

Democratic Improvement Proposals for decentralization projects

(Ethereum Improvement Proposals)

Shayan Eskandari
ConsenSys Diligence

CONSENSYS
Diligence

IETF 105 - Montreal
July 2019



Ethereum



- Second largest cryptocurrency (based on market cap - \$24+ B).
Possibly first in number of developers and tools
- Home to:
 - ENS (Ethereum Naming Service)
 - IPFS Apps (InterPlanetary File System)
 - 1869+ DApps.
- **Ethereum (EIP process)** seems to have **one of the healthiest decentral dev cycles amongst other Blockchain/Cryptocurrency projects** , but yet it is **far from perfect.**



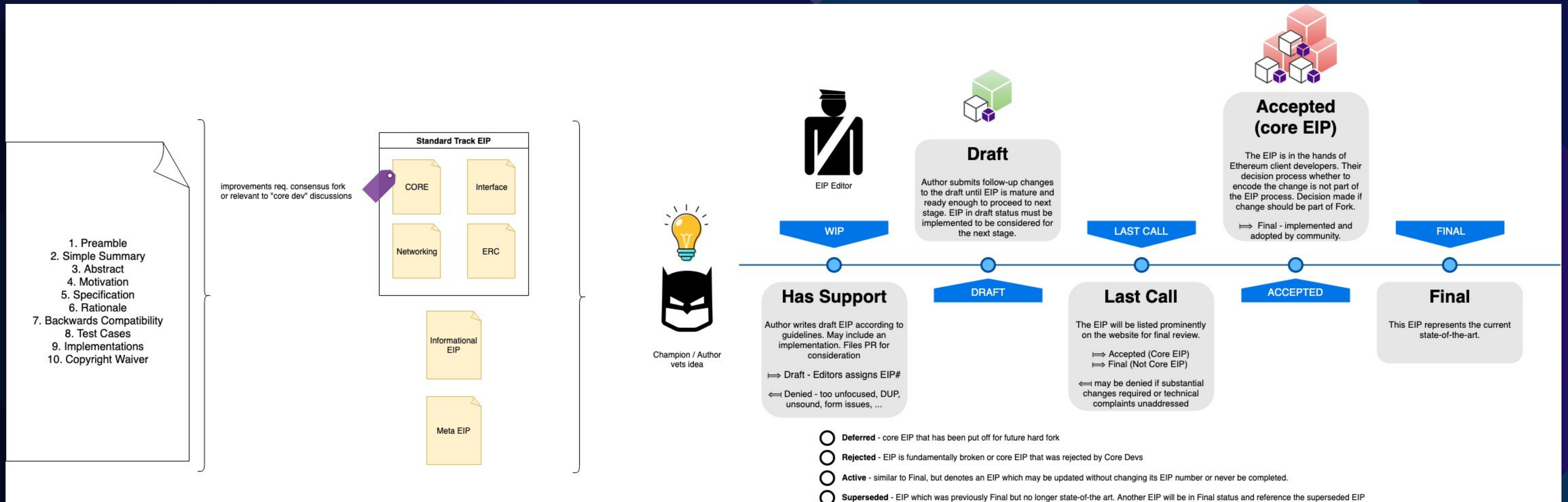
(E)IP Challenges

- Decentralization requires a non-hierarchical development cycle, which is really hard to achieve.

