# Research on Social, Economic and Cultural Problems of PoS-Networks in general, and Cosmos Network in particular

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# 1. What we have

After analyzing the process of governance in the Cosmos Network, I came to the following conclusions:

## 1.1 Low level of Community involvement in the governance of the Network

> *I would like to draw your attention to the fact that in other PoS-Networks, the situation is even worse. In most PoS-Networks, decisions are not made by the Community in the voting process, but by the decision of a small centralized group (as usual, heads of the project foundation) that fully control the validators through Delegation Programs, which deprives the validators of the possibility to make any decisions that will run counter to the opinion of the Foundation, on pain of recalling the delegation from the Foundation.*

For every proposal, Active Community Members must engage in a "marketing campaign" to involve the Community in the governance process.

Although the voting procedures can be performed with a few clicks, the most active community members usually must campaign validators and their delegators to vote on governance proposals. The problem is not in the tools, or not because “to vote is too hard”.

Despite the fact that ~ 60% (*169 M / 284 M at the time of 12/17/2021*) of all ATOMs are delegated, only a few hundred people take part in the voting for the proposals.

If the Proposal doesn’t reach the required quorum of 40% - the Proposal is considered invalid.

I understand that 100% will never take part in voting on the Proposals, therefore, I will assume that if 75% to 90% have passed in the voting, the decision on the Proposal is completely legitimate, even in terms of centralized structures, and such a decision is located in “Green Zone”.

Proposals can be considered valid if 60% to 75% took part in them, but these proposals are in the "Yellow Zone", and they generally pass not because of the general participation of the individual delegator, but because of the interest of Large Validators who who vote on behalf of their of their inactive delegates. If only those who actually took part in the voting, and not through their validator, were counted, then many of these proposals would not reach quorum and, thus, invalid.

Proposals that scored between 40% and 60% of the participants were close to being considered invalid. The acceptance of such proposals is questionable even from the point of view of centralized structures.

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*Data taken from [https://cosmos.bigdipper.live/proposals](https://cosmos.bigdipper.live/proposals)*

