Project Maturity Tiers for 2025

Prepared by:
Christian Taylor
Head of Open Source Office, Intersect
&
Terence “Tex” McCutcheon
Open Source Program Manager, Intersect

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Organization:
Open Source Committee
Intersect Member Based Organization
Cardano Ecosystem

Source Analysis: Project Lifecycle Review Matrix- Final Draft

[Project Incubation Lifecycle Framework | Open Source Committee]
[Project Incubation: Acceptance Criteria | Open Source Committee]

Review Process	Approval
1st Pass: Open Source Office	✅**Approved**
2nd Pass: Open Source Committee	✅**Approved**
3rd Pass: Individual Projects	

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Executive Summary

This evaluation reviews the maturity of 66 public repositories maintained under our organization. Each repository was assessed across three critical domains: **Documentation**, **Technical Infrastructure**, and **Health & Sustainability**. Evaluations were derived from both internal metrics and live GitHub data, ensuring an objective and up-to-date analysis.

🔍 Key Findings:

- **48.5%** of repositories are classified as **Mature**, representing stable, governed, and actively used codebases.
- **19.7%** are in the **Growth** phase, showing strong potential but requiring investment in governance and contributor onboarding.
- **21.2%** are in **Maintenance**, continuing to serve important roles with limited active development.
- **10.6%** remain in **Incubation**, needing structure, documentation, and clearer project goals.

🎯 Evaluation Process:

Each project was scored on:

- **Documentation** completeness (README, governance, templates)
- **Technical soundness** (CI/CD, testing, linting, security)
- **Project health** (GitHub metrics: stars, forks, contributors, governance presence)

Final maturity ratings aligned closely with official designations from the governance team. Where discrepancies existed, manual review accounted for internal priorities or strategic value not visible in public metrics.

✅ Outcome:

This assessment provides a clear view of our open source project landscape. It identifies areas for targeted investment, highlights projects ready for promotion, and flags those requiring consolidation or archival. These insights form the basis for prioritizing resourcing and community engagement in our open source strategy.

1. Introduction and Purpose

With Cardano's source code made available as open-source software, Intersecct's Open Source Office holds an important responsibility to ensure that proper governance is in place alongside healthy development processes. As the engineering teams we support, contribute to and maintain a growing portfolio of public repositories, it becomes increasingly important to ensure these projects are actively governed, aligned with organizational goals, and supported appropriately based on their lifecycle stage.

This report delivers a structured, cross-functional evaluation of all **66 public repositories** under our GitHub presence. The evaluation was commissioned by the **Open Source Committee** to answer key questions:

- Which projects are stable and production-ready?
- Which are still emerging and need investment in maturity?
- Which are entering a phase of decline, deprecation, or archival?

The assessment aims to provide transparency into the current state of each repository and offer a decision-making framework that supports sustainability, efficiency, and strategic alignment across the open source portfolio. By combining automated technical analysis, documentation audits, and live GitHub metrics with internal knowledge of each project's intent and ecosystem role, this evaluation gives a comprehensive view of our open source landscape.

Beyond reporting, this work is intended to initiate a sustainable rhythm of lifecycle review and project planning. It helps stakeholders across product, engineering, security, and community functions to identify:

- Projects that deserve investment and visibility,
- Initiatives that require corrective action or clearer ownership,
- Legacy components that may be candidates for sunsetting or archival.

Ultimately, the purpose of this assessment is to bring structure, fairness, and forward-thinking strategy to the way we manage our public codebases—ensuring our open source efforts remain high-quality, discoverable, secure, and valuable to both internal teams and the broader ecosystem.

2. Evaluation Methodology

The evaluation of each repository was conducted using a multi-dimensional framework designed to reflect the operational health, sustainability, and readiness of open source projects. The methodology integrates both **quantitative** indicators (e.g., commit activity, file presence) and **qualitative** signals (e.g., governance maturity, ecosystem role), while incorporating official designations from internal stakeholders.

Repositories were scored independently across three primary dimensions:

2.1 Documentation Maturity (0–9 Points)

The presence and completeness of essential open source documentation was assessed for each repository. The criteria were derived from widely accepted best practices and community standards.

Evaluation Criteria:

- `README.md`: Overview of the project's purpose, installation, and usage.
- `LICENSE`: Indicates the terms of reuse and distribution.
- `CONTRIBUTING.md`: Guidelines for contributing code or reporting issues.
- `SECURITY.md`: Describes security contact processes and disclosure policies.
- `CODE_OF_CONDUCT.md`: Defines behavioral expectations for contributors.
- Issue and Pull Request Templates: Promotes consistency in contributions and maintenance.
- Setup & Configuration Instructions: Enables reproducibility and usability.

Each file or component present earned one point for mandatory files, and 0.5 points for having recommended files, contributing to a maximum score of 7. Projects missing several of these components typically reflect lower accessibility and onboarding friction, which impacts community growth.

