ASTAR

https://linktr.ee/astarnetwork

1 Astar Network Tagline

Astar Network is the **Polkadot dApp hub Parachain** supporting **EVM**, **WASM, and layer2** solutions and multiple **L1 chains** such as Ethereum, Cosmos and many more.

2 Problem

- Polkadot Relaychain **doesn’t support smart contract by design**.
- **EVM compatibility is everywhere**. This is a default feature for Polkadot Parachains.
- It’s all about “Network Effect” but generally **there is no financial incentives for early developers** to deploy smart contracts.

3 Solutions

dApps Staking

dApp Staking is the system to distribute basic income to developers on Astar Network. By making a product on Astar, developers can earn $ASTA token from block reward based on their performance and decentralized voting. This is a strong incentive for developers to choose Astar.

Multi Virtual Machine

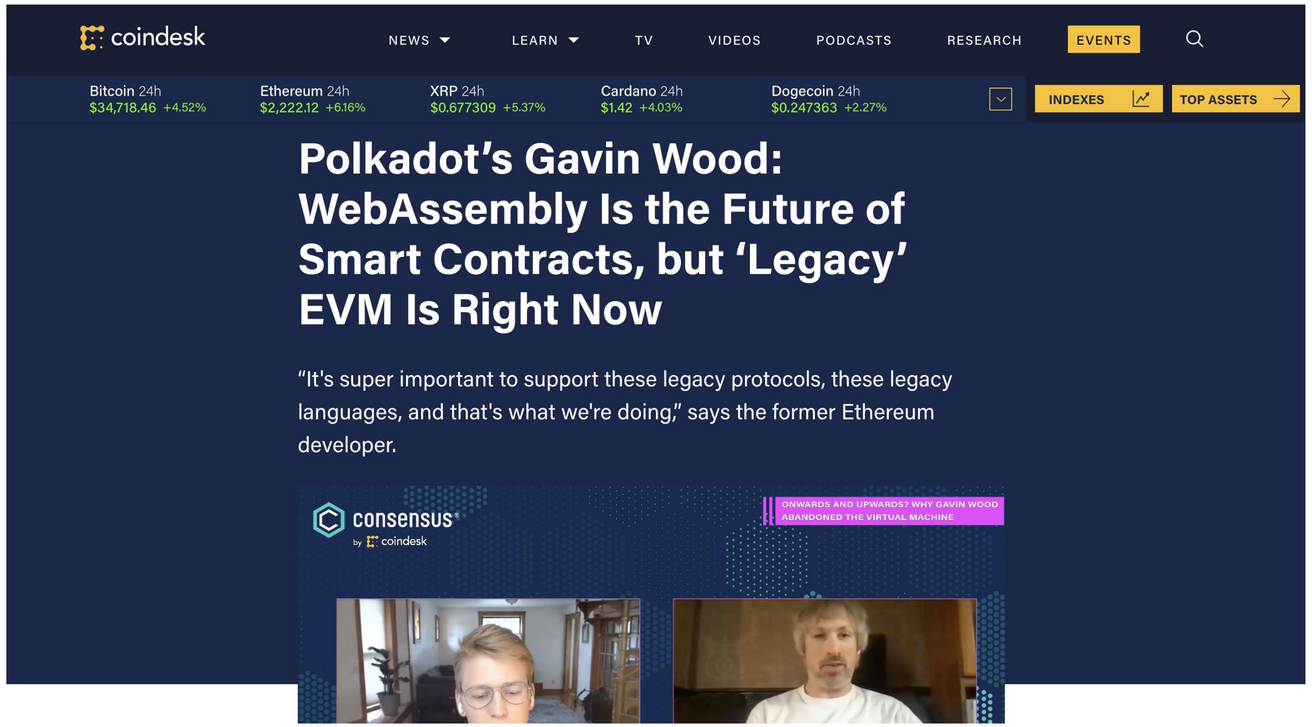
Astar supports both EVM and WASM. Solidity, Parity's ink! and other WASM compatible smart contracts can be deployed on Astar. The smart contract on EVM can interact with WASM and in the future vice versa.

Layer2

Astar is scalable by design and supports multiple layer2 solutions like OVM and Rollups.

WASM

"WebAssembly is the future
but legacy EVM is right now."



