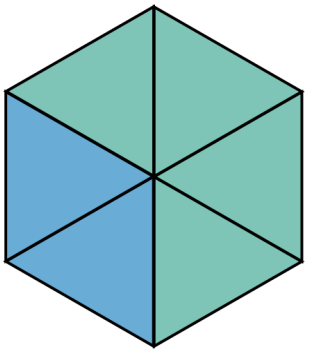

# ASURE

OPEN DECENTRALIZED AUTONOMOUS INSURANCE PLATFORM

**www.asure.io**

**WHITEPAPER**

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## Executive Summary

After a thorough review of the current Market and Asure's competitors among the InsurTechs and classic insurance industry, as further explained in the following chapters "Market" and "Competitors", we have drawn the conclusion, that the InsurTechs don't represent disruptive innovations required to become independent players on the market. Most of them either have a narrow scope business models or decided to automate only a few business processes within the existing business model. Other than that, with the proliferation of blockchain-based InsurTech platforms, it is inevitable that many will appear only as short-lived splashes on the markets, and insurers are understandably concerned about committing resources to such initially thought prospective solutions.

The latest worldwide achievements in technology including Artificial Intelligence, Blockchain, and Machine Learning make it possible to create transparent, resilient, tamper-proof, robust and smart systems that answer the challenges of scalability, single point of failure, trust, and privacy in a consistent way. The value proposition we offer comes through decentralization and automation via AI and other technologies. Satoshi Nakamoto, the founder of Bitcoin cryptocurrency, wrote the following about the benefits of a pure P2P based organization: "Governments are good at cutting off the heads of centrally controlled networks like Napster, but pure P2P networks like Gnutella and Tor seem to be holding their own. " [1]

Our team has already successfully implemented various insurance systems at major insurance companies. Thanks to our extensive technical and business development skills, we developed and deployed in-house AI/ML projects for several insurers in the industry. The know-how that the team brings, including extensive legal knowledge of the risk management, claims management, product design and both local and global insurance regulatory frameworks; a profound understanding of the importance of marketing and sales, technical expertise in software development, will enable us to create a next-generation insurance platform so that people can enjoy their daily lives without having to worry about any risks or losses.

With our proof of concept insurance, we have already demonstrated how the ecosystem works and that the parts of the platform interact as they should. With your support, we can build out our platform making one of the globe's biggest industries finally work the way it should work – for people all over the world.

Digital disruption already rocks the insurance industry. By embracing blockchain as a positive disruptive force, we will make decentralized, transparent, and fairly insurance a reality. By leveraging our innovative spirit and an agile approach we will grow to become fearsome competitors, despite the widely held misconception that significant breakthroughs require technology and business community resources.

Asure Foundation is a non-profit organization and is based on three main pillars: Innovation, collaboration and being a research organization with a community of engaged members.

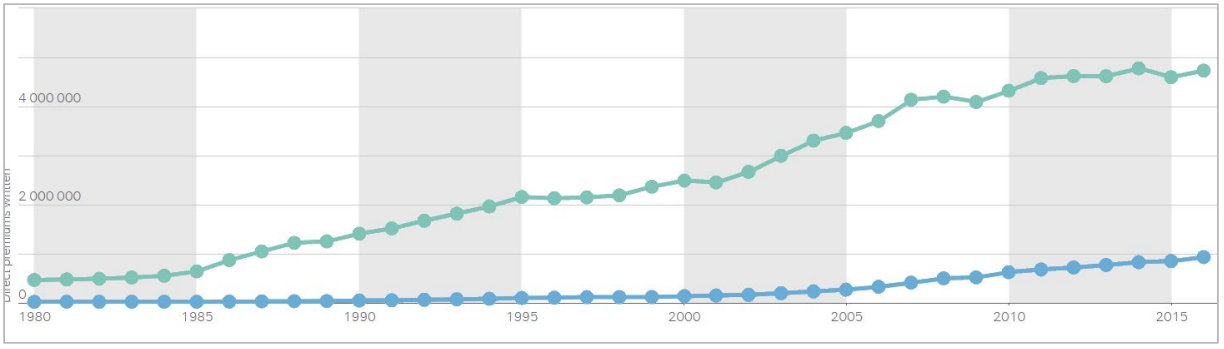
Be part of this journey, and join our Token Sale - we are looking forward to welcoming you aboard!

**Our Vision:**

People around the world enjoy their lives without having to worry about any risks or losses.

# Market

For 2016 the global market capitalization of the insurance industry totals approximately 4.7 trillion USD with a global annual growth rate of 3.7% and a growth rate of 13.5% in the emerging markets, therein 20% alone in China.




**Written premiums of the global and emerging insurance market in billion USD since 1980.**

More than 50% of premiums paid around the world belong to the six big markets USA, Japan, UK, China, France and Germany which shows the great growth potential of insurance in completely new markets. According to studies the Chinese market will grow from about 348 billion USD in 2015 to the second largest market with an estimated market capitalization of about 1,090 billion USD in 2025.

Property-casualty insurance in the emerging markets is closely linked to the future development of these countries, which can be expected with good prospects like the overall market outlook shows[3].

| | | 2005 |
|---|---|---|
| 1 | USA | 846 |
| 2 | Japan | 323 |
| 3 | UK | 285 |
| 4 | France | 179 |
| 5 | Germany | 158 |
| 6 | Italy | 110 |
| 7 | South Korea | 68 |
| 8 | Canada | 63 |
| 9 | Spain | 49 |
| 10 | China | 48 |
| 11 | Netherlands | 48 |
| 12 | Australia | 41 |
| 13 | Thaiwan | 39 |
| 14 | Belgium | 34 |
| 15 | Switzerland | 34 |

| | | 2015 |
|---|---|---|
| 1 | USA | 1.152 |
| 2 | Japan | 413 |
| 3 | China | 348 |
| 4 | UK | 299 |
| 5 | France | 208 |
| 6 | Germany | 194 |
| 7 | South Korea | 151 |
| 8 | Italy | 147 |
| 9 | Canada | 102 |
| 10 | Thaiwan | 85 |
| 11 | Australia | 79 |
| 12 | Netherlands | 75 |
| 13 | India | 67 |
| 14 | Brazil | 59 |
| 15 | Spain | 57 |

| | | 2025* |
|---|---|---|
| 1 | USA | 1.579 |
| 2 | China | 1.090 |
| 3 | Japan | 526 |
| 4 | UK | 411 |
| 5 | France | 284 |
| 6 | Germany | 224 |
| 7 | Italy | 217 |
| 8 | South Korea | 215 |
| 9 | Brazil | 173 |
| 10 | India | 149 |
| 11 | Canada | 128 |
| 12 | Thaiwan | 120 |
| 13 | Australia | 112 |
| 14 | Netherlands | 98 |
| 15 | Spain | 81 |

***historical data influenced by exchange-rate effects**

**Local markets recent capitalization in 2005, 2015 and appreciated capitalization in 2025.**

In 2017 natural disasters like hurricanes, earthquakes and wildfires caused total economic losses of 306 billion USD, which are almost double 2016's losses of 188 billion USD, resulting in higher needs for coverage in our society. That could be satisfied by a global decentralized autonomous insurance organization backed up by AI[4].

The same goes for the actual political situation resulting in higher amounts of damage caused by political disputes like war, protests or terrorism which indicates a global need for coverage of those cases too. According to the Institute For Economics & Peace, the economic impact of violence was 14.3 trillion USD or about 13% of the global economy in 2016.[5]

Our society is in need of better coverage that costs less and is independent of where you are in the world. By creating a global working insurance mechanism based on modern technologies we are in a perfect position to reduce administrative expenses and serve a fair coverage to everybody.

Actual raising interest rates in the advanced[6] and in most emerging markets[7] indicate a positive trend for life and annuity insurance as proven in the past.[8]

The main difficulties of the present insurance industry from a participants' point of view are the centralized organizations' juggernaut which people tend to mistrust and the high amount of fraudulent actions which altogether lead to a lack of technological innovations, a lack of new business products and especially very high administrative expenses.

Considering the enormous potential of our society; at no other point in our history people, as a collective were more powerful than today, we can finally become independent from old rigid structures and build a strong self-assured collective, without any boundaries to money-wasting corporations.

InsurTechs are already trying to solve these problems by developing more transparent, innovative models, but the majority of these undertakings aren't really disruptive as they're still backed up by classical insurance companies not taking the first step to independence.

By creating Asure we take all the aforementioned trends into consideration.