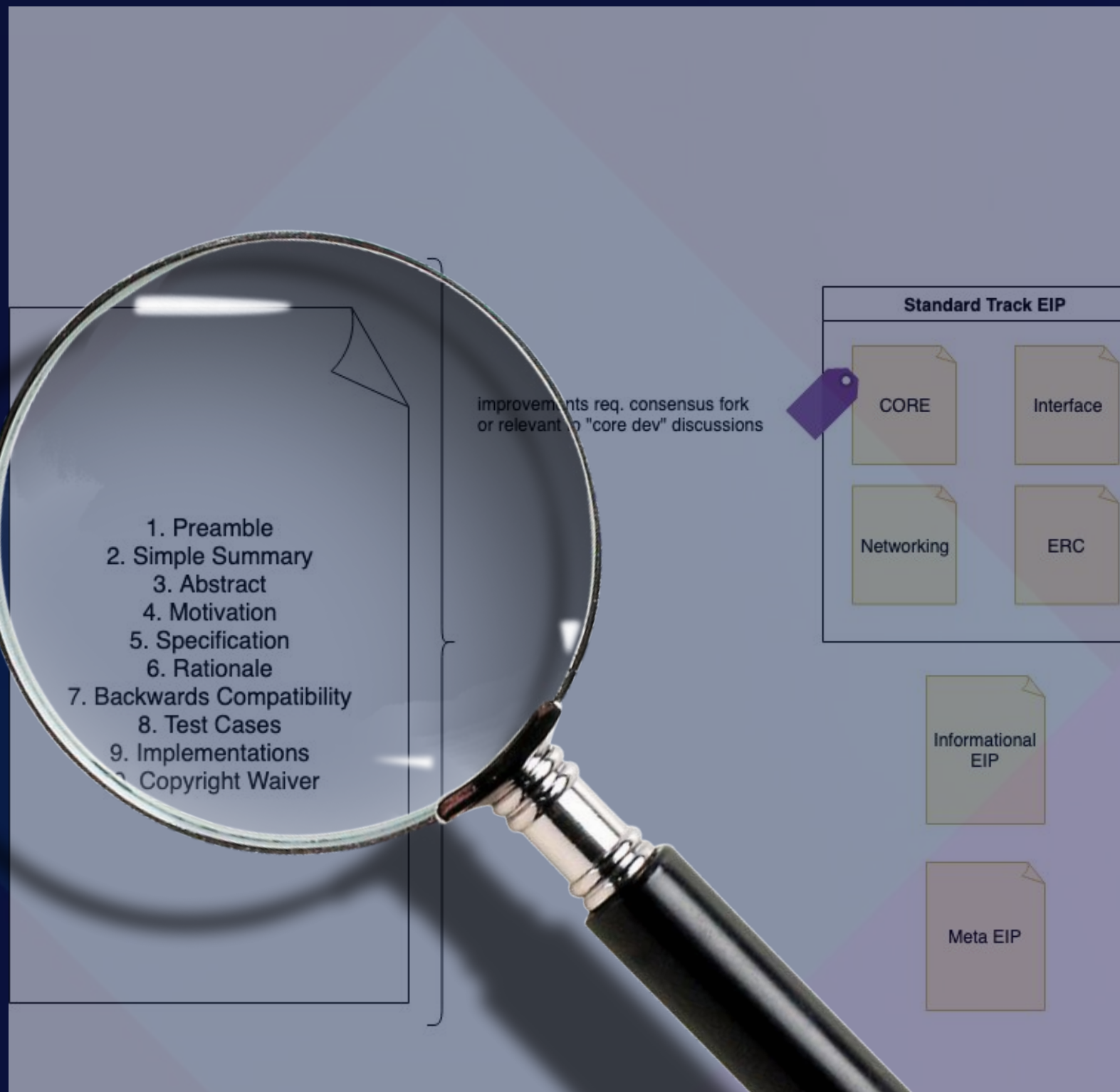
IETF RFC → **PEP** → **BIP** → **EIP**

- Some aspects were dropped on this path (e.g. Security Considerations section)

EIP Process (today)

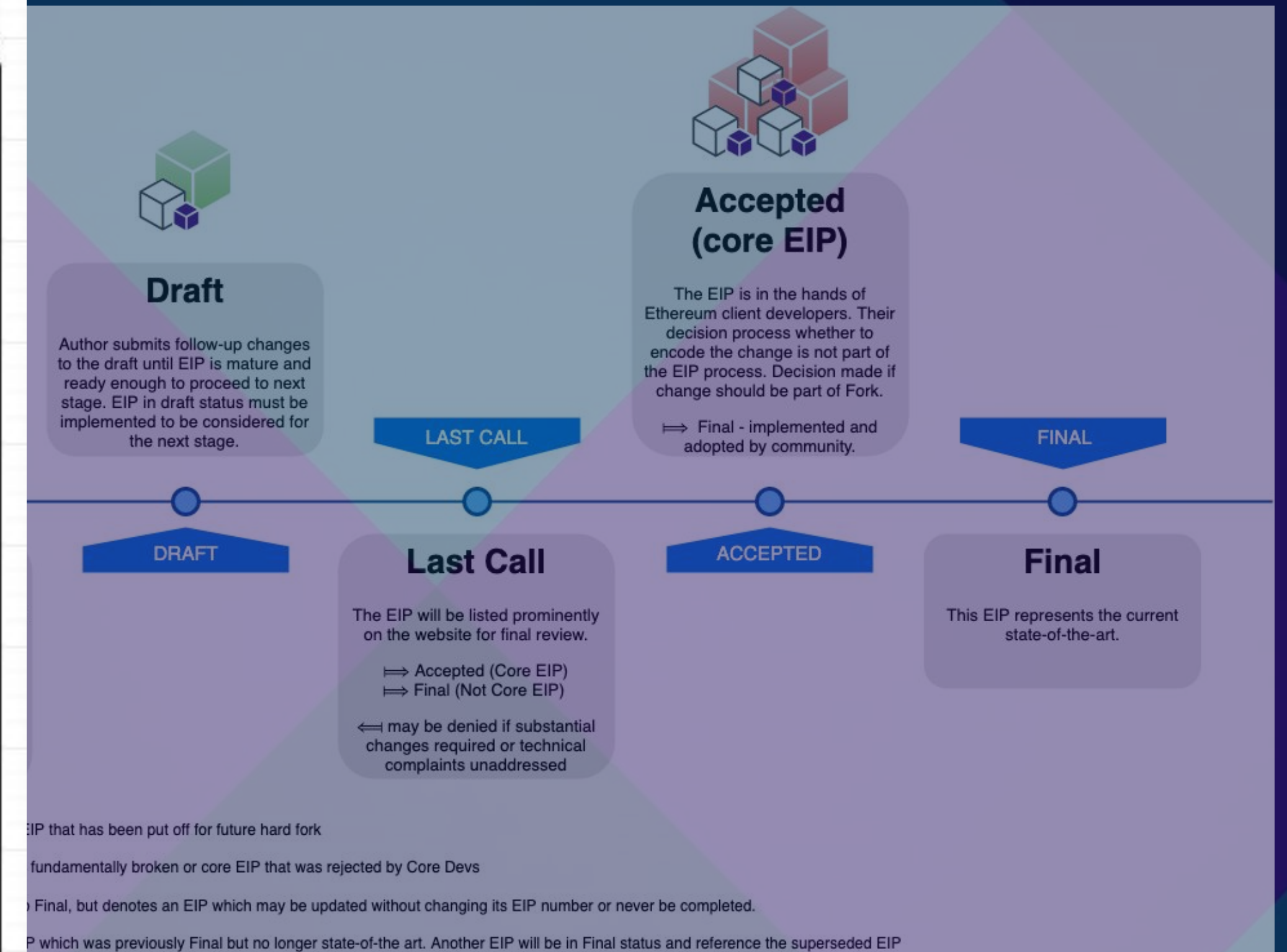


EIP Process (today)