Credit: Coindesk

"You see, the problem with EVM is it's a hugely opinionated design. It derives from an already very opinionated design, which is the Bitcoin script design," Wood said.

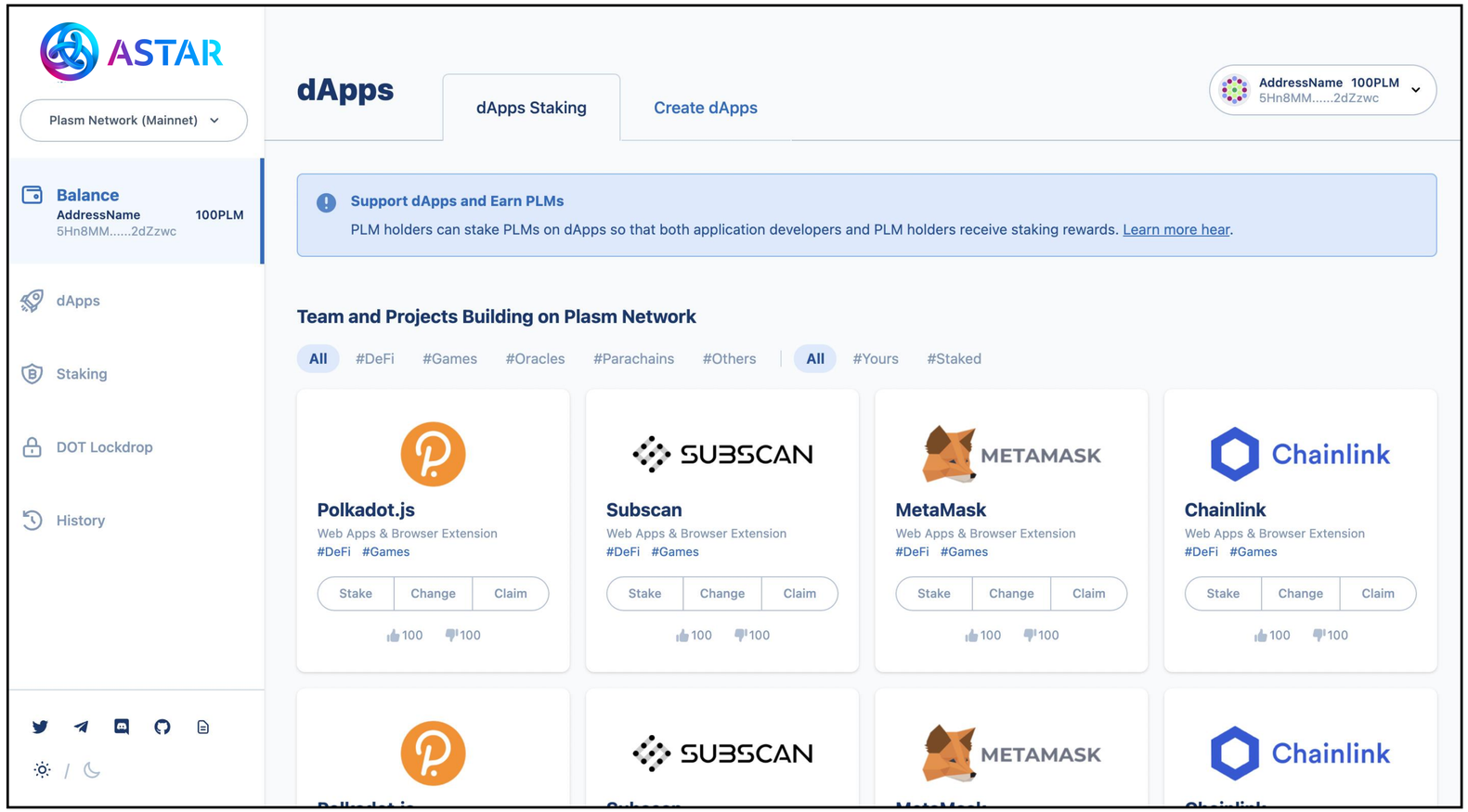
His team wanted to give developers a very non-opinionated format to work with, and that's WebAssembly.

Dr. Gavin Wood, founder of Ethereum and Polkadot.