## Competitors

Our competitive analysis at the conventional insurance market and a number of InsurTechs shows - there is currently no other company or product that solves major problems that insurance industry faces today or will face in the nearest future.
The aforementioned challenges include:

- lack of transparency
- conflict of interest between an insurer and an insured
- confusing legal terms[9]
- high agent fees
- high administrative expenses
- automation
- legal restrictions (national/ international)
- related relationship to local financial markets

We identified a high margin of inefficiency in the industry.

Below we list a comparison of the Asure platform to other insurance platforms and InsurTechs.

**Table 1: Competitors Compare**

| Topics / Industry | Traditional insurance and dependent InsurTechs | Blockchain InsurTechs | Asure platform |
|---|---|---|---|
| Centralization vs. Decentralization | Rigid and slow because of a centralized nature. No or only partially usage of the blockchain to improve certain products | The Blockchain is a core and in some cases an essential part of the platform, network, and marketplace | The Blockchain is placed at the core of the Asure platform |
| Transparency | Lack of transparency concerning financial information, terms, and coverage | Transparency is guaranteed by blockchain technology itself | Transparency is guaranteed by blockchain technology itself and the open-source code that we develop |
| Economy | Highly coupled with local financial markets | Most lack an economic system completely, thus making them unreliable in a long-term | Asure's independent economic system with deflation and compensation mechanisms provide for a stable and healthy ecosystem |
| Automation | Most processes are of manual and outdated nature, whereas some are semi-automated | Mostly limited to a Chatbot and a semi-automation system. But the most of our competitors outsource technical hurdles to traditional insurance organizations becoming dependent on them | Full automation is our main target. With AI and ML being one of our major skills, these will be applied to address any kind of manual labor that can be automated |
| Payroll | Agents and intermediaries | Insurance companies and agents are the essential part of an insurance | No insurance companies, agents, intermediaries, agents or brokers required |
| Scalability | New markets can be hard to break into because of restrictions on foreign ownership and licenses | Limited scalability due to infrastructure location and dependence on third-party companies and actuary/underwriting staff | Global market coverage looks easily achievable thanks to the digital nature of the insurance platform |
| Price | High price for services | As most InsurTechs indirectly | Low cost because of the lack of |

| | | | |
|---|---|---|---|
| | because of agent fees | work for insurance companies, the price reduction is very limited | intermediaries and massive automation |
| Rules | Insurers set all the rules without asking the insured ones | Rules are defined by InsurTechs and in some cases are written in smart contracts | Rules are encoded in smart contracts, important decisions are made with the help of the community proposals (AIPs) |
| Damage assessment | Damage evaluation is being done by insurers, which automatically makes them biased against clients | Many blockchain based InsurTechs ignore the complexity of damage assessments | No conflict of interest: damage assessment are lead by smart contract, AI, and community experts votings |
| Claims and payment | Participants confirm claims and payment requests | Payment requests are confirmed by the smart contract | Payment requests are confirmed by the smart contract |
| Reinsurance Model | The Insurer makes a decision about reinsurance by himself without asking clients' opinion | Reinsurance of reserves are provided by third-party insurance companies | Reinsurance is provided within the own economic system, where all participants can purchase product risks and get rewards accordingly |
| Premiums | After the expiration of a product coverage, the whole amount of paid premiums stays with the insurer | Participants redeem their shares and percentage by the end of the covered period if the reserves were not used | Payback by the coverage expiration in case there were no claims payments requested |
| Communications | Tons of paperwork for staff and customers | Less paperwork due to partial automation | Chatbot assistance in Telegram, Facebook, Slack, and Skype. Mail and phone voice support automation services with AI |

This analysis shows business potential for blockchain based insurance products and in particular for the Asure platform.

## Traditional insurance and dependent InsurTechs

Big players in the insurance arena are attempting to use the latest technologies as part of their innovations program so that they can get better than their competitors. However, most only try to improve existing profitable products and cannot afford enough time, resources and especially the will to change the current status of the insurance market. As those corporations are slow to adapt, most innovative efforts will be left stunted. Such companies only think in terms of profits and losses, they fear disruptive innovations instead of embracing them.

InsurTechs are typically small technology-driven companies able to innovate much faster than traditional insurance companies offering new approaches to industry challenges.

Existing InsurTechs can be categorized in the following manner:[10]

**Table 2: Overview of InsurTech Categories**

| Description | What They Offer |
|---|---|
| Comparison Portals | Enable online comparisons between various (insurance) product and provider types |
| Digital Brokers | Brokerage of insurance policies through web-based portals or mobile apps |
| Insurance Cross Sellers | Offer insurance as complements to products (typically at the point of sale or in an own app) |
| Peer-to-Peer Insurance | Bring together private parties for mutual insurance coverage |

| | |
|---|---|
| On-Demand Insurance | Offer coverage for selected periods of time |
| Digital Insurers | Offer fully digital insurance solutions that are only accessible via online channels |
| Big Data Analytics & Insurance Software | Provide software solutions |
| Internet of Things | Enable data collection via smart devices |
| Blockchain & smart contracts | Create solutions for a tamper-proof distributed database system for transactions |

The closest competitors are the ones operating as a Peer-to-Peer Insurance, On-Demand Insurance or Digital Insurers. However, most of them are wired to classic insurers and therefore cannot actually be called real independant insurance companies.

**Traditional insurance:**
AXA, Allianz, American International Group (AIG), Ping An of China (PNGAY), MetLife (MET)

**Traditional reinsurance:**
MunchRe, SwissRe, Hannover Rueckversicherung AG, Berkshire Hathaway Inc., Lloyd's

**InsurTechs:**
Picsure, Slice, Trov, Friendsurance, nest, wefox, GetSafe, Yolo.

## Blockchain InsurTechs

There are some InsurTechs that aim to offer networks or marketplaces, some are even independent from traditional insurance companies. For most of them though, market entry is only possible through the traditional insurers. We consider this a weakness because it limits their scalability. They always have to look back at their insurance partners.

Some try to develop a DAO but without using AI and Big Data, picking a single product for a narrow group of clients. We deeply believe that organizations that ignore the trend of AI and new technologies will soon fall behind more flexible competitors.

The industry is still very young and offers so much potential that we are happy about every competitor that makes this market even more open. We join alliances and working groups so that we can learn from each other and develop common models and concepts.

**Blockchain InsurTechs:**

AiGang, Augur, BITRUST, Black Insurance, Blocksure, Etherisc, FidentiaX, InsurePal, Insureum, iXledger, Rainvow, Teambrella, Vernam

# Solutions

Our analyses of the market and of our competitors have shown that the existing challenges in such a large and important market are not being properly met. With our experience and expertise we want to create a solution that sets new standards and radically disrupts the industry.

The insurance industry is a three-hundred-year-old industry, but its most fundamental idea was lost during the period of capitalization: absolute majority of the insurers are profit-oriented. We want to rethink this idea of a collective and with the help of the latest technologies and sociological thoughts like radicalmarkets we can even improve it and provide the insurance industry with the help of the Asure platform where social justice can be ensured by quadratic voting[23].

## Fundamentals of insurance

By definition, insurance is a promise made by an insurance company to the insured to hedge against any significant potential losses, in exchange for a periodic payment the insured makes to the insurer.

Insurance represents a noble industry, it is there to help in case bad things happen. All care for one and one cares for all. It is a way to manage risk, to safeguard you and/or your property against the risk of loss, damage or theft (such as flooding, burglary or an accident). There is more than enough risks in our everyday life, there's always a chance that you'll be involved in a traffic accident, slide and injure your leg, or that your home will burn down. Despite the fact that risks of such occurrences are small, if one of them were to happen, the effects could be catastrophic. Without having an insurance, you'd be solely responsible for anything that happened in that traffic accident and had to take care of your broken leg all on your own.

Clearly, this kind of events does not happen to everyone. Using Big Data Analytics and Predictive Analytics in combination with AI/ML it is possible to estimate the probability of certain events to happen in different areas and to various age groups, also the approximate recovery costs. By utilizing the generated data one can effectively distribute the risks among all insured participants.

Without a functioning and innovative insurance industry, people, especially in poor communities, face extraordinary material deprivation simply because you'd have to set aside considerable funds in order to get protected against every possible bad thing that might happen. Apart from that insurance provides people with a great tool for helping people to assess, manage and reduce their risks.

### Insurance Pools

Insurance pooling is a simple concept in which groups of insurers join together to increase the total number of policyholders, to spread the risks of the few across the entire group and thus reduce the risk to a single unit. This practice is primarily used for securing the insurer's stability, increase depth and width of coverage and provide a larger array of services.

**Social security systems - Pay-as-you-go (PAYG)**

Pay-as-you-go systems can be used to fund social security systems. Premiums will be used to pay benefits directly and no or a small reserve is built. Countries, in difference to private insurance companies, can guarantee continuous premiums by making social security systems mandatory and therefore don't need coverage capital.

