

DotsToLines - Kappa Sigma Mu Collaboration: The Kusama Human Blockchain Project



THIS IS AN ALLIANCE BETWEEN HUMANS AND MACHINES.

We are a product of science and technology, we cannot distance ourselves from it. We can forge an alliance to embrace what technology can do for us and what we can do for others.

We are part human and machine. We are part of hybrid networks living and reproducing in our bodies. The dichotomy Natural / Artificial is no longer relevant in our times. We are here to understand how hybrid networks can help human development. **We are cyborgs.**

The Kusama Human Blockchain Project aims to forge an eternal alliance **between human and machine**. We live in the machine and the machine lives in us. This is a social movement triggered by the immutable hash-chain as a concept with the goal of erasing the division between human and machine.

The collaboration between DotsToLines ([IG](#))([Website](#)) and the Society aims to make Kusama Network and its functionalities known to non-technical users, raise awareness on new forms of organization and identify the link between the onchain and offchain worlds. These two universes join forces in an eternal alliance between human and machine: we use the machine to create our bodies, and they end up defining who we are.

The Society was born as a membership club using the Substrate Society pallet, experimenting with new ways of organization and collective identity onchain. New candidates are judged on their ability to provide proof-of-ink to existing members, including at least one identifier of the Kusama network and an identifier of the parent member¹. However, the Society reflects something else beyond its specification: that machines do not only help us do or think, they have the potential to help us **be**, by using **the emotionless hash-links to build human connection**.

In practical terms, the Society can be defined as a movement aiming to invest a great part of its resources to onboard new members into the new generation of Web3 tech stack, and more specifically into Kusama Network: being this the primary goal of the proposal. This project aims to gamify the Society experience enforcing 7 core drives:

- **Epic meaning and calling**
- **Development and accomplishment**
- **Empowerment of creativity**
- **Ownership and possession**
- **Scarcity**
- **Unpredictability**
- **Loss and Avoidance**

We aim to become a collective in which its members can make use of the network's assets via spending proposals and fund projects to enhance their understanding of Web3 and perfect their skills, using the technology for their development. We understand Kusama's economic design as the aggregation of all individual behaviours: by selfish specialization we create collective wealth. Our goal is to incentivise the initiative of individual action in the network. **Developer engagement is an important part of the Kusama ecosystem, but it is essential we also provide as many straightforward and simple on-ramps as possible to allow non-technical end-users to participate.**

The Society is partnering with [DotsToLines](#) to continue on its quest to extend the first Human Blockchain. DotsToLines studio is located in Berlin and has become an internationally recognized studio. Its owner, Chaim Machlev, is known for his particular geometric styles and deep concepts. He has received many renowned awards for his work in the last years. He moved to Berlin to dedicate fully to tattooing and started working at different studios in the city until he opened his own. Originally from Tel Aviv, he claims "there is no other way to learn tattooing than to really dedicate yourself to it, so I choose to destroy the border between me and my customer completely and to make it as intimate and effective as possible"². Chaim will

¹ More information on the requisites and processes of The Society can be found here: <https://polkascan.io/kusama/council/motion/94>, for more technical information on voting mechanism, please visit: <https://wiki.polkadot.network/docs/en/maintain-guides-society-kusama>

² <https://tattmag.com/chaim-machlev/>

become the first **Maker**: a role explained further on this document. Others will be able to join him on this quest as well.

This is **a call** to anyone thinking they can contribute to perfect the human side of the network.

This is **a call** to anyone believing that they can contribute with their expertise to enhance the human-machine experience.

This is **a call** to get lost by consuming the machine.

The use of the treasury for non-tech community onboarding

The Society is committed to structure the use of part of the network's resources to onboard non-tech users to the Web3 stack world, and to show them they can work with the network to capitalize on their ideas. This experiment, mostly defined as an educational project, aims to solve two main issues Kusama is facing today:

1. The disuse of available resources for building on the network;
2. The creation of a collective with a purposeful function other than participating in the economic game.

What does success look like? This proposal focuses on community growth and education. Success is therefore measured as the increase ratio of the Society and the percentage of treasury-funded projects originating from it. We envision a collective of individuals with diverse roles and attributes, each representing one block of the Human Blockchain and allocating resources from the network for their benefit, establishing a collective working in different spheres and using the resources available in the treasury via spending mechanisms, eventually dissolving their actions into the technology. By endorsing this proposal, the Society will have the role of discussing and developing quality standards for these projects, **setting a threshold for proposals related to artistic experimentation, communications and identity construction.**

This proposal represents one more instrument to enable treasury usage. It is also a way to experiment with new forms of organization, decision-making processes and fund allocation - something highly encouraged in Kusama. We expect to create a pool of humans able to work on the network enriching the discussions around it, programming, writing, spreading the word, making music and art, growing the community.