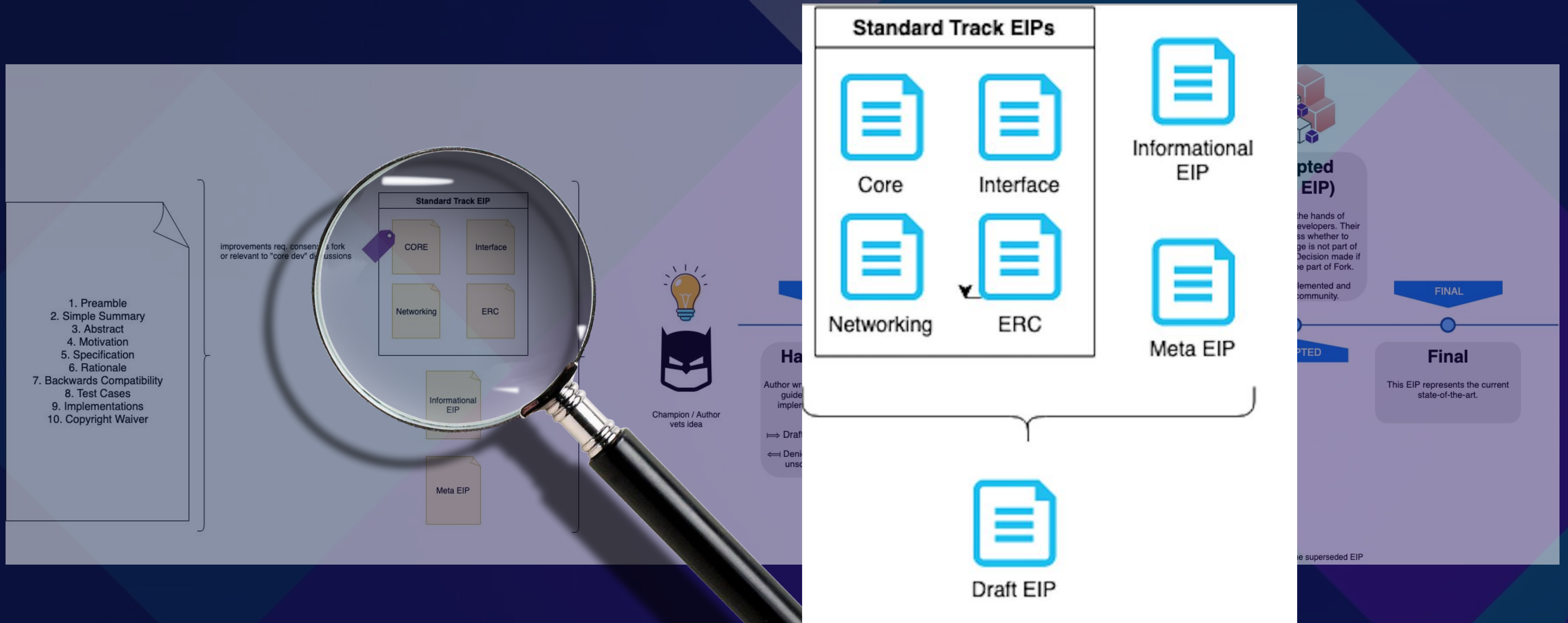


1. Preamble
2. Simple Summary
3. Abstract
4. Motivation
5. Specification
6. Rationale
7. Backwards Compatibility
8. Test Cases
9. Implementations
10. Copyright Waiver

