

Work X

The Internet of Jobs

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Abstract

Talent is scarce and hard to come by. Companies are only as valuable as the talent they employ. But the rise of platform economies has blurred the relationship between employers and employees, between freelancers and customers. It is becoming commonplace to hire flexible workers instead of fixed staff, due to technological developments and the pandemic. The effect of geographical barriers grow smaller or might even disappear as a whole. However, these platform economies in their current form are unsustainable, as they act as a commercial middlemen and take huge commissions while doing so. **Work X is a zero marginal cost platform economy called ‘The Internet of Jobs’; a zero marginal cost platform for any type of work with any contract where commissions are minimized and salaries optimized.**

While technology as well as job requirements are developing exponentially, people develop linearly. Over time, skill gaps emerge and people lose their jobs because of a mismatch. WorkPi helps people measure and identify their skill gaps by seamlessly integrating with learning experience platforms (LXP), learning management systems (LMS), assessments and human resource (HR) platforms. WorkPi analyzes skills, characteristics and preferences of employees from every sector while storing this personal data in self-sovereign identity (SSI) wallets. Doing so, **WorkPi creates the largest skill database in the world to provide people with personalised job and education suggestions. We call it the ‘Internet of Skills’.**

Personal data is valuable and sensitive; it belongs to the person who generated it. The owner should be able to determine with whom they share their data and be able to revoke access at any point in time. In order to provide the best possible insights machine learning algorithms need to be trained with data, however this is currently gathered at the cost of peoples privacy. By utilizing advanced machine learning techniques improving the algorithms can be achieved without the need to sacrifice privacy.

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1 Introduction

Talent is scarce and hard to come by. Companies are only as valuable as the talent they employ. The people who build products are the drivers behind innovation and growth. Yet finding and measuring available talent is hard. Connecting and matching talent to high-performance teams within the right companies is even harder. Currently, connecting the supply and demand of work is a highly inefficient (human) process with expensive recruiters, job boards (that take high fees) and assessment- and education providers. In these processes, there are few resources for measuring and matching the skills of people and teams.

Platform Economies

The rise of platform economies has blurred the relationship between employers and employees, between freelancers and customers. It is becoming commonplace to hire flexible workers instead of fixed staff, due to technological developments and the pandemic. The effect of geographical barriers grow smaller or might even disappear as a whole.

Commercial freelance/gig platforms like Upwork and Fiverr take advantage of this opportunity. They are rising quickly, representing a paradigm shift in how we will work in the future. However, these platforms suffer from economically inefficient business models: Fiverr takes a 20% commission from its workers, whether they're working a \$10 gig or a \$100 gig. Upwork works with fixed commissions up to \$500. All other platform economies take a minimum of 15% commission on a simple transaction (Booking.com, Airbnb, Uber, DoorDash, Deliveroo, etc.). These platforms charge high commissions for relatively simple services such as payrolling and 'matching'. A shift to decentralized business models where people can engage in peer-to-peer business will greatly decrease the commissions taken by a matching platform. With the technologies of today, Work X can ensure a matchmaking environment, for a maximum network commission of 5%.

Measuring Skills To Match The Jobs of Tomorrow

For a very long time, university grades and diplomas have been the most important measurement in the application process of candidates to land jobs. Education credentials tell a lot about a candidate, but they do not measure the actual knowledge and skills. Through personalized assessments, more and more skills, characteristics and preferences of people are measurable[9]. We refer to these measurement points as (work performance) 'indicators'. It is our focus to measure the teams that are looking for new talent, and to measure the talent that is looking for a new team, to predict an optimal match between them. In this way, we will eliminate mismatches on the labor market, and ensure the right deployment of talent, anywhere.

Data Ownership

People have lost control over not only their data, but also over their careers and personal development. In the early days of the internet the value of data was highly underestimated. Big tech companies such as Google, Facebook & LinkedIn who focused on data were able to profit from this, and they created a new business model with free services in exchange for the personal data of the user. Today, people slowly begin to realize that they have to regain control over their personal data, their education and development as it can also be used against them. Work X provides a solution for this, while also exploring a possible solution to the wider data-related problem.

Historically, enterprises are very hesitant to share data with other companies, due to privacy concerns and ultimately losing their competitive advantage. This cripples their ability to train an accurate A.I., and gather valuable insights.

We strongly believe in giving back personal data to individuals. We see this as a win-win for both the individual as well as enterprises and the key to both fair economic and personal success.

2 The Internet of Jobs: Work X

Work X will facilitate a zero marginal cost platform economy called ‘The Internet of Jobs’. A growing number of workers are no longer employed in a long-term job but are hired for ‘gigs’. These workers are often working under flexible arrangements as independent contractors. They are not getting a contract but are hired for a particular task or for a defined time. The connection between the employer and the ‘employee’ is much more like the relationship between a company and a client. [1]

As stated above, it is becoming commonplace to hire flexible workers instead of fixed staff. The employer acts as a client and is often not even in the same physical location as the worker. Gig and freelance platforms are on the rise, accelerated by the global COVID pandemic. From 2002 to 2014, gig economy workers increased by 15%. Between 2010 and 2014, the growth in independent contractors accounted for almost 30% of all added jobs worldwide. [2]

2.1 Problem Statement

Platform and gig economies charge high commissions (up to 30%) for simple services like payrolling and connecting. They advertise a solid match, but there is no real matching mechanism to be found. They merely provide a marketplace for supply and demand. From the perspective of the middlemen, the platform economy is very efficient; however, from a macroeconomic point of view, it’s unsustainable.

2.2 Goal

Although the current solution is unsustainable, technological developments have made it easier to bridge the gap between employers and employees. In a world of constant technological developments, the question arises whether the prices charged by freelance platforms are derived from a sustainable and efficient business model. Given the emergence of decentralized marketplaces and the trend of disintermediation, the business model of freelance platforms might prove inefficient and unsustainable business model. **The goal of Work X is to create an economically optimal efficient platform for any type of work with any contract where commissions are minimized and salaries optimized. Additionally, Work X will aim to match supply and demand through a ground breaking technology platform called WorkPi.**

3 Ecosystem

To achieve a decentralized platform economy for work, a larger ecosystem is designed around Work X. Work X will function like a highly efficient highway for work. However, a highway without tolls alone is not enough to attract people to use it. Various services will be placed along the highway to make it easier for people to get from point A to point B.

3.1 WorkPi

When you are looking for someone who can clean your house or repair something, a good reputation score and a fair price might be enough to hire a certain service provider. However, when you are hiring someone for a job that requires proven qualifications and/or full-time jobs, you are likely to care more about the match. If you are looking for a job, you want to find something that fits your skillset, characteristics, preferences and work culture. For these reasons we introduce WorkPi: a separate organisation that provides the means to enrich data profiles with an open marketplace for assessments and development courses. WorkPi also offers an enterprise solution to help employers identify what kind of indicators make their employees successful and satisfied in their jobs. There are major misconceptions about which indicators are decisive for success, and these indicators cause companies to look in the wrong direction for talent. Also, due to technological developments, jobs are changing exponentially, while employees develop linearly. If a company waits long enough, large skill gaps arise with costly consequences of +/- 1 million USD and various effects, such as mentioned below:

- Productivity loss: 45%
- Revenue loss: 26%
- Higher employee turnover: 40%
- Lower morale: 39%
- Lower-quality work: 37%
- Inability to grow business: 29%

WorkPi has developed a minimal viable product (MVP) for their first enterprise client in the finance industry: APG. In the near future WorkPi will expand this MVP into a full-fledged software-as-a-service (SaaS) tool that can be used by any employer in the world with a simple subscription. The pipeline of WorkPi is filled with 50 companies that are interested in using the tool when it launches (est. Q4 2021-Q1 2022). The employers that are using WorkPi to measure and develop their employees will also be able to list vacancies on Work X and recruit candidates. These candidates can participate in the exact same assessments as the employees to gather matching data. This way, the employer doesn't need to recruit large numbers of candidates. Instead the employer can only invite specific

people that match well with a generated successful job profile. A successful job profile is created from an analysis of the profiles of employees who are deemed 'successful'. The definition of 'successful' can be very subjective, and defined in many different ways (e.g. sales, manager evaluations or assessments). One of the first performance assessment dApps on Work X will be 'Peer Performance Reviews' (PPR), developed by WorkPi. PPR will allow people to assess the performance of their peers with various survey templates. When a large amount of peers reach consensus about the performance of a certain employee (group), the WorkPi algorithm will start looking for skill, characteristics and preference patterns.

3.2 Service Provider

Almost every service provider can offer services on the Work X platform (ranging from white- to blue- collar positions and full- to part-time or freelance contracts). To counteract activity in violation with the code of conduct, which are guidelines for allowed job positions on the platform, a curation mechanism will be used (see chapter 6).

3.3 Employer

There are many types of employers in the world, ranging from large Fortune 500 companies to smaller start-ups, scale-ups and SME's. Work X is a place where any employer can list vacancies and recruit candidates. Enterprises, consultancy firms and recruitment firms can also benefit from using the Work X platform.

3.4 Assessment Provider

Myriad innovative assessments can measure a wide range of indicators. This is both an opportunity for employers but also a challenge. If a (large) organisation decides to integrate an assessment into their application suite, it can take, on average, a full year to combine the data. When a new assessment hits the market, the cost of switching makes it impossible for employers to integrate it. Because several of these tools are already very powerful, WorkPi has no plans to develop competitive substitutes. Instead, WorkPi offers an open marketplace for assessments on Work X that are integrated by WorkPi. Also, every assessment provider can freely integrate their tool on Work X.

Measuring skills or competencies can be very challenging, especially when there are no objective indicators at hand. Examples of skills that cannot easily be measured by objective indicators are empathy and the ability to collaborate with others. These skills are often described as ‘soft skills’. Soft skills are (inter)personal qualities, also known as ‘people skills’. Research shows that business executives consider soft skills as an important attribute during job applications [14]. The aforementioned study identifies the ten most important soft skills that business executives base their judgment on: integrity, communication, courtesy, responsibility, interpersonal skills, positive attitude, professionalism, flexibility, teamwork, and work ethic.

However, in order to make an assessment of hard or soft skills, an environment in which those skills can be assessed is necessary. This requires an environment in which just that skill can be measured. Depending on the performance of the participant, a performance review can be obtained. To do so, companies often use competence evaluation methods. Traditional methods involve structured interviews, employee monitoring, standardized simulations and role-play. These methods are very time-consuming and require the engagement of trained HR experts. Unfortunately, the results of these methods are often biased because of the expert’s subjectivity.

