# White Paper

Peer-to-Peer Financial Protection based on Blockchain Technology



Note: Sagittae white paper is a living document. We are constantly upgrading our white paper to answer all your questions and provide all information you could possibly need before participating in our token crowd sale.
If you miss any kind of information, please reach out to us at info@sagittae.eu.
Version: 1.2 Updated: May 15, 2018

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# **Abstract**

The insurance industry has become an increasingly cost inefficient market sector. Large proportions of policyholders' premiums are spent on many other things than paying claims.

Sagittae introduces a new model of risk protection based on blockchain technology. It is a decentralized and revolutionizing alternative to traditional insurance, completely eliminating the need for expensive and bureaucratic insurance conglomerates and costly middleman (broker) structures.

We have decomposed the insurance value chain and created an entirely new system for risk sharing. In this system:

- affinity groups can organise their own financial protection through digital peer-to-peer contracts for risk sharing;
- service providers have the opportunity to do business with these groups; and
- real value, protection and stability is offered through the Mutual Custodian Fund.

# Introduction

Throughout our history people have been looking for ways to protect what is important to them. In small communities they took care of each other by agreeing to put some of their earnings aside to provide for financial help for those who were confronted with a unexpected loss event. For instance, a farm that



went on fire or crop being destroyed. The rules were simple and democratically established. These mutual structures were the first and most basic form of risk sharing.

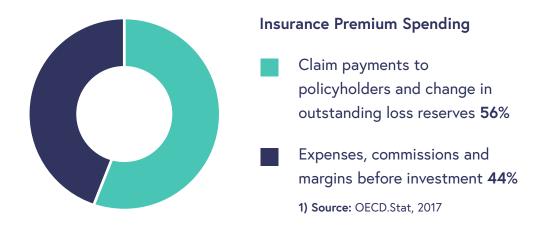
As society grew, developed and became more complex, the need for risk protection increased accordingly. The role of the early mutual funds was taken over by large insurance companies that were able to raise enough capital to keep up with this continuously increasing demand for financial risk protection.

This also meant the introduction of a new group of participants into the system. Namely, shareholders. As providers of the capital of the insurance companies, their major concern was a maximum return on their investments. The insurance company making a profit was therefore essential, and paying claims to policyholders didn't help much to realize this goal.

Obviously the interests of the insurance company's major stakeholder groups – shareholders and policyholders – did not match. The natural alignment between all participants as it used to exist in the early mutual funds, ceased to exist. Also the cost effectiveness of the mutual funds, that was driven by the common goal of all participants to keep contributions as low as possible, vanished.

# **Insurance Market Today**

This situation, unfortunately, is still today's reality. People that are looking for risk protection, hand over their premiums to large and powerful insurance conglomerates to buy an insurance product. Globally an immense amount of 4.5 trillion on an annual basis<sup>1</sup>. A substantial part of these premium payments is however spent on many other things than paying claims to the policyholders. Typically insurance companies spend a substantial part of their premium income on their immense labour force, multiple (redundant) management layers, legacy IT systems and costly middleman structures.



And, as far as the value of the insurance products offered is concerned. Policy contract wordings are exclusively developed and drafted by the insurance company, and contain not surprisingly many conditions, exclusions and participation restrictions. The policyholders - the reason that the company exists in the first place - have little to none influence on these terms and conditions. The beneficial consensus model of the early mutual funds seems to have gone forever.

# The Opportunity

However, we are on the verge of a major and disruptive change in the insurance industry. New technology allows us to reinstate these favourable and cost effective mutual fund structures, but this time on a global scale and open to everyone.

# Introducing Sagittae

### P2P Platform for Risk Protection

Sagittae allows and helps affinity groups to create or join digital peerto-peer contracts for risk sharing.

These peer-to-peer risk protection schemes:

- don't require any profit driven central organisation such as an insurance company;
- have no shareholders; and
- function without expensive middle man firms.

