Explore EXPANDER Bootcamp – Q1 - 25

Team

Arcadio Garcia

EXPchain Platform

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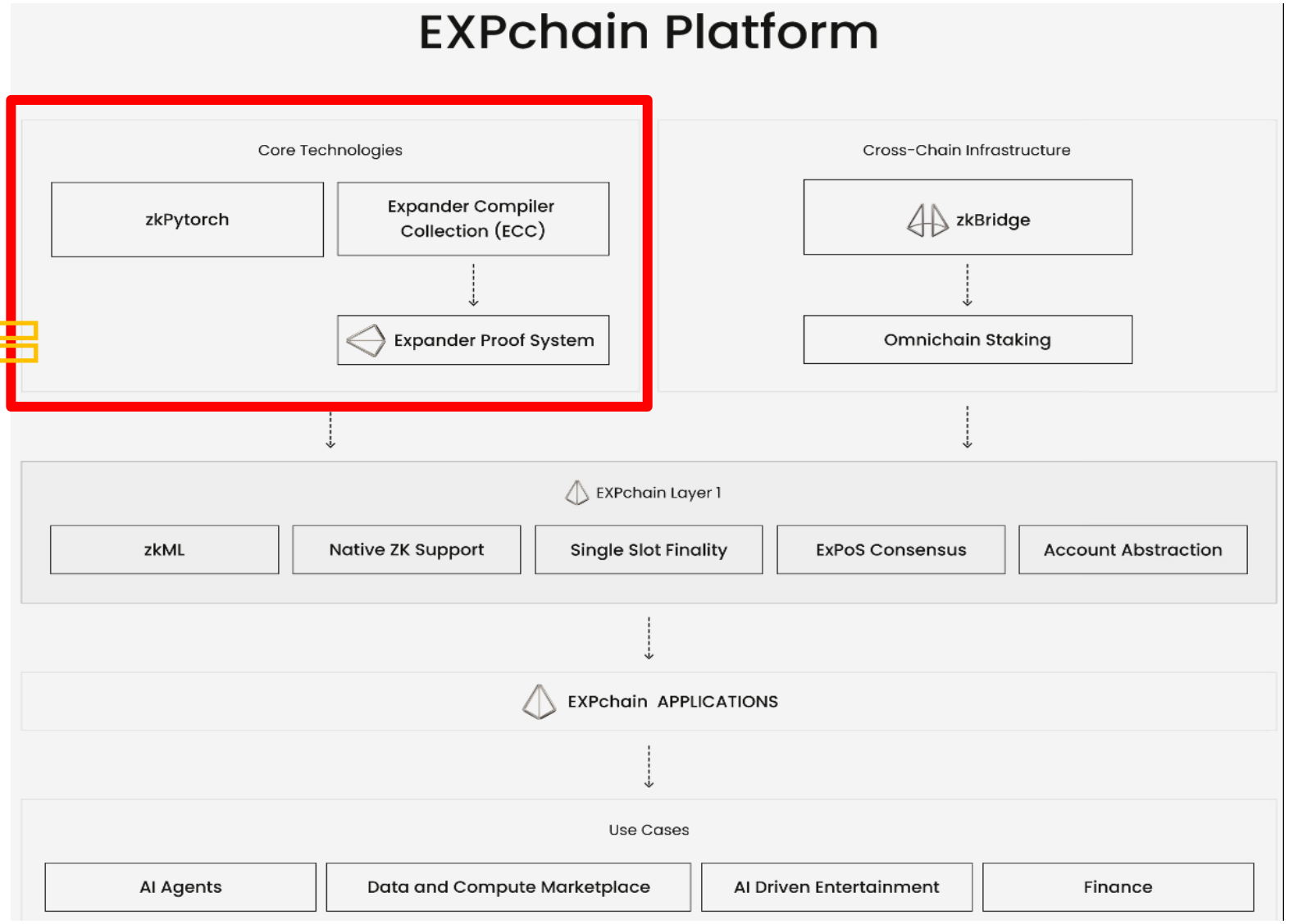
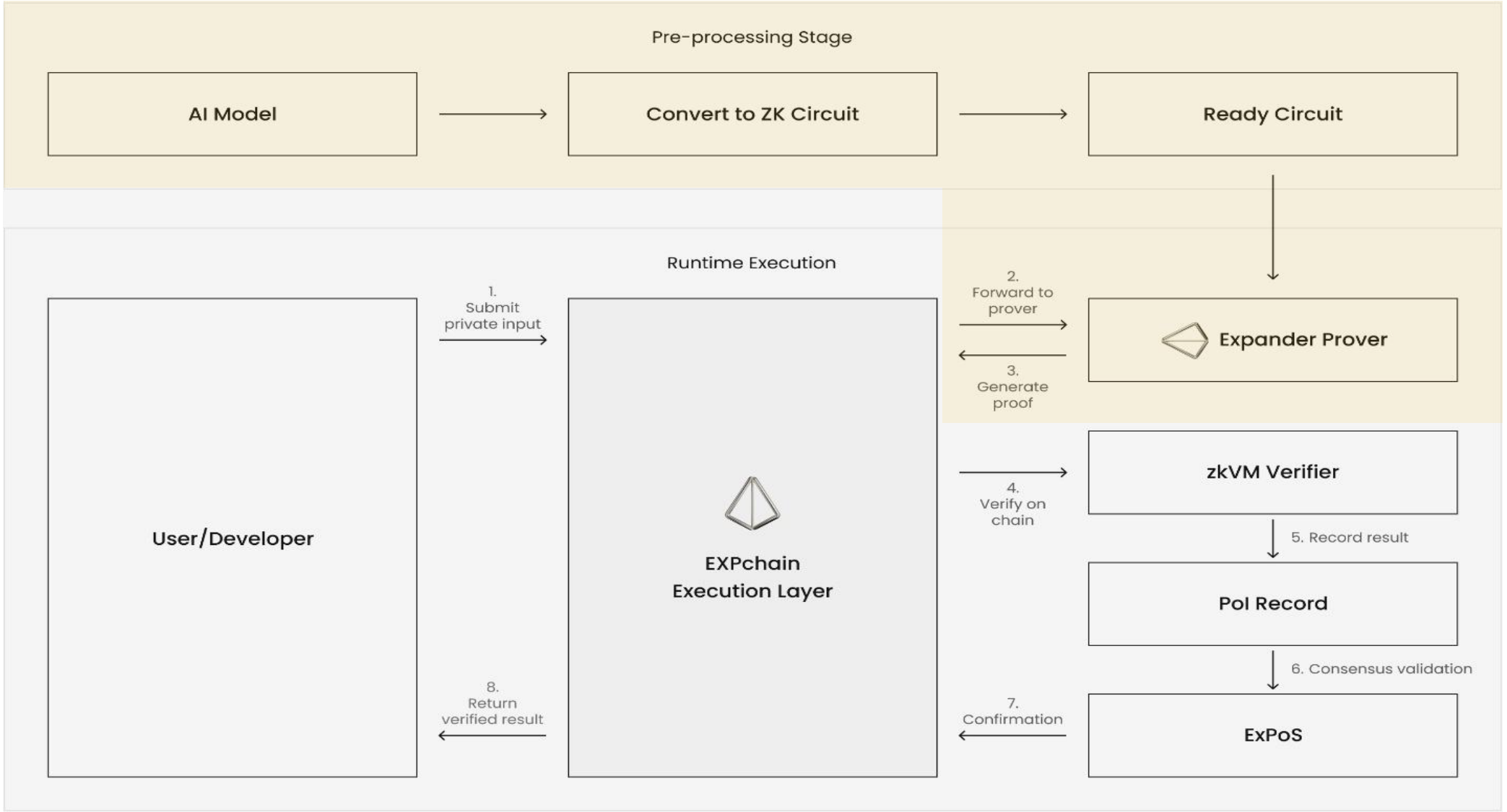
Bounty Track