To save time while identifying important skills that might be missing within a company, organizations have started to use automated competence evaluations solutions. These evaluations can be used for a larger number of employees, and they make use of innovative assessment tools. The tools usually consist of computer tests with playful elements to make them simple or even fun to complete. Research shows that the use of computerized tests allows for more precision in the evaluation of soft skills [15]. The technology used for these evaluations is evolving rapidly while adopting new elements from the fields of neuroscience, statistics and AI. It is assumed that this adoption allows for better measurements of both hard and soft skills.

The assessments that are made of the workers or applicants may also be of use for other parties. Third parties that offer assessment tools can also invite users of the platform to complete assessments outside of the context of an application to a particular company. Not only do they supply more useful information for a current job opening, but they simultaneously generate more data that may be applicable to future job applications. This data allows users to enrich their data profile to make them eligible for a higher ranking in subsequent job listings by our AI recruiter.

3.5 Education Provider

Diplomas from traditional education providers like universities and colleges have been a dominant influence in the recruitment industry for many years. Without a good education and high grades it has been very hard to get a job. This is logical, especially for specialist professions, but it is also increased due to the lack of measurable aspects of skills and education alternatives. In recent years, a new supply of education providers has emerged, offering online development courses and training certificates. Also, the rising assessment market gives hiring employers the means to look beyond university grades and measure skills more accurately with assessments. On Work X, both traditional education providers and online course platforms can offer their programs. For example, one of the first learning platforms that will be integrated on Work X is EuroPass, which is supported by the European Commission. Europass offers learning opportunities in 29 different languages.

3.6 Work Intelligence Lab

The world is a rapidly evolving place, leading to constant changes in the required skills, characteristics and preferences for a job or task. In order to keep up with these changes and provide accurate matching or learning suggestions, we introduce the Work Intelligence Lab.

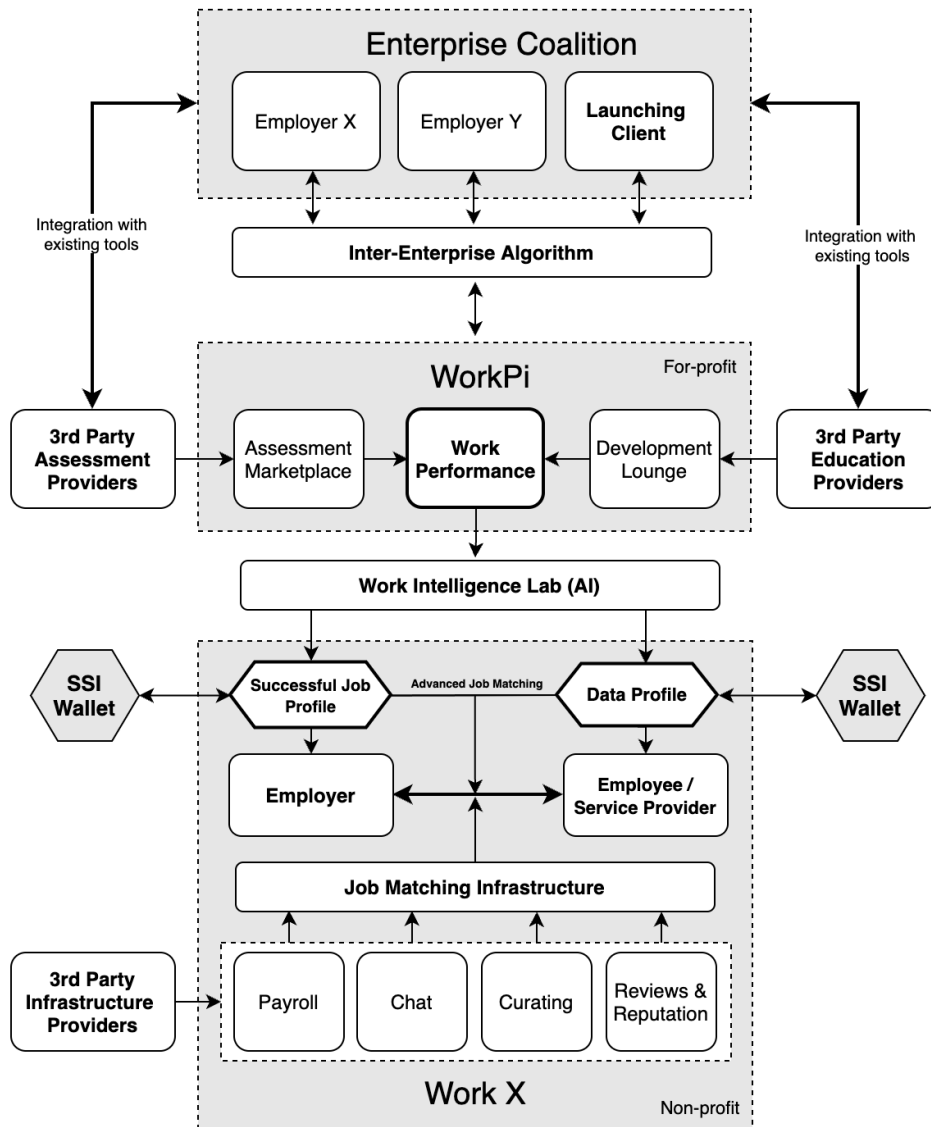


Figure 1: Ecosystem overview

4 Work Intelligence Lab

Personal data is valuable and sensitive; it belongs to the person who generated it. The owner should be able to determine with whom they share their data and be able to revoke access at any point in time. In order to provide the best possible insights machine learning algorithms need to be trained with data, however this is currently gathered at the cost of peoples privacy. By utilizing advanced machine learning techniques improving the algorithms can be done without the need to sacrifice privacy. This enables learning from your data and gaining valuable insights like the best job matches or candidate suggestions and improve its matches through automated machine learning algorithms. The golden rule that applies here is that people will be rewarded for contributions to improving the machine learning algorithms, by generating and sharing data, when these insights are being utilized by interested parties.

4.1 Indicators

Candidates will be matched based on objective facts rather than looks and feelings. To this end, we introduce 'Work Performance Indicators' (WPI): objective attributes of a worker's profile that provide predictive power on how a worker will could perform in a particular job. Each and every attribute (data point) in a worker's profile is a potential WPI. WPI's emerge in relationship to jobs, companies, and even entire fields. A definition of a WPI would be 'an attribute that contains predictive power of success in a particular position or field of expertise'. What is considered a WPI can differ between different positions or fields; success in some jobs may be the result of WPI's that are entirely irrelevant to other jobs or fields. English proficiency is, for example, relevant in a company that works with international clients but irrelevant in a company where business is rarely conducted in English. Attributes are divided into three categories: Skills, Characteristics and Preferences.

4.1.1 Skills

Data that falls under the category of skills is related to WPI's that can be taught or developed. Within this category we distinguish between 'hard' and 'soft' skills. Hard skills are skills like programming or affinity with certain types of mathematics. A soft skill is a skill like leadership. Although soft skills are a lot harder to train and measure, they can still be improved. Anyone's set of skills is expected to change over time, and a person's set of skills is in a constant feedback loop. This type of data is therefore considered to be dynamic, because it can change. Depending on what is in (high) demand among employers, people can improve old skills or learn new ones. The questions we want to ask are: in which way can a person improve their skillset based on what is in demand among employers? Based on the current market conditions, which skills are lacking in a person's repertoire? WorkPi will provide this feedback loop through evaluation and training, and Work X will facilitate a recruitment option. The job opening

will then necessarily feature the lacking skills.

4.1.2 Characteristics

Data that falls under the category of characteristics refers to all information about a person that is not part of the above mentioned feedback loop of skill development. Examples of characteristics are whether a person is risk-averse, dominant or autonomous. This type of data is considered to be static, because a person's characteristics usually don't change quickly or frequently. Despite the fact that these are not skills that a person can develop or change, they could say a lot about what type of position is most suitable for this person.

4.1.3 Preferences

A happy employee is often a good employee. The fact that a person is capable of working in a particular position does not mean that they will do so successfully. The preservation of an employee's happiness should be an end in itself. Listing preferences of workers ensures that we can provide data-driven matches that have mutual benefits. This will enable employees to find employers that are a good match based on their values on topics like work/life balance, growth opportunities, location, company mission, organizational structure, and more.

4.2 Matchmaking Mechanism WorkPi

Companies spend a lot of time and money interviewing and assessing candidates. To make matters worse, finding a candidate in the first place is even more time-consuming. Expensive recruiters spend hours merely filtering search results on social sourcing platforms such as LinkedIn. This is a sore waste of the capabilities that makes the recruiter expensive to begin with. In order to prevent this waste of time and effort, we employ a data-driven strategy, automated by our AI-recruiter. The WorkPi AI-recruiter works using the following recurrent steps:

1. Listing a job opening

Generally, anyone can list a job opening on Work X for anything, provided that the job opening is not in violation of the terms of service. Whether it may be long-term contracts or short-term gigs, the platform users have the freedom to define the desired details of future colleagues. However, such listings have to be filled in according to a standard structure that is predefined by Work X. This structure will produce consistent input, which can be used by the WorkPi AI-recruiter to make reliable inferences.

2. Identifying WPI's

Depending on the content of a particular listing, certain WPI's will be identified. The identification of the WPI's will depend on the collected input. Data such as previous successful candidates, requirements set by the job lister, and characteristics of the employer/employee will serve as input to the matching

algorithm. Subsequently, the matching algorithm will find a unique and relevant set of WPI's for the job openings. For example: when 3 of the 30 people with the best performance scores in the department have certain shared skills, characteristics and preferences, these indicators will qualify as WPI's that feed the ideal job profile that is matched with candidates.

