

# Backed Protocol



*A decentralized and trustless insurance platform*

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# 1 Introduction

## 1.1 Blockchain and security: tomorrow's insurance

Despite its enormous potential, we must note that the blockchain craze is as of now mostly speculative: extreme volatility in cryptocurrency trading makes it very attractive for investors to trade on the crypto markets rather than on the stock market. How many amateur traders are not day-dreaming of the huge profits made possible in this universe? Unfortunately, many are caught up by the harsh reality of high volatility, that is, potential losses commensurate with the expected gains.

Here are some figures: between the different phases of the global cryptocurrency cycles, their average daily volatility since 2017 varies from 2 to 10 %. To compare, the average daily stock market volatility stays always well below 1%. In 2018, the 71% bitcoin crash is also one of the highest collapses of a refuge value in History...

In the face of this reality, it is high time to use the incredible technological potential of blockchain to bring to cryptocurrency traders new ways to face these risks. Just as for traditional stock market, the world of cryptocurrencies deserves its own serious insurance structure, giving it more legitimacy and maturity in the eyes of the world.

It is from this perspective that we have defined and developed Backed Protocol: the first insurance platform for cryptocurrency trading, thought by and for traders. With our decentralized concept, each user has the ability to customize his own insurance contract in order to protect his assets... or to become an insurer himself, and develop new business opportunities !

## 1.2 Our vision of a decentralized insurance

Today, the world of insurance is extremely large, and it touches on almost every aspect of our society. This is a pillar of the modern world, allowing any individual, company or even nation to protect themselves against all kinds of unpredictable events. Dominated by giant companies, supported by a state that cannot exist without it, this system is today completely centralized: whether it is for an average citizen's health insurance, or for the 6-digit insurance covering a big business, all the risks and benefits of ensuring are controlled by a few huge centralized insurance companies.

This system has, of course, advantages in today's also centralized world ... but we think that by creating a new insurance model in such an innovative and revolutionary environment like the blockchain's one, we have the opportunity to change the rules of the game by redefining this concept, in order to give our users more weight and freedom over their own insurance policies.

So we decided to use blockchain to redefine the functioning of the insurance contract itself. A Backed insurance contract is executed by a smart contract between two private parties, that hold respectively the roles of insured and insurer. The individualization of this last role, traditionally exercised by a centralized insurance mutual, allows:

**The independence of insurance contracts over Backed Protocol itself :** Our decentralized platform simply exists to facilitate contact between insured persons and insurers, and to provide them with the technology necessary for the execution of their insurance contract: Our users keep a total control over their contracts.

**A great flexibility in contract creation** : The contracts parameters are defined freely in the form of proposals by our users. The proposals are then listed and regulated by the laws of supply and demand on our platform.

In other words, it is the value given to both the insurer and the insured that defines the value of an insurance contract. This guarantees contract proposals to stay naturally aligned with the needs of the users.

**opening of insurance selling to users**, For the first time in insurance history, any user can become himself an insurer: he has the opportunity to multiply contracts and gain an income from insurance premiums, in order to develop his own insurance business !

Today, we're focusing our insurance model on cryptocurrency trading, because it is a privileged sector for a decentralized blockchain project. But in the long term, we have several other perspectives for Backed Protocol: find out more in our **Roadmap**.

## **2 Glossary**

### **2.1 The insured**

There are two types of users on our platform, the first of which is the insured. On Backed Protocol, any cryptocurrency owner who has the Metamask extension linked to his Ethereum account will be able to insure his positions, either by creating his own contract proposal or by joining an existing one.

In exchange for the regular payment of an insurance premium, the insured benefits from an insurance coverage to compensate for the devaluation of his tokens.

### **2.2 The insurer**

The second type of user on Backed is the insurer. Just as the insured, the insurer can create his own contract proposal or join one that suits him. The insurer can also manage multiple contracts at the same time if he wishes to do so.

The insurer plays a complementary role to the insured: he provides an insurance coverage to insure a position, and receives in return the insurance premiums paid by his partner.

### **2.3 Our decentralized insurance contracts**

In order to ensure the safety and effectiveness of an insurance contract, our platform is using an automatized smart contract.

When two users (an insured and an insurer) agree on a contract proposal, our smart contract will execute its clauses in an automatic, transparent and decentralised way. In addition to a fast execution, this technology ensures compliance to every clause of each contract.