**Pay as you live (PAYL)**

Pay-as-you-live (PAYL) products herald a revolution in personal insurance. Insurance risks can be calculated on the basis of detailed customer data. We at Asure assume that in the future social and psychological characteristics could also be recorded and digitally evaluated. The resulting profiles would be very valuable to the Asure platform.

**Premiums Calculation**

It pays to understand how insurance rates will be calculated so that you can choose the fairest and the most efficient insurer on the market. The calculation of the insurance premium lies at the heart of any insurance.

Insurance premiums are calculated according to the risk posed by the individual. Insurers assign that individual certain level of risk.

The insurance premium (Pa) represents the sum of money that the insured will pay to the insurer, in the exchange of the insurer taking the risks from the insured. Premiums can be calculated in the following way:

$$P_a = (Amount\ of\ Loss \times Chance\ of\ Loss) + expenses + profit + safety\ margin$$

There are two mechanisms of premiums collection: mutuality and solidarity.

- Mutuality is the principle of private, commercial insurance. Individuals enter the pool for sharing losses and pay according to the best estimate in respect of their individual risk.
- Solidarity is the principle of social insurance, the total of premiums is spread equally over individuals concerned with payment related to income or some other scheme.

Most insurance contracts incur especially high losses in the first year because of large first year expenses, such as:

- Agents' commission
- Developing new contracts and policies
- Administrative expenses

**Reinsurance**

The fundamental principle of insurance is to spread risk from an individual to a pooled group of risks. As people need insurance to take care of their risks, insurers need reinsurer in order to do the same but on a higher level. Reinsurance allows an efficient reduction of the insurer's required capital.

Reinsurance companies, as well as insurers, take serious risks, but on both microeconomic and macroeconomic levels, they are highly relevant. Insurance companies transfer some of their risks to reinsurance companies thus leading to increasing diversification of risks within the economy itself.

## Algorithms and economy

The equation of exchange is an economic equation that showcases the relationship between money supply, the velocity of money, the price level and an index of expenditures: [17]

$$M \times V = P \times T$$

Where:

- M = money supply
- V = velocity of money
- P = average price level of goods
- T = total number of economic transactions

To determine token value, one must calculate P, Token burning M affects the token price P development in a positive way, which is shown by the following formula:

$$P = \frac{M \times V}{T}$$

Vitalik Buterin has an alternative modification of the equation of exchange for the medium of exchange tokens, which we basically extend and use as a basis in the Asure platform:[18]

$$M \times C = T \times H$$

Where:

- M = money supply
- C = price of the currency (or 1/P, with P being price level)
- T = transaction volume (the economic value of transactions per time)
- H = 1/V (the time that a user holds a token before using it to make a transaction)

The token value can be determined by solving the equation for C resulting in:

$$C = \frac{T \times H}{M}$$

We have shown, that the token velocity has an inverse relationship with the token value. In other words, the longer participants hold onto their tokens is one of many influence factors to the price of the currency C. The more transactions are performed on the platform, the more tokens active participants get.

The difference between proof of stake and proof of activity is that the active users - the ones that buy risks and products and otherwise interact with the platform (proof of activity) - get higher rewards than passive participants that simply hold their tokens (proof of stake).

### Asure economy sample

The fundamental operations in Asure platform can be described by the following equation, that demonstrates “proof of activity”:

$$A_r = A_i \times \left(1 + \frac{pd}{100}\right)^n \times \left(1 - \frac{pi}{100}\right)^n$$

Where:

- Ar = return investment,

- Ai = initial investment,
- pd = fee and burn filter 1/T*p (%)
- pi = is the compensation within a product (%)
- n = years

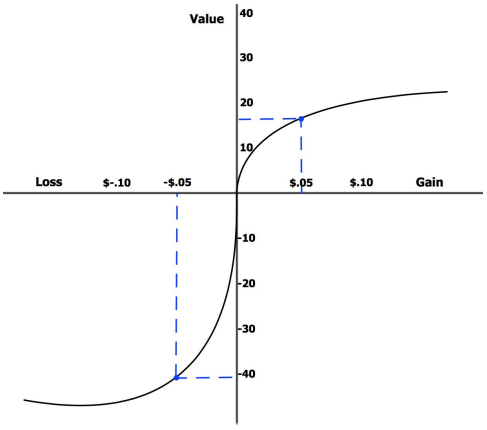
The proof of activity algorithm rewards participants that interact with and sustain the platform, rather than punish passive stakeholders. In other words if you spend the tokens you will be getting even more of them.

### Loss aversion

While considering a new product for Asure platform we will bear in mind the effect of the loss aversion, that basically says that it is psychologically easier for a person not to lose five dollars than to get the same amount:[19]

$$V(x) = \begin{cases} x^a & if\ x \geq 0 \\ -\lambda(-x^a) & if\ x < 0 \end{cases}$$

The curve below shows that loss aversion is disproportional to gain satisfaction:




**Value/Gain Ratio (Loss aversion)**

### Premium calculations

The insurance premium (Pa) on Asure platform is calculated using the general premiums calculation formula:

$$P_a = (Amount\ of\ Loss \times Chance\ of\ Loss) + expenses + profit + safety\ margin$$

Expenses are estimated to be 2%:

$$expenses = (Amount\ of\ Loss \times Chance\ of\ Loss) \times 2\%$$

The expenses that we foresee include:

- Platform development and bugfixes
- Data centre costs
- Personnel costs
- Marketing
- Taxes
- Legal support

$$profit = 0$$

As the Asure Foundation is a non-profit organisation the foundation itself has no need for making profit, though participants or investors can act as reinsurers and make profit through the compensation mechanism.

$$safety\ margin = (Amount\ of\ Loss\ \times Chance\ of\ Loss)\ \times 3\%$$

Essentially a safety margin is a number of sales or amount of gains that we must reach to be "safe" for a particular risk.The safety margin must be reached to ensure that it is possible to provide all the fund to cover expenses for claims . If money is made in excess of the safety margin, then it turns into profit. This is unless expenses end up being higher than they were planned to be.

In the end the insurance premiums calculation looks as follows:

$$P_a = (AofL\ \times CofL)\ +\ (AofL\ \times CofL)\ \times 2\%\ +\ 0 +\ (AofL\ \times CofL)\ \times 3\%$$

$$P_a = (Amount\ of\ Loss\ \times Chance\ of\ Loss) \times 5\%$$

Variables Amount of Loss and Chance of Loss will differ depending on the insurance product.