5 Ethereum Virtual Machine

We already support various Ethereum development tools. You can deploy Solidity contracts just like deploying contracts on Ethereum. Check out our documentation at docs.astar.network

6 Astar Network Portal



Astar Network Portal allows people to deploy and manage dApp, and earn $ASTA token.

Coming soon!

7 Astar Token

Transaction

Every on-chain transaction takes fees.

On-Chain Governance

ASTA token is used for facilitating the governance activities such as voting and referenda.

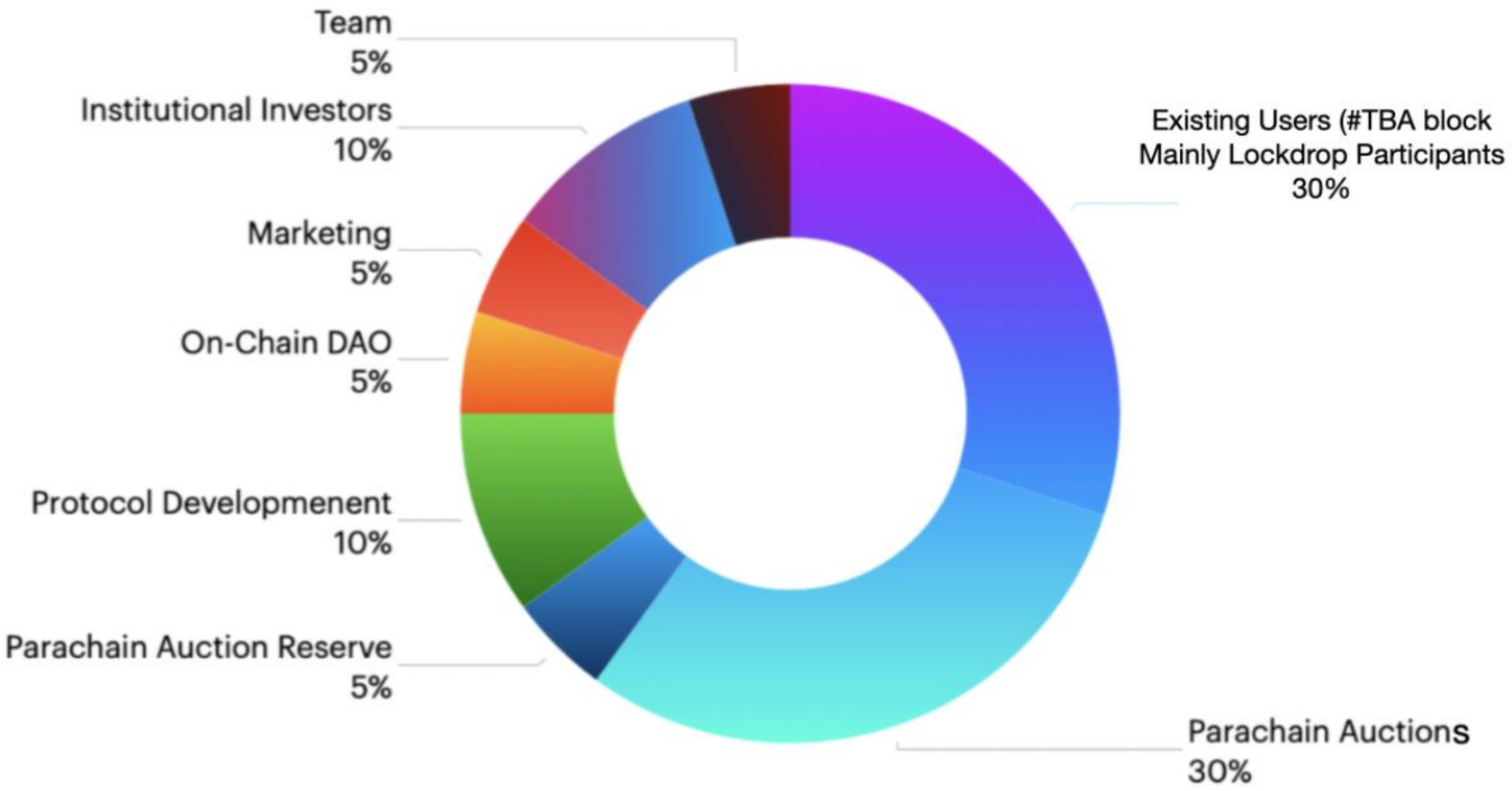
Staking

ASTA token holders can stake ASTA tokens on dApp as well as network. By doing so, the staker can earn ASTA tokens

Layer2

Layer2 application developers make a deposit on their layer1 smart contract and create layer2 applications.

