple contributors working together to develop and maintain software, with each contributor contributing to different aspects of the project.

- **Community:** In the Git and GitHub ecosystem, a community refers to the collective group of developers, users, contributors, and other stakeholders who are involved in a particular project, organization, or open-source initiative. Communities are essential for fostering collaboration, sharing knowledge, providing support, and driving the growth and sustainability of projects. They often gather around shared interests, goals, or values, and may interact through various channels such as forums, mailing lists, chat platforms, and social media. A strong and engaged community can contribute to the success and longevity of a project by providing feedback, contributing code, reporting issues, and supporting fellow members.