protocol-guild

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CONTENTS

Protocol Guild is a collective funding mechanism for Ethereum's layer 1 R&D maintainers. It has three components:

1. An eligibility framework
2. A member registry
3. Onchain donation contracts

The eligibility framework determines which projects' contributors should receive a share of the funding. This framework can then be used to maintain an active member registry. The registry addresses and weights are regularly published onchain to a split contract, where vested funding can be claimed.

Protocol Guild is only concerned with managing the aforementioned components and soliciting funding to support the eligible work. The day-to-day stewardship discussions surrounding the Ethereum protocol continue to happen in other existing venues (All Core Devs calls, ethresear.ch, Magician's forum etc.), with the participation of a much broader set of contributors. Donations to the Protocol Guild have no bearing on stewardship decisions taking place in those existing venues.

Protocol Guild is a simple but powerful mechanism which allows Ethereum's layer 1 R&D to be funded in the same way it is produced: a commons of peers and their collaborative effort over time.

"And, Ebling, there's another, greater purpose. Hari Seldon founded two Foundations three centuries ago; one at each end of the Galaxy. You must find that Second Foundation." Foundation, Isaac Asimov

CHAPTER

ONE

DONATE

Ethereum Mainnet	theprotocolguild.eth / 0x4EA88fa76848a8BBAB72613d4171df1eBcf68399
Arbitrum	arb1:0x8ee2AcfEbd311c1cF8d74448E207B4960EaCf599
Base	base:0xffaaCCFe120f3fC47f42102cF4F28e837cd49A20
Optimism	oeth:0x7a489D5Fedd52f561b73EC8B0a164c0BD36036A2
Polygon	matic:0xccccEbdBdA2D68bABA6da99449b9CA41Dba9d4FF
Scroll	scr:0xccccEbdBdA2D68bABA6da99449b9CA41Dba9d4FF
Shape	shape:0x700fccD433E878F1AF9B64A433Cb2E09f5226CE8
ZKsync	zksync:0x9fb5F754f5222449F98b904a34494cB21AADFdf8
Zora	zora:0x32e3C7fD24e175701A35c224f2238d18439C7dBC

See here for more information on how to donate.

CHAPTER

TWO

TABLE OF CONTENTS

The Protocol Guild is a mechanism that learns and adapts - this documentation is regularly updated.

2.1 1. Membership

2.1.1 1.1 Active Working Groups + Members

Individuals from active working groups produce the membership by opting into Protocol Guild. The delineation between categories and working groups below is for informational purposes only - contributors quite often collaborate across many different working groups and projects. Working groups should undergo periodic reviews as the core protocol development roadmap evolves. The four categories include:

- Wayfinding
- Governance
- Client Implementations
- Upgrade Delivery

2.1.2 WAYFINDING

- Overview: the exploratory process to surface, describe and validate potential protocol changes
- 9 Working Groups, 40 contributors, 40 total weight
- Venue: breakout calls
- Artifacts: Research & POCs
- Research Constraints
  - Generally agreed to be a significant and worthwhile direction for the protocol
  - Composed of contributors who are sufficiently tethered to Ethereum's core protocol R&D, potentially being part of existing entities or teams focused on such work
  - Performed according to general research principles, including open production of artifacts, peer review, and systematic, documented efforts to compare different approaches
- Prototyping / "Research Engineering" Constraints
  - Supporting a research direction that satisfies the criteria outlined above
  - Equipped with sufficient resources that are commensurate with the complexity and confidence of the research direction, necessary to move the research direction to a concrete proposal for mainnet

Group	Weight	Contributions
Cryptography Research (7 contributors)	**7**	
Antonio Sanso	1	asanso/pglanding-asanso
Arantxa Zapico	1	
Benedikt Wagner	1	b-wagn/pg-contrib
Dmitry Khovratovich	1	khovratovich/ef-summary
George Kadianakis	1	
Gottfried Herold	1	
Thomas Coratger	1	paradigmxyz/reth Plonky3/Plonky3 https://github.com/tcoratger/hashcaster-exploration *zkevm book*
P2P Networking (4 contributors)	**4**	
Anton Nashatyrev	1	TXRX, Consensys/teku, ethereum/consensus-specs, libp2p/jvm-libp2p
Marco Munizaga	1	
Raúl Kripalani	1	
Sukun Tarachandani	1	
Protocol Architecture (4 contributors)	**4**	
Ansgar Dietrichs	1	
Barnabé Monnot	1	
Francesco D'Amato	1	
Justin Drake	1	
Protocol Consensus (3 contributors)	**3**	
Luca Zanolini	1	luca-zanolini/research
Roberto Saltini	1	saltiniroberto/ethereum-research
Yann Vonlanthen	1	yannvonlanthen.com/publications
Protocol Prototyping (7 contributors)	**7**	
Bharath Vedartham	1	
Carl Beekhuizen	1	
Jihoon Song	1	jihoonsong/pglanding-jihoonsong
Jochem	1	ethereum/EIPs, ethereum/execution-spec-tests, ethereumjs/ethereumjs-monorepo
Milos Stankovic	1	morph-dev/pglanding-morph-dev
Rahul	1	raxhvl/pglanding-raxhvl
Toni Wahrstätter	1	nerolation/pglanding-nerolation
Robust Incentive Group (RIG) (6 contributors)	**6**	
Anders	1	rig.ethereum.org/all-works/anders
Caspar Schwarz-Schilling	1	rig.ethereum.org/all-works/caspar
Julian Ma	1	rig.ethereum.org/all-works/julian
Maria Silva	1	rig.ethereum.org/all-works/maria
QED	1	rig.ethereum.org/all-works/marios
Thomas Thiery	1	rig.ethereum.org/all-works/thomas
Stateless Consensus (3 contributors)	**3**	

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Table 1 – continued from previous page

Group	Weight	Contributions
Carlos Perez	1	BloatNet, zkevm-circuits, execution-spec-tests paradigmxyz/reth Halo2, gballet/go-ethereum
Guillaume Ballet	1	ethereum/go-ethereum, ethereum/go-verkle, gballet/go-ethereum
Wei Han Ng	1	ethereum/go-ethereum gballet/go-ethereum
Uncategorized (2 contributors)	**2**	
Josh Rudolf	1	
Yoav Weiss	1	ethereum/protocol-security
zkEVM (4 contributors)	**4**	
Cody Gunton	1	zkevm-test-monitor, eth-act/cazkade, risc0/risc0, risc0/zirgen, ethmag, ethresearch
Ignacio Hagopian	1	ethereum/execution-specs (legacy repo), paradigmxyz/reth, eth-act/zkevm-benchmark-workload, eth-act/ere, eth-act/zkboost
Kevaundray Wedderburn	1	zkEVM on L1
TingHan Jian	1	eth-act/ere, crate-crypto/rust-eth-kzg, privacy-ethereum/halo2

2.1.3 GOVERNANCE

- Overview: the deliberative process used to come to consensus on which specific EIPs should be in each upgrade
- 2 Working Groups, 12 contributors, 12 total weight
- Venue: ACDC, ACDE
- Artifact: EIPs <-> Specifications
- Constraints: spec work must implementation agnostic + unopinionated

Group	Weigl	Contributions
Execution Layer Specs + Coordination (8 contributors)	**8**	
Guru	1	ethereum/execution-specs
Carson	1	ethereum/execution-specs
Peter Miller	1	
Pooja Ranjan	1	Ethereum Protocol Videos, ethereum/EIPs, ethereum/pm
Sam Wilson	1	ethereum/execution-specs
Tim Beiko	1	ethereum/pm
Nixo	1	ethereum/pm
Josh Davis	1	
Consensus Layer Specs + Coordination (4 contributors)	**4**	
Alex Stokes	1	
Justin Traglia	1	Consensys/teku, ethereum/c-kzg-4844, ethereum/consensus-specs, OffchainLabs/prysm
Mikhail Kalinin	1	TXRX, ethresear.ch/u/mkalinin, ethereum/EIPs, ethereum/consensus-specs, ethereum/execution-apis, hackmd.io/@n0ble
Marc Garreau	1	ethereum/pm

2.1.4 CLIENT IMPLEMENTATIONS

- Overview: Implementations of the spec changes for each network upgrade, ongoing client maintenance and optimizations
- 11 Working Groups, 114 contributors, 105 total weight
- Venue: Internal Calls
- Artifacts: Client Releases
- Constraints: Must be well-tested, technically differentiated, and production ready (ie. able to construct full blocks locally)

CONSENSUS CLIENTS	Weight	Contributions
Grandine (5 contributors)	**5**	grandinetech/grandine
Artiom Tretjakovas	1	grandinetech/grandine, grandinetech/rust-kzg
Hangleang	1	grandinetech/grandine
Povilas Liubauskas	1	grandinetech/grandine
Saulius Grigaitis	1	grandinetech/grandine
Tumas	1	grandinetech/grandine
Lighthouse (13 contributors)	**12.5**	sigp/lighthouse
Anton Delaruelle	1	sigp/lighthouse
Chee Keong Tan	1	sigp/lighthouse
Daniel Knopik	1	sigp/lighthouse
dapplion	1	ethereum/EIPs, ethereum/consensus-specs, sigp/lighthouse
Eitan Seri-Levi	1	sigp/lighthouse
Jimmy Chen	1	sigp/lighthouse

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Table 2 – continued from previous page

CONSENSUS CLIENTS	Weight	Contributions
João Oliveira	1	sigp/discv5, sigp/enr, sigp/lighthouse
Josh King	1	sigp/lighthouse
Mac Ladson	1	sigp/lighthouse
Mark Mackey	1	sigp/lighthouse
Michael Sproul	1	sigp/lighthouse
Pawan Dhananjay Ravi	1	sigp/lighthouse
Sean Anderson	0.5	sigp/lighthouse
Lodestar (8 contributors)	**7.5**	ChainSafe/lodestar, ChainSafe/lodestar-z
Bing	1	ChainSafe/lodestar-z
Cayman Nava	1	ChainSafe/lodestar
grapebaba	0.5	ChainSafe/lodestar-z
Matthew Keil	1	ChainSafe/lodestar
NC	1	ChainSafe/lodestar
Nazar Hussain	1	ChainSafe/lodestar
Nico Flaig	1	ChainSafe/lodestar
twoeths	1	ChainSafe/lodestar
Nimbus (10 contributors)	**10**	
Advaita Saha	1	status-im/nimbus-eth1
Agnish Ghosh	1	status-im/nimbus-eth2
Andri Lim	1	status-im/nimbus-eth1
Ben Hartnett	1	ethereum/portal-network-specs, status-im/nimbus-eth1
Dustin Brody	1	status-im/nimbus-eth2
Etan Kissling	1	ethereum/EIPs, ethereum/consensus-specs, status-im/nimbus-eth2
Eugene Kabanov	1	status-im/nimbus-eth2
Jacek Sieka	1	status-im/nimbus-eth2
Jordan Hrycaj	1	
Kim De Mey	1	ethereum/portal-network-specs, status-im/nimbus-eth1, status-im/nimbus-eth2
Prysm (10 contributors)	**9.5**	
Aarsh Shah	1	OffchainLabs/prysm
Bastin	1	OffchainLabs/prysm
Chris Karabats	0.5	
James He	1	OffchainLabs/prysm
Kasey Kirkham	1	OffchainLabs/prysm
Manu Nalepa	1	OffchainLabs/prysm
potuz	1	ethresear.ch/u/potuz, ethereum/EIPs, ethereum/consensus-specs, OffchainLabs/gohashtree, OffchainLabs/hashtree, OffchainLabs/prysm, hackmd.io/@potuz
Preston Van Loon	1	OffchainLabs/prysm
Satyajit Das	1	OffchainLabs/prysm

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Table 2 – continued from previous page

CONSENSUS CLIENTS	Weight	Contributions
Terence Tsao	1	ethresear.ch/u/terence/activity, ethereum/consensus-specs, OffchainLabs/prysm, hackmd.io/@ttsao
Teku (7 contributors)	**7**	ConsenSys/teku
Dmitrii Shmatko	1	Consensys/teku
Enrico Del Fante	1	Consensys/teku
Gabriel Fukushima	1	Consensys/teku
Lucas Saldanha	1	Consensys/teku
Mehdi Aouadi	1	Consensys/teku
Paul Harris	1	Consensys/teku
Stefan Bratanov	1	Consensys/teku

EXECUTION CLIENTS	Weight	Contributions
Erigon (16 contributors)	**15.5**	erigontech/erigon, erigontech/zilkworm
Alexey Sharov	1	
Andrey Ashikhmin	1	erigontech/erigon, erigontech/silkworm
Artem Tsebrovskii	1	
Giulio Rebuffo	1	
Ilya Mikheev	1	
Kewei Chen	1	erigontech/erigon
lupin012	0.5	erigontech/erigon, erigontech/rpc-tests, erigontech/silkworm
Mark Holt	1	erigontech/erigon
Matt Joiner	1	erigontech/erigon
Michelangelo Riccobene	1	erigontech/erigon, erigontech/silkworm
Milen Filatov	1	erigontech/erigon
M Sudeep Kumar	1	erigontech/erigon
Paweł Bylica	1	ethereum/evmone
Somnath Banerjee	1	
Tullio Canepa	1	erigontech/erigon, erigontech/silkworm
Willian Mitsuda	1	erigontech/erigon
Geth (8 contributors)	**8**	ethereum/go-ethereum
Bosul Mun	1	ethereum/go-ethereum
Csaba Kiraly	1	ethresear.ch/u/cskiraly, ethereum/go-ethereum
Gary Rong	1	ethereum/go-ethereum
Jared Wasinger	1	EF, ethereum/go-ethereum
lightclient	1	EF, ethereum/eips, ethereum/execution-apis, ethereum/go-ethereum
Marius van der Wijden	1	
Sina Mahmoodi	1	ethereum/go-ethereum
Jonny Rhea	1	ethereum/go-ethereum

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Table 3 – continued from previous page

EXECUTION CLIENTS	Weight	Contributions
Hyperledger Besu (14 contributors)	**13.5**	hyperledger/besu
Ameziane	1	hyperledger/besu
Daniel Lehrner	1	hyperledger/besu
Fabio di Fabio	1	hyperledger/besu
Gabriel Trintinalia	1	hyperledger/besu
Gary Schulte	1	hyperledger/besu
Jason Frame	1	hyperledger/besu
Justin Florentine	1	hyperledger/besu
Kanchan Kaur	0.5	hyperledger/besu
Karim Taam	1	hyperledger/besu
Luis Pinto	1	Consensys/tuweni, hyperledger/besu, hyperledger/besu-verkle-trie
Matilda Clerke	1	hyperledger/besu
pinges	1	hyperledger/besu
Sally Macfarlane	1	hyperledger/besu
Simon Dudley	1	hyperledger/besu
Nethermind (16 contributors)	**12**	NethermindEth/nethermind
Ahmad Bitar	0.5	NethermindEth/nethermind
Alexey Osipov	1	NethermindEth/nethermind, NethermindEth/nethermind
Anders Kristiansen	0.5	NethermindEth/nethermind
Ben Adams	1	NethermindEth/nethermind
Carlos Bermudez Porto	0.5	NethermindEth/nethermind, NethermindEth/nethermind
Damian Orzechowski	0.5	NethermindEth/nethermind
Kamil Chodoła	1	NethermindEth/nethermind
Łukasz Rozmej	1	NethermindEth/nethermind, NethermindEth/nethermind
Marc Harvey-Hill	1	NethermindEth/nethermind, NethermindEth/nethermind
Marcin Sobczak	1	NethermindEth/nethermind, NethermindEth/nethermind
Marcos Maceo	0.5	NethermindEth/nethermind, NethermindEth/nethermind, NethermindEth/gas-benchmarks
Marek Moraczyński	0.5	NethermindEth/nethermind, NethermindEth/nethermind
Maksim Menshikov	1	NethermindEth/riscv-alpine-build, NethermindEth/bflat-riscv64, NethermindEth/dotnet-riscv
Muhammad Amirul Ashraf	1	NethermindEth/nethermind
Oleksii Bespalov	0.5	NethermindEth/nethermind
Ruben Buniatyan	0.5	NethermindEth/nethermind
Reth (7 contributors)	**4.5**	paradigmxyz/reth
Alexey Shekhirin	0.5	
Arsenii Kulikov	0.5	paradigmxyz/reth
Dan Cline	1	
DaniPopes	0.5	paradigmxyz/reth, paradigmxyz/revmc

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Table 3 – continued from previous page

EXECUTION CLIENTS	Weight	Contributions
Dragan Rakita	1	bluealloy/revm
joshieDo	0.5	paradigmxyz/reth
Matthias Seitz	0.5	

2.1.5 UPGRADE DELIVERY

- Overview: the process of bringing each bundle of spec changes to mainnet as a hard fork/upgrade
- 5 Working Groups, 30 contributors, 29 total weight
- Venue: ACDT
- Artifacts: Dev/testnets

Group	Weight	Contributions
Dev/Testnets (9 contributors)	**9**	
Andrew Davis	1	ethpandaops
Barnabas Busa	1	ethpandaops
Mário Havel	1	
Matt Evans	1	ethpandaops
Parithosh Jayanthi	1	ethpandaops
pk910	1	ethpandaops
Rafael Matias	1	ethpandaops
Sam Calder-Mason	1	ethpandaops
Stefan Starflinger	1	ethpandaops
Testing (9 contributors)	**9**	
Alex Vlasov	1	TXRX, ethresear.ch/u/ericsson49, ethereum/consensus-specs, hackmd.io/@ericsson49
danceratopz	1	ethereum/execution-spec-tests
Felipe Selmo	1	ethereum/execution-spec-tests
Felix Hoffmann	1	ethereum/execution-specs, ethereum/execution-spec-tests
Keri Clowes	1	ethereum/execution-specs, *ethereum/execution-spec-tests*
Leo Lara	1	ethereum/consensus-specs
Louis Tsai	1	ethereum/execution-specs
Mario Vega	1	ethereum/execution-spec-tests
Spencer Taylor-Brown	1	ethereum/execution-spec-tests
EthereumJS (2 contributors)	**1**	
Gabriel Rocheleau	0.5	ethereum/ethereumjs-monorepo
Scotty Poi	0.5	ethereumjs/ethereumjs-monorepo, ethereumjs/ultralight
Security (7 contributors)	**7**	
Andrés Jiménez Láinez	1	ethereum/protocol-security
Antoine James	1	ethereum/protocol-security
Bhargava Shastry	1	ethereum/protocol-security
Fredrik	1	ethereum/protocol-security
Nikos Baxevanis	1	ethereum/protocol-security
Tyler Holmes	1	ethereum/protocol-security
Yassine Ferhane	1	ethereum/protocol-security