#### Instead:

- they only govern the mutual relationships of their participants;
- · fund their own capital needs;
- work with fair terms and conditions based on participants' input and consensus; and
- are open to anyone that seeks financial protection worldwide, even in developing countries.

# How it all works

## Introduction

We have been analysing the traditional insurance market's value chain, and think that the solution to the many (cost) inefficiencies, lies in decomposing and rebuilding it in a decentralized way. This is exactly what we did, and the key building blocks of the ecosystem that emerged include:

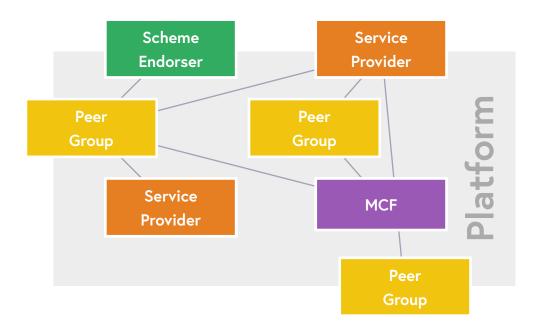
- Peer-to-peer risk sharing groups (P2P groups)
- Service providing businesses
- Endorsers
- Mutual Custodian Fund (MCF)

# Decomposing the value chain

Traditional insurance value chain



# And rebuilding it



## **P2P Groups**

P2P groups for risk sharing are the core elements of the system. These groups basically fund their own capital needs and function autonomously. The Sagittae website lists all risk protection schemes that have been created by P2P groups. Each scheme addresses and covers a specific type of risk and defines the terms and conditions, as well as the contributions that participants have to make to cover this risk. There can be an unlimited number of schemes.

People can search and browse the list of schemes to find the one that fits their needs, or can create a new schemes themselves. In case of a new scheme, a sophisticated web based tool provides smart guidance on important elements of the scheme such as terms and conditions and the financial contributions needed to cover the risk. In this way all schemes comply with the pre-defined technical underwriting rules and standards that ensure proper functioning and continuity of our schemes.

To facilitate team collaboration and communication, the website includes a user forum and a system to vote on product features. Peer groups can range from small to very large and they can be open or closed, all depending on the initiator's preferences. Technically there are no restrictions as the blockchain technology that we use, facilitates unlimited worldwide access and participation.

### Service Providers

Although our P2P schemes can run autonomously, in many cases services are needed from a third party to function properly. These can be hands-on services like claims handling, but also financial services such as providing an excess layer of risk protection to a scheme (i.e. coverage to a catastrophic risk event).

When a P2P group decides to use these outside services, the group enters into a direct relationship with the (financial) service provider. Sagittae facilities this process and safeguards the quality of the services provided, continuously.

The creation of P2P schemes encompasses a great business opportunity for many service providers, but high standards of service are needed to protect the overall integrity of our system. All service providers therefore need to go through an accreditation process before getting listed on the Sagittae website.

Depending on the complexity and size of the scheme, the following service providers might be involved:

- Claims adjusters
- Technical risk consultants
- Insurance advisors
- Insurance carriers or syndicates (as providers of excess of loss contracts)
- Loss control experts
- Object valuators
- Actuaries
- Medical advisors

# Service providers



#### **Endorsers**

Endorses are persons or organizations that take on the role and responsibility to the initiate, support and develop P2P schemes. As our platform is open, any member of an affinity group can create a scheme, and start promoting it. But most commonly this is done by a professional organization that is able to allocate some time, expertise and resources to it. In many cases the endorser is also a trusted member of the affinity group (i.e. an independent insurance consultant that is a well-respected member of a classic car club).

## Mutual Custodian Fund (MCF)

The Mutual Custodian Fund (MCF) is another important building block of the Sagittae ecosystem.

All transactions on the platform take place in STAE-tokens, Sagittae's proprietary digital currency. This truly ensures global and unconditional access to our risk protection schemes. Although the acceptance of digital currency is growing rapidly, people that receive STAE-tokens as a loss reimbursement payment under a P2P scheme, will need flat currencies like Euros or US Dollars to replace their damaged goods or to take care of their families in case the unforeseen loss event happens.

