VERNAM

THE FUTURE OF INSURANCE

VERNAM TOKEN SALE

WHITEPAPER

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March 12 2018

01 /

EXECUTIVE SUMMARY

- **Our goal is nothing less, but to revolutionize the insurance industry!** We are the first company in the world ready to **implement a high-end technological solution which will dramatically lower the cost of insurance services** while making the business way more efficient and friendly for all parties-from End Clients to major Insurance Companies!

- For this purpose we developed **Vernam!** A decentralized platform, based on blockchain technology, connecting various stakeholders in the insurance industry – customers, brokers, and insurance companies, which will **use blockchain technology to make the insurance process less costly, fully transparent and much more convenient!**

- An unexpected reality? Insurance is one of the largest global industries ($ 4.73 trillion in 2016), but its business model has not changed significantly over the last several centuries, while its technologies have long become outdated. That is why our plan is to make the next evolutionary step and **digitalize the industry!**

- The status quo today: Big insurance companies depend on brokers to bring their products to end customers. In exchange, brokers receive generous compensation –up to 30% of the policy premium – for performing relatively low value-added services. **Imagine if End Clients don't need to cover the broker's commission and instead they receive his reward straight into their pocket? Vernam is about to make this possible!**

- Our Solution: The use of a shared ledger will prevent any possibility for data manipulation, increasing transparency and minimizing transaction costs. Besides the engine, **a proprietary off-chain marketplace will use the Vernam token (VRN), an Ethereum-based ERC20 standard crypto token** to take full advantage of the platform functionality

- Here's how: **Clients, purchasing conventional insurance through the Vernam platform will receive a reward in VRN tokens, equal to a typical broker's commission** (up to 30% of the premium price). Tokens can be sold on an exchange or used for the purchase of conventional and crypto insurance products!

- And there is even more! **"CryptoSafe", a crypto product, only available through the Vernam platform.** Each platform user will be able to purchase the "CryptoSafe", which is a type of a smart contract, guaranteeing that when a defined set of events occurs, the client will be compensated with a certain amount of VRN. An intelligent way to create even safer environment!

- Would you like to participate in the future of insurance NOW? In total **1 billion Vernam tokens will be created and 50% will be sold at the token sale event.** The proceeds will be used to develop the blockchain platform and to implement the platform on key markets, depending on size of the funds raised.

- **We unite the best of both worlds.** Vernam platform users will be able to make conventional insurance through our own network of brokers, including Vernam company itself, and/or to purchase "CryptoSafe", **the newest and most innovative blockchain based insurance product that Vernam will introduce.**

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INTRODUCTION

Insurance is one of the oldest and biggest industries across the world. And it hasn't changed significantly since its very creation. We believe the time has come! Documents dating from ancient China and Babylon prove that merchants have pooled resources and have allocated small amounts of money to protect themselves from losing their valuable cargo, while transporting it. As the industry developed, more advanced products like fire insur-ance and life insurance appeared – while statistical methods became utilized to predict the risk profile of a customer and the likelihood of an event occurring. Nowadays, insur-ance is a global industry estimated at **$4.73 trillion in 2016** and growing at an annual rate of over 3% .

Yet, **insurance has not changed much over the last few centuries.** Insurers are large companies, overseeing billions of dollars and euro, whose main job is to calculate risk and to spread a large amount of money over an even larger number of people. Like many other industries, they depend on distribution partners – like brokers and agents – to bring insurance products to their end customers. These partners decide how to identify clients, how to reach them most efficiently and how to handle paperwork and customer service. In turn, **brokers receive a commission of approximately 20% of the insurance policy value.** Yet, the added value of their service is highly debatable!

Technology advances in the recent decades have revolutionized both marketing and communication. Customers have received all kinds of tools to find a service provider, to receive information about price and features, and to compare products. Companies have received the possibility to interact directly with their clients. Yet, the business model fundamentals have not changed.**Brokers' commissions are still as high, as they were decades ago... Our plan is to take advantage of decentralized ledgers and to address all fundamental inefficiencies in the insurance industry!**

OUR GOAL IS TO TAKE ADVANTAGE OF DECENTRALIZED LEDGERS AND TO ADDRESS CURRENT INEFFICIENCIES IN THE INSURANCE INDUSTRY.

By implementing blockchain technology, we plan to tackle two main prob-lems with the current flow of information between insurance providers and end customers – the lack of pricing transparency and the lack of adequate customer history. Our open ledger platform will be decentralized and accessible to all stake-holders in the insurance process, increasing network effects and maintaining data integrity. Simultaneously we will build and operate an offchain marketplace that will be the first marketplace to connect to the Platform und use its functionalities.

Besides platform development, our growth plan foresees the **establishment of a broker network** in several countries to be operated by the offchain marketplace. Clients will be able to purchase insurance policies in VRN or fiat currency, taking advantage of the pricing and terms transparency, thus starting to create their own insurance customer history data as well.

In return against the use of the / OUR marketplace, customers will receive a reward in VRN tokens, equal the average broker commission for the given market (typically, around 20%).

Our vision for possible next steps include the **introduction of additional blockchain based insurance** services, with the main focus on the provision of crypto to crypto (C2C) insurance products, that do not fall under the scope of the applicable laws and regula-tions, where part of or the whole compensation will be in payable in VRN and/ or other crypto currencies.

03

INSURANCE BASICS

What is the origin of the insurance industry? The earliest known examples of property insurance date from **ancient China and Babylon**. In the 3 millennium B.C. Chinese merchants would redistribute their goods, when sailing through dangerous river rapids, to minimize losses against a vessel sinking. The Babylonians advanced insurance further. The famous Code of Hammurabi (c. 1750 BC) mentions how merchants, financing their business through loans, would pay their lenders an additional sum, against a guarantee that the loan would be cancelled, should the shipment be stolen, or lost at sea.

The first printed book on the topic, On Insurance and Merchants' Bets, was written in 1488. Around this time, insurance had become increasingly sophisticated, with sector specialization emerging. The **first "official" fire insurance company in the world**, the Hamburger Feuerkasse was established in Germany in 1676. Meanwhile in England, economist Nicholas Barbon and eleven associates established their "Insurance Office for Houses" which insured over 5000 brick and frame homes in London, where the Great Fire had already convinced many homeowners in the need to protect their property against unforeseen risks. The "Sun Fire Office" established in 1710 is the oldest active insurance company in the world.

