	Ethereum	EOS	TRON	Papyrus Network
Energy Consumption	19.07 TWh / year (0.09% of world's electricity consumption)	Negligible	Negligible	Negligible
TPS	15	3900	750	1500
Block Time	12s	0.5s	3s	1s
Block Finality	No, only probabilistic	Yes, max 180s	Unknown	Yes, max 50s
Consensus	Proof-of-Work	Delegated Proof-of-Stake	Delegated Proof-of-Stake	Proof-of-Authority
Resource Management	Gas	Token Staking	Gas and Token Staking	Token Staking
Average tx fee	~ $0.13 USD per average transaction	~ $0.1 USD to reserve CPU for average transaction ~ $0.159 USD - Cost to persist 1 Kb of data in RAM ~ $0.1 USD/ms/Day - Cost to reserve 1 ms/Day CPU Bandwidth ~ $0.001 USD/Kb/Day - Cost to reserve 1 Kb/Day Network Bandwidth	~ $0.7 USD to reserve bandwidth for average transaction ~ $0.14 USD/ms/Day - Cost to reserve 1 ms/Day CPU Bandwidth ~ $3.5 USD/Kb/Day - Cost to reserve 1 Kb/Day Network Bandwidth	< 0.001 USD
Smart Contracts	EVM/Solidity	WASM	TVM/Solidity	EVM/Solidity
Usage Complexity	Very difficult for both app developers and users	Token staking significantly improves app developers and user experience	Token staking significantly improves app developers and user experience	Token staking significantly improves app developers and user experience
Developer Community	Strongest community globally, estimated as 250 000 developers by ConsenSys	Growth stage, but much smaller than in Ethereum	Potentially equal to Ethereum community, but TRON have many differences and require more work	Equal to Ethereum community, as network is fully compatible with Ethereum applications

			for Ethereum applications migration	
Network Availability	Not guaranteed, network clogging can paralyze all applications (CryptoKitties case)	Ensured by having active and reserve block producers, staking-based resource allocation, lack of transparency on block producer operations increase risks	Ensured by having active and reserve super representatives, staking-based resource allocation, but lack of transparency on super representatives operations and their ability to buy votes increase risks of network destabilization	**Ensured by having Authority Node eligibility criteria, staking-based resource allocation, separation of power to Verification Committee which certify Authority Nodes**
Governance Model	Community-driven, anonymous miners; in reality control of the network is very centralized and consolidated in the hands of few mining pools	Community-driven, Constitution, token holders approval voting for 21 active Block Producers, according to Constitution Block Producers can't pay for votes; in reality control of the network is very centralized and consolidated by the group of Block Producers, some of them hiddenly buy votes to be elected (plutocracy)	Community-driven, No constitution, token holders approval voting for 27 active Super Representatives, Super Representatives are encouraged to pay for votes; control of the network is very centralized and consolidated by the group of Super Representatives, which might manipulate the network as they wish, network IS NOT SECURE	**No individual or group gains too much control, governance have established Constitution and two independent branches - Verification Committee and Authority Nodes; Separation of powers and system of checks and balances ensures governance in the best interests of network consumers; Constitution is designed to avoid plutocracy and forbids paying for votes; Due to transparency and separation of powers it is very hard to obtain significant power by hiddenly buying votes**
Trust Model	51% PoW attack is expensive and economically not reasonable for large mining pools	21 Block Producers are incentivized to behave well to keep being	Completely unreliable, 27 Super Representatives currently they have	**25 Authority Nodes are all identified credible organizations, certified as eligible to run the node by**

		elected by token holders; in reality they can manipulate the network if stakes would be high enough, that means that storage of highly valuable tokenized assets in EOS network is risky	to pay their rewards to voters to keep being elected, they have no incentive to provide quality services and avoid network manipulation, network could collapse anytime when major token holders affiliated with Super Representatives will decide to exit	Verification Committee, which is elected by network consumers; Authority Nodes put their reputation and business at risk; Half of Authority Nodes should be compromised to perform successful attack