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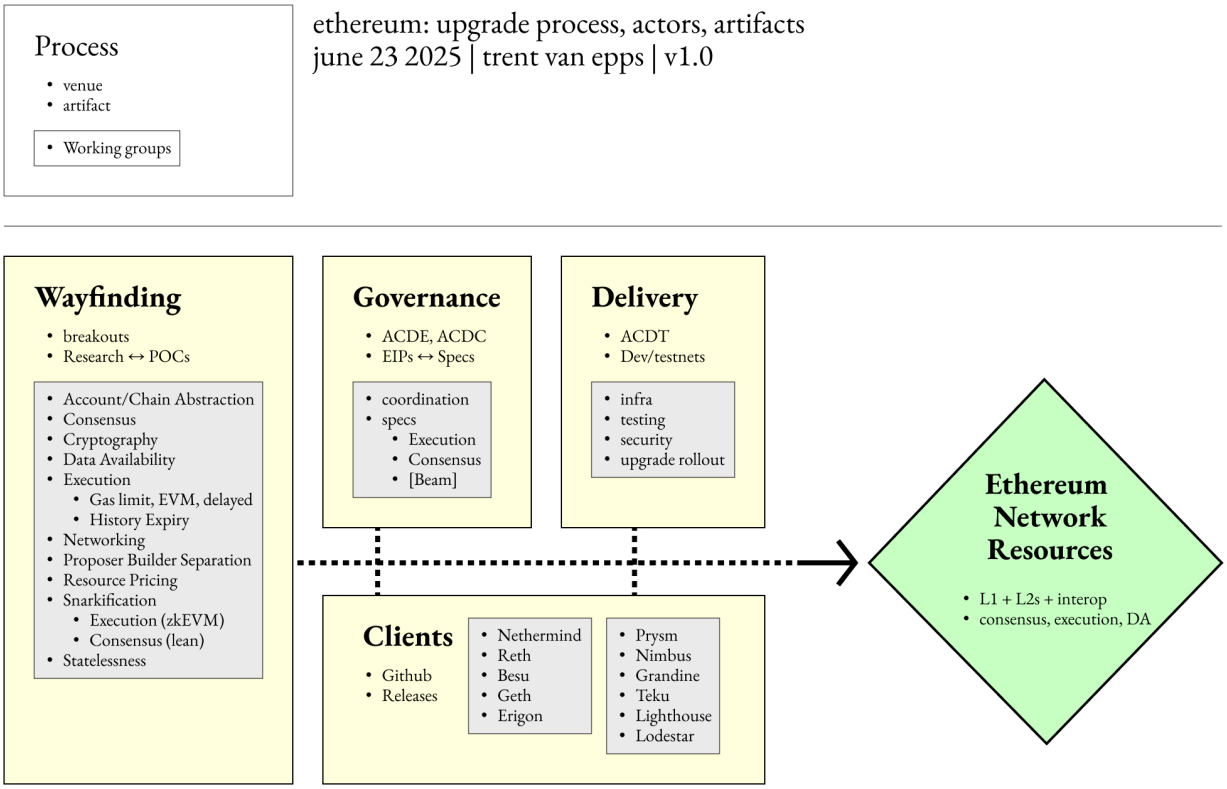
Table 4 – continued from previous page

Group	Weight	Contributions
Funding + PG Operations (3 contributors)	**3**	
cheeky-gorilla	1	protocolguild/documentation, protocolguild/protocol-guild-site, Funding (+ maintaining dune dashboard itself)
Peter Vecchiarelli	1	protocolguild/documentation, protocolguild/protocol-guild-site, Funding (Dune Dashboard)
Trenton Van Epps	1	protocolguild/documentation, protocolguild/protocol-guild-site, Funding (Dune Dashboard)

*Note: Protocol Guild's Split contract contains all the above members plus one additional address used for entity expenses, as you can read about here.



2.1.6 Alumni Members

We're grateful to our former members who have helped us bootstrap Protocol Guild while building Ethereum for the world.

- Aditya Asgaonkar
- Adrian Sutton
- Afri

- AgeManning
- Andrei Maiboroda
- Andrew Day
- Artem Vorotnikov
- axic
- Ayman Bouchareb
- Bartosz Zawistowski
- battlmonstr
- Ben Edgington
- Courtney Hunter
- czhang-fm
- Dadepo Aderemi
- Daniel Kirchner
- dankrad
- Danno Ferrin
- danny ryan
- Davide Crapis
- dceleda
- Diva Martínez
- domothy
- dryajov
- dtheo
- Echo
- emhane
- Enrique Avila Asapche
- Federico Gimenez
- Felix Lange
- g11tech
- Harikrishnan Mulackal
- Henri Dubois-Ferriere
- Holger Drewes
- Hsiao-Wei Wang
- Hugo De la cruz
- Jacek Glen
- jacobkaufmann
- Jamie Lokier

- Jason Carver
- Jim McDonald
- Jiri Peinlich
- Johnson Ugwuru
- Jorge Mederos
- joshie
- Kaan Uzdogan
- Kamil Sliwak
- Karim Taam
- Kolby Moroz Liebl
- Konrad Staniec
- Kristof Gazso
- Leonardo Bautista-Gomez
- Leonardo de Sa Alt
- Mamy Ratsimbazafy
- Mark Simkin
- Martin Swende
- Mateusz Jędrzejewski
- Matt Nelson
- Mehdi Zerouali
- Micah
- Michael Ferris
- mikeneuder
- mmaller
- Mohamed Zahoor
- nghita
- Nishant Das
- Ognyan Genev
- paulhauner
- pdobacz
- Peter Szilagyi
- Piper Merriam
- Pop
- Proto
- racytech
- Radosław Kapka

- Raul Jordan
- rodiazet
- Roman Krasiuk
- RomanHodulak
- Ryan Ghods
- Sammy Rosso
- Sarah Liu
- scorbajio
- Shoham Chakraborty
- Somu Bhargava
- Sophia Gold
- Ștefan Talpalaru
- Tanishq Jasoria
- Taran Singh
- tkstanczak
- Voith
- wdimitry
- Zahary Karadjov
- zhenfei zhang

2.1.7 1.2 Eligibility Requirements

To satisfy our requirements, working groups and members must:

- Champion Ethereum's ethos of decentralization, credible neutrality, censorship resistance and permissionlessness
- Be fully open source under an Open Source Initiative (OSI) approved License
- Have a regular presence in Ethereum R&D or governance venues like ethresear.ch, Ethereum Magicians, protocol calls (e.g. AllCoreDevs, breakouts, testing/interop, etc.)
- Be engaged in feature prototyping (e.g. EIPs, devnets, etc.)
- Have been contributing continuously for **at least 6 months** ahead of inclusion. This work must be ongoing (e.g. not a short-term or one-off project). To avoid removal from the current membership, any breaks in contribution must be shorter than 1 quarter (3 months). Beyond this length, the member should be moved to "Inactive" status until contribution resumes.
- Be contributing in a roughly full-time capacity. Anything less receives a partial weighting.

Additional Context

The eligibility framework is a "best effort representation" of Ethereum Layer 1 R&D. It tries to be sufficiently accommodating to what is the core protocol, but not any broader.

- One frame is "strictly necessary and existential software required to produce blocks and advance the chain" (eg. MEV boost and light clients are omitted here as they are not required for local block production and are not implicated in consensus activities). The vast majority of PG funded work meets this definition, though there are some exceptions.
- This framework has been modified previously and will likely continue to be: more restrictive in some places and more permissive in others.
- Contributing to the working groups above above does not guarantee Protocol Guild membership.
- While this list tries to be explicit when possible linking to specific repositories, there are some research areas which can't be linked to a single source and may still be considered eligible.
- Formal organizational affiliations are not necessary for membership. It may be the case that some members of an organization will be eligible but others will not be.
- Independent or unaffiliated contributors are considered by the same guidelines as any contributors "officially" part of teams/projects.

2.1.8 1.3 Self-Curation

Adding and Removing Working Groups

Changing the eligibility framework can be made through a PR to the documentation repo. This PR should add the project in the appropriate category, along with the following info:

- Name of project
- Eligibility start date for the project (if being added)
- Summary of why this project should be considered eligible/ineligible

The eligibility start date for the project is the date at which the project met the Eligibility criteria above (eg. after open sourcing). This is the earliest date that future Protocol Guild members can use to count contributions towards the project.

Adding and removing members

An existing member should make a PR at this repo which proposes an addition to the member list above, along with the accompanying info:

- Name / Identifier
- Affiliated eligible project
- proposed weight
- Links to relevant eligible work, eg. GitHub, research
- 3-4 sentence summary of their contributions

See some examples here: open or closed PRs

Discussion should be open for at least one week to give members time to review and discuss. Bias or conflicts of interest of the nominator should be disclosed, if they exist, e.g. where one is an advisor to the other's side project. After one week of rough consensus, the PR should be merged or rejected.

Self-Removal, Affiliation, Weights

Removals from the active membership should come from the member themselves, i.e. self-removal, by opening a PR in the same repo. Example here. Where this isn't possible due to extenuating circumstances, the member should be notified or tagged on the PR so they are aware of the changes.

Affiliation and weight changes should include some rationale for the change, ideally from the member themselves and seconding by a colleague.

Peer Removal

Peer removals can occur when a member stops contributing to eligible work, and is not responsive to requests to self-remove (as described above). In such cases, another member (ideally from the same team) can propose to remove the inactive member.

There may also be situations when another member proposes the removal of an existing member, even if they are continuing with eligible work. This should only happen in special circumstances where the removed member's contributions are far below what would generally be expected, or in the case of other grave misconducts. The PR should include ample documentation and justification for the removal. To date, this method has never been used.

2.1.9 1.4 Member Rights

Split Share

Each member's share of the split contract is calculated using member-specific inputs. There are two parts to the calculation:

1. Calculate each member's `time_weight`: `time_weight = SQRT((start_date - months_inactive) * full_or_part_time)`
2. Normalize `time_weight` as a percentage: `split_share` = (`time_weight` / `total_time_weights`) * 100

This formulation recognizes the local knowledge contributors gain over time, and uses that as a proxy for "value to the commons" and to allocate funding to members. Existing contributor weights get "diluted" as newcomers show up. Continuing contributors get additional weight per month they are active.

Each member's time-weight is updated onchain every quarter along with an Ethereum address they control to allocate the funding flowing through the mechanism.

Time Weight

`time_weight` is a floating point number representing the square root of the time a member has been contributing to Ethereum (measured in months). It has the following components:

`time_weight` = `SQRT`((`start_date` - `months_inactive`) * `full_or_part_time`)

1. `start_date`

`start_date` is a date value representing the date when a member commenced contributing to Ethereum's L1 R&D. The earlier a contributor's `start_date`, the higher their overall Split share, rewarding them retroactively for historical contributions.

2. `months_inactive`

The mechanism tracks breaks to ensure weights are a fair representation of contributions.

When new members join, `months_inactive` can be used to account for time spent on non-eligible work or extended breaks. An example of this can be seen here. Note that although breaks can be tracked in this way, new members must still have contributed **continuously** for at least 6 months ahead of inclusion.

Existing members can take up to 3 months break without triggering a membership change.

3. `full_or_part_time`

- full-weight: 1.0x
- partial-weight: 0.5x

These multipliers roughly track the effort per week given by contributors. Full-weight is considered full-time, at least 40 hr/wk. Partial-weight is anything between 20 - 40 hr/wk.

4. `SQRT`

The final step of the formula uses a Square Root to compress the weight range. This is done to not overly privilege long-term members over newer contributors.

Time Weight Example

The table and graphs below illustrate how the 5 year weight change of a hypothetical three member Guild. The effect of the square root can be seen in how the difference between older and newer contributors gets smaller over time.

	0	12	24	36	48	60
Peer 1 (starting weight 6mo, full-time)	4.24	5.48	6.48	7.35	8.12	8.12
Peer 2 (starting weight 24mo full-time)	6.00	6.93	7.75	8.49	9.17	9.17
Peer 3 (starting weight 12mo, part-time)	3.46	6.00	6.93	7.75	8.49	8.49

Governance

Protocol Guild members govern the evolution of the mechanism, which may include:

- modifying high-level project eligibility
- discussing which smart contracts to use, and how to operate them
- setting parameters like how long vests should be
- how and where to fundraise
- the percentage of Split flows that the Foundation entity receives to account for various org expenses, including some compensation for select operational roles

Typically this takes the shape of rough consensus discussions. In some special cases, decisions need to be voted on or ratified - learn more here.

Governance **does not** include any control over any vesting funds. e.g. members can't vote to cancel or change the timeline of vesting funds - more details about our narrow scope of concern here.

2.1.10 1.4 Obligations

Members are expected to participate in curation. Consider these examples:

- an individual updating their personal status
- a colleague making updates on behalf of their team
- members giving input to shape the addition/removal process

Self-Curation

We use the term "self-curation" to describe how the membership selects its own beneficiary set. This is an important distinction between Protocol Guild and other public goods funding mechanisms. While curatorial bodies external to the beneficiary set are appropriate in some contexts, self-curation is well suited here for a few reasons:

1. Local actors have the most domain knowledge
    - Protocol Guild stakes its claim to legitimacy on the accuracy of its membership. This emerges from the perspectives and daily interactions of people that are already embedded: the core contributors themselves.

- Any external curating council would be outside of core protocol stewardship. To approximate the local knowledge that core contributors naturally already have (e.g. who is doing what work, at what level of contribution, with what team), an external council would have to be embedded in the same work.

2. Fewer classes of actors are easier to reason about operationally
    - Good mechanisms are simple. They should have the minimum sufficient operational surface area (or at least start there and layer in complexity). If something can be done with less, it should be.
    - External councils shift the operational onus to participants with a different incentive-set than beneficiaries. In the worst case, their goal is to maintain their position as curators - not to accurately curate the membership.
    - Additional governance processes would need to be set up for the membership to nominate and remove council members - more time, overhead, and bandwidth taken from the actual work of core protocol stewardship.
3. Mechanisms close to the core protocol should be robust
    - The Ethereum core protocol is expected to operate in an adversarial environment. In the same way, protocol funding mechanisms should be held to similarly high institutional standards: resistant to failure.
    - Inviting (read: obligating) all members to participate in curation sidesteps any dependency on a narrow class of mechanism operators like an external curation council.
4. Incentive compatibility
    - It is incentive compatible that curators (Guild members) are drawn from the beneficiaries (Guild members).
        - Adding beneficiaries removes future vested value from existing members. They will more carefully consider potential members and their contributions. An external council would not feel this constraint so directly.
    - The mechanism must accept all legitimate contributors
        - This prevents the set from ossifying or getting captured. Potential members which fit established guidelines need to be added to maintain credible neutrality to participants and sponsors. If donors think that the set is not curated well enough, they will not feel incentivized to contribute.

2.1.11 1.5 Quotes

We asked members why they think the Guild is important for Ethereum. Last updated May 21 2024.

Adrian Manning (Lighthouse) - "Lighthouse is the Rust implementation of Ethereum Beacon Chain, a key component in Ethereum's transition to PoS Although Lighthouse is one of a few major production Eth2 clients, it's imperative that more than 1 production client is used in the space to avoid the chain collapsing if bugs/vulnerabilities are found in a single client. Protocol Guild supports the teams working on minority clients, which is an important initiative." **Alex Stokes (Applied Research Group (ARG))** - "The Protocol Guild is an experiment in public goods funding that aims to align the incentives of core protocol contributors with the continued stewardship of the ecosystem by allowing these contributors to share in the value created by their hard work. This mechanism is important for the future of Ethereum as it ensures continuity of protocol direction, maintenance, and growth amongst a set of dedicated individuals who deeply care about realizing the collective vision that inspires everyone who interacts with our community." **Alex Vlasov (TXRX)** - "Ethereum - and blockchains, in general - unveils tremendous opportunities and one of them is building a more fair world. Protocol Guild serves several purposes: 1. It's an instrument for public goods funding, which is often underrated 2. It's a research and an exploration of innovative social mechanisms 3. It aims to support Ethereum Protocol contributors" **Ansgar Dietrichs (Consensus R&D (EF))** - "I strongly believe that not enshrining a contributor funding mechanism into the base chain was the correct choice for Ethereum (crucial for its credible neutrality). But in order to keep attracting top level talent to the core dev space, we need to experiment with out-of-protocol ways of funding. Protocol Guild is a very exciting project in that regard and hopefully a first step towards a sustainable funding structure." **Anton Nashatyrev (TXRX)** - "I would really love to see Guild as an instrument for long term incentivisation of people who just want to develop Ethereum and don't want to worry about buying food for themselves

tomorrow " **Carl Beekhuizen (Consensus R&D (EF))** - "As researchers we spend a lot of time worrying about incentive compatibility. This guild nudges us towards a better incentive landscape for those working on the protocol." **danceratopz (Testing (EF))** - "I believe the Protocol Guild will play an important role in helping ensure a sustainable future for Ethereum as a foundational public good. Its infrastructure enables Ethereum projects to channel funds into the protocol's continuous enhancement, thereby incentivizing and helping retain the dedicated individuals who work on its development. This system of support allows Ethereum's growth without reliance on a single or a collective group of entities. It even paves the way for core developers to operate independently of any organization, sustained by Guild-facilitated funding." **Danny Ryan (Consensus R&D (EF))** - "Public goods are hard." **Davide Crapis (Robust Incentives Group (RIG))** - "Public goods are the backbone of a thriving ecosystem." **Dmitry Khovratovich (Cryptography (EF))** - "We work on a number of projects: VDFs, zero knowledge protocols, validator secure selection, – which all make Ethereum 2.0 faster, secure, and simple. We are taking the best from the most advanced cryptographic schemes today, and sometimes invent new ones." **Fredrik (Protocol Security (EF))** - "Funding public goods/FOSS, especially on an individual level, is hard. Protocol Guild helps make this easier for individuals from across the world to partake in the future of Ethereum without also having to be part of a larger organization. By creating this sustainable effort, the Protocol Guild is helping to further provide long term health of the protocol layer, which is crucial for the applications running on top of it, by rewarding those who help build it." **Gabriel (EthereumJS)** - "The sustainable and community-driven funding mechanic introduced by the Protocol guild will increasingly become, I believe, a foundation ensuring the perennity of the Ethereum ecosystem. It aligns us with our core decentralization ethos while at the same time rewarding and incentivizing long-term contributions to a groundbreaking public good." **Gary Schulte (Hyperledger Besu)** - "Narrowing the incentive gap between Ethereum core-protocol work and the more lucrative application space is an important effort worth putting time and resources into. " **Holger Drewes (EthereumJS)** - "The Protocol Guild is a great chance to align core protocol incentivization with the core values Ethereum stands for." **Jason Carver (Portal Network (EF))** - "We should explore many approaches for supporting collaboration. It's a valuable and hard problem to generate and maintain public goods." **Jimmy Chen (Lighthouse)** - "Protocol Guild is an exciting, well-planned initiative, offering core protocol contributors in an open-source ecosystem the chance to share in its ongoing success. Its self-curated approach aligns incentives and values among members, which is key to the sustainability of Ethereum's development." **Jordan Hrycaj (Nimbus)** - "Giving as much agency to independent contributors as possible." **Justin Florentine (Hyperledger Besu)** - "Funding public goods is a hard problem, I look forward to making some mistakes along the way so others can learn from us. Someone's gotta try!" **Mark Mackey (Lighthouse)** - "Every core developer I've talked to is well aware that they can earn significantly more working in other fields or even just at the application layer. I personally couldn't even afford to join this effort until I was able to subsidize myself. This is strange for an industry acutely aware of incentive structures. If we care about the long-term heath of the base layer, it is important we mitigate this so we can attract and retain talent." **Matt Nelson (Hyperledger Besu)** - "Ethereum, future-proofed" **Matthew Keil (Lodestar)** - "We live under a shadow that few in the world know exists. Blockchain is a key to shining a light into the dark corners of society, and to bring trust to the forefront. Open-source will move us toward the egalitarian utopia we all dream of, and we are the warriors to write those lines of code!" **Michael Sproul (Lighthouse)** - "I love that Protocol Guild centers individual contributors ahead of organisations, and in doing so grants autonomy to all of the people working on Ethereum's base layer. We have an opportunity to prove the viability of an alternative funding model for public goods, which I hope will inspire many more experiments in radical economic coordination." **Mike Neuder (Applied Research Group (ARG))** - "I love the idea of public goods developers and maintainers receiving some of the financial upside of the projects that are built on that foundation. It helps align incentives and motivates important foundational work to continue!" **Nazar Hussain (Lodestar)** - "Mass adoption is the fundamental requirement for any disruptive innovation that could change the world. And for that infrastructure involving that innovation is the key pillar. The Protocol Guild can strengthen that pillar and hence will prove to be the best operational strategy for the betterment of the Ethereum Ecosystem. " **Nishant Das (Prysm)** - "The Protocol Guild helps keep core developers focused on protocol work rather than jumping to the application layer where the upside is significantly more. Having a sustainable source of funding for public goods such as protocol work is valuable. " **Phil Ngo (Lodestar)** - "Protocol developers and researchers create the base foundation for which Ethereum stands upon. The amount of responsibility bestowed upon them is not necessarily incentivized monetarily nor does value generated on Ethereum trickle down to the base layer for protocol development. The protocol guild is a valuable experiment to incentivize great minds to contribute to the long-term future of Ethereum while having their basic needs met." **pk910 (ethPandaOps)** - "PG is a great way to distribute donations to those who work on the open source core of ethereum. It appreciates those who spent a lot of time on getting ethereum where it is today and helps keeping those core developers attracted and motivated. " **Pooja Ranjan (Ethereum Cat Herders)** - "Incentivizing contributors is