Token Economics



More information:
https://docs.astar.network/learn/token-economics/token-allocation

Ecosystem

Infrastructure

SUBSCAN
onfinality
SubQuery
BWARELABS
Microsoft Azure
Pinknode.
ChainSafe
Chainlink
API3
MOONSTAKE
Paralink
Ankr
Patract
AUTOMATA
Covalent
DIA

L1 Blockchains

KUSAMA
Polkadot.
COSMOS
ethereum

Tool

METAMASK
TRUFFLE
Hardhat
Patract
SOLIDITY

Wallets

Polkadot{.js}
FEARLESS
Math Wallet
METAMASK

Exchanges

KUCOIN
gate.io
MEXC

DeFi

Coinversation
Zenlink
INTERLAY
Standard
MANTRA DAO

NFTs

double jump .tokyo
Bondly
polkapets
NFTY LABS
Open Emoji Battler

Parachains

Acala
PHALA NETWORK
CRUST
DARWINIA
Stafi
Bifrost

Backers

BINANCE LABS
FENBUSHI CAPITAL
Huobi Ventures
OKEx Blockdream Ventures
HASHKEY Capital
HYPERSPHERE
LONGHASH VENTURES
DFG
gumi Cryptos
PAKA
SNZ
IOSG Ventures
SubO capital
DIGITAL STRATEGIES
ALTONOMY
AU21 CAPITAL
TRG CAPITAL

Achievements

7 Web3 Grants

Astar Network core team has received **7 grants from Web3 Foundation**. (Plasma, Optimistic Virtual Machine, ink! Playground, ZK Rollups, ZK Plonk, ECDSA, ECDSA hardware)

First Parachains

Astar Network is the first Polkadot testnet Parachain. And Shiden Network, a sister network of Astar is the 3rd Kusama Parachain.

150K+ ETH / 130K+ KSM

TVL through lockdrops.
Astar conducted multiple lockdrops with ETH in 2020 and 2021. More than 150K ETH has been locked on our smart contracts.

40+ Projects

Currently, Astar is working with more than 40 projects (Infrastructure, DeFi, DAO, NFTs).

Especially, Astar is focusing on NFTs.

Community

There are more than 30,000 members on Telegram, Discord and WeChat.

We graduated from UC Berkeley Xceleration program, Web3 Bootcamp, and LongHash Acceleration Program.

Technical Innovations

We have deployed the first smart contract on the Polkadot testnet.

We have successfully completed the first cross chain message passing (XCMP) on the Polkadot testnet.