https://expchain.ai/

General Process



Process workflow – **Big** steps

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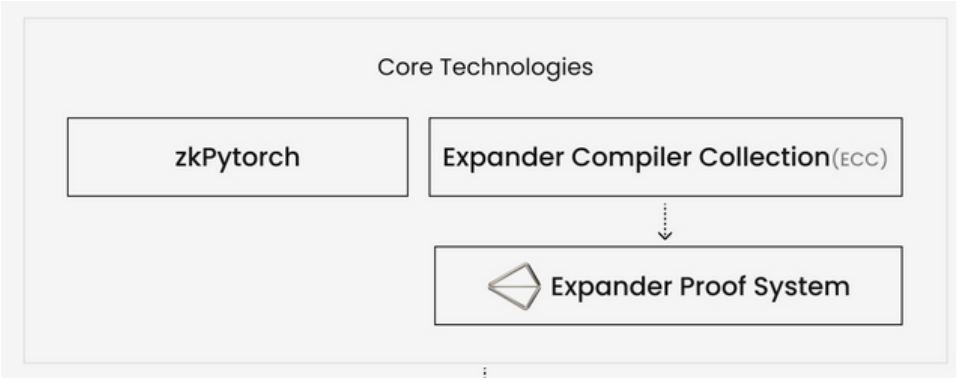

In a typical workflow:

1. Implement the circuit in our circuit frontend language **RUST**.
2. Use ExpanderCompilerCollection to compiler the **circuit** into layered circuit.
3. Use Expander prover to generate and verify proofs. You may also use integrated prover inside the compiler.

