



ULTIMATE STAKING GUIDE 2021: OVERVIEW OF BEST CRYPTO-PROJECTS TO STAKE WITH POS AND DPOS (PROFITABILITY, USER EXPERIENCE, LOW-RISK)



[u/icysx](#)

In this post I would like to expand on the growing interest in staking by expanding on u/weawer (URL) and u/beginnerstaking posts. Everything in this post is relevant for the year 2021.

Table of contents:

0. Staking and methodology
1. TLDR: Summary Table of Projects (Profitability, Ease of staking)
2. Glossary
3. Why to stake in a Native wallet vs Third-party wallets vs Exchanges
4. Overview of projects and useful links
5. Sources and declaration of conflict of interest

0. Staking and methodology

Staking cryptocurrencies is something that may interest a lot of retail investors who do not wish to participate in active trading. Staking allows a coin holder to receive passive income through a reward or forging system.

The number of coins or tokens that you have or the amount you are willing to stake will affect the quantity of staking rewards. It's a bit like a savings account but with much greater freedom and a decent profit.

Staking is in its essence basically a form of mining, that rewards the users of the blockchain network, because the users of the specific project chose who their Node operators and ultimately Staking providers are. These operators are called miners for coins like Bitcoin. However, staking uses fraction of electricity and computational power that bitcoin mining needs, while still keeping the network running. Poetry of blockchain engineers.

I decided to make a comprehensive guide that will cover a glossary regarding staking and other blockchain terms. The main take-away should be a closer look at a list of projects that I will compare based on how profitable, prospective and user-friendly they are.

The choice of projects featured includes popular, innovative and original projects. I have either direct experience with these projects or I have researched and tested them out. In my opinion, these projects are relatively low risk.

I studied 40+ projects and eventually limited my choice to 9 blockchain networks. This journey was actually really interesting.

Before starting it, I was staking in 2 projects and I thought the market was flooded with projects covering insane staking rewards and incredible possibilities. I went to the opposite end of what I know from my experience and researched ERC20 staking – realizing it is complex and risky.

Therefore, I focused on user experience and risk mitigation. This led to a rabbit hole of discovering new and amazing projects. I slowly started to realize one very common denominator for the best staking projects. All of them are focused on creating technology for block-chain interoperability, deploying their own blockchains and parachaining. Each has its own unique take on how to solve this crucial factor for adoption (covered in Chapter 4). This reasoning is clearer when you understand the difference between Proof-of-work and Proof-of-stake.

The foundation of the tech behind the projects should be a major point of interest when comparing these products over their profitability. One of the deciding factors was also the development activity behind these projects (<https://twitter.com/ProofofGitHub>). That is why extreme profit projects with 0 tech are not listed here.

To make this guide a bit more interesting I had a couple of crypto beginners try out this selection of projects and noted their opinion in the evaluation part of this guide.

If you feel that this list excludes an interesting project, please comment and list some sources. I will edit the post and add them in.

Important notes:

- Any project with less than 3% annual rewards is not included (eg. EOS, NEO, TRON, VET, LSK, XLM).
- As mentioned, sometimes there is a risk associated with staking (usually very high-profit types with 20% and more yearly interest). This means that any project that has a risk of losing the staked amount or significant rewards is also excluded.
- ERC20 tokens are also excluded as their staking is more complicated and riskier. DOT and KSM are exceptions because their slashing is negligible for users (not validators, however).
- Exchange staking is included briefly as it also carries a risk but that is mainly in the concept of not your keys, not your coins axiom.
- I decided not to include ETH 2.0 in this guide, because it means locking a large number of assets until it launches (so do your own research after you finish this guide).

1. TLDR: Summary for Staking in Native Wallets

I decided to start this post with a summary, because there would be a wall of text before the “good stuff”. I hope this summary will motivate you to read through the rest of the post and find the logic and reasoning behind it. I decided not to give any project an overall rank and listed them alphabetically (there is no best to last, that is for you to decide). Instead, I summarized key features, profitability and evaluated UX (from crypto-beginners) and tech aspects (by studying whitepapers and roadmap completions).

Some projects have grown in a way that staking was always available only in third-party wallet and since that is their native environment, they deserve a place here.

Staking in native wallets will always be the most secure way to stake your coins. Never forget to back-up your seed phrases.

If some terminology in this table is not clear – head down to the glossary in the next chapter. Every single evaluation category in the table is explained in project overview of Chapter 4.

