POLKADOT HACKATHON
2022
NORTH AMERICA EDITION

Write Deploy & Interact with ink! Smart-contracts

@Maarr_io

ASTAR

ASTAR

What is Astar Network?

Astar Network is the Smart Contract Hub for WASM & EVM built on Polkadot and is one of the top Parachains in the Polkadot ecosystem in Total Value Locked and most Ethereum assets transferred over.

We are hiring!!!

- Substrate Developer
- WASM Developer
- Devops Engineer
- Ecosystem Integration Developer

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Agenda

- Available testnets/mainnets for WASM
- Available development tools for WASM in Dotsama
- Deploy & interact with contract using Swanky-CLI
- Usage of swanky-node as local dev node
- Introduction to Polkadot.JS UI
- Interact with contract using Polkadot.JS UI
- Deploy contract on Shibuya testnet

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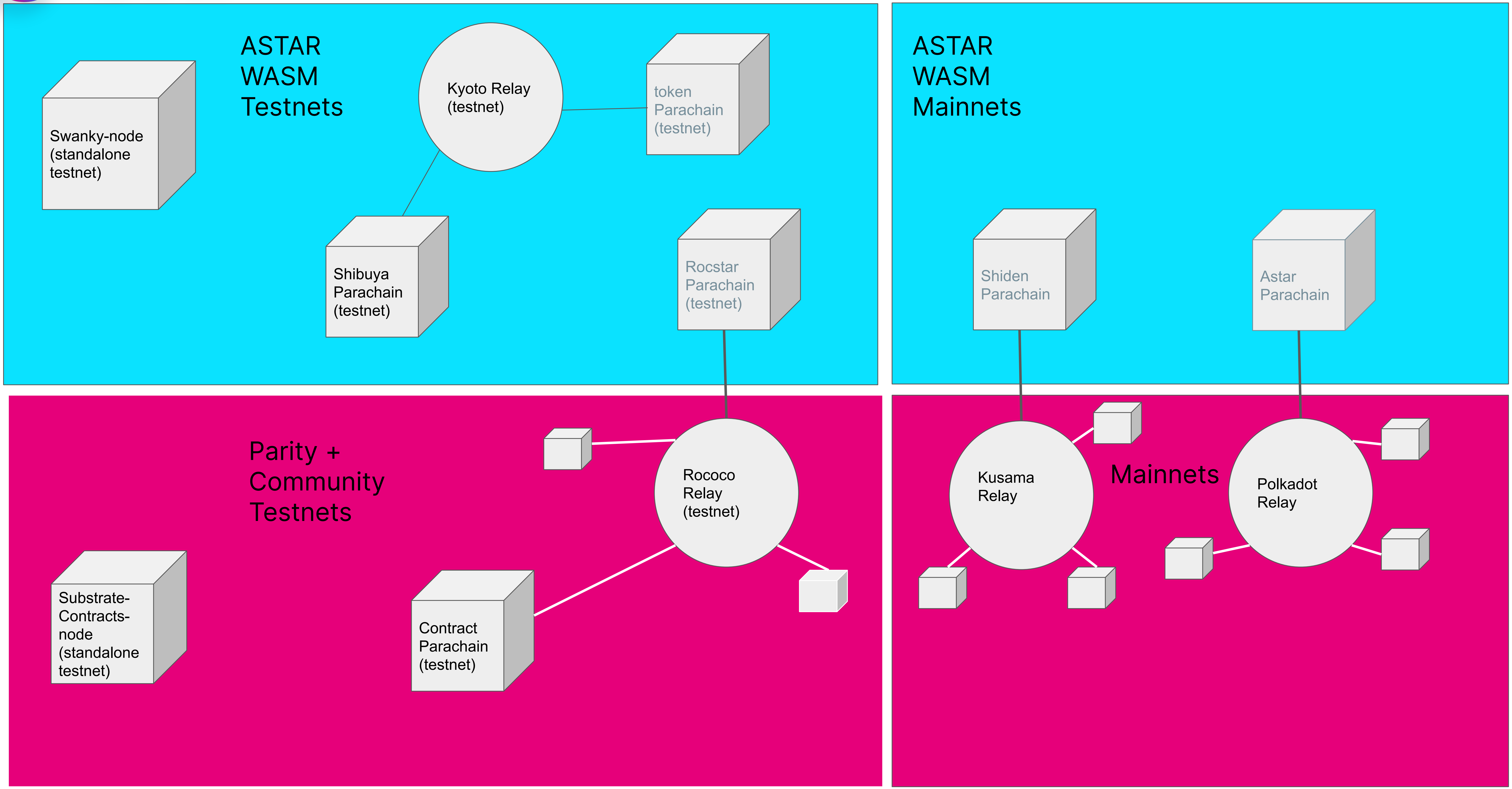