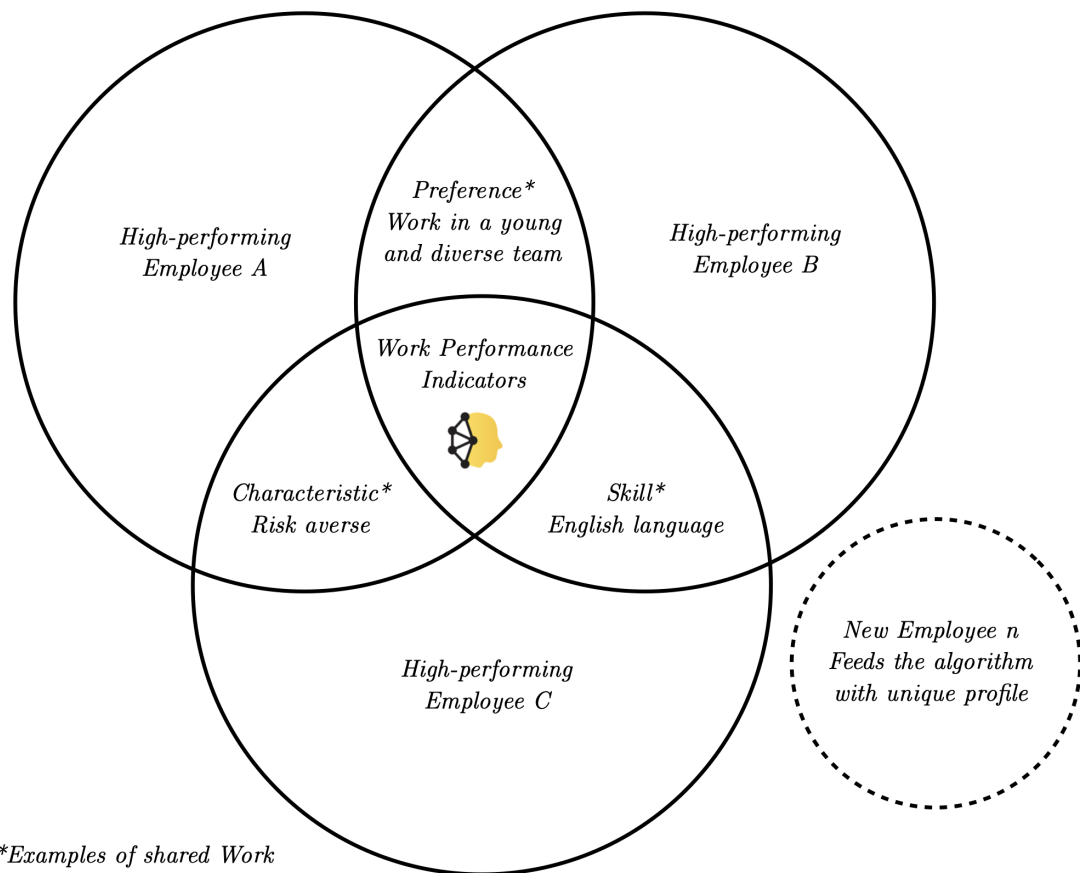
3. Finding and matching candidates

Since WPI's contain predictive power about the work performance of a candidate, we can now find worker profiles that match with the AI-recruiter's identified WPI's. We can then suggest these profiles to the lister. These suggestions appear in the application immediately, without a recruiter having to do mindless searches on the internet. Suitable employers and employees are then free to connect with each other, either directly or by means of the available communication channels in the application. The communication through the marketplace of the application can further strengthen the match within a trustworthy environment. It allows the employer to invite the employee to participate in assessments and structured interviews. It's all up to both the employer and the employee to find the best ways to get to know one another.

4. Following up

After a match that initiates a hiring process, WorkPi will follow up on candidates and companies. Candidates will be asked whether they were hired, and, if so, how they are doing in their new position. Conversely, the companies will be asked if they (in retrospect) found any problem measuring the candidate's proficiency and whether they are satisfied with the candidate as of yet. In other words, WorkPi will gauge the effects of the match of the algorithm. Herein lies the source of the intelligence: the data about employees and employers is gathered over time and is continuously reflected upon. Therefore, the AI-recruiter can use more and more data in its algorithms, which results in ever-improving models that predict what constitutes a good hire.

The WorkPi AI-recruiter recognizes patterns that are not always obvious to a human recruiter. Since WorkPi's AI-recruiter continuously gathers more data, its accuracy with regards to the proposed matches will improve. Additionally, the collection of data will enable the AI-recruiter to distinguish new WPI's. The more insights the AI-recruiter collects from workers' trajectories and from the data profiles, job openings, assessments, and references shared by employees and employers, the more correlations can be identified by our statistical algorithms. To gain insight into which data points are predictive of a worker's success, we will apply various mathematical techniques such as decision trees, Bayesian networks, and selection algorithms. This will enable us to find the necessary or preferred WPI's in relation to any given job or sector. The AI-recruiter will enhance its knowledge by using labelled data such as work performance, hiring decisions, and employee satisfaction. Additionally, we may employ (unsupervised) clustering algorithms to find interesting segments in our data.



**Examples of shared Work Performance Indicators*

Figure 2: Creation of Work Performance Indicators that feed the job profiles

4.3 Inter-enterprise algorithm

Whenever a self-driving car from for example, Google, gets into a unique situation, every other car in the fleet learns from it. If we compare self-driving cars to organisations, every organisation drives around alone, and many do not even learn from themselves, let alone that they learn from each other. This opportunity is missed due to poor data preparation, data silos and privacy concerns (you don't want to share your data with a competitor). However, most organisations are too small to properly train an AI. WorkPi provides a solution with an Inter-enterprise algorithm that is trained with anonymised data (using the Compute-to-Data technique). Acquired data can contain sensitive information about the company and/or its employees. To prevent any infringement on employee privacy or misuse by competitors during data acquisition, the datasets will be fully anonymised and encrypted. The privacy of employees will be protected through anonymisation of their data. When personal data is shared with enterprises through their cloud providers, pseudonymisation techniques are used to reduce the chance that personal data records will lead to the identification of the related individual [5]. Because all the assessment and development tools that generate data are integrated on the platform, companies do not have to worry about the data preparation. The long-term goal of the inter-enterprise algorithm is to create an ecosystem of self-driving organisations that learn from each other without data privacy concerns: learn from every hire in the ecosystem. Currently, around 50 enterprises in 14 industries, with more than 2,500 employees, have shown interest in joining the ecosystem.

4.4 Compute-to-SSI

More data generally means more accurate machine learning algorithms.[3] This has led to the tendency of large companies to hoard data, some of them even turn data analytics into their core business. For personal data, there is a legal privacy concern involved, which is smaller or larger depending on the part of the world you live in. Even where it is larger, governments do not always actively enforce it, and it is possible for a person to waive their privacy rights via large disclaimers. These companies have grand financial incentives and strong political influence, making change in this domain slow and often a compromise which does little to nothing to actually limit private data hoarding.

Instead of bringing the data to the Artificial Intelligence, there is an alternative; to bring the Artificial Intelligence to the data. There are several ways of doing this. Ocean protocol has released 'Compute-to-Data', which is designed for privacy-friendly data markets. [4]. Currently Ocean Protocol focuses primarily on larger data silos for which privacy is essential. For example, an organization might want to combine data from hospitals for machine learning algorithms that search for correlations and cures without the data leaving the hospital. We decided to work with Ocean Protocol because they have presented innovative solutions, with a strong focus on retaining privacy of data. We aim

to take this piece of technology one step further by giving control directly to the people. People will be able to easily give or revoke access to specific data. At the same time, A.I. algorithms will be able to learn from this data, all while preserving privacy. We call this 'Compute-To-SSI'. Work X strives to learn from private data without compromising it. In order to work towards this goal, we will dedicate a significant amount of time to research and development in this area. We want to find out which wallets are best suited to support this and how to adjust them to be able to receive a machine learning algorithm and make it smarter without compromising the privacy of the data. Then we will build an open-source reference implementation that any wallet can use to enable any kind of machine learning on any type of private data, for any purpose they desire. Work X will be amongst the first companies to use this in conjunction with career-related personal data. Work X is contributing to the OceanDAO by developing Compute-to-SSI and the architecture (Figure 3) has been released this month. It can be found on [GitHub](#).