One of the most famous insurance institutions is the **Lloyd's of London**, established in the 17 century as a coffeehouse for merchants, bankers, and people willing to insure commercial activities, and evolving into the most likely place to find underwriters for marine insurance (the word "underwriter" is said to have developed from the practice to have ever risk taker to write his name under the total amount of risk that he was willing to take under the specific premium).

The **first company to offer life insurance** was the Amicable Society for a Perpetual Assur-ance Office, founded in London in 1706. Around 1750 the necessary **mathematical and statistical tools** became available for the development of modern insurance companies. Edward Mores's Society for Equitable Assurances on Lives and Survivorship, founded in 1762, pioneered "the framework for scientific insurance practice and development " and introduced premiums based on statistical models.

While insurance companies proliferated (by 1820 there were 17 stock life insurance compa-nies in New York state alone) many of the early insurers failed from speculative investment, poor management and inadequate risk management models. Rate making was difficult in the absence of sound statistics and government regulation was poor. Many companies bankrupted after the Great Chicago Fire in 1871 and the San Francisco earthquake and fire of 1906. Almost 50% of US life insurers disappeared between 1873 and 1877.

One of the most memorable events in commercial insurance history was the loss of the RMS Titanic in 1912. Underwritten by Lloyd's Titanic and her sister ship Olympic were considered a "prestigious" risk and numerous Lloyd's syndicates put their names on the slip with amounts ranging from £10,000 to £75,000. The total insured amount for the hull of each ship alone was £1m (about £95m in today's money). White Star Lane negotiated a premium for the proudly "unsinkable" vessel of only £7,500.

MARKET PLAYERS AND TYPES OF INSURANCE

The insurance industry comprises several types of players. and our service takes into account all of them. While **clients** range from individuals to Fortune 100 corporations, **Insurance companies**, are typically among the largest organizations in each country (e.g. Metlife and AIG in the United States, or AXA, Allianz and Generali in Europe) – This is hardly surprising, given that their business model depends on pooling together financial resources from thousands of clients to offset potential risks. An even smaller number of reinsurers (e.g. Swiss Re and Munich Re) provides assurance to the insurance companies themselves to offset risks, that may be too large for them to handle on their own.

Besides these groups, a large number of **intermediaries** connects clients and insur-ance companies. **These are typically agents and brokers.** In life insurance, the so called "bancassurance" (a relationship between banks and insurance companies, where bank staff and tellers provide sales and customer support) is a popular distribution model in certain European countries. Some of these intermediaries are corporate behemoths themselves with companies like Marsh & McLennan in the United States or Aon plc in the United Kingdom having revenues in excess of $10bn per year.

As in other industries, the use of intermediaries is a popular model from the era, when service providers could not reach their clients directly, or in a cost-efficient way. Agents and brokers would bear the cost of personnel cost and operations, and would manage their client relationships and sales process on their own, **while receiving a commission fee of up to 20-30% as a compensation.**

Any type of risk, which is quantifiable can be insured against. Generally, the major "division line" is between life and "non-life" insurers (the latter category is also known as "general", or "property and casualty" insurance in the United States). This distinction arises from tax and legal treatment of the life insurance policies and therefore some companies only specialize in one of these two insurance categories. In a life insurance contract, the insurance company pays to a designated beneficiary in case of the death of the insured person (typically the policy holder). The main non-life insurance categories are motor insurance, covering damages to one's vehicle and/or liabilities to other parties, health insurance, covering healthcare and medical expenses, home insurance, travel insurance, marine insurance, commercial insurance (e.g. professional indemnity insurance for doctors, consultants, etc.).

MARKET OVERVIEW AND RECENT TRENDS

According to a recent Swiss Re report, the insurance market worldwide in 2016 was estimated at $4.732 trillion. **Europe, North America and Asia have almost equal market size**, with total premiums of $1.470 trillion, $1.467 trillion, and $1.493 trillion respectively. The remaining regions of the world account for about $301 billion, or 6% of the global market.