Table 1: Native wallet - profitability

Project	Coin	Native wallet staking	APY %	Lock-up period	Pay-out
Algorand	ALGO	Yes	6.5 %	None	Transaction claim
ARK EcoSystem	ARK	Yes	8 - 9.5 %	None	Daily
Avalanche	AVAX	Yes	9.2 %	14 - 365 days	After lock
Cardano	ADA	Yes*	4 – 5 %	None	20 days
Cosmos	ATOM	3 rd - party only	10.5 %	Variable**	Claiming with fees
Icon	ICX	Yes	13 % ***	5 - 20 days	5-20 days
Kusama	KSM	Yes	14 %	7 days	Claim (21 days expire)
Polkadot	DOT		9-12 %	28 days	Claim (84 days expire)
Tezos	XTZ	3 rd - party only	5 – 6 %	Initial lock ****	3 days ****

*ADA native wallets are developed by third-party but they are exclusive to ADA

** ATOM locking period depends on user but to switch delegation you have to wait 21 days.

** ICX interest changes a lot, can be from 6-30 %, overall is about 10–16 %

*** Tezos requires to initially confirm assets for about 14-20 days. So, there is an initial lock of funds for PoS to work, then rewards pay out every 3 days.

Table 2: Native wallet – features and evaluation

Coin	Consensus	Ease of staking	Tech	User experience
ADA	PoS	Easy	10/10	10/10
ALGO	PPoS*	Moderate	7/10	8/10
ARK	DPoS	Easy	10/10	10/10
ATOM	PoS	Moderate	10/10	8/10
AVAX	PoS	Moderate	8/10	6/10
ICX	DPoS	Easy	9/10	8/10
KSM	DPoS**	Hard	9/10	4/10
DOT	DPoS**	Hard	9/10	4/10
XTZ	PoS and DPos	Moderate	8/10	7/10

*PPoS is a form of PoS where anyone on the network can decide what to do with blocks – achieving great decentralization level

**Dot’s and Kusama’s DPoS is called NPoS, but is just DPoS with possibility to punish bad delegates (slashing)

2. Glossary

Table 3: Essential blockchain terms

Term	Explanation
Blockchain	Immutable or permanent ledger (registry) maintained in multiple locations known as nodes.
Node	A software instance on a Blockchain network responsible for participating in consensus, maintaining the ledger, servicing or relaying transactions, or all of the above. A node is the most basic unit and critical part of a blockchain infrastructure.
Node operator	Person or group of people responsible for maintaining a node. A network refers to all nodes in the operation of a blockchain at any given moment in time.
Network	Collection of nodes that communicate with one another to form a system.
Transaction	An exchange of data or value between Blockchain addresses or networks.
Consensus	General agreement between node operators on the state of the Blockchain and/or ledger. In decentralized systems, which are composed of a multitude of node operators the decisions are made collectively. Consensus is needed to provide the state of the network.
Finality	Property of a Blockchain network that determines how well the consensus mechanism can render new blocks immutable (permanent)
Consensus mechanism	Method by which consensus is reached, which can vary drastically based on the protocol. Examples include Proof-of-Work, Proof-of-Stake, and Delegated Proof-of-Stake.
Proof-of-work	Prime example where this mechanism is used is Bitcoin network. Where miners race to solve complex mathematical problems, adding new blocks and generating new coins to validate transactions. Miners consume large quantities of electricity to do this.

