

WHITE PAPER

IP DAO: LINKING PATENT VALUE TO A CRYPTO COIN TO CREATE AN INNOVATION ECOSYSTEM



EXECUTIVE SUMMARY

The IP DAO (Intellectual Property Decentralized Autonomous Organization) has created an innovation ecosystem comprised of a consortium of innovators, both inventors and investors, seeking to establish a new way to secure, value, and subsequently license or sell patents to translate IP into real market value. The foundation of the IP DAO is the collective of inventors across the globe who have come together to leverage the value of their existing and future patents and tie that value to an NFT or non-fungible token (token) that can be readily bought, sold, licensed, and traded by individuals and entities of all sizes.

The IP DAO, and the innovation ecosystem it has created, minimizes barriers to enter into the patent marketplace for inventors, patent buyers or licensees, and intellectual property investors alike through the use of a block-chained hyper contract that allows for entities to complete trusted, traceable, and transparent transactions through the exchange of the IP DAO coin. Through the IP DAO platform, new and seasoned inventors are able to access resources within the innovation ecosystem to navigate the often daunting IP landscape and submit patent applications in exchange for giving the IP DAO consortium partial patent ownership. Within the IP DAO platform, innovators can safely interface and collaborate with each other without fear of losing the value of their own ideas as interactions and the contribution of novel ideas is documented in a legally comprehensive ledger. Individuals and entities interested in investing in the IP DAO patent portfolio or those looking to purchase or license patents are able to avoid complicated and costly legal contracts by simply purchasing relevant IP DAO coins corresponding to specific patents or groups of patents in the innovation ecosystem.

The IP DAO is uniquely positioned to enable a growing number of inventors to file a vast array of patents to expand the innovation ecosystem, bring those patents into the broader IP marketplace, and monetize them through licensing or sales agreements. Participation in the IP DAO innovation ecosystem is increasing as the message of accessible and patent protection coupled with opportunities for collaboration among inventors spreads across the globe. Innovators in parts of South Asia, Africa, and Latin America who may not have the financial resources or networks to protect ideas will be empowered to file patents with the IP DAO, interface with other inventors or investors, and identify potential patent licensees or buyers to support the innovation ecosystem. Only an estimated 2-5% of patents filed globally are eventually sold, licensed, or applied in a way that yields market value. A modest increase in global patent utilization to 10% would bring an estimated \$1 trillion in additional IP to the marketplace.

The value of the IP DAO coin is expected to increase as the value of the diversified portfolio of patents climbs and the number of patents surges once innovators recognize that the patent landscape has shifted and there is a new approach to unlock the lucrative and largely untapped patent marketplace.



THE IP DAO INNOVATION ECOSYSTEM

The IP DAO (Intellectual Property Decentralized Autonomous Organization) is based on patent pending blockchain hardware and software architectures for innovation development among inventors and investors. The community participating in the IP DAO currently includes hundreds of innovators from all over the world in 30 different specialized areas from machine learning to electronics to sustainable food systems. These innovators have chosen to join the IP DAO innovation ecosystem to take advantage of the resources offered, the prospects of expanding their innovation through synergy between inventors and investors, and the novel approach to protecting and marketing patented intellectual property.

THE EVOLVING PATENT MARKETPLACE

The IP marketplace is rapidly evolving toward greater efficiency with a focus on making it easier to find and purchase or license patents. The emergence of web-based patent search engines that are more user-friendly than resources made available from the U.S. Patent and Trade Office (USPTO) has made it easier to find patents of interest and, crucially, prior art or previous innovations. Approximately 2-5% of patents filed achieve meaningful value in the broader IP market and recent estimates have suggested that increasing that percentage 10% would yield an opportunity valued at \$1 trillion USD or more¹.

The IP DAO currently holds an extensive patent family relating to translating patent values into crypto currencies and is in a unique position to pursue this effort. Three key areas of focus for the IP DAO are facilitating collaboration between innovators, reducing barriers to entry for nascent inventors, and bringing the opportunity to invest in novel IP at its inception out of the venture capitalist (VC) boardroom to give anyone the chance to invest in the next Apple. The IP DAO's effort to democratize the patent submittal process and capacity to engage innovative cultures that are currently underrepresented in global summaries of patent filings is expected to yield an extensive patent portfolio that will ultimately be tied to a sought after and valuable crypto coin. Investors will have the opportunity to identify promising IP at an early stage and help patents toward monetization by investing through the purchase of coins or other synergistic interactions such as supporting start up development efforts like carrying out market analyses, crafting business strategy, or assembling teams.