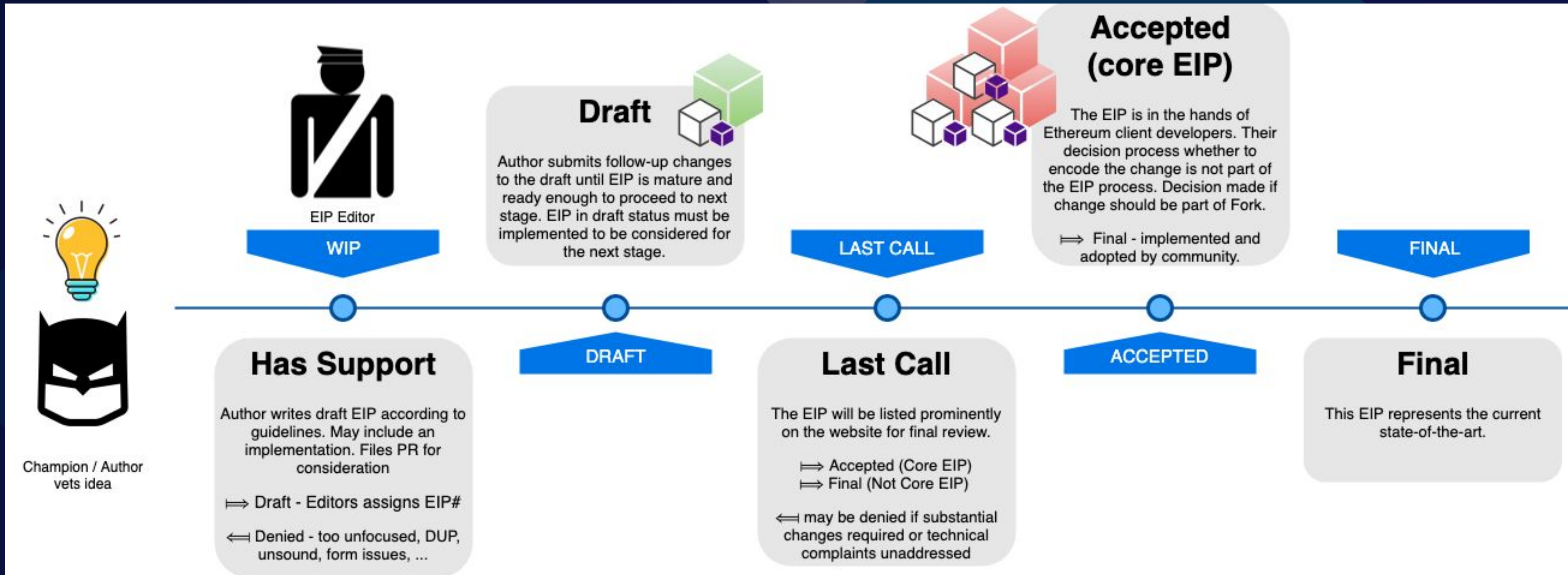
EIP-1



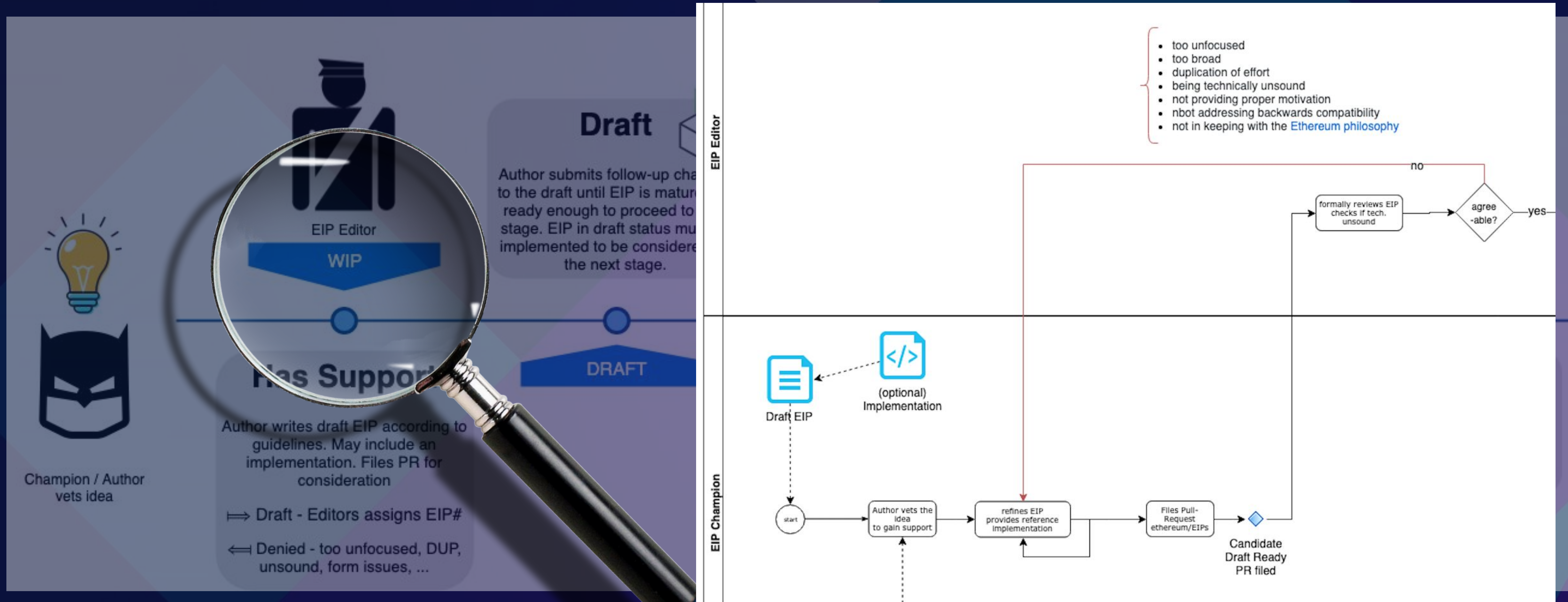
EIP Process (today) - Tracks



