



SEI

*Building A High
Performance Blockchain*

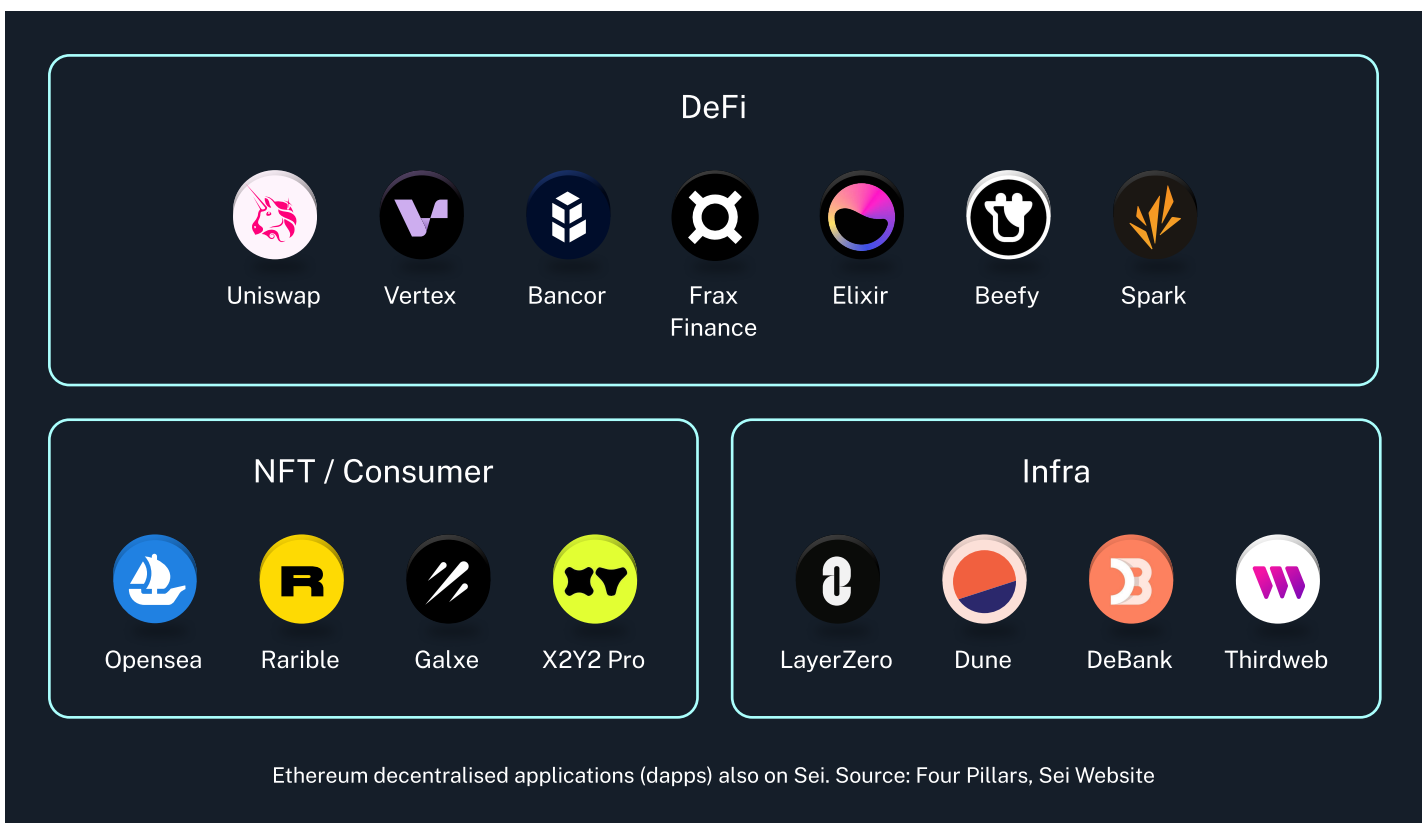


Key Takeaways

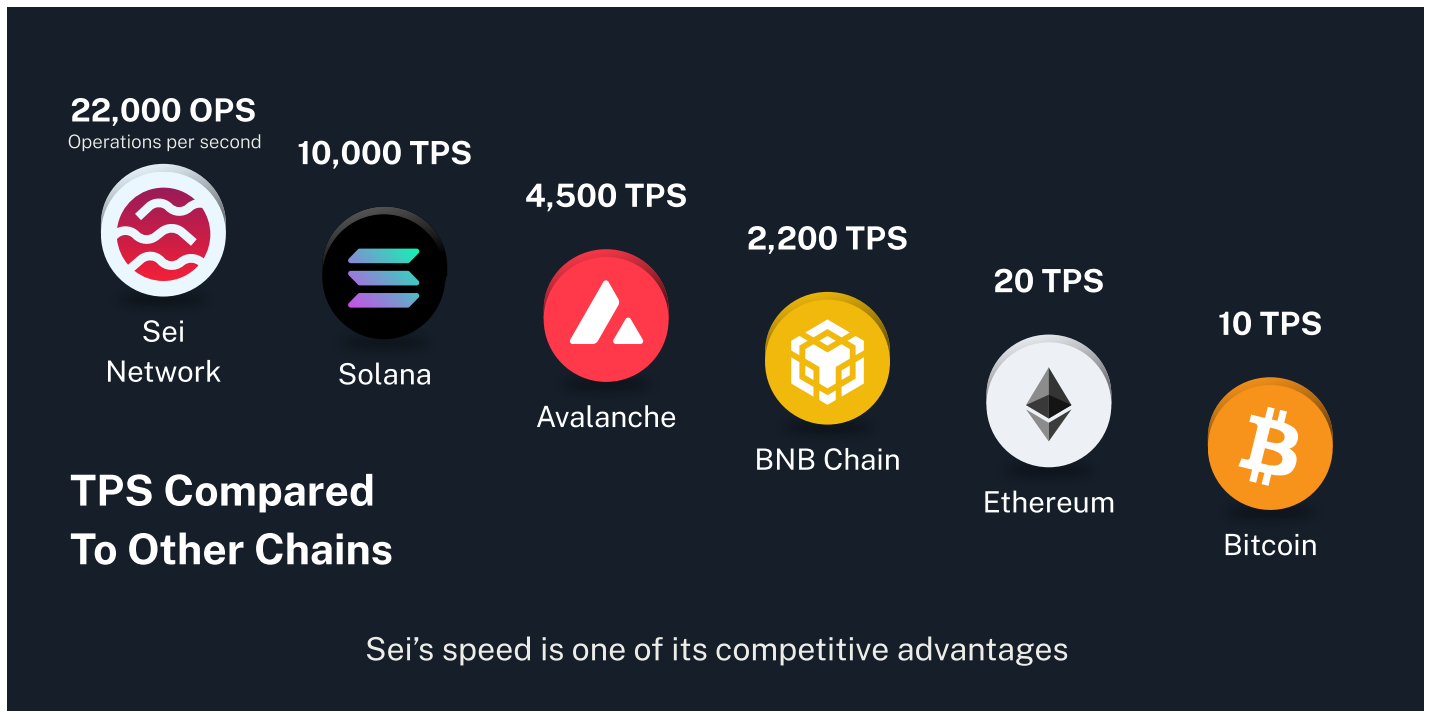
- 1 Sei (SEI) is one of the next-generation layer-one blockchains (L1s), widely known for its focus on decentralised finance (DeFi) use cases.
- 2 In 2024, Sei expanded to become a general-purpose L1, putting it in more direct competition with other emerging L1s such as Sui (SUI) and Aptos (APT), both of which still lag well behind Solana (SOL) across nearly all key adoption metrics.
- 3 Like most smart-contract blockchains, one of Sei's greatest challenges will be whether it can materially differentiate itself from its rivals.