ASTAR WASM Testnets

Swanky-node (standalone testnet)

Kyoto Relay (testnet)

token Parachain (testnet)

Shibuya Parachain (testnet)

Rocstar Parachain (testnet)

ASTAR WASM Mainnets

Shiden Parachain

Astar Parachain

Parity + Community Testnets

Rococo Relay (testnet)

Substrate-Contracts-node (standalone testnet)

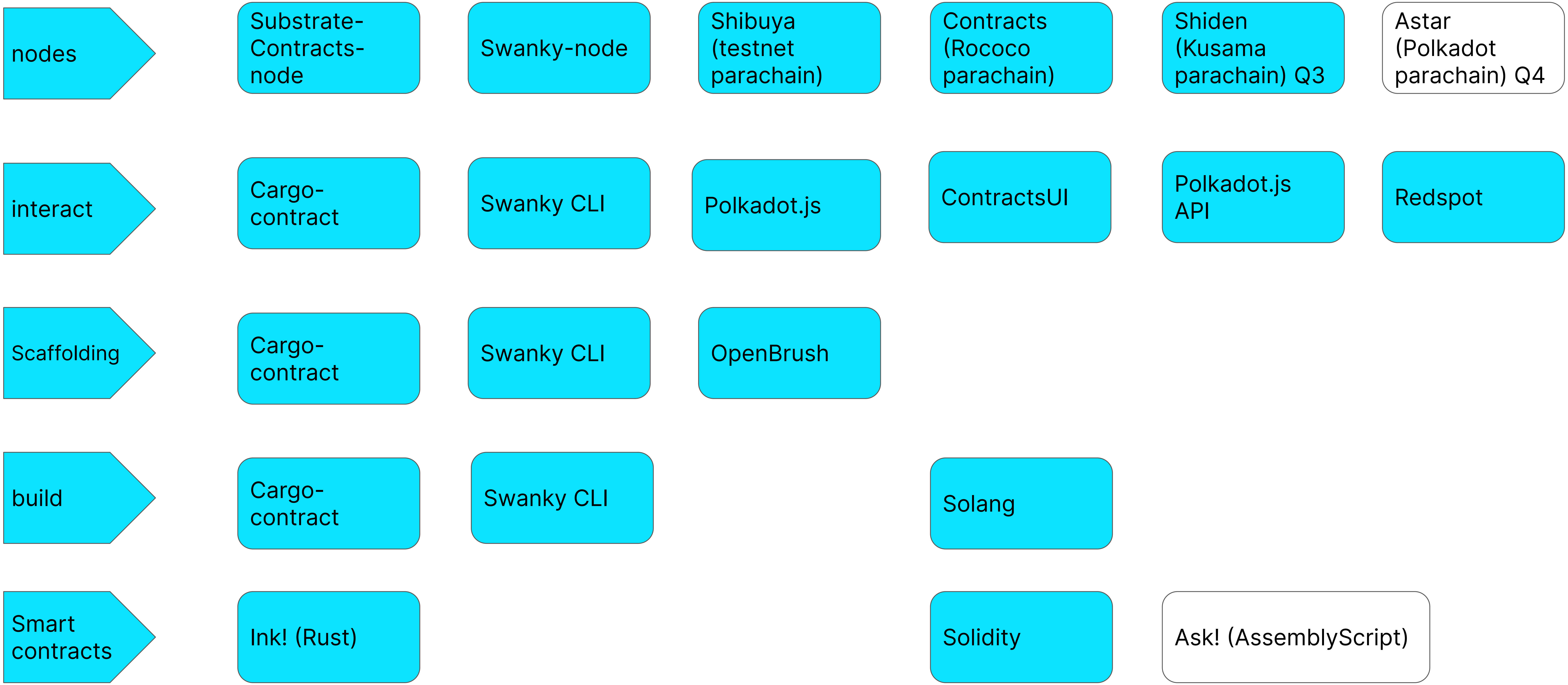
Contract Parachain (testnet)