Table 4: Staking glossary

Term	Explanation
APY %	Annual percentage yield
Ease of staking	A metric considering the difficulty of set up to earn rewards via staking. Either explaining how hard is it to get your assets to start staking, how much is the minimum amount of tokens for staking and how much attention you have to bring staking.
	Easy: Very fast setup, No fees and extremely small minimum stake, none or small lock period, fast payouts and very occasional attention to status.
	Moderate: More hassle when setting up staking account, minimum stake required, lock up periods, payouts take longer or require unbonding, can require claiming rewards.
	Hard: Abysmal user experience, high entry point, long lock-up periods, payouts after lock-up periods, payouts with long unbonding or claiming, expiration of rewards.
Native wallet	Wallet developed by the team behind the blockchain project. First functionality of it is built exclusively around the native token. Provides highest amount of security for staking. Many native wallets are expanding beyond and depending on project development allow holding new assets through interoperability, testnet tokens or even top crypto coins.
Third party wallet	Well known multi-asset wallets like Exodus or Atomic wallet that started to allow staking within their interface.
Exchange staking	Locked staking on an exchange, there is some risk but can be profitable.
POS	Consensus mechanism where all coin holders enter a lottery to add new blocks and receive new coins, weighted by the holdings within each address. Consumes far less electricity than PoW.
DPOS	Consensus mechanism where Staking providers are voted in by coin holders are responsible for maintaining the ledger, adding blocks, and generating new coins. Since DPoS is a form of democratic governance. The Staking providers share their proposals of how they will share rewards and help the network.
Staking pool	Pooling funds together with other investors for staking is similar to the concept of pooling hashing power in mining pools.
Staking provider	Ensures consensus on the network for providing staking rewards
	Generalized name for the terms: Delegate, Delegation services, Delegator, Generator, Producer, Baker, Validator Some networks can utilize 2 or more of these specific examples to differentiate roles if needed.
Staking hierarchy	You are a Voter – You vote for Staking pool or Staking provider – Staking pool or provider are Node operators (validators) that confirm transactions on the blockchain network and that share the rewards with Voters
UIX / UX	User interface experience, User Experience

Term	Explanation
Stake	The number of coins or token that participate in staking.
Vote	Transaction type that assigns your tokens to a Staking Provider and determines your Vote Weight. Most common cases:
Voting	<ul style="list-style-type: none"> • A small fee transaction to choose Staking provider that assumes all assets on the address you vote from as voting power (Flexible) • Requires committing assets as Stake voting (Not Flexible)
Flexible Stake Flexible Balance	You only have to vote from your address to stake pool or a delegate and all assets on your address are assumed to participate in the voted pool. You can move your tokens anytime and proof-of-stake is calculated from minutes to hours.
Stake Voting Stake Lock Staked Balance	Where one token represents one vote in the network. The total number of coins that have used the voting right to indicate preference for a Staking Provider. A vote where you commit an amount of tokens through a transaction to your staking pool (Quite often requires locking, bounding)
Vote Weight Vote Power	Quantifiable amount of influence that a voter could assign to Staking Provider. Determines your staking reward among other network-specific things based on the project you are supporting. In Flexible Stake it is usually all the assets you have on your address. In Staked Lock you usually chose how much vote power you have specifically.
Slashing	A form of punishment for delegated in DPoS that are not working properly and are trying to game the system.

3. Native wallet vs 3rd-party wallet vs Exchange staking

Native wallet summary was already included above in Chapter 1 and is the safest form of staking where you own your private keys. I advise to always make good research on how native wallet staking is available for the projects you research.

Third party wallet staking is a good option if you find a reputable wallet. The choice of third party wallets are included in Chapter 4 project overview. In general: Exodus, Atomic, Huobi, Guarda

Project	Coin	3 rd party wallet	APY %	Lock-up period	Pay-out
Cardano	ADA	Yes*	4 %	Yes and no	20 days
Algorand	ALGO	Yes	6.2 %	Yes	After
ARK EcoSystem	ARK	No	-	-	-
Cosmos	ATOM	Yes	10 %	Yes	Claiming with fees
Avalanche	AVAX	No	-	-	-
Kusama	KSM	No	-	-	-
Polkadot	DOT	Yes	8 %	Yes	After
Icon	ICX	Yes	10 %	Yes	After
Tezos	XTZ	Yes	5.4 %	Initial lock ***	3 days ***

*More wallets beyond Daedalus and IOHK

Exchange staking can be useful for some, but dreadful for others. Never forget, not your keys not your coins.

Recommended exchanges: Coinbase, Binance

Project	Coin	Exchange staking	APY %	Lock-up period	Pay-out
Cardano	ADA	Yes	Changes quite often on every exchange. Always check the current rate. Can be sold out and therefore not available.	Always happens on exchanges. Typically: 14 days 30 days 60 days 90 days	After unbounding
Algorand	ALGO	Yes			
ARK EcoSystem	ARK	Yes			
Cosmos	ATOM	Yes			
Avalanche	AVAX	Yes			
Kusama	KSM	Yes			
Polkadot	DOT	Yes			
Icon	ICX	Yes			
Tezos	XTZ	Yes			

4. Project overview and useful links

Algorand (ALGO):

Algorand is a decent staking project considering profitability and ease of stake. There is no lock-up period for receiving rewards. They are calculated to your address in a pending form just by being part of the network. To claim them however one needs to send or receive a transaction (even if it is a 0 Algo message over blockchain). Their main goal is to work with banking institutions.