Proposal # 59: *55.96% of online voting power has been voted.*

Proposal # 58: *47.42% of online voting power has been voted.*

Proposal # 57: *19.69% of online voting power has been voted.*

Proposal # 56: *55.63% of online voting power has been voted.*

Proposal # 55: Removed

Proposal # 54: *44.88% of online voting power has been voted.*

Proposal # 53: Removed

Proposal # 52: *44.99% of online voting power has been voted.*

Proposal # 51: *62.34% of online voting power has been voted.*

Proposal # 50: *62.52% of online voting power has been voted.*

Proposal # 49: *60.12% of online voting power has been voted.*

Proposal # 48: *64.74% of online voting power has been voted.*

Proposal # 47: *50.23% of online voting power has been voted.*

Proposal # 46: *65.21% of online voting power has been voted.*

Proposal # 45: *43.32% of online voting power has been voted.*

Proposal # 44: *63.23% of online voting power has been voted.*

Proposal # 43: Removed

Proposal # 42: *55.82% of online voting power has been voted.*

Proposal # 41: *66.16% of online voting power has been voted.*

Proposal # 40: Removed

Proposal # 39: Removed

Proposal # 38: *54.74% of online voting power has been voted.*

Proposal # 37: *50.36% of online voting power has been voted.*

Proposal # 36: *64.48% of online voting power has been voted.*

Proposal # 35: *66.66% of online voting power has been voted*

Proposal # 34: *64.70% of online voting power has been voted.*

Proposal # 33: Removed

Proposal # 32: *51.46% of online voting power has been voted.*

Proposal # 31: *45.69% of online voting power has been voted.*

Proposal # 30: *60.83% of online voting power has been voted.*

Proposal # 29: *49.45% of online voting power has been voted.*

Proposal # 28: Removed

Proposal # 27: *57.48% of online voting power has been voted.*

Proposal # 26: *58.33% of online voting power has been voted.*

Proposal # 25: *73.71% of online voting power has been voted.*

Proposal # 24: Removed

Proposal # 23: *82.43% of online voting power has been voted.*

Proposal # 22: Removed

Proposal # 21: Removed

Proposal # 20: Removed

Proposal # 19: *87.28% of online voting power has been voted.*

Proposal # 18: Removed

Proposal # 17: Removed

Proposal # 16: *86.32% of online voting power has been voted.*

Proposal # 15: Removed

Proposal # 14: *46.09% of online voting power has been voted.*

Proposal # 13: *78.20% of online voting power has been voted.*

Proposal # 12: *60.20% of online voting power has been voted.*

Proposal # 11: Removed

Proposal # 10: *68.97% of online voting power has been voted.*

Proposal # 9: Removed

Proposal # 8: *71.13% of online voting power has been voted.*

Proposal # 7: *57.45% of online voting power has been voted.*

Proposal # 6: *62.37% of online voting power has been voted.*

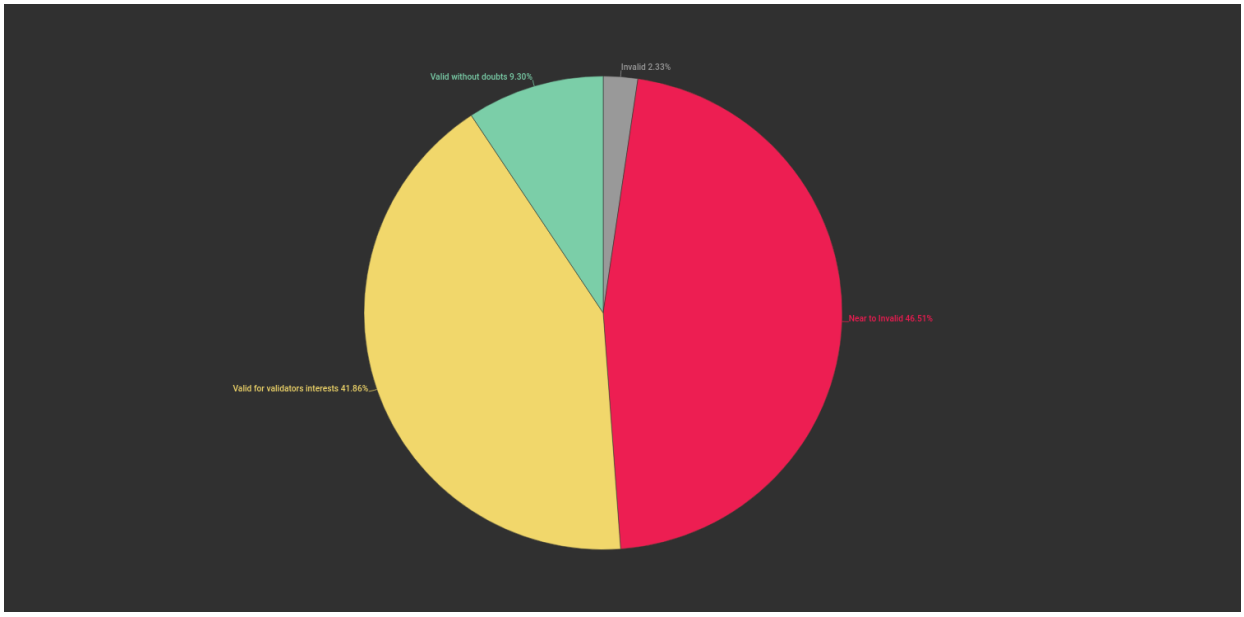
Proposal # 5: *61.58% of online voting power has been voted.*

Proposal # 4: *41.50% of online voting power has been voted.*

Proposal # 3: *56.54% of online voting power has been voted.*

Proposal # 2: *61.85% of online voting power has been voted.*

Proposal # 1: *55.21% of online voting power has been voted.*




16 out of 59 proposals did not reach consideration, and in fact are not proposals, and as real proposals they can be ignored.

43 proposals were actually considered by the entire community, of which:

1 proposal (2.33% of the total number of proposals considered) did not take place. Less than 20% of the total took part in the voting. Located in the "Gray Zone".