Mainnets

Kusama Relay

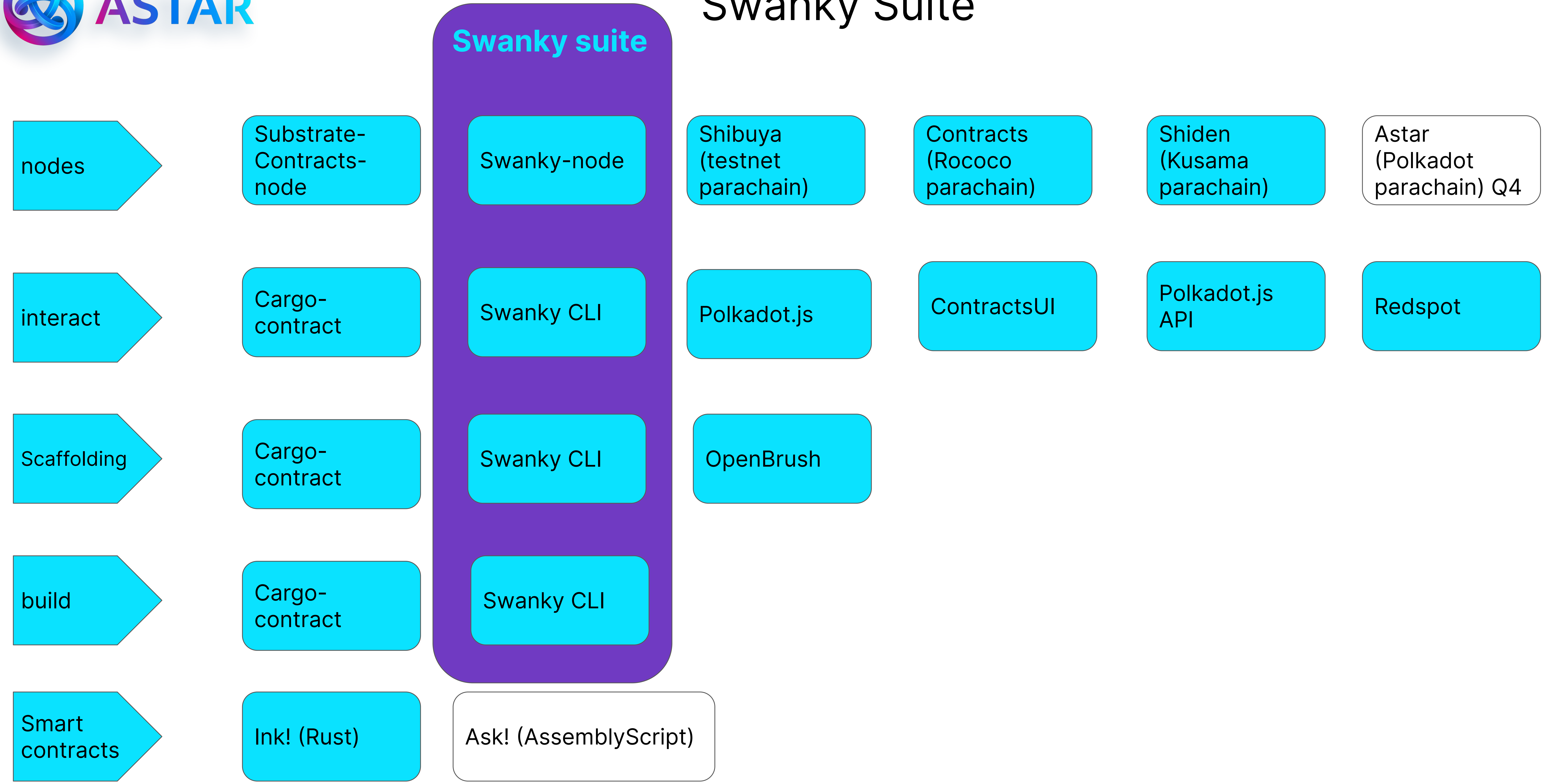
Polkadot Relay

Tools/Nodes/Language overview



nodes	Substrate-Contracts-node	Swanky-node	Shibuya (testnet parachain)	Contracts (Rococo parachain)	Shiden (Kusama parachain) Q3	Astar (Polkadot parachain) Q4
interact	Cargo-contract	Swanky CLI	Polkadot.js	ContractsUI	Polkadot.js API	Redspot
Scaffolding	Cargo-contract	Swanky CLI	OpenBrush			
build	Cargo-contract	Swanky CLI		Solang		
Smart contracts	Ink! (Rust)			Solidity	Ask! (AssemblyScript)	