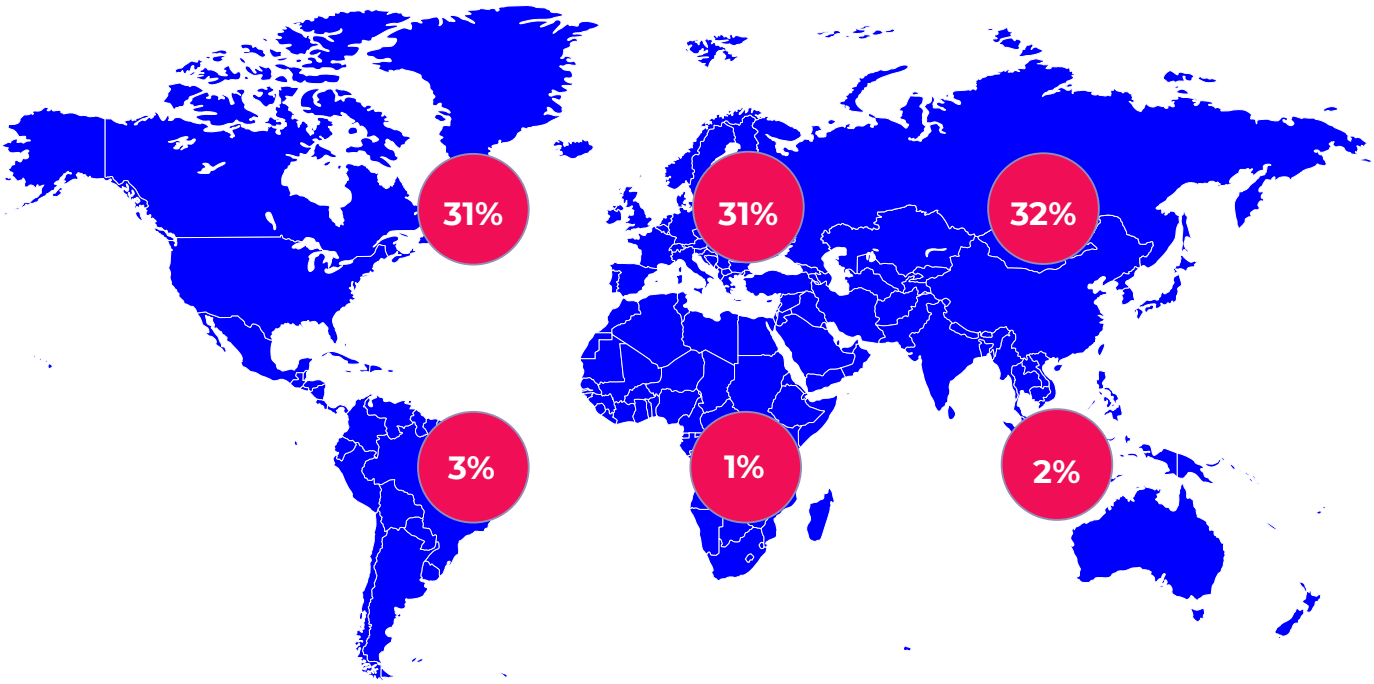


Figure 1: Regional share of 2016 insurance premiums revenues

Since Vernam will initially target Europe, our white paper will be focused on the EU market. The following figure shows its development by the major insurance categories. The total size of the insurance premiums in Europe has been stable around € 1 – 1.2 trillion, regardless of the overall economic situation on the continent. Of this amount, approximately 60% is attributed to life insurance.

The various types of non-life insurance contribute €471bn in 2015 - **this is exactly the market share we are about to revolutionize!**

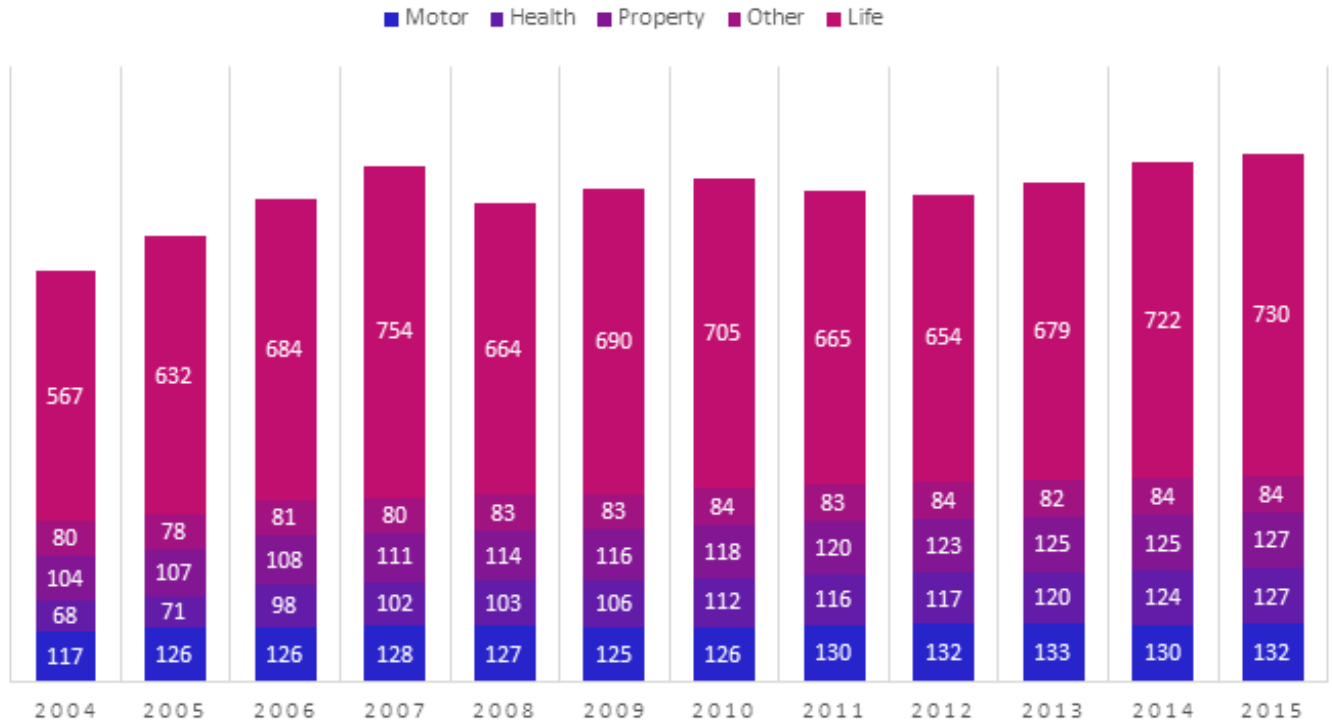
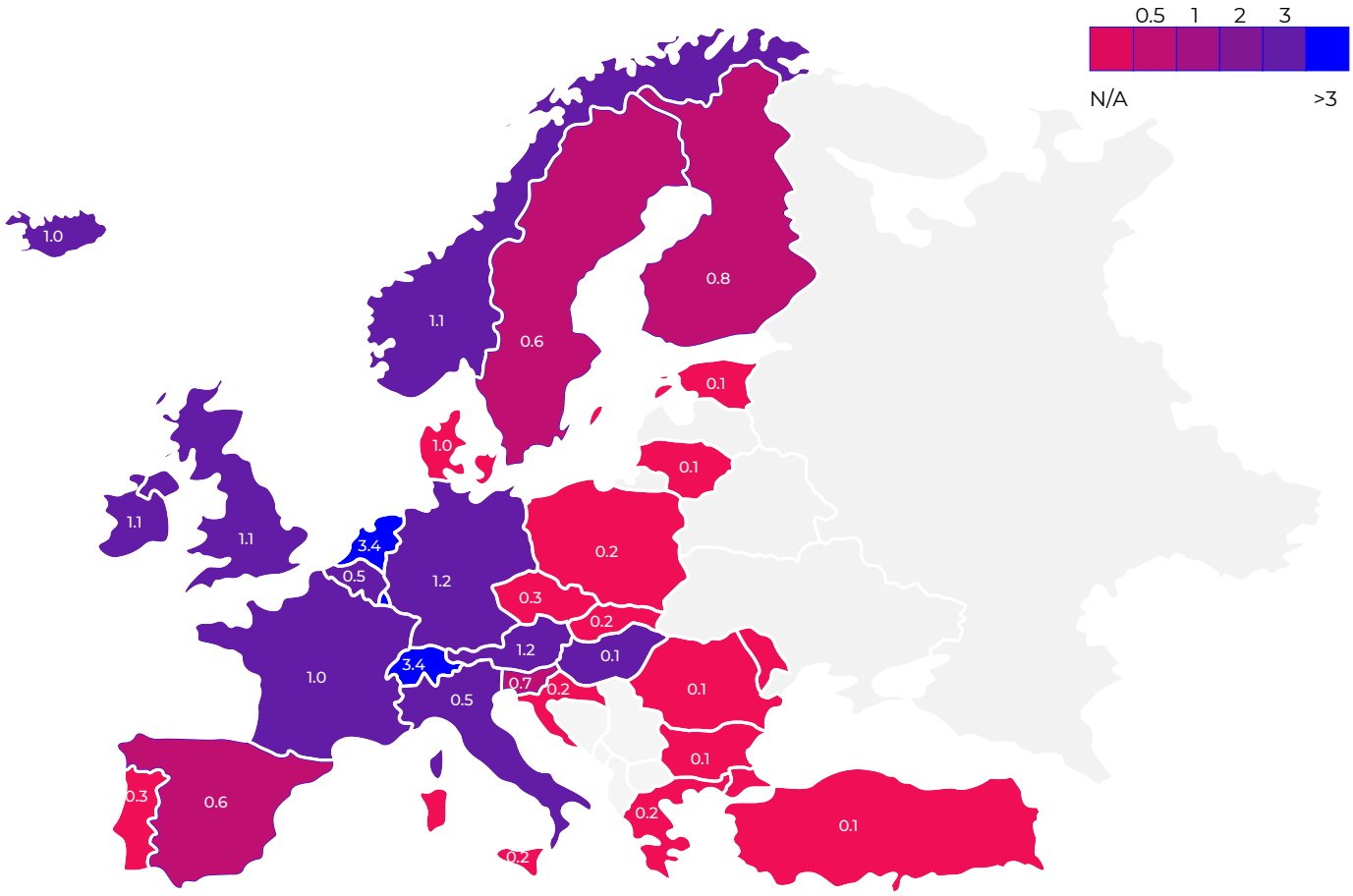