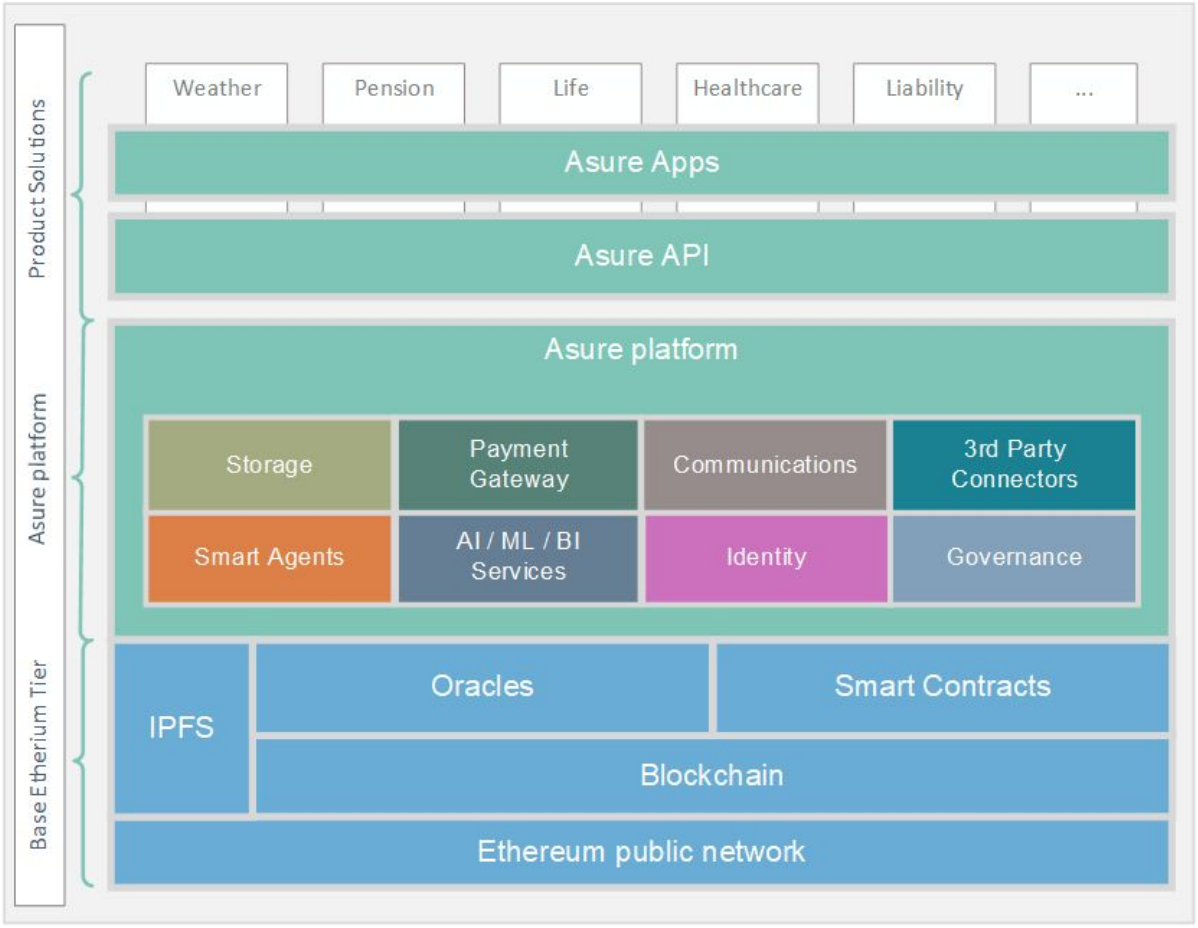
## Platform Architecture

In the following, we will outline the Asure platform architecture.

At Asure, we believe in the Web 3.0 and its advantages. To fulfill our promises of a true DAIP we are building the Asure platform on top of Web 3.0 technologies. Where not possible yet we are researching appropriate solutions. This process takes time. For non-existing parts, we will fallback to Web 2.0 solutions to deliver value in a timely manner.

Public blockchains are a perfect fit for Asure as Asure aims for as much transparency and openness as possible about our processing of business transactions and processes. Everybody will be able to track and verify business operations, decisions that were made and can participate. On the other hand, the Asure platform has to make sure that personal information belonging to our users stays private and can't be linked to any publicly available data on the blockchain. All sensitive customer related data will not be stored within the public available blockchain but in the Asure platform.

Asure Platform provides common services and the necessary infrastructure to support smart contracts within the public ethereum blockchain and surrounding ecosystem. We are leveraging existing Web 3.0 solutions for payment, storage, computing, identity, messaging, access control, IOT and AI where possible.  Where not possible yet we are providing the necessary Web 2.0 infrastructure for the time being. All core services are made available through a unified Asure API. The Asure API is part of our SDK and will greatly simplify the development of insurance products and applications.




**Asure platform architecture**

In the following we will outline core services of the Asure platform:

### Payment

The money needed to run the Asure Platform will be provided by the Asure operation costs which itself are part of every insurance product. We use operation costs to pay out all consumed services whether they are based on Web 3.0 or 2.0 technologies. Most Web 3.0 services have to be paid in their own tokens. Therefore we use decentralized exchanges like 0ASIS to convert ASR tokens into any ERC20 compatible token we need (e.g. GNT).a

### Storage

In order to store uploaded data, Asure will select one of the most appropriate decentralized storage systems, such as IPFS, Swarm, Tieron, SIA, Storj, Filecoin or MaidSafe. Such systems enable developers to efficiently create secure decentralized file storage for a user data upload.

### Computing

Not every computational task can or has to run as a smart contract. We will leverage one of the general purpose computation services within the Web 3.0 such as Golem or iExec.

### Identity

Decentralized identity management, verifiable claims and attests are at the core of Asure Platform. Verifiable claims are used in every part of the platform whether it is to fulfill KYC requirements or insurance or reward claims. A complete ecosystem of verifiable claims will be publicly available. Asure Platform is built around the latest standards developed by the W3C Credentials Community Group and Decentralized Identity Foundation (DIF).

**Messaging**

In some cases, communication between the user and the system is needed. For this scenario, Asure is going to integrate an AI-based bot functionality realized over different communication-channels like Skype, Phone, WhatsApp, Telegram and a platform integrated instant messenger.

**AI/ML & BI Services**

The growth of internet connected devices and sensors, which are projected to reach 50 billion by 2020, will have a significant impact on the availability of real-time information – a trend often referred to as 'big data'. Insurers who can exploit this information for better pricing, underwriting and loss control will have a distinct competitive advantage over their peers[20]. One of the ways to reduce insurance costs is automation of claims processing. That's where our AI experience is going to help us to develop a robust, but flexible mechanism that allows achieving the best accuracy by adjusting, through training and added data.

**Oracles**

The concept of "blockchain oracles" was introduced to solve a built-in limitation of blockchain protocols: the challenge of interacting with an external context. Simply put, an oracle can be described as a translator for information provided by an outside part of the platform. We will use different types of oracles to provide external data for the blockchain smart contracts.

**Smart Agents**

Smart Agents are autonomous jobs which will be integrated to trigger oracles or product smart contracts in case a related event occurs.

**3rd Party Connectors**

The platform architecture is developed adhere to BiPRO and ACORD standards offering interfaces for any third parties while maximizing the cost-efficiency while development.

**Governance**

Asure underlies such DAIP processes as reinsurance, compensation, identity management, application for products, claims submission and rewards that need to be regulated via DAIP governance functions.

**Privacy by design and data privacy**

Privacy by design is an approach to projects that promotes privacy and data protection compliance from the start. Data protection is a key consideration in the early stages of any project, and then throughout its lifecycle. To assure the completeness of our security policies, we follow the ISO 27001 architecture as a baseline, and then supplement it with portions of other recognized security architectures.

Asure treats the privacy of our user's data as a top priority. Global privacy regulations differ a lot, so our approach is that protecting to the most stringent standards is best. Asure established a privacy policy and makes it publicly available. We regularly review the privacy policies of different countries and make sure our controls comply with the most restrictive standards for any incoming and outcoming information and for the data we store. By complying with the EU-US Privacy Shield framework we show our commitment to all the platform participants to utilize the highest security standards.

### Public Ethereum Blockchain

Asure platform will be based on top of the public ethereum blockchain. Ethereum has one of the largest ecosystems and support from the community. We are aware that as of today (Q2 2018) Ethereum has scalability and privacy issues which are being actively worked on. We are actively tracking the progress in these areas and believe that these issues will be solved within the next few years by the community. To protect personal data of our customers even further we are evaluating recent achievements in zero-knowledge proof methods like zk-snarks within the Ethereum platform.

### Smart Contracts

DAIP's smart contracts are written in Solidity, enabling Asure to support any blockchain that supports Ethereum Virtual Machine (EVM). These contracts provide the logic for the platform functionality and implement the mechanisms required for the creation of the DAIP.

To ease the development of smart contracts we use Truffle framework. Truffle framework provides a development environment to efficiently develop, test and deploy smart contracts.

Asure platform places the utmost emphasis on the security of the smart contracts and the gathered funds. Therefore, a number of innovations are being implemented in order to ensure the highest security of the operating code and funds, such as formal verification of the contract code, test suites, and migration paths. We are also looking into Viper - an experimental programming language next to Solidity to write safer and easier to verify smart contracts.

## Our key benefits

Overview of Asures features and benefits in a short list:

**Table 3: Asure's features and benefits**

| | |
|---|---|
| **Customer centric** | ★ Clear communications<br>★ Predictive analytics to anticipate and understand customers' needs<br>★ Relationships based on changing life events |
| **Decentralization and Resiliency** | ★ Working on Blockchain<br>★ Resiliency through the use of smart contracts |
| **Real-time** | ★ Real-time transactions |
| **Transparency** | ★ Transparency of information (e.g. assets, transaction, actions)<br>★ Audit trail and full transaction history<br>★ The platform code will be open-sourced |
| **Automation** | ★ Big Data and Predictive Analytics for product and risk management<br>★ Artificial Intelligence and Machine Learning for automation<br>★ Automated validation, claims, communications |

| | |
|---|---|
| | ★ Autonomous agents, smart contracts and (later) increased levels of artificial intelligence and AI algorithms will provide self-sustainability in operations and value creation at the platform |
| **Availability** | ★ 24/7 availability |
| **Economy** | ★ Has its own economic system |
| **Independency** | ★ Not tied to any traditional insurance organization |
| **Variety** | ★ Various products from a single source |
| **Utility Token** | ★ Utility Token for own economic system |
| **Security and confidentiality** | ★ Security and confidentiality by design<br>★ Data protection guidelines are observed |
| **Efficiency** | ★ Through decentralization and automation<br>★ Flexible, cost-effective infrastructure for assets and operations management<br>★ Services-oriented architecture business model |
| **Globalisation** | ★ Most of the products will be designed for the global market<br>★ In cooperation with governments, products will function on a local market level<br>★ Internationalization through Artificial Intelligence |
| **Price** | ★ Administration costs can be reduced up to 98%<br>★ Premiums will cost up to 40% less than in classic policies (depending on insurance product) |

The analysis shows business potential for blockchain based insurance platforms. In particular, it makes clear in what way Asure platform is different in comparison with competitors.

