Incentive Pools - A model for results-based treasury funding to unlock growth for the Polkadot network.

Date: Wednesday the 2nd of August, 2023
Requested DOT: 1,000,000 DOT
Author: Agyle

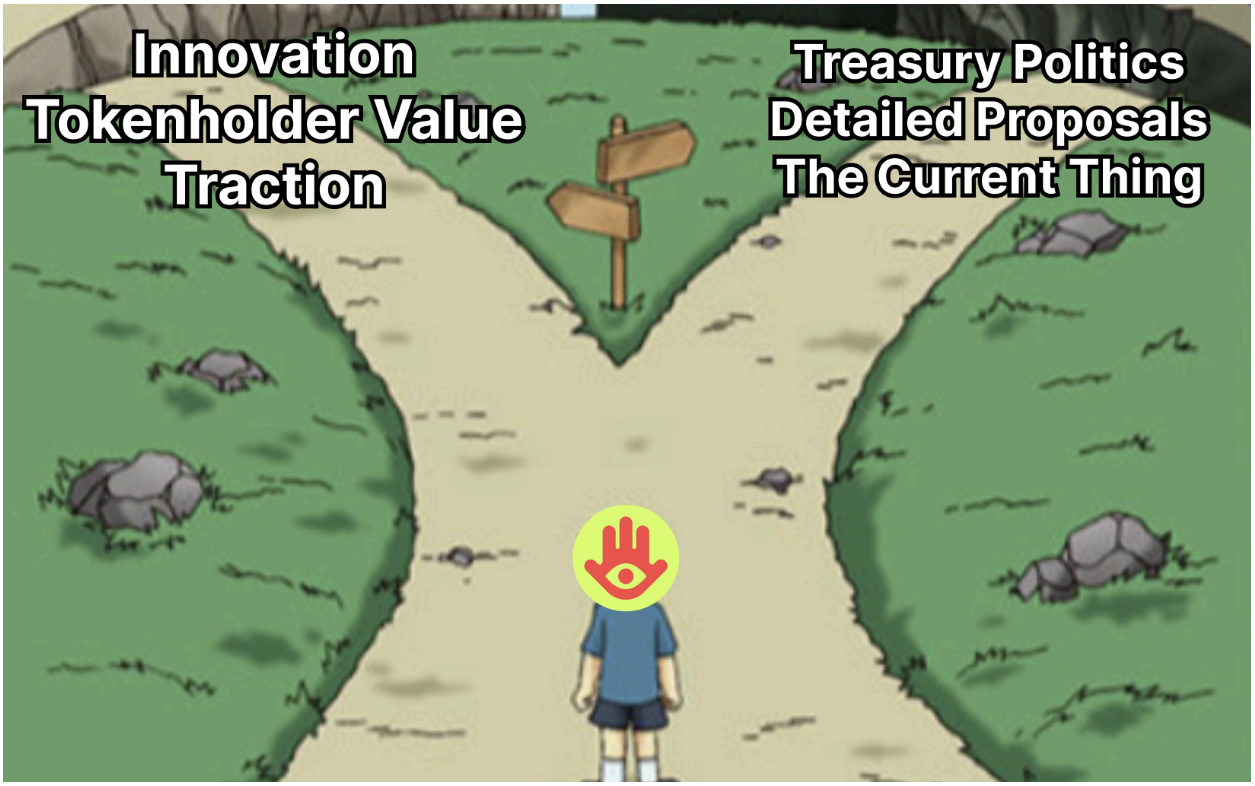
Abstract

In this proposal I outline why I believe results-based funding is an essential next step for the Polkadot Treasury and describe a mechanism to enable this tentatively called Incentive Pools. Incentive Pools aim to drive superior results for tokenholders by shifting the definition of success for treasury proposals away from the completion of tasks outlined in the proposal itself, to the accumulation of on-chain actions that are attributable to the work of teams participating in the Incentive Pool. Incentive Pools work similarly to commission-based salary packages that are typically offered to sales people. They provide a stream of cash flow that can be deployed with minimal oversight to pay for operational expenses, enabling teams to take risks and work autonomously toward the accumulation of attributable on-chain actions. They also offer participants the largest benefits for successfully generating results, as well as the ability for pool curators to cancel the pool, ending the cashflow after a notice period and clawing funds back. Incentive Pools should be viewed as an initial prototype, as my proposed implementation leverages existing systems in Polkadot that were not explicitly intended for this purpose. While there is no one-size-fits-all solution for incentives, I see a lot of opportunities for refinement and the potential for this concept to be developed into a useful primitive that enables various results-based funding initiatives in the Polkadot community.