The development of projects and its endorsement by The Society needs to follow a first general rule: alignment to Open-source Philosophy. We are looking for those eager to engage in the alliance between human and machine, those who:

- **Can trigger** bounties in all its categories, being the Society the engine that moves "smart" investment partnered with members to support these efforts;

- **Can join** discussions, debates and talks on new forms of organization to collectively learn about new technologies and the vision behind Web3;
- **Can join** current bodies on the network aiming to diversify the governance process;
- **Can spread** the word on Kusama Network and its potential benefits for communities to organize as collectives with a higher purpose.
- **Can self-obliterate** into the machine.

Current process and new steps

To join the Society, a new candidate must follow a series of steps that conclude in members voting on their candidacy. New candidates shall be judged on their ability to provide proof-of-ink to existing members, where the ink shall be a permanent tattoo including at least two elements: an identifier of the Kusama network (an artistic derivative of one or more of these is also acceptable) and an identifier of the parent member (rendered as one of: an SS58 account or index address; decimal account index; binary account ID; or a machine-readable image capable of being recognised by a mainstream Kusama wallet).

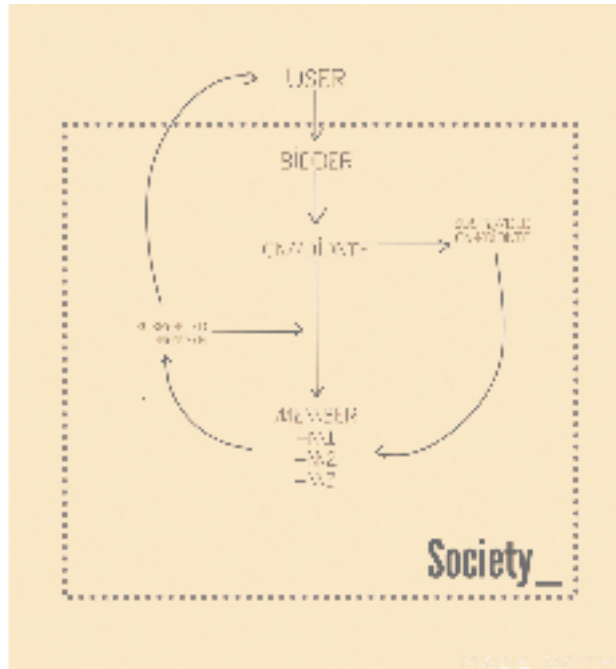
The proof should contain compelling evidence that the tattoo exists in the body, could fit into a circle no smaller than 2.54cm and is permanent. The identity of the member does not need to be disclosed nor the specific part of the body on which proof-of-ink is placed.

Currently and at any point, a user of the Society can be one of a:

- **Bidder:** a user who has submitted the intention of joining the society;
- **Candidate:** a user who will be voted on to join the society;
- **Suspended Candidate:** a user who failed to win a vote;
- **Member:** a user who is a member of the society;
- **Suspended Member:** a member of the society who has accumulated too many strikes or failed their membership challenge.

The membership society can grow at a rate of 10 accepted candidates per rotation period. Once a candidate becomes a member, regular participation involves voting on candidates who want to join the membership society, and by voting in the right way a member will accumulate future payouts. When a payout matures, members are able to claim those payouts³.

³ For more information on the Society dynamics, please check <https://github.com/paritytech/substrate/blob/master/frame/society/src/lib.rs>



We are adding one more agent to the process of becoming a member: the **Maker**. As part of the Society, the Maker is responsible for vouching in favour of users who want to join the collective, and once they become candidates, executing proof-of-ink for them. After this, candidates themselves should submit proof-of-ink to Society members. The Maker will be rewarded for their contributions with a portion of the bid defined when vouching. The Maker would intervene in the first phase of the process, when the user becomes a bidder - in the same way as the voucher can currently do according to Society rules.

During the bidding phase and if we follow the standard process, a user makes a bid by reserving a deposit. **With the inclusion of the Maker as a Voucher**, the bidding mechanism takes a second road: **a Maker vouches for a user and the bid includes some portion of that reward that is to be transferred as a tip for their work:**

1. A user contacts a Maker and express their desire to join the Society;
2. The Maker vouches for the new user to join the Society (if the candidate wins the vote, the Maker will receive their bid reward as a future payout). When the Maker sets the vouch, he places the bid for the sum of their reward and the candidates' reward (a specific amount of KSM).