## The Asure Improvement Proposal repository

We will establish a continuous, community-driven platform improvement process similar to the EIP process for the Ethereum Platform.

### The Asure Improvement Proposal repository

Github: github.com/AsureFoundation/AIPs

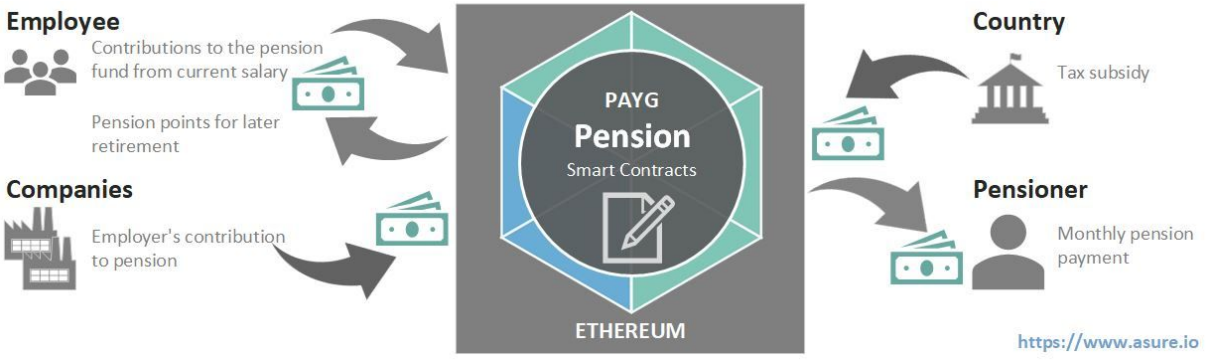
## First Solution

We will enable governments around the world to establish pay-as-you-go social security systems and assist in migrating existing ones to the Asure platform so they take advantage of the blockchain technology.

With our first focus on pension pay-as-you-go-system we are aiming to reduce old-age poverty worldwide.

Pay-as-you-go systems are successfully used to fund social security systems. Premiums will be used to pay benefits directly and no or a small reserve is build. Countries, in difference to private insurance companies, can guarantee continuous premiums by making social security systems mandatory and therefore don't need coverage capital.

Since no capital has to be saved with pay-as-you-go systems, the first generation is also directly entitled to payouts without ever having paid premiums (unfunded liability). Therefore, pensions can be paid immediately after introduction.




We are also working on models and concepts for a global insurance structures that meet social justice. These models create global worldwide redistribution funds and linked to social systems and the world economy, they will contribute to rethought and redesigned financial and sociological systems in society.

### Proof of Concept

We are currently working on the proof of concept which is available on our Github repository. PoC will be a time simulated product suite with a sample dapp which is deployed on the ethereum testnet.

Github: https://github.com/AsureFoundation/poc

# Token

Asure tokens (ASR) are the native tokens of the Asure platform and allow users to interact with the platform. We create a ERC-20 / ERC-223 utility token with a deflation mechanism as suggested by Vitalik Buterin[21] which entitles holders to participate in the Asure platform.

The utility token serves as a means of payment and access to the system. This makes it possible to design product payment models as well as additions and interactions such as risk liability and premiums for promotions. We will provide the tools that can be realized in detail that everything we will develop with the community in the coming years.

The token can be used for different products in different ways. For example, for pay-as-you-live solutions companies and interested parties can compensate users for the data they are willing to sell.

Individual users, and entities, to purchase insurance products and surrounding services like support, claims management, product placement etc.

**Token economy system**

Once tokens have been transacted, a percentage of these tokens will be burned (i.e., deflation) to support the future value increase of the Asure token. On the other side, 'proof of stake' and 'proof of activity' algorithms are used to partially compensate the deflation and create a lucrative economic system.

Actually the compensation tokens are going to two parties:

- **Reinsurers** will receive ASR tokens as a reward in return for rebuying risk pools to secure the insured ones in case of high amount of claims while reducing insurance costs.
- Asure platform to support various reward models such as manual damage assessment, platform development, etc.

We use the 'proof of stake' along with the 'proof of activity' algorithm based on the token ownership and an immutable activity on the blockchain. It takes into account the current weight in mechanics of insurance pools and their activity.

Thanks to the economic system based on deflation (token burning) as well as inflation as a compensation mechanism. Asure token can run up to 1% economy rate over 6.000 years and 0,1% = 64.504 years and longer, depending on the dynamic economy rate.

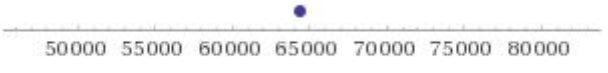
Economy rate:

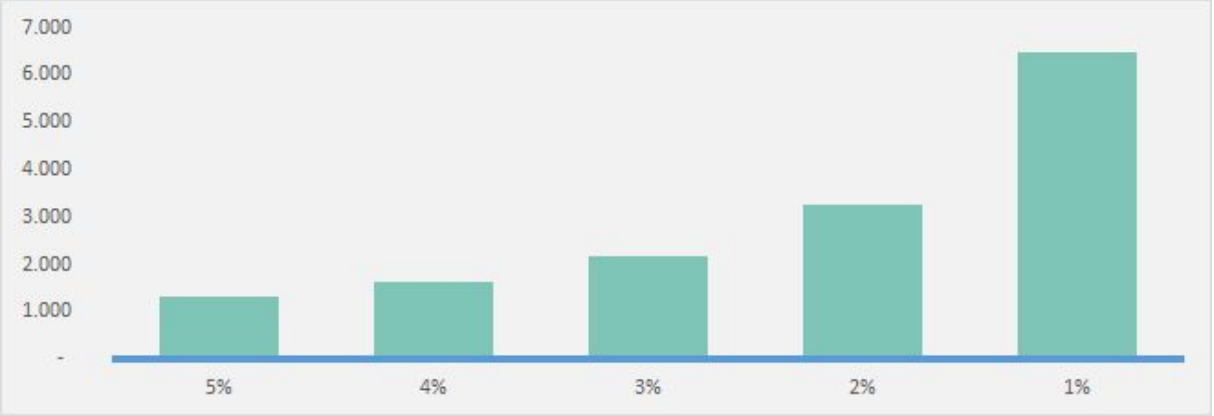
$$Economy\ rate = burn\ rate - compensation\ rate$$

where: burn rate > compensation rate

Example of 0,1% economy rate:

$$\frac{log(10 \times 10^{9} \times 10^{18})}{log(1 + 0.1\%)} = 64.504\ years$$






**y=years; x= economy rate = burn rate - compensation rate**

With the introduction of a dynamic deflation mechanism, we make sure that the ecosystem is designed to function for more than 1000 years. The deflation mechanism has a relationship with the transaction volume in the platform.

Compensation rate can be thought of as redistribution of a part of burnt tokens.

# Token Crowdsale

In Fall 2018 Asure will offer to the public 60% of all ASR tokens. Tokens will be ERC20 / ERC223 compatible and limited in supply.

In the following table, one can see all the important details of ASR tokens.

**Table 6: Token Issue summary**

| | |
|---|---|
| Token name | ASR |
| Ticker | ASR |
| Token issuer | Asure Foundation |
| Token type | Ethereum ERC20 / ERC223 |
| Total token supply | 10.000.000.000 ASR |
| Hardcap | $ 40.000.000 |
| Early contribution bonus | First week bonus: 25% more ASR tokens,<br>Second two weeks bonus 5% more ASR tokens, |
| Timeline | Registration for individual cap opens 1st September 2018<br><br>Start: Fall 2018 |
| Trading | Trading on exchanges commences End 2018 |

The ASR tokens are non-refundable functional utility tokens and do not in any way represent any shareholding, participation, right, title or interest in Asure or any other company, enterprise or undertaking; nor will ASR tokens entitle token holders to any promise of fees, revenue, profits or investment returns, and are not intended to constitute securities in any relevant jurisdiction.

ASR token will be consumed through interactions between participants on the platform.

