Feature	Ethereum	Hyperledger Fabric	R3 Corda
Type	Public	Private	Consortium
Consensus Mechanism Used	Proof of Stake (PoS)	Pluggable (Raft, Kafka, etc.)	Notary-based (no global consensus)
Permission Model	Open	Permissioned	Permissioned
TPS (Throughput)	~30–100 TPS (Layer 1)	~1,000–2,000 TPS	~100–200 TPS
Smart Contract Support	Yes	Yes	Yes
Smart Contract Language	Solidity, Vyper	Go, Java, Node.js	Kotlin, Java
Token Support	Yes (Native: ETH)	No native token	No native token
Privacy Features	Low (all transactions are public)	High (private data channels and collections)	High (point-to-point transaction visibility)
Governance Model	Community-driven (Ethereum Foundation & Open Governance)	Organization-controlled	Consortium-led
Interoperability	Strong (cross-chain bridges, Layer 2 support)	Moderate (API-based integration possible)	Strong within financial networks, limited general-purpose
Scalability	Moderate (scaling via Layer 2 solutions)	High (horizontal scaling with modular architecture)	Moderate (not designed for high-volume throughput)

Typical Use Case	**Decentralized apps (DApps), NFTs, DeFi**	**Supply chain, enterprise workflows, recordkeeping**	**Inter-bank agreements, digital financial contracts**
Notable Technical Feature	**Extensive smart contract ecosystem, native token economy**	**Modular architecture, private communication, high performance**	**Legal contract modeling, private communication architecture**

Short Report (150–200 Words, Human Tone)

When comparing Ethereum, Hyperledger Fabric, and R3 Corda, the key differences lie in their structure, intended use, and technical features. Ethereum is a public blockchain ideal for open, decentralized systems like DApps and DeFi. It supports smart contracts in Solidity, has a native token (ETH), and benefits from a massive developer ecosystem. However, it offers limited privacy and relatively low throughput unless enhanced with Layer 2 solutions.

Hyperledger Fabric is a private, permissioned blockchain tailored for enterprises. It allows high throughput (up to 2,000 TPS), supports smart contracts in general-purpose languages like Go and Java, and offers robust privacy through private data channels. It's ideal for supply chains or corporate environments where trust is established and data confidentiality is important.

R3 Corda serves as a consortium blockchain with a focus on the financial sector. Instead of global consensus, it uses notaries for validating transactions, ensuring only involved parties see the data. Corda's strength lies in contract enforceability, privacy, and its legal-business integration.

For building a decentralized app, Ethereum is best. For a supply chain among known partners, Hyperledger Fabric excels. For inter-bank financial systems, R3 Corda's architecture makes it the most technically appropriate choice.