TOKENIZED PATENT MARKETPLACE

The following section outlines the process that innovations undergo as they transition from ideas to granted patents and eventually tokens reflecting the dynamic value of those patents.

PATENT SUBMITTAL

Innovators with ideas that they feel have the potential to be patented verify their identity with their passport and complete a form asking questions regarding the attributes and novelty of the potential invention. Responses to the patent attribute form will be encrypted and tied to the inventor's crypto wallet to ensure that no other individuals or entities have access to the information regarding the potentially patentable idea. IP DAO's novel AI-driven and big data leveraging software will translate the responses questions in the form into a draft provisional patent application. A more comprehensive discussion of the

¹ Rosenbaum, Eric. "It's not NBA Top Shot, Bepple or a tweet, but IBM is about to turn patents into NFTs." CNBC online April, 20 2021. <https://www.cnbc.com/2021/04/20/its-no-nba-top-shot-or-bepple-but-ibm-is-making-patent-nfts.html>



automated patent drafting software is presented in subsequent sections. A different module within the IP DAO ecosystem will then carry out an automated process to screen and pre-value potentially patentable ideas first for overlap with existing IP referred to as “prior art” and then based on evolving relationships between key patent claims and market trends. Potential patent ideas that do not exceed a projected market value of one million USD will be excluded or flagged for secondary review. Provisional patents will be filed with the USPTO to establish an inventor’s right to relevant IP as of a “priority date.” Following provisional patent submittal, inventors will be able to invite potential collaborators to view their non-provisional applications to enhance their effort. Inventors may elect to use a portion of their remaining 90% equity in their potential patent to secure support from other inventors or specialists through the exchange of IP DAO coins. A visual overview of the IP DAO’s patent submittal, valuation, and tokenization process is presented in **Figure 1**.

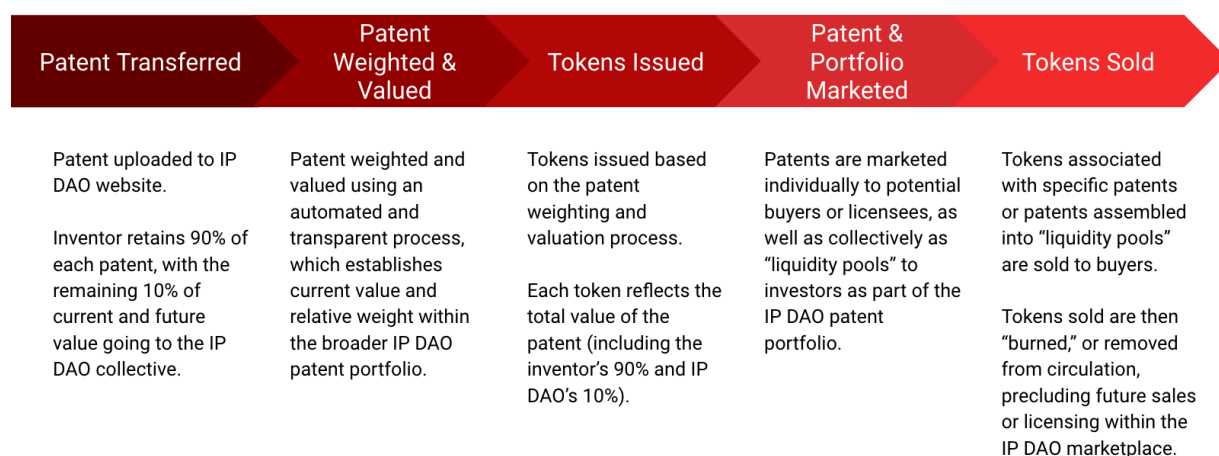


Figure 1. Patent Submittal, Valuation, and Tokenization Through the IP DAO Platform.