*This Proposal No. 57, on reducing the cost of creating the Liquidity Pool, which doesn't in any way apply to large market players or validators, but is directly aimed at the interests of small players. And this proposal was ignored by most of the validators.*

20 offers (46.51%) are in the "Red Zone": 1, 3, 4, 7, 14, 26, 27, 29, 31, 32, 37, 38, 42, 45, 47, 52, 54, 56 , 58, 59.
Such a low percentage of participation in voting can be explained by the fact that most of these proposals concern directly the community itself, but don't concern validators, and as a result, validators are not interested in voting.

18 offers (41.86%) are in the "Yellow Zone": 2, 5, 6, 8, 10, 12, 25, 30, 34, 35, 36, 41, 44, 46, 48, 49, 50, 51 .
Most of the proposals relate directly to the validators, and they have been passed because of the clear interest of validators.

4 proposals (9.30%) are in the "Green Zone": 13, 16, 19, 23.
Acceptance (or rejection) of these proposals is beyond doubt.

## 1.2 Centralization of the Voting Power

*As of December 17, 2021, 150 Validators are validating the network.*
*Data taken from [https://www.mintscan.io/cosmos/validators](https://www.mintscan.io/cosmos/validators)*

### 1.2.1 Distribution of the Voting Power by Validators

The first 5 validators (3.33% of the total) have 25.88% of the Voting Power.

The first 10 validators (6.66%) have 42.6% of the Voting Power, which is enough to consider the result of voting for the Proposal as legitimate.

*In theory, the first 10 validators are capable of raising and making almost any decision, given the general inertia of the Community.*
*But I repeat once again, the situation in other blockchains on PoS is even worse, and there are enough 2-3 people to make a decision, who are the leaders of the Foundations, and this decision can be made without any vote, simply based on the wishes of the creators of the project.*

The first 22 validators (14.66%) have 66.05% Voting Power, which allows them to make absolutely any decisions.

### 1.2.2 Activity of Validators

Theoretically, this means that 85.33% of validators may not take part in voting at all, although in practice they are the most active participants in voting, and we can notice a tendency that the less stake a validator has, the more the validator actively participates in the voting.

And at the same time, Large Validators don’t take part in the voting, and if they do, then vote for the Proposals that relate directly to the validators, or under pressure from Active Community Members.

### 1.2.3 Trying to change the situation

Tendermint's attempts to influence the situation with the centralization of the Network only led to the fact that the number of validators with 66% of the Voting Power increased from 20 validators to 22. At the same time, the number of validators with 33% of the Voting Power increased from 6 to 7.

Despite the fact that the Cosmos Network is an example of Decentralization for other blockchains, the level of Centralization is far from not only ideal, but even comparable to the level of centralization in Centralized Structures.

> *Recall that in other blockchains, both the Cosmos Ecosystem and outside it, the level of Decentralization is even lower than in the Cosmos Network.*

## 1.3 Ignoring the Social and Cultural Significance of Blockchain and Decentralization

Among the leading validators, there are quite a few Centralized Exchanges and Investment Funds, which are successful economic projects, but with Decentralization they are united only by the fact that they trade coins of decentralized projects.

### 1.3.1 The Threat of Non-Participation

These Centralized Exchanges and Investment Funds are already influencing decision-making within both the Cosmos Ecosystem and other PoS-blockchains, mainly by using the Voting Power of their delegators to “non-participate in governance”.

If the percentage of non-participation in management increases, then no proposal will be able to overcome the minimum threshold of 40%, which will completely paralyze the modernization of the Network.
At the same time, if the minimum threshold for participation in voting is lowered, then the decision-making process will raise even more doubts.

### 1.3.2 Displacement of Social and Cultural Values by Economic Values

Centralized Exchanges and Investment Funds are the “main motivators” for the transformation of Delegators into Speculators, and implant exclusively an Economic vision, completely ignoring both the Social and Cultural components of Blockchain and Decentralization.

Ignoring the social and cultural aspects of decentralization applies not only to Centralized Exchanges and Investment Funds, but also to the overwhelming number of delegators.