Figure 2: European insurance industry by major categories

Vernam's business model is based on the disruption of non-life insurance distribution chains, therefore our analysis does not take into account life insurance , where the largest European markets are UK (€181bn of life insurance premiums in 2015), France (€136bn), Italy (€115bn), Germany (€93bn), Switzerland (€30bn), Sweden (€27bn), and Spain (€26bn).

In non-life insurance, several countries have market size of €70-100 bn, which translates in "density" (i.e. premiums per insured person) of about €1000 / year. The average "density" in non-life insurance for Europe has been €760 for 2015.

The following figure shows the average non-life insurance premium ("density") per person in all EU countries. The countries with highest density are Liechtenstein (€22,946), Netherlands (€3,414), Switzerland (€2,949), Luxembourg (€1,529), Austria (€1,245), and Denmark (€1,245). Most large EU countries have an average density of about €1,000, while in Central and Eastern Europe, non-life premiums are typically in the €100-€200 range.



Average non-life insurance premium (2015, EUR ths)

The following figure shows the penetration in Europe by major insurance type. **Motor vehicle insurance is the predominant type in most countries, especially in Central and Eastern Europe, where it forms over 50% of all policies.** For example, in Bulgaria Motor insurance is 68% of the non-life market, in Romania it is 72%, in Estonia 60%, and in Greece 58%. From the large countries, Italy has a relatively high motor insurance penetration at 52% of all non-life policies, while for most other countries of this size, the average rate is around 25-30%.

In absolute terms, the total European motor insurance industry was worth €131.7 billion in 2015. Large countries expectedly have the biggest motor insurance markets with Germany's 2015 premiums standing at €25.2bn, France at €20.4, UK at €19.4bn, and Italy at €16.7bn. In Western European countries with 10-15 million citizens, motor insurance markets have total size of about €2-3bn per year.

Considering "density", the most lucrative European motor insurance markets are Luxembourg with an average premium of almost €750 in 2015, Switzerland with €664, Iceland with €501, and Norway with €415. Most western European countries have an average premium in the €260-€320 range, with Austria having a slightly higher average policy size of €364 per insured vehicle. Several countries (Sweden, Netherlands, Spain) have average premiums of €200-240 per year.