Once the candidate has shown proof-of-ink on the relevant channel (at the moment [#kappasigmamulounge:matrix.parity.io](https://kappasigmamulounge.matrix.parity.io))

3. The Society members vote on the candidate;
4. The candidate gets accepted and joins the Society or becomes a Suspended Candidate. If the latter occurs, a new vote will decide if the candidate becomes a member.

The new dynamics look as follow:



Members will be able to participate in all events and discussions organised and supported by the collective as well as get support for the submission and discussion of proposals funded by the Kusama Treasury. Different resources will be facilitated to them to get clarity on Web3 concepts and direct communication lines with members of the Society will allow them to understand how the network can be used in-depth. These proposals aim to help community members develop projects that will enhance the discussion on Kusama and ultimately benefit the network.

Proof-of-ink design and the Maker's tool

As Peter Hintjens once mentioned, if you do things right (in reference to setting up clear rules designed to force strangers into mutually beneficial collaboration) your community should be smart. But most importantly, it should be intellectually and geographically diverse. The Society's collaboration with DotsToLines does not imply only one Maker seat will exist: geographic diversity beats education.

New Makers should be able to join The Society: in order to solve coordination problems among more than one Maker a tool is needed to ensure they have the right information to execute proof-of-ink and allow this project to scale, while bidders participate in the design ensuring the use of the correct identifier of the parent member. For this reason, DotsToLines proposes the development of an application, **The Maker's tool**, to retrieve onchain data confirming proof-of-ink information to be added (you can see the application on the second diagram of this proposal).

The application will allow users to log in with their address and choose between a range of 10 designs per rotation period - as up to 10 candidates per rotation period are allowed to join. They will be able to reserve the design for their proof-of-ink session allowing it to be a one-of-a-kind. From the moment the Maker vouches for a candidate, they have approximately 6 days to decide on a design before executing and providing proof-of-ink.

An application retrieving information about the user address and parent identifier will allow us to assure the right information is held by the bidder and Maker when executing proof-of-ink. This application is expected to be developed in the second phase of the project development, but plays an essential role in scaling the Society further.

Milestones for the proposal

We have divided this proposal into a series of milestones that will allow us to complete the project. These milestones are not strictly sequential, therefore tasks could be done in parallel:

Phase 1 - 11,000.00 KSM

1. **Develop the narrative** of the project based on the integration of the concept of *Cyborg* and the proposed *Alliance between Human and Machine*. This should include a set of rules off-chain for the presentation of proposals to the Council, a set of guidelines to develop proposals and education on the way the treasury works, allowing everyone without distinctions to have an equal right to become a contributor.
2. **Design and deploy the Society brand, in collaboration with PoW Media.**
3. **Implement a social media and communication outreach strategy** with DotsToLines, aiming to attract attention from communities interested in the project, with special focus on art collectives, musicians, designers, communications professionals and developers. The outreach strategy has the goal of:
 - a. Creating content (videos, articles, interviews, podcasts) suitable for social media
 - b. Attracting new members into the Society and grow the collective
 - c. Spreading the word about Kusama and its core mechanisms as an example of third generation blockchain
4. **Develop the website** for the Society, including all information on the rules to join, current members with proof-of-ink, narrative and visual aid behind the program, funded

projects and ongoing ones and educational package access instructions through Pathways.

5. **Fund the Society pot** for new members to join.

Phase 2

6. **Develop the Maker Tool** to set up the first Maker seat to start with their work. The Maker tool will retrieve onchain information to give the maker the confirmed data for the proof-of-ink design.
7. **Develop a structured set of materials** for non-technical users to understand the technology behind Kusama Network, including sessions on the use of treasury and the design and set up of proposals. This set of materials will be mainly stored and structured in Pathways, but will also include other resources.

The gamification of the education package: an essential part for Society engagement

In order to develop a structured set of materials for non-technical users the KSM Society will be working closely with part of the W3F Team in the development of challenges using Polkadot Pathways. Pathways allows us to design a **learning strategy for Society members that promotes competition, imparts a sense of achievement, engages users on desired behaviors and motivates them to take action**. The further gamification of the Society dynamics will assure knowledge retention and learner engagement levels for non-technical users. With this tool, we organise the learning experience by challenges: each one related to a learning module and linked to the Kusama design. Modules include challenges related to staking, democracy and governing bodies, treasury and proposals submissions, parachains and parathreads, extrinsics, the philosophy behind Web3, among others.