## 1.4 Low level of awareness of delegators about the technical and social structure of the blockchain

*This applies to all PoS-blockchains in general, and not just the Cosmos Network!*

All delegators can be divided into three groups:

- Large Delegators (investors who came from traditional finance to the blockchain, who have sufficiently large funds)

- Small Delegators (investors who did not come from the financial sector, but because of marketing and a thirst for get-rich-quick, have small amounts)

- Active Community Members (enthusiasts who are well aware not only of the economic component of the blockchain, but also of the technical and social component. In different networks, their percentage ranges from 15% to 25%, and they are the driving force behind most projects)

## 1.4 .1 Large Delegators

Large Delegators tend to delegate their tokens to the validators with the highest Voting Power, as due to the low level of awareness of the technical and social aspects of the blockchain, they believe that the higher the Voting Power, the better the validator.

It's good that Large Delegators delegate their stake to more than one validator and distribute stake among several validators. But they do it not because of the awareness of Decentralization as a value, but because of the low level of awareness: most Large Delegators don't understand how the blockchain works, and still believe that the validator can somehow do something with their stake, and if cannot, it means that something else can happen, and therefore it is better "not to store all the eggs in one basket".

## 1.4.2 Small Delegators

Small Delegators, as usual, delegate their funds to just one validator, and at the same time choose a validator with the lowest commission, which somehow helps Small Validators to attract delegators.

That is, "zero commission" is used as a digital marketing tool to lure delegators away from other validators.

At the same time, Small Validators with zero commission entice Delegators not from Large Validators, but from other Small Validators. As a result, all Small Validators need to enter the "race for the lowest commission".

### 1.4.3 Active Community Members

Active Community Members have been sounding the alarm for a long time, but their voices are barely audible against the background of the general inert mass. That is why in the main communities of various projects in Telegram and Discord, we can see tens of thousands of users, of which several hundred take part in the voting.

It should be borne in mind that many Active Community Members have two or more addresses. That is, the actual number of delegators taking part in the governance doesn't exceed 200-300 people.

Which is indescribably better compared to the Board of Directors of the Centralized Corporation, which has from 6 to 15 members, but still far from our idea of community participation in governance.

## 1.5 Irrational competition between validators

*This point also applies to all PoS-blockchains, not just the Cosmos Network!*

All validators can be divided into three categories:

- Centralized Exchanges and Investment Funds (we have already mentioned them in clause 1.2)

- Group validators (one validator, behind which is a team of people with professional skills in both technical and humanitarian spheres of activity)

- Individual validators (one validator, behind which is one or several enthusiasts with a wide range of skills acquired in the process of self-education)

### 1.5.1 Dominance of economic interests over network security

The overwhelming number of validators are forced to reckon with the dominance of the economic aspect. The efforts and resources of validators are not aimed at improving network security (infrastructure modernization, and maximum uptime), but at marketing.

As a result, there is an irrational competition between the validators, which is more like an arms race than a free market.

Economic interests are placed above the interests of network security, which manifests itself in:

- deliberate hushing up of the fact that for network security it is better to delegate to several validators

- creation of applications in which you can see the full list of validators

- “information blockade” of any news about the Cosmos Ecosystem, which one way or another concern other validators, in community groups around validators.The

The only advantage of the dominance of economic interest can be considered an increase in the profits of Large Validators, and an increase in the rewards of delegators who delegate to validators with zero commissions.

## 1.5.2 Race for zero fees

The competition of validators in terms of reducing fees in order to attract delegators to itself doesn’t increase the level of decentralization of the Network, and doesn’t bring additional value to the network.

**1.5.2.1**

Firstly, a validator's commission reduction to 0% doesn’t attract new delegators to the Network, but only motivates existing delegators to redelegate their funds from validators with commissions higher than zero.

**1.5.2.2**

Secondly, it doesn’t lure Large Delegators from Large Validators to Small Validators, but rather lures Small Delegators from Small Validators, as a result of which the level of centralization of the network doesn’t fall.
That is, we can observe an almost static position of validators in the top-10, and a constant change in positions and competition for the last places in the set of active validators. As we can see, the number of Large Validators holding 66% of the Voting Power doesn’t increase over time, despite the fact that the redelegation function is available to users.