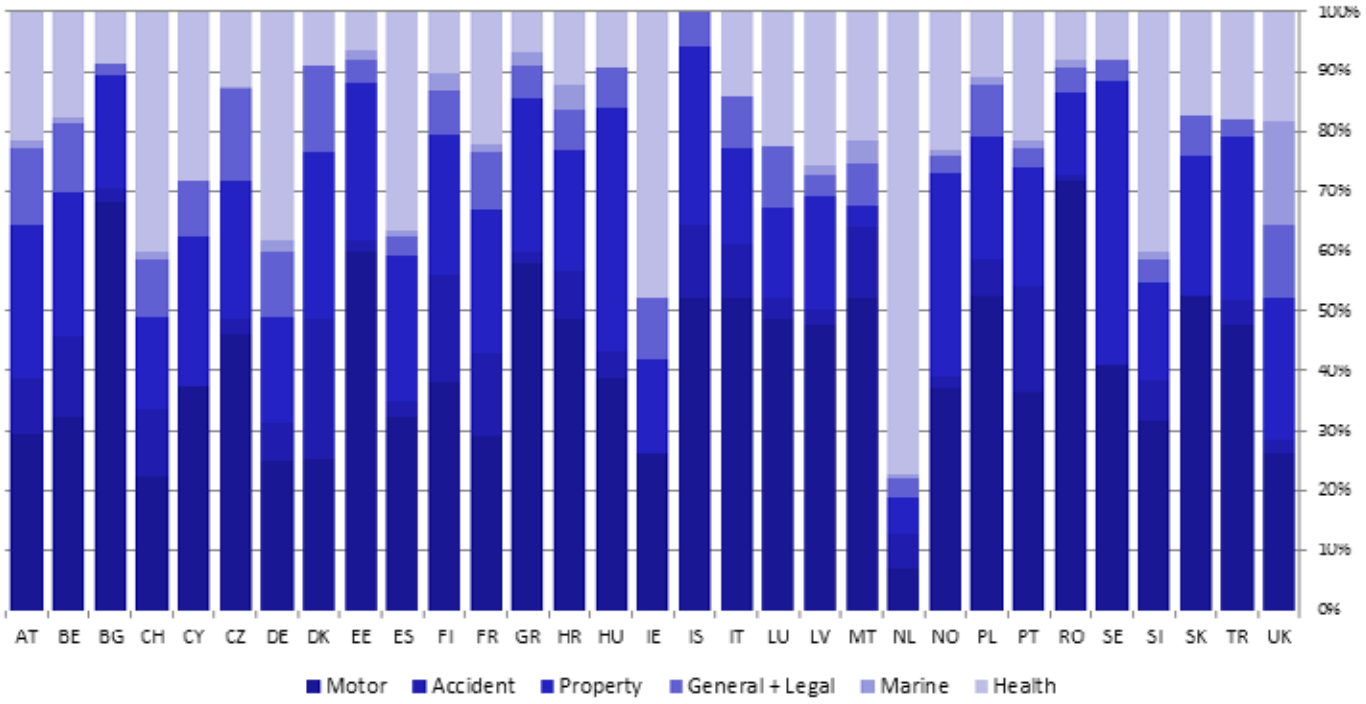


Figure 4: Penetration by insurance type, as a share of total non-life premiums

Property insurance is also a major category with a total size of €92.6 billion in 2015. Germany is the biggest market with €17.9 billion of property policies, with UK market at €17.6bn and France with €16.8bn having almost the same size. For the remaining West European countries, typical industry volume is in the €2-3 bn range, while Eastern European countries have property insurance markets of €100-200 bn per year (Greece with €447bn, Hungary with €518bn, and the Czech Republic with €731bn are relatively large per the region's standards).

As expected, **there is a significant correlation between premium size and a country's level of economic development**. The largest average premiums can be found in countries with high GDP / capita, such as Norway (average property policy of €382), Switzerland (€457), and Austria (€319). In most West European countries, average property policies falls in the €200-300 per year range, while in Eastern and Central Europe the average value decreases to €20-50 per insured.

The following figure shows market consolidation by EU country in 2014 (or latest available year). The most consolidated markets are Iceland, Finland, and the Czech Republic, where the five biggest insurers account for 90% or more of the market. The average share of the Top 5 companies in Europe is 66%. The least consolidated markets are Cyprus, where the five largest companies have only 12% of the market, Greece with 39%, Germany and the United Kingdom with 41%.

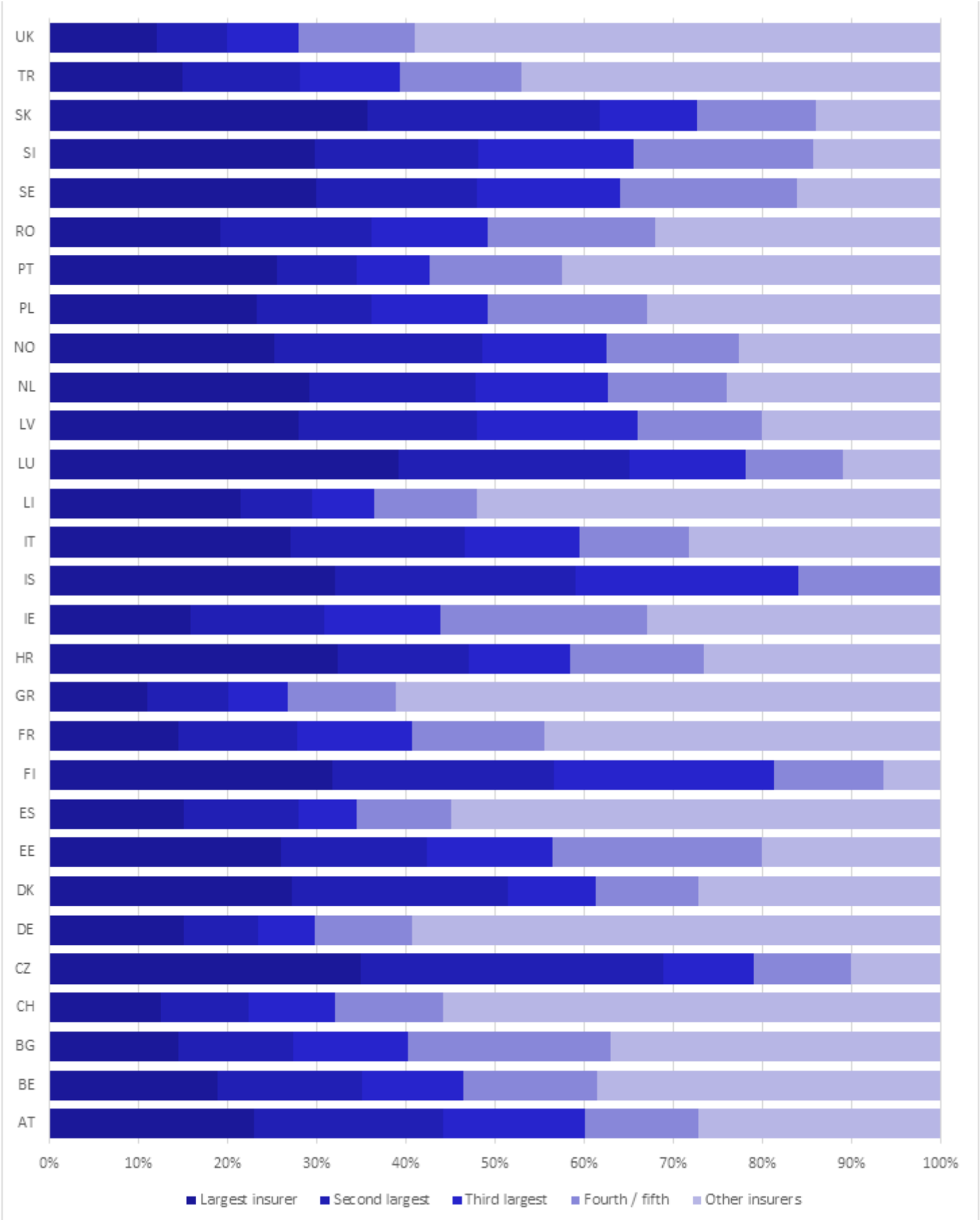


Figure 5: Non-life insurance market consolidation per country (2014 or latest)

The following table shows the biggest non-life insurance companies per country (in 2014 or latest available year). Large multinational companies, such as Allianz, AXA, and Generali hold positions in many countries. Apart from them, strong local players hold the top spot in most large Western European markets.