### **2.4 Insurance covers**

As in a conventional insurance system, the insurance cover is the amount paid to the insured by the insurer as compensation in case of losses. On our platform, the value of the insurance cover is defined freely by the creator of the contract proposal.

For the smart contract to begin to execute the insurance contract, the insurer must deposit his insurance coverage directly there. For stability issues, this sum is obligatorily provided in stable coin, thus not subject to market fluctuations.

## 2.5 Insurance premiums

Insurance premiums are paid at regular intervals to the insurer by the insured, as remuneration for the provision of the insurance cover. Frequency of payments and value of premiums are defined by the creator of the contract proposal.

Since the premiums are paid outside the smart contract, it uses an oracle to ensure that they are paid in accordance with clauses. Insurance premiums are paid in native token Backed (see **Platform fee**) for maintenance of the platform's internal economy

## 2.6 Contract guarantee

The contract guarantee is the third value defined at the creation of the contract proposal. Provided by both the insured and the insurer directly into the smart contract, it guarantees one's compensation in case of a contract breach by the other partner. The contract guarantee is paid in stable coin.

On Backed Protocol, everyone is free to opt out of any contract prematurely, if he so wishes, provided he agrees to pay its contract guarantee to the other party as compensation.

## 3 Insurance contract process

### 3.1 Establishment and application of the insurance contract

#### 3.1.1 Creating and Listing a Contract Proposal

When a user wants to create his own contract proposal on our platform, he's free to modify all its parameters according to his objectives. Thus, he can define:

the insured cryptocurrency pair (e.g. ETH/BTC)

the maximal loss threshold

the contract duration

the insurance cover value

the contract guarantee value

the insurance premiums value

the premium payment frequency

*Example: If an insurer's objective is to create a contract over the long term for a pair he considers reliable, he can define low insurance premiums, but a longer contract duration and a big contract guarantee (thus deterring its partner from breaching the contract).*

*On the other side, if a trader wants to insure a volatile position on the short term, he can define a low contract guarantee (allowing it to easily retract if it wishes to close its position), but a high premium to be sure to still attract an insurer.*

To guide our users in setting their contract proposal, our platform offers a listing of the most popular contract templates amongst the community.

When the contract proposal is created, it is saved on the blockchain via our smart contract. Users at search for a contract then have at their disposal two lists to browse: one presenting the insured's proposals, the other the insurers.

By selecting the offer he is interested in, the second user enters in insurance partnership with its creator via a smart contract. Both the insured and the insurer place then their contract security into it. The insurer also places the sum in stable coin serving as an insurance cover. The smart contract can then begin executing the insurance contract !

#### 3.1.2 Contract application

The smart contract begins then to execute the insurance contract according to its terms. As long as all the terms of the contract are respected, the contract continues to apply by default.

Our smart contract uses an oracle, which transmits certain external data necessary for the application of the clauses. These data are:

