

### Overview:

- Polkadot (\$) was founded in 2016 by Gavin Wood (a co-founder of Ethereum) alongside Peter Czaban and Robert Habermeier
- Polkadot is designed to be a software that incentivizes users to operate a main blockchain (The Relay Chain) on top of which user-created blockchains called parachains can operate
- Polkadot is a proof-of-stake blockchain platform. The main problem Polkadot sets out to solve is the lack of communication between blockchain networks. It's value comes from it's unique solution to solving blockchain's interoperability problem.

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### Developer Team:

- Polkadot (\$) was founded in 2016 by Gavin Wood (a co-founder of Ethereum) alongside co-founders Peter Czaban and Robert Habermeier
- It is managed by the Web3 Foundation which strives to build a decentralized web. The foundation made a contract with Parity Technologies to build the platform. Parity Technologies is a core blockchain infrastructure company. It is creating an open-source creative commons that will enable people to create better institutions through technology.
- Polkadot is a project by developers for developers. It is aimed at connecting public and private chains, oracles, DApps, and services to seamlessly work side by side. And thus, it facilitates the connection of different independent blockchains together into a single Web3 Internet.
- Wood studied Computer Systems and Software Engineering in university. He served as Ethereum's CTO until 2016 when he left to found Polkadot. His contributions to Ethereum include proposing and helping to develop Solidity, the programming language for writing smart contracts.

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### Use Cases:

- **Moonbeam:** Moonbeam bridges Polkadot and Ethereum by establishing a foundation for smart contracts to be deployed that can interact with the Ethereum network. The Moonbeam utility token "Glimmer" (GLMR) is used to facilitate the deployment of these smart contracts and is used to transact gas fees. Moonbeam was recently adopted on the Kusama test network, but it will assist existing decentralized applications (dApps) in future developments. With Ethereum Virtual Machine (EVM) integration and a web3-compatible API, the Moonbeam project aims to bring increased speed and interoperability to decentralized finance (DeFi).
- **Centrifuge:** Centrifuge is a protocol designed for Polkadot that calls itself a "gateway for real-world assets into DeFi". Users can take out loans using real-world assets as collateral. For example, using Centrifuge, it is possible to take out a loan using invoices, mortgages, and other tokenized assets as collateral. The Centrifuge team is also collaborating with MakerDAO, Circle, and Celo Protocol to create a world of fair money. They will soon become a parachain on the Kusama test network and will enable Polkadot to handle numerous DeFi use-cases.
- **Polkastarter:** Polkastarter is a crypto launchpad and fundraising platform that facilitates cross-chain auctions and token pools. The Polkastarter platform makes it easy for projects to raise capital from a decentralized, interoperable, Polkadot-based environment. The native POLS ERC-20 token has experienced incredible price action, as several projects launched on Polkastarter have seen significant success. This is strong validation of Polkastarter's ability to enable more projects on the Polkadot network, expanding the possibility of use-cases.
- **Exeedme:** Launched on Polkastarter, Exeedme is a gaming platform designed to create new revenue streams for users of the platform. Exeedme harnesses the power of non-fungible tokens (NFTs) and decentralized finance (DeFi) to incentivize gamers to monetize their skills. This is achieved with the native XED token. Not only are gamers rewarded with XED tokens for winning tournaments, but they are also rewarded for merely participating. Tokenizing gaming is a speculated use-case of blockchain and Exeedme on Polkadot enables that.
- **Best platform for capturing undiscovered use-cases:** As use-cases expand in DeFi, NFTs, and more sectors, Polkadot is best-positioned to capitalize on them with its unique parachain system that enables unmatched customizability and chains that can run simultaneously over the same relay network.

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## Investment Thesis / Opportunity:

The blockchain ecosystem is facing three major and related problems that's preventing widespread adoption: interoperability, scalability, and security. Ethereum, the first-to-market with a blockchain solution that enabled more complex tasks through the utilization of smart contracts, became the standard network over which decentralized apps (dapps) were made. However, these independent chain projects are unable to interact with each other, leading to security and scalability issues along with high gas fees. This is a huge gap that the blockchain ecosystem has yet to bridge and Polkadot is perfectly poised to be that solution.

- **Fundamental Design that Promotes Interoperability:** Polkadot is fundamentally two blockchain layers, a main meta-level called the relay network, and a level built on top of the relay network that can host independent chains on it through an innovative technology called parachains. Because parachains can be customized for any use and still feed into the main chain, Polkadot is able to host a wide variety of use-cases that can communicate with each other. More technically, this allows for more flexible and powerful smart contracts while avoiding excessive gas fees associated with running those smart contracts. As a result of this interoperability,, Polkadot's total addressable market is much larger than Ethereum's.
- **Network Effects that Promote Scalability:** Because every parachain on the Polkadot network is connected to the main network, Polkadot is able to leverage network effects unlike any other blockchain. The first implication of this is over 1 million TPS (transactions per second), a massive increase over the 25 TPS Ethereum can currently manage and the 24,000 TPS Visa can manage. The second implication is a collective security effect. Independent chain projects require a certain threshold of validators and stakers in order to operate securely. By linking into the main network and being able to rely on a shared pool of validators, the network only gets more secure as more projects are developed on it. Finally, Polkadot's industry-standard toolset for developing chain projects called Substate allow projects to be created much more quickly and more customizable allowing for faster growth.
- **Kusama Test Network that Ensures Security:** Kusama is the name of a network designed exactly like Polkadot with the only difference being less strict governance rules. It was designed to be a test network where projects can be demoed and Polkadot upgrades can be experimented with. As a result, Polkadot possesses world-tested assurance to every upgrade it undergoes, massively decreasing the risk of such upgrades. This is a unique advantage to Polkadot and allows investors to be more confident before and after network upgrades.

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## Catalysts ([status updates](#)):

- **Momentum:** Polkadot has already overtaken Ethereum in developer count despite the first line of Polkadot code being written only three years ago. It is currently in the top ten of cryptocurrencies by market cap.
- **2021:** Parachain updates that will begin auctioning blockchain slots to protocols running their own chain on top of The Relay Chain.
- **2022:** (Cross-Chain Message Passing) and the launch of parathreads that allow greater capability of interoperability and cross-chain communication
- Large deal announcements

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## Risks:

- Failures on the Kusama network can be perceived as delays on Polkadot projects and result in declining sentiment towards Polkadot
- Failure of parathreads and other bridging mechanisms to bridge incumbent platforms like Ethereum with Polkadot
- Smart contract issues, lack of developer adoptions post network upgrade