PATENT VALUATION, TOKENIZATION, AND TRANSFER OF COINS

Once a patent application is submitted to the IP DAO, it is assigned a weight within the current broader innovation ecosystem’s patent portfolio using an automated and transparent process considering factors such as the state of innovation in that field, the estimated value of similar patents similar to those generated by PatSnap², and other considerations. Patents with greater current financial value (e.g.; [IP DAO’s drone zapper patent](#)) are assigned a greater weight within the portfolio. A patent’s value and weight are then translated into IP DAO non-fungible tokens (NFTs) and IP DAO coins are issue consistent with the total current estimated value of the patent. Inventors receive 90% of the coins and the IP DAO, collectively owned by all inventors and investors participating, receives the remaining 10%. IP DAO coins can then be held by inventors or investors as they track the value of the IP DAO innovation ecosystem’s portfolio. Tokens will be periodically re-valued and re-weighted using the automated process to ensure that patent values are reflected.

² PatSnap offers an array of services to innovators including an estimation of granted patent values using a complex and somewhat opaque process. Additional information regarding PatSnap can be found at <https://www.patsnap.com/>

IP DAO LIQUIDITY POOLS

Inventors or investors owning the rights to IP may elect to bundle or group individual patents together to yield attractive investment opportunities. These bundled or grouped patents are locked into “liquidity pools” or LPs via a smart contract for a set and clearly conveyed period of time. The conditions for investing in a given liquidity pool are transparent and self-executing once relevant coins are purchased or placed in the pool. Individuals or entities invest in a given bundle of IP for a set period of time and are entitled to a proportional change in the value of the patents in the LP. A theoretical investment in a bundle of cryptographic patents placed into an LP that experiences in tenfold increase in value during a 24 months period would increase the investment by a factor of ten.

PATENT SALE OR LICENSE THROUGH COINS

Patents included within the IP DAO innovation ecosystem are marketed individually to potential buyers or licensees, and collectively to investors in LPs assembled to achieve a development goal or align with anticipated investor interest. Web-based patent search engines direct interested parties to intermediates website and eventually to the IP DAO innovation ecosystem’s landing page. Potential buyers and licensees are able to identify patents of interest, see the most recent valuation, and submit an offer at or above the current valuation for a single patent or an LP. Offers to purchase or license a patent or LP will go to all entities holding tokens associated with that patent or LPs and will be approved if 70% or greater of the token holders agrees to the value of the offer. Terms or conditions of the sale are inherently built into relevant tokens and the transaction can be completed immediately once payment in an accepted currency is received. Entities that have purchased tokens associated with a specific patent will be able to keep them to re-sell at a later date or can elect to “burn” them and remove them from circulation, effectively precluding any future sale of the patent within the broader IP DAO platform.

STREAMLINED PATENT SALE AND LICENSING

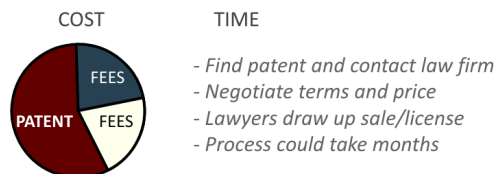
This process within the IP DAO’s innovation ecosystem is significantly more efficient and streamlined than the traditional approach to identifying and purchasing or licensing a patent. Once a prospective patent buyer identifies a patent of interest, legal support is retained and employed to reach out to the legal firm representing the current patent holder(s) and initiate a negotiation regarding patent sale price and other conditions. Highly sought-after patent lawyers often require a retainer of \$15,000 - \$30,000 to initiate work on behalf of a patent buyer, a significant financial barrier often barring a large portion of prospective buyers from entering the patent purchasing marketplace. An agreement is typically eventually reached and drafted with legal support on both the patent seller and buyer billing market rates of \$500 - \$1,500 per hour before both sides sign the deal and patent ownership is transferred. This process can be quite quick and efficient in some cases but often requires extensive time and financial resources on both the patent seller and buyer sides with legal fees constituting up to 30% of the value of the patent transferred in some cases. Groups or portfolios of patents analogous to LPs are often not available for purchase unless IP holders are distressed financially. All of these inefficiencies that divert resources to costly legal support are avoided through the use of the IP DAO coins that inherently and explicitly reflect the current value of the patent and the terms of the sale. A visual overview of patent buyer or licensee benefits derived from the IP DAO are presented in **Figure 2**.

POTENTIAL PATENT BUYER/LICENSEE BENEFIT

IP DAO streamlines the process of finding and then buying or licensing a patent by setting the terms and price through the token, therefore avoiding the need for costly seller and buyer legal fees. Any person can find the next Apple or Amazon at its inception. Patents are more fairly valued, purchase or licensing costs are lower, and the transfer of patent ownership happens immediately.