**1.5.2.3**

Third, Small Validators are the most active in terms of providing value to projects. Large Validators have already established themselves and no longer need to spend time to bring additional value to the Network. Small Validators are forced to bring direct benefits to the Network, and often the Network benefits from Small Validators are many times greater than the Network benefits from Large Validators.

Small-scale validators with non-zero fees support communities and create tools to help inflow new delegators into the Network. They are motivated by the profit from the validator's commissions.

Reducing commissions to 0% by some Small Validators forces other Small Validators to also reduce commissions to 0%.

If an active Small Validator doesn’t reduce the commission to 0%, then it will be left without delegators, which means it will be left without profit from delegations, which means it will lose the motivation to further create tools for the network and develop communities.

In this way, the most active members of the Network lose motivation to develop the Network, and leave, albeit less ideological, but more profitable projects.

As a conclusion: The dominance of the economic aspect among validators directly affects the decrease in network security, creates a vicious connection between economic interest and the governance process, and also contradicts the cultural values of Decentralization: freedom of information dissemination, peer-to-peer, and the spirit of Win-Win.

## 1.6 Lack of opportunities for improvement of the Network for the Active Community Members

*We’ve already mentioned Active Community Members in paragraph 1.4*

The Community is the driving force of any project!

And this is true: every dollar attracted from the Community is equal to three dollars attracted from Investors.

The Community supports the project in difficult economic times: when Investors sell project tokens, and delegators unbond funds, only Active Community Members continue to stake their tokens and provide information support.

The Community may be considered the best marketing solution, but the Community is much more than marketing, it is real people who find the meaning of their lives in the Cosmos Network.

Active Community Members are more interested in the Social and Cultural aspects of the Network, and they are ready to sacrifice their own economic interests for the interests of the project.

### 1.6.1 Lack of Economic Power → Lack of Social Power

Unfortunately, a strong bias towards the economic aspect is the main obstacle to the further development of the Network and the Community.

We can observe this by the low level of participation in voting for proposals that directly concern the Community. Both Validators and Delegators simply ignore such proposals.

Active Community Members have both the competence and the will to implement grandiose ideas, but they don't have the economic capacity to govern the Network. Despite their active participation in the process of voting for proposals, it is enough for only 2-3 validators to vote differently and all the efforts of the Community become nothing.

We can clearly see this in the example of Proposal 26, when the entire community actively voted to accept the proposal, and only a few Validators voted against, and the Proposal was rejected. At the same time, the Validators voted not with their stake, but with the stack of Delegators who are interested exclusively in the economic aspect of delegation and don’t participate in the voting.

The case of Proposition # 57 is even more revealing: The Proposal to reduce the price of creating liquidity pools, aimed specifically for Small Delegators and Active Community Members, was simply ignored by both Large Delegators and Large Validators, as a result, less than 20% was participating in the voting for the Proposal.

These results show us clearly: If you want to change something, even for the better, you must have a lot of capital!

But this is exactly why we are moving away from centralized structures to distributed structures. And if we cannot change this, then the blockchain will be just another kind of multinational corporations.

### 1.6.2 The Community doesn’t have real possibility to use the Community Pool

Despite the fact that the Community has its own pool, they are not able to use it, since they don’t have enough Voting Power to govern the resources of their own pool!

The situation vaguely resembles the situation with women, darkskin people and homosexuals 100 years ago: despite the fact that they were direct participants of the society, they didn’t have posibilities to realize their interests, since they didn’t have significant economic resources.

If it’s possible to use funds from the Community Pool, then it can only be done by a small semi-centralized group of community members. At the same time, funds from the community pool are spent extremely irrationally, and not in the interests of the community and the development of the Network, but it’s not clear in whose interests, and rather cause damage than benefit.
A striking example of this, Proposals #34 and #46, after which huge funds were allocated from the Community Pool for the video contest, as a result of which, a huge number of prizes were received by participants with low-quality content, one of the participants received two prizes for one low-quality video posted on two different links, and at the same time high-quality content did not receive a prize, which raises doubts about the competence of the judges, and also undermines the faith of fair play.

