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Ethereum 2025: Usage, dominance, and role in a portfolio

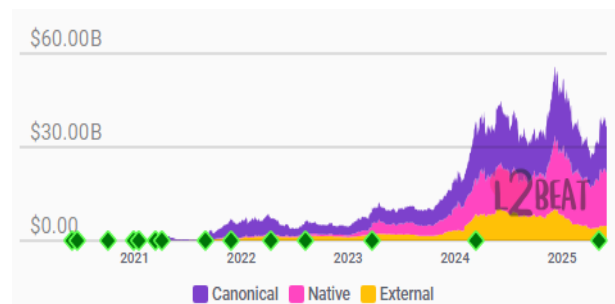
Ethereum, often referred to as the "world computer," has become a fundamental part of the crypto ecosystem since its launch in 2015. With the introduction of smart contracts, the network revolutionized blockchain technology and enabled the development of decentralized applications.

Blockchain applications make it possible to process financial transactions more efficiently, transparently, and without central intermediaries. The underlying smart contracts automate processes directly in the code – from processing payments to representing complex business logic. This provides investors with access to a new digital infrastructure that complements existing market structures and enables new business models.

The battle for scalability

Ethereum implemented this approach starting in 2015 and has since established itself as the leading platform for programmable blockchain applications. The network has become the preferred infrastructure for decentralized applications – from institutional financial services to new digital business models. The continuous growth is reflected in the number of active wallets, the use of smart contracts, and ongoing developer activity. However, a central challenge has emerged: the scalability of the network under increasing demand.

As usage increases, Ethereum is hitting structural limits: transactions become slower and more expensive, bringing scalability issues to the forefront. To address this, the network is increasingly offloading activities to so-called Layer-2 solutions – additional protocols that bundle transactions away from the main blockchain to relieve its load.



Strong growth in total capital on Ethereum Layer 2 solutions since 2021 / Source: L2Beat

The growing use of Layer-2 solutions improves the scalability of the Ethereum ecosystem but reduces the direct use of the Ethereum main network – and thus the demand for its native cryptocurrency, Ether (ETH), for transaction processing.

At the same time, new blockchains like Solana are gaining importance, as they natively integrate high scalability. These developments raise questions about Ethereum's long-term competitiveness and investment prospects. Over the past year, network usage stagnated – a trend that is also reflected in the weak price development of the native cryptocurrency, Ether (ETH).

Architecture as a competitive factor

The architectural difference between Ethereum and newer networks is particularly evident in their approach to the so-called blockchain trilemma – the



goal of ensuring decentralization, security, and scalability simultaneously. While Ethereum prioritizes security and decentralization and deliberately outsources scalability, networks like Solana focus on higher efficiency through centralized components and alternative consensus mechanisms. These compromises make Ethereum the preferred platform for applications with high security requirements, while higher-performance networks are increasingly used for mass-market or cost-sensitive applications.

Metric (As of June 2025)	Ethereum	Solana
Transactions per second	12	3'800
Cost per transaction (\$)	1.60	0.003
# Network nodes	13'000	4'600
# Network validators	1.05mn	1'200
# Daily transactions	1.1mn	34mn

Financial institutions rely on Ethereum

For applications with the highest security requirements, Ethereum remains the preferred infrastructure. This is evident in its leading position in decentralized finance (DeFi), stablecoins, and tokenization. While private users increasingly turn to alternative networks, higher transaction costs play a lesser role for institutional players. Ethereum is particularly dominant in the following areas:

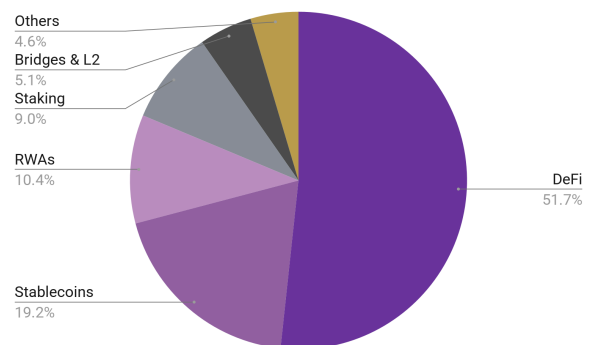
- 1. Decentralized Finance (DeFi):** Over 1,300 protocols run on Ethereum, with a large portion in the financial sector. Users gain access to trading, derivatives, loans, and yield products – without central counterparties. With about 63 billion USD in locked assets (Total Value Locked, TVL), Ethereum holds about 54% market share.
- 2. Stablecoins:** Stablecoins are cryptocurrencies that maintain a stable value by being pegged to a reserve value like the US dollar. In 2024, more value was processed with stablecoins than with Mastercard and Visa, due to the superior efficiency and transparency of blockchain technology. The US has also recognized stablecoins as a national priority through an executive order. Ethereum is home to 50% of all stablecoins, with 122 billion USD.
- 3. Real World Assets (RWAs):** Tokenization refers to the digital representation of traditional

assets like bonds, real estate, stocks, or money market instruments on a blockchain. This allows for more efficient processing, higher transparency, and potentially greater market liquidity. Institutional investors like BlackRock, Fidelity, and Franklin Templeton are increasingly turning to Ethereum, which covers about 59% of this market with approximately 7 billion USD in tokenized RWAs. The Boston Consulting Group forecasts that up to 16 trillion USD in Real World Assets could be tokenized by 2030.

Central banks are also relying on Ethereum. The Swiss National Bank (SNB) has been testing direct foreign exchange trading on the blockchain in partnership with the Bank for International Settlements (BIS) since 2020. Such pilot projects highlight that for applications with regulatory relevance and the highest security requirements, Ethereum remains the first choice.

Core component of a portfolio

Smart contract platforms offer a faster, more efficient, and transparent infrastructure for financial transactions and automated business processes compared to traditional multi-stage settlement systems. Ethereum – as the most decentralized and widely used platform for institutions – forms the foundation for the majority of applications in DeFi, stablecoins, and tokenized assets. Leading asset managers like BlackRock rely on the network as a technological foundation for new digital business models. The strong focus on DeFi underscores Ethereum's role as the primary infrastructure in the crypto-financial system.



TVL distribution of the 63bn USD on Ethereum by sectors / Source: DAS, DeFi Llama



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Despite technological complexity, growing scalability demands, and increasing fragmentation through Layer-2 solutions, Ethereum remains strategically well-positioned. With the recent completion of the Pectra upgrade, Ethereum once again demonstrates its ability to evolve and strengthens the technological foundation for broader institutional use. Ether thus represents a structural component in a diversified crypto portfolio - complemented by targeted allocation across various platforms to balance technological potentials and risk diversification.