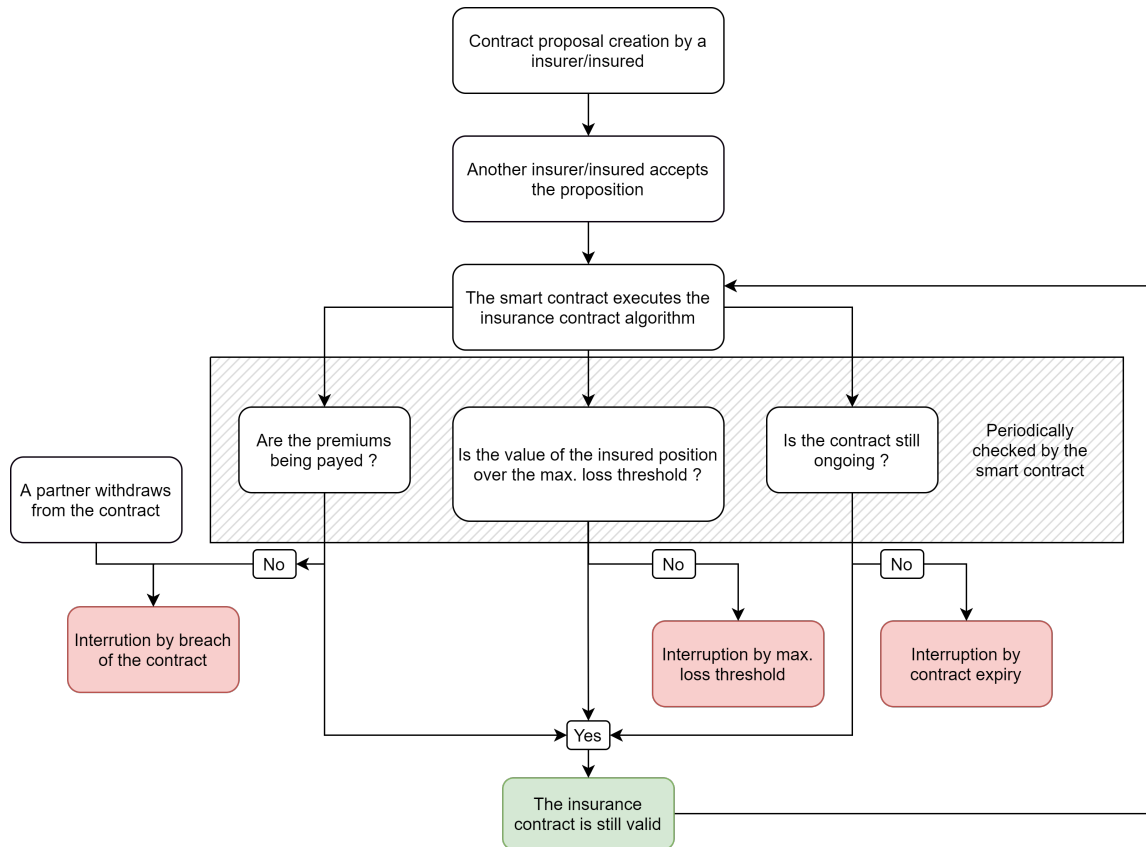
The market value of the insured pair. Every 24 hours, the oracle checks the daily average of the position price, which protects the contract against a potential " flash crash" causing a price collapse and recovery on a very short period

The confirmation of the regular payment of insurance premiums

### 3.2 End of the contract

There may be several reasons for the ending of a insurance contract:

Fig. 1: Decentralized insurance contract algorithm





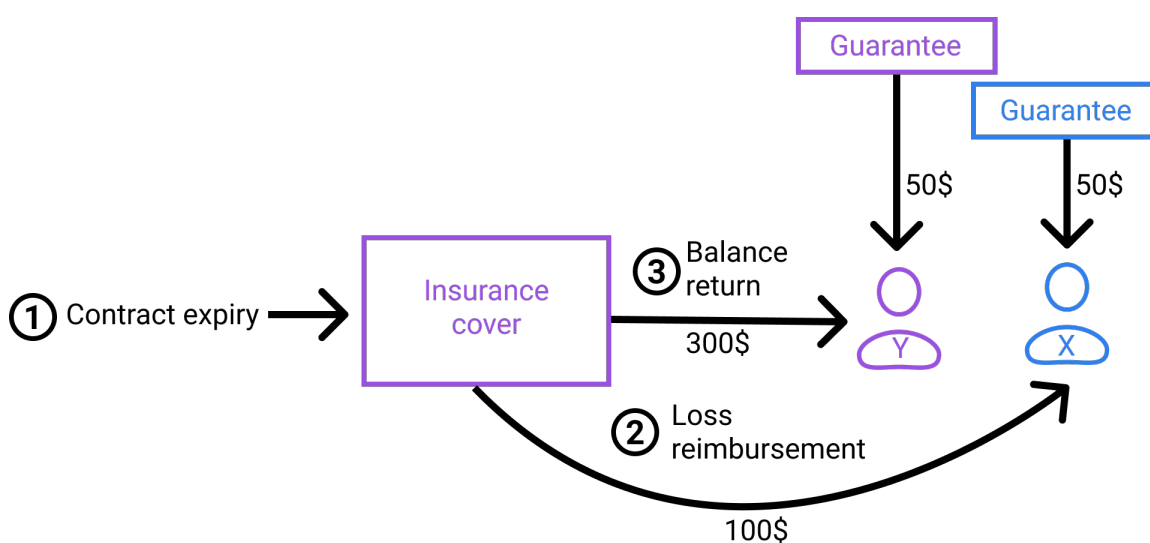
### 3.2.1 Contract expiry

On Backed Protocol, any insurance contract is given an expiry date by its creator who defines the contract duration. When this date is reached, the insurance contract ends.