> *Research of this incident can be read by the link:*
> *https://antropocosmist.medium.com/how-enthusiasm-is-lost-or-centralization-of-social-power-in-cosmos-network-69345714a42b*

The lack of the ability to manage the Network from Active Community Members, not only deprives the Cosmos Network of the implementation of grandiose ideas, but also a threat to the security of the Network, and an obstacle to the further development of the Project.

### 1.6.3 Linking Economic Interests to Cultural Decline

> *This applies to all PoS blockchains in general, not just the Cosmos Network!*

The link between economic interests and governance is the reason for centralization that has been warned about many times since the early days of PoS.

Moreover, the connection of economic interests with the management process is a property of centralized structures, and it is from this vicious connection that the blockchain should have rid us.

For three years, we came not only to 200+ projects on the Cosmos SDK, but also to the fact that users were waiting for the implementation of IBC not because it is a grandiose protocol that should take the Internet and relationships between people to a new level, but to the fact that users were waiting for the rising price of the token in order to sell it more profitably for fiat funds.

It is as a result of linking economic interest with governance that we encounter a cultural decline that is perfectly characterized by two of the most popular questions: "When moon?" and “When airdrop, sir?”

Users don’t understand that in a decentralized future there should be no place for the word "sir", which carries the hierarchical character of colonial times.

Instead of cultivating peer-to-peer and Network Neutrality, we are faced with projecting the values of centralized structures onto our distributed structures.

Once again, we can see that pulling a person out of a centralized structure is much easier than pulling a centralized structure out of a person.

If we don’t take concrete actions to change the situation, then the entire Cosmos Ecosystem will simply repeat the same path that the Internet has taken before: From complete Decentralization to complete Centralization. Only if on the Internet, the main actors of Centralization are Centralized Digital Corporations, then on the Internet of Blockchains, the main actors of Centralization will be Large Validators, Centralized Exchanges and Investment Funds.

Instead of creating something new, there is a real threat to create conditions for the preservation of the old.

To summarize:

- The Threat of Centralization in PoS really exists
- The connection of Economic Interests with the Governance Process is the main driving force behind Centralization
- Neither Validators, nor Delegators, nor the Community are able to change the situation, since they are all direct participants in the process, and therefore their actions are determined by the ongoing process
- Decentralist Culture and Values are not able to influence the Socio-Economic Processes, and are themselves under the threat of complete distortion
- The problem is “Ecosystemic”, and can only be solved by modernizing the old program code and creating additional Cosmos SDK modules that will help separate Economic Interest from the Governance Process
- The only real actors capable of preventing the threat of centralization are developers, since only they have the necessary competencies

# 2. What should we come to

Based on the values stated in the Cosmos Network Introduction https://cosmos.network/intro, as well as based on common human values and personal experience, the Cosmos Network should become a truly decentralized and secure network that will meet the economic, social and cultural-psychological needs of all participants: Users, Delegators, Validators, Developers and Active Community Members of the Cosmos Network.

## 2.1 Criteria of the Desired Network

1. The Network must motivate participants to cooperate, and create a favorable environment for self-realization
2. The Network must create values that depend on its actual functionality and usability
3. The Network must be resistant to external and internal threats, adaptive to changes in the environment, be dynamic and self-replicated structure
4. The Network must to minimize the economic, social and cultural conflicts
5. The Network should be a role model and a workable model for other blockchains and whole society

It means:

- Users should have a clear and friendly interface that allows them to fulfill their personal needs. The process of realizing the personal needs of Users should bring tangible benefits to the Web. The interests of the Users should not come into confrontation with the interests of other members of the Network. In the process of using the Network, Users should see immediate benefit from participation in the Network, and also be motivated to take on the roles of Delegators, Validators, Active Community Members or Developers
- Delegators should be rewarded for supporting the Network. Their interests should not conflict with the interests of Validators and the Community
- Validators should be rewarded for providing security to the Network. Their interests should proceed from striving for maximum Uptime and Modernization of infrastructure, and at the same time the interests of some validators should not conflict with the interests of other validators
- Active Community Members should be motivated and interested in the governance of the Network. Their interests should be directly related to the interests of Users, Delegators and Validators
- Developers should be motivated to find new, more effective solutions, and see direct benefits from improving the program code
- Projects from the Cosmos Ecosystem should receive direct benefits from participation in the Ecosystem, and projects not from the Ecosystem should see the direct benefits of joining the Ecosystem