Also, the ASR Token will be listed at various token exchanges for an easy exchange and trading.

## Token distribution

It is very important that the community understands how the Asure's funds are going to be invested into the future in order to contribute to the idea of creating a world with a open decentralized autonomous insurance system. See below how the investments will be allocated.


**Token distribution**

| | | |
|---|---|---|
| 60% | Public crowdsale | Contributions will be used to develop the platform, and to fund security, legal and operational needs. |
| 20% | Community & Expansion | Comprises education initiatives, incentives to developers and to create new insurance modules. |
| 10% | Team | These are placed to acknowledge the time, effort and resources contributed to the Asure platform. The Asure team receive their tokens as part of their compensation package, and team tokens will be vested. |
| 5% | Pre-Investors and Advisors | Advisors and Pre-Investors receive their tokens as part of their compensation package. |
| 5% | Bounties | Asure provides compensation for a number of tasks spread across marketing, bug reporting or even improving aspects of the Asure platform. |

### Vesting

According to best practice and in order to protect investors and future participants of our platform, we will lock up our team's tokens. The Asure Team will receive their tokens in twelve equal parts over two years.

The vesting ensures token course stability and commitment of all involved team members. If a holder attempts to transfer more ASR tokens than vested, the transaction will be blocked.

We are going to publish the smart contract to control vesting within our project. Hence, we will prove to the community our long-term commitment.

### Burning

All unsold tokens will be burned.

## Application of funds

We envision that ETH derived from the sale of Asure utility tokens ("ASR") will be allocated in the following manner:


**Application of funds**

| | | |
|---|---|---|
| 55% | Platform Development | A large part of the budget will be applied in three areas:<br>★ The creation of ongoing development of our smart contract insurance products<br>★ Development of autonomous artificial intelligence system (Machine Learning)<br>★ The end-user experience for iOS and Android applications as well as the Asure platform (API, Rest/GraphQL) itself |
| 15% | Legal | We are acutely aware of the need for rigorous compliance. We will need our own well-resourced legal support. Our principal concern is to fit within complex regulatory frameworks across the globe in order to make the growth of the community legally secure. |
| 15% | Marketing & Operations | Additional staff and resources to cover day-to-day operations and prudent management as the organization expands. |
| 10% | Tax | Tax and organization development fees. |
| 5% | Office Expenses | Office expenses and HR activities to build up a team to achieve roadmap goals. |

## KYC/AML

The primary objective of token sale registration is to enforce a mandatory Know-Your-Customer (KYC) check to prevent identity theft, terrorist financing, Anti-money laundering (AML), and financial fraud. It also allows our team to understand our token holders better and manage risks appropriately.

The Asure tokens are not being offered or distributed to, as well as cannot be resold or otherwise alienated by their holders to citizens of, natural and legal persons, having their habitual residence, location or their seat of incorporation in the country or territory where transactions with digital coins are prohibited or in any manner restricted by applicable laws or regulations, or will become prohibited or restricted at any time after this agreement becomes effective ("Restricted Persons").

We do not accept participation from the restricted persons and reserve the right to refuse or cancel the ASR token purchase requests at any time at our sole discretion when the information provided by the purchasers within the KYC procedure is not sufficient, inaccurate or misleading, or the purchaser is deemed to be a Restricted Person.

## Privacy and Security

The security of your data is of great importance to us. There is no "cutting corners" when it comes to security, even under the pressure of running an ICO. As such, please find below the measures which will be employed to ensure your privacy and security:

- All your data will be stored in an encrypted form on our servers
- We don't store your password as we only support external authentication providers like Google and Facebook
- All the information required for the KYC process will be wiped out from our systems once the checks are completed

Asure will never share members' personal data with 3rd parties without prior consent. In order to be on the safe side you should take these precautions:

- Never send any fiat money or crypto coins to any address during the registration process. There is only one public token sale date and it is specified on our website: www.asure.io
- Bookmark the registration website, and never get to it following any email links.
- Never trust emails related to the particular sale details (such as the information about soft or hard caps, Ethereum address to send to, etc.). Remember that sender's email address can be easily forged.
- Never reply to our emails. Perform all your operations on our website only. You can check your registration status on our website using your account details.

## Excluded participants

Due to legal restrictions citizens and residents from the following countries are not eligible to acquire ASR tokens: American Samoa, Belarus, Burundi, Central African Republic, Cuba, Congo (Brazzaville), Congo (Kinshasa), Guam, Iraq, Iran, Lebanon, Libya, Northern Mariana Islands, North Korea, Puerto Rico, Somalia, Sudan, South Sudan, Syria, United States, US Virgin Islands, US Minor Outlying Islands, Venezuela, Yemen, Zimbabwe.

# Roadmap

The following roadmap reflects our business concept divided into phases to represent our intended future endeavors.

## Phase 0: Research in the blockchain field

Our CTO, Fabian Raetz did a research project at the University of Applied Science and Art Dortmund where he analyzed the emerging blockchain technologies and its possible applications.
In 2014 a small team led by Paul Mizel and Fabian Raetz developed their own blockchain based currency as a proof of concept and tested different kinds of blockchain issues and economic systems (NRJ Coin). Their early work can be found here
Github: https://github.com/nrjcoin-project

Paul Mizel has built a team in Kiev in early 2016 for AI innovation projects "Insure Assistant" and "Insure Advisor" as full automated chatbots (for support, claim management, etc) with unique learning mechanism and connected to different platforms like Facebook, Telegram, Skype, and others.

Tech stack: IBM Watson, Microsoft Bot Framework, MS Luis, Microsoft .NET.
Algorithms used: Text mining, regression analysis, SVMs, neural networks.

## Phase 1: Develop MVP

Our goal is to publish a first AIP draft of an arbitrary insurance product. We also develop corresponding smart contracts and deploy them to one of Ethereum's public testnets. There we will study product and token dynamics and collect community feedback. We also plan to provide a DApp in form of Android and IPhone applications. These will be used by early testers to manage their insurances.

Blockchain environment: Ethereum Testnet.

The work is in progress and Proof of Concept can be seen on www.asure.io/poc

Estimated completion target: Q4, 2018.

## Phase 2: Develop platform and first products

Internal economic system development and testing in real markets.

AI algorithms development and testing. AI will be calibrated to enable data verification, fraud detection, and claims handling.

Chatbots development to provide a direct and natural way to interact with thousands of customers at the same time.

Data collection and analysis from the first user interactions activities with the platform and feedback.

Blockchain environment: Ethereum Mainnet.

Estimated time of completion: Q3, 2019.

## Phase 3: Launch platform and grow community

Insurance product proposals voting process implementation in order to enable product creation on the platform by all interested parties.

AI capabilities extension for enabling automatic underwriting in order to speed up the process tremendously.

Telematics integration in the platform for patterns recognition in the GPS data, traffic conditions and personal driving style for the auto insurance product.

Estimated time of completion: Q1, 2020.

## Phase 4: Globalisation and product variety

Industry Leader in decentralized autonomous insurance organizations.

Stable and functioning platform along with AI-backed automation is being deployed in existing and new markets.

Government corporations (B2G), country specifications, marketing, and localization work.

Blockchain environment: Ethereum Mainnet Status: Completion target is Q1, 2023

We've created a fully autonomous decentralized insurance platform - a platform for innovation and efficiency. Customers are accessing new and improved insurance products. 100 Mio. customers worldwide are using our platform.

Blockchain environment: Ethereum Mainnet Status: Completion target is Q1, 2023

## Challenges

Our marketing challenges include:

- penetrating existing oversaturated insurance market, such as German, Dutch, etc. (est. 2 years) by improving the effectiveness of the Asure platform
- establishing a new submarket in the Western European market (est. 1 year)
- a panel of experts creation for the West European market (est 6 months)
- entering Asian insurance market (est. 1 year)
- establishing the ambassador community (est. 1 year)

Technological challenges that we see at the moment are:

- Data
- choosing an appropriate AI for robo-advisor and automating claims processing
- AI - collecting training data for machine learning sources
- Froud detection

Other challenges will follow and are addressed in our project. We are putting a lot of effort in order to combat above mentioned challenges.

We truly believe that our team has all the knowledge and experience to develop Asure into the best decentralized autonomous insurance organization platform in the cryptocurrency community. We will move quickly, learn as we go, attract a group of early-adopter insurance

specialists interested in a completely new approach by an independent team skilled in developing AI/machine learning backed solutions.

## Outlook

Self-optimization and self-learning mechanism are working and the platform is working autonomously.

After Asure platform has been developed and proved the stability and correctness of operations the marketing efforts will be executed in order to attract clients to various insurance products and provide potential customers with the information about benefits of our approach.