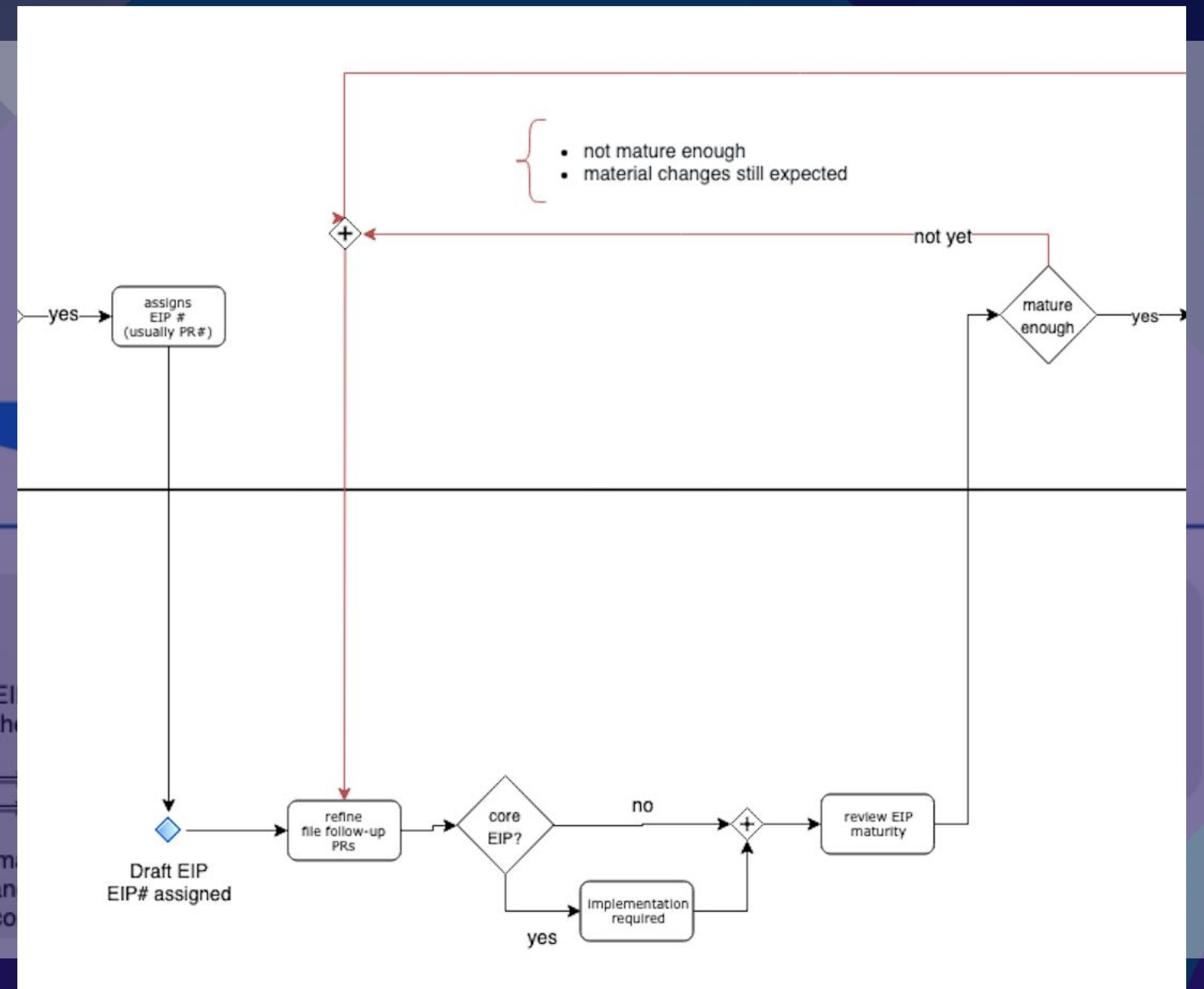
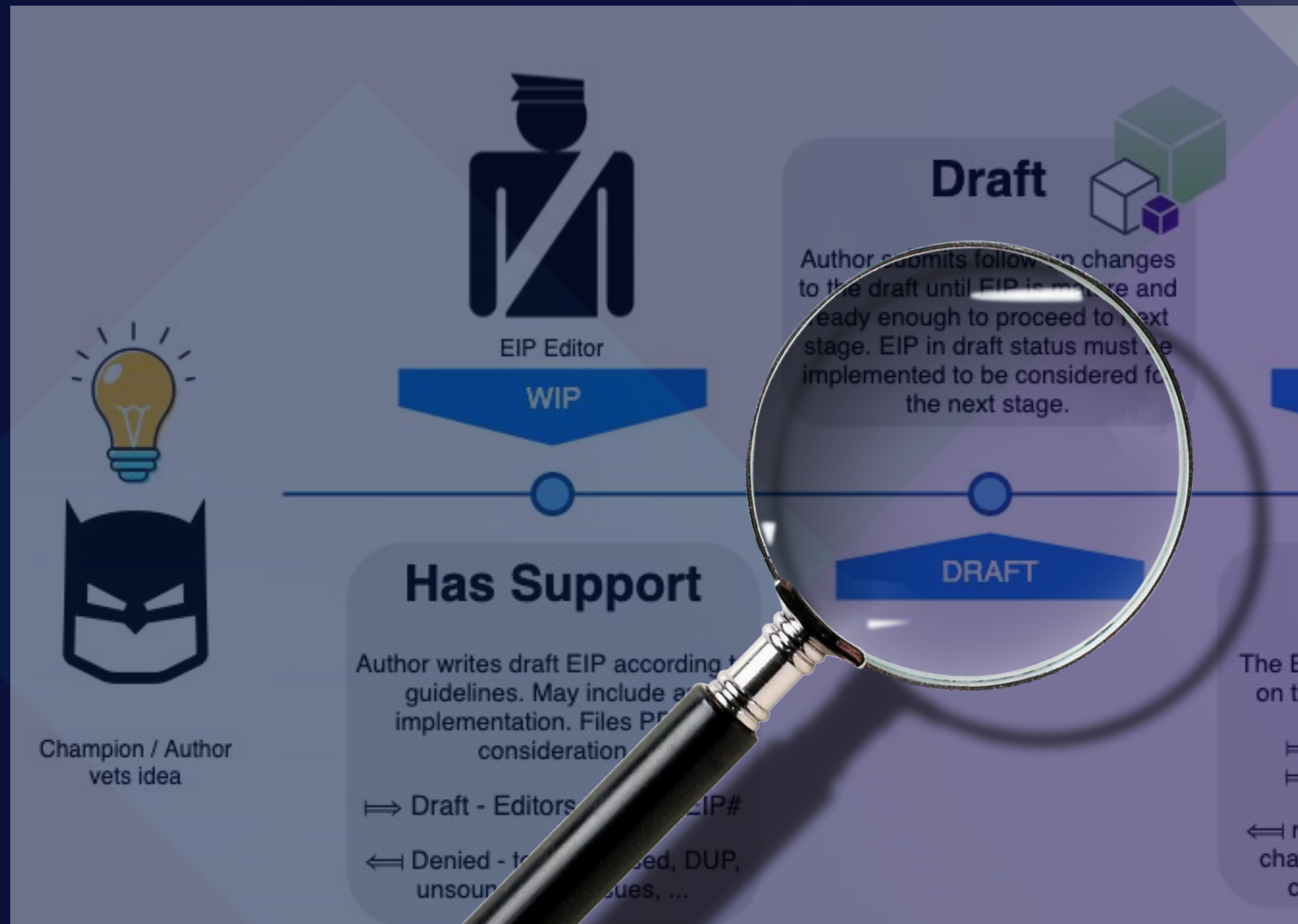
EIP Process (today) - Process