a great way to keep them motivated for ongoing work. Many of us started as volunteers and I am expecting more to join in the future. Protocol Guild is a well planned initiative to incentivize community contributors to the Ethereum protocol development work." **potuz (Prysm)** - "End user applications stand on the shoulders of core development. In a world with multiple competing personal and institutional interests, this project helps keeping those interests as far away from core Ethereum development as possible." **Preston Van Loon (Prysm)** - "Client software powers the Ethereum network! Crafting mechanisms to support the teams working on it long into the future is an important project." **Raul Jordan (Prysm)** - "The Ethereum Foundation has a philosophy of subtraction. That is, it aims to be irrelevant over time as grassroots teams take over development, research, and community. We started working on a consensus client because of the immense potential we see in introducing new engineers to build public goods for Ethereum, just as we did. We believe being an independent team that has built a popular client helps inspire others to do the same and grow the ethos of Ethereum's decentralized development. hopefully the Protocol Guild will also inspire more contributors to join us in maintaining the core protocol." **Somnath Banerjee (Erigon)** - "While individual contributors may always find a way to contribute to the Ethereum protocol, a streamlined funding project like the Guild would ensure sustained collective participation of talent. This is also necessary when we dive into more ambitious goals in the future, and we need the additional set of resources beyond the current teams and (possibly) L2s" **Taran Singh (Prysm)** - "I believe a future with a sustainable financial system is only possible when the people behind its success are working towards a common purpose without restriction and strings attached." **Tim Beiko (Protocol Support (EF))** - "Aligning the incentives of the people supporting the Ethereum protocol with the success of the applications built on top of it allows these motivated contributors to keep doing what they do best, building Ethereum, while also being rewarded with some of the value they help create. " **Tomasz Stanczak (Nethermind)** - "Protocol Guild is a well planned and honestly designed experiment for protocol development." **Toni Wahrstätter (Applied Research Group (ARG))** - "The Protocol Guild's significance in the Ethereum ecosystem cannot be overstated. It represents a vital mechanism for ensuring continuous improvement and innovation within Ethereum. By providing focused funding and support, the Guild empowers researchers and developers to continuously improve on the status quo without the constraints of financial limitations. This dedicated funding stream is crucial in attracting and retaining top talent, who are essential for driving Ethereum's evolution. The Guild's role in underpinning Ethereum's advancement lies in its ability to sustain a fertile ground for breakthrough ideas and implementations, ensuring that Ethereum not only maintains its pioneering status but also keeps evolving to meet future challenges and opportunities." **Trenton Van Epps (Protocol Support (EF))** - "The Protocol Guild is Ethereum itself beginning to comprehend its agency - I'm happy to be part of such an important initiative. Long-term maintenance of foundational internet infrastructure should accrue material social, cultural and financial benefits to contributors."

Anonymous Member Quotes

Guild Member (Anonymous) - "A diversified community will certainly benefit the entire Ethereum ecosystem in the long-term. I believe protocol guild is the right place to be for attracting multi-dimensional talents from various areas of strength, which is an ideal way that helps to maintain a healthy eco-system for the days to come." **Guild Member (Anonymous)** - "A huge ecosystem is building up upon the base Ethereum protocol. If we want this base layer to remain independent and maintained like a true public good, incentive alignment is a key factor. Let's make the Protocol Guild an inspiring and successful experiment! " **Guild Member (Anonymous)** - "Decentralized Apps. Decentralized Ecosystem. Decentralized Funding." **Guild Member (Anonymous)** - "Decentralized eco-systems are hard to build, and client diversity is harder but super important for a robust social *code* consensus on a protocol. That requires *on-par* commitment, perseverance, continuous innovation, learning and contributions. And not to mention community support!" **Guild Member (Anonymous)** - "Decentralized open source funding - what's not to love? Another example of the ethereum ecosystem paving the path for the future - this time for funding." **Guild Member (Anonymous)** - "Ethereum base layer is a core part of the Ethereum ecosystem. Incentivising people to keep contributing to the protocol will ensure the longevity of the network as well as let applications built on top of Ethereum thrive and become more accessible to the wide public. The Protocol Guild is a good start and I am excited to be part of it." **Guild Member (Anonymous)** - "Ethereum is bigger than the Ethereum Foundation - there's an entire community of teams and individuals doing important work. However, many depend on salaries from an entity they are associated with. The PG project fills this vacancy and lets the community fund protocol devs. This decentralized funding mechanism will be critical for attracting and retaining Ethereum protocol builders." **Guild Member (Anonymous)** - "Ethereum is public infrastructure for the world. Building infrastructure is hard, because everyone wants to enjoy it, but no one wants to be the chump left paying the bill, which often induces zero-sum thinking and protecting one's own interests rather

than contributing. Protocol Guild ensures stability for those who choose to contribute and creates an environment of positive-sum thinking, powered entirely by the Ethereum ecosystem and the value it brings to the world." **Guild Member (Anonymous)** - "I believe Protocol Guild will produce good incentives for Core Devs to stay focused on building the protocol." **Guild Member (Anonymous)** - "I believe that the Protocol Guild will help to retain and attract the talent necessary for building and maintaining the foundation of the Ethereum ecosystem." **Guild Member (Anonymous)** - "I believe this experiment will result in a great precedent on how to keep the core values of the Ethereum protocol alive and relevant." **Guild Member (Anonymous)** - "I think open source is really important today and is one of the pillars of the world today, and it is going to be more and more important in future, but as today a proper way to reward its developers is missing, so I hope that this experiment will create the basis for a wider approach that could improve the sustainability of open source development." **Guild Member (Anonymous)** - "Incentive alignment is one of the core issues that impact the long term health of a software/network. I think the Protocol Guild helps solve a part of the incentive alignment problem by allowing members to gain exposure to the network they are developing. I feel like it will go a long way in helping keep and onboard new core developers, as well as ensure everyone has skin in the game." **Guild Member (Anonymous)** - "It is an interesting concept to fund the Ethereum project, provides both funds and incentives/reward for core devs to do more, and that in my opinion set this open source community a part from the rest." **Guild Member (Anonymous)** - "It is important that we allow those that contribute to the core protocol the opportunity to be financially rewarded on a similar scale as those that choose to operate in the private sector. Without such a mechanism, the choice to work on the core protocol is also a choice to forfeit monetary rewards offered elsewhere, which in many cases, will lead to continual attrition of talent into the private sector." **Guild Member (Anonymous)** - "It is important to retain talent in this industry, and the Protocol Guild provides a mechanism for doing so. Decentralized public goods funding of the researchers and developers that build the underlying technology have good chances of benefitting the applications built on top, long term." **Guild Member (Anonymous)** - "It should help to bring and keep talents in the Ethereum core dev group." **Guild Member (Anonymous)** - "It's great to see the incentive problem trying to be solved for existing and also new Guild Member (Anonymous)s." **Guild Member (Anonymous)** - "It's sad that those who develop open technologies have historically profited far less than those who build on top of open technologies. I think that the Protocol Guild is the start of something very important to Ethereum." **Guild Member (Anonymous)** - "Let's make base layer r&d long term sexy!" **Guild Member (Anonymous)** - "Material funding makes developers feel as a part of something big and important. In turn, this motivates them to do a better job, which contributes to progress." **Guild Member (Anonymous)** - "maybe the log4j exploit might not have happened with more funding, let's try to make the same not happening on Ethereum." **Guild Member (Anonymous)** - "Motivating talent towards Ethereum development is critical to stay competitive in this dynamic industry." **Guild Member (Anonymous)** - "PG crucially provides independent incentives for open-source contributors to maintain their contributions for a long period of time." **Guild Member (Anonymous)** - "PG is a powerful mechanism as it essentially decentralises funding for protocol work, and empowers anyone to step up and contribute." **Guild Member (Anonymous)** - "PG is one of the only ways of funding open-source software that seems like it will both actually scale, and meaningfully compensate contributors. Ethereum is built on open source software. Sustainably supporting its development is an achievement in itself, and required for Ethereum to succeed." **Guild Member (Anonymous)** - "Protocol contributors enable the creation of value. Rewarding them proportionally to the value created can sustain their work and attract additional talent. Token contributions from successful projects is a great way to achieve that." **Guild Member (Anonymous)** - "Protocol guild encourages the various contributors to stay in the project for a long time, work hard and gain more and more experience to achieve the agreed objectives. " **Guild Member (Anonymous)** - "Protocol Guild is a great way to reward Ethereum core developers for the infrastructure work that they are doing." **Guild Member (Anonymous)** - "Protocol Guild is a platform for the community to acknowledge and appreciate the talent and dedication that keeps Ethereum going." **Guild Member (Anonymous)** - "Protocol Guild is one of the most important efforts within Ethereum right now because it creates an independent parallel structure for supporting core development. This is very unique across the whole crypto ecosystem where we see many projects struggling from lack of decentralized support of contributors. " **Guild Member (Anonymous)** - "Prysm implements the ethereum beacon chain proof of stake protocol. The beacon chain is important because eliminating proof of work is a moral imperative. Multiple implementations of the beacon chain do and should exist for the resilience of the network. prysm is written in go, which is a language designed to minimize the complexity of strongly typed, highly concurrent source code. This means that prysm can be performant, have good support for safety and correctness, while also being built from source code that is easier to read and audit than other system languages. More eyes on the implementation should lead to greater understanding of how the system works and more confidence in the network." **Guild Member (Anonymous)** - "The backbone of Ethereum is its diversity and the resilience it fosters. In order to safeguard its evolution, it's crucial to maintain a broad array of contributors

who work in sync towards common goals. The Protocol Guild underlines this approach, by establishing a sustainable incentive model that supports those committed to the continued development and protection of Ethereum's open-source protocol. This initiative plays an instrumental role in ensuring a healthy, robust, and fair landscape for Ethereum's future." **Guild Member (Anonymous)** - "The domain is inherently complicated, so there need to be incentive to attract capable developer. Relatively speaking, it also requires pretty beefy equipment (large capacity ssd) whose cost can add up." **Guild Member (Anonymous)** - "The Ethereum Foundation, however successful beyond what might have been reasonably expected of it, still comprises a single point of failure. The protocol guild can help ensure the values the foundation has helped shepherd can sustainably adapt in a decentralized fashion consistent with Ethereum's core principles." **Guild Member (Anonymous)** - "The Ethereum Protocol needs careful and long-term thinking. Despite core-devs are very value driven, their short lifetime (compared to the pretended Ethereum lifetime) introduces some economic opportunity costs which can put Ethereum development at risk. Funding is just a problem that gets in the way between the protocol development and core-devs. I wish PG can fix this problem!" **Guild Member (Anonymous)** - "The Guild is a great way to assure the high quality of contributions while diversifying the set of contributors, leading to solid and always-improving protocols for the whole ecosystem." **Guild Member (Anonymous)** - "The Guild will help retain existing and attract new talented contributors to the Ethereum revolution." **Guild Member (Anonymous)** - "The Protocol Guild plays a vital role in expanding the Ethereum ecosystem by attracting skilled individuals to the blockchain space. By rewarding highly engaged participants, it provides an additional incentive to drive continuous improvement. Furthermore, the Guild fosters collaboration among key stakeholders within Ethereum, facilitating crucial discussions on pressing topics. This collective effort ultimately unites contributors under a shared objective: to enhance the decentralized world for the better." **Guild Member (Anonymous)** - "The whole is greater than the sum of the parts. But without the parts there is no whole. This project addresses the parts without diminishing the whole." **Guild Member (Anonymous)** - "This type of a public funding should be main source of funds for such a projects like Ethereum blockchain research and development." **Guild Member (Anonymous)** - "With its rewards beyond casual wages or project grants, Protocol Guild inspires members to apply their efforts to the Ethereum development in unrehearsed ways and directions where forces of EF and big companies are missed. It preserves the strong community engagement over major pathways, which safeguards Ethereum's decentralization."

2.2 2. Smart Contract Architecture

This section describes Protocol Guild's current smart contract architecture. You can learn more about the pilot's architecture here.

Protocol Guild uses smart contracts created by Splits to trustlessly manage the vesting and distribution of donated funds. All donations are deposited into immutable vesting contracts, which vest funds into pass-through wallets, before being transferred to split contracts for distribution to the membership.

The mainnet split contract also serves as Protocol Guild's membership registry of Ethereum's active core protocol contributors. A DAO is used to ratify changes to the membership onchain every quarter.

2.2.1 2.1 Modules

The Guild's smart contract architecture is modularized as follows:

Vesting Contract

The Guild's donation addresses on Ethereum mainnet, Arbitrum, Base and Optimism are immutable vesting contract, built by the Splits team, which irrevocably vests donated funds on a linear (block-by-block), basis. Here, "irrevocably" means donations **cannot** be stopped or otherwise redirected during the vest by anyone, be it the donor or Protocol Guild membership. Anyone can donate ETH and ERC-20 tokens to these vesting contracts.

NFT donations are not supported - standard NFT transfers (safeTransfer) will be rejected by the contract (i.e. meaning the transaction will fail), while non-safeTransfer NFT donations will be lost.

How it works:

- Donated tokens will accrue in a per-asset queue until a vesting stream is started for that batch of tokens, by triggering the `startStream` function (permissionless, as in any actor can trigger this function, regardless of whether they are a Guild member)
- Once the vesting stream is started, the tokens will vest linearly, and anyone can permissionlessly trigger `releaseStream` to push any vested tokens into a pass-through wallet (this must be done per vesting stream)
- Official documentation: https://docs.splits.org/core/vesting

All donated tokens are thus forced to vest - there is no way to do anything with them until they are vested into the pass-through wallet.

Deployed Vesting Contracts:

- Mainnet
  - 1-Year Vest: 0x4EA88fa76848a8BBAB72613d4171df1eBcf68399
  - 4-Year Vest: 0x25941dc771bb64514fc8abbce970307fb9d477e9
  - Deprecated:
    - Pilot Vest: 0xF29Ff96aaEa6C9A1fBa851f74737f3c069d4f1a9
- Arbitrum
  - 1-Year Vest: 0x8ee2AcfEbd311c1cF8d74448E207B4960EaCf599
  - 4-Year Vest: 0x7F8DCFd764bA8e9B3BA577dC641D5c664B74c47b
- Base
  - 1-Year Vest: 0xffaaCCFe120f3fC47f42102cF4F28e837cd49A20
  - 4-Year Vest: 0xd16713A5D4Eb7E3aAc9D2228eB72f6f7328FADBD
- Optimism
  - 1-Year Vest: 0x7a489D5Fedd52f561b73EC8B0a164c0BD36036A2
  - 4-Year Vest: 0x58ae0925077527a87D3B785aDecA018F9977Ec34
  - Deprecated:
    - 0xB3d8d7887693a9852734b4D25e9C0Bb35Ba8a830

Pass-Through Wallet

All funds from vesting contracts go into a pass-through wallet (PTW), built by the Splits team, which pools vested tokens to be pushed to split contracts.

The PTW allows the Guild's membership to make arbitrary calls with vested tokens if needed, since the current split contract does not have such functionality. For the avoidance of doubt: the PTW can only be used to interact with tokens which have already finished vesting. Tokens still vesting in vesting contracts cannot be prematurely interacted with.

How it works:

- The PTW has a permissionless `passThrough` function, which allows anyone to push vested funds accumulated in the PTW to the contract's `passThrough`, which is set to the Guild's split contract.
- The PTWs owner (the Guild's DAO), can pause / unpause the contract by changing the `paused` value, allowing the owner to move specific tokens using arbitrary calls instead.
- The PTW owner can also update the `passThrough` recipient if needed e.g. if the Guild migrates to a different split contract in the future
- Official documentation: https://docs.splits.org/core/pass-through

Deployed PTWs:

- Mainnet:
  - 0x2E1A2823B6e65e6AC46BaD6e0Cc4096976Fc265E
- Arbitrum:
  - 0x613d2d0dcbe95e2f06e1fa6651633ceb17b58dbf
- Base:
  - 0xfcdf7254cca539f87f732c4bc19356a3d856a9b1
- Optimism:
  - 0xd62f993fa6a2d15815795c377cf5c9ccce81f499

Split Contract

Split contracts, built by the Splits team, contain all Guild members' addresses and their respective share of vested funds (based on the time-weight formula). Unlike the vesting contract, the split contract is mutable, as it needs to be updated quarterly to reflect changes to the membership (i.e. members being added or removed), as well as to update member weights over time.