STAE-tokens can obviously be traded for flat currencies at major crypto currency exchanges, but today's reality is that these exchange rates can be extremely volatile. We strongly believe that this is not the way, and that benefits paid under our financial protection schemes are far too important to be subject to this volatility. We have created a solution that offers maximum security to those that get reimbursed under Sagittae's protection schemes.

#### How does it work?

The MCF guarantees to recipients of loss reimbursement payments that their STAE-tokens are exchangeable for major flat currencies at a fixed rate. This guarantee applies to all protection schemes that are listed on the Sagittae website. There is no obligation. If an eligible holder of STAE-tokens prefers, tokens can also be traded on any major crypto currency exchange worldwide. The token holder might obviously do this if the STAE-coin market rate is higher than the rate that the Custodian Fund offers.

The Custodian Fund is a separate legal entity, holding several fiat currency escrow accounts. The corporate charter of this entity is public. Even if Sagittae would cease to exist, the fund would still be able to fulfil its obligation to exchange STAE-tokens that are in circulation.

### How can the fund guarantee this?

Every time that a STAE-token is issued into circulation, Sagittae exchanges a substantial part of the proceeds into fiat currency and deposits this amount into the fund. This money stays there until the moment it is being called upon by a holder of STAE-tokens that exercises his or her right to exchange the tokens back to fiat currency.

The tokens that are taken in by the fund at this exchange transaction, can be reissued into circulation again. In that case a new reservation in flat currency is made, to guarantee another exchange of these tokens in the future. This revolving mechanism ensures that the flat currency reserves of the fund are continuously and exactly aligned with the supply of tokens that circulates in the system.

# The Technology behind

#### **Smart Contracts**

Each peer-to-peer protection scheme that is published on the Sagittae website links to a smart contract on the Ethereum blockchain. This smart contract runs the protection scheme exactly as programmed without any possibility of downtime, censorship, fraud or third-party interference. Peers enter into this contract by putting an amount of STAE-tokens into their digital wallet. It remains in their wallet to be called upon if anyone else in the team suffers a loss and makes a legitimate claim.







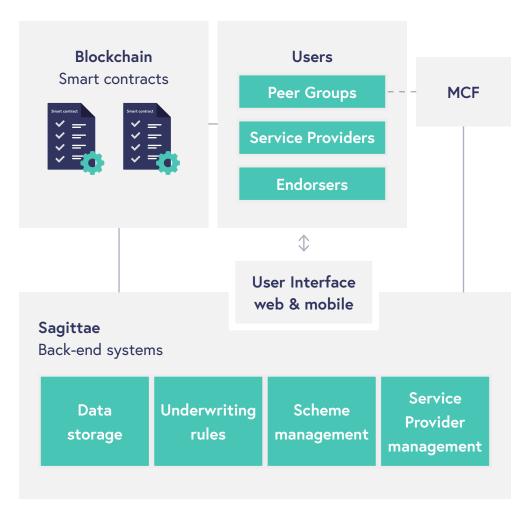




In that case the smart contract automatically executes the predefined rules to move the money around the peer group to reimburse the one that has suffered a loss. Peers only pay when a claim is made and nobody carries an exposure greater than the amount they put into their digital wallet.

The contract is completely transparent and without any cost loadings other than fees for services that the team itself decides to outsource to a third party. The contract runs completely autonomously which ensures guaranteed payment of approved claims to participants that have suffered damage or injury.

## **Technical Architecture & Infrastructure**



# **Marketing Strategy**

## **Target Audience**

Affinity groups can - and we believe should - be defined very broadly as a specific groups of people which have something in common. Globally there are thousands of such affinity groups. People in a specific profession, students, small business owners, golfers, dog owners and so on. We strongly believe that these groups are the perfect candidates for our P2P protection schemes.