EIP Process (today) - WIP

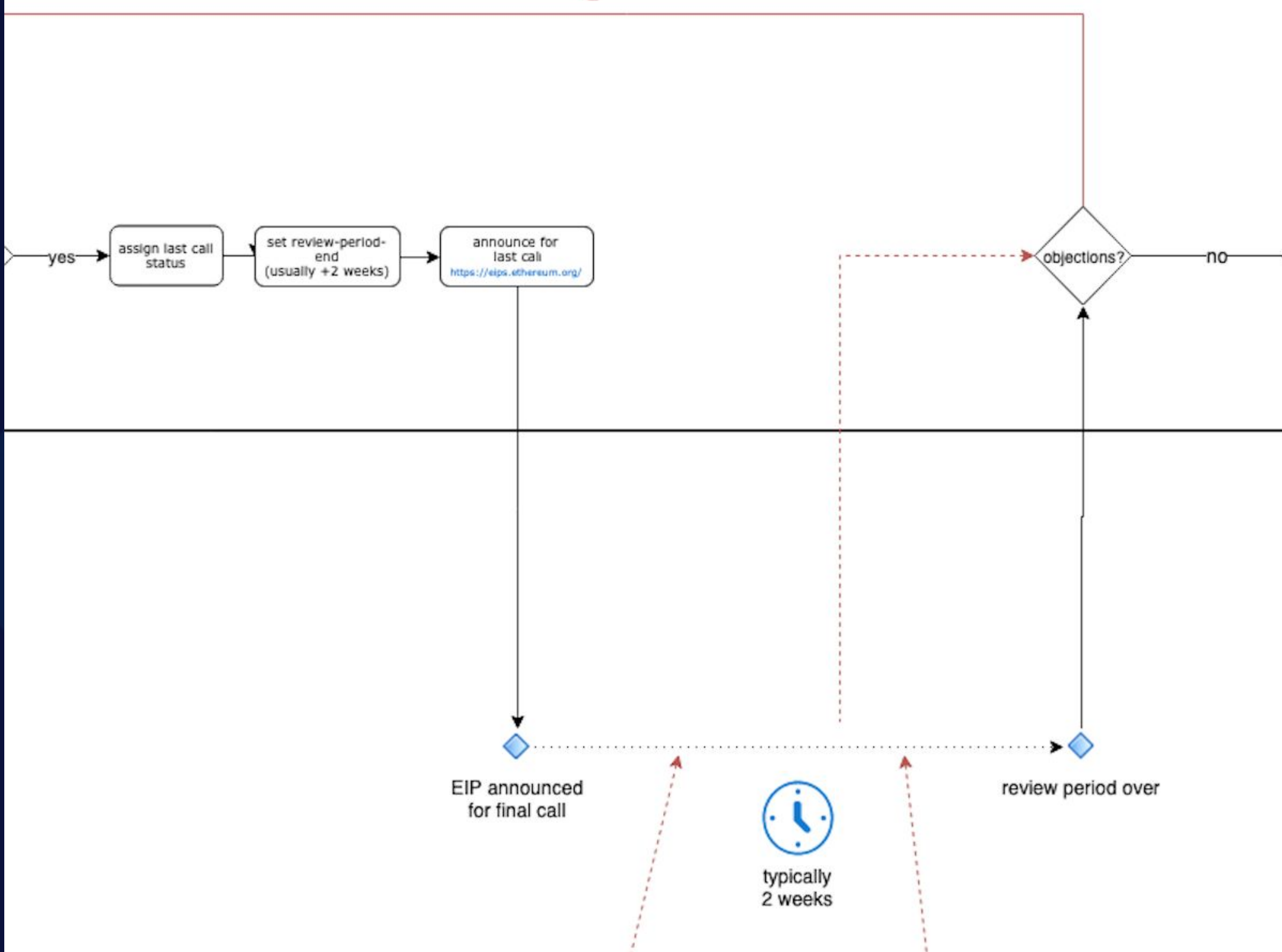


EIP Process (today) - Draft



EIP Process (today) - Last Call

- material changes
- substantial unaddressed technical complaints



Accepted (core EIP)

The EIP is in the hands of Ethereum client developers. Their decision process whether to encode the change is not part of the EIP process. Decision made if change should be part of Fork.

⇒ Final - implemented and adopted by community.

FINAL

Last Call

The EIP will be listed prominently on the website for final review.

⇒ Accepted (Core EIP)
⇒ Final (Not Core EIP)

⇐ may be denied if substantial changes required or technical complaints unaddressed