How it works:

- Distributions:
  - The `distribute` function allocates tokens in the split contract to Guild members according to their weights (it does not move the funds into the member wallets)
  - Once distribute has been triggered, members can trigger the `withdrawForMyself` function to deposit tokens into their wallets
  - Distributions are permissioned to the Guild's DAO on mainnet, and multisigs on L2s
    - On mainnet, split distributions are triggered once a week via so-called "scoped proposals", which require a simple majority but no quorum, while maintaining the 7-day voting period + 2 day grace period
    - On L2s, split distributions are triggered by multisigs on a monthly basis or when enough funds have accumulated for distribution
- Updates:
  - Split updates - member additions, removals and weight changes - are permissioned to the Guild's DAO on mainnet, and multisigs on L2s
    - On mainnet, split updates are triggered once a quarter via a DAO proposal which requires a simple majority plus 33% quorum, with a 7-day voting period + 2 day grace period
    - On L2s, split updates are triggered via multisigs once the mainnet DAO vote is complete
- Official documentation:
  - Split V1: https://docs.splits.org/core/split
  - Split V2: https://docs.splits.org/core/split-v2

Deployed Splits Contracts:

- Mainnet:
  - Split V2.1: 0xd982477216dadd4c258094b071b49d17b6271d66
  - Deprecated:

        * Pilot Split: 0x84af3D5824F0390b9510440B6ABB5CC02BB68ea1
        * Split V2.0: 0xd4ad8daba9ee5ef16bb931d1cbe63fb9e102ec10
- Arbitrum:
    - Split V2.1: 0xd982477216dadd4c258094b071b49d17b6271d66
- Base:
    - Split V2.1: 0xd982477216dadd4c258094b071b49d17b6271d66
- Optimism:
    - Split V2.1: 0xd982477216dadd4c258094b071b49d17b6271d66
    - Deprecated:
        * Split V2.0: 0xc20A515648ecC1f379fDF6ECE07552a9093F416E

DAO

The Guild currently uses an Agora DAO for onchain governance. The DAO includes all Guild members, with one person one vote, including vote delegation.

The DAO controls the Guild's PTW and split contracts on mainnet, but does otherwise not keep track of member weights, nor does it hold any funds.

How it works:

- The DAO is generally used for two purposes; (1) update the mainnet split and (2) trigger split distributions
    - Split updates are triggered once a quarter via a DAO proposal which requires a simple majority plus 33% quorum, with a 7-day voting period + 2 day grace period
    - Split distributions are triggered once a week via so-called "scoped proposals", which require a simple majority but no quorum, while maintaining the 7-day voting period + 2 day grace period
- All proposals need to be sponsored by an existing DAO member before the voting period starts
- "Signal proposals" may be used for membership-wide voting on important Guild matters

Deployed DAOs:

- Mainnet:
    - Agora DAO: 0x85d6bcc74877a1c6fc66a8cd14369f939663f68f
    - Deprecated:
        * Moloch V3 DAO 0x412a32dd71357bd12337f4408168df903f90cbd3

Multisigs

The Guild has deployed 6/10 Safe multisig contracts to control the PTW and split contract, and to claim funds on mainnet and optimism (when donations cannot be sent to the vesting contact directly). Multisigs are also used to receive donations on most L2s, and then bridge those funds to mainnet.

The multisigs' signers are not disclosed publicly, and are rotated regularly.

The aim is to reduce reliance on multisigs over time, to replace them with the DAO or other more trustless alternatives as the become available.

Safe official documentation: https://docs.safe.global/

Deployed Multisigs:

- Mainnet

  - PG Security Level 1 (PTW): 0xaaaa99a4660f97Ce648FcaE65BEf2f70CF9d404A
  - PG Security Level 2 (Split, ENS + foundation treasury reserves): 0xbbbbf78c3026E0F78dd69a131db8a144FfCc057E
  - PG Security Level 2 (Donation claimer): 0xdddd576bAF106bAAe54bDE40BCac602bB4a7cf79
  - PG Director's 2/3 0xccccEbdBdA2D68bABA6da99449b9CA41Dba9d4FF
  - Deprecated:
    * Pilot Donations: 0xF6CBDd6Ea6EC3C4359e33de0Ac823701Cc56C6c4
    * PGv2 Donations: 0x3250c2CEE20FA34D1c4F68eAA87E53512e95A62a
    * PGv2 Split Recipient 1: 0x69f4b27882eD6dc39E820acFc08C3d14f8e98a99
    * PGv2 Split Recipient 2: 0x0cDF1a78f00f56ba879D0aCc0FDa1789e415f23B
- Arbitrum
  - PG Security Level 1 (PTW): 0xaaaa99a4660f97Ce648FcaE65BEf2f70CF9d404A
  - PG Security Level 2 (Split): 0xbbbbf78c3026E0F78dd69a131db8a144FfCc057E
  - PG Security Level 2 (Donation claimer): 0xdddd576bAF106bAAe54bDE40BCac602bB4a7cf79
  - PG Director's 2/3 0xccccEbdBdA2D68bABA6da99449b9CA41Dba9d4FF
  - Deprecated:
    * Pilot Donations: 0x29031805D0f40E5dcDE21A236FB4a69e6e0423B2
    * PGv2 Donations: 0x32e3C7fD24e175701A35c224f2238d18439C7dBC
- Base
  - PG Security Level 1 (PTW): 0xaaaa99a4660f97Ce648FcaE65BEf2f70CF9d404A
  - PG Security Level 2 (Split): 0xbbbbf78c3026E0F78dd69a131db8a144FfCc057E
  - PG Security Level 2 (Donation claimer): 0xdddd576bAF106bAAe54bDE40BCac602bB4a7cf79
  - PG Director's 2/3 0xccccEbdBdA2D68bABA6da99449b9CA41Dba9d4FF
  - Deprecated:
    * Pilot Donations: 0x92B97eC7FE03b4e75Ebd54e4cbe3cd6950591353
    * PGv2 Donations: 0x32e3C7fD24e175701A35c224f2238d18439C7dBC
- Optimism
  - PG Security Level 1 (PTW): 0xaaaa99a4660f97Ce648FcaE65BEf2f70CF9d404A
  - PG Security Level 2 (Split): 0xbbbbf78c3026E0F78dd69a131db8a144FfCc057E
  - PG Security Level 2 (Donation claimer): 0xdddd576bAF106bAAe54bDE40BCac602bB4a7cf79
  - PG Director's 2/3 0xccccEbdBdA2D68bABA6da99449b9CA41Dba9d4FF
  - Deprecated:
    * Pilot Donations: 0x728D29E9E06cE5d846242692dF05467076c19849
    * PGv2 Donations: 0x32e3C7fD24e175701A35c224f2238d18439C7dBC
    * PGv2 (Split Controller + Split Recipient): 0x0cDF1a78f00f56ba879D0aCc0FDa1789e415f23B
- Polygon

    - PG Security Level 2 (Donation claimer): 0xdddd576bAF106bAAe54bDE40BCac602bB4a7cf79
    - PG Director's 2/3 0xccccEbdBdA2D68bABA6da99449b9CA41Dba9d4FF
    - PG Bridge 2/3 0x29b904695b511A5B749C759111eE57834bC72d8e
    - Deprecated:
        * Pilot Donations: 0x22BdFa4e038F71eEF5a7d2fc6daB383f8d54FD72
        * PGv2 Donations: 0x32e3C7fD24e175701A35c224f2238d18439C7dBC
- re.al
    - PGv2 Donations: 0x0E140Adb0a70569f0A8b3d48ab8c8c580939a120
- Scroll
    - PG Security Level 2 (Donation claimer): 0xdddd576bAF106bAAe54bDE40BCac602bB4a7cf79
    - PG Director's 2/3 0xccccEbdBdA2D68bABA6da99449b9CA41Dba9d4FF
    - Deprecated:
        * PGv2 Donations: 0x0cDF1a78f00f56ba879D0aCc0FDa1789e415f23B
- Shape
    - PGv2 Donations: 0x700fccD433E878F1AF9B64A433Cb2E09f5226CE8
    - PG Bridge 2/3 0x277D1536C010C14Fc0f4CCd8b2B6942387d4D980
- Zora
    - PGv2 Donations: 0x32e3C7fD24e175701A35c224f2238d18439C7dBC
    - PG Bridge 2/3 0x9d7c1E5De5e491Eb8DbB7a5043993F4524D537C4
    - Deprecated:
        * Pilot Donations: 0xD8cd6E414B28085E186968ee25cBba78dc28D6aa
- ZKsync
    - PGv2 Donations: 0x9fb5F754f5222449F98b904a34494cB21AADFdf8
    - PG Director's 2/3 0x42b6846549aC160a5c607193CC9d481ebb79edc7

2.3 3. Donate

The Protocol Guild's funding mechanism was designed to remove friction associated with supporting Ethereum's core protocol development, by providing a single onchain address which vests funds directly to active core protocol contributors over time.

All donations can be seen in Protocol Guild's Dune Dashboard.

Note that there are different donation addresses depending on if you're donating on Ethereum mainnet or L2s / other chains!

2.3.1 3.1 Mainnet

theprotocolguild.eth 0x4EA88fa76848a8BBAB72613d4171df1eBcf68399

The Guild's mainnet donation address is an immutable vesting contract which trustlessly vests donated funds over 1 year. Vested funds get pushed into a pass-through wallet, which in turn sends funds to a split contract for distribution to the membership. You can read more about this smart contract architecture here.

Important: The vesting contract only supports ETH and ERC20 tokens, and cannot claim funds. For other tokens, or if donations need to be claimed, please use the following multisig instead: 0xdddd576bAF106bAAe54bDE40BCac602bB4a7cf79

2.3.2 3.2 L2s / Other Chains

Apart from Ethereum mainnet, vesting contracts have been deployed on Arbitrum, Base and Optimism. For other L2s / chains, multisigs have been deployed to receive donations. Multisig funds will be transferred or bridged into vesting contracts periodically.

Important: The vesting contracts only support ETH and ERC20 tokens, and cannot claim funds. For other tokens, or if donations need to be claimed, please use the indicated multisigs instead.

Arbitrum

- 1-Year Vesting Contract: 0x8ee2AcfEbd311c1cF8d74448E207B4960EaCf599
  - Multisig: 0xdddd576bAF106bAAe54bDE40BCac602bB4a7cf79

Base

- 1-Year Vesting Contract: 0xffaaCCFe120f3fC47f42102cF4F28e837cd49A20
  - Multisig: 0xdddd576bAF106bAAe54bDE40BCac602bB4a7cf79

Optimism

- 1-Year Vesting Contract: 0x7a489D5Fedd52f561b73EC8B0a164c0BD36036A2
  - Multisig: 0xdddd576bAF106bAAe54bDE40BCac602bB4a7cf79

Polygon

- Multisig: 0xdddd576bAF106bAAe54bDE40BCac602bB4a7cf79

Scroll

- Multisig: 0xdddd576bAF106bAAe54bDE40BCac602bB4a7cf79

Shape

- Multisig: 0x700fccD433E878F1AF9B64A433Cb2E09f5226CE8

zkSync

- Multisig: 0x9fb5F754f5222449F98b904a34494cB21AADFdf8

Zora

- Multisig: 0x32e3C7fD24e175701A35c224f2238d18439C7dBC

2.3.3 3.3 Protocol Guild Pledge

Protocol Guild's long-term mission is to make contributing to Ethereum L1 R&D economically rational on a risk-adjusted basis, while avoiding capture. To get there, we aim to normalize that projects built on Ethereum donate 1% of their native token to the Protocol Guild. You can read about the Protocol Guild Pledge here.

Projects taking the pledge can donate their tokens into the below 4-year vesting contracts. Please reach out to us before making a pledge donation, so that we can help coordinate a test transaction first.

Mainnet

- 4-Year Vesting Contract: 0x25941dc771bb64514fc8abbce970307fb9d477e9

Arbitrum

- 4-Year Vesting Contract: 0x7F8DCFd764bA8e9B3BA577dC641D5c664B74c47b

Base

- 4-Year Vesting Contract: 0xd16713A5D4Eb7E3aAc9D2228eB72f6f7328FADBD

Optimism

- 4-Year Vesting Contract: 0x58ae0925077527a87D3B785aDecA018F9977Ec34

How to take the Pledge?

Projects that don't have a token yet can take the pledge by making a public commitment to donate 1% of a future token to the Protocol Guild. You can see an example of this here.

Projects that already have a token can take the pledge by donating 1% of the supply to the donation addresses listed above.

If you have questions about taking the pledge, please schedule a call or send an email to pledge [at] protocolguild.org.

2.4 4. Entity & Operations

2.4.1 4.1 Legal Structure

Protocol Guild incorporated a Cayman Islands-based legal entity in 2024, to help scale fundraising efforts.

2.4.2 4.2 Finances

Protocol Guild's legal entity currently receives 10% of vested funds (as of Feb 21, 2026 - tx link) to pay for the entity's legal and operational costs. The funds are received by the following multisig accounts:

- Mainnet
  - 0xccccEbdBdA2D68bABA6da99449b9CA41Dba9d4FF
  - Deprecated:
    - 0x0cDF1a78f00f56ba879D0aCc0FDa1789e415f23B
    - 0x69f4b27882eD6dc39E820acFc08C3d14f8e98a99
- Arbitrum
  - 0xccccEbdBdA2D68bABA6da99449b9CA41Dba9d4FF
- Base
  - 0xccccEbdBdA2D68bABA6da99449b9CA41Dba9d4FF
- Optimism
  - 0xccccEbdBdA2D68bABA6da99449b9CA41Dba9d4FF
  - Deprecated:
    - 0x0cDF1a78f00f56ba879D0aCc0FDa1789e415f23B
- Scroll
  - 0xccccEbdBdA2D68bABA6da99449b9CA41Dba9d4FF
- ZKsync
  - 0x42b6846549aC160a5c607193CC9d481ebb79edc7

The entity swaps its share of vested tokens on a monthly basis to maintain a stablecoin reserve. This covers:

- $200k in reserve for 2 years of fixed + variable costs incurred to operate the entity
- $100k in reserve for potential claims against the foundation
- Compensation for independent operations contributors
  - $12.5k/month to support cheeky-gorilla's contributions
  - $10.5k/month to support Peter Vechiarrelli's contributions

The entity aims to receive sufficient funding to cover the above, but not accumulate beyond that. These amounts are set by the membership, as noted in the governance subsection of the docs.

2.4.3 4.3 Annual Reports

- 2025
- 2024

2.5 5. Resources

2.5.1 5.1 Links

- Dune dashboard
- X

- Farcaster
- Discord

2.5.2 5.2 Media

Want to get up to speed quickly? Check out these pieces of media:

1. Protocol Guild: a funding framework for the Ethereum commons (text)
2. Capital and Enclosure in Software Commons: Linux & Ethereum (presentation)
3. Safeguarding Ethereum's Soul (podcast)
4. Funding Core Protocol Stewardship (presentation)

Or, see all media from over the years below:

Longform Writing + Articles	Venue	Date
Ethereum Developers Earn 50-60% Less Than Market Rates: Protocol Guild	The Defiant	Sept 9 2025
'Criminally Underpaid': Report Highlights Ethereum Dev Pay Gap	Blockworks	Sept 9 2025
Protocol Guild Has Distributed $20M To Support Ethereum Development	The Defiant	Nov 7 2024
Aggregation & atomization: dependency funding round dynamics	Mirror	Oct 31 2024
Protocol Guild: a funding framework for the Ethereum commons	Mirror	Oct 10 2024
Ethereum Guilds: opportunities + challenges	Mirror	June 6 2024
So - you want to start a Guild?	Mirror	April 27 2023
Announcement post	Mirror	Dec 31 2021

Presentations (Audio + Video)	Event	Date
Maintaining Ethereum's Future	EthCluj 2026	May 14 2026
Maintaining Ethereum's Future	EthPrague 2026	May 09 2026
Maintaining Ethereum's Future	EthCC 2026	Apr 01 2026
Funding Ethereum Takes a Village	EthDenver 2026	Feb 20 2026
Core dev undercompensation by the numbers	Shelling Point	Nov 22 2025
Ethereum Governance	CBER Forum	Oct 17 2025
Protocol Guild: 3 years of impact & Institution Building	Dappcon	June 16 2025
Ethereum Protocol Capture Risks	Protocol Berg v2	June 13 2025
Sustaining Ethereum's Future	EthPrague 2025	May 29 2025
Maintaining Ethereum's Future	EthCC 2025	May 27 2025
Sustaining Ethereum's Future	ETHdam	May 11 2025
Resilient Funding for Ethereum's Core Protocol	EthDenver	Feb 27 2025
Protocol Guild: Sustaining Ethereum's Future	Ethereum Zurich	Jan 30 2025
Protocol Guild: funding the Ethereum commons	Devcon 7	Nov 15 2024
Protocol Guild: Funding Core Protocol Stewardship	ETHKL 2024	Oct 05 2024
Protocol Guild: Funding Core Protocol Stewardship	EDCON 2024	Jul 29 2024

continues on next page

Table 5 – continued from previous page

Presentations (Audio + Video)	Event	Date
Protocol Guild: Funding Core Protocol Stewardship	EthCC 2024	Jul 09 2024
Capital and Enclosure in Software Commons: Linux & Ethereum	Summer of Protocols	27 Mar 2024
Protocol Guild: Funding Core Protocol Stewardship	EthDenver 2024	Mar 01 2024
Linux & Ethereum: Commoning vs Commodifying	Protocol Berg	Sep 15 2023
Funding Ethereum's Core Protocol Work	FtC Berlin 2023	Sep 09 2023
Funding & Incentivising Ethereum's Core Protocol Dev.	EthCC 2023	Jul 18 2023
Funding & Incentivising Ethereum's Core Protocol Dev.	ETHPrague 2023	Jun 09 2023
Funding & Incentivising Ethereum's Core Protocol Dev.	SpaghettETH 2023	May 25 2023
Funding + Incentivizing Core Protocol Work	EDCON 2023	May 21 2023
Protocol Guild: Funding Ethereum's Core Protocol Work	Zuzalu	Apr 12 2023
Protocol Guild: 1 year old	Schelling Point	Mar 02 2023
Funding Ethereum with the Protocol Guild	Devcon 6	Oct 12 2022
Funding Ethereum with the Protocol Guild	Funding the Commons	Jun 24 2022
Funding Ethereum Public Goods with the Protocol Guild	ETHDay (Devconnect)	Apr 18 2022
Overview of the Protocol Guild	Schelling Point	Feb 17 2022

Podcasts & Discussions (Audio)	Host	Date
Episode 3: Commons - Yancey Strickler & Trent Van Epps	Bridge Atlas (Summer of Protocols)	Nov 4 2025
Episode 29: Securing the Future of Ethereum Core Development	Deeply Intents	Oct 25 2025
New Institutions Roundtable: mechanisms, publics, and the state of the protocol institution	Other Internet	Aug 11 2025
Infinite Garden w/ Shape and Protocol Guild	X Space	Mar 26 2025
Epoch 6 Projects Space	X Space	Jan 21 2025
Trailblazers of Octant Episode 3	Crypto Altruism Podcast	Dec 24 2024
Aligned is taking the Protocol Guild Pledge!	X Space	Dec 18 2024
Proof of Donation w/ @ProtocolGuild	X Space	Jun 20 2024
CESR + CoinFund + Protocol Guild	X Space	Jun 17 2024
Enclosure of Software Commons and CoFi	CCA X Space	Jun 12 2024
Future of Public Goods Funding #9 - Protocol Guild	Eugene Leventhal X Space	Jun 11 2024
Safeguarding Ethereum's Soul with Trent Van Epps	Blockchain Socialist	Dec 10 2023
Credibly Neutral Public Goods Funding w/ Trent	Strange Water Podcast	Oct 05 2023
The RetroPGF Podcast #8: Protocol Guild	Blockchain Guy X Space	Aug 31 2023
Protocol Guild: 1 Year In with Tim and Cheeky	Green Pill Podcast	May 12 2023
Tech Video: 0xSplit setup for Protocol Guild	EthStaker Live Stream	Feb 06 2023
Funding Ethereum Core Development	I Pledge Allegiance Podcast	Jun 20 2022
The Protocol Guild - The Daily Gwei #481	The Daily Gwei #481	May 13 2022
The Protocol Guild with Trent Van Epps	Green Pill Podcast #10	Apr 25 2022
Community Call #24: Protocol Guild	EthStaker Community Call	Dec 12 2022
Lunch with Protocol Guild	DAOhouse DAOcember	Dec 05 2022

Funding Announcements (Audio)	Event	Date
PWN Dao Takes the Protocol Guild Pledge	X Space	Jan 29 2025
How INTMAX supports Protocol Guild	X Space	Jan 27 2025
Proof of Donation w/ @ProtocolGuild	LayerZero X Space	Jun 20 2024
CESR + CoinFund + Protocol Guild	CoinFund X Space	Jun 17 2024
Protocol Guild: Funding Core Protocol Stewardship	Avail Hot Take	Feb 26 2024
Protocol Guild Pledge Unlocking the future of Ethereum	PWN DAO X Space	Feb 20 2024
Taking the Protocol Guild Pledge	Taiko X Space	Feb 15 2024
Chatting with Epoch Two Public Goods	Octant X Space	Jan 29 2024
Octant's Epoch 1 Public Goods Funding Initiative	Gitcoin X Space	Oct 11 2023
Why We're Donating 10% of Profits to PG	VanEck X Space	Oct 04 2023
Octant's EpochZero: Meet the Projects	Giveth X Space	Jul 10 2023
Public Goodies: Protocol Guild w/ Trent	ENS X Space	Apr 12 2023

2.5.3 5.3 Acknowledgments

We are indebted to the following projects and individuals for their generous contributions to Protocol Guild's development over the years.