### Reasons why

- Affinity groups have specific needs, and our system allows them
  to design their risk protection schemes themselves. No one
  than the group itself, is in a better position to make decisions
  on type of risk coverage and terms and conditions. The product
  created in this way really meets customer needs, unlike
  traditionally top down developed insurance policies.
- As group members can see that a real value proposition has been created, they are very well prepared to spread the message. Through the power of social networks, this can be done easily and rapidly.
- People are more likely to do business with people they know, like and trust. Our P2P schemes provide this trusted environment, and facilitate mutual transactions. This common ground also contributes to higher customer retention and loyalty.
- Marketing expenditures can be specifically targeted at niches.
   This is far more effective than the huge general marketing campaigns that traditional insurers deploy to push their products into the market.

## **Endorsement Program**

In many cases affinity groups have established some kind of organisational structure, or are affiliated through commercial institutions such as banks, large retailers or airline companies. Also, insurance consultants may have special access to an affinity group, most likely as a trusted member of that group. All of these different organisations and persons can act as P2P scheme endorsers.

These endorsers initiate, support and develop a risk schemes for their member or customer base. Setting up and developing such a scheme requires time and efforts. All group members will benefit from this, so we recognize that endorsers could be rewarded for this by the peer group.

Our scheme design tool, therefore, includes an option for a fair fee to the endorser. The fee amount is however subject to strict rules and limitations, as we want to avoid schemes that carry excessive and unrealistic fees for endorsers. Our mission is to provide a system that is beneficial to all participants, and we don't want to return to the disproportionate cost loadings of traditional insurance policies.

## **Business Development**

The first P2P schemes will be initiated as proof of concept by Sagittae, in close cooperation with representatives of the selected affinity groups.

#### Launching Partners

Our launching partners are Nessa Hearing and Tigas Alliance, both located in the Asia Pacific Region. After successful deployment of the proof of concept schemes, a major promotion campaign will be launched to roll out the concept globally.





Future development will include targeting of major global affinity groups. For instance, the feasibility of a worldwide scheme for pilgrimage participants to Mecca is currently being studied. This massive event is undertaken by 2 to 3 million people each year. Being able to offer a peer-to-peer solution to this group instead of a traditional insurance program, is vitally important for religious reasons.

# **Token Model & Economy**

We are in the business of risk sharing, and this undoubtedly works best if the risk is spread over a large number of people in different geographical locations. For this reason multinational schemes may perform very well, but are also likely to face serious challenges such as multiple jurisdictions, legal systems and currencies. The use of digital coins and smart contracts solve these problems to a great extent and ensure truly global and unconditional access to our risk protection schemes.

We have created the STAE-token as the digital currency for our system. It is a generic utility token, created on the Ethereum blockchain, that complies with the widespread ERC20 standard. The token facilitates all transactions within our P2P schemes, as well as any transaction between peer groups and accredited service providers.

#### Value of the token

#### STAE-tokens:

 are very different from typical crypto currencies as they have real underlying value through the backing of major flat currency reserves in the MCF;



- will gain in value in a controlled manner over time, because of the growth of our ecosystem and the closely correlated demand for tokens; and
- will lack the excessive volatility in price as seen with many other crypto currencies, due to the stabilizing effect of the MCF as a major player in the crypto currency exchange markets.

# Token Crowd Sale

We consider initial coin offerings (ICO's) as a valuable alternative form of crowdfunding outside of the traditional financial system, but we have serious reservations about ICO's as they are typically done today. We have studied many of them and don't believe that they are in every ones best interest.

ICO's raise many millions in a single event, while projects are still in a very early stage or haven't even started. Generally vast amounts of tokens are allocated to large numbers of founders, advisors and other pre-ICO participants, seriously diluting the value the tokens of ordinary participants. Furthermore, by having all funds raised upfront, no real incentive is left for the team to deliver on further development of the project

## Token Crowd Sale in 3 stages (ICO 2.0)

We believe that projects can only be successful if everyone's interest is aligned. For this reason we introduce a token crowd sale in multiple stages (or rounds), all linked to the development stages of the project. Each round will be subject to a successful delivery on the project plan's milestones.