Before finishing, the smart contract uses the oracle to check the price of the insured's position one last time. If it is at loss, the smart contract pays the insured the share of the cover that is compensating this loss. The balance of the insurance coverage is then returned to the insurer.

If the insured position is at its original value or at profit, the entire insurance coverage is returned to the insurer. Both the insurer and the insured also recover their contracts guarantees.

Fig. 2: Contract expiry



**Example:** Mr. X owns 1000 token TEST, 1 TEST being worth 1 USD: Mr. X's position is therefore worth 1000 USD. Mr. X created a custom contract proposal on Backed Protocol as an insured, which includes the following clauses:

*Mr. X insures his position of TEST token at 40 % loss for a period of 10 months.*

*The insurance coverage for this contract is therefore 400 USDT stable coin, which is equivalent to the maximum loss threshold.*

*The contract guarantee deposited by X and its insurer is of 50 USDT each.*

*The insurance premium, payable monthly, is of the same amount as the contract guarantee.*

*A second user, Mr. Y, accepts the contract, which is then applied for 10 months.*

*At the end of the 10 months, Mr. X's insurance contract expires: the price of TEST at this time is USD 0.9, giving the insured position a value of 900 USD, which means a depreciation of 100 USD or 10%. The oracle reports this price to the smart contract, which deducts 100 USDT from the insurance cover that he pays to Mr. X in compensation.*

*The remaining USD 300 of the insurance coverage are returned to the insurer. each contract guarantee each is returned to its owner, and the smart contract ends.*

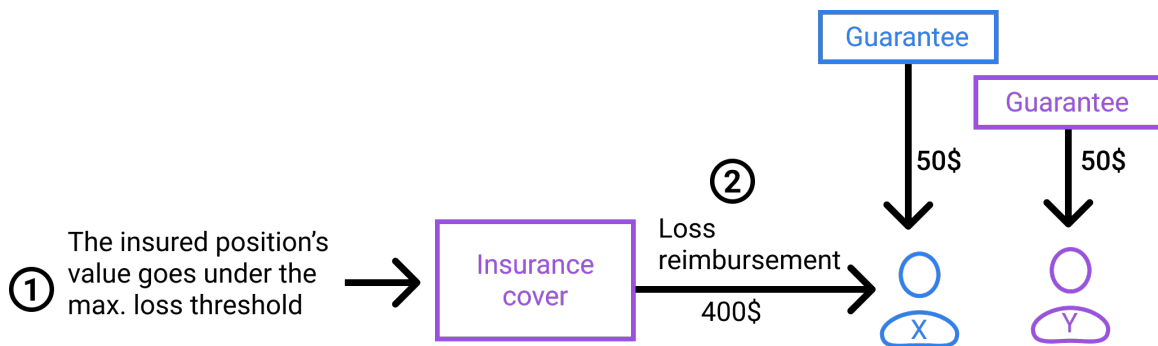
### 3.2.2 Contract interruption by maximal loss threshold

In our smart contract, the maximal loss threshold is the value representing the greatest losses that a position can suffer before an automatic compensation of the insured. This value is equivalent to the value of the entire insurance cover.

When the value of the insured position is depreciated to the point of reaching the maximum contract loss threshold, the smart contract compensates automatically the insured by giving him the insurance cover. After this, the insurance contract ends.

Both the insurer and the insured also recover their contract guarantees.