Smart Contracts

- for their onchain financial infrastructure and feedback
- DAOhaus for their Moloch v3 governance toolkit and work on an onchain membership registry

Audits & Reviews

- Sigma Prime for their review of the onchain membership registry and vesting contract
- Dedaub for two audits of the onchain membership registry
- Zellic for their audits of the onchain membership registry and Split V2 contracts
- Red Guild for their audit of the onchain membership registry

Other

- Danny Ryan for sparking the initial concept
- datamonkey.eth for creating our first Dune dashboard
- MolochDAO for providing 15 ETH via two grants (1 and 2) to support the development of the onchain membership registry
- Everyone who has ever donated

2.5.4 7.4 Pilot

Protocol Guild's 1-year pilot was kicked off on May 7th, 2022 with the deployment of the pilot vesting contract. This section contains documentation pertaining to the planning and execution of the pilot at that time, serving as a historical reference.

Pilot Links

- Pilot Vesting contract
- Pilot Split contract
- Mainnet Safe multisig
- Arbitrum Safe multisig

- Base Safe multisig
- Optimism Safe multisig
- Polygon Safe multisig
- Zora Safe multisig

Pilot Rationale

How can we give core protocol contributors exposure to the broader success of the projects building on top of Ethereum? This has been a recurring topic for many years in our community. When the latest discussion resurfaced in Oct 2021, we started researching existing public goods funding mechanisms, to see if any offered a solution. Ultimately, we concluded that a new mechanism was needed.

What follows is a description of three main motivations as to why there should be a new mechanism, the individual challenges related to each, and the resulting design objectives for creating a new mechanism.

Curation is Difficult

Apps/L2s want to sponsor, but curation of the contributor set is difficult. Protocol contributors are interested in token upside, but self-organizing is hard.

- There is no existing solution that collects all protocol contributors into one funding mechanism and consistently updates it. Expecting a single organization to curate and maintain this list by themselves is a pretty big ask when they're not already involved in this work.
- Design objective: Existing contributors should self-curate a list.
- Existing solutions usually favor teams.
- A meta-goal is to avoid governance and intermediation, giving as much agency to independent contributors as possible.
- Design objective: Avoid intermediation, individuals are the atomic unit.

Incentives are Imbalanced

Financial incentives are skewed towards projects built on top of the protocol.

- As a credibly neutral infrastructure with no block reward, Ethereum doesn't offer the same token incentives with the same upside as apps/L2s. However, it still needs to attract and retain talent to continue to evolve the protocol.
- As the Ethereum ecosystem continues to grow, competition for talented individuals will only increase. This isn't to fault individuals for rationally weighting financial incentives, or protocols for leveraging the power of tokens - this is just the reality of our current situation.
- We acknowledge that financial motivations aren't the only or best motivator for people, it's just one tool in our toolset that might be underleveraged.
- Design objective: Nudge balance back to the protocol by getting sponsors to send tokens.

Too Much Contributor Turnover is Negative

There's a steep learning curve for contributors to deliver value. It can take a while to be onboarded to a team, understand a client codebase, and start making meaningful contributions.

- Design objective: Protocol contributors must be active for 6 months before becoming eligible for membership.
- Contributor value grows over time, but there is less incentive for them to stay once they are experts.
- Design objective: Assets should vest to reduce churn in the contributor set, to help transfer knowledge between cohorts.
- Design objective: Weight contributor allocations according to time.

Summary

The new funding mechanism must provide autonomous funding and nudge the incentive balance towards the protocol. Sponsors who opt-in will be Ethereum-based applications, protocols, and individuals - this aligns well with our community's existing voluntaryist mindset towards public goods funding.

Over the course of this ideation process, we realized that we cannot answer the original question (how to give contributors exposure to the success of the application layer), without answering a more general question: what would a mechanism to trustlessly fund protocol contributors look like? We believe the design of the Protocol Guild as described here is a strong approach to addressing both these questions.

Tradeoffs of Existing Mechanisms

The existing suite of protocol funding mechanisms have so far adequately supported the ecosystem, but come with their own tradeoffs:

- Typically not forward looking, eg. they are usually retroactive
- Tend to favor projects/teams instead of individuals
- Formed around mediating institutions
- Do not typically give exposure to the upside of application layer

In the future, there will certainly be ways for these existing funding mechanisms to collaborate and interoperate with the Protocol Guild.

Grants

Grants are a very common funding mechanism, seen in Gitcoin, the EF's Ecosystem Support Program (ESP) and Ongoing Development teams, as well as application ecosystem programs like the Uniswap Grants Program (UGP). They tend to be best at rewarding contributions from the near-past to near-future. While these mechanisms may be well suited to their current applications, there are some limitations to their direct use in something like the Protocol Guild.

For Gitcoin Grants, it can be challenging to ensure accountability for grantees due to the amount of time and expertise it takes to perform due diligence. In addition, because round participants are effectively competing against each other for the same matching funds, it necessitates some amount of self-promotion. This wouldn't work for large groups of individuals doing similar work like core developers, many of whom are more low profile. Collections (a curated set of Gitcoin profiles) could accomplish some of our objectives, but still does not include vesting, and doesn't resolve issues related to custody and membership management. Finally, any prospective funder from the application layer has to rely on a mediating institution (e.g. the Ethereum Foundation, Gitcoin) to facilitate discovery, processing, and due diligence.

Retroactive Funding Programs

An explicitly historic-looking variant of grants includes Optimism's RPG. These can account for past work, but are usually scoped to measure the contributions of teams or projects, instead of individuals. Furthermore, there is no guarantee of consistent funding, as there is a possibility of omission from subsequent rounds. In Gitcoin's case, it can take a while for past contributions to be recognized and rewarded due to how discovery and grant promotion cycles work.

Independent Non-Profits

Some teams may opt to establish their own non-profit entities, e.g. the Nomic Foundation which stewards ongoing maintenance of Hardhat and other initiatives, announced in Q1 2022. The challenge is that the overhead to create a legal entity can be very high for a small team, and impossible for pseudonymous individual contributors. Additionally, the recurring burden of fundraising inevitably pits them in competition against each other, while further disadvantaging individual contributors.

Salaries

Salaries *do* target individuals, but are limited in that they can only account for the present and near future. Further, they are tied to a single legal organization, and can never be a good proxy for ecosystem value creation.

Case Studies

NOTE: What follows are theoretical high-impact scenarios. This is not a claim that funding will reach these amounts, only an exploration of possibilities.

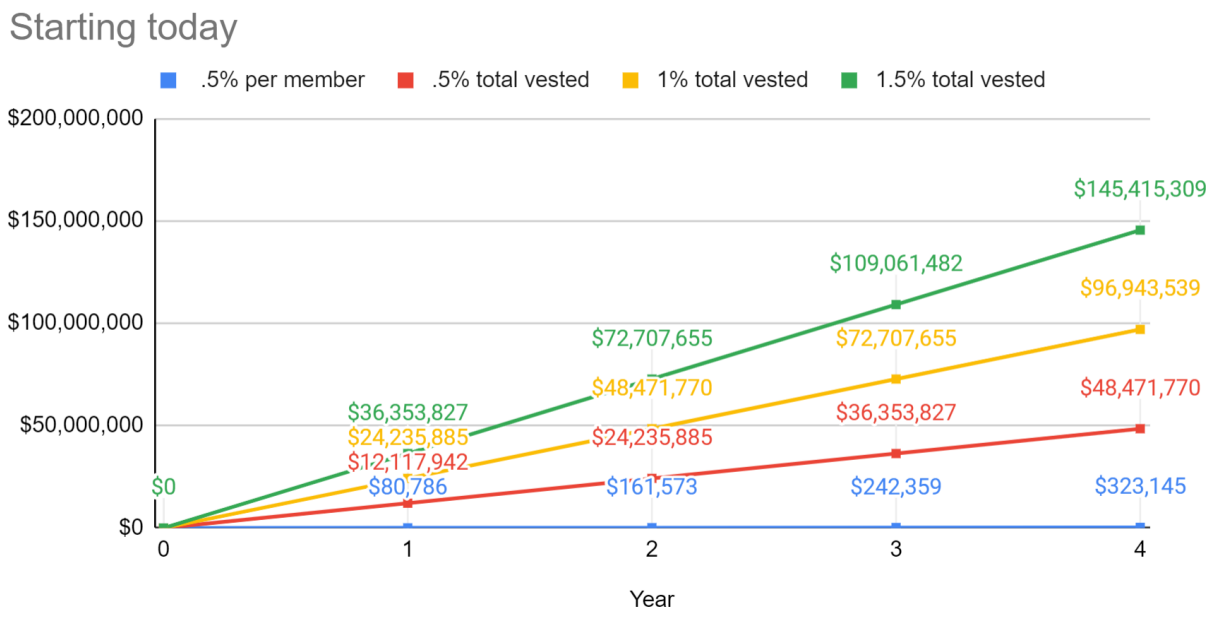
Vested Assets in DAO Treasuries

Projects which previously launched a token could donate a portion of the tokens currently controlled by governance. Here's a rough sample of what this might look like in practice, using the top 20 projects by unvested DAO holdings. (data taken from Open-Orgs.info by David Mihal on Nov. 11 2021). This is not meant to be a comprehensive survey. See the data behind the below charts here.

Name	Unvested Treasury	Vested Treasury
Uniswap	$11,032,128,273	$4,467,296,235
Lido	$1,013,369,806	$1,013,369,806
Aave	$710,995,680	$710,995,680
Olympus DAO	$695,596,511	$695,596,511
Synthetix	$459,754,748	$459,754,748
ENS	$4,814,784,391	$398,406,844
MakerDAO	$315,896,435	$315,896,435
Badger	$281,435,598	$281,435,598
Gitcoin	$643,282,372	$212,022,218
Yearn	$162,664,196	$162,664,196
SushiSwap	$143,079,883	$143,079,883
Alchemix	$124,448,531	$124,448,531
Balancer	$113,243,653	$113,243,653
DXdao	$112,487,482	$112,487,482
API3	$109,938,536	$109,938,536
BarnBridge	$108,304,172	$108,304,172
Nouns DAO	$67,661,963	$67,661,963
Index Coop	$65,258,192	$65,258,192
mStable	$51,208,814	$51,208,814
Nexus Mutual	$43,478,269	$43,478,269
Compound	$1,019,076,566	$37,806,182

	.5% Donation	1% Donation	1.5% Donation
SUM	$48,471,770	$96,943,539	$145,415,309

Already we can see the significant benefit these donations would have. For these scenarios, we include 150 members on the split contract plus a 4 year vesting period.

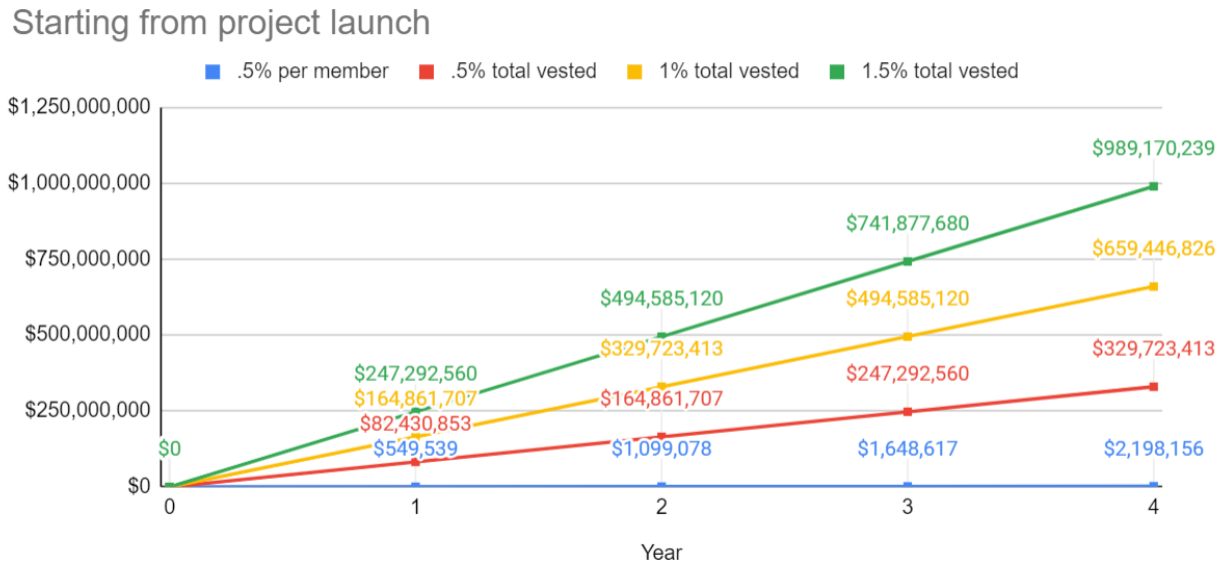


Donations at Launch

The Protocol Guild really starts to show its promise when considering that projects start to include funding as part of launch parameters. The chart below takes the same 20 projects and distributes a portion of what the max supply would have been at launch. Of course, this is just an illustration - they didn't all launch and contribute to the split at the same time.

Name	Max Supply at Launch	Price, Nov. 11
Uniswap	1,000,000,000	$25.71
Lido	1,000,000,000	$4.27
Aave	16,000,000	$312.93
Olympus DAO	5,041,746	$878.69
Synthetix	237,694,162	$9.99
ENS	100,000,000	$58.09
MakerDAO	1,005,577	$3,025.46
Badger	21,000,000	$32.40
Gitcoin	100,000,000	$9.36
Yearn	36,666	$33,903.79
SushiSwap	250,000,000	$11.23
Alchemix	2,393,060	$453.89
Balancer	100,000,000	$24.74
DXdao	148,976	$777.09
API3	106,940,994	$5.56
BarnBridge	10,000,000	$35.06
Index Coop	10,000,000	$28.64
mStable	100,000,000	$1.13
Nexus Mutual	6,898,110	$181.95
Compound	10,000,000	$335.91

	.5% Donation	1% Donation	1.5% Donation
SUM	$329,723,413	$659,446,826	$989,170,239



We believe $2M-6.5M vested over 4 years to potential contributors will be a step in the right direction. The beauty of the mechanism is that there is no application process to participate as a sponsor: any entity can just send funds to the split contract, and the rest will happen without their involvement.

Pilot Smart Contract Architecture

As part of the design process for the Protocol Guild, we researched a number of smart contracts and ultimately settled on the Split and Vesting contracts from **0xSplits**. Learn more about that project here.

0xSplits Contracts

Both the Vesting and Split contract can directly receive ETH and ERC-20 tokens. The Vesting contract gradually makes vested tokens transferable to the Split contract. The contract only accepts ETH and ERC-20s: DO NOT SEND NFTs (ERC-721s), they will not vest, cannot be split, and will be unrecoverable. Below are recommendations for which types of contributions to send to which contract.

Pilot Vesting Contract

- Best for larger entities participating in the pilot.
- Funds sent here will vest over 1 year.
- **0xSplits interface** / Etherscan
- Verify that the full address being sent to is 0xF29F...f1a9. In the future, there may be additional vesting contracts with different vesting schedules. -Note that there are two steps: depositing and starting the stream. See the documentation for more information.

Split Contract

- Best for smaller donations outside of the pilot, or regular periodic contributions.
- Funds sent to this contract will not vest, instead they'll be immediately available for withdrawal by the core contributors listed in the contract.

- **0xSplits interface** / Etherscan
- Verify that the full address being sent to is 0x84af…8ea1. While the addresses and weights contained in the contract are mutable, the address of the contract itself will be used in perpetuity and will not change. Outside of the unlikely case that the Split management (multisig) gets compromised, it's reasonable for sponsors to assume that this address will never change, to facilitate automatic or recurring contributions. If this changes, we will be sure to communicate this publicly.

The diagram below illustrates a set of 0xSplits contracts and how the Guild intends to operate them.

Out of all the existing mechanisms we explored, 0xSplits fulfills many of our original design objectives.