By kicking off the gamification strategy starting with KSM tokens rewards for proof-of-ink execution and after moving to Pathways, we condition users' behavior with the goal of teaching the use of the technology. Further into the membership process, we enforce this by a combination of seven core drives in the gamification design:

- **Epic meaning and calling:** related to the eternal alliance between Human and Machine,
- **Development and accomplishment:** related to the Society membership and the first challenges in the education package,
- **Empowerment of creativity:** related to education on structure in order to submit proposals for their own projects to be discussed by the Council and funded by the treasury,
- **Ownership and possession:** related to becoming stakeholders in the network, have a say in the Society's composition and get to be parents of new blocks in the human blockchain,
- **Scarcity:** related to the limited supply of tokens, which is by definition what makes this economic game the most fun. When challenges are completed, rewards are given to

users on Pathway: these rewards reflected on a leadership board are to be transformed into KSM and transferred to their accounts. By locking challenges in the beginning, allowing users to only work on these once previous are completed, motivates them to continually check for availability of the product.

- **Unpredictability:** related to the completion of challenges and its unpredictability factor, resulting in higher levels of engagement and attention by Society members. This is the primary core drive other than KSM for users to complete the educational package.
- **Loss and Avoidance:** losing the opportunity to earn a reward motivates Society members and conditions their behavior.

The gamification design allows the Society to maintain users engaged in the learning process and opens the way to proposals submissions and engagement in the overall ecosystem.

Proposal budget and spending

There are 146 seats left on the Society until an increase of the number is implemented. We expect the projected budget to work as follows:

Description	Amount (in KSM)
Funds to pay for the Bots' cost (10KSM per bid x 100 available seats): these funds will return to the Society pot after used by the bots.	1,500.00
Funds for marketing and comms strategy development - 3rd milestone	3,500.00
Funds to cover brand development and design - 2nd milestone	1,000.00
Funds to cover the first phase of new members - part of overall project	5,000.00
Total protected for the proposal:	11,000.00
<i>Exchange rate: 8.00 USD/KSM</i> <i>Available seats in the Society for the project: 100</i>	

The dynamics on the allocation for new bidders will work as follow:

1. A user contacts a Maker and express their desire to join the Society;
2. The Maker vouches for the new user to join the Society. When the Maker sets the vouch, makes sure to place the bid for the sum of 130KSM, including their reward and the candidates' reward. The cost for each bid is:
 - a. To voucher: 100KSM
 - b. To bidder: 30KSM

The total amount per bid for the project is estimated on 130 KSM. Considering **a burn rate of 0.2% from the treasury will be funding the Society pot**, we estimate 2 bidders per week for the project with a portion of the allocation left for those wishing to bid and join their society without contacting the Maker. The limited faucet of funds also works as a natural control to exorbitant bids.

Payment Conditions

- **3,500 KSM** should be allocated to a multisig to be used on the 3rd milestone of this project
- **1,000 KSM** should be allocated to the multisig for the development of the Society brand in collaboration with PoW Media, as defined on the 2nd milestone.
- **1,500 KSM** are directed to the Multisig for maintaining the cost of bots keeping a ceiling to avoid draining the pot. This amount will return to the pot after being used by the bots. More information on how the bots will function can be found below.
- **5,000 KSM** should be allocated to the Society pot to fund the candidacy of new members - to be transferred from the multisig.

This proposal covers the first allocation.

Multisig: FaHid4XXVQLZpkBQ9sjqqDk9ef4ugrWRsSkRqnUMDXSN3PW

Multisig and Ceiling/Funding Accounts

In order to prevent individual bids during periods of relative inactivity from draining the entire Society pot, we propose using the bidding mechanism of the Society to both:

- Prevent bids above a certain (variable) amount from entering into the candidate pool for voting, without “changing the rules of the Society” (ie, all members will still vote the way they currently are voting, based on proof-of-work alone, and there are no artificial/social restrictions on bidders)
- Gradually move funds into the Society from the Multisig.

This will involve [a simple set of scripts](#) that can operate within the Polkadot.js Apps UI which will firstly set up the required artificial bidders, and delegate responsibilities of maintaining the ceiling to an arbitrary set of other accounts - and secondly, a script to automate the creation of bids using all the bidder accounts in question.

Since the Society Pot cannot be used freely to fund these bids, we propose using the multisig as described in the payout conditions to perform these operations.