TRADITIONAL PATENT BUYING MODEL

A significant portion of the cost of buying/ licensing a patent is legal fees for the buyer and seller.



IP DAO PATENT BUYING MODEL

The cost of patent purchase/licensing goes to buying relevant tokens and not lawyers drawing up agreements.

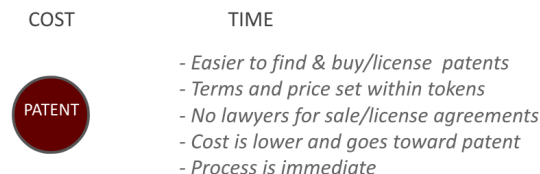


Figure 2. Traditional Patent Sale and Licensing and the Process within the IP DAO Innovation Ecosystem.

INVENTOR RESOURCES

A foundational element of the IP DAO's innovation ecosystem is an artificial intelligence (AI) driven language processing module employing big data approaches translate a series of inventor responses to an initial questionnaire into a patent application. This novel approach uses emerging computational resources and linguistic theory to review existing publicly available patents to isolate patterns surrounding terminology, sentence construction, and organizational structure to produce a comprehensive and robust patent application without any human involvement and therefore risk to the inventor. An inventor's questionnaire responses and interactions with the IP DAO platform are tied to their Metamask crypto currency wallet and are therefore secure and isolated from other members of the innovation community. Each inventor may be prompted to make revisions to responses to a given question and iterate through an automated refinement process until a provisional patent application meets IP DAO standards regarding content, novelty, and completeness. Inventors can invite other members of the IP DAO collective to view and support their patent application effort by providing them with unique keys following the filing of a provisional patent with the USPTO, a process that affords the inventor a measure of protection with a priority or "first to file" date.

In addition to the first of its kind automated patent generation functionality of the platform, the IP DAO offers an extensive array of resources and guidance to ensure that prospective inventors are able to establish a comprehensive and strategic plan to protect their ideas prior to provisional patent submittal and maintain that protection through additional filings. The patent application process is complex and often overwhelming, both financially and with respect to the multiple-year process, for inventors who have emerged as thought leaders in their respective fields. Inventors are typically responsible for legal fees incurred during patent application development and consultation on the order of \$35,000, a financial barrier that often keeps inventors from protecting their ideas. The IP DAO removes this financial barrier and asks for 10% ownership of the patent, once granted, in exchange for access to resources. The platform and the innovation ecosystem surrounding it offer inventors access to resources to ensure that unintentional disclosures, often made through conference presentations or social media posts, are avoided and provisional patent applications are filed to maintain protection and the potential for

successful subsequent national and international non-provisional patent application. A visual summary of strategic patent pursuit laid out in IP DAO resources and pitfalls to avoid is presented in **Figure 3**.

By removing the financial barriers to filing patents and offering resources that empower inventors to make strategic decisions during the process, the IP DAO and the innovation ecosystem it created offers a new means of protecting innovation. Inventors with promising ideas who do not have access to tens of thousands of dollars to cover legal fees are offered a path toward patent submittal and ownership. Innovators who would otherwise work to secure the funds to pursue the traditional route of finding a patent lawyer, typically involving the payment of a large retainer and close to \$500/hour for legal support, will be in a position to use those funds to pursue additional projects and innovation. The end result is expected to be more patents filed through in the IP DAO innovation ecosystem.

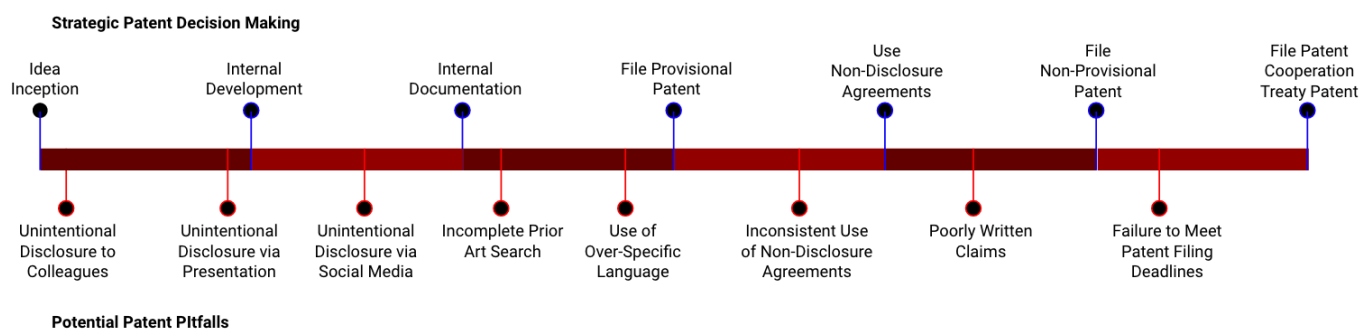


Figure 3. Strategic Patent Submittal Process (Blue) and Common Inventor Pitfalls (Red).