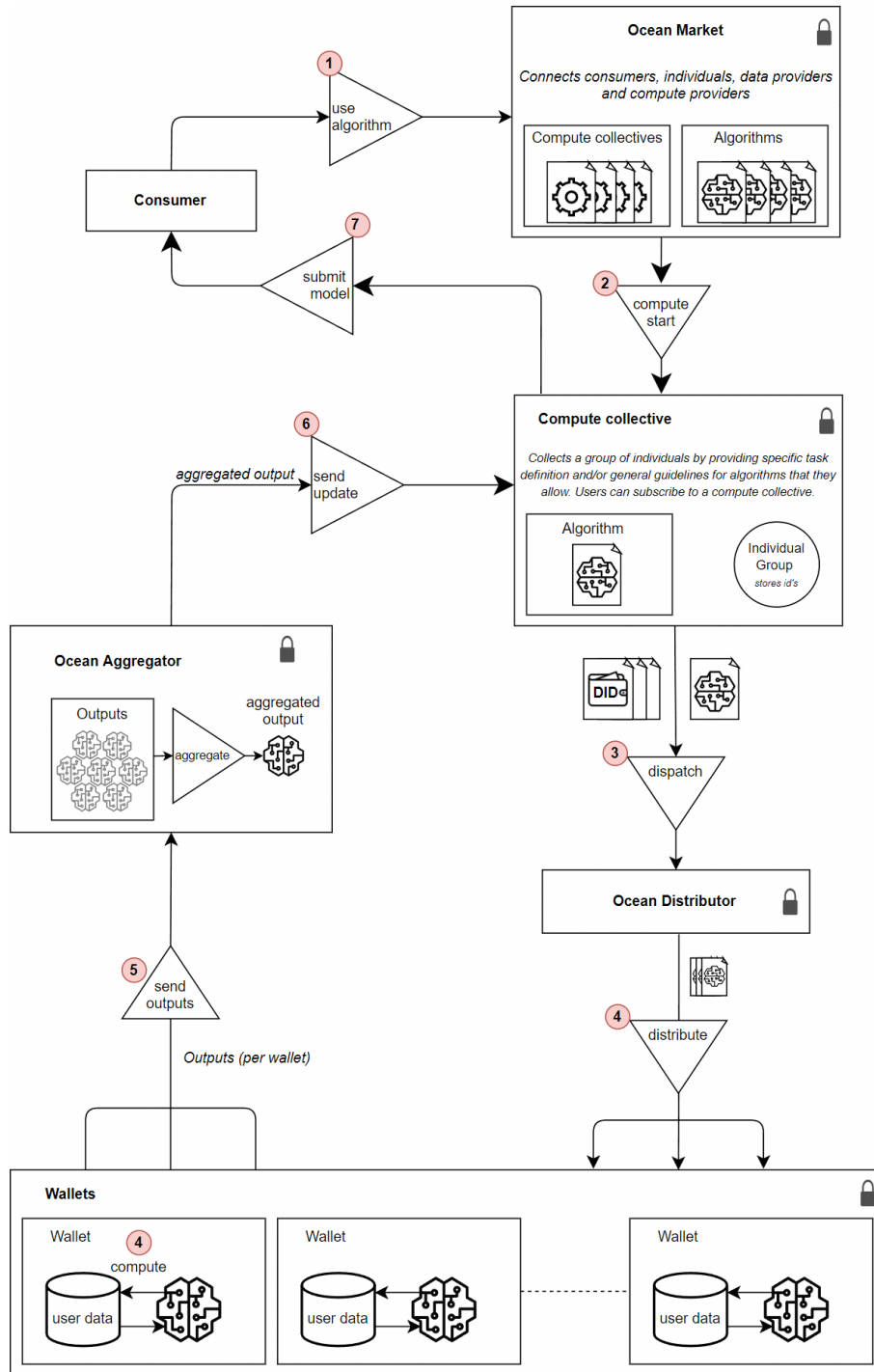


Figure 3: Compute To SSI Architecture

4.5 Algorithmic Bias

We strive towards achieving objective WPI's that are free from any recruiter bias. However, data mining algorithms look for regularities in the data. Even though the algorithm itself has no particular inclinations, it may still produce biased results if the data itself is biased. For example, a given company or even an entire branch may be biased against women, and thus they might hire fewer women. Using its algorithmic techniques on the data, the AI-recruiter may then conclude that men are more successful in a certain company or job position than women. This correlation of the AI-recruiter unnecessarily excludes half the human race a priori. WorkPi aims to work in an honest and ethically sound way, doing everything in its power to prevent its algorithms from drawing discriminatory or unfair conclusions. We are aware of the sensitivity of the data, and we will therefore put everything to work in order to eliminate inherent bias. To achieve this objectivity, we will consciously exclude certain features from our matching algorithm, such as gender and age. Another way to avoid this harmful bias is through the use of assessments, which have the power to give everyone a fair chance to show their capabilities.

5 Cost Efficiency

Commercial platforms like Uber and Upwork cover the operational costs to maintain their platform and charge an additional commercial fee to profit. Since the technology of the different platform economies strongly overlaps (Upwork has the same matching, payroll and chatting abilities as Airbnb and Deliveroo), the technology is quickly commodifying, and the WorkPi Foundation hypothesizes that operational costs will also decrease over time. This is caused by the learning effects of maturing technology (see Figure 4). In the near future, the costs of developing a platform economy/gig platform will decrease even further. As a result, the barrier of entry and profit margins will drop to zero. This makes the current business model unsustainable and inefficient.

The zero margin cost platform of Work X provides a solution. With a decentralized platform, we can cut out the commercial middleman and eliminate the profit margin. However, to run the platform, the operational costs should also be covered. The WorkPi Foundation is a nonprofit entity, responsible for cost efficiency, quality assurance and continuation of the Work X platform. The Foundation will never charge a commercial fee for the match between a service provider and a client on the Work X platform. The Foundation presents a model where the user pays a transaction fee to maintain the platform. This fee will also be used by the Foundation to decrease the transaction costs over time when the platform scales up.

Innovators

First platform economies create a new industry: Uber, Airbnb, Amazon

Developments costs: Very High

Level of competition: Very Low

Profit margins: Very High

Early Adopters

Platform economies pop up on every corner of the web (Upwork, Deliveroo, Fiverr, Etsy, BlaBlaCar, NestAway, etc.)

Developments costs: High

Level of competition: Low

Profit margins: High

Early Majority

Development costs drop significantly due to learning effects and the industry becomes saturated (profit margins decrease due to competition).

Developments costs: Medium

Level of competition: Medium

Profit margins: Medium

Current Situation

There's a platform economy for everything; match with a cleaner, plumber or grocery delivery person, there's an app for that. Applications start to look alike due to broadly accessible best practices.

Developments costs: Low

Level of competition: High

Profit margins: Low

The Near Future

Most platform economies will be replaced by decentralized platforms and will likely run on the same technology. They will be more cost efficient and cheaper to use. The business model behind a platform economy will disappear.

Developments costs: Very Low

Level of competition: Very High

Profit margins: Very Low

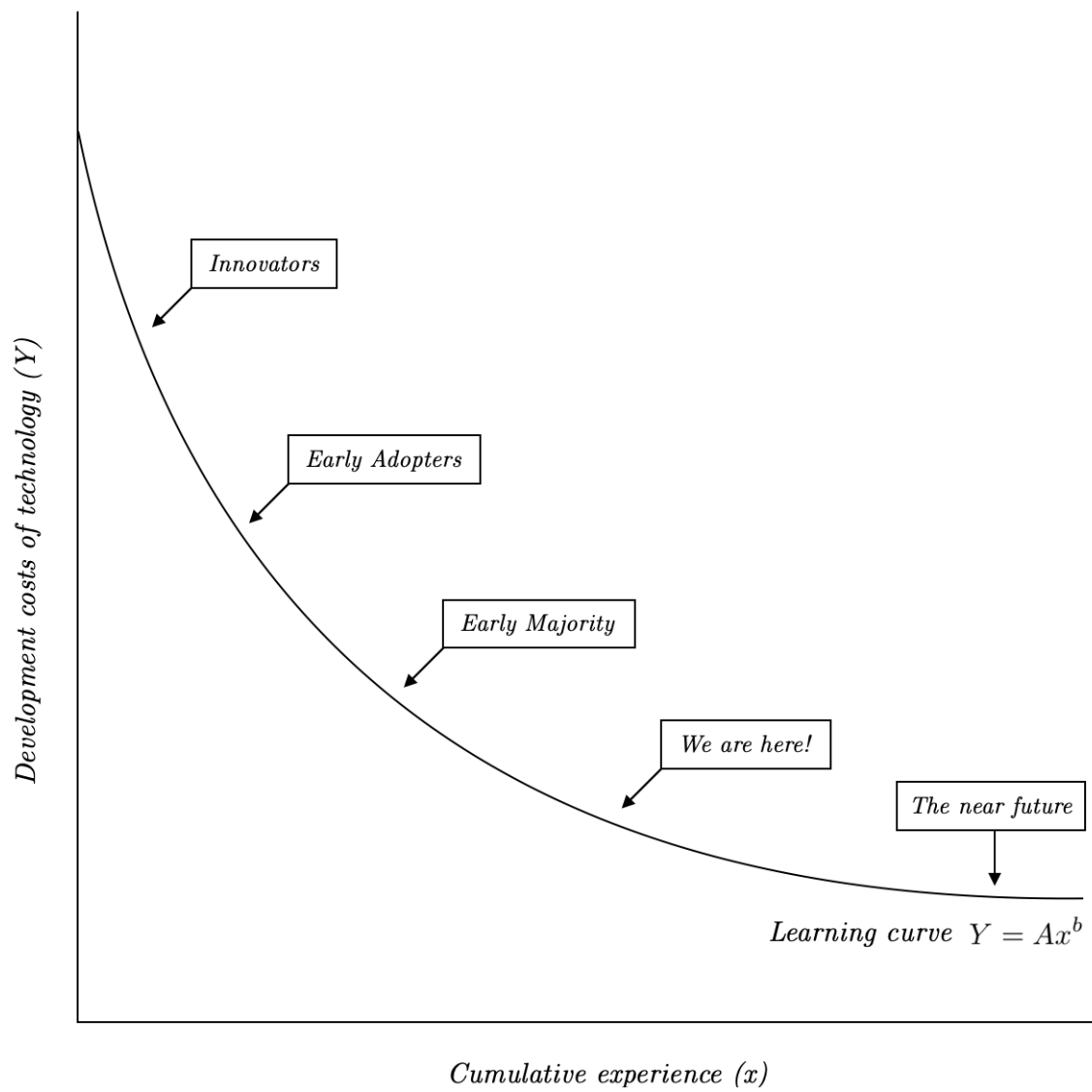


Figure 4: Learning effects on technology development costs.

5.1 Transaction Cost Formula

The transaction costs are structured as follows:

$$C_{tx} = (C_o + C_d + C_i + C_c)(1 - \text{discount rate})$$

Where:

C_o =operational costs

C_o =operational costs

C_d =development costs

C_i =platform incentives to promote adoption

C_c =curator costs (only for job listings)

Besides the standard operational costs for functionalities such as payroll, reviews and infrastructure, there are also more functional costs. These costs will be charged only to those that make use of these functionalities. The costs of maintaining assessment integration's are, for example, only charged to users who participate in assessments. There are four different transaction types:

- Job listing
- Job application
- Assessment
- Development course

5.2 Operational Costs

- Payroll fee (standard)
- Reviews (standard)
- Infrastructure (standard)
- Chat engine (only for job listing and application)
- Assessment integration
- Development course integration

5.3 Development Costs

- Development of additional features
- Continuation costs of the platform

5.4 Platform Incentives

- Token rewards for achievements (NFT rewards)
- Staking rewards for liquidity providers

6 Curator Mechanism

Since ‘The Internet of Jobs’ will be decentralized, curating listings that are in conflict with the code of conduct is harder than doing this on regular websites. In order to curate in a decentralized fashion a mechanism making use of incentives, curators and the community has been created.

There are four parties involved in the curating process:

- *Lister* - The Lister is the person that listed the item, they paid a deposit while listing their item.
- *Curator* - A Curator can challenge the listing, if the listing in fact violated the code of conduct the curator can earn a part of the deposit.
- *Community* - Work X ecosystem members that can earn part of the deposit by voting on disputes between Listers and Curators.
- *Council* - The Council is appointed by the foundation, and will start an investigation if either the Curator or Lister wishes to appeal after the community voting.

The process starts with the *Lister* making a decentralized listing. In order to do this, a deposit of D_l tokens to Slot A must be made. If the listing is not in violation with the code of conduct the deposit will be returned to the *Lister* after the listing has been completed. Since blockchains are immutable it is impossible to delete an improper listing, however we can mark it to not be displayed. It is the job of the *Curator* to mark listings that are in violation with the code of conduct. In order to incentivize people to participate and stay honest, the curating system works with deposits. Each listing can have up to 4 slots of deposited tokens.