OpenGov Address

To my fellow Polkadot community members and everyone else along for the ride in this extraordinary governance experiment. The goal of this proposal is to break new ground and tackle what I think are addressable incentive problems that currently limit the growth and success of Polkadot. Currently when we fund the treasury proposals of incumbent ecosystem teams such as Talisman and others I see shared concern that treasury funds may be squandered if we do not perform thorough due diligence or impose competent spending controls. While these things are absolutely essential in a trustless system, I believe that right now we should be much more concerned by the prospect of declining growth and traction in Polkadot. I posit that without new ideas that give us the the means to leverage the treasury to generate growth and drive value for Tokenholders, our resources are likely to be squandered anyway, just slowly and painfully, and in doing so fuel a viciously cynical zero-sum mindset that will cast a shadow over decentralised governance as a whole.

Despite having received minimal treasury funding to date Talisman fully intends to leverage treasury to accelerate our work, but we want to do it in the right way if we can. Given that our future is so tightly coupled with that of the Polkadot ecosystem, we feel it's our moral imperative to explore alternative methods of Treasury funding that can unlock growth and generate tangible results, even if it is painful, and even if triumph and failure are both possible outcomes. I believe we should do this because of our credibility and reputation in Polkadot, but also in spite of those things, as we could just as easily adhere to the status-quo and solicit substantial funding from the treasury without rocking the boat.



Which way wallet man?

I think we're paying people to focus on the wrong things.

There seems to be a shared belief that many treasury funded teams are product companies whose function is to acquire users, generate revenue, and grow the pie for everyone in Polkadot. From my perspective if a team receives 100% of their income from the Polkadot Treasury they are actually a lot more like a professional services firm that specialises in building infrastructure for Polkadot. Companies like this are no doubt a great asset to our ecosystem and some number of them are absolutely essential for our survival. But in order to acquire the necessary cash flow to survive, or even grow their income from the Treasury they are naturally going to focus their attention on doing what is popular, rather than what really matters. This might mean only building for the existing user-base of Polkadot and never talking to non-polkadot users, or spending excessive time focused on Treasury Politics as well as creating thorough recurring treasury proposals that are resilient to treasury trolls. This is perfectly fine if the goal is to build critical infrastructure for Polkadot, but if we want to make bets on teams to grow the Polkadot economy then we need to create a set of incentives that reward results, instead of rewarding the creation of an ever expanding range of products and features that are competing for a share of the same pie.

In order to unlock growth I think teams will need to innovate. Innovation is an indefinite process that involves seeking out hidden knowledge that may or may not be useful, and leveraging it to do things that may or may not work. This in my view is actively disincentivised by the current reputational approach to treasury funding. Right now we are pushing new teams to perform activities that are low leverage, typical, or politically acceptable in order to establish credibility, as well as creating burdensome administrative requirements for high quality teams who deserve the autonomy to be creative. Another reason innovation is stifled in Polkadot is that the definition of success in treasury proposals is based on whether the works outlined in the proposal are completed or not, and not based on whether the completed works generate a positive return for DOT Tokenholders. This means that we're incentivising teams to tick boxes and avoid proposing outside of the box ideas, instead of placing bets on a number of promising product companies as we believe ourselves to be.