PROTECTED INVENTOR COLLABORATION

A key and innovative element of the IP DAO innovation ecosystem is the development and implementation of a platform that allows for innovators to safely interact and collaborate without fear of losing the rights to and future value of their ideas. This collaboration is enabled through the documentation of novel ideas through a block-chain hyper contract where the contributions of novel ideas that then go on to be patented are documented in a legally comprehensive ledger.

Traditionally, innovators who have gone through the patent application process become averse to sharing ideas with others without some form of protection such as a non-disclosure agreement as they have seen inventors lose control of the use and value of their ideas. While experienced inventors are often sufficiently savvy to avoid unintentionally disclosing ideas into the public domain, the potential for an early collaborator running away with an idea at a nascent stage typically smothers the prospects of open collaboration and the exploration of potential synergies between ideas.

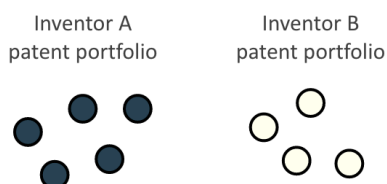
The IP DAO's legally comprehensive ledger is tied to an ecosystem for innovators where the open discussion of a novel idea and the individual making that contribution is documented at its inception. The evolution of a given idea through refinement, revision, or combination with ideas generated by other innovators is all documented in a clear and transparent manner in the blockchain hyper contract among IP DAO innovators. Any innovator, at any point in time, is able to look at the blockchain ledger showing the history of contributions made toward a patent and the individual responsible for those contributions. This blockchain ledger is updated and distributed across the computer systems of all IP DAO participants so that hundreds of versions of the same information are present on an extensive array of different devices. This distribution of the ledger documenting transactions is consistent with how a rapidly growing number

of blockchain enabled elements in society are developed to yield additional security in transactions as changing, cheating, or alteration of the ledger would require the revision of all versions of the ledger on all devices.

This platform for innovators to interact and collaborate is expected to yield additional patents as individual ideas are combined and opportunities for synergy are identified. A visual representation of inventor collaboration through the IP DAO innovation ecosystem is presented in **Figure 4**. This potential for collaboration has already yielded a number of patents as IP DAO inventors were able to combine complementary ideas and submit additional patent applications. Furthermore, inventors holding patents outside of the IP DAO innovation ecosystem may elect to bring their granted patents into the collaborative framework with the understanding that there may be unrealized opportunities to leverage existing portfolios, identify synergies, and expand that value by filing additional patents.

TRADITIONAL PATENT MODEL

Inventors navigate patent landscape and submit applications at great cost.



IP DAO PATENT MODEL

Inventors submit applications at significantly lower cost and can safely collaborate with other innovators.

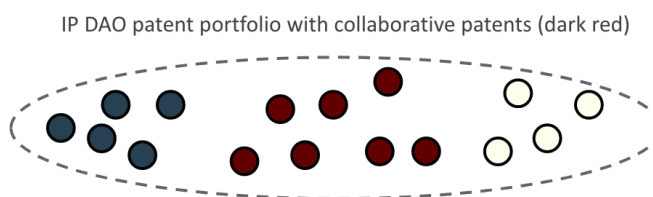


Figure 4. Traditional Inventor Collaboration and Collaboration Within the IP DAO Innovation Ecosystem.

OPPORTUNITIES FOR INVESTORS

The following section outlines the unique opportunity to invest in the IP DAO innovation ecosystem.