2.2 Technical Infrastructure Maturity (0–18 Points)

This dimension evaluates the engineering robustness of each repository based on practical software development and DevSecOps practices. The criteria are derived from the internal **Technical Assessment Criteria** used by engineering teams and adapted for consistency across all public repositories.

Each project was scored across multiple sub-areas of infrastructure maturity, with a total possible score of **18 points**. Scores reflect the **presence**, **depth**, and **automation** of technical practices, which collectively determine how scalable and maintainable a project is over time.

Scoring Categories

Category	Key Indicators	Max Points
Automated Tests	Unit, integration, and regression test coverage; enforcement in CI	3
CI/CD Pipelines	Presence of pipelines; test/build/release automation	3
Security Scanning	Use of tools for vulnerability detection (e.g., Dependabot, Trivy)	2
Dependency Updates	Automatic or regular update workflows; package hygiene	2
Linting/Formatting	Code style enforcement; static code analysis	2
Release Management	Use of version tags, changelogs, and GitHub Releases	2

Build & Packaging Tools	Automation of builds (Makefile, Dockerfile, etc.)	2
Infrastructure as Code	Project includes IaC files or deploy artifacts if relevant	1
Platform Integration	Integration with GitHub Actions, third-party CI platforms (e.g., CircleCI)	1

Scoring Approach

- Each repository was manually or programmatically inspected for indicators across these categories.
- Projects with partial implementations (e.g., CI enabled but tests skipped) received **proportional scores**.
- Repositories with visible release tags, security alert configurations, and automated workflows earned higher scores.

This methodology ensures that technical maturity is not only about the presence of tooling but its operational effectiveness and completeness.

2.3 Health & Sustainability (0–12 Points)

The health of a repository reflects its long-term viability, activity level, and readiness to sustain community contributions or internal dependency. This portion of the analysis was powered by **live GitHub data**, collected at the time of evaluation.

Scored Dimensions (0–2 points each):

1. **Community Engagement** – Stars, forks, issue/PR traffic, and evidence of external interest.
2. **Governance & Leadership** – Presence of `CODEOWNERS`, contribution policies, or

governance files.

3. **Succession Planning** – Number and diversity of active maintainers; reliance on a single contributor.
4. **Ecosystem Importance** – Whether the project serves as a dependency or critical integration point.
5. **Activity Trend** – Recency and consistency of commits, PRs, and releases.
6. **Sustainability & Risks** – Visibility into long-term support, organizational sponsorship, and deprecation risk.

Scores were totaled and mapped into qualitative labels:

- **Healthy (10–12)**: Active, sustainable, and structurally sound.
- **Moderate (6–9)**: Viable but with limitations or improvement opportunities.
- **Unhealthy (0–5)**: At risk due to stagnation, governance gaps, or declining interest.

This data-driven approach ensured fairness and comparability across projects of different sizes and scopes.

Data Integration and Cross-Referencing

To synthesize the evaluation, each repository's scores across the three categories were aggregated and tallied in the **official maturity phase designation** listed in the internal governance sheet (Tab 1, Column C). The total scored reflect as follows:

Scoring Range	Maturity Assigned
1-10	Incubation
10-24	Growth
24-37	Mature
Was determined by internal review and project purpose	Maintenance
Not determined this round given first year unless project is already archived	Decline / Archive

3. Results Summary

Following a comprehensive evaluation of 66 public repositories, each project was assigned a maturity phase based on combined scores across documentation quality, technical infrastructure, and health & sustainability. Official designations were further validated against live GitHub metrics and internal context from subject matter reviewers.

The final distribution of repositories across maturity phases is as follows:

Maturity Phase	Description	# of Projects	% of Total
Mature	Fully stable, with comprehensive documentation, sound engineering, and governance, minor room for improvement	32	48.5%
Growth	Actively developed with increasing structure and community engagement, room for improvement	13	19.7%
Maintenance	Stable and functional, but with minimal new development activity	14	21.2%
Incubation	Early stage, limited contributors or formal documentation, major room for improvement	7	10.6%

Note: No repositories were officially designated as “Decline” or “Archived” in the current dataset, although some repositories scored near thresholds that could indicate future deprecation risk.

Key Observations:

- **Mature repositories** represent nearly half of the portfolio and tend to have active CI/CD, comprehensive test coverage, documented governance, and high community signals (stars, forks, issues). These are excellent candidates for showcasing externally or

adopting as long-term maintained assets.

- **Growth-phase projects** demonstrated strong activity but often lacked formal governance or complete documentation. These represent high-leverage opportunities where small investments (like CONTRIBUTING files or release processes) can accelerate maturity.