Swanky Suite



Swanky suite

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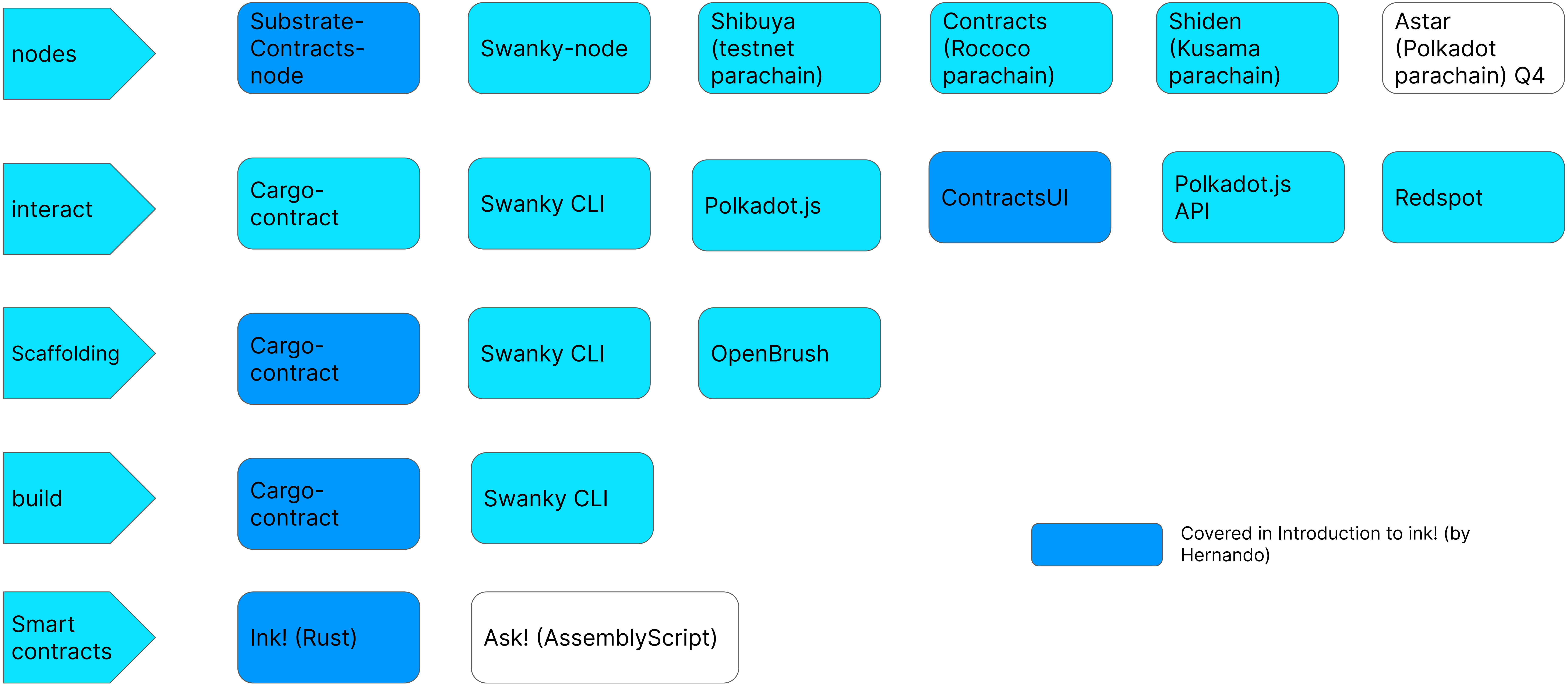
Scaffolding	Cargo-contract	Swanky CLI	OpenBrush			
build	Cargo-contract	Swanky CLI				
Smart contracts	Ink! (Rust)	Ask! (AssemblyScript)				

What is covers by “Introduction to ink!”