INVESTMENT AT INNOVATION'S INCEPTION

Every investor dreams about making the right call and investing in the next Apple, Tesla, or DropBox at the ground level when novel ideas were turning into nascent businesses. While some friends and family members were able to get their money in early, most innovators and co-founders have historically gone to venture capitalists (VCs) to secure the seed or series A funding needed to develop their technologies and scale up their businesses. The IP DAO is opening up the typical inventor to VC funding path and establishing a platform for anybody with a crypto wallet to identify and invest in promising IP at or near its inception when it reaches to USPTO. The next generational inventor following in the footsteps of Steve Jobs and Elon Musk may elect to protect his or her ideas through the IP DAO, and investors within this unique and first of its kind innovation ecosystem may fuel their meteoric rise carrying the value of the IP DAO coin along with it.

POTENTIAL FOR COIN VALUE GROWTH

The IP DAO networking and expansion strategy has been set up to tap into and leverage the collective innovative power across the globe. A core group of experienced and successful inventors are currently working to expand the ranks and number of inventors participating in the IP DAO collective and its

broader innovation ecosystem. Key core IP DAO members are utilizing a range of social media platforms and traditional networks to spread the message of accessible intellectual property protection and the prospects of safely and fairly collaborating with other innovators. While much of the early focus of IP DAO core innovators has been in societies where patent protection is more common, key inroads have been made in countries where IP protection is typically an afterthought and societies where creativity is endemic and largely untapped. Finland, as an example, has proven to be a key country for the IP DAO and appears to be filled with creative individuals with innovative ideas and limited, if any, cultural tendency to protect those ideas. Key IP DAO members are also targeting emerging economies in South Asia, Africa, and Latin America where financial barriers to entry and general knowledge of effectively operating within the patent and broader IP landscape is less extensive.

As the number of innovators participating in the IP DAO innovation ecosystem grows, the number of patents filed in the platform is therefore expected to increase. Each patent will be evaluated and included based on its inherent value and likely market potential. The patents currently filed within the IP DAO, worth an estimated \$190 million, are inherently diversified across an array of fields and subfields including cyber security, machine learning, and aerospace to life sciences, architecture, and ocean technologies. A summary of the projected value of patents and patent pending IP incorporated into and backing the IP DAO at this initial stage is presented in **Figure 5**. Individuals or entities that invest in the IP DAO by purchasing generalized tokens associated with the broader patent portfolio at an initial coin offering (ICO) reflecting the portfolio's \$180 million valuation could reasonably expect the value of the tokens purchased to increase as the patents currently in the portfolio increase in value or if they number of patents above a nominal threshold value (e.g., \$35,000) grows. The IP DAO collective anticipates both the value of current patents and the number of patents to grow and drive a significant increase in the value of the patent portfolio and therefore the tokens associated with the portfolio. A visual and conceptual overview of IP DAO coin growth is presented in **Figure 6**. Core members of the IP DAO collective have developed more comprehensive estimates of cash flow and patent portfolio value that are available upon request.

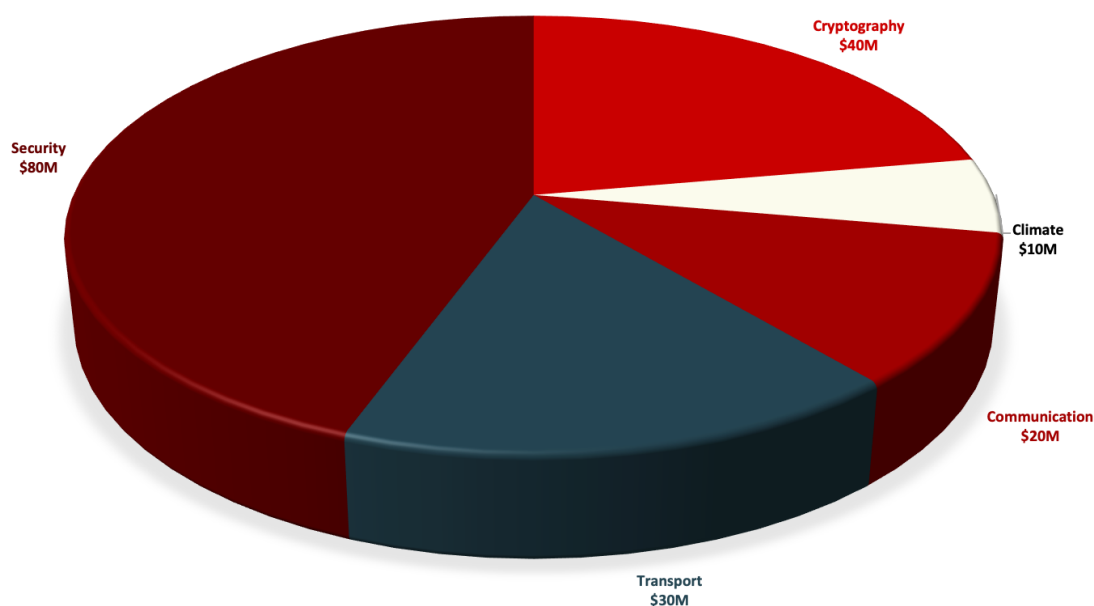


Figure 5. Current Estimated Market Value for Patent Portfolio Currently Within the IP DAO Innovation Ecosystem.