Fig. 3: The position's value goes under the max. loss threshold



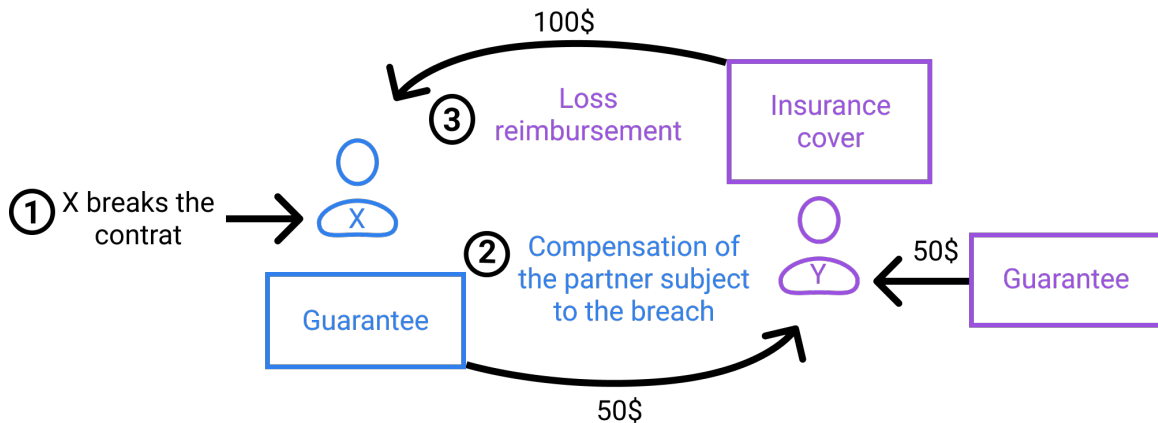
**Example:** Using again the previous example of Mr. X's contract, it is now assumed that the value of the TEST token falls to 0.6 USD after 3 months, i.e. a loss of 40 %. This corresponds to the maximal loss threshold of the contract: the smart contract reverses automatically the 400 USDT insurance coverage to Mr. X as compensation. The contract guarantees of USD 50 each are returned to their respective depositaries, and the insurance contract ends.

### 3.2.3 Breach of the contract by one of the parties

If the insurance premiums are not paid in time, or if one of the partners decides to withdraw from the insurance contract before its expiry, the contract is considered as broken. In this case, the smart contract automatically transfers the two contract guarantees to the user who isn't breaching the contract as compensation.

The insured's potential losses are also compensated proportionally by the right share of the insurance cover, just like in the case of a contract expiry.

Fig. 4: Contract breach by the insured



**Example:** Still with Mr. X's example, we imagine this time that X decides to break the contract after 3 months. The TEST token is then exchanged at USD 0.9, giving the insured position a value of USD 900, i.e. a depreciation of USD 100.

The smart contract pays 100 USDT of insurance cover to Mr. X to compensate his losses. At the same time, the Smart Contract also pays Mr. X's contract guarantee to Mr. Y as a compensation for suffering the contract breach. Mr. Y also recovers the remaining balance of the insurance cover, as well as his own contract guarantee.

**Important:** Whether the insurer or the insured breaks the contract has no importance for the way the smart contract uses the insurance cover, which is systematically employed to reimburse any possible loss of the insured.

## 4 Internal economy

### 4.1 Platform fees

On our platform, insurance premiums must be paid by the insured directly in BACKED token. On each premium payment, a commission of 10 % is taken by the protocol: this is the platform fee. These fees are then fully burned by the smart contract, thus making the BACKED token deflationary.

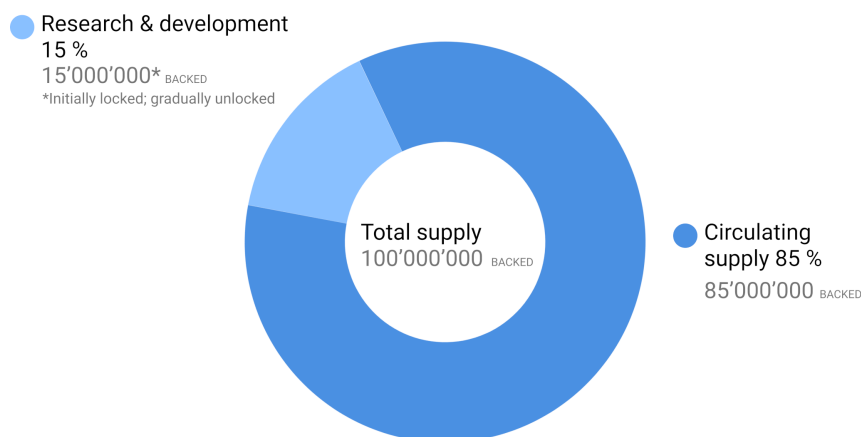
### 4.2 The BACKED token

#### 4.2.1 Technical description

BACKED is the cryptocurrency of Backed Protocol, fully developed by the team. Its contract is therefore unique.