Token crowd sale	Tokens issued	Token price	Project phase	Use of funds
Round 1	1.000.000	USD 1.20	Start up  May 2018 – January 2019  Building IT platform  Establish Mutual Custodian Fund (MCF)  Proof of concept schemes  Sign up 1st service providers	<ul> <li>IT platform development 45%</li> <li>Operating expenses 20%</li> <li>Legal advice 13%</li> <li>Actuarial, risk &amp; other consultancy 12%</li> <li>Marketing 10%</li> </ul>
Round 2	5.000.000	USD 1.56	Rollout February 2019 – December 2019 Launch POC schemes Global promotion campaign List STAE-token on major crypto exchanges	<ul> <li>Contribution to MCF 50%</li> <li>Marketing 35%</li> <li>Operating expenses 6%</li> <li>IT platform 5%</li> <li>Legal advice 2%</li> <li>Actuarial, risk &amp; other consultancy 2%</li> </ul>

Round 3	15.000.000	T.B.A.	Grow	Contribution to MCF 86%
			2020 and beyond	• Marketing 5%
			<ul> <li>Global business</li> </ul>	• IT platform <b>4</b> %
			development	<ul> <li>Operating expenses 3%</li> </ul>
			<ul> <li>Ongoing enrolment of new</li> </ul>	• Legal advice 1%
			P2P schemes	<ul> <li>Actuarial, risk &amp; other</li> </ul>
				consultancy 1%

## General crowd sale information

(applicable to all rounds of token sale)

Token	Utility, ERC20	
Symbol	STAE	
Accepted currencies	Multiple Crypto and Fiat Currencies.	
Total supply	40.000.000	
Token price	1 STAE = 1.20 USD (initial price)	

- STAE tokens are denominated in US Dollars (USD), and can be
  acquired using various crypto currencies and USD. To protect
  contributors that crypto currency (with high volatility), the
  STAE-token rate against the crypto currencies will be adjusted
  continuously, in order to maintain its peg rate to the USD. In this
  way, every participant is treated equally, and acquires their
  STAE-tokens at the same price, regardless of the price of the
  Ether, Bitcoin etc. at that moment.
- A separate terms & conditions document is available on our website.
- Contributors need to register to buy tokens, to comply with KYC, AML regulations.

#### Round 1 (Start-up)

Funds raised will be used to build the IT platform, and to establish the Mutual Custodian Fund (MCF). We will work with two selected affinity partners to create and test two proof of concept risk schemes. No funds will be allocated to the MCF, as there will be no schemes running live at this stage. Also, the first group of service providers is added to the system.

- Sale period: May 16 June 15, 2018.
- Sale price: 1 STAE = 1.20 USD.
- Cap USD 1,200,000 USD
- Minimum contribution: 50 USD
- There is a soft cap of USD 700,000. If the soft cap is not reached, contributions are refunded.
- If soft cap is reached but less than USD 1,200,000 is collected, any unsold tokens will be added to the reserve pool.

### Round 2 (Rollout)

At this round, we are raising funds for a global promotion campaign, as the platform is now fully operational, including two P2P schemes being deployed as proof of concept. With risk schemes gone live and new business coming in, loss reimbursement payments can be expected, so a significant part of the proceeds of this sale is transferred to the Mutual Custodian Fund. At this stage, we will also take action to get the STAE-token listed on major exchanges.

- Sale period: January 2019 (exact dates to be announced).
- Sale price: 1 STAE = 1.56 USD.
- Minimum contribution: to be announced.
- Any unsold tokens will be added to the reserve pool.

#### Round 3 (Grow)

In this stage we are a fully blown organisation and ready for worldwide expansion. New P2P schemes will be added daily. Vast majority of funds in this stage are used to keep the MCF's flat currency reserves in line with the growth of the evolving ecosystem.