- Slot A - On listing D_l tokens have to be deposited by the *Lister*
- Slot B - On challenging the listing D_c tokens have to be deposited by the *Curator*
- Slot C - On disputing the challenge D_d tokens have to be deposited by the *Lister*
- Slot D - On making an appeal to the council D_a tokens have to be deposited by either the *Lister* or the *Curator*

It is essential that we state the following:

$$D_c = D_d = D_a$$

We need to keep the deposit from the *Curator*, the deposit required to dispute the challenge by the *Lister*, as well as the deposit required to make an appeal equal in order to keep the potential financial gains to be made by voting on the dispute by the community equal as well. As long as this formula remains intact

we can be sure there is no financial bias when executing community votes. At the same time we want to keep the deposit required to create a listing larger than the sum of the total deposits required to challenge it:

$$D_c + D_d + D_a < D_l$$

The smallest deposit should be at least 2 times the transaction cost, in order for the deposits to keep their incentivization functionality.

$$D_c = D_d = D_a > T * 2$$

When the decentralized job market is launched the Foundation will appoint a number of curators initially to be able to challenge bad listings from the get-go, however community members that actively participate can also become a *Curator*. A community member that participated in 20 votes automatically gets the curator status and will be able to challenge listings. To avoid abuse, the *Curator* must also deposit D_c tokens in Slot B to back his challenge, they are returned when proven right on top of a portion of the deposit made by the *Lister* in Slot A. Furthermore the *Curator* loses status points if they flag a correct listing, if this happens too often they might lose their curator status.

Whenever a listing is challenged a dispute period of 3 days is initiated, if a challenged *Lister* is sure they did not violate the code of conduct they can "Dispute" the challenge from the *Curator*, during this time-frame. An additional D_d tokens need to be deposited in Slot C to back up the dispute. When the dispute period runs out however:

- Slot A is released to the *Curator* minus costs and a small fee for the DAO
- Slot B is returned to the *Curator*
- The listing is permanently deactivated

When a dispute is initiated, the community gets to review the relevant listing and vote. The voting will run for 24 hours.

- If the *Curator* wins:
 - An appeal period of 24 hours is initiated.
 - If the appeal period runs out
 - * Slot A is released to the *Curator* minus costs and a small fee for the DAO
 - * Slot B is returned to the *Curator*
 - * Slot C is after deduction of transaction fees rewarded to the *Community* voters
 - * The listing is permanently deactivated

- If the *Lister* wins:
 - An appeal period of 24 hours is initiated.
 - If the appeal period runs out
 - * Slot A remains untouched
 - * Slot B is after deduction of transaction fees rewarded to *Community* voters
 - * Slot C is returned to the *Lister*
 - * The listing is reactivated
- Tie
 - The listing is immediately forwarded to the council to start an investigation.

When either the *Curator* or the *Lister* does not agree with the outcome of the community voting they can "Appeal" to the *Council* during the appeal period to start an investigation if the code of conduct was broken by that listing. In order to back this up an additional deposit of D_a must be made to Slot D.

- *Lister* makes an appeal to the council about the results from the dispute:
If a *Lister* is absolutely sure his listing is legitimate he can appeal to the *Council* in order to review if the code of conduct is broken.
- *Curator* makes an appeal to the council about the results from the dispute:
If a *Curator* is sure a listing is in violation with certain rules or code of conduct he can appeal to the *Council* in order to review if the code of conduct is broken.

The *Council* will appoint an investigator, and reach a conclusion within 10 days after the appeal has been made.

- If the listing is found to be illegitimate:
 - The listing is permanently deactivated
 - Slot A is released to the *Curator* minus a fee for the DAO
 - Slot B is returned to the *Curator*
 - Slot C is after deduction of transaction fees rewarded to community voters if they also deemed it correct, otherwise it will be assigned to the *Council*
 - Slot D (if exists) is returned to the *Curator* if the curator made the appeal, otherwise assigned to the *Council*

- If the listing was found to be legitimate:
 - The listing is reactivated
 - Slot A remains untouched
 - Slot B is after deduction of transaction fees rewarded to *Community* voters if they also deemed it legitimate, otherwise it will be assigned to the *Council*
 - Slot C is returned to the *Lister*
 - Slot D (if exists) is returned to the *Lister* if the lister made the appeal, otherwise assigned to the *Council*

The following is an example of a challenged listing which plays out to the end and concludes in an investigation by the council. Please see Figure 5 for a diagram of these steps.

1. List Listing

When creating the listing D_l amount of tokens is deposited in "Slot A" by the *Lister*

2. Challenge Listing

The *Curator* thinks it breaks the code of conduct, to challenge this listing he has to deposit D_c amount of tokens in "Slot B". The dispute period is initiated and the listing is temporarily deactivated.

3. Dispute Challenge

The *Lister* disagrees that he breaches the code of conduct and wants to dispute the challenge. In order to do so he must deposit an additional D_d amount of tokens in "Slot C"

4. Voting

The *Community* will now vote on the disputed challenge, there can be two outcomes:

- 4.1. The *Curator* wins
- 4.2. The *Lister* wins

5. Appeal Dispute

Now if either the *Curator* or the *Lister* does not agree with the outcome from the community vote, they can appeal to the *Council* for an investigation.

- 5.1. The *Lister* makes an appeal to the council
- 5.2. The *Curator* makes an appeal to the council

6. Investigation

The *Council* will select an auditor who will investigate and decide if the listing is in violation with the rules or code of conduct. This can have two outcomes:

- 6.1. The listing is illegitimate
- 6.2. The listing is legitimate

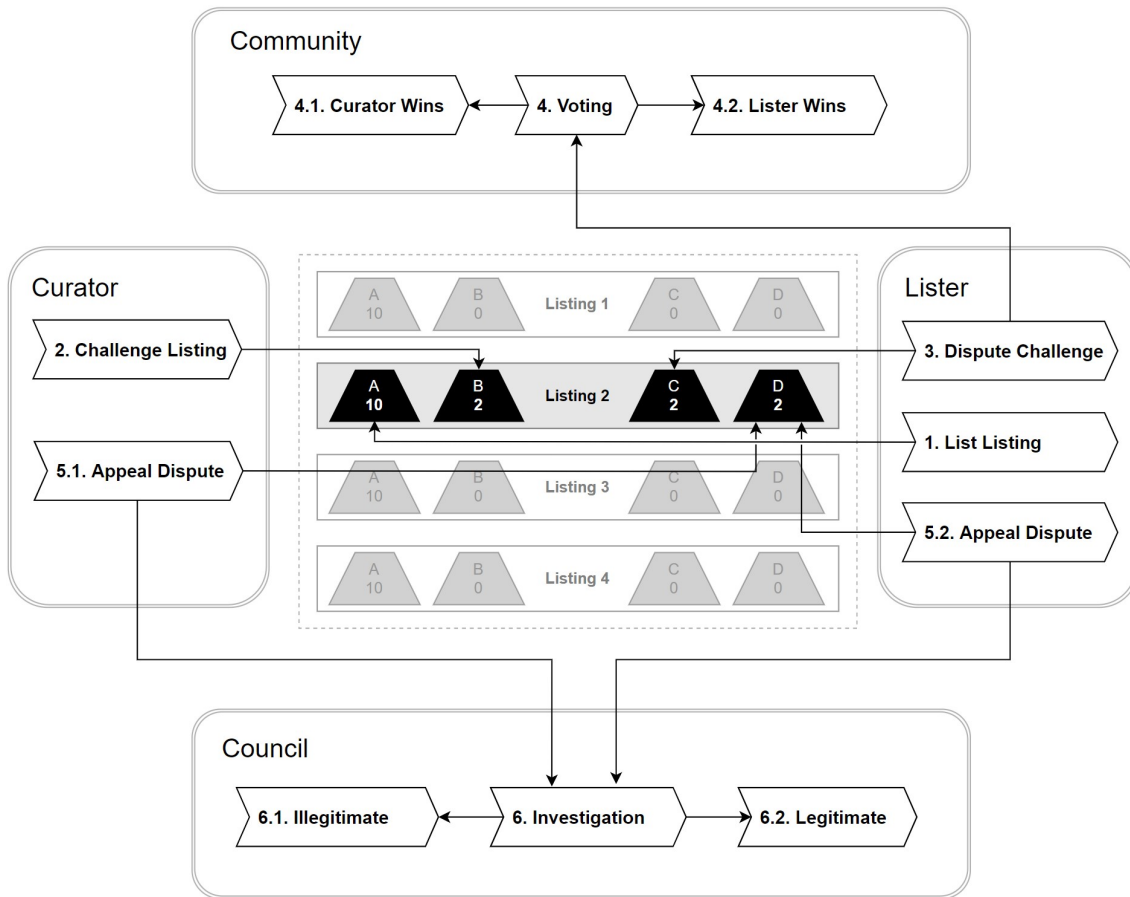


Figure 5: Curating Example.

7 Data Ownership

When an employee leaves a company, most of their career-related data is lost, or given away, to the employer. This data includes: yearly performance reports, peer reviews, assessments, personality tests and more. The data remains in the silo-ed database of the company. This causes the perception among employees that the data is not really theirs, and discourages them from gathering more information about themselves. This is a missed opportunity for both parties to gain valuable insights. In order to solve this problem, breaking the data out of the silo is required, and giving it back to the rightful owner of the data: the employee. Doing so in a legally compliant and privacy-friendly manner, giving back governance over this personal data to its rightful owner, is made possible through a technology called Self-sovereign identity (SSI) [10] using the decentralized identifiers (DID) specification. [7] Figure 6 shows the basic functionality of SSI.