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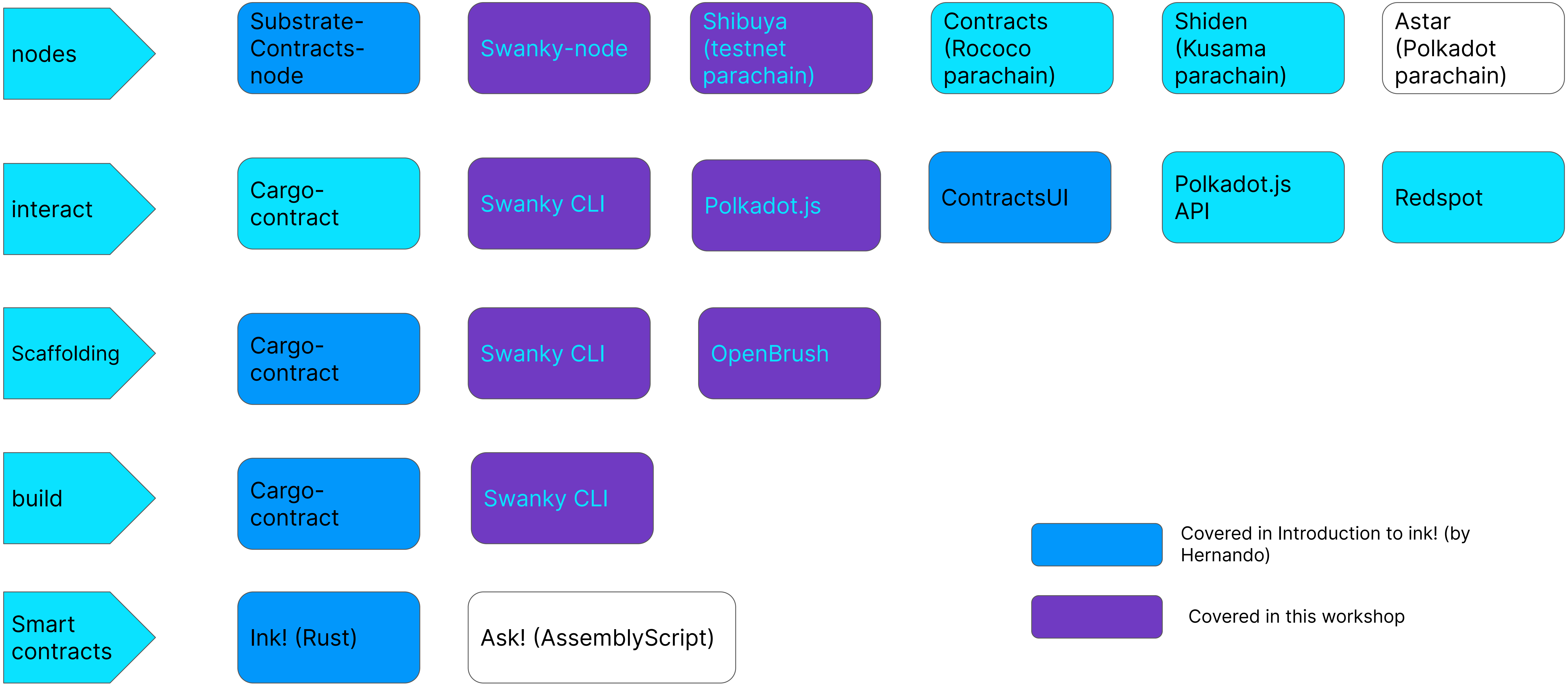
build	🟦 Cargo-contract	Swanky CLI				
Smart contracts	🟦 Ink! (Rust)	Ask! (AssemblyScript)				

🟦 Covered in Introduction to ink! (by Hernando)

