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Suggested Additions To The 2025 Roadmap

March 4, 2025

The relevant info action (*gov_action12meeq4r43udremwpm6fzt4nt7fctvt0ah7798x036m2r4nhlccmqqhmr9wx*) requests that dReps provide feedback with their vote and consider voting repeatedly after revisions.

During the lifetime of the governance action, the Product Committee will iterate upon the roadmap based upon DRep feedback, adjusting the referenced roadmap. DReps are encouraged to attach metadata to their votes, providing rationale; these rationales will be reviewed by the Product Committee. A yes vote for this action signals support for the proposed roadmap. A no vote on this action signals a lack of support for the roadmap. An abstain vote means signals neither in favor nor against. While the referenced roadmap develops, DReps should consider submitting multiple votes to signal approval across versions.

With this in mind I am tentatively voting against this roadmap and offering three suggestions for what I believe should be prioritized in addition to what has already been outlined.

- Post Quantum R&D
- Ouroborus Genesis
- Ouroborus Chronos

Post Quantum R&D

Quantum computers are coming sooner than anticipated and the first practical application will be breaking the elliptic curve cryptography Cardano depends on. We need a plan beyond mere disaster recovery. I suggest we start by drafting an inventory of everything that needs to be upgraded, funding the development of competing solutions (hash-based and lattice-based), and hiring cryptographers to design domain specific signature schemes for use in blockchain.

Post Quantum Cardano By Charles Hoskinson

Ouroborus Genesis

The ability to bootstrap from Genesis has the potential to differentiate Cardano from other proof-of-stake networks and eliminate all lingering dependency on centralized actors. From what I understand, work on Genesis is nearly complete, making this an easy win.

Genesis Paper

Ouroborus Chronos

When paired with Genesis, Chronos will provide feature parity with proof-of-work blockchains. Implementing Chronos before Leios and multiple node implementations would be prudent. I fear Chronos is not sufficiently discussed and may otherwise never be implemented.

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Chronos Paper

Conclusion

Including **Post Quantum R&D** would be enough to make me change my vote to YES. However I would very much like to see Genesis and Chronos included as I believe they *complete* a significant goal of the Cardano project which is to prove that proof-of-stake can be just as secure as proof-of-work. This would not only help by improving Cardano's security but would have the added benefit of differentiating cardano in an increasingly competitive blockchain industry.

Signed William Doyle

Your friendly neighborhood DRep! \$computerman drep1yfpgzfymq6tt9c684e7vzata8r5pl4w84fmrjqeztdqw0sgpzw3nt