Website: <https://www.algorand.com/>

Reddit: <https://www.reddit.com/r/algorand/>

How to stake:

<https://coinlist.co/stake/algorand>

<https://www.algorand.com/resources/blog/rewards-technical-overview>

Tech: <https://www.algorand.com/resources/white-papers>

Upcoming tech: <https://messari.io/asset/algorand/profile>

ARK Ecosystem (ARK):

Very nice profitability and extremely easy to stake in native wallet. Requires only to download their easy-to-use native ARK wallet and vote for a Staking Provider (delegate). The wallet has downloadable plugin for rewards calculation to help chose a delegate based on your voting power.

Ark staking is risk-free. Your assets are never committed or locked and rewards are calculated and paid out daily. So you can see your balance rising everyday and the daily rewards are calculated towards your new staking reward the next day.

ARK has been one of the pioneers in blockchain interoperability solutions since 2017. The team behind ARK has been delivering everything on their yearly roadmaps and has some amazing products lined up for Q1 of 2021. They are very active in development (<https://twitter.com/ProofofGitHub>)

Website: <https://Ark.io>

Reddit: <https://www.reddit.com/r/ArkEcosystem/>

How to stake:

<https://ark.dev/docs/desktop-wallet/user-guides/installation>

<https://ark.dev/docs/desktop-wallet/user-guides/how-to-vote-unvote>

<https://arkdelegates.live/delegates> - for DPoS proposals

<https://ark.dev/docs/desktop-wallet/introduction-to-ark-rewards>

Tech:

<https://ark.dev/>

<https://ark.io/Whitepaper.pdf>

Upcoming tech: <https://ark.io/roadmap>

Avalance (AVAX):

Fairly new project that had main-net launch in Q4 of 2020. As usual around main-net launches the price rocketed and is now consolidating. The staking rewards are decent for AVAX, however, setting up staking accounts is a bit more tricky for beginners. There is a variable lock-up period that the user can freely choose from and rewards are received after this period. They have yet to prove what they promised in whitepapers, but the ambitions are interesting.

Their main net is pretty interesting though: <https://www.avalabs.org/why-avalanche>

Website: <https://www.avalabs.org/>

Reddit: <https://www.reddit.com/r/Avax/>

How to stake:

<https://medium.com/avalancheavax/staking-avax-by-validating-or-delegating-with-the-avalanche-wallet-f4d9adc182a6>

<https://docs.avax.network/learn/platform-overview/staking>

<https://docs.avax.network/build/tutorials/nodes-and-staking/staking-avax-by-validating-or-delegating-with-the-avalanche-wallet>

Upcoming tech:

<https://www.avalabs.org/whitepapers>

Cardano (ADA):

Also a project from 2017 that probably will have the biggest recognition on this list. They never failed to deliver what they promised and should be considered one of the most solid projects in this list.

Their might have one of the lesser staking profitability on this list but they make up for it with the great ease of staking. Rewards are paid out automatically every 20 days and the assets of the addresses are never locked. Calculations are done daily so it considers your transaction history during the 20 days. Therefore it is risk free. Their “native” wallets Daedalus and Yoroi are easy-to-use.

Some great news are coming from Cardano in the upcoming months so be sure to have them on your watch list. They recently hard-forked to allow more interoperability with chained tokens. They are also very active in development (<https://twitter.com/ProofofGitHub>). They are a Top 3 crypto project for a reason.

Website: <https://cardano.org/>

Reddit:

How to stake:

https://www.youtube.com/watch?v=OUZKSS_cJIE&ab_channel=IOHK

https://www.youtube.com/watch?v=DCMX1wFgrJY&ab_channel=IOHK

<https://medium.com/cardanorss/staking-for-beginners-a-step-by-step-guide-6dda110b2454>

Tech:

<https://cardano.org/discover-cardano>

<https://why.cardano.org/>

Upcoming tech: <https://roadmap.cardano.org/en/>

Cosmos (ATOM):

Cosmos has generous profitability and decent ease of staking. The coin can be staked in many wallets due to integration of their SDK in them in order to vote for Staking Pools. The only tricky part is the fact that you have to claim your rewards with a fee to the network.