Country	Largest Non-life Insurer	Second Largest	Third Largest
AT	UNIQA	Vienna Insurance Group	Generali
BE	AXA	AG Insurance	Ethias
BG	Allianz Bulgaria Holding Group	Vienna Insurance Group	Armeec
CH	AXA-Winterthur	Zurich	Mobiliar
CY	General Insurance Of Cyprus	CNP Asfalistiki	Universal Life Insurance
CZ	Generali CEE	VIG	Allianz
DE	Allianz	Ergo	Axa
DK	Tryg Forsikring A/S	Codan Forsikring A/S	Topdanmark Forsikring A/S
EE	If P&C Insurance	ERGO Kindlustus	Swedbank P&C Insurance AS
ES	Mapfre	Mutua Madrileña	Allianz
FI	OP Group	LähiTapiola Group	If Insurance
FR	AXA	COVEA	Groupama
GR	Ethniki	Interamerican Non-Life	ERGO
HR	Croatia	Euroherc	Allianz
HU	Allianz	Generali	AEGON
IE	RSA	Aviva	FBD
IS	Vátryggingafélag Íslands (VÍS)	Sjóvá-Almennar (Sjóvá)	Tryggingamiðstöðin ™
IT	Unipol	Generali	Allianz
LU	Foyer	La Luxembourgeoise	AXA
LV	BTA	Gjensidige Baltic	Balta
NL	Achmea	VGZ	CZ
NO	Gjensidige	If	Tryg
PL	PZU	Ergo Hestia	Warta
PT	Caixa Seguros	Grupo Tranquilidade	Grupo Allianz Portugal
RO	VIG	Astra	Allianz
SE	LF-group	If Skade	Folksam
SI	Zavarovalnica Triglav, d. d.	Vzajemna zdravstvena zavarovalnica	Adriatic Slovenica, Zavarovalna družba
SK	Allianz SP	Kooperativa poisťovňa	Generali Slovensko poisťovňa
TR	Allianz Sigorta AŞ	Anadolu Anonim Türk Sigorta Şirketi	Axa Sigorta AŞ
UK	Aviva	RBS	AXA

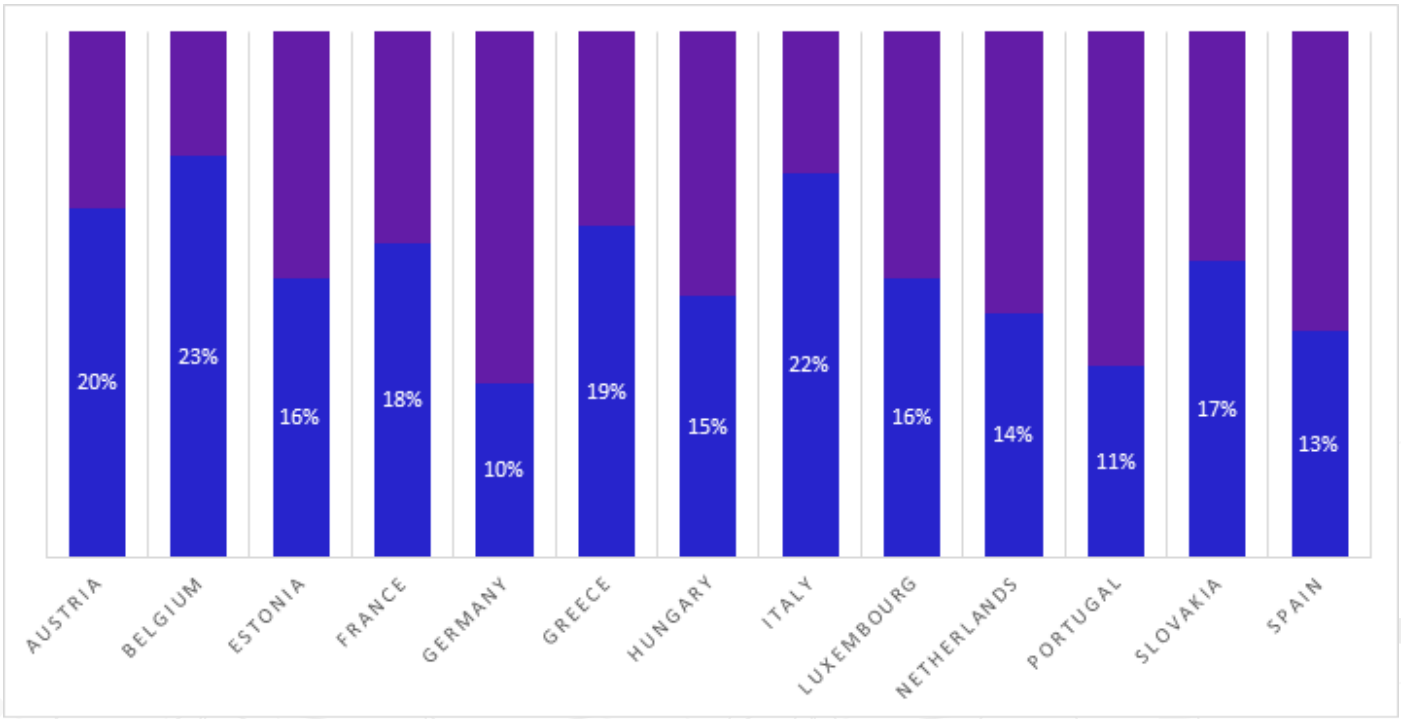
04 /

WHAT PROBLEM ARE WE SOLVING?