- **Maintenance-phase repositories** showed signs of long-term use but limited ongoing contributions. Many are functionally complete or serve niche legacy roles. These should be monitored to ensure security hygiene and tagged accordingly for downstream consumers.

- **Incubation-phase projects** are largely in early development or were recently open-sourced. Most lacked full setup documentation, test automation, or active contributors. These require clearer ownership and development plans if they are to mature effectively.

4. Detailed Results:

Repo Name:	Repo Link	Official Maturity Rating	Overall Scoring	Tech Maturity	Health Maturity	Doc Maturity
.github	https://github.com/IntersectMBO/.github	Maintenance	16	Incubation	Healthy 🟢	Incubation
antaeus	https://github.com/IntersectMBO/antaeus	Mature	28	Growth	Moderate 🟡	Mature
bech32	https://github.com/IntersectMBO/bech32	Mature	29	Growth	Healthy 🟢	Mature
budget-documentation	https://github.com/IntersectMBO/budget-documentation	Maintenance	25	Incubation	Healthy 🟢	Mature
cardaminal	https://github.com/IntersectMBO/cardaminal	Mature	32	Growth	Healthy 🟢	Mature
cardano-addresses	https://github.com/IntersectMBO/cardano-addresses	Mature	31.5	Growth	Healthy 🟢	Mature
cardano-airgap	https://github.com/IntersectMBO/cardano-airgap	Mature	24.5	Incubation	Moderate 🟡	Mature
cardano-api	https://github.com/IntersectMBO/cardano-api	Mature	32.5	Growth	Healthy 🟢	Mature
cardano-base	https://github.com/IntersectMBO/cardano-base	Mature	33.5	Growth	Healthy 🟢	Mature
cardano-cli	https://github.com/IntersectMBO/cardano-cli	Mature	32	Growth	Healthy 🟢	Mature
cardano-coin-selection	https://github.com/IntersectMBO/cardano-coin-selection	Mature	25.5	Incubation	Healthy 🟢	Mature
cardano-crypto	https://github.com/IntersectMBO/cardano-crypto	Mature	25.5	Growth	Moderate 🟡	Mature
cardano-db-sync	https://github.com/IntersectMBO/cardano-db-sync	Mature	30.5	Growth	Moderate 🟡	Mature

cardano-haskell-packages	https://github.com/IntersectMBO/cardano-haskell-packages	Growth	22	Growth	Moderate 🟡	Mature
cardano-launcher	https://github.com/IntersectMBO/cardano-launcher	Mature	33	Growth	Healthy 🟢	Mature
cardano-ledger	https://github.com/IntersectMBO/cardano-ledger	Mature	35	Growth	Healthy 🟢	Mature
cardano-node	https://github.com/IntersectMBO/cardano-node	Mature	31.5	Growth	Moderate 🟡	Mature
cardano-node-emulator	https://github.com/IntersectMBO/cardano-node-emulator	Mature	30.5	Incubation	Healthy 🟢	Mature
cardano-node-tests	https://github.com/IntersectMBO/cardano-node-tests	Mature	28	Growth	Moderate 🟡	Mature
cardano-prelude	https://github.com/IntersectMBO/cardano-prelude	Growth	20.5	Growth	Unhealthy 🔴	Mature
cardano-sync-tests	https://github.com/IntersectMBO/cardano-sync-tests	Incubation	9	Incubation	Moderate 🟡	Archive
cardano-test-plans	https://github.com/IntersectMBO/cardano-test-plans	Growth	20	Incubation	Healthy 🟢	Archive
cardano-transactions	https://github.com/IntersectMBO/cardano-transactions	Mature	28.5	Incubation	Healthy 🟢	Mature
cardano-updates	https://github.com/IntersectMBO/cardano-updates	Growth	20	Growth	Moderate 🟡	Mature
cardano-world	https://github.com/IntersectMBO/cardano-world	Mature	27	Growth	Healthy 🟢	Mature
cc-portal	https://github.com/IntersectMBO/cc-portal	Mature	30	Growth	Healthy 🟢	Mature
civics-documentation	https://github.com/IntersectMBO/civics-documentation	Maintenance	28	Incubation	Healthy 🟢	Mature