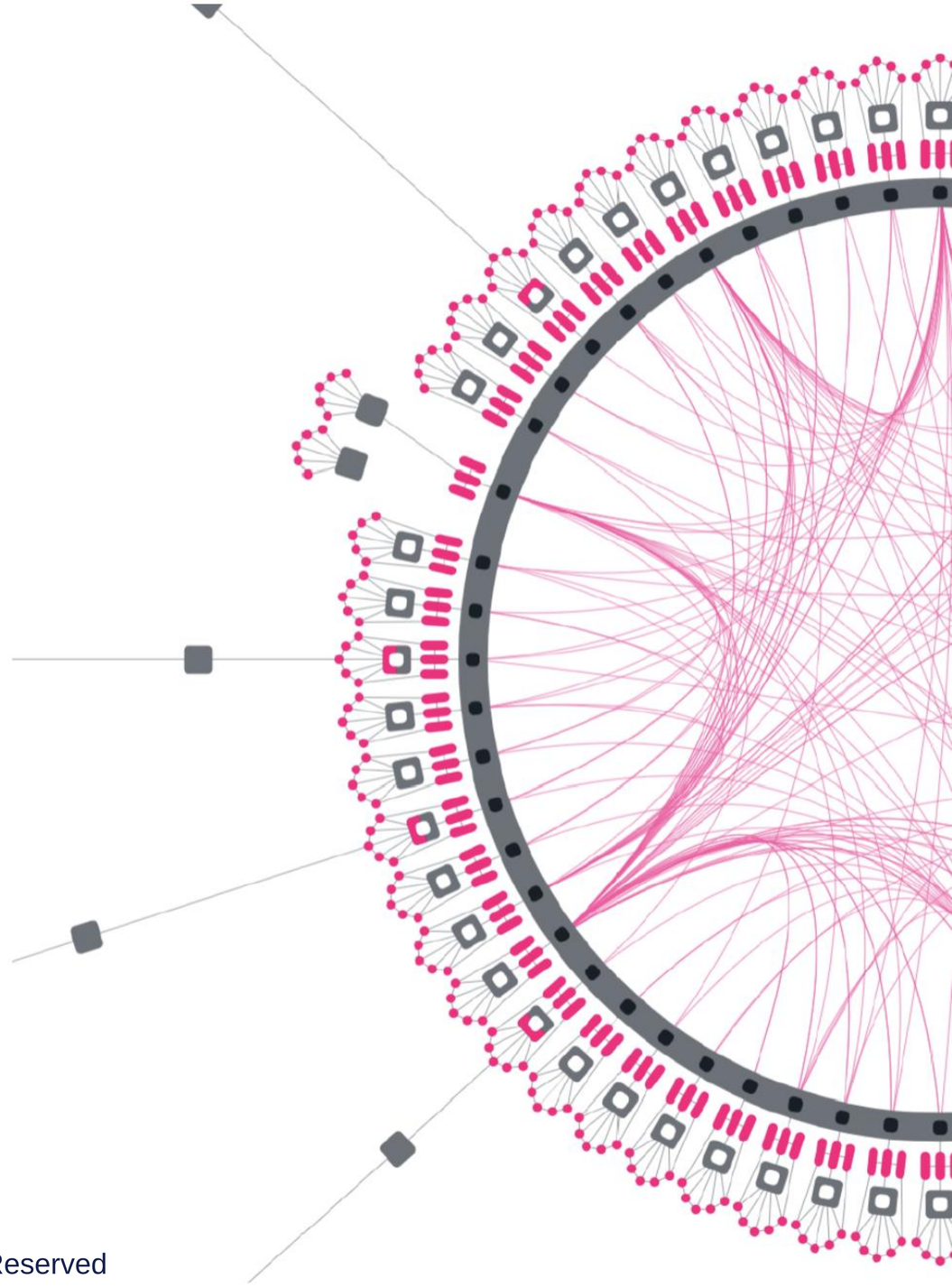
Reference: Building on Polkadot

If you would like to make dApps on Polkadot, you have 2 choices:

1. **Making a Parachain from scratch**
2. **Deploying a dApp on a Parachain**

Making a Parachain takes a lot of time and resources compared with making a dApp (we know since we are making a Parachain). More importantly, the number of Polkadot Parachains is limited. Therefore, we are sure that many projects will choose the second option.

When It comes to smart contracts and dApps, what is the most notable problem we face today? Yes, scalability. That’s why we are implementing layer2 scaling solutions on Astar Network.



Reference: Building on Astar Network

Astar Network is a Polkadot dApp hub supporting Ethereum Virtual Machine, WebAssembly, and layer2 solutions.

1 Ethereum Solidity

Astar Network supports both WASM and EVM. So, developers can deploy Solidity contracts on Astar Network with existing Ethereum tools such as Metamask and Remix. In addition to that, you can also deploy Solidity contracts on WASM with Solang, a Solidity to WASM compiler written in Rust.

2 Parity ink!

ink! is an original smart contract language on Substrate made by Parity Technologies.

Astar Network supports ink! to make a solid and high performance dApp.

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{ Astar Builders Program }

1 Overview Builders Program

- Further the development, growth and adoption of the Astar ecosystem.

- Operated by Stake Technologies with guidance from Parity Technologies under the Builders for Builders initiative.