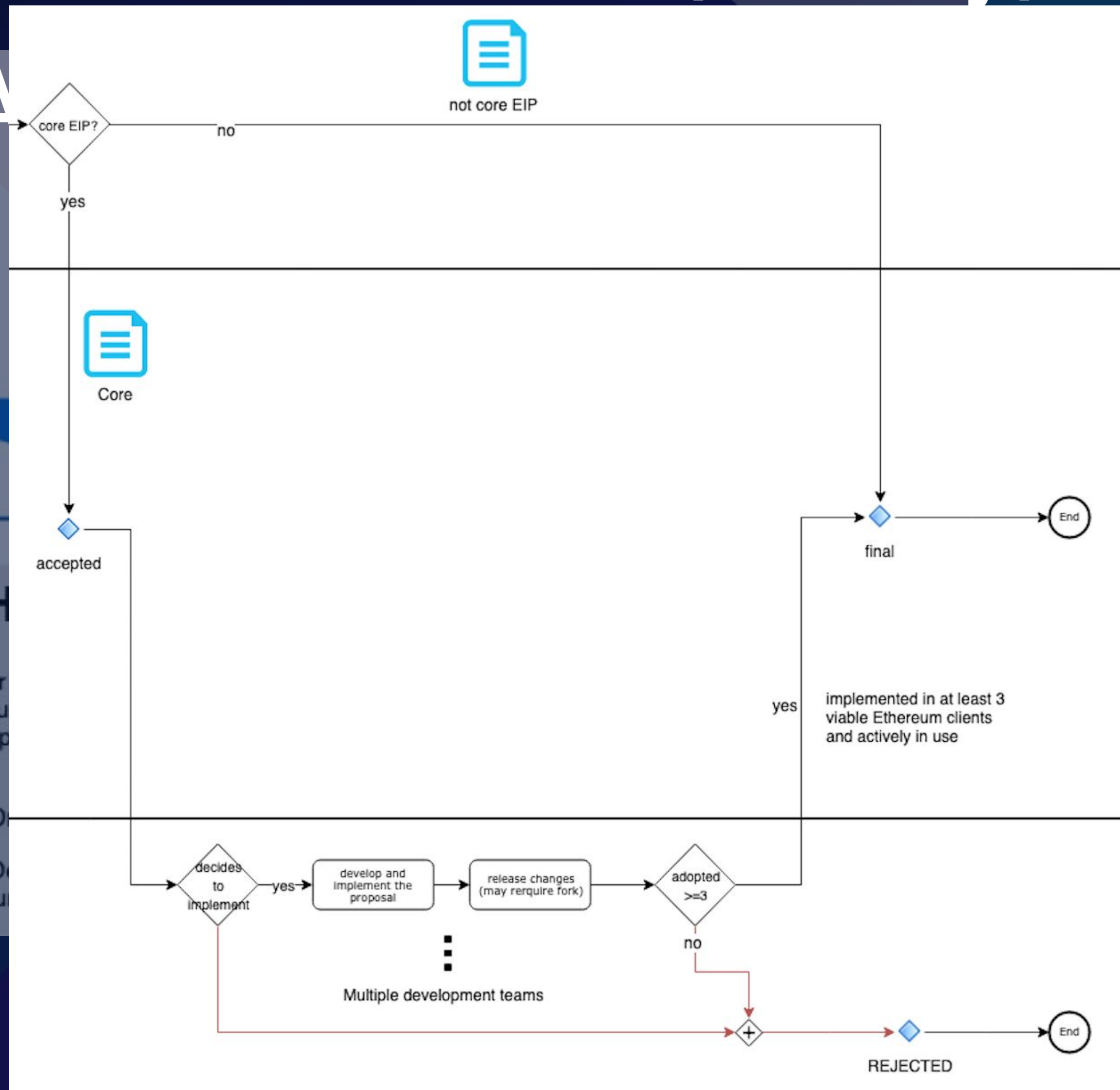
ACCEPTED

Final

This EIP represents the current state-of-the-art.

EIP Process (today) -

Final/A



Accepted (core EIP)

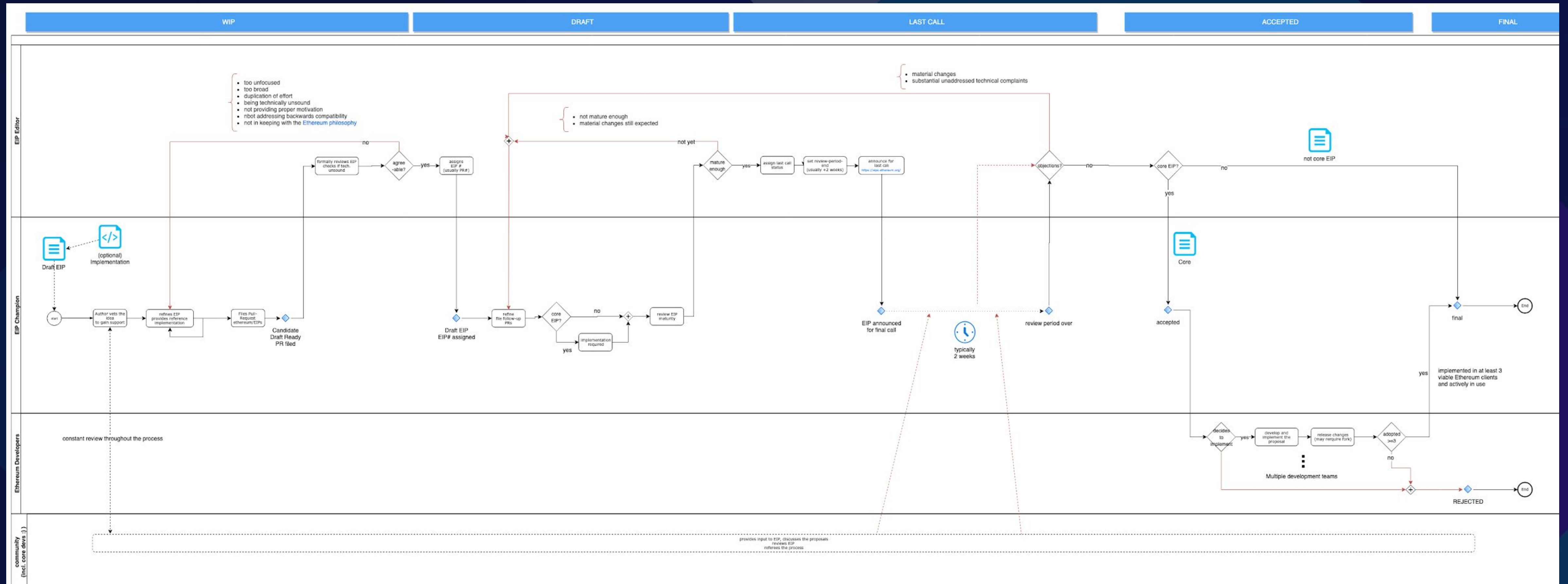
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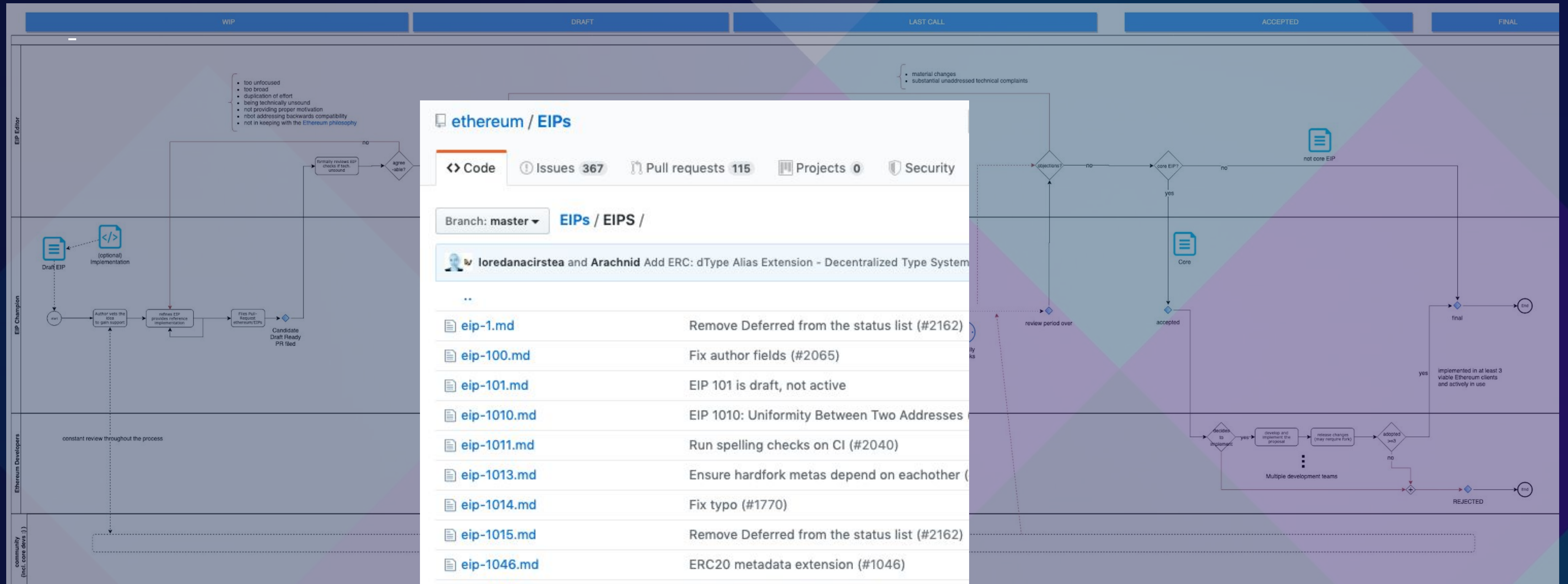