# 3. What we need to do

## 3.1 List of necessary actions to move from “Actual” to “Desired”

To implement the desired model it is necessary:

### 3.1.1 Change the emission process of new ATOMs

That the value of the Network doesn’t depend from the economic expectations of Users, but from the direct activity and useability, it is necessary to change the process of emission of new ATOMs.

New ATOMs should appear not during the production of blocks (since blocks can also be produced empty), but during the execution of exchange transactions.

The implementation of the Liquidity Pool module in the Cosmos Network opens up opportunities where new ATOMs can be generated with each exchange of funds through the Liquidity Pool.

The Liquidity Pool must perform 3 important tasks:

a) Provide Users with the ability to exchange one token for another;

b) Provide the opportunity to provide liquidity to the Liquidity Pool with various tokens, motivating liquidity providers with rewards;

c) Create new ATOMs with every exchange.

Each exchange of tokens in the Liquidity Pool is a direct indicator of both the activity and the usefulness of the Network.

Each transaction will be accompanied by an ATOM issue.
Thus, the emergence of new ATOMs will be tied not to the creation of new blocks, but to the activity and usefulness of the Network.

The new ATOMs should partly go to liquidity providers (Delegators) as a reward from the Network for staking, and partly to the Validator Pool and Community Pool, which will be discussed later.

Thus, the ATOM price will be tied to the funds that come from transactions and are in the Liquidity Pool.

### 3.1.2 Liquidity Providers become Delegators

Each Liquidity Provider will become a Delegator. If earlier Delegators sent their funds to Validators, now Delegators need to send their funds to the Liquidity Pool.

Delegators' rewards should not depend on the percentages written in the code, but on the real activity of the Network: The more often and more Users make an exchange (use the Network), the greater the reward for the Delegators.

Thus, the Delegators will be interested in attracting new Users, and in promoting the Network.

Delegators' rewards should not depend on the errors of the Validators. Each Delegator will be sure that the ATOM they received has real value, tied to the real activity of the Network, and doesn’t depend on market expectations, or rumors in Social Networks.

Also, the 21-day unbonding period will disappear, which will motivate other Users to become Delegators.

The lack of a 21-day time limit will not affect Network Security in any way (more on that later).

Delegators who were not already interested in Network Governance will not lose any Social Power.

Delegators that are interested in the Governance of the Network more than in their personal economic interest, can join the active part of the Community in order to have a direct opportunity to govern the Network, regardless of their economic capabilities.

### 3.1.3 Create an additional module “Proof-of-Time”

To implement the separation of Economic Interests from the Governance Process, it’s necessary to create a module that will change the system of rewarding Validators for providing security to the Network.

A portion of all transaction fees from the Liquidity Pool must go to the Validators Pool.

Rewards for Validators will come from the Validators Pool, not from commissions from delegations.

To implement the Validators Pool, it is necessary to create additional time-token, whose emission will be tied to the uptime of the validators, and will accurately characterize the uptime of all validators.

The initial emission of time-tokens should be evenly distributed among all Validators, after which, every 10,000 blocks, each validator will be credited with the number of time-tokens in direct proportion to the number of accepted blocks.

The reward for providing security to the Network must go to Validators from the Validators Pool. Each Age (10,000 blocks), Validators will share funds from the Validators Pool among themselves, in direct proportion to the number of owned time-tokens.

This will motivate Validators to monitor uptime, and, among other things, will save Validators from irrational competition, since all Validators will be interested in attracting new Users and Delegators to use the Liquidity Pool.

### 3.1.4 Modernize the Network Governance Model

The Network should be governed by Active Community Members that are primarily more interested in the social part, than in the economic part of the Network.