Process workflow – **Detailed** steps

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Pre-Processing stage

0 . Synthetic Data generator

1 . ML model -> Find and Train an ML model **PyTorch**

2 . Export the ML model to **ONNX** - Open Neural Network Exchange

3 . Convert to ZK Circuit -> Use **ECC** - Expander Compiler Collection

Runtime stage

4 . ZK circuit – **Expander** Prover -> Generate a circuit with a proof a prediction

5 . Smart contract to validate on-chain

6 . Proof storage **EXPchain**

Project Statement

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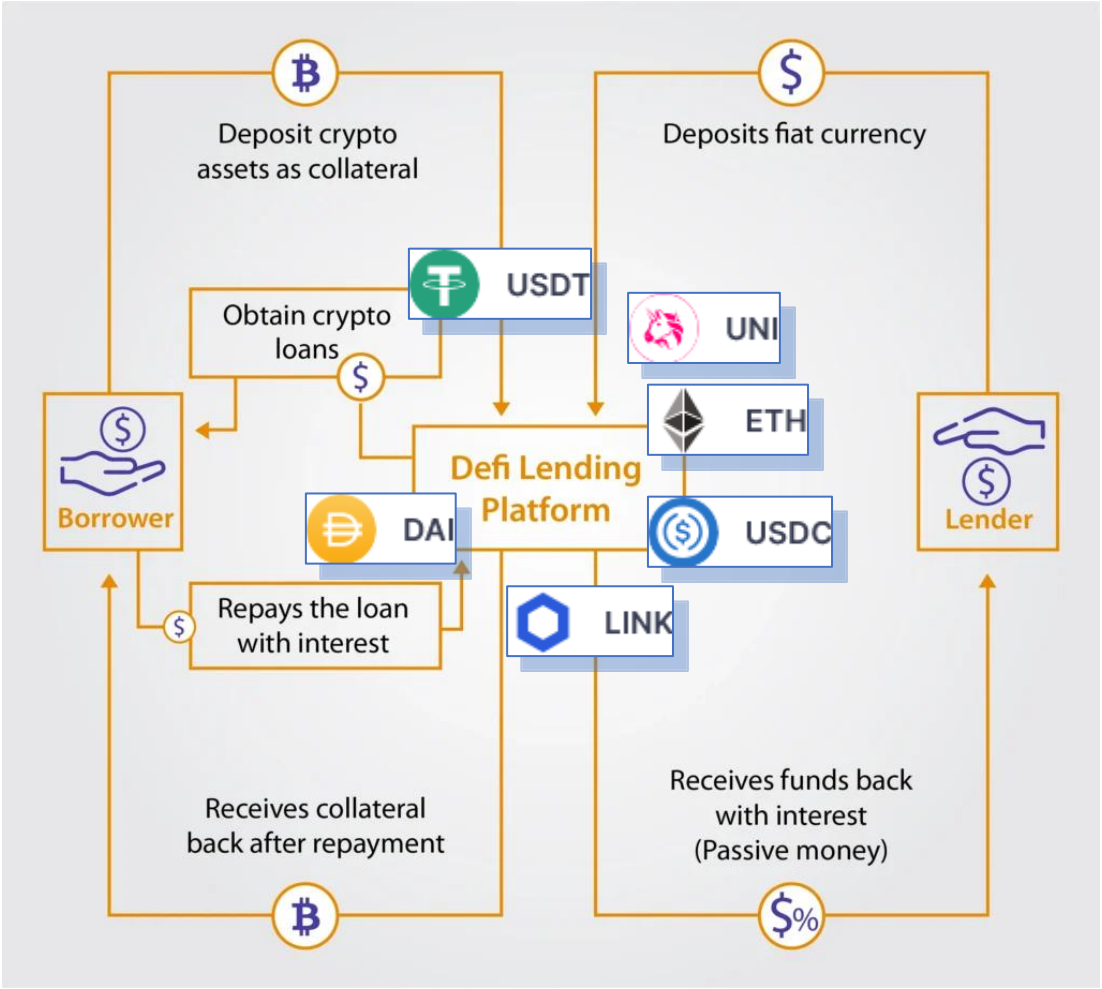
DeFi Lending and Borrowing

Decentralized Lending/Borrowing is implemented through Smart Contracts that let users LEND or BORROW digital assets at fixed or variable interest rates.



Project Statement

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DeFi Lending and Borrowing

ORACLEs Integration

Oracles serve as the data-bridges for DeFi applications, enabling **Smart Contracts** to interact with external data sources, and they provide this information by fetching data from multiple trusted sources and delivering it to the blockchain.