Cosmos launched in Q1 of 2019 and they just recently finished their first whitepaper and launched their new road map of Stargate. This proves that they can deliver what they promise. They are also very active in development (<https://twitter.com/ProofofGitHub>)

Website: <https://cosmos.network/>

Reddit: <https://www.reddit.com/r/cardano/>

How to stake (3rd-party tutorials):

<https://blog.chorus.one/top-cosmos-wallets/>

<https://medium.com/everstake/how-to-stake-cosmos-atom-via-the-cosmostation-mobile-wallet-1feeff03b6b3>

<https://atomicwallet.io/cosmos-atom-staking>

<https://support.exodus.com/article/1403-cosmos-staking-faq#:~:text=First%2C%20open%20your%20Cosmos%20wallet,on%20the%20button%20Stake%20Cosmos.>

Tech:

<https://cosmos.network/cosmos-whitepaper.pdf>

<https://www.coindesk.com/cosmos-upgrades-to-stargate-another-2017-ico-very-nearly-completes-its-vision>

Upcoming Tech: <https://stargate.cosmos.network/>

Icon

This Korean based blockchain that started of as an ERC20 has very generous profitability and moderate ease of stake. They are deeply embedded in Korean strategic partnerships and seem to be delivering on their roadmap.

They separated from ERC20 base to their own blockchain during 2018. They are now one of the most profitable staking projects.

Website: <https://icon.foundation/?lang=en>

Reddit:

How to stake:

<https://medium.com/everstake/detailed-guide-to-icon-icx-staking-and-voting-how-things-do-exactly-work-d650e75f5ab9>

<https://stakedtech.medium.com/icon-icx-a-complete-guide-for-staking-on-icon-network-using-ledger-nano-aa1f45257133>

Tech: https://icon.foundation/resources/whitepaper/ICON_Whitepaper_EN.pdf

Upcoming tech: <https://medium.com/helloiconworld/icon-development-roadmap-update-february-2021-3b5897957094>

Kusama and Polkadot

Kusama is a canary network of polkadot and works on the same principles so I put these together. Both have one of the most profitable stake value in their native wallets and exchange staking. However, the ease of staking in their native wallets is pretty hard for beginners. This coupled with lock up periods and claiming rewards and their possible expiration does not create a good user experience. One could compare that the profitability makes up for that but having it on your mind all the time is a negative experience.

However, they are backed by huge VC and have very ambitious tech lined up. They have yet to prove what they are capable of.

Website: <https://kusama.network/>

<https://polkadot.network/>

Reddit:

<https://www.reddit.com/r/Kusama/>

<https://www.reddit.com/r/dot/>

How to stake:

<https://medium.com/stakin/how-to-stake-kusama-ksm-4529a48bb4e8>

<https://support.polkadot.network/support/solutions/articles/65000168057-how-do-i-stake-nominate-on-polkadot->

Tech: <https://whitepaper.io/document/596/polkadot-whitepaper>

Tezos

Tezos has an acceptable profitability and moderate ease of staking. There is an initial lock up period where you have to commit your assets to be confirmed by the network but then you are free to use them and get pay outs very regularly. They are a liquid network so you will have to vote for Staking providers.

Tezos uses a variation of a Proof-of-Stake system that differs slightly from established models in that block producers are not selected by token holders and anyone can participate as a baker (validator) if they hold a specified amount of tokens. Token holders that do not meet the minimum threshold can delegate their tokens to a baker without needing to relinquish control of their tokens.

Website: <https://tezos.com/>

Reddit: <https://www.reddit.com/r/tezos/>

How to stake (3rd party only):

<https://baking-bad.org/docs/tezos-staking-for-beginners/>

<https://support.exodus.com/article/1300-tezos-staking-faq>

<https://atomicwallet.io/tezos-staking>

Tech: https://tezos.com/static/white_paper-2dc8c02267a8fb86bd67a108199441bf.pdf

https://tezos.com/static/position_paper-841a0a56b573afb28da16f6650152fb4.pdf

Upcoming tech: <https://messari.io/asset/tezos/profile>

5. Sources and conflict of interest

Sources <https://coinmarketcap.com/alexandria/glossary>
<https://ark.dev/docs/glossary/glossary>
<https://www.stakingrewards.com/>
<https://cointostake.com>
<https://coinmarketexpert.com/>
Subreddits of these projects
Websites and whitepapers of every project

Conflict of interest I am an active member of communities in following projects:
ARK, ADA, DOT, ATOM.
I stake these coins: ARK (last 3 years), ICX (recently)
I own some Polkadot but do not stake it.