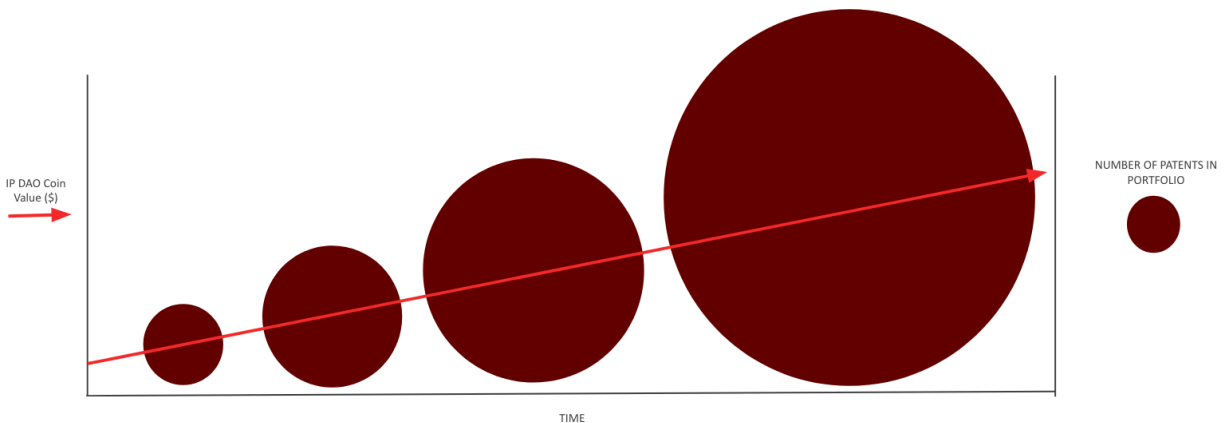


Figure 6. Potential Conceptual IP DAO Innovation Ecosystem Patent Portfolio Growth.

STABILITY THROUGH COLLECTIVE OWNERSHIP

The IP DAO framework is set up to minimize the potential for volatility to adversely impact the value of the token and therefore investor decision making and confidence. IP DAO achieves this valuable stability when compared to other alternative coins by establishing a stabilizing mechanism to ensure that a subset of tokens is held by the IP DAO collective to address inflation and the prospects of quick devaluation. Each IP DAO inventor contributes 10% of the current and future value of their patent to the collective. This 10% stake in a large and growing portfolio of patents acts as a central bank where transactions move slowly and deliberately as the function of collective action or voting instead of the quick decision making of a single inventor or patent purchaser. Decisions regarding the sale, licensing, or removal of patents is made collectively if greater than 70% of token holders elect to pursue a given action. This relatively high collective decision-making threshold is expected to maintain a patent portfolio value that exceeds the aggregate value of tokens issued in the initial stages to protect early investment and establish a stable platform for subsequent infusions of capital. Individuals or entities owning the tokens associated with this 10% banked portion of the portfolio value are then granted voting rights to inform broader IP DAO decision making including whether an inventor with granted patents should be invited to join the collective.

SUMMARY OF OPPORTUNITIES

The global IP market is vast, disjointed, and rapidly increasing in value. However, to date, investing in patents is a complicated and often risky process. The IP DAO and the innovation ecosystem it creates represents a game changing evolution in the development and marketing of intellectual property. IP DAO's novel, innovative, and proprietary approach democratizes the patent landscape for inventors in strong and emerging patent markets around the world, lowers the barriers of entry, and significantly increases the potential for collaboration. Tying patents to a token opens up a new market for investors, streamlines patent buying and licensing, and creates a stabilized currency that will increase in value as the patent portfolio grows. With IP DAO, a \$1 Trillion patent market is now accessible and be monetized for inventors and investors alike.