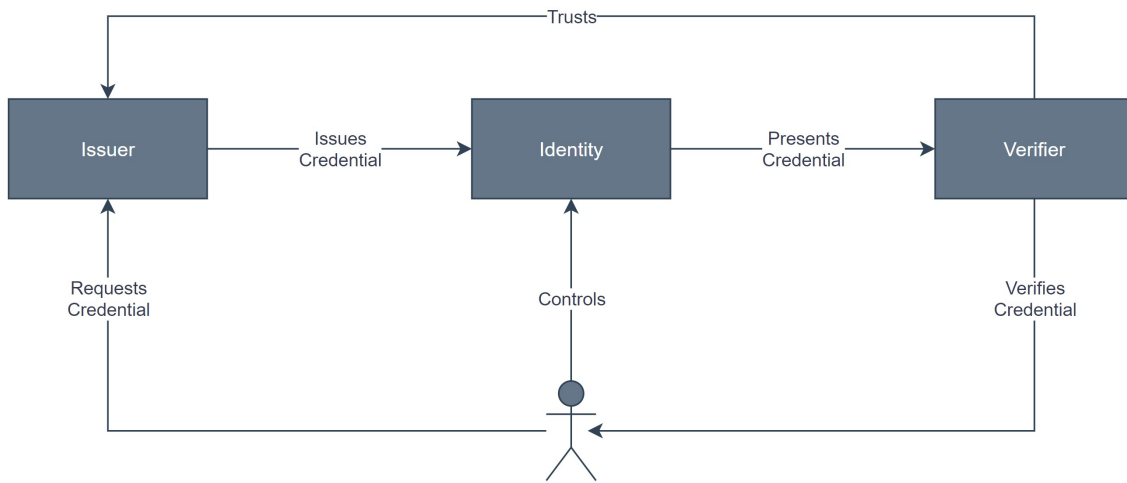


Figure 6: Self-sovereign identity

7.1 Self-Sovereign Identity

While there is a tremendous innovation taking place in the world of finance, where traditional financial products are transformed into digital cousins, which are rapidly evolving, given new technical capabilities. This is not the only space which is affected by technological catalyzers. The world of (digital) identity is changing quickly, ensuring more private, secure systems that aim to give the people the governance over their personal data and make it easily verifiable. This paradigm shift is all about controlling your own identity and the data that is attached to it.

In 2016, Christopher Allen, a cryptographer who has worked on realizing technologies like TLS [11] which are now part of the backbone of our internet, wrote an article [6] that described 10 basic principles that SSI has to follow in order to remain uncompromised. In it, he included a call to action for everyone to help him take the concept of SSI to the next level.

Self-sovereign identity is a relatively new way of thinking about online identity. It is deemed so promising in the light of privacy and governance, that it's being investigated by many local governments, countries and even the European Union [8].

After a personal credential, which is now almost always physical like an ID card or a diploma, is issued online using SSI, it is possible to check it for authenticity without contacting the original issuer. For example, imagine a foreign expat verifying a university diploma. With the help of SSI, this process no longer takes weeks or months. It now happens instantaneous since the digital signature of the issuer can be checked online. These things can easily be verified in a provable manner without disclosing any information by making use of zero-knowledge-proofs (ZKPs). [12] At the same time, issuing these credentials and storing them in an SSI wallet, adds to the individuals' data privacy. Now, the rightful owner of the data gets to decide on what to do with it, and who to share it with.

But SSI is not only in the best interest of the individual. We can see that fines/punishments for data leaks are becoming more severe. It will therefore become more and more interesting for enterprises to reduce risk by not controlling the private data. In this situation, holding private data becomes a liability, something that can damage the image of the company and can cost a significant amount of money. Companies will ask themselves, *'Why store this data if it's risky and we don't need it?'*. For companies whose core business is not dealing in people's private data, it will become an obvious choice to use SSI technologies, to give the control over data to individuals.

7.2 The Power of Data

'Data is the new oil' is something we have all heard somewhere. Like oil, data is mined and controlled by a few very large companies, and most people and other companies only get to use a refined form of it. This hinders us in unlocking its true potential. The technologies discussed in this article have the power to change this by breaking data out of its silos.

Historically, enterprises are very hesitant to share data with other companies, due to privacy concerns and fear of losing their competitive advantage. This cripples their ability to train an accurate A.I. and gather valuable insights. Besides machine learning algorithms still being able to learn from the data given back to the individual (through SSI), these algorithms can also learn from the data provided by other companies/entities. A Compute-to-SSI mechanism (see 4.4 Compute-To-SSI) could enable a data-driven revolution, as it would grant access to an enormous decentralized pool of data to learn from. This pool of data, will greatly increase the accuracy of these algorithms.

Additionally, by combining personal profiles with our platform, which integrates with many third-party assessment and learning providers, like universities or corporate certification companies, the Work X platform aims to provide a person's complete learning and career related profile from an SSI wallet in their pocket. The combination of multifaceted data gives a person better insight into where they currently are and how to develop themselves to get where they want to be.

7.3 eSSIF-Lab

Users of Work X, will have the ability to import and export their career related profiles to an SSI wallet. In order to become compliant and future-proof, we are participating in the European Self-Sovereign Identity Framework (eSSIF) program of the European Commission, and we are integrating with the European Blockchain Services Infrastructure (EBSI) blockchain.

7.4 Odyssey Momentum 2020

Odyssey is one of the largest blockchain and A.I. hackathons in Europe. Our team is proud to have participated in the first online version of this hackathon called Odyssey Momentum. [13] We participated in the Self-sovereign identity track and had the pleasure to work together with very inspiring teams. We are delighted to be able to call ourselves one of the winners.

7.5 Use-case of SSI in the Work X Ecosystem

Combining this knowledge into the Work X platform, will generate numerous possibilities to provide everyone with the advantage of personalised development and learning. With the use of SSI wallets, we will ensure optimal personal security, while creating the largest personal data pool yet. Both individuals and companies will be able to enjoy insights and make data-driven solutions. To summarize, Work X will:

- Enable employers to easily leverage SSI profiles and suggest/find education for their employees without the employee having to expose their weak points (anonymised recruitment and development suggestions).
- Enable employees to regain control and break their career related data free from corporate silos.
- Enable third-party providers to delegate SSI issuance by using integrations so that they can join the ecosystem without a deeply technical implementation.
- Employ Compute-to-Data in order to train machine learning algorithms without compromising privacy or security.

8 Governance

In the current globalising economy, producers are incentivised to build better solutions than their competitors. However, for commodity services that should be available for all citizens, this causes the problem that these services are controlled by very competitive entities. They are able to restrict access, strive for unethically large profit margins and create a situation where global resources needed to solve a common problem are divided instead of combined.

We believe that ‘The Internet of Jobs’ will be crucial for the development and education of people as well as their human right to find suitable work. In its Sustainable Development Goals, the United Nations (UN) states that everybody should have access to employment, decent work, quality education and lifelong learning opportunities. This is why we believe the Work X platform should be decentralized, governed by its community and considered to be a common good.

Governance on decentralized networks can be achieved through a mechanism called a Decentralized Autonomous Organization (DAO).

“Imagine a vending machine that not only takes money from you and gives you a snack in return but also uses that money to automatically reorder the goods. This machine also orders cleaning services and pays its rent all by itself. Moreover, as you put money into that machine, you and its other users have a say in what snacks it will order and how often it should be cleaned. It has no managers and all of those processes are pre-defined in code.” –Cointelegraph

To achieve decentralization, Work X will employ a DAO that governs multiple aspects of ‘The Internet of Jobs’, like funding maintenance, development grants, voting on proposals and liquidity.

8.1 Maintenance

A monthly allowance is sent from the Work X DAO to the Foundation in order to cover the maintenance costs like server rent. If the platform grows larger and the Foundation requires a higher allowance to cover the costs, a vote will be required amongst stakeholders to approve this change. An initial allowance is determined at the genesis of the DAO based on projected maintenance costs for the immediate and near future.

8.2 Development Grants

While the Work X foundation’s main goal is to support and further develop ‘The Internet of Jobs’, we believe that a decentralized economy can only function as an ecosystem. That’s why we want to build it together with you!

The Work X DAO will have reserved funds allocated for future development and maintenance of the platform. If an interesting proposal containing a timeline, budget plan and a skilled team, the proposal will be put to the vote. If the community votes in favor of the proposal, it will be funded with a stream, monthly allowance or one time grant.

8.3 Voting

If decisions are made about the future of the platform, the Foundation will consult the Community by issuing a vote. There are two types of votes, binding and non-binding. Non binding votes can be used, for example, to let the Community advise the Enterprise Consortium on how to interact with ‘The Internet of Jobs’. The outcome of a binding vote, however, is final. For example, when the community accepts a certain vote, the DAO will automatically adjust parameters of ‘The Internet of Jobs’ based on the vote’s outcome. All blockchain-related votes are by nature binding votes.

8.4 Liquidity

At the genesis event of the DAO, its creation, it will allocate a significant portion of its funds towards a liquidity pool, which will remain locked in that pool by disabling the ability to withdraw the funds. However, if the DAO is prosperous, additional liquidity can be provided if the community chooses to do so. This allows the ecosystem to increase its liquidity as it grows.

9 Development Program

9.1 Motivation

Work X will launch a series of platform rewards in order to motivate people to develop themselves. We believe achievements should be rewarded. People who invest in personal development will receive a personal title that indicates a certain ability or indicators. On top of that, they will also receive an NFT that is imbued with an amount of \$WRKX tokens relative to the difficulty of the achievement. This NFT can be traded, staked or deconstructed to claim the tokens inside. Please see Figure 7 for a diagram of the NFT ecosystem.