BACKED is an **ERC 20 token of the Ethereum network**. This cryptocurrency is necessary to the use of the protocol and fuels the platform's internal economy: for example, as mentioned above, our users have to pay their insurance premiums with Backed tokens. This gives an intrinsic value to our coin, and guarantees its circulation. In the future, we are thinking of further usecases for the token, like an internal farming mechanic linked to insurance contracts, etc.

#### 4.2.2 Tokenomics



#### 4.2.3 Governance

BACKED is also a governance token, which means that the community has control over the platform and its evolution. For our project to always stay aligned with the needs of our users, votes will be submitted to the community to select the next updates content and the platform improvements.

This feature is complementary to the concept of decentralization. In a future version of the project (see our **Roadmap**), we are planning to go even further in decentralized governance by allowing our community to adapt key parameters of the economic operation of the platform, such as the platform fees.

## 5 Particularities of our model

### 5.1 Choosing your role

Our platform decentralized gives the opportunity for private individuals to become themselves insurers for the first time in insurance history

By decentralizing this role, Backed Protocol allows its community to realizing a new business opportunity: while the insured seeks the security of a custom contract to minimize trading risks, the insurer can accumulate contracts to create a steady income source and use contract customization to manage his risk-reward ratio.

These are two completely different but complementary roles, and anyone has the opportunity to choose freely the one that suits his objectives.

### 5.2 100% customizable contracts

Another aspect that is particularly important to us is the flexibility of our insurance contracts.

Our personalization system allows to create almost infinite different contracts, allowing each user to adapt the clause settings to fit their needs: whether it is to create long-term insurance or to secure a risky one week trade, each can define and implement his ideal contract with all the nuances he wants.

### 5.3 Decentralization

By individualizing insurance contracts between two users and by giving control of Backed's evolution to its community, decentralization is a concept we are taking very seriously.

Our team does not have access to any funds or insurance contract data, and is only concerned with managing certain basic and necessary tasks, such as:

- the platform maintenance (web interface, IPFS hosting, etc...)
- the technical implementation of updates
- the project's marketing
- the contact with Backed's community

As all funds are secured directly on our smart contract, Backed Protocol does not require any treasury, which also reduces the risk of an attack.

### 5.4 Accessibility

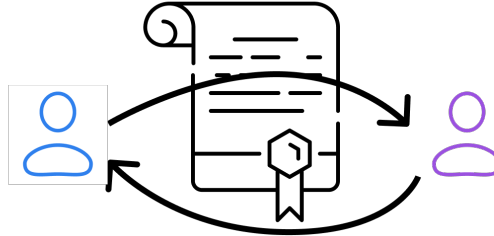
The use of a smart contract makes it possible to simplify access to an insurance contract for our insurers and insureds, without sacrificing the security: to establish a contract, the user simply needs to have a Metamask account. No private data or legal constraints is required by the protocol.

# 6 Roadmap

## Roadmap

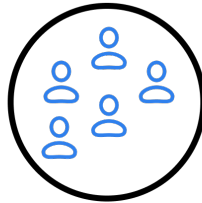
### STAGE 1

Decentralised insurance for crypto trading, linking private policyholders/insurers via smart contracts

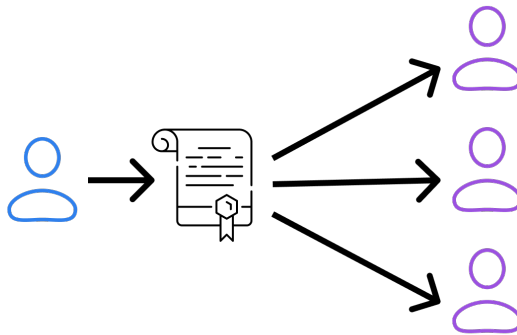


### STAGE 2

Enable group insurance and policyholder communities.

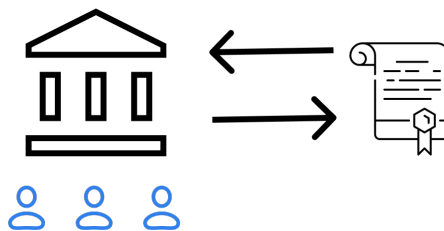


This will allow insurers looking to manage many contracts to be able to do so easily on a single contract model.



Traditional insurance companies (furniture etc.) will also be welcomed on the platform.

They will be able to create their own contracts and have their own community.



STAGE 3

STAGE 4+