Blockchain Name	***Ethereum***	***Hyperledger Fabric***	***R3 Corda***
Type	Public	Private	Consortium
Consensus Mechanism	Proof of Stake	Raft	Notary-service
Permission modal	Open	Permissioned	Permissioned
Speed/Throughput (TPS)	Around 14 TPS	1000+ TPS configurable	1000+ TPS
Smart Contract Support (Y/N + Language)	Yes (Solidity, Vyper)	Yes (Go, Java, Node.js)	Yes (Kotlin, Java)
Token Support	Native (ETH, ERC-20)	Not native, but supported via SDK	No native, but token SDKs available
Typical Use Case	Dapps, DeFi, NFTs	Enterprise automation, supply chain, finance	Inter-bank settlement, trade finance, supply chain.
Notable Technical Feature	Decentralized, robust smart contracts	Modular, pluggable consensus, privacy	Transaction level privacy, no global ledger

Short Note:

Ethereum, **Hyperledger Fabric**, and **R3 Corda** represent leading platforms for public, private, and consortium blockchains, each excelling in different technical domains.

Ethereum is a fully **public**, open network using **proof-of-stake** for consensus, supporting robust smart contracts in **Solidity and Vyper**. It is ideal for decentralized applications (**dApps**) needing global accessibility and a native cryptocurrency. However, its throughput (**14 TPS**) is limited compared to enterprise blockchains, and all data is public, which may not suit regulated or privacy-sensitive applications .

Hyperledger Fabric is a **private**, permissioned blockchain with modular architecture and pluggable consensus (**Raft** is common for production). It achieves high throughput (often **1,000 TPS**), supports smart contracts (called **chain code**) in general-purpose languages, and offers strong privacy and scalability. While it lacks a native token, tokenization is possible via SDKs. Fabric is well-suited for business automation, supply chain, and finance among trusted entities .

R3 Corda is a consortium blockchain tailored for regulated industries, especially finance. It uses a **notary-based** consensus mechanism, ensuring transaction-level privacy—only involved parties see transaction details, not the entire network. Corda supports smart contracts in **Java/Kotlin** and can achieve high throughput (**1,000 TPS in enterprise setups**). It does not have a native token but supports tokenization via SDKs. Corda is ideal for inter-bank settlements, trade finance, and any scenario requiring strict privacy and compliance.

Platform recommendation:

- Decentralized app: Ethereum—open access, native token, and a mature smart contract ecosystem.
- Supply chain network among known partners: Hyperledger Fabric—high throughput, privacy, modularity, and permissioned access.
- Inter-bank financial application: R3 Corda—fine-grained privacy, regulatory compliance, and high throughput for complex, confidential transactions.