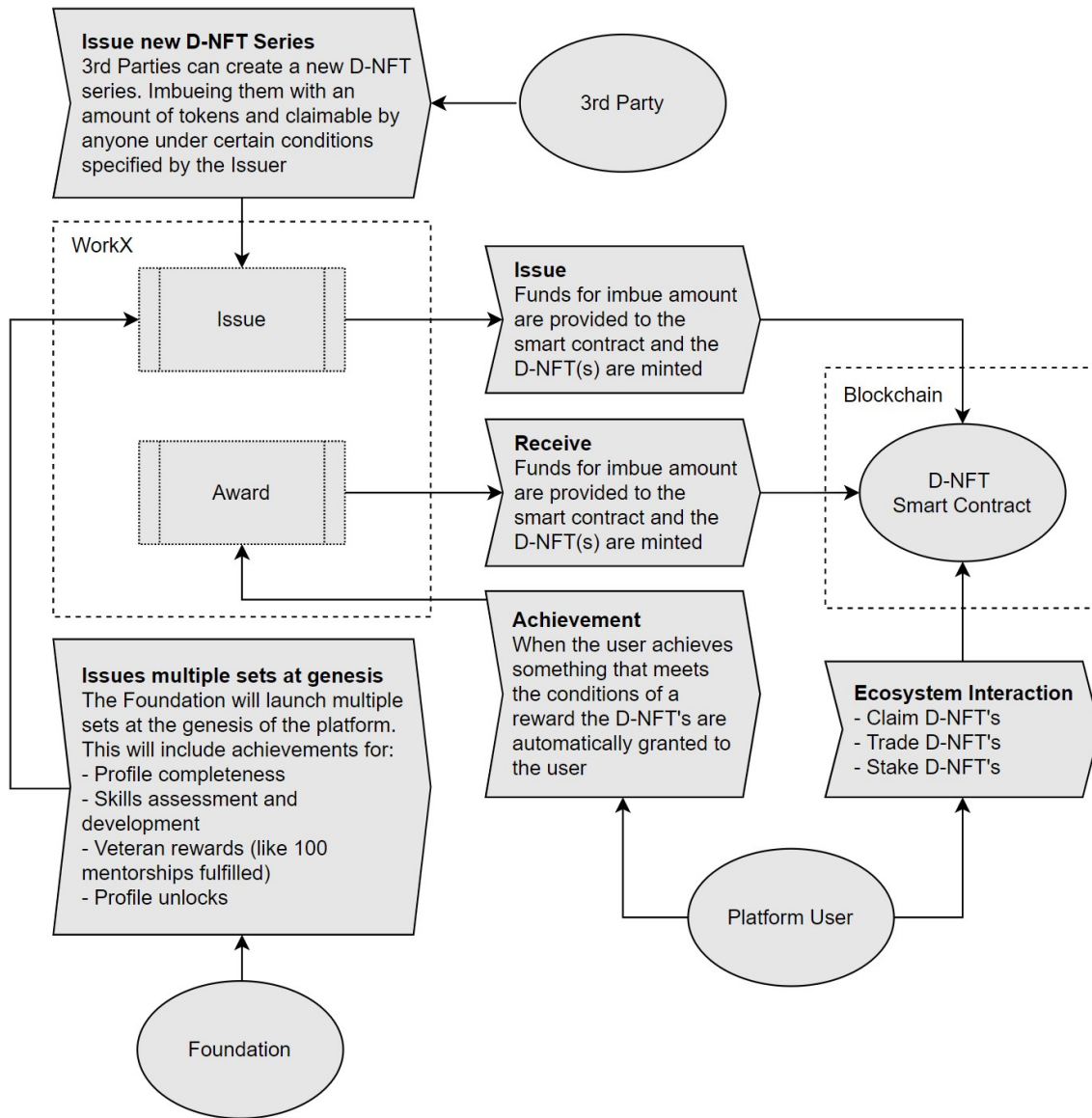


Figure 7: NFT's

9.2 Profiles

In order to further stimulate people's development, Work X will feature a novel mechanism to combine multiple achievements into a special 'Profile' which indicates a specific set of abilities relevant to a certain job description. Profiles can only be unlocked based on the achievements users gain, which means they have to possess all indicators in their personal profiles. The Work X platform facilitates obtaining these indicators, in a provable manner, through integration with professional assessment and learning platforms. 'Profile' unlocks will be rewarded with a rare NFT, incentivizing professionals to make use of the platform and obtain all relevant indicators. Since these NFT's are only minted and awarded by the platform for actual achievements, at launch and shortly thereafter they will be very scarce.

9.3 Staking NFT's

While an ordinary platform user might deconstruct the NFT's to gain the tokens inside as a monetary reward, others might put the NFT's up for trade for investors or collectors, and more investment-minded users might stake them in liquidity pools to earn more rewards over time. Holding an NFT will generate bonus tokens over time. The bonus amount is calculated over the \$WRKX tokens contained inside the NFT. You can look at these NFT's as minified tokenised 'nodes' without the requirement to run a server. The goal of this reward is to make it attractive for platform users to hold on to their NFT's and not destroy them, since they have more value than just the tokens inside. To make sure that users who want to add to the Work X liquidity do not have to destroy their NFT's, Work X will provide a mechanism to stake NFT's in our liquidity pools. This can generate additional interest (APY), but it is also subject to the normal risks of liquidity pools. Providing liquidity with your NFT's is purely optional. While the benefit for the user is that an additional reward can be earned, the advantage for the ecosystem is that more tokens will get locked away in a durable fashion, and more liquidity is provided.

9.4 Liquidity Pools

Liquidity plays an important role in any ecosystem; it brings a level of price stability. The Work X Foundation will take the following measures to bring that level up and keep it there:

- As a basis, the Work X Foundation will allocate a portion of the ICO proceedings as well as an equivalent amount of \$WRKX tokens to be locked in the liquidity pool.
- On top of that, investors can add funds to the liquidity pools, which increases the price stability. Staking NFT's increases this further.
- Investing in the liquidity pool will grant AP-tokens, which control that investment. A special reward program where these AP-tokens can in turn be staked against an attractive interest rate, which will compensate investors against short term price-swings.

9.5 Rewards as a Service

NFT's are used by the Work X platform to motivate people to invest in personal development. We do not want to keep this ability to ourselves, nor do we want to be limited by the amount of tokens allocated to it by the DAO. In order to share the capability to reward people for their achievements, the Work X platform will make this feature publicly available so that third parties can release their own reward series. These series can reward development in specific areas like indicators or even new profiles.

We can use this in a plethora of ways. For example, governments can incentivise people in their country or a specific region to develop themselves in a certain way, like technological proficiencies, or to combat a predicted shortage of school teachers. Companies can create an incentivisation schemes that are available only to workers within a company to develop certain capabilities. For example, a company may detect a need for more robust English amongst employees. It can then incentivise English proficiency to address the need. Assessment and development providers can create a progressive rewards system to engage their users. Imbuing the rewards with tokens is optional. This unique proposition makes the development process traceable, auditable and rewardable at a granular level.

10 Tokenomics

The \$WRKX token is intended to provide digital access to the platform by means of a blockchain-based infrastructure. In this paragraph we will shortly summarize the different use-cases to answer the question how the token has utility. In the near future we will present additional token use-cases so stay tuned!

- **Token Utility 1: Get Access to Platform Services**

To access the services offered by assessment-, education-, infrastructure- or other service providers on the platform, users need to possess the \$WRKX token.

- **Token Utility 2: Transaction Costs**

To cover the costs of maintaining this infrastructure, a fee is paid in \$WRKX. For example: when a user buys an assessment for 50 dollars, 3-5% of the total paid amount will be automatically swapped for \$WRKX tokens in the background to pay infrastructure providers (such as external chat, review or payroll software providers).

- **Token Utility 3: Development Incentives**

Because we want ‘The Internet of Jobs’ to be decentralized, and the platform has to be continuously developed, the token will also serve as a development incentive within the DAO treasury, for developers all around the world. When there is a certain development requirement, developers can earn \$WRKX tokens by completing the required tasks. More information about the transaction costs can be found in chapter 5 and 11. Furthermore, the \$WRKX token promotes personal development by incentivising users with token rewards for achievements. A staking mechanism will be introduced to provide liquidity and ensure relative price stability.

- **Token Utility 4: Collateral for Job Listings**

To make sure that all job listings comply with the code of conduct of the platform, tokens have to be deposited. To read more about this use-case please see chapter 6.

- **Token Utility 5: Staking discount**

Employers or service providers that make frequent use of the Work X platform can stake \$WRKX tokens by adding to the liquidity, to get a higher discount rate on the transaction costs for platform services. Since they are contributing more to the maintenance and continuation of the platform, they are important for the future of the platform and deserve to be rewarded.

- **Token Utility 6: Staking NFT’s**

When users get achievements on the Work X platform they will be rewarded with an NFT that holds an amount of bonus \$WRKX tokens.

When the user decides to stake these tokens and add them to the liquidity, they will be rewarded with an appealing APR on top of their bonus tokens. To read more about staking NFT's go to subsection 9.3.

10.1 Token Distribution and Fund Allocation

At the the Token Generation Event (TGE), the generated tokens and funds will be allocated proportionally to different use-cases and operations, as shown in Figure 8 and 9. In the "Vesting" column of Table 1 we can see the vesting period of each of these token allocations in months. Not only tokens bought by early buyers will have a vesting period, in fact the buyers have some of the lowest vesting periods while most of the foundations allocations vest over longer time frames. For example the DAO will gradually unlock it's funds over 5 years without any tokens being unlocked at TGE.

Allocated To	Percentage	Tokens	Unlocked TGE	Vesting
Seed Round	9%	9,000,000		18
Private Sale 1	7%	7,000,000		12
Private Sale 2	3%	3,000,000		6
Public Presale	3%	3,000,000		6
Liquidity	10%	10,000,000	2,000,000	24
DAO Treasury	15%	15,000,000		60
Platform Incentives	7%	7,000,000	350,000	60
Ecosystem Development	7%	7,000,000	350,000	60
Community	2%	2,000,000	500,000	48
Enterprise Adoption	10%	10,000,000	500,000	60
Marketing & PR	10%	10,000,000	500,000	36
Team	10%	10,000,000		24
Advisory Board	2%	2,000,000		24
Strategic	5%	5,000,000		12
Total	100%	100,000,000	13,700,000	

Table 1: Token Distribution

Spreading vesting over a significant amount of time makes it impossible to deplete the funds directly, and be left with a financial gap later. Unlocking these allocations at a slower-than-usual rate will increase the longevity of the project. Some allocations will unlock an initial amount of tokens at TGE in order to attract early buyers with a shorter horizon. However being prepared to have longer vesting periods is rewarded with a lower token price. The foundation also requires the allocations that are crucial to success to have initial financial capabilities, like being able to incentivise and reward users. The remainder of the tokens will unlock linearly during the vesting period. It is important to note that because the vesting period is linear, when the tokens unlock in a time scheme of six months, that this means the average unlock time per token is only three months. A person can, at any time, claim the tokens that have been unlocked up to that point in time. In effect, this means that for each blockchain block that is created, extra tokens become claimable until the vesting period is completed. Because of this, at TGE there will be a low amount of tokens in circulation. Please see Figure 10 for details about the release schedule.