Sei Network Adoption

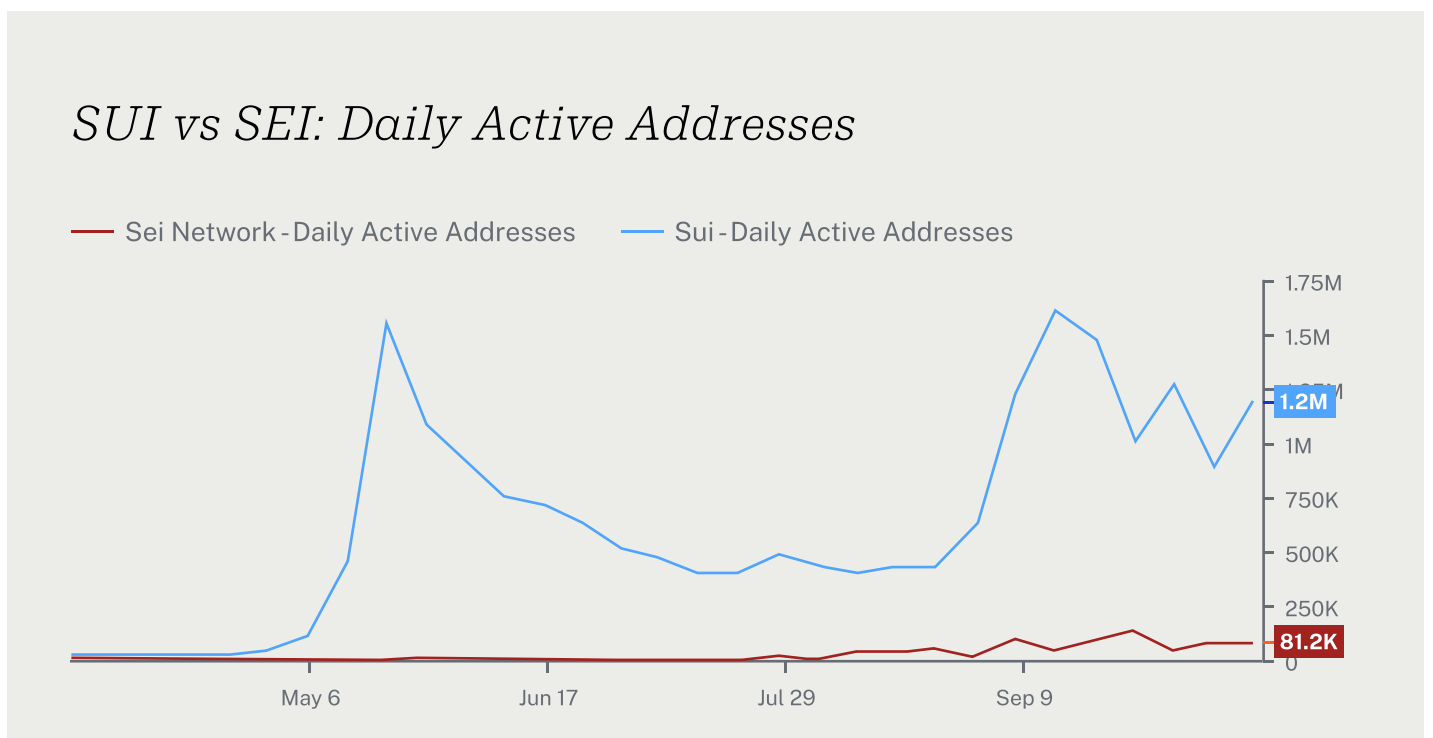
In May 2024, Sei launched its V2 upgrade, bringing several key improvements to its network. One of the major updates was the introduction of an upgraded Ethereum Virtual Machine (EVM) that allows developers to easily bring over their Ethereum-based applications without needing significant changes.



This upgrade also improved the network’s speed and efficiency, with faster transaction processing and integration of real-time data feeds through the Pyth Network (PYTH). These changes have made Sei more attractive for developers and helped grow its ecosystem by drawing in more applications and users.



At the time of writing, Sei’s active addresses stand at 81,000 per day, well short of Solana (7.7 million) and Sui (1.2 million). This comparison highlights Sei’s struggle to keep up with Solana and, to a lesser extent, Sui.



Daily active addresses for Sui (blue) and Sei (red) for the six months ending Oct. 25, 2024 (Source: Artemis)



Comparing Sei With Sui

Like Sui, Sei positions itself as a high-performance L1 blockchain, but it differs in its technological focus and ecosystem approach.

Sui has differentiated itself with features like zkLogin and its SuiPlay0X1 gaming device and has always been a general-purpose blockchain.

Sei, on the other hand, started out as a Defi-focused blockchain, but with its recent upgrade to EVM and its compatibility with Ethereum projects, it has now become more general-purpose.

One of the biggest differentiators between the two is the programming language they use. SUI is built using the Move program language that was created by Meta (Facebook) specifically for blockchains. Sei, on the other hand, uses Rust and Solidity which are far more commonly used and therefore, easier for developers to move into the ecosystem.

	SEI 	SUI 
Launch Date	August 2023	May 2023
Primary Support Use Cases	DeFi, gaming	General Purpose L1 with a focus on gaming
Programming Language	Rust and Solidity	Move
Daily Active Addresses	81,000	1.2 million

For more information on Sui, see our [recent analysis](#).

Competitive Landscape

While Sei faces stiff competition from other emerging L1s, arguably its biggest competitor is the already-established Solana. Solana's established position in the space, particularly with its upcoming upgrades like Firedancer, puts Sei in a challenging spot where it must carve out a distinct niche to compete effectively. Firedancer promises to significantly bolster Solana's technical performance and security, solidifying its status as a leading high-performance blockchain.

Sei's success will likely depend on attracting a range of dapps that can showcase its infrastructure's capabilities, especially taking advantage of its high speeds aiming to attract applications that require high-frequency trading.

Sei's emphasis on compatibility with the Ethereum ecosystem and its seamless support for existing DeFi projects may help it gain a competitive edge in attracting blockchain developers and users.

Conclusion

Sei is emerging as a viable competitor in the next generation of L1 blockchains. No longer a DeFi-focused blockchain, Sei now aims to facilitate a variety of other use cases, much like its closest competitors in Sui, Aptos and Solana. Arguably, the biggest watch with Sei is whether it can meaningfully differentiate itself from its rivals. The extent to which it can will likely have significant effects on Sei's developer and user adoption over the long term.