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SHIDEN

2 What are we looking for?

Ecosystem

- dApps (dexes, lending platforms, mixers, insurance)
- developer tools (libraries, pallets, debugging tools)
- infrastructure (custodians, bridges, oracles, analytics)
- integration grants (port over and maintain dapps from other blockchains)

Innovation

3 Benefits

Technical support

- Walkthrough with core devs during the onboarding phase to learn how to develop and maintain applications on Astar / Shiden Network.
- Exclusive Discord group with core team for quicker access to support.
- Ad-hoc meetings with core team to resolve complex technical problems.
- Milestone code reviews.

Network & Fundraising Support

- Access to a huge network of investors, industry experts, blockchain mentors, exchanges, market makers etc.
- dApps staking.

Marketing support

- Promotional efforts for your project on our social channels,
- Invitation to our community meet-ups and conferences as a guest speaker.
- Cross collaboration with other projects in the ecosystem.

Post Graduation Support

4 How to apply?

Resource:
https://astar.network/builders-program/

Forum:
https://forum.astar.network

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{ Power of WASM }

1 Overview

WebAssembly is undoubtedly superior for smart contract execution.

WASM-based engines have a bright future as many great developers like Patract Lab are making WebAssembly easier for developers to use on Polkadot. Astar ecosystem the dApps hub in the Polkadot ecosystem is the best place for developers building WASM-based smart contracts.

2 Must-see video

“WebAssembly is the future
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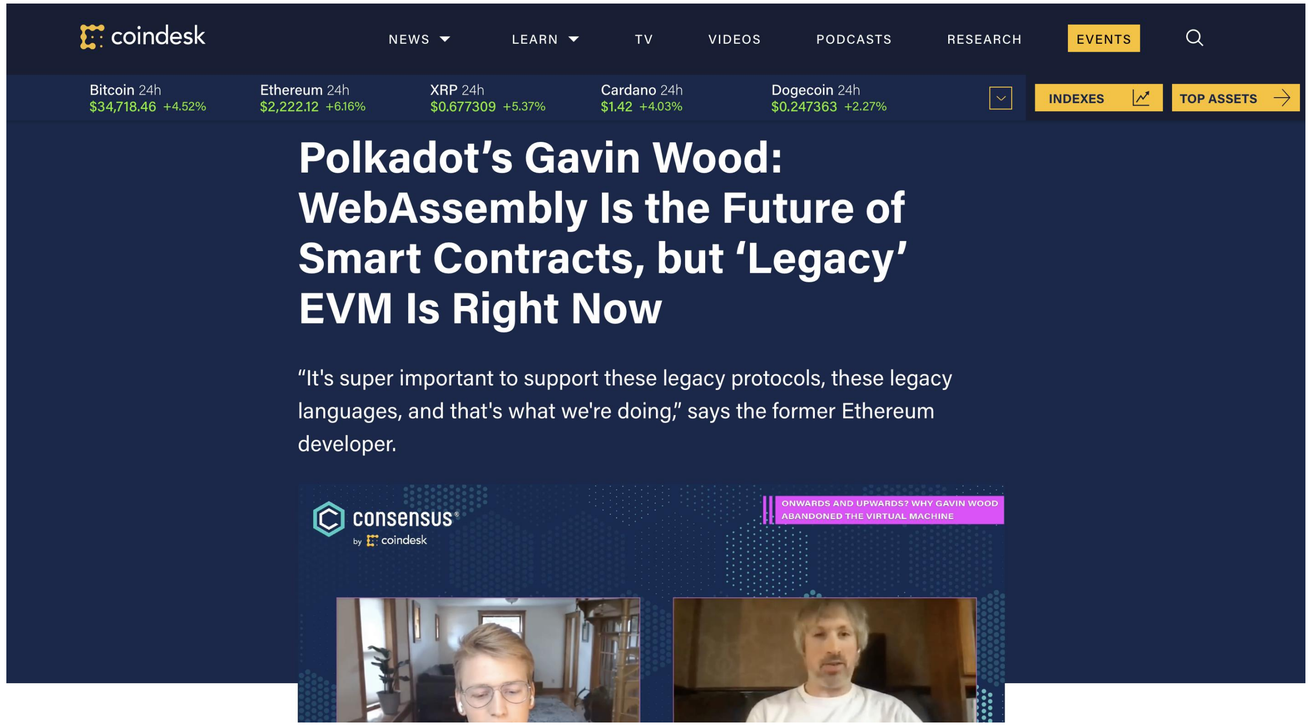

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Dr. Gavin Wood, founder of Ethereum and Polkadot.