committees-groups-documentation	https://github.com/IntersectMBO/committees-groups-documentation	Maintenance	25	Growth	Moderate 🟡	Mature
credential-manager	https://github.com/IntersectMBO/credential-manager	Mature	29	Growth	Healthy 🟢	Mature
developer-experience	https://github.com/IntersectMBO/developer-experience	Growth	23	Incubation	Moderate 🟡	Mature
drep-campaign-platform	https://github.com/IntersectMBO/drep-campaign-platform	Growth	22	Incubation	Healthy 🟢	Mature
drep-code-of-conduct	https://github.com/IntersectMBO/drep-code-of-conduct	Mature	24	Incubation	Healthy 🟢	Growth
essential-cardano	https://github.com/IntersectMBO/essential-cardano	Growth	20	Growth	Moderate 🟡	Mature
formal-ledger-specifications	https://github.com/IntersectMBO/formal-ledger-specifications	Mature	27.5	Growth	Healthy 🟢	Mature
governance-actions	https://github.com/IntersectMBO/governance-actions	Growth	16.5	Incubation	Moderate 🟡	Growth
governance-tools-documentation	https://github.com/IntersectMBO/governance-tools-documentation	Mature	20.5	Growth	Unhealthy 🔴	Mature
govtool	https://github.com/IntersectMBO/govtool	Mature	30	Growth	Moderate 🟡	Mature
govtool-delegation-pillar	https://github.com/IntersectMBO/govtool-delegation-pillar	Mature	26.5	Incubation	Healthy 🟢	Mature
govtool-outcomes-pillar	https://github.com/IntersectMBO/govtool-outcomes-pillar	Growth	20.5	Incubation	Moderate 🟡	Mature
govtool-proposal-discussion	https://github.com/IntersectMBO/govtool-proposal-discussion	Mature	24	Incubation	Healthy 🟢	Mature
govtool-proposal-pillar	https://github.com/IntersectMBO/govtool-	Mature	27	Growth	Moderate 🟡	Mature

	proposal-pillar					
govtool-test-reports	https://github.com/IntersectMBO/govtool-test-reports	Incubation	12.5	Maintenance	Moderate 🟡	Incubation
govtool-voting-pillar	https://github.com/IntersectMBO/govtool-voting-pillar	Mature	24	Growth	Moderate 🟡	Mature
hf-wg-documentation	IntersectMBO/hf-wg-documentation: Repository for hardfork working group documentation.	Maintenance	19.5	Growth	Moderate 🟡	Incubation
intersect-constitutional-council	https://github.com/IntersectMBO/intersect-constitutional-council	Growth	16.5	Incubation	Moderate 🟡	Growth
intersect-knowledge-base	https://github.com/IntersectMBO/intersect-knowledge-base	Maintenance	28.5	Incubation	Healthy 🟢	Mature
intersect-landscape	https://github.com/IntersectMBO/intersect-landscape	Growth	17	Growth	Moderate 🟡	Archive
intersect-steering-documentation	https://github.com/IntersectMBO/intersect-steering-documentation	Maintenance	23	Growth	Unhealthy 🔴	Mature
io-classes-extra	IntersectMBO/io-classes-extra: Utilities built on top of `io-classes`	Growth	15	Incubation	Moderate 🟡	Incubation
libsodium	https://github.com/IntersectMBO/libsodium	Maintenance	12	Incubation	Moderate 🟡	Mature
lsm-tree	https://github.com/IntersectMBO/lsm-tree	Mature	28	Growth	Moderate 🟡	Mature
mcc-documentation	https://github.com/IntersectMBO/mcc-documentation	Maintenance	26	Growth	Moderate 🟡	Mature
nami	https://github.com/IntersectMBO/nami	Mature	31.5	Growth	Healthy 🟢	Incubation

open-source-office	https://github.com/IntersectMBO/open-source-office	Maintenance	29	Growth	Healthy 🟢	Mature
osc-documentation	https://github.com/IntersectMBO/osc-documentation	Maintenance	27	Growth	Healthy 🟢	Mature
ouroboros-consensus	https://github.com/IntersectMBO/ouroboros-consensus	Mature	34.5	Growth	Healthy 🟢	Mature
ouroboros-network	https://github.com/IntersectMBO/ouroboros-network	Mature	33.5	Growth	Healthy 🟢	Mature
parameters-documentation	https://github.com/IntersectMBO/parameters-documentation	Maintenance	29.5	Incubation	Healthy 🟢	Mature
pdf-ui	https://github.com/IntersectMBO/pdf-ui	Growth	23.5	Growth	Healthy 🟢	Archive
plutus	https://github.com/IntersectMBO/plutus	Mature	34.5	Growth	Healthy 🟢	Mature
plutus-script-evaluation	https://github.com/IntersectMBO/plutus-script-evaluation	Incubation	17	Incubation	Healthy 🟢	Archive
plutus-tx-template	https://github.com/IntersectMBO/plutus-tx-template	Incubation	28.5	Incubation	Healthy 🟢	Mature
product-documentation	https://github.com/IntersectMBO/product-documentation	Maintenance	29	Incubation	Healthy 🟢	Mature
tsc-documentation	https://github.com/IntersectMBO/tsc-documentation	Maintenance	21.5	Incubation	Moderate 🟡	Mature
win32-network	https://github.com/IntersectMBO/Win32-network	Incubation	22	Incubation	Healthy 🟢	Mature
workgroup-info	https://github.com/IntersectMBO/workgroup-info	Incubation	19	Incubation	Healthy 🟢	Mature