- Accepts common asset types
  - To preserve the upside potential of donated assets, it's crucial that the split accepts ERC-20s in addition to ETH.
- Immutable distribution
  - No individual can redirect assets outside of what is dictated by the split membership and its vesting parameters for each period. The terms of the vesting length, past members and their weights cannot be modified once deployed. However, it should be noted that if the Guild's multisig were to be compromised, any unvested amounts could be stolen.
- Non-custodial
  - No member should have even temporary discretion over vested or unvested funds, a designated address holds funds before a member manually sends them on to another component.
- Mutable membership
  - It should be possible to add and remove beneficiaries from the split. Managing additions and removals would be the responsibility of the membership. Updates are important because the contributor set will change over time. If we can't add newcomers to this list, then the recurring cost to redeploy the contract and redirect the split would become an unnecessary expense.
- Includes vesting
  - In order to provide long-term incentives, donated assets should be subject to a vesting period. The vesting schedule for the pilot will be ~1 year, while subsequent vesting periods will likely last 4 years. This should be discussed and set by the split beneficiaries, with consideration for the expectations of donating entities. The vesting terms deployed with the contract should not be modifiable by any party.
  - 0xSplits allows the Guild to deploy the initial contract with optionality over desired launch date, vesting time, etc.
  - The same vesting contract can be reused for many donations, either from the same org or different ones. The avoids unnecessary gas + time costs to sponsors. The vesting terms are the same for each donation.
- Multi-claims are straightforward
  - Members are able to claim their allocation from multiple eligibility windows and multiple assets in a single transaction.
- Members decide when to take custody/withdraw
  - Members should be able to decide when and how they withdraw funds from the mechanism, to suite the tax framework of the jurisdiction they reside within.
- Donations have finality
  - It is not possible to remove donated assets from the Vesting Contract by anyone other than the beneficiaries.

Guild Multisig

While it's possible for the contract to be "set and forget," we plan to fully leverage its mutable capabilities. For longer vesting schedules (e.g. 4 years), there will definitely be changes to the contributor set that will need to be accounted for.

We have deployed a 6/10 Gnosis Safe here to take on a few key tasks that cannot be handled autonomously. This includes updating the membership list, and possibly deploying new vesting contracts (though this can also be done by unrelated EOAs with no reduction in trust).

Members and sponsors should be aware that if a malicious entity were to compromise enough signers, they could steal any assets that haven't been released (4a in the diagram above) and distributed (4b) to beneficiaries of the Split contract. For this reason we won't disclose the name of signers and will regularly rotate them, expanding the set of signers when possible. Further, releases and distributions should occur on a regular cadence (quarterly) to limit the impact of the multisig being compromised.

Anticipated Concerns

While we can't conceive of every scenario, we've tried to think critically about deficiencies when they've presented themselves.

Related to Operations

Shouldn't one-off contributions be considered for membership?

- Every mechanism has its limit. The Protocol Guild may meet its at the edges of contribution, where someone has meaningfully contributed to a project, but does not work on it consistently, or produces something as a one-off. This remains an open question, and might be considered for a future weighting scheme if there are no major issues.

Why are weightings not more granular?

- While it's true that some people are objectively more productive in their work / valuable to the protocol, adding a weighting scheme to a membership this large would introduce complexity with each membership update. There would also be unknown, probably negative social dynamics related to valuing contributions of peers.
- It's worth a note of caution against heading too far down the path of data and hyper-specificity when it comes to evaluating contributions. We suspect this would lead to the introduction of a public facing component, which would privilege people who have previously been working on the protocol. Such individuals would have the benefit of additional time to form themselves into the shape the political and social structures are looking to latch onto. Metrics, rubrics breed subtle exploits, entrench power.
- Ideally, under any weighting scheme, the margin between contributor profile should not be overly large relative to the others.

How can curators or signers abuse their position of trust?

- Fundamentally, this is a political tool. In negative outcomes, whoever maintains the member eligibility can influence research areas and interests people have in certain sections of the protocol. Want to get the merge done? Add more client implementers at the expense of other ecosystem categories. This kind of manipulation is unlikely to actually happen as it would harm the mechanism's legitimacy.
- Or worse, the existing signers decide not to honor the agreed upon outcomes from weighting deliberations, go slightly rogue. In this case, we can imagine some contributors deciding to ride it out until vesting has completed. In other situations, a significant portion of the members could collectively abandon the stream in solidarity. Or, they could claim and send the wrapped tokens to the burn address as a gesture of protest.

How can this be gamed?

- As the mechanism scales, it's inevitable that the amount of attention given by a core group of Guild members will eventually fall, become less thorough. At a sufficiently high number of members, unscrupulous developers might

invent phantom co-workers and redirect the split shares to themselves. This is one area where the mechanism relies on mutual trust to avoid abuse.

What happens if a large percent of infrastructure contributors decide not to participate? Or, what if a significant number of contributors join and then decide to leave the split?

- The mechanism's legitimacy is predicated on broad participation. If enough contributors decline, this may not be an appropriate tool for incentivizing work on public goods. In the latter case, the vesting would still continue but it may be difficult to solicit additional donations.

How will members handle conflicts about list inclusion, eg. when someone starts doing well-intentioned but poorly executed work?

- Eligibility criteria should be given special care, as much as the contract or the outreach to donating entities. These should be communicated publicly and frequently with change history, eg. GitHub. Any decisions which sidestep transparent processes undermines the mechanism's legitimacy.

What other failure modes have not been explored in-depth yet?

- The membership is updated to only include addresses controlled by the attackers.
- More cleverly, they only dilute the existing membership a little bit, or adjusting the weights just enough to favor certain set of contributors.
- Members selling early access to their shares to capitalize early into a stream, or taking a loan against them and committing to stay at least as long as their agreements dictate.

What happens when enough signers get compromised?

- This would damage the trust donating entities put into the members, as well as any future efforts to restart something similar.

What use cases can you anticipate wanting in the future that 0xSplits can't facilitate today?

- Lending markets built into the vesting stream
- Programmatically dripping membership
- Extensions that let users automate a custom functions like "claim and sell to DAI"

What are some ways that curation can fail?

- There are edge cases which should be considered. For example, where the marginal legitimacy lost by excluding a given contributor is too low to get curators to push for their inclusion.
- The initial set of curators fails to expand beyond their social graphs, but still accumulates enough members to accomplish a state of "good enough" legitimacy.
- The social norms that build up around the mechanism are sufficiently powerful to draw in continued donations even though it just barely hits the "good enough" threshold.

Related to the Broader Community

Will this replace existing salaries?

- No, this should be perceived as a bonus on top of current pay: employers/DAOs should pretend as though it doesn't exist. Furthermore, employers/DAOs won't be able to tell whether members have submitted their own address, or that of a charity. It would not be ethical to compel charity disclosures.

What if this ends up being a significant amount?

- If this mechanism *doesn't* accrue significant funds, then it's not really working properly. Vested donations should be significant enough to inspire new contributors to join core development. However, there should be deeper incentive analyses and the thresholds at which they get funky.

Why don't contributors ask for some multiple of their current salary?

- As discussed in the tradeoffs section above, traditional orgs will never be able to match the upside that comes from working on a novel tokenized application or L2.

Aren't donated assets a form of bribe?

- No. This would be a very inefficient form of bribing, as the large membership distribution dilutes any targeted intent. It would be much more effective to bribe individuals, which can already happen today without a split contract. It could even be argued that this mechanism makes bribes less effective, because bribes are most effective in situations of relative wealth inequality. By raising the holdings of core developers, they are less likely to be swayed by individual financial offers. Of course, this is completely opt-in and protocol contributors are welcome to redirect their share to e.g. other public goods projects. Only when there are relatively few donating entities could the mechanism become more susceptible to bribes. Or, if the relative amount donated by one entity dwarfs that given by others.

What about including past protocol contributors?

- Not advisable, as this would complicate inclusion decisions. The split is supposed to incentivize current and future contributors.

Will this compete with Gitcoin or other similar efforts?

- We feel that this mechanism is differentiated enough (ie. forward looking, core protocol focused, vested, biases towards native tokens as opposed to USD) that the overlap may appear larger than it actually is. However, there may be some donating entities that feel like they are already "doing their part" with donations to one initiative and may not feel obligated to contribute to the other. We believe that it's healthy to have a number of autonomous & differentiated funding approaches towards public goods.

Culture / Big Questions

How long should the Protocol Guild exist?

- It's unclear when, but at some point it should probably cease to exist. It may end up no longer being an effective draw to retain talent, or may become corrupted or otherwise coopted, or may even become unnecessary if (when) the protocol completes its evolutionary course. However, members present in the lead up to that possible future should be attentive to the signs of negative outcomes. The inertia to maintain itself will be self-animating, an egregore harnessed by the mystic capabilities of core Ethereum development. Inasmuch, the egregore desires to continue living and will therefore recognize attempts to curtail its growth. Members would do well to remember that this has been the case from the beginning, and remind new cohorts of developers of this reality as they are onboarded.

Why hasn't anyone built this before?

- It's unlikely that one project from the ecosystem would have the capacity to take responsibility for all the coordination efforts related to collecting and maintaining a list of contributors. If it did happen, the project would eventually find themselves with an immense amount of power as the gatekeeping curator.
- The contacts did not exist until now (0xSplits).
- Core devs are largely too focused on other things to coordinate such an effort

Broadly, how will this design fail?

- If voluntaryism and donation-based funding does not scale sufficiently to the levels this mechanism needs in order to be effective.
- If developers reject the responsibilities and pressures associated with self-governing an asset stream.

Will long-term vesting lead to stagnation in core development roles?

- In the sense of gatekeeping/groupthink/capture, we sincerely hope not. There's certainly a possibility that previously effective people may get stuck in a position if the incentive is significant enough. However, this is no

different from any other job with performance requirements, crypto or otherwise. If someone is not performing adequately, they will be removed from their job and then from the list. If anything, the infusion of new perspectives as the set grows will be a healthy process.

- With the conclusion of each vesting period, everyone starts at 0 again, having to convince other members (and more broadly, the public), that they are legitimate heirs to the Protocol Guild name and legacy. Competition for scarce political purchase means there will be alliances, intrigue, rebalances. Anyone can copy this blueprint and create their own competing versions. We anticipate that even the initial cohort now will unavoidably have its own political undercurrents! A blooming society actively evolves their systems to avoid settling into patterns too soon. So we should continue - see the approaching Leviathan peeking over the horizon, pull ourselves towards well considered implementations, norms, visions. Subtle frameworks like this interface between the social and the economic resources a group traffics in. They are dense confluences of swirling power - what we're doing is preempting inevitability.

Pilot Retrospective

This retro was written April 10th 2024

The Protocol Guild was initially launched as a 1-year pilot which ran from May 2022 until May 2023. The mechanism tied together new components and ideas like self-curation, time-weighting and eligibility frameworks, to create a novel collective funding mechanism for Ethereum's core protocol maintainers.

At the time, the decision to establish a new funding mechanism might have appeared counterintuitive, considering Ethereum's ecosystem had already given birth to a suite of innovative funding programs. Some of these programs focused on distributing grants via DAO / token-holder voting (e.g. ENS, Uniswap), others leveraged quadratic funding (e.g. Gitcoin), while others sought to recognize impact via retroactive public goods funding (e.g. Optimism RPGF).

Yet, while these funding programs have many positive qualities (such as accessibility to diverse grantees, consistent funding schedules and taking on operational overhead), they were not optimized for allocating funding to a diverse set of individuals contributing to Ethereum's decentralized and "bazaar" style core protocol development.

Protocol Guild's opinionated approach was to have Ethereum's core protocol maintainers themselves curate and maintain a list of their peers, i.e. individuals actively working on building and maintaining Ethereum's core protocol. This list could then be embedded into onchain contracts which would vest donations directly to members.

A simple time-weighting formula was implemented to allocate funds to contributors. This recognized longevity and consistent contributions with a higher share of donated funds. This mechanism could then be seamlessly integrated into existing funding programs as a beneficiary, harnessing established funding channels to create robust incentives for attracting and retaining Ethereum's core protocol maintainers over time.

Of course everything above was - at the time - based on assumptions that needed to be validated in practice. This is why the decision was made to start with a relatively small-scale pilot, to evaluate the practicality, efficiency, and usefulness of the mechanism - before scaling it further. This phased approach allowed for the collection of internal and external feedback, identify areas needing improvement, and use all that to make informed, iterative adjustments..

Now - almost one year after the conclusion of the pilot! - we are happy to share our consolidated learnings. Since the pilot ended, we've had time to survey the membership and be introspective about not just the results of the pilot, but also where the Protocol Guild should go from here.

Results To-Date

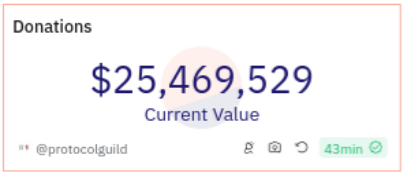
The below stats include the period starting May 7th 2022 (when the pilot's vesting contract was deployed), until the time of writing (April 10th 2024). All data can be seen in our Dune Dashboard here, while a dashboard specifically for the 1-year pilot period can be seen here.

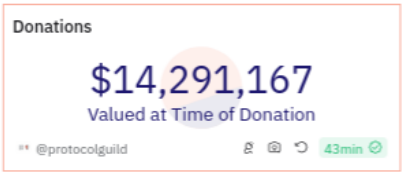
Fundraising Stats

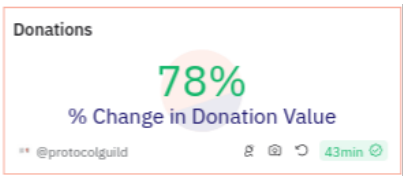
- To date Protocol Guild has received 7.6k donations from 488 unique addresses, totalling $14mm in value at the time of donation

- The average donation totalled $1.8k, but this was skewed by a small number of very large donations, as indicated by the median donation being $3
- The first significant donation (and 6th overall) came from Lido DAO, with 2mm LDO tokens worth $2.8mm at the time, which made Lido the largest individual donor during the pilot
- However, the largest donor for the last year has been Arbitrum, with a donation of 3mm ARB tokens, worth $3.5mm when donated
- There were also two very generous individuals who managed to round out the top 10 donor leaderboard: Tetranode and Anthony Sassano
- Two artistic projects also made the top 15 list of donors: Stateful Works and When Merge
- Optimism is missing from the donor leaderboard because, although the Guild was the top recipient in RPGF2 (and RPGF3!), we haven't actually claimed those funds yet
- All donated funds vested linearly for 12 months from the time they were donated, and today 93% of the donated funds have finished vesting

Overall, we are exceptionally grateful to every single individual and project who has supported the Protocol Guild to date. These donations validated the Protocol Guild as a funding mechanism for Ethereum's core protocol development, and was another clear demonstration of the great values that permeate the ecosystem.



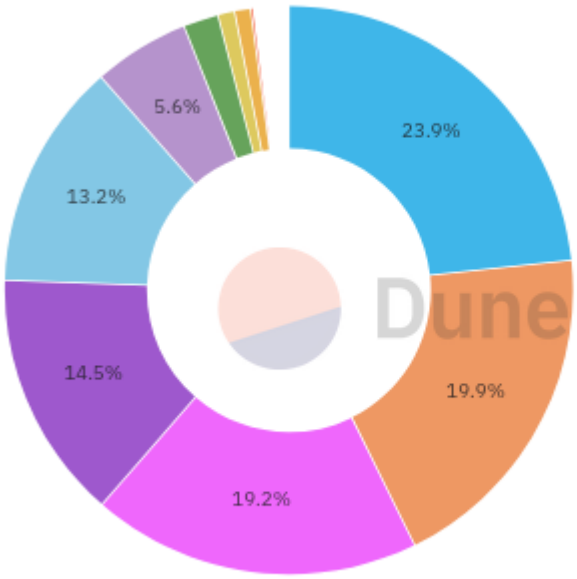


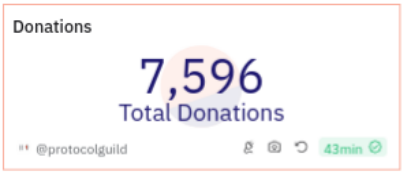


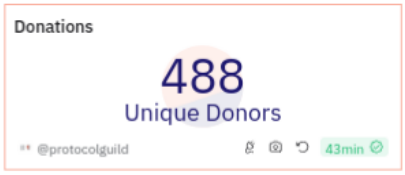
Donor Leaderboard

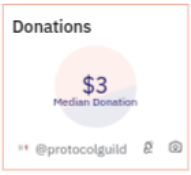
#	Donor	Initial Value ▼
1	Arbitrum Community	$3,413,382
2	Lido DAO	$2,840,000
3	Uniswap DAO	$2,740,000
4	ENS DAO	$1,890,000
5	Moloch DAO	$793,560
6	Nouns DAO	$736,890
7	LambdaClass	$258,365
8	Octant / Golem Foundation	$234,814
9	pennilesswassie.sismo.eth	$211,599
10	sassal.eth	$137,279
11	Splits: SplitMain	$130,156
12	stateful.eth	$128,661
13	whenmerge.eth	$124,510
14	Hop Protocol: Ethereum Bridge	$79,052
15	gubsheep.eth	$66,422

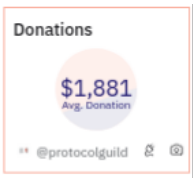
Donations by Token







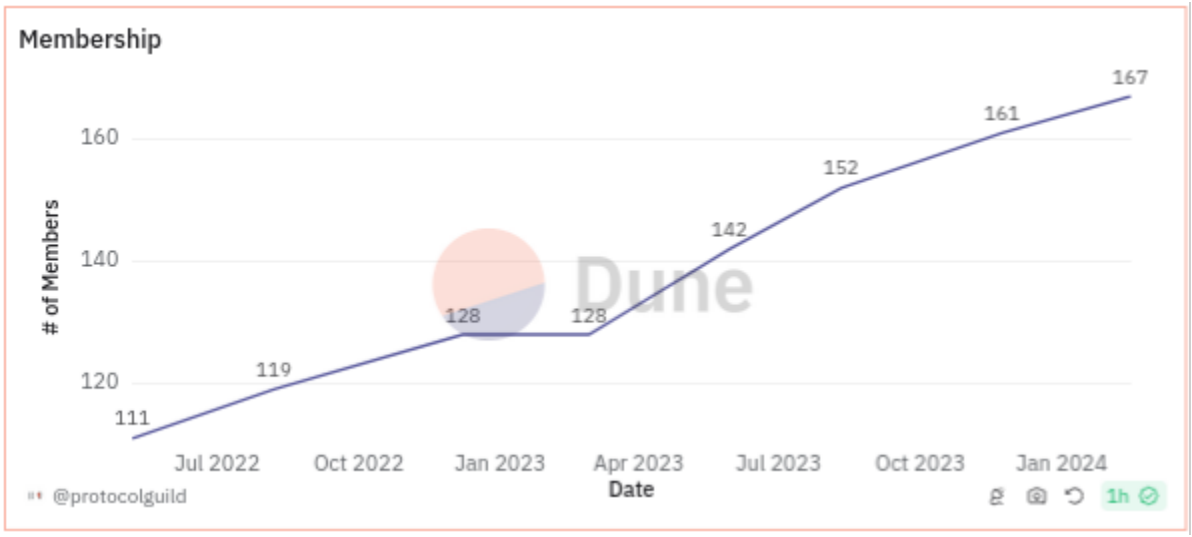


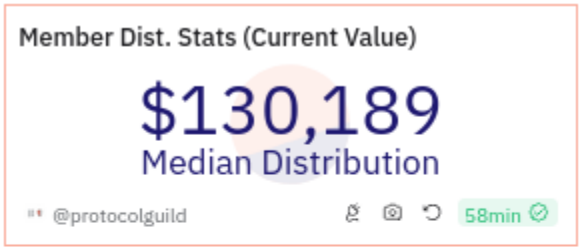


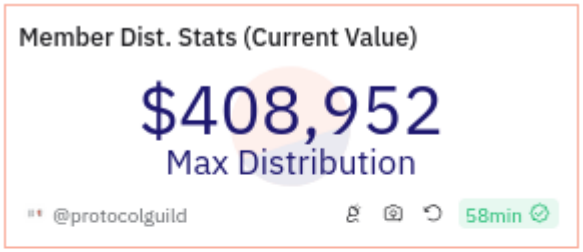
Membership

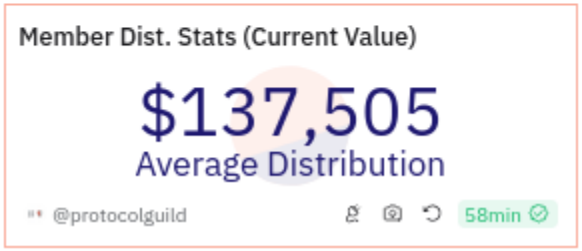
Protocol Guild's membership of core protocol maintainers is updated quarterly, and each member's share of donated funds is determined via a simple time-weighting formula, with longer contributions resulting in a higher weight.