I believe very strongly in the potential for incentive alignment through the $DOT token, and that treasury funded teams retaining IP ownership of their creations gives them the potential to be great companies. However, right now the Polkadot market is small, and naturally the path to value if you become a Treasury Services Firm is more clear and obvious than the path of generating original IP, acquiring users, and growing the value of your equity / token. If we must accept that treasury is going to be used as a source of cash flow for teams in the Polkadot ecosystem to wait out the bear market then we should at-least align the incentives towards growth and value creation for Polkadot Tokenholders. The Apillon proposal is a perfect example of our confusion about this topic. Instead of providing a framework for funding Apillon that enabled them to take risk and receive no upside or even potentially fail and disappear if they were unsuccessful, the message they received was essentially: "You asked for too much money". As a result, a lose-lose scenario emerges wherein Apillon and Polkadot's incentives are still misaligned. They can still receive substantial funding from the treasury, except in smaller more politically acceptable increments, but the tradeoff is that their attention will be consumed by the need to create recurring treasury proposals and to politically campaign for survival instead of focusing on accomplishing the large ambitious vision they originally intended. I believe this approach is currently facilitating the waste of time and resources en masse that could otherwise be better put to use generating valuable returns for Tokenholders by funding teams to take risks, rewarding what works, and allowing what doesn't work to fail.

Those who cling to death; live. Whereas those who cling to life; die. ~ John Wick ⚔️

Introducing Incentive (alignment) Pools

Incentive Pools are a way to align the interests of the treasury-funded teams and the Polkadot Network with a stronger force than just the DOT token. They accomplish this by incentivising teams to help the network accomplish clearly specified goals. While the idea itself is incredibly simple in the abstract: “Let’s pay people for results, instead of tasks”, it will get quite complicated in practice to implement different pools depending on what kind of results we want to incentivise.

There are 3 main components to an incentive pool:

1. Cashflow - Participants in Incentive Pools receive funding to cover basic OpEx. Teams should provide a cogent explanation for the intended use of funds, but once the pool is established they should generally have the autonomy to pivot / change the approach of their work as new information emerges.
2. Commission - Participants in Incentive Pools should receive a commission for attributable on-chain actions (or off-chain metrics in some cases) that the network deems to be valuable and worth paying for. The commission price should be based on the perceived value of each on-chain action to DOT Tokenholders or the network as a whole. It should also price in the potential for low quality or inauthentic on-chain actions.
3. Cancellation / Clawback - The incentives pool should be cancelable. Any early-stage start-up should only receive the appropriate amount of capital necessary to prove their concept, and investors should be hesitant to keep funding it if they do not demonstrate any traction. Similarly there needs to be a means of ceasing to fund teams that are not creating any impact and don’t appear to have any new ideas to try either. This is also important in the event that any team is found to be actively defrauding the community.

Incentive pools have the potential to unlock innovation and growth for the Polkadot Treasury, while minimising risk and costs associated with funding ineffective projects. As long as pools are implemented so that most of the upside for teams comes from the pro-rata commission for the results they generate rather than the cashflow component. Incentive Pools can be used to fund work that is either not currently feasible under the current model, or existing ecosystem projects that need better incentive alignment.

How incentive pools could be used:

Example 1 - Onboarding:

An events company can participate in an incentives pool with the stated goal of on-boarding new users into Polkadot. The pool provides them the cashflow necessary to spin up events flexibly, but also provides a commission for each new user which registers a Polkadot identity with a connected twitter account, as well as a commission equal to the transaction fees incurred by the new user for their first 3 months.

Example 2 - Software Development:

A software development team could participate in an incentives pool with the stated goal of onboarding users into Governance or NIS. The pool provides the basic cash flow to develop new user-friendly web applications in a more iterative and flexible manner than the current treasury model. They could also receive commission for each DOT that is contributed through the dashboard, thus incentivising better discovery of user needs and product design, as well as growth / business development for their product.

Example 3 - Business Development

An individual business development person could participate in an incentives pool with the stated goal of on-boarding institutions into emerging Polkadot institutional products. The business development person can use the cash flow to travel and run educational workshops but also receive a commission for each new organisation that acquires DOT and stakes it.

The main benefit of commission-based rewards is that they encourage people to figure out how to solve problems when the solution is indefinite and requires experimentation, talent, timing, or improvisation. Each incentive pool implementation will need to be different and require extensive discussion as no incentive system is one-size-fits all. The commission for each incentive pool should also vary greatly, as different incentive pools will leverage different attributable on-chain actions in order to measure impact, and different on-chain actions will vary in their value to the network, how many different teams can feasibly generate them, and how authentic we believe each on-chain action will be on average.