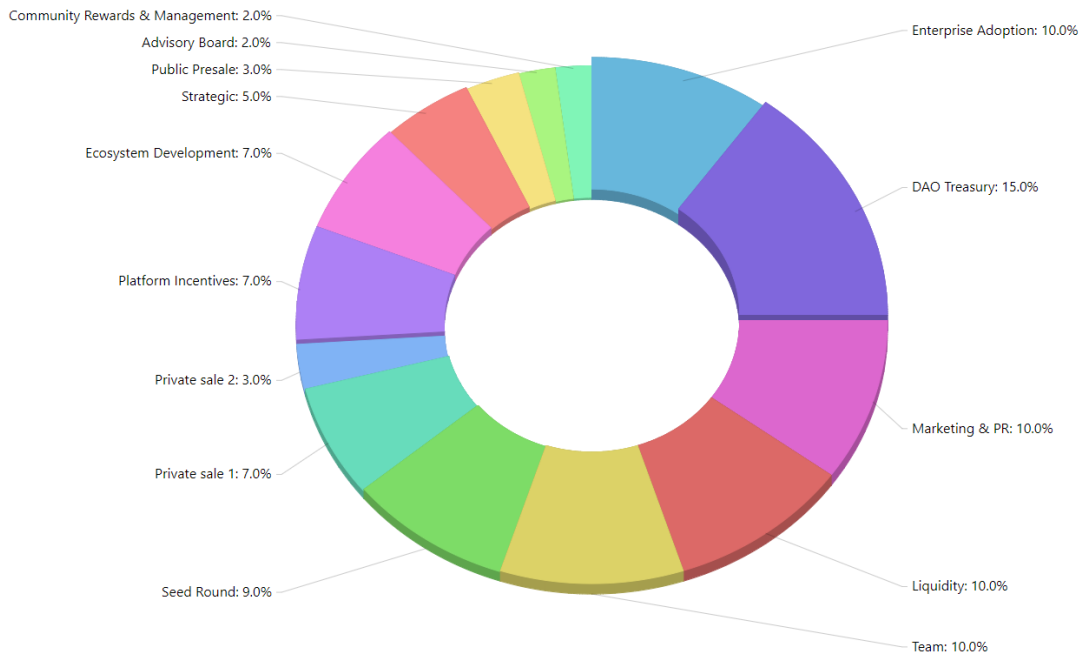


Figure 8: Token Distribution

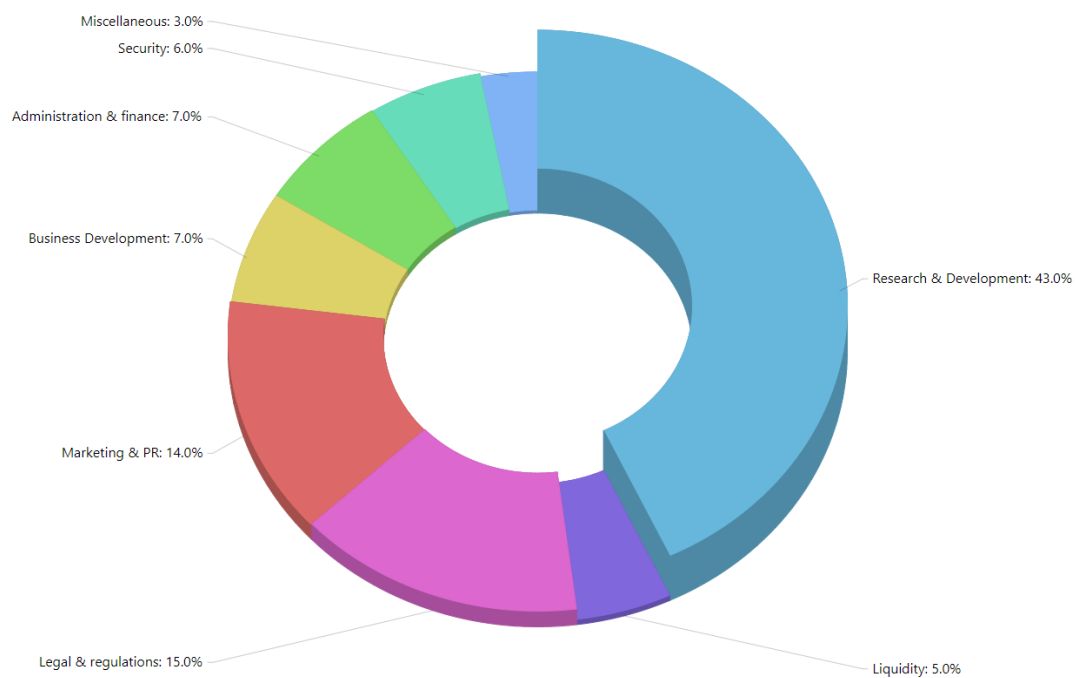


Figure 9: Fund Distribution

10.2 Token Release Schedule

The total supply of \$WRKX tokens will be limited to 100,000,000 tokens that will be released linearly over time. Token buyers will start vesting their tokens at the Token Generation Event and are able to claim their tokens at any given moment. Tokens will be streamed over time (per second!) and every token buyer will receive a compensation for the transaction costs that are required to claim the tokens. Given a projected listing price between \$0.70 and \$1, the market capitalisation of the project will be somewhere between \$2,900,000 and \$4,200,000 (based on the the circulating supply considering the long-term vesting and linear release of tokens).

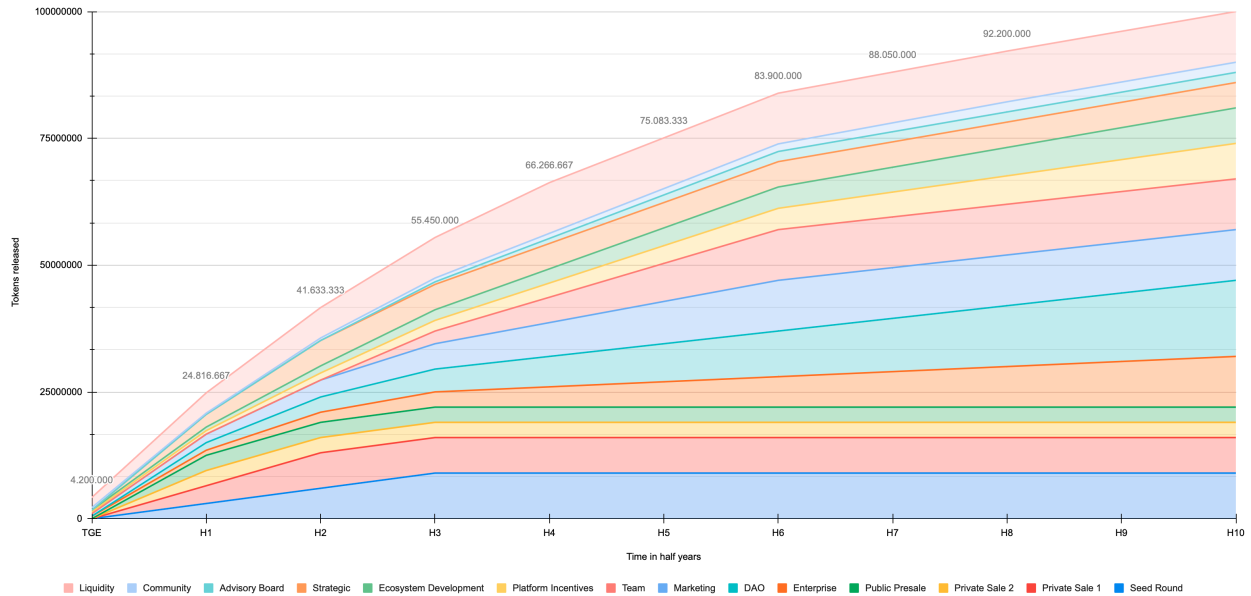


Figure 10: Token Release Schedule

10.3 Private Sale & ICO

For the private sale of the \$WRKX token, a pooling mechanism has been designed. The goal of this mechanism is to attract a large amounts of buyers who will be able to get early access to the services on the platform and test it. When a person receives a private invitation to participate in the sale, he/she has the ability to create a private or open pool. Within a private pool, only people that are personally invited by the pool owner can participate with a private URL. Within an open pool, everyone with the URL can participate and invite others. As more people join the pool and buy more tokens, the average price of the entire pool will decrease. For the Seed round the starting price will be \$0.24. When the pool collectively raises \$10.000, the token price for every pool participant decreases to \$0.23. Pools are capped at \$250.000 with a corresponding price of \$0.20. Every participant will be able to privately buy tokens, there is no need for a central administration or distribution intermediary.

Description	Seed Round	Private Sale 1	Private Sale 2	Public Pre-sale
Linear vesting	18 months	12 months	6 months	6 months
Price range	\$0.20 - \$0.24	\$0.35 - \$0.39	\$0.50 - \$0.54	\$0.65
Max amount of tokens	9.000.000	7.000.000	3.000.000	3.000.000
Round size	\$1.800.000	\$2.450.000	\$1.500.000	\$2.400.000

Table 2: Private Sale Pricing & Vesting

10.4 Blockchain agnostic approach

The \$WRKX token will be minted on the Ethereum blockchain and the Binance Smart Chain. However, Work X will be chain agnostic in the long term and we're actively exploring usage of Layer 2 solutions on Ethereum such as Arbitrum and Optimism. An important factor in the decision to focus on Ethereum first has been the developments within the SSI environment; many SSI wallets are running on Ethereum. It is our vision to integrate with many SSI wallets in the near future, ideally running on various different blockchains.

11 Payments

11.1 Fees to Cover Costs

For every transaction on the platform, a fee will be paid in \$WRKX tokens. This fee is used to pay:

- Platform costs (development and maintenance costs to run and maintain the platform, including referral and staking rewards) voted on by DAO.
- Blockchain transaction fees.
- (collateral) To prevent low-quality listings there needs to be collateral for listings that is returned when the vacancy is filled or cancelled.
- Users that stake their \$WRKX tokens will get a discount on the platform fees to decrease the cost per transaction, incentivising them to scale up their usage.

11.2 Means of Payment

Since the Work X platform will provide both traditional cloud products as well as decentralized services, different payment options will be available. Each of these paradigms has different common payment options. To bridge the gap between these worlds, we want to enable everyone to use the means of payment they prefer. If fiat is used for a crypto payment or vice-versa, higher-than-usual costs might apply due to multiple transaction steps. The Work X platform will advise what the cheapest means of payment is for each service, but the user is free to choose the option that serves them best.

We like to give a special thanks to Darius-Flavius Costas, for contributing to this whitepaper.

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