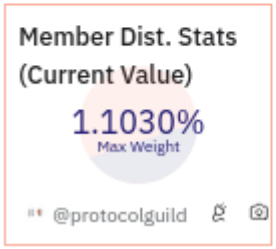
- Today Protocol Guild has 167 members, up from 90 members at the start
- On average each member has received $137k since Protocol Guild launched, with the median receiving $130k (valued at time of writing)
- Currently the member with the largest weight gets 1.1030% of all vested funds, while the newest member with the smallest weight gets 0.2553%
- The largest individual allocation totalled almost $410k!

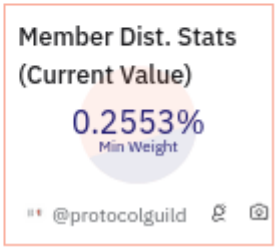








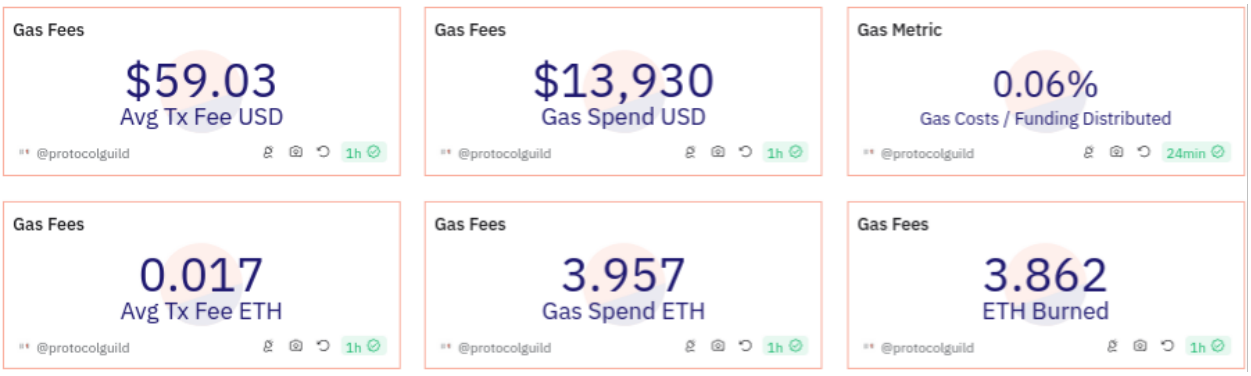


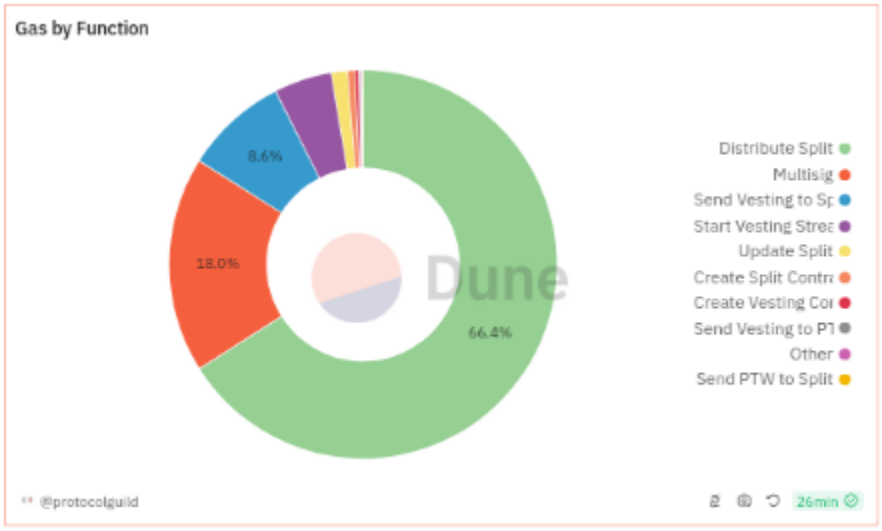


Gas Fees

Operating Protocol Guild's smart contract architecture on mainnet naturally requires paying gas fees, e.g. to update the membership, starting + releasing vesting streams for donations, and distributing vested funds. Given that it is very likely Protocol Guild members themselves who are paying these gas fees, we started tracking this onchain expenditure to quantify how gas-efficient the mechanism is relative to the amount being donated.

- In total 3.957 ETH has been spent on gas (excluding donation and withdrawal fees), of which 1.25 ETH was burned
- The total gas fees paid represented about 0.06% of the total funding distributed to date



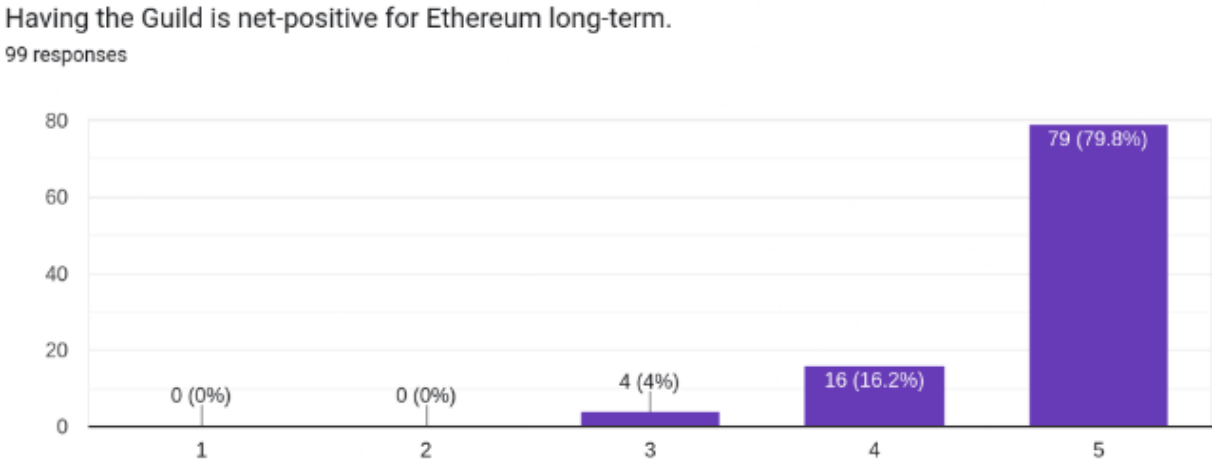


Membership Survey

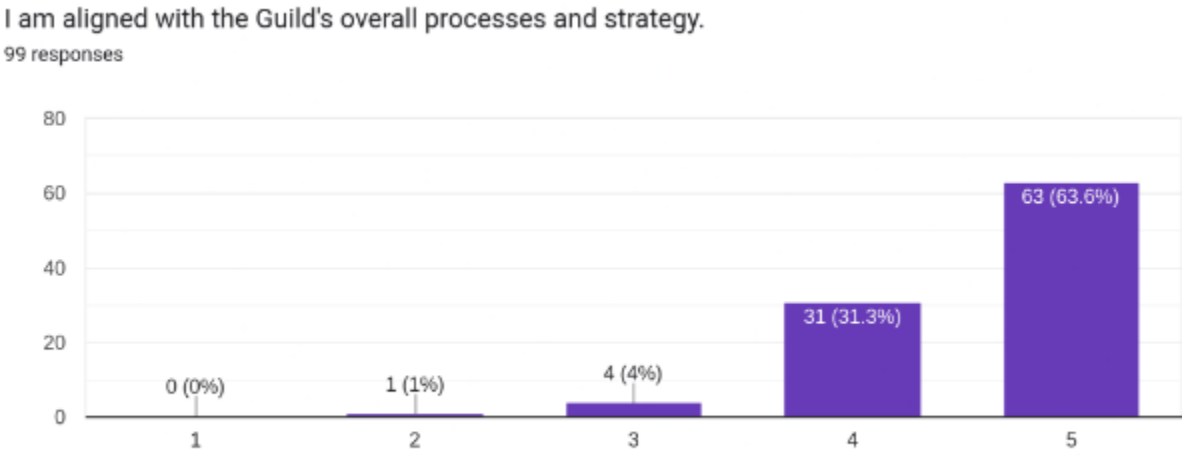
We conducted an extensive survey among the Protocol Guild's membership when the pilot ended. The survey aimed to gauge members' perspectives on various aspects of the Guild, including its strategy, governance, operations, and smart contract architecture.

High-Level Strategy

The Protocol Guild was created in part to help make Ethereum more resilient, by providing another diversified funding channel to support core protocol development. But, is the Protocol Guild actually net-positive for Ethereum? The answer appeared to be a resounding "Yes" from Protocol Guild members, with a mean of 4.75/5, indicating strong agreement (Question 1).



Perhaps unsurprisingly, this also meant that, on average, members were strongly aligned with the Guild's overall processes and strategy, with a mean score of 4.58/5 (Question 2).

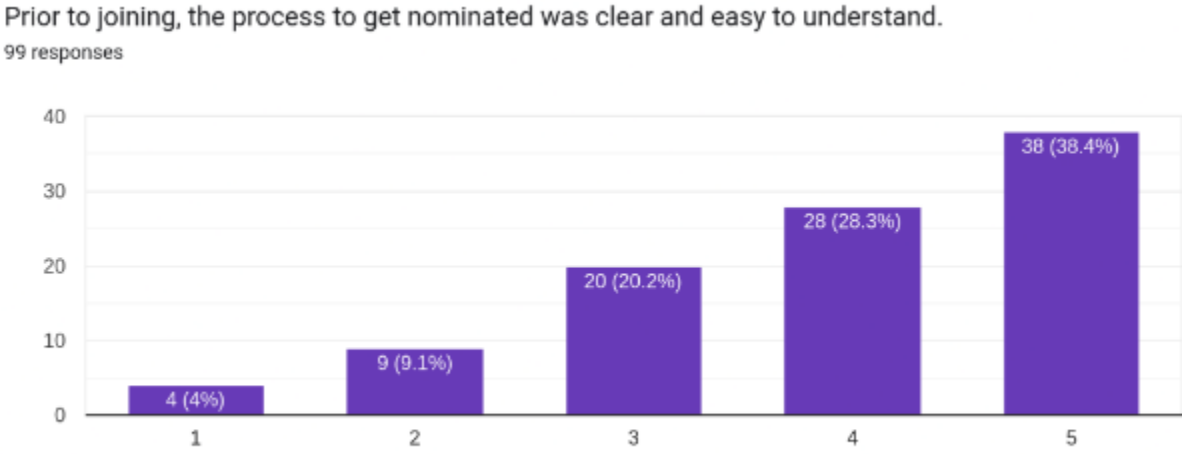


However, this score was slightly lower than the prior (4.75 vs 4.58), and this difference appears to be caused by issues with the Guild's member nomination process, as we'll explore next.

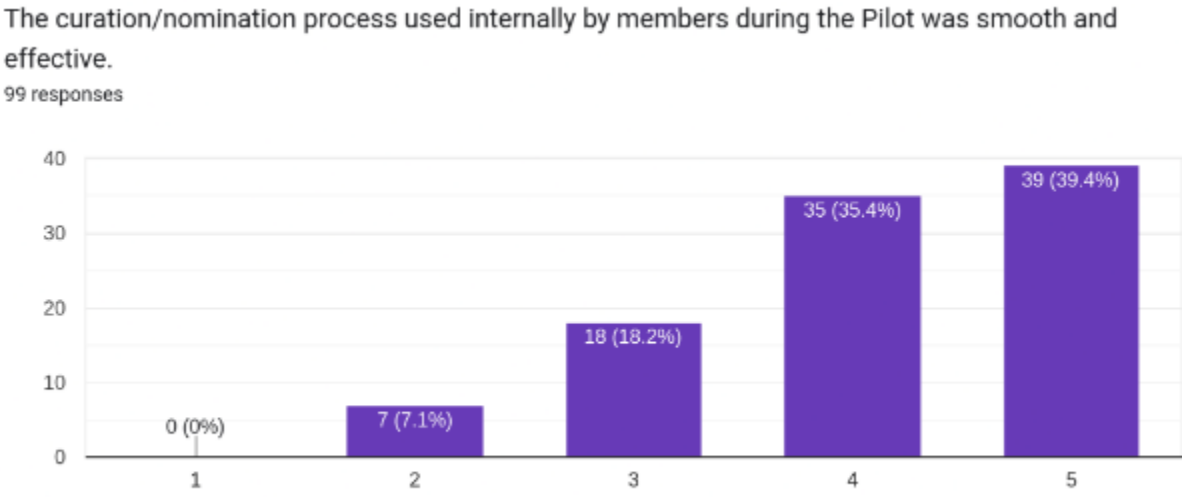
Membership Curation

Protocol Guild's membership is self-curated - meaning it is the existing members that coordinate to add or remove members. To manage this, the Protocol Guild uses rough consensus a la core protocol development. This process requires members to create written proposals to add new members, posted on Protocol Guild's Github. Once posted, there's a discussion period, and assuming no significant objections, the nomination is accepted after 1 week.

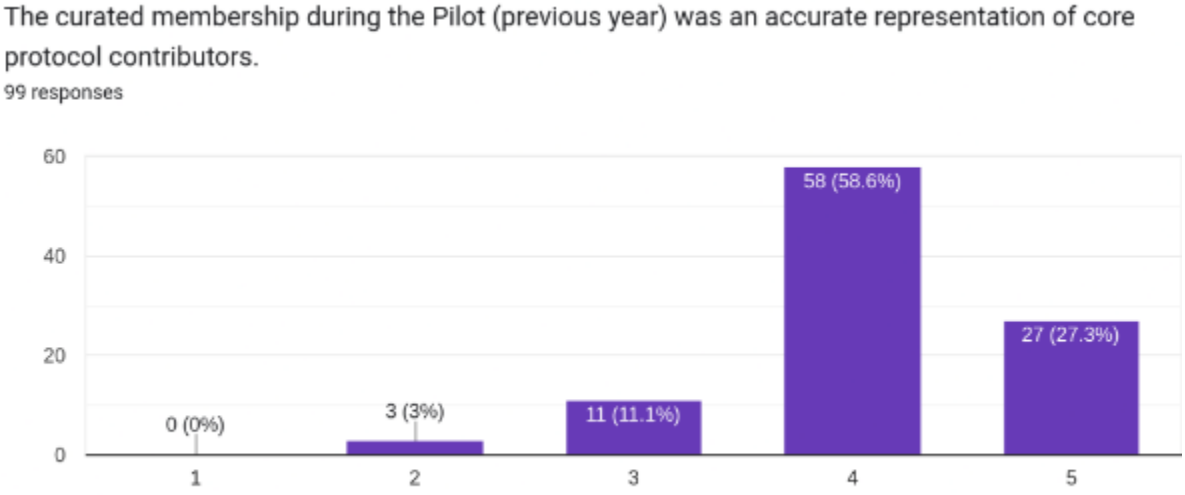
As straightforward as that may sound, the mean score to the question "[is the] process to get nominated and join the Guild [clear]", was lower than expected: 3.88/5, with a standard deviation of 1.15 (Question 9). This suggests that most members found the process clear, but not all.



The fact that this process can be improved was also evident in the question about whether or not the "curation/nomination process [was] smooth and effective" (Question 15). Here the mean score was 4.07/5, still lower than ideal.



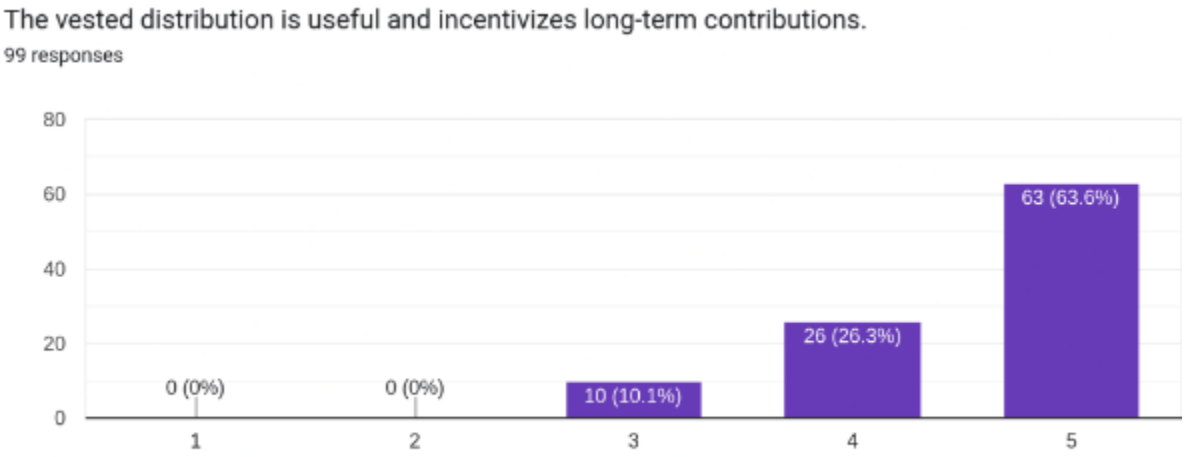
Given that there were two questions that indicated that there was room for improvement with the nomination process, one must wonder how this impacted the output of the process itself: the membership registry. Question 17 asked if "the curated membership during the Pilot was an accurate representation of core protocol contributors", and the mean score was 4.10/5. Now, if the Protocol Guild's core function is to curate a membership registry of Ethereum's core protocol contributors, then this score should be much closer to 5.



These three questions indicated that there's work to be done improving the nomination process, which would ultimately also help ensure that the Protocol Guild's membership remains the most accurate representation of Ethereum's core protocol contributor set. The actions taken to address this can be seen in "Pilot Reflection" section "Membership Curation" further below.