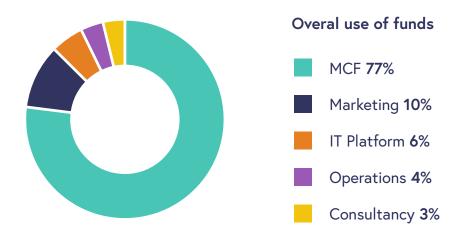
- Sale period: First quarter 2020 (exact dates to be announced).
- Sale price: Token cost will be determined by the token market price.
- Minimum contribution: to be announced.
- Any unsold tokens will be added to the reserve pool.

### Token Allocation and overall use of Funds

Approximately half of the total token supply will be issued into circulation in 3 rounds, over a period of 24 months. Tokens allocated to reserve pool will only be issued into circulation if future growth of the platform justifies and requires this. Tokens allocated to the team are vested until the 3rd round of the crowd sale.

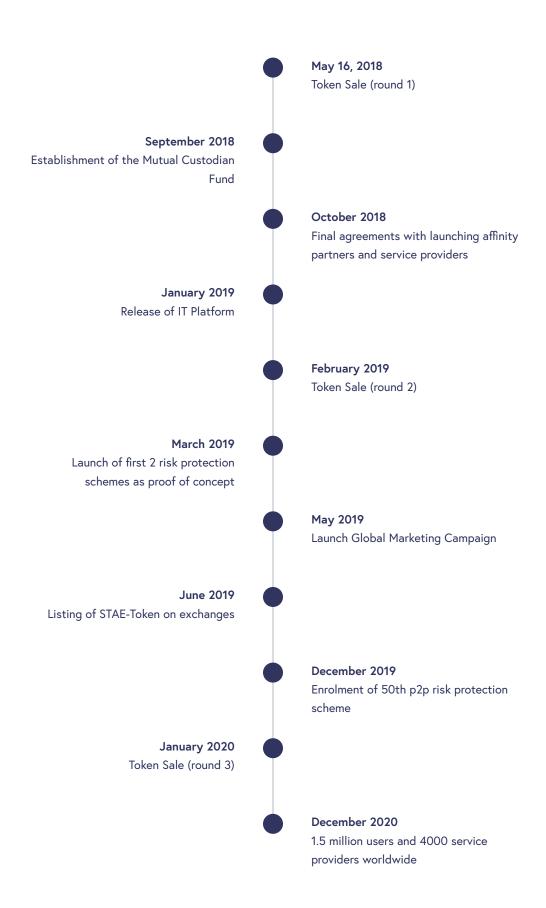


The overall proceeds of the token crowd sales are predominantly used to feed the fiat currency reserves in the Mutual Custodian Fund (77%). This is vastly different from other crypto currencies initiatives. The fund's substantial financial reserves - forecasted to reach 29,1 million Euro after token crowd sale, round 3 - can be seen as shared asset by all token holders.



For details on spending of funds per financing round, we refer to the project phase schedule.

# Roadmap



# Company

#### Revenue Model

The building blocks of our revenue model are:

#### Token Sales

Although the majority of token proceeds is contributed to the MCF, the token price includes a fair margin for the platform's running expenses.

### MCF Management fees

MCF is an important building block of our ecosystem. The fund's vast financial reserves need to managed prudently. Financial expertise is also needed as the MCF is an important player on global (crypto) exchanges.

### **Special Projects**

Larger and more complex affinity organisations may have very specific requirements. Fees will be generated from developing and delivering these bespoke (IT) solutions.

#### **Big Data**

Our underwriting algorithms work with enormous amounts of data for predictive statistical modelling. While respecting our users privacy and interests, our increasing data collection will prove to be an enormous income opportunity in the future.

## Company Ownership and Structure

Sagittae Financial Services B.V. is incorporated in the Netherlands as a limited-liability company. Ownership lies with the founders. The legal structure and formal place of registration of the Mutual Custodian Fund are to be determined. This fund will be managing very substantial amounts. In the first phase of the project, significant budget is therefore allocated to legal and financial consultancy to ensure proper and compliant establishment of the fund.