Democratic Improvement Proposals
decentralization projects

EIP Process (today) - Overall



EIP Process (today) - Overall



EIP Process (today) - Overall

Fellowship of Ethereum Magicians

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Category

EIPs
Discussions about specific EIPs (improvement proposals), and general proposals which may become EIPs. If applicable, specify the EIP issue # in the topic title.

Core EIPs Last Call

Fellowship Gatherings

- Council Sessions
- Presentations
- Regional Sessions
- Hackathons
- Core Devs Meeting Notes

Working Groups

- Constrained Resource Client Ring
- Ethereum 1.x Ring
- UX Ring
- Data Ring
- Education Ring
- Provider Ring
- Wallet Ring
- Token Ring
- Eth2.0 Networking Ring
- Mobile Ring
- Dev Tools Ring
- Ethereum Architects
- Product Management Ring
- Signaling Ring
- Hardware Wallet Ring
- Security Ring
- Mobile Wallet Ring
- Desktop Wallet Ring
- Fund Recovery Ring
- Integrity Ring
- Multisig Ring

DRAFT LAST CALL ACCEPTED FINAL

- material changes
- substantial unaddressed technical complaints

objections? no core EIP? no not core EIP

review period over

accepted

decides to implement? yes develop and implement the proposal release changes (may require forks) adopted >=3 no REJECTED

implemented in at least 3 viable Ethereum clients and actively in use

final

Core

Arachnid Add ERC: dType Alias Extension - Decentralized Type System

Remove Deferred from the status list (#2162)

Fix author fields (#2065)

EIP 101 is draft, not active

EIP 1010: Uniformity Between Two Addresses

Run spelling checks on CI (#2040)

Ensure hardfork metas depend on eachother (

eip-1013.md

eip-1014.md

eip-1015.md

eip-1046.md

eip-1047.md

eip-1051.md

eip-1052.md

Fix typo (#1770)

Remove Deferred from the status list (#2162)

ERC20 metadata extension (#1046)

Token metadata json schema (#1047)

Arithmetic overflow detection for the EVM (#1

Mark Constantinople and all its references Fin

EIP Process (to be covered)

Fellowship of Ethereum Magicians

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Token Ring Education Ring Mobile Ring Dev Tools Ring
Eth2.0 Networking Ring Product Management Ring Signaling Ring
Ethereum Architects Security Ring Mobile Wallet Ring
Hardware Wallet Ring Fund Recovery Ring
Desktop Wallet Ring Integrity Ring Multisig Ring

Category	Author	Topic	Status
EIPs	Remediatic	EIP-615: Sues	hard
EIPs	Arachnid	Add ERC: d	
EIPs	ProgPow		prog
EIPs		EIP-2028: reduction	eip-2
EIPs		EIP 1013	
EIPs		EIP 1014: Uniformity Bet	
EIPs		Run spelling checks on CI (#2040)	
EIPs		Ensure hardfork metas depend on eachother	
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EIPs		Arithmetic overflow detection for the EVM (#1	
EIPs		Mark Constantinople and all its references Fin	

Ethereum Core Devs Meeting #65 [2019-07-18]

Zoom Meeting ID: 478-113-395

Recording

nick

Danno Ferrin

Louis Guthmann

James

Trenton Van Epps

Adrian Sutton

Pooja Ranjan

Alex Vlasov

Martin Holst Swende

Pawel Bylica

Alexey Akhunov

Wei Tang

Tim Beiko

Alex Bereszaszi (axic)

Casey Detrio

Alex G

Martin Ortner

Leave Meeting

What is needed?

- Participation from IETF to improve these processes
 - Find the gaps, missing pieces
 - Refine modules
- Standardize development and change management processes
- Open to any discussions or comments

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Thank You

Get in touch with us:

- **Shayan Eskandari (@sbetamc)**
shayan.eskandari@consensys.net
- **Martin Ortner**
martin.ortner@consensys.net

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Other Initiatives

- **Decentralized Internet Infrastructure (dinrg):** <https://datatracker.ietf.org/rg/dinrg/about/>
- **General Security Considerations for Cryptoassets Custodians:**
<https://datatracker.ietf.org/doc/draft-vcgtf-crypto-assets-security-considerations/>
- **OASIS / Ethereum Open Project for EIP Process:**
<https://ethereum-magicians.org/t/oasis-ethereum-open-project-update/3232>
- **Cryptocurrency Consortium Open Standard:** <https://cryptoconsortium.github.io/CCSS/Details/>
- **ISO/TC 307 Blockchain and distributed ledger technologies:**
<https://cryptoconsortium.github.io/CCSS/Details/>

- **Mostly reinventing (new) processes in the ecosystem.**

- **Our ongoing internal proposals:**
 - **Mandatory “Security Considerations” for EIPs - (Similar to RFC 3552):**
<https://ethereum-magicians.org/t/eip-mandatory-security-considerations-for-eips/2839>,
<https://youtu.be/Au1Qll-86v0?t=18029>