What is covers by this Demo



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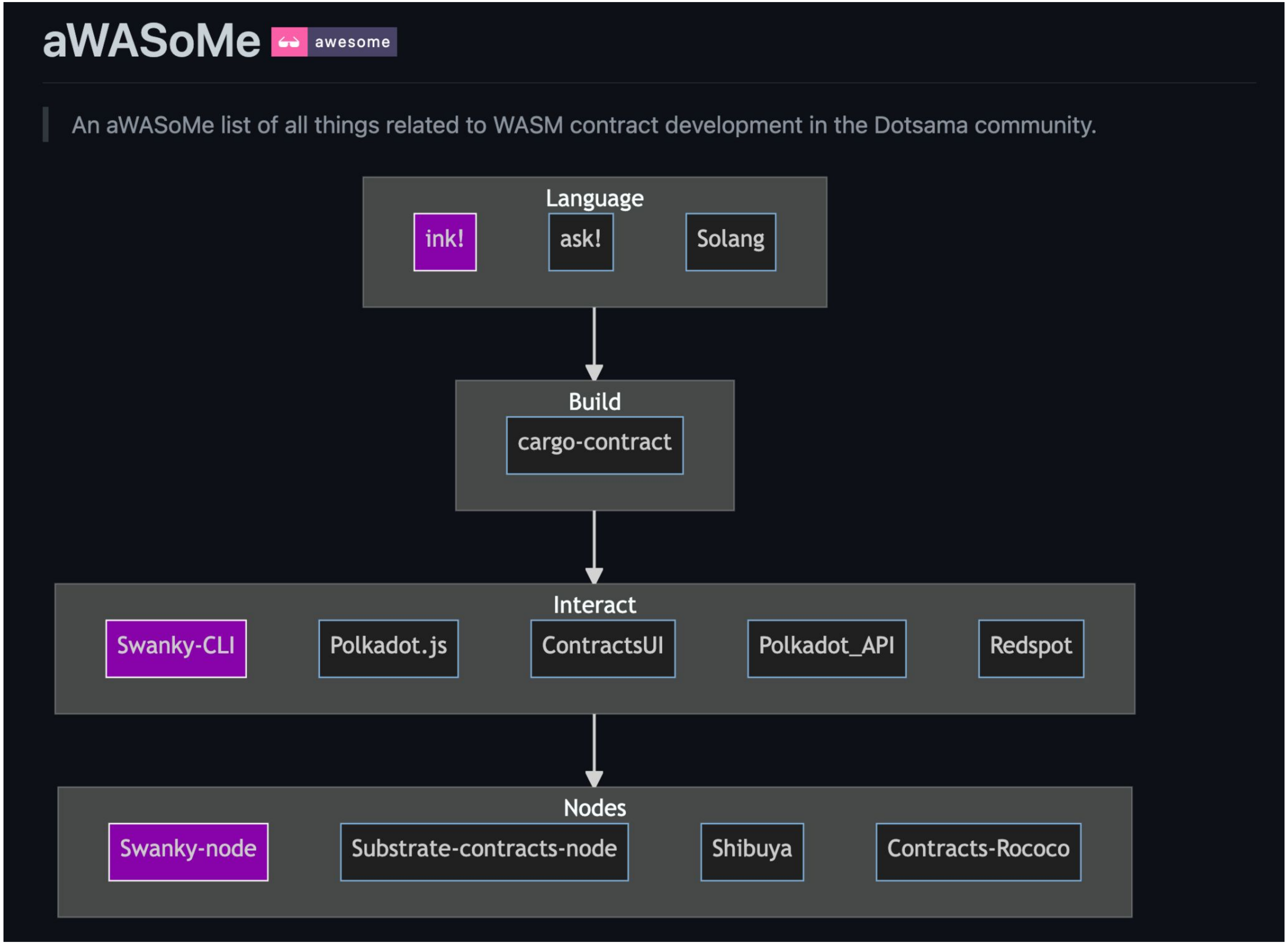
🟦 Covered in Introduction to ink! (by Hernando)

🟪 Covered in this workshop

aWASoMe



aWASoMe

> An aWASoMe list of all things related to WASM contract development in the Dotsama community.

Language

ink!

ask!

Solang

Build

cargo-contract

Interact

Swanky-CLI

Polkadot.js

ContractsUI

Polkadot_API

Redspot

Nodes

Swanky-node

Substrate-contracts-node

Shibuya

Contracts-Rococo

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WASM dApp Environment

- Oracle: DIA (check Astar docs)
- Indexer: Subsquid (soon)
- Block explorer: Subscan.io
- Contract verification: Subscan.io (in Progress)
- Scaffolding dApps: Swanky (2022-Q3)

Swanky roadmap

- Swanky will enable all existing and future Web3 developers to have the best possible experience when developing WASM smart contracts.

Beta version: 2022-June

- Local contract development node with instant finality
- Scaffolding a new project with various templates
- Toolkit versioning
- Build (cargo-contract)
- Unit test (cargo test)

2022-Q3

- unit tests and RPC tests with the local node
- compiling projects with various languages (like Ink!, Ask-Lite, …)
- deploying smart contracts to networks within the Dotsama which support pallet-contracts
- Local Relay chain with Parachains
- Contract verification
- Scaffolding for dApps

WASM developer Support

- Substrate StackExchange (tags: ink, contract, smart-contract)
- Astar Discord (Dev Support channel)
- Astar WASM Docs
- aWASoMe

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- Build an ink! contract from scratch
- deep-dive on chain extension
- dApp Staking on Astar
- How to integrate dApp Staking in your ink! smart contract
- demo on polkadotjs UI

Next WASM Workshop June 15th 9AM PST (6PM CET)

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