Implementation: Incentive Pools v0.1

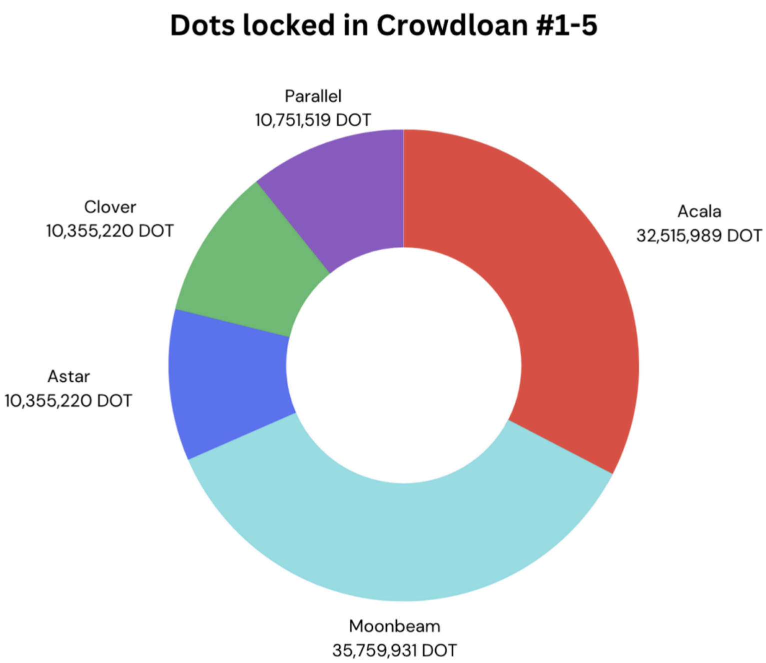
Incentive Pools at a high level are a 5 step process:

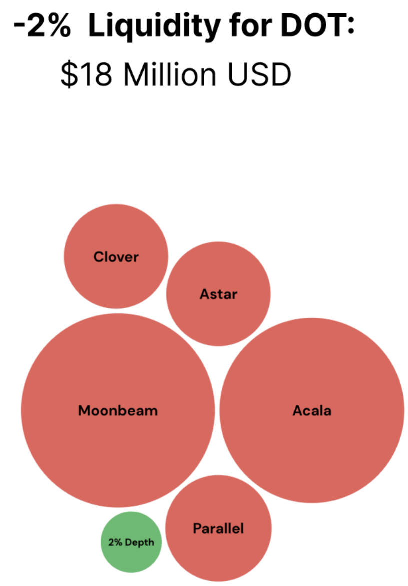
1. A team submits a treasury proposal outlining the vision for the incentive pool. This includes its purpose, attributable on-chain actions to target, commission structure, the duration of the incentive pool, and a high-level pitch for why they're the best team for the job.
2. If the treasury proposal is successful funds are locked in the incentive pool. The pool can be implemented as a multisig controlled by a predefined set of curators that the community trusts, a really large bounty with daily payments, or in the future as a fit-for-purpose runtime pallet. The next steps assume it will be the first option.
3. The funds in the incentives pool are staked, and the staking rewards are provided to the team as a source of cash flow that they can use to cover the operational expenses as they work to grow relevant attributable on-chain actions.
4. A review of the incentives pool happens on a recurring basis at pre-agreed intervals to ensure that the participating team is acting in earnest, trying to improve their approach over time, and working hard to drive attributable on-chain actions.
5. After a predefined duration (or upon the request of the curators if the team is not performing as expected) the incentives pool is closed. Funds are unstaked, and the total commission is calculated. The participating team is provided the total commission from the pool with any attached vesting clauses, and any remaining DOTs are returned to the treasury.

For an in-depth explanation of how incentive pools are implemented, including a swimlane diagram scroll down to the section: Incentive Pool Implementation In Detail

The urgent market need for results-based funding

Over the next 6 months over 90 million DOTs that were originally contributed to Crowdloans in 2021 will be released onto the open market. In many cases these assets will unlock directly on centralised exchanges, as this was the most convenient way for many users to contribute at the time. Without proactive outreach and promotion of new opportunities to those users, it's probable that most of those DOTs will be market sold which could cause extremely negative price impact on the DOT token.





Note: The -2% depth in USD might change between the time of writing and publishing. It's also worth noting that Acala and Parallel offered a liquid derivative for DOT contributions, thus it's safe to assume that some of the DOTs contributed to their crowd loans have already been sold by contributors.