The standardization of information and procedures and the general customer awareness mean that most of these insurances can easily be completed online! As Mentioned in section 2, the insurance industry has not changed significantly over the last several centuries. The change is absolutely inevitable – it is not a matter of IF, but a matter of WHEN – and we can assure you the moment has come! **New products have been added, but the distribution model has essentially remained the same – large insurance companies would use brokers and agents to reach their end customers.** These distribution partners would typically orga-nize their business processes – opening offices and service desks, maintaining personnel, running advertisement and promotional campaigns (despite these being relatively rare – e.g. in the United States, advertising expenses have only averaged 0.2% from the sales of a insurance agents and brokers), and managing paperwork.

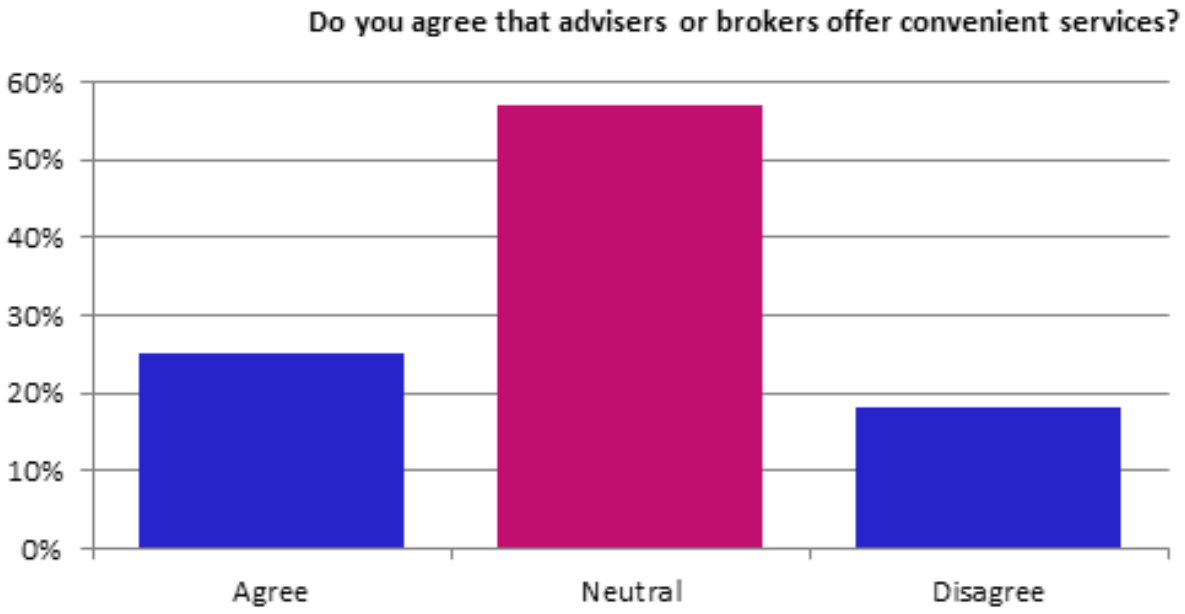
THE AVERAGE COMMISSION OF INSURANCE BROKERS IS APPROXIMATELY 15-20%, WHICH INCREASES THE PRICE FOR END CUSTOMERS WITHOUT PROVIDING PARTICULAR VALUE-ADDED SERVICES

While this model was typical across various industries in the pre-internet era, it does not add as much value nowadays as it used to. The figure below summarizes recent data for selected EU countries , showing that average brokers' commissions are indeed quite significant and relatively stable across the continent.



In a survey, by the British Bankers' Association from 2014, life insurance and pension customers across the United Kingdom reported on their perception about the convenience of services, offered by independent financial advisers and insurance brokers. An interesting result of this study is that

...only 25% of all respondents thought, that advisers or brokers offered convenient services[4] .



While customers may not be completely convinced in the broker services' convenience or added value, the revenue of the industry has been quite significant nevertheless, as indicated by Figure 3 on the previous page.

The commission size is not a one-time phenomenon. The following graph shows the acquisition costs (i.e. broker commissions) in Bulgaria for the last several years [5]:

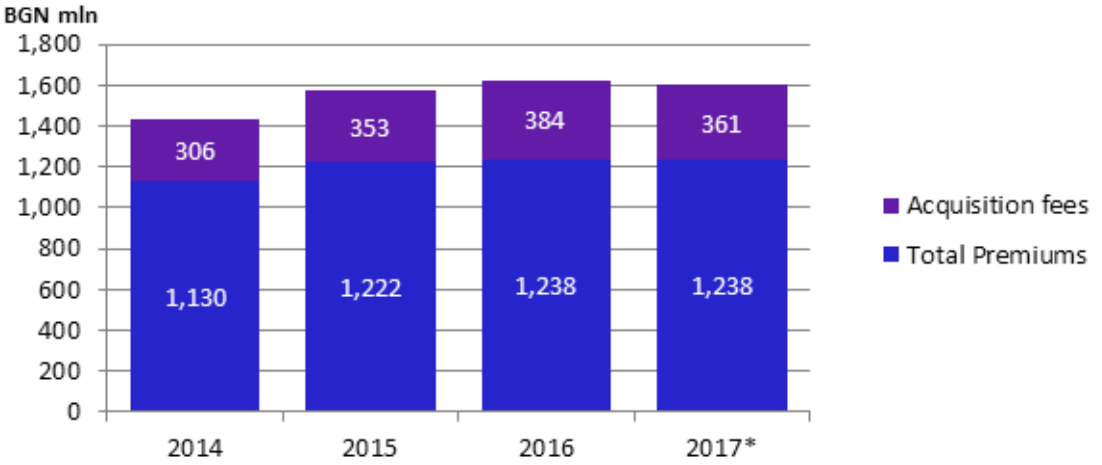


Figure 7: Average brokers' commission in Bulgaria

In any case, a very important issue is not about the average size of the brokers' commission, but about the transparency of their pricing policies and the related decision-making process. Customers are typically unaware about the incentives that insurance companies offer to brokers and therefore have no understanding whether the advice of a broker is in their best interest or not – **This fact gradually erodes confidence and leads to decreased customer loyalty. Vernam will fully solve this issue!**

For instance, a 1998 survey of corporate insurance buyers, organized by the Association of Insurance & Risk Managers in London, showed that... **fewer than 4% understood the nature of the payments made to brokers by under-writers .**

An investigation of "grossing up" malpractices, i.e. inflating the premium paid without the consent of the client, by the Lloyds regulatory division has been quoted by the Business Insurance magazine :

"...In a situation where a broker is quoted a net premium by an underwriter, he cannot simply add what he considers to be the appropriate brokerage commission and represent that as gross premium; any commission charged in addition to the net premium should be clearly shown as such on any cover note or debit note..."