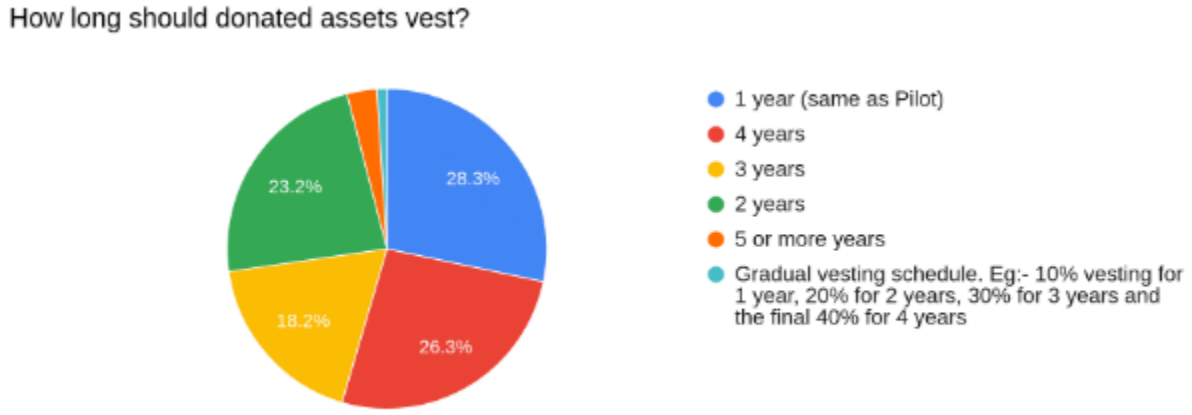
Architecture

One of the central features of the pilot was that donated funds vested linearily over 1 year, to build long-term incentives for members to continue working on the core protocol. This was implemented in an effort to reduce membership churn and facilitate knowledge handover - very important given the specialized knowledge contributors have. Overall, members found that the "vested distribution is useful and incentivizes long-term contributions", with a mean score of 4.54/5 (Question 19).



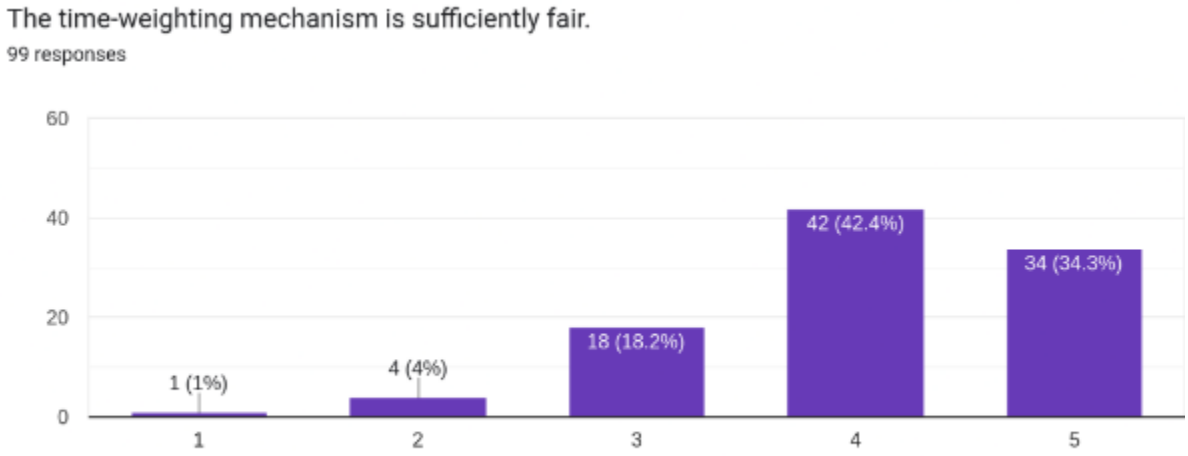
There was however some disagreement about how long funds should vest after the pilot. Question 25 showed that 72% of members thought the vesting should be longer than 1 year, but there was disagreement about how long exactly. On average the results indicated that funds should vest for 2.5 years, whereas previously there were discussions to vest

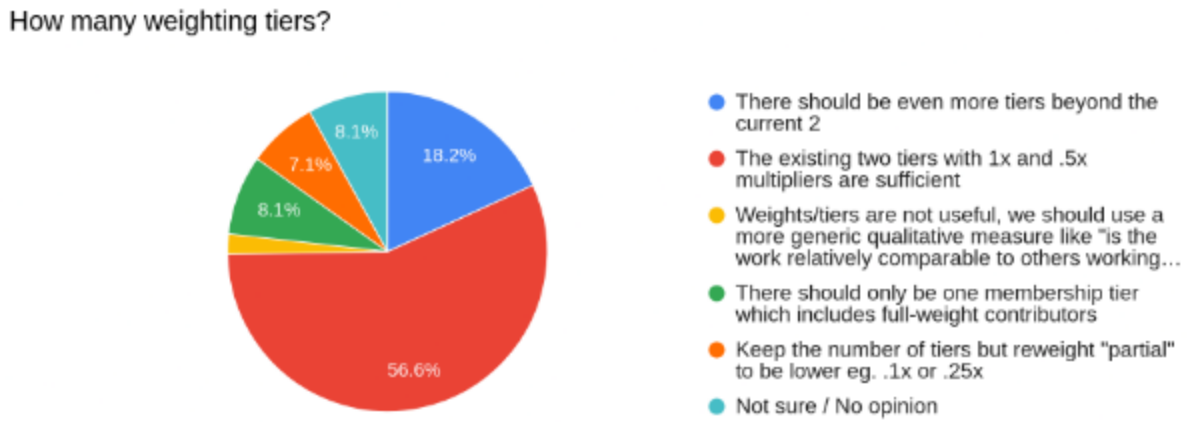
funds over 4 years. This brought up interesting discussions internally, about how longer vesting timelines helps create income security for contributors, while also acknowledging that e.g. 4 years could represent an entire market cycle, and could lead to imbalanced funding. Ultimately a 4-year vesting period was chosen for after the pilot, as described in section "Protocol Guild V2".



Other questions related to the Protocol Guild's architecture revolved around the retroactive time weighting, which essentially rewards members for being long-term contributors. The time weighting is actually a square root function of the numbers of months a member has been actively contributing, multiplied by either 1 or 0.5, depending on if the member is contributing full time or part time. Time was selected here because it represents the most objective measurement of impact, while sidestepping the need for subjective interpretations of how to quantify "impact".

Question 18 asked if "[this] time-weighting mechanism is sufficiently fair", and the mean response was 4.05/5. Following up on this, Question 23 then asked how the tiers should be changed, with 57% wanting to keep things unchanged, 18% wanting to add more tiers, while 8% thought the membership should only have one tier, for those working full-time.

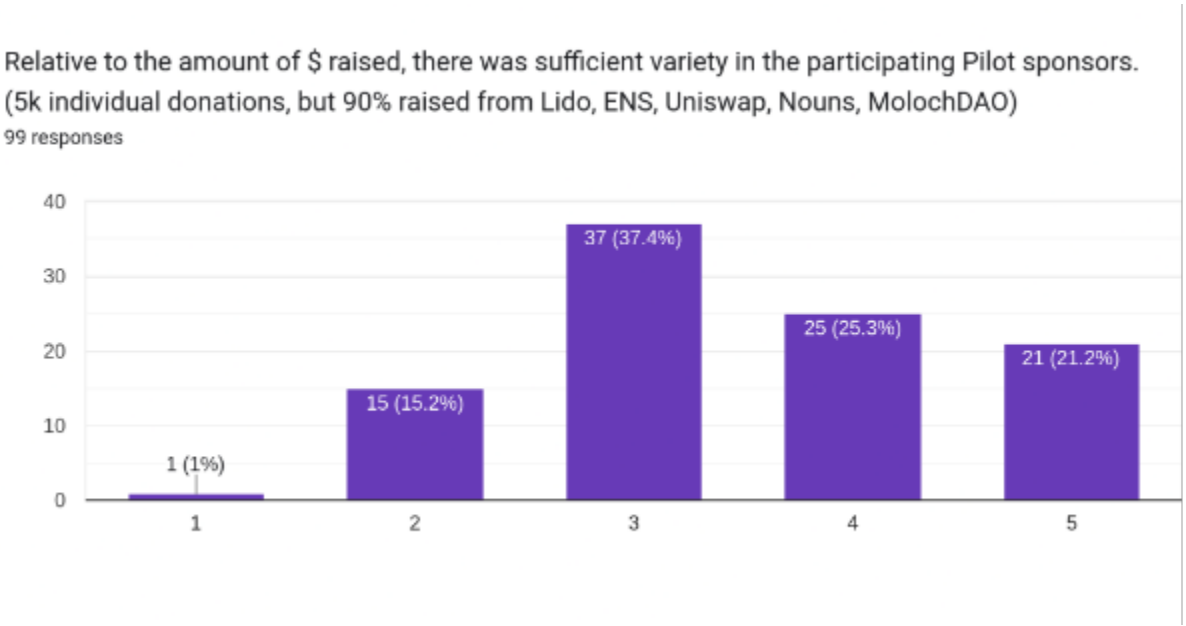




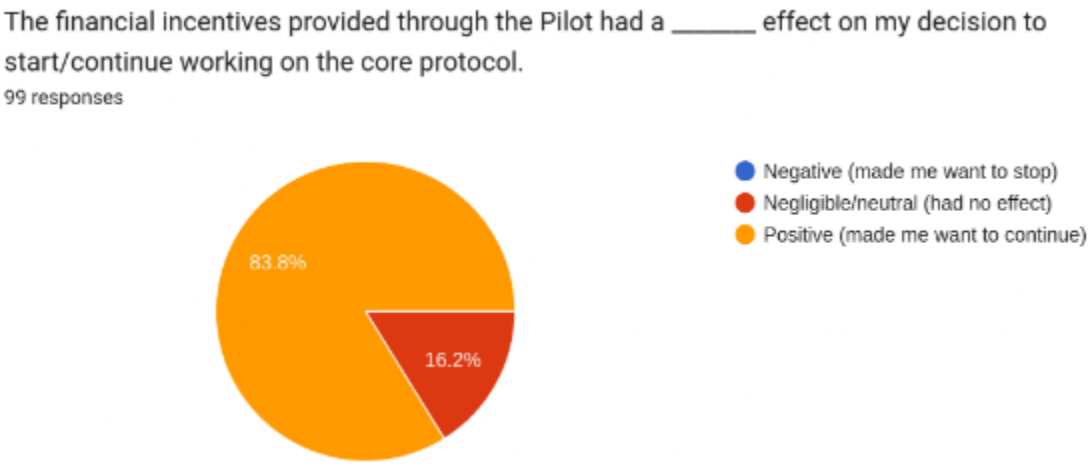
Again these questions created interesting internal discussions, specifically if the weighting tiers should be used as a forcing function to encourage more full-time contributors to Ethereum's core protocol development (e.g. by removing the "part-time" tier, or by lowering part-time weights), or if it should be used as a reward function to reward anyone who is contributing (e.g. by allowing quarter-time contributors). Ultimately it was decided that no changes needed to be made to the time-weighting tiers for now.

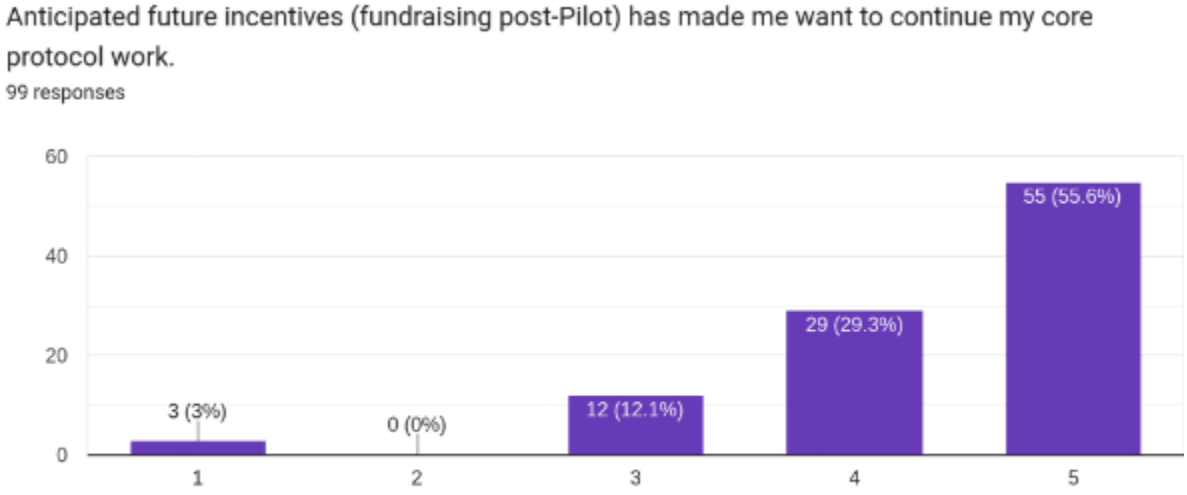
Funding

Overall, 88% of members found that the amount raised for the pilot was "appropriate" (Question 13), but members would have liked to see more variety in donors (Question 14), a reaction to the vast majority of funding coming from five large donations from ecosystem entities: Lido, ENS, Uniswap, Nouns DAO and Moloch DAO. These donations were solicited directly by members via governance proposals, but the hope is that Protocol Guild can move away from such proactive fundraising in the future, as more projects intuitively embrace the norm of giving back to the protocol work they depend on.



But was the amount raised enough to incentivize contributors to continue contributing? Around 84% of members agreed that the Protocol Guild had a "positive" effect on "[their] decision to start/continue working on the core protocol" (Question 16). Similarly, members agreed that "anticipated future incentives (fundraising post-Pilot) [makes] me want to continue my core protocol work", with a mean score of 4.34/5 (Question 24).





Overall, the post-pilot survey demonstrated that Protocol Guild made a successful start to its stated purpose of rebalancing incentives for Ethereum's core protocol contributors.. However, there were clearly some small tweaks that could be made (e.g. to the nomination process and eligibility framework), to help maximize the Protocol Guild's effectiveness. The actions taken in the year since the pilot ended will be explored in the next section!

Pilot Reflection

The 1-year pilot served as a successful proof of concept for how an onchain mechanism can be deployed to help rebalance financial incentives for Ethereum's core protocol work.

Fundraising

We reached our fundraising target ($10mm), and indeed almost that entire amount came from just five governance proposals:Lido ($2.8m),Uniswap ($2.7m),ENS ($1.8m),Nouns DAO ($0.8m) and Moloch DAO ($0.8m). Since the pilot ended, we've also seen more unsolicited donations including Arbitrum's 3mm ARB donation as part of their token generation event. That donation, worth $3.5mm at the time, has kept Arbitrum at the top of our donor leaderboard at the time of writing.

However, more work needs to be done to bootstrap the norm that projects built on Ethereum donate a portion of their tokens towards Ethereum's core protocol development.

Operations

As highlighted in the membership survey, members didn't always feel informed about what was happening with the Protocol Guild (e.g. fundraising efforts or planned architecture changes). In response to this, we started having weekly internal calls to provide a consistent time and place for the membership to receive updates. These weekly calls have proven valuable in engaging more members with the Protocol Guild's operations, and continue to this day.

However, the weekly calls were an example of the significant time and effort associated with managing Protocol Guild's operations (fundraising, coordinating membership updates, improving the mechanism etc.). Overall the Guild's operations in these bootstrapping stages required more time than most members should reasonably commit, given the mechanism should enable focus on the core protocol, and not distract from it!

Fortunately, halfway through the pilot, Protocol Guild acquired an external contributor who was eventually made a Protocol Guild member to shoulder some of this operational burden. However, figuring out how to onboard and retain new contributors should be kept top-of-mind for the future, to ensure that operations never become a bottleneck for this mechanism to exist.

Membership Curation

There were four significant changes to membership management that came out of the Pilot:

- More explicit eligibility
  - This change better specified the kinds of contributions that define the core protocol. We believe this change has successfully addressed the issues surfaced in the pilot survey, though we will try to quantify that in future membership surveys.
- Removal of Solidity from eligibility & membership
  - One of the results of the eligibility changes was the removal of Solidity contributors, some of which had previously been part of the Pilot. The reasoning for this change can be seen here and here - broadly, this was inconsistent with the goals of PG funding a narrow scope centered around the core protocol and not expanding into dev tooling.
- Clarify the distinction between proposing new projects/teams and individuals
- Membership repo no longer private
  - While the pilot survey indicated that members were comfortable keeping the repo private (to avoid self-censorship during new member discussions), ultimately it was agreed that the benefits of transparent processes outweighed the negatives.
    - Transparency is the norm throughout Ethereum. We should hold ourselves to the same standard where it makes sense
    - Having an open operational record offers prospective members a reference for qualified contributions. This will be increasingly more important as funding scales and the incentives to join the Guild increase.
    - Funders and the broader Ethereum community deserve a window into Protocol Guild's curation to both understand/engage with the mechanism and in the worst case, to act as a secondary check on it getting stale / losing legitimacy

Overall, the pilot was invaluable in verifying our assumptions about the efficacy of this kind of funding mechanism for Ethereum's core protocol development, and we are excited to build on all the pilot's learnings with the next iteration of the Protocol Guild.

Protocol Guild v2

A key piece of our long-term vision is the Protocol Guild Pledge, wherein we aim to make Ethereum's core protocol work economically rational on a risk-adjusted basis, by normalizing that projects built on Ethereum donate 1% of their native token to the Protocol Guild. However, to achieve this goal it will be necessary to scale fundraising orders of magnitude beyond the pilot.

Accordingly, Protocol Guild's smart contract architecture will need to be upgraded to remove trusted components, manual input and offchain dependencies. Work on these new contracts has been underway since the end of the pilot, and will be implemented on a modular basis as and when they are ready.

While waiting for this new smart contract architecture, a new immutable vesting contract will be deployed which vests funds linearly over 4 years (as opposed to 1 year during the pilot). The Github PR related to the ratifying this vesting duration can be seen here. Although the membership survey indicated a preference for a shorter vesting period, it was ultimately agreed that sticking with the industry standard (4 years) made the most sense to facilitate donations and incentivize long-term contributions. That being said, we consider 4 years to be the default, but not a requirement - any donor can deploy their own vesting contract and point it to our V2 split with a shorter / longer vesting period!

Overall, Protocol Guild's future iterations will aim to replicate everything that worked well in the pilot, but with increased transparency, trustlessness and the removal of offchain dependencies. We hope that these changes, plus the 4-year vesting period, will encourage more projects built on Ethereum to take the Protocol Guild Pledge, to support the core protocol work they depend on.

Conclusion

With the tremendous success of raising $14+ million from 7.5k donations, we believe that the Protocol Guild has been validated as an effective funding mechanism. On behalf of all Protocol Guild members, we extend our heartfelt thanks to everyone who contributed. We are deeply humbled and incredibly grateful for our ecosystem's unwavering support of Ethereum's core protocol work.

But this is just the beginning! Ethereum's core protocol development roadmap remains as exciting as ever, and we are committed to implementing changes to the Protocol Guild to make it an even more effective conduit for funding this vital work.

If you're passionate about Ethereum's future and want to join us on this exciting journey, please consider taking the Protocol Guild Pledge, or reach out on our Discord to explore other ways to contribute.