I believe that now is the perfect time to start aggressively implementing results-based treasury proposals using Incentive Pools. These should specifically focus on driving growth activities that target dormant DOT holders who contributed to the 2021 crowdloans, and influence them to explore new ways of leveraging their DOT that have become available more recently. For example: Nomination pool staking, governance, or providing liquidity to top tier Parachains like Interlay, HydraDX, Mangata, etc.

Talisman also has some concern that Polkadot's shift away from the Parachain Slot Auction model to a more flexible pay as you go model for coretime will also lead to reduced demand for DOT in the short term, and has the potential to negatively impact the price. However, we are yet to perform any analysis upon which to have strong convictions about the issue. It does still further emphasise the need for results-based treasury funding, and initiatives that focus on DOT token holder value.

Proposal: Funding the Genesis Incentive Pool

In order to address this impending threat and put the concept of Incentive Pools to the test we are proposing the creation of the Gensis Incentive Pool, an incentive aimed at catalysing the Talisman team to generate 100% growth in AUM of our Nomination Pools in 6 months by providing a commission for each DOT locked into Nomination Pools.

The specs for the Genesis Incentive Pool are as follows:

Pool Size: 1,000,000 DOT
Pool Duration: 6 Months
Pool Curators: TBD by the community
Attributable On-Chain Actions: Contributions to Talisman Nomination Pools via Join and BondExtra extrinsics.

Commission Structure: For each DOT contributed to the Talisman nomination pools throughout the duration of the Incentive Pool Talisman would receive a 0.35 DOT as a commission. The total commission at the conclusion of the Incentive Pool would be provided to the Talisman team with 2 year vesting, including a 1 year cliff.

By establishing this incentives pool Talisman will receive cash flow from staking rewards on the total Pool Size. This will enable us to focus our attention on aggressively growing the contributions to our nomination pools. The activities we intend to undertake include but are not limited to:

1. Open-source software development - Developing new features or improvements to our existing wallet product or staking application, as well as creating entirely new applications and tools that can attract contributors.
2. Business Development - 1:1 Onboarding calls with dormant users and investors where we'll encourage them to use Talisman Wallet or Signet (our in-development multisig solution).
3. Strategic Partnerships - We will look at partnering with organisations that will bring new users into Polkadot by integrating our Nomination Pools into their products, or performing co-marketing initiatives.
4. Creating multi-faceted marketing campaigns that target dormant DOT token holders, encouraging a positive sentiment and providing call to actions to stake their DOTs. Previous examples of this include:
    1. Check My Stake - This year we created a simple application that allows DOT stakers to input their address and see whether or not they're receiving rewards as there were over 29k accounts actively staking that were not.
    2. Polkadefiance - This year we helped the Equilibrium team to run Polkadefiance, and helping to organise the community, curate content, and ensure new products and narratives were given more airtime and attention. Here's a twitter thread breaking down the superior results and impact to previous years.

By incentivising Talisman to generate results, as opposed to explicitly completing work items we are encouraged to rely on evidence and our own good judgement as to what methods will actually have impact, as well as which approaches are the highest leverage.

Sticker Shock

Assuming a consistent 15% APR from staking and a total of 1 Million DOTs the Incentive Pool Talisman would receive 12,500 DOTs per month during the Incentive Pool's six month lifespan in order to fund the aforementioned activities. At the time of writing, the DOT price is $5.17 USD per DOT, meaning this monthly staking return is equivalent to $64,625 USD per month. While this may seem like a lot, it's actually pretty typical of a top tier team being funded in the current model. The amount of funding Nova Wallet has received for software development between Dec 2022 and Sept 2023 in DOT is an equivalent of $88,955 USD per month. (This assumes a DOT price of 5.17 as well and *does not include any of the funding received for their experimental desktop wallet Omni / Spectre.)*

My intention with the proposed implementation of the Genesis Incentives Pool is that the treasury will risk less capital than it normally would, while ensuring that additional funding is on a commission basis for attributable on-chain actions which should in principle generate a greater return than the investment.

Why Talisman?