3 WASM for runtime

Substrate is the framework within the Polkadot ecosystem and uses WebAssembly (Wasm) to produce portable blockchain runtimes.

WebAssembly will run the same instructions across whatever machine it is operating on.

Forkless upgrades: the chains are given the ability to upgrade their runtime logic without hard forking. By deploying Wasm on-chain and having nodes auto-enact the new logic at a certain block height, upgrades can be small, isolated, and very specific

WASM for smart contracts

Why would developers use WASM for smart contracts:

- WASM's performance is very high. The language is built to be as close to native machine code as possible while still being independent.
- WASM massively reduces processing times in browsers because of the use of small binaries. This offers great scalability to potentially slow internet connections that want to use blockchain technology.
- WASM was developed so that code can be deployed in any browser with the same result. Contrary to the EVM, it was not developed towards a very specific use case. This has the benefit of a lot of tooling being available and large companies putting a lot of resources into furthering WASM's development.

- WASM expands the use of languages to smart contract developers to include Rust, C/C++, C#, Typescript, Haxe, and Kotlin. This means developers can write smart contracts in whichever language they're familiar with.

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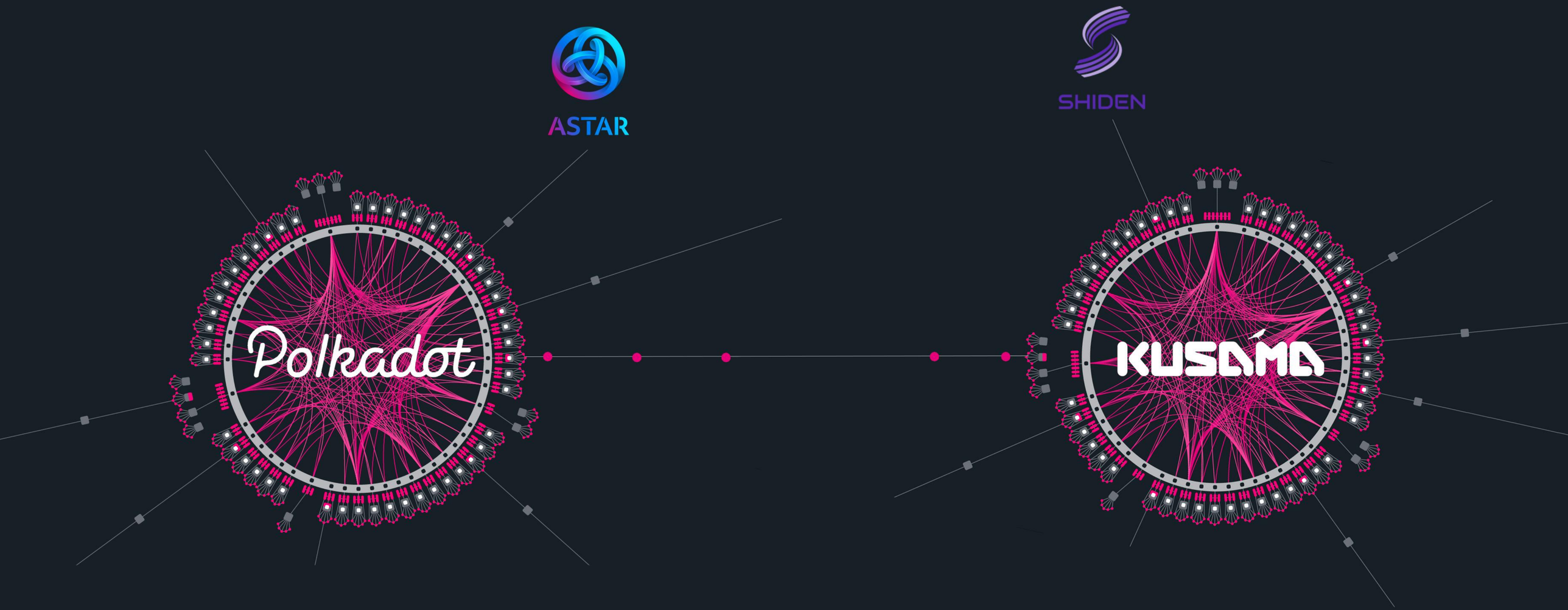
Extra materials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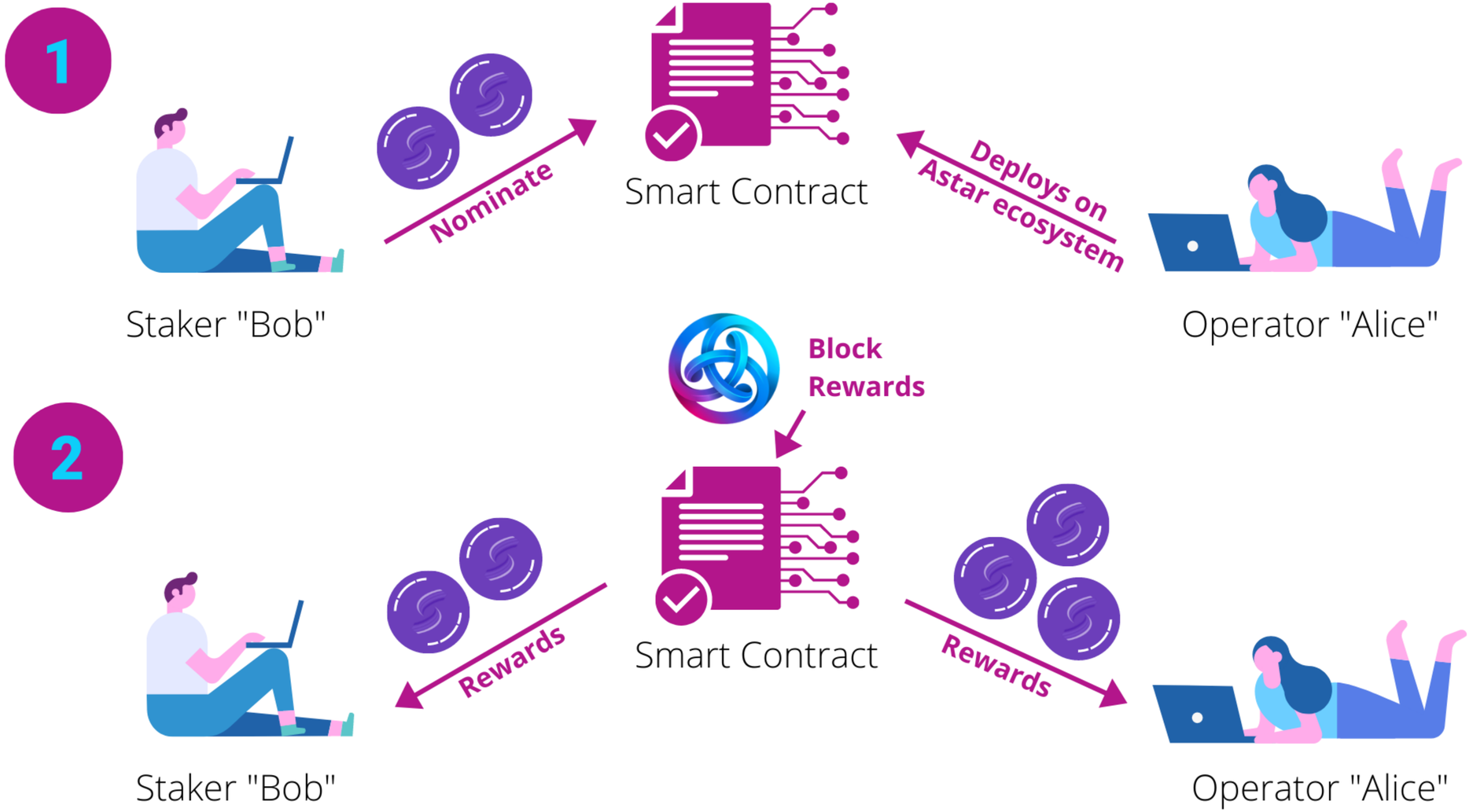
SHIDEN
Polkadot
KUSAMA


1
Nominate
Smart Contract
Deploys on
Astar ecosystem
Staker "Bob"
Operator "Alice"
Block
Rewards
2
Rewards
Smart Contract
Rewards
Staker "Bob"
Operator "Alice"