As stated above, the dominance of economic interests is a threat for Network Security.

There are people in the Community who have already made a huge contribution to the development of the Ecosystem, have a good reputation and are known to everyone. By their deeds, they proved their interest in the development of the Network.

In order to govern the Network by people who are really interested in the development of the Network, it is necessary to modernize the Governance Process and create an additional governance-token, which will make it possible to vote on the Proposals, but will not have an economic component.

The initial emission of gov-tokens should be distributed on the basis of subjective indicators:

a) The level of involvement in the Network (the quality and quantity of actions aimed at the development of the Network and Community);

b) Reputation of person (the possibility to take part in the governance of the Network should not cause any doubts among most of the Network participants);

A portion of all transaction fees from the Liquidity Pool must go to the Community Pool. In other words: Community Pool is the budget that should be used to modernize the Network (payments to developers, marketing, motivation of Active Community Members).

Gov-tokens make it possible to channel funds from the Community Pool for the modernization of the Network.

Owners of gov-tokens must vote on the distribution of funds from the Community Pool.

The Community Pool capitalization equates to 100% gov-tokens.

Any of the gov-token owners can at any time return their gov-tokens to the Community Pool, and receive in return a percentage of the funds from the Community Pool, which is directly proportional to the number of returned gov-tokens.
Roughly speaking, you can always refuse to participate in the Governance of the Network, and receive an economic reward for this. The further fate of the gov-tokens from the Community Pool will be decided through the Proposal for re-distribution.

Among other things, in order to avoid trading iof gov-tokens, other gov-tokens owners can vote to revoke gov-tokens from a specific Active Community Member.
If the Proposal for revocation is supported, the gov-tokens will be revoked and returned to the Community Pool, and the owner of the gov-tokens will receive *x%* compensation, where *x* - is the % of people who voted against the revocation of gov-tokens.

In addition, Delegators and Validators together can initiate the revocation of gov-tokens from any Active Community Member. In this case, no compensation is provided for the revocation of gov-tokens.

That is, Active Community Members is an analogue of a decentralized board of directors, which have the ability to distribute the budget in the interests of modernizing the Network. And in the event of actions that will or may harm the entire Network, directors can be removed from office by the joint request of Delegators and Validators, as direct participants of the Network.

Thus, the creation and acceptance of proposals will not depend on the Economic Power of the Network participants, and people who put the interests of the Network above their economic interests will participate in the Governance Process.

At the same time, each of the Active Community Members will have an economic motivation to develop the Network, since at any time, each of the Active Community Members can receive a part of the Community Pool and stop participating in the management of the Network (retire).

At the same time, a mechanism will be created to transfer gov-tokens from Inactive Community Members (or Community Members who, for one reason or another, have lost the ability to make decisions) to the Community Pool.

## 3.2 Obstacles on the way from Actual to Desired

There are several obstacles on the way to realizing the transition from “Actual” to “Desired” that arise from the problems described earlier:

Centralization of the Voting Power in the hands of Centralized Exchanges, Investment Funds and Large Validators in combination with low-level of Community involvement in the Governance Process of the Cosmos Network will prevent a Proposal from passing, which will clearly deprive those who currently hold Economic and Social Power.

Even if the Proposal to reduce the fees for creating new pools was ignored, the Proposal to radically change the governance structure and allocation of funds - has no chance of success.

## 3.3 Possible Solution

Since the obstacles to modernizing the Cosmos Network into the “Network of Our Dreams” are too great, and we don’t have the necessary economic and social power to overcome these obstacles, instead of wasting efforts to redo the old, it is much easier to invest these efforts to create something new.

The creation of a New Network based on the Cosmos SDK, which will meet the Desired Network Criteria (see point 2), will not encounter any obstacles in its path, but above all will serve as an interesting social, economic, technical and cultural experiment, the results of which can become fundamental in the future modernization of the Cosmos Network, the entire Ecosystem, and maybe the Proof-of-Stake Paradigm.

**This research, and the conclusions drawn from it, is the starting point for creating a New Network on the Cosmos SDK - Sputnik Network**