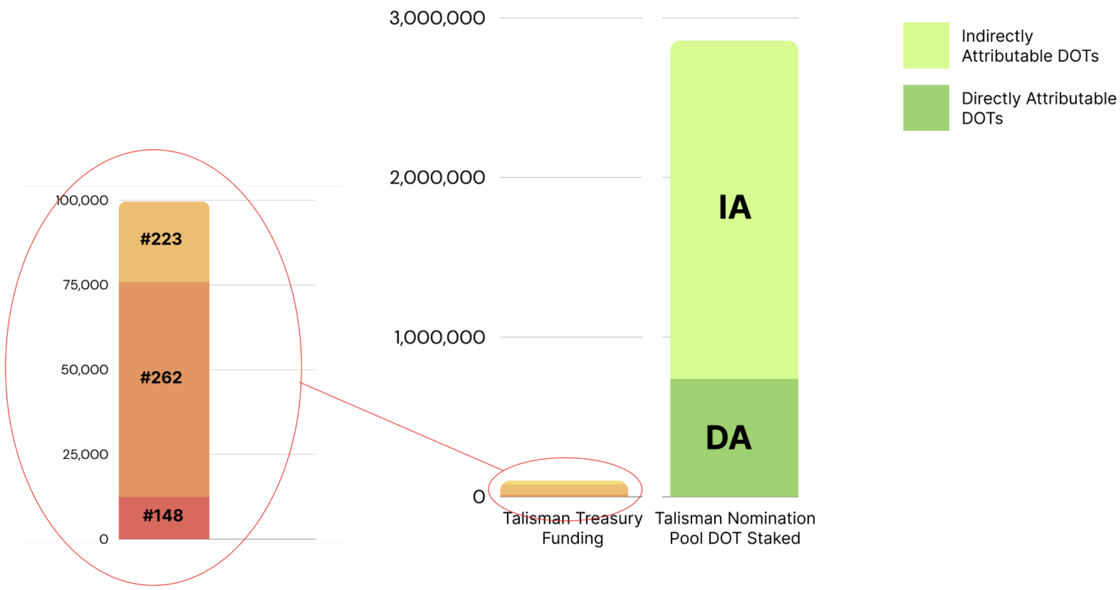
It's important that any team proposing to instantiate an Incentives Pool make a strong justification for why they're the best team for the job. We can't just put incentives out into the world and expect them to work, we also need efforts to curate great candidates and cultivate a high-quality culture. So here's my pitch for why Talisman should be selected for the first Incentive Pool:

I believe that Talisman has been one of highest ROI investments that the Polkadot Treasury has made to date. We have been funded for a total of 99,523 DOT as part of three proposals:

1. #148 Talisman Proposal: Cross-Chain Transaction History Service - 12,466 DOT
2. #262 Talisman Proposal: Portal Web Application supporting Nomination Pools and more - 63,341 DOT
3. #223 Talisman Proposal: Business-Friendly Polkadot MultiSig - 23,736 DOT

Despite this modest investment Talisman has amassed over 2.8 Million DOTs staked in our nomination pools and a simple analysis of the contributions to our Nom Pool in aggregate show that the value created by Talisman is far in excess of treasury spend. Below is simple graph comparing the investment in DOT to the size of the Talisman Nomination pool, which breaks the pool contributions down into two categories:

1. Directly Attributable DOTs - The estimated DOT that was contributed via the Talisman Portal Application.
2. Indirectly Attributable DOTs - The estimated DOT that was contributed elsewhere, possibly via the Talisman Wallet on other apps like the Polkadot Staking Dashboard or by users that trust the Talisman brand. These users may have been influenced by business development activities or have been attracted to the quality of our validators and pool management.



How ROI is calculated

Directly Attributable DOT (DA) is currently calculated in a very simple way. It is the percentage of unique users who have executed the Join extrinsic via the Talisman Portal (1136 Users) as a percentage of the total contributing accounts to our pools (4393 accounts) times the total pool AUM (2,852,545 DOT).

*1136 / 4393 * 2852545 = 737648.78533472 DOT (25.86% of all contributions are considered Directly Attributable DOTs)*

The number of unique users who manage their pool positions in Talisman Portal is actually higher (2507 users) which can be seen by including the unique users who execute the BondExtra and Claim extrinsics. However, our time-series data for contributions via the Talisman Portal only goes back to March 16th, it's also worth mentioning that I also didn't base this on contribution size because that required writing SQL which I didn't have time to learn. I am quite happy to invest the time to provide a better analysis if there's some signal that the vision of Incentive Pools is attractive to the community.