## Core Team



Robert Volkert CEO



Ton Wennekendonk

Sagittae is founded an led by Robert Volkert and Ton Wennekendonk. With their many years of experience in the international insurance industry at senior management positions, they have built a team that is ready and capable to take this next step in the evolution of the insurance industry.

They bring vast expertise in the field of affinity group insurance, which is a crucial element of this concept. In the very early days of the world wide web, Ton developed a huge global affinity scheme for international exchange students, being one of the first real use cases of distributing insurance over the internet globally.

In Asia, Rob worked with the National Girl Scouting Association of the Philippines, and successfully implemented a massive accident & health insurance scheme with over 600.000 members.



Randi Cigelnik Legal Advisory Board

Randi is a highly respected attorney with a demonstrated history in the international insurance market. She served as general counsel for Property Casualty Insurers Association of America and general counsel for AXIS Capital. Prior to that, she spent 12 years with the ACE Group in Bermuda and London.



**Alexander Remie** Principal Blockchain Developer

Alexander heads the software development team. He is an expert in Blockchain driven solution development, and very keen to leverage new technologies in real-life software solutions.



**Jan Hooper** Actuary

Jan has a wealth of experience in the actuarial field. She worked for major financial institutions such as ING, Aegon and Achmea. Jan plays a crucial role in the development of the platform's underwiting models and algorithms, as well as the set up of the Mutual Custodian Fund



Javeria Ghuman Legal & Compliance Officer

Javeria is a highly skilled young professional. She guards essential elements of the project such as AML/CDD/KYC. She also acts a project lead for the establishment of the Mutual Custodian Fund



**Ching Wen Wong**Business Development
Director Asia

Chin Wen is a seasoned insurance professional based in Singapore. Many concrete opportunities to roll out our concept have been identified in the Asian region. Ching Wen and her team are strongly committed to capitalize on these.

# Legal and Compliance

Sagittee is not a licensed insurance company, and we have no aspirations to become one. We are an organization that facilitates the creation of digital P2P contracts for risk sharing, and allow insurance related businesses to offer their services to these structures. The service providers are independent entities and have an individual responsibility to comply with all relevant regulations in their respective jurisdictions. We on our side take responsibility by implementing an accreditation process for service providers.

The P2P contracts themselves are created on the Ethereum blockchain, and people that enter into these contracts typically originate from many different nations and hence legal systems. Notwithstanding everyone's personal responsibility, we - as the facilitator of these schemes - will make utmost efforts to guide and advise our users on legal aspects during scheme creation. Being aware of the complexity of this matter, we have allocated sufficient funds to legal advice.

# Conclusion

Our system allows people to organise their own financial protection, at a fair price and with simple rules. It is accessible for anyone worldwide and it opens up new possibilities for businesses to offer their services. The Mutual Custodian Fund ensures overall value, protection and stability. We are an open ecosystem that provides value to all users. It will naturally grow and evolve as all participants have a major say in its development. Through the STAE-token every user will benefit from the project's future growth and revenue.



We are Sagittae, the zodiac constellation Arrow. It is pointing at the future. We go for this opportunity, and we gladly invite you to join us.

### Disclaimer

This document is a technical whitepaper setting out the current and future developments of the Sagittae P2P Platform by Sagittae Financial Services B.V. (Sagittae) and the release of the STAE-tokens for use on the Sagittae P2P Platform. This paper is for information purposes only and is not a statement of future intent. Sagittae makes no warranties or representations as to the successful development or implementation of such technologies and innovations, or achievement of any other activities noted in the paper, and disclaims any warranties implied by law or otherwise, to the extent permitted by law. No person is entitled to rely on the contents of this paper or any inferences drawn from it, including in relation to any interactions with Sagittae. or the technologies mentioned in this paper. Sagittae disclaims all liability for any loss or damage of whatsoever kind (whether foreseeable or not) which may arise from any person acting on any information and opinions relating to Sagittae, Sagittae P2P Platform, the issue of STAE-token or any other information contained in this paper or any information which is made available in connection with any further enquiries, notwithstanding any negligence, default or lack of care.

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