## Team

Paul Mizel
Founder, CEO

Fabian Raetz
Founder, CTO

Gamal Schmuck
Founder, COO

Andrey Kuchaev
Community Manager

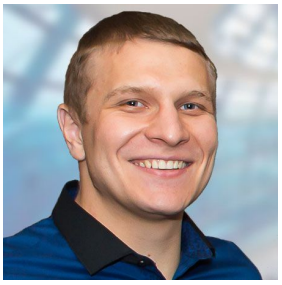
Eugen Falkenstein
Team Manager

Kersten Lorenz
Blockchain Expert

Wetscheslaw Lipp
Blockchain Developer

Ramazan Kunas
Blockchain Developer

Alexander Grünke
Marketing



Serhii Kirienko
AI Developer

Patrick Möller
Marketing

Serhii Yaremchuk
Full Stack Developer

Anastasia Scherbakova
Full Stack Developer

Igor Gutjahr
Operations Analyst

Anastasia Droganova
Office Manager

Waldemar Stelle
Technical Support

We are a team with most members based in Dortmund(Germany) and Kiev (Ukraine). The following people are currently working either full- or part-time for the Asure. After the token sale finished we are going to hire additional experts and utilize our partners' network to achieve our goals on the roadmap.

### Paul Mizel – Founder, Chief Executive Officer

Paul holds a master's degree and is a serial entrepreneur with over fifteen years' of business development experience especially in IT and insurance industry. Former business partner and Head of Innovation at insurance consulting company BROCKHAUS AG. He and his innovation teams in Germany and in Ukraine worked on artificial intelligence and blockchain-related projects since 2014.
http://linkedin.com/in/pmizel

### Fabian Raetz – Founder, Chief Technology Officer

Fabian has been working for more than 10 years at BROCKHAUS AG. In Paul Mizel's Innovations department he researched cutting edge technologies that could help change the Insurance field. His Bachelor Thesis was about implementing Blockchain technology for Insurance use-cases. He also supported a number of open-source projects.
http://linkedin.com/in/fraetz

### Gamal Schmuck – Founder, Chief Financial Officer

Gamal has over five years' experience in insurance industry and authorities. He is responsible for the administrative, financial, and risk management operations of the foundation, to include the development of a financial and operational strategy, metrics tied to that strategy, and the ongoing development and monitoring of control systems designed to preserve foundation assets.
http://linkedin.com/in/gschmuck

### Andrey Kuchaev – Community Manager

Andrey holds a Master of Science degree in Computer Engineering from Duisburg-Essen University. He was working at Fraunhofer Institute where his interest in the Blockchain technologies has arisen. After that, he joined BROCKHAUS AG team where he got to know the insurance field and its challenges. He worked on multiple projects for a major international insurance provider.
https://www.linkedin.com/in/akuchaev

## Advisors

### Emanuel Kuceradis – Technology advisor

More than 10+ years of experience in software development and 3 years in Big Data and distributed platforms and technology for international markets.
https://www.linkedin.com/in/emanuel-kuceradis-86514566

### Alexander Böhner – Insurance advisor

Alexander has more than 10+ years of experience in insurance industry he developed many different insurance solutions and platforms in small and big teams for various insurance organizations based in Germany like Mannheimer, Gothae, Zürich AG and Signal Iduna.
https://www.linkedin.com/in/alexander-böhner-991533107

### Michael Lurz – Insurance advisor

Michael has more than 10+ years of experience in information technology and insurance development he developed many different insurance products and platforms in small and big teams for one of the biggest international insurance organization based in Germany.
https://www.linkedin.com/in/michael-lurz-4914a7143

## Organization

The Asure platform consists of a variety of advanced and rapidly evolving technologies, enabling it to provide an efficient basis for new DAIP creation. Thanks to these technologies, it is possible to create a fully decentralized version of a platform, which does not fall under the Insurance Act as an insurance carrier or intermediary. We are not regulated by BaFin/FINMA as an insurer and hence members are not covered under the Policy Owners' Protection Scheme and will not have access to the dispute resolution scheme. We made this decision consciously in order to be able to scale globally faster. Nevertheless, in our budget plan we have provided for legal expenses in order to make the growth of the community legally secure.

We are in contact with BaFIn (The Federal Financial Supervisory Authority in Germany) and FINMA (The Federal Financial Supervisory Authority in Switzerland) about the rules of conduct and organizational requirements in an attempt to establish Asure Foundation in Germany or Switzerland. Depending on the results of the discussion, the foundation will be based in Switzerland.

The Asure Foundation is a non-profit organization and is based on three main pillars: innovation, collaboration and research with a community of members engaged in research and development of smart contracts for newly developed Smart Products created on Asure platform.

The foundation includes technology researchers as well as insurance experts. The Asure Foundation is an important element of the Asure platform, that lets us coordinate interactions in different parts of the ecosystem.

We are going to work in collaboration with our industry partners on blockchain projects and on further development of the Asure platform. Our partners have long-standing experience in the insurance field as well as business process analysis and improvement of various insurance products. With the support of our partner network, we will be able to achieve the top performance.

## Conclusion

We at Asure believe that the future of insurance will be defined by Crypto technologies (esp. Blockchain), AI and Big Data in a decentralized context, which creates a whole new insurance experience geared for the digital world. It can only be achieved by using decentralized blockchain platform and artificial intelligence as the basis for creating insurance protocol for any kinds of risks in the world.

With our token sale, we want a wide range of people to participate in this long-term journey and create success story by changing how insurance works in our new digital age.

Be part of this journey, and join our Token Sale - we are looking forward to welcoming you aboard!

# Legal Note

PLEASE READ THE FOLLOWING SECTIONS AS WELL AS THE "TOKEN SALE TERMS & CONDITIONS" (SALE T&C) AND THE "TOKEN REDEMPTION TERMS & CONDITIONS" (REDEMPTION T&C) CAREFULLY.

No person is bound to enter into any contract or binding legal commitment in relation to the sale and purchase of the ASR tokens and no cryptocurrency or other form of payment is to be accepted on the basis of this whitepaper.

AN INVESTMENT IN ASR INVOLVES A HIGH DEGREE OF RISK AND MAY RESULT IN THE LOSS OF ALL OR PART OF THE INVESTMENT.

NOTHING IN THIS WHITEPAPER CONSTITUTES AN OFFER OF SECURITIES FOR SALE IN ANY JURISDICTION WHERE IT IS UNLAWFUL TO DO SO.

THE ASR TOKENS (AS REFERRED TO IN THIS WHITEPAPER) HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE U.S. SECURITIES AND EXCHANGE COMMISSION ("SEC") OR BY THE SECURITIES REGULATORY AUTHORITY OF ANY STATE OR OF ANY OTHER JURISDICTION, NOR HAS THE SEC OR ANY SUCH SECURITIES REGULATORY AUTHORITY PASSED UPON THE ACCURACY OR ADEQUACY OF THE INFORMATION IN THIS WHITEPAPER.

THE ISSUANCE AND SALE OF THE ASR TOKENS HAVE NOT BEEN REGISTERED UNDER THE UNITED STATES SECURITIES ACT OF 1933 ("THE —SECURITIES ACT") OR ANY OTHER APPLICABLE SECURITIES LAWS AND, UNLESS SO REGISTERED, THE ASR TOKENS MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED WITHIN THE UNITED STATES OR TO OR FOR THE ACCOUNT OF ANY U.S. PERSON, EXCEPT PURSUANT TO AN EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE REGISTRATION REQUIREMENTS OF THE SECURITIES ACT AND ANY OTHER APPLICABLE SECURITIES LAWS.

## CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This Whitepaper includes statements which, to the extent that they do not recite historical facts, constitute forward-looking statements. These statements may be identified by the use of forward-looking terminology, including the terms "believes", "estimates", "forecasts", "plans", "projects", "anticipates", "expects", "intends", "may", "will", "could" or "should" or, in each case, their negative or other variations or comparable terminology, or by discussions of strategy, plans, business prospects, objectives, goals, future events or intentions. These forward-looking statements appear in a number of places throughout this Whitepaper and include, but are not limited to, statements regarding our intentions, beliefs or current expectations concerning, among other things, the business model of Asure platform, development costs, liquidity, prospects, growth, strategies, expectations about development of cryptocurrencies, blockchain technology.

## LEGAL NATURE OF ASR AND OF THIS WHITEPAPER

The ASR tokens are not intended to constitute securities in any jurisdiction.