Talisman Community Exceptionalism

The culture at Talisman is one of resourcefulness and results-orientated pragmatism as I have been strongly influenced by my experienced bootstrapping a previous business (Flex Dapps, which was incorporated in Australia in March 2018 with only 40k AUD startup capital) through the first bear market in Ethereum. Talisman is also a large contributor of positive externalities to the Polkadot ecosystem culture through our consistent community development work.

Numerous well-known Polkadot advocates and community members got their start at Talisman. Examples include:

1. Fritz was an early Talisman Sentinel from Germany focused on customer support in the Talisman Discord. Having shadowed Agyle and Jonathan at numerous Polkadot events, he was encouraged to learn substrate development and was recently accepted into the Polkadot Blockchain Academy at Berkeley.
2. Birdo “Birdo” Bird was originally hired by Talisman as a product manager in Melbourne and has gone on to work at Parity in Ecosystem Success and become one of the most influential community members in Polkadot.
3. Liam Aharon a previous employee of Flex Dapps contacted Agyle looking for work in Q3 2022 and was invited to Sub0 2022. Together Liam and Agyle gathered requirements for what became the Talisman Business Friendly Multisig proposal. Liam has since been hired by Parity Technologies and works on the FRAME team.

Conclusion

There’s a quote from Naval Ravikant’s podcast that has always stuck with me: “Play stupid games, win stupid prizes”. I have a very strong conviction that I do not want Talisman to turn into a professional services firm, and that in order for Talisman to leverage the treasury we need rules of engagement that are more compatible with creating returns for Polkadot token holders.

I am very optimistic that a framework like incentive pools can better align the incentives of ecosystem teams and the Polkadot network by providing rewarding tangible results. It’s a broad remit and there’s no one-size-fits-all approach to incentives, but it’s essential that we create new cultural practices and systems to nurture results-based funding and push Polkadot in the right direction. This is a problem-space with a limitless frontier, as any time you make a measure a target it quickly ceases to be a good measure, but I would characterise our current situation as one where any solution would be better than nothing. Luckily Talisman is well placed to volunteer as tribute and demonstrate the potential benefits of results-based funding.

I am a start-up founder, seasoned business operator, and high-level understandooor of blockchain systems, but I am not a protocol designer or a systems architect. I’ve created a spec for the prototype Incentive Pool that leverages systems not originally intended for this purpose because I just want to create a competent prototype. I very much hope the community appreciates the effort I’ve put into this proposal, and the risk Talisman is taking in publishing it. I also hope that when giving feedback the reader is able to separate the ideas and principles behind Incentive Pools as a whole from the prototype implementation I have come up with.

~Agyle 🧿

Incentives Pools Implementation in detail

Incentive Pool Parameters

Pool Size:

The total amount of DOT that will be contributed to the Incentive Pool and total available commission for attributable on-chain actions.

Pool Duration:

After funding the incentives pool, for how long will the pool operate and provide staking rewards and the opportunity for commission to the participants?

Pool Curators:

The signers on the Multisig that implements the pool. These people can calculate the commission or at-least verify the calculation, as well as cancel / claw back funds. These should be neutral arm's-length parties with sufficient subject matter expertise in orderto perform the role, and the political capital / courage to cancel where necessary.

Attributable On-Chain Actions:

These are the on-chain things that we consider a credible measure of impact and will be used to calculate the commission at the conclusion of the pool. These could be defined as individual extrinsic, or in a more high-level way such as: "All Contributions to the Talisman Nomination Pool"

Commission Structure

The method of calculating the total commission. You could create a custom expression to describe how the commission will work in order to maximise the probability that the game is fair and the attributable on-chain actions are credible and valuable for the network.

Blacklisted Accounts

These are accounts that aren't eligible to create attributable On-Chain Actions. Obvious examples include the Incentive Pool address itself, or the Talisman Team's Multisig.

Incentive Pool Swimlane Diagrams

[Swimlane diagram can be viewed here.]