Oracles provide **accurate** and **real-time**:
> **price feeds** for assets
> interest rates
and
> collateral values

Project Statement

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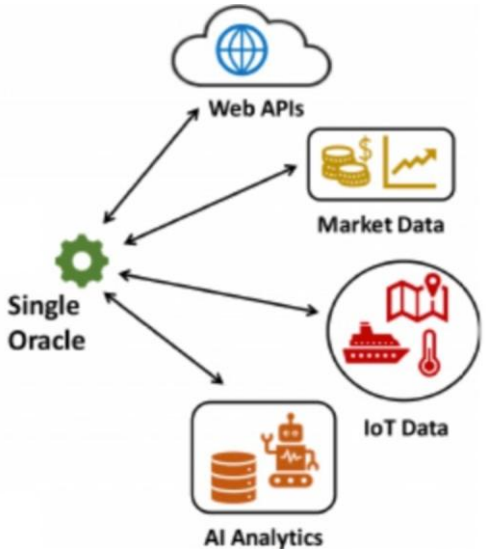
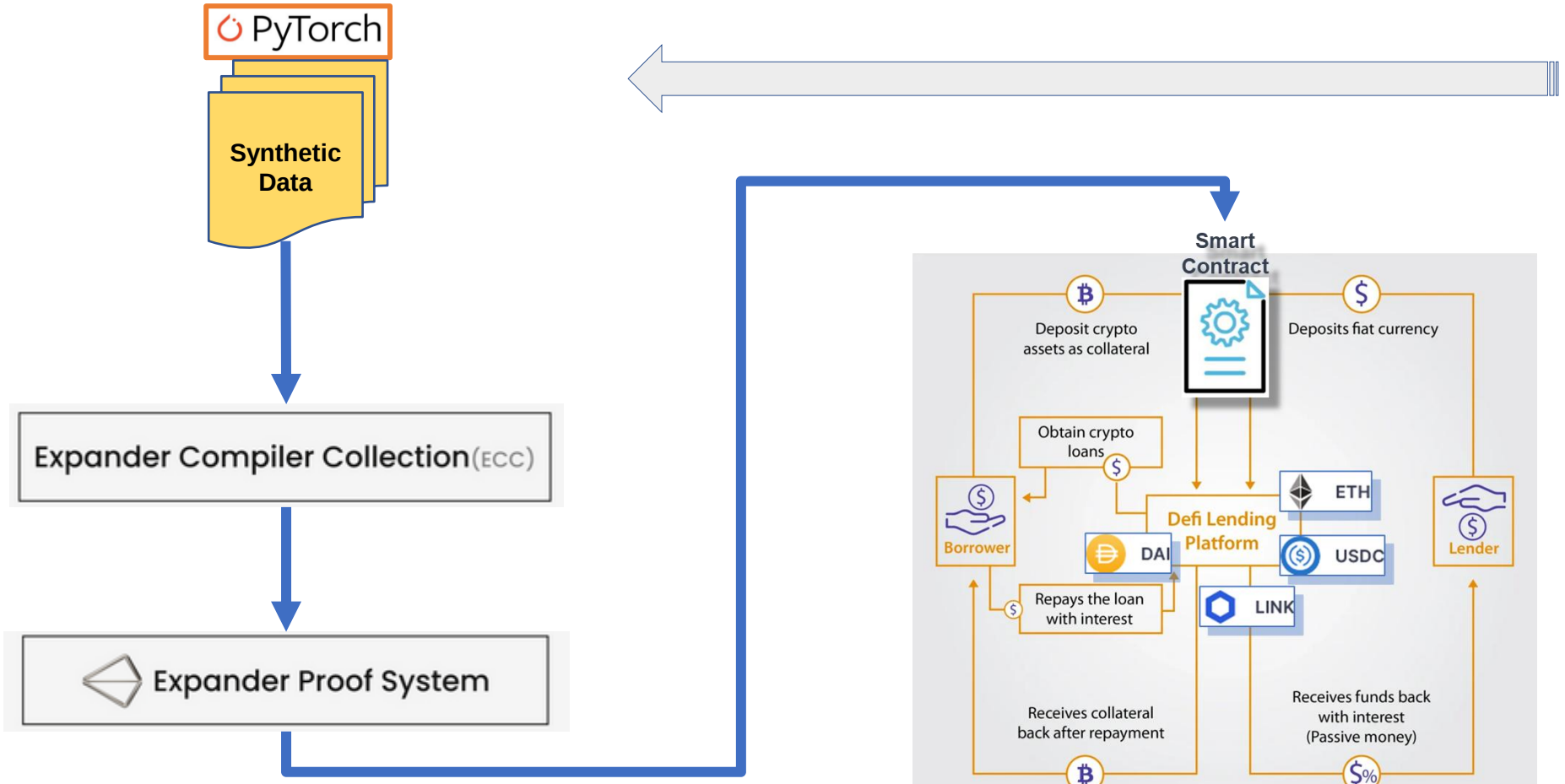
DeFi Lending and Borrowing





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