The Whitepaper does not constitute a prospectus or offer document of any sort and is not intended to constitute an offer of securities or a solicitation for investment in securities in any jurisdiction.
This Whitepaper is intended for general informational purposes only and does not

constitute a prospectus, an offer document, an offer of securities, a solicitation for investment, or an offer to sell any product, item or asset (whether digital or otherwise). Asure and token purchasers' interests are aligned to make Asure DAIP a viable platform that truly disrupts the insurance industry.

The potential purchasers acknowledge and agree that they are not purchasing ASR tokens for purposes of investment, speculation, as some type of arbitrage strategy, for immediate resale or other financial purposes.

## DISCLAIMER OF LIABILITY

Acquisition of ASR token does not represent the acquisition of any form of security with respect to the Asure Platform. By purchasing and holding the ASR tokens, the potential purchaser is not entitled and (or) guaranteed any form of dividend or other revenue right of similar nature. The potential purchaser will not have any influence on the corporate management of Asure and the Platform.

To the maximum extent permitted by the applicable laws, regulations and rules, Asure shall not be liable for any indirect, special, incidental, consequential or any other kind of losses, in tort, contract or otherwise (including but not limited to loss of revenue, income or profits, and loss of use or data), arising out of or in connection with any acceptance of or reliance on this Whitepaper or any part thereof.

## RISK FACTORS

The purchase of tokens involves a high degree of risk, including but not limited to the risks described below. Before acquiring ASR tokens, it is recommended that each participant carefully weighs all the information and risks detailed in this Whitepaper, and, specifically, the following risk factors.

### A. Dependence on computer infrastructure

Asure's dependence on functioning software applications, computer hardware and the Internet implies that Asure can offer no assurances that a system failure wouldn't adversely affect the use of the sale participants' ASR tokens. Despite Asure's implementation of all reasonable network security measures, its processing center servers are vulnerable to computer viruses, physical or electronic break-ins or other disruptions of a similar nature. Computer viruses, break-ins or other disruptions caused by third parties may result in interruption, delay or suspension of services, which would limit the use of the ASR tokens.

### B. Smart contract limitations

Smart contract technology is still in its early stages of development, and its application is of experimental nature. This may carry significant operational, technological, regulatory, reputational and financial risks. Consequently, although the audit conducted by independent third party increases the level of security, reliability, and accuracy, this audit cannot serve as any form of warranty, including any expressed or implied warranty that the ASR smart contract is fit for purpose or that it contains no flaws, vulnerabilities or issues which could cause technical problems or the complete loss of ASR tokens.

### C. Regulatory risks

Blockchain technology, including but not limited to the issue of tokens, maybe a new concept in some jurisdictions, which may then apply existing laws or introduce new

regulations regarding Blockchain technology-based applications, and such regulations may conflict with the current ASR smart contract setup and ASR token concept. This may result in the need to make substantial modifications to the ASR smart contract, including but not limited to its termination, the loss of ASR tokens, and the suspension or termination of all ASR token functions.

**D. Taxes**

ASR token holders may be required to pay taxes associated with the transactions contemplated herein, whether in Germany or in their home countries. It will be a sole responsibility of ASR token holders to comply with the tax laws of Germany and other jurisdictions applicable to them and pay all relevant taxes.

**E. Force Majeure**

Asure's performance may be interrupted, suspended or delayed due to force majeure circumstances. For the purposes of this Whitepaper, force majeure shall mean extraordinary events and circumstances which could not be prevented by Asure and shall include: acts of nature, wars, armed conflicts, mass civil disorders, industrial actions, epidemics, lockouts, slowdowns, prolonged shortage or other failures of energy supplies or communication service, acts of municipal, state or federal governmental agencies, other circumstances beyond Asure's control, which were not in existence at the time of this whitepaper release. If such circumstances occur prior to the issue of ASR tokens and Asure is unable to issue ASR tokens within one month from the projected date, it may issue a refund at the request of the ASR token purchasers. The refund will be issued in the original amount and form of payment to the same digital wallet or bank account where the funds were transferred from.

**F. Disclosure of information**

Personal information received from ASR token holders, the information about the number of tokens owned, the wallet addresses used, and any other relevant information may be disclosed to law enforcement, government officials, and other third parties when Asure is required to disclose such information by law, subpoena, or court order. Asure shall at no time be held responsible for such information disclosure.

**G. Value of ASR Token**

Once purchased, the value of ASR Token may significantly fluctuate due to various reasons. Asure does not guarantee any specific value of the ASR Token over any specific period of time. Asure shall not be held responsible for any change in the value of ASR Token. Assumptions with respect to the foregoing involve, among other things, judgments about the future economic, competitive and market conditions and business decisions, most of which are beyond the control of the Asure project team and therefore difficult or impossible to accurately predict. Although the Asure team believes that its assumptions underlying its forward-looking statements are reasonable, any of these may prove to be inaccurate. As a result, the Asure team can offer no assurances that the forward-looking statements contained in this Whitepaper will prove to be accurate. In light of the significant uncertainties inherent in the forward-looking statements contained herein, the inclusion of such information may not be interpreted as a warranty on the part of Asure or any other entity that the objectives and plans of the Asure project will be successfully achieved. Please

note that the Asure project may be subject to other risks not foreseen by its management at this time.

### GENERAL ISSUES

ASR tokens do not (and are not intended to) mean any note, stock, treasury stock, security future, security-based swap, bond, debenture, evidence of indebtedness, certificate of interest or participation in any profit-sharing agreement, collateral-trust certificate, preorganization certificate or subscription, transferable share, investment contract, voting-trust certificate, certificate of deposit for a security, fractional undivided interest in oil, gas, or other mineral rights, any put, call, straddle, option, or privilege on any security, certificate of deposit, or group or index of securities (including any interest therein or based on the value thereof), or any put, call, straddle, option, or privilege entered into on a national securities exchange relating to foreign currency, or, in general, any interest or instrument commonly known as a 'security', or any certificate of interest or participation 34 in, temporary or interim certificate for, receipt for, guarantee of, or warrant or right to subscribe to or purchase, any of the foregoing.

The original text of the Agreement is in English. Albeit the Company may place a translation of the Agreement on the Webpage, the English version shall prevail if there is any conflict.

If you are in any doubt as to the action you should take, you should consult your legal, financial, tax or other professional advisor(s).

## Acknowledgments

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Thank you for your attention.

*Asure Team*

„Be curious. And however difficult life may seem, there is always something you can do and succeed at. It matters that you don't just give up. „
Stephen Hawking

# License

# List of Shortcuts

| | |
|---|---|
| **ACORD** | Association for Cooperative Operations Research and Development |
| **AI** | Artificial Intelligence |
| **AIP** | Asure Improvement Proposal |
| **AML** | Anti-Money Laundering |
| **API** | Application Programming Interface |
| **ASR** | Asure's Social Revolution |
| **BaFIN** | Bundesanstalt für Finanzdienstleistungsaufsicht |
| **B2B** | Business-to-Business |
| **B2C** | Business-to-Customer |
| **B2G** | Business-to-Governance |
| **BI** | Business Intelligence |
| **BiPRO** | Brancheninstitut Prozessoptimierung |
| **DAIP** | Decentralized autonomous insurance platform |
| **DAO** | Decentralized autonomous organization |
| **DApp** | Decentralized Application |
| **ERC20** | Ethereum Stack Exchange - EIP number 20 |
| **EVM** | Ethereum Virtual Machine |
| **IoT** | Internet of Things |
| **IPFS** | InterPlanetary File System |
| **KYC** | Know your customer |
| **ML** | Machine Learning |
| **MVP** | Minimum Viable Product |
| **NLP** | Natural Language Processing |
| **P2P** | Peer to Peer |
| **PoC** | Proof of Concept |
| **REST** | Representational State Transfer |
| **RPA** | Robotic Process Automation |

## Links


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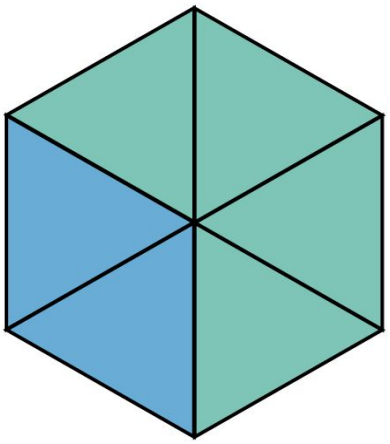

# Asure Foundation

A Non-Profit Foundation

OPEN DECENTRALIZED AUTONOMOUS INSURANCE PLATFORM

www.asure.io

This whitepaper is work in progress. We would appreciate feedback on our ideas from the community so that we can improve ourselves and the Asure project. Please send your thoughts to community@asure.io.


| | |
|---|---|
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