The lack of transparency and disclosure have been the issue of many articles about the insurance industry. In a 2010 report from the Insurance Age magazine , the authors cite a broker consultant, who "does not have much sympathy for brokers 'milking' their clients though and the lack of transparency that is often involved", stating:

"...In my experience, there are lots of brokers that try to disclose as little as is possible. Brokers need to think about fundamental integrity issues when entering into any enhanced payment arrangements – wherever they come from..."

Similarly, a study by the Risk and Insurance Management Society, a professional society established in 1950 and serving more than 3,500 industrial, service, nonprofit, charitable and governmental entities, and headquartered in Manhattan mentioned that "...In paying an insurance premium, **the insured needs to know the amount of the premium that is going to the insurer to cover risk, and the amount that is going to the broker for negotiating the transaction and related services.** This information is essential to evaluating competing proposals and managing the components of the overall cost of risk. It is also necessary to identify potential conflicts of interest...."

The figure on the following page shows the average share of brokers' commissions to the total insurance premium value for Bulgaria , Italy , and Spain . While exact commission numbers are rarely disclosed, we have taken the average amounts for acquisition, administrative and other distribution costs, available through the government financial regulators in different countries.[9,10,11,12]

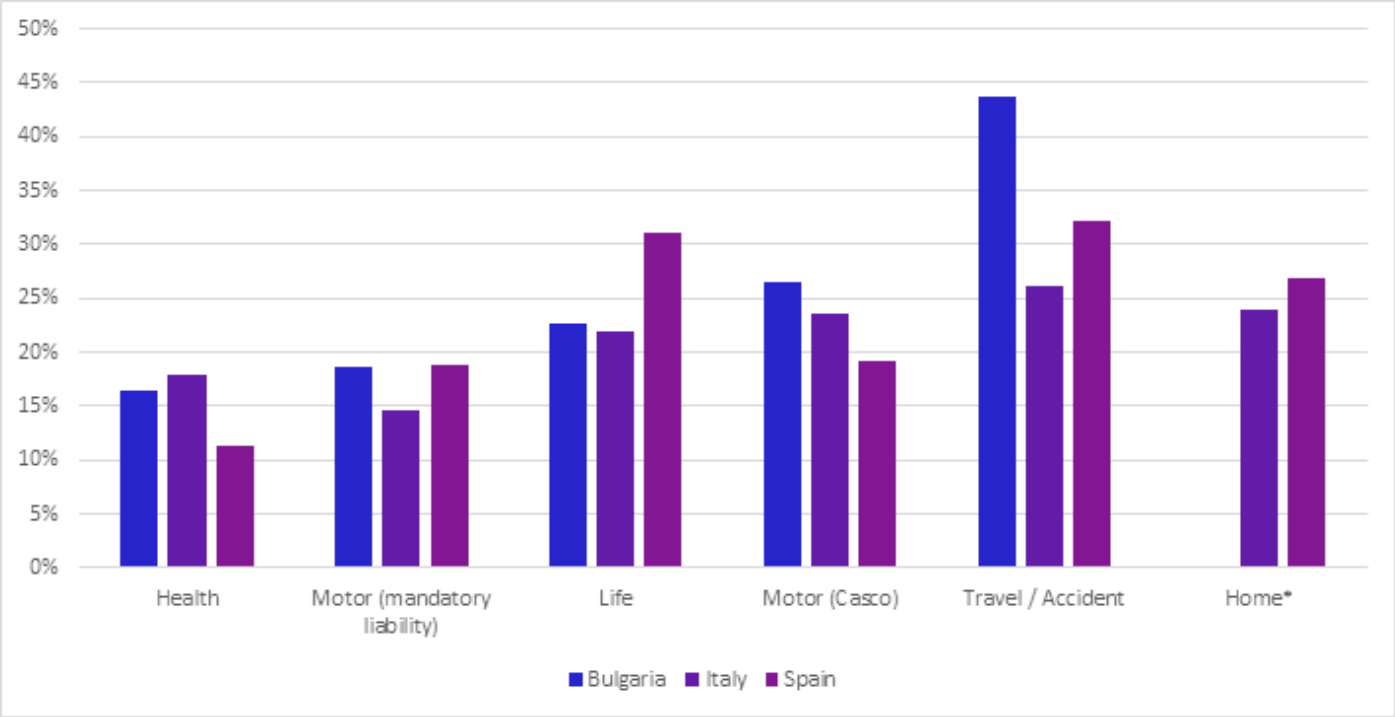


Figure 8: Acquisition and distribution costs / share of premium

Even with the relatively lower commission fees in the United States, brokers would have still earned a respectable amount for a relatively effortless process, such as renewing corporate health insurance for a major provider. For example, a 2011 analysis found that the average health premium for a company with 50 workers, half of which would buy a family package, and half – single person insurance, would cost about $470,000. The average commission of a large insurer, e.g. Aetna, would have been 6%, which would still come up to almost $30,000 for the broker (which was later decreased to $19,000 by the insurer). Shedding light on such issues have reportedly made many people think **"What does our broker get paid and what does our broker really do?"**

In the United Kingdom, a survey by Insurance Research & Strategy, sponsored by the International Underwriting Association and Lloyd's Market Association with over 500 corporate insurance decision-makers found "high levels of ignorance and confusion surrounding broker remuneration. **Only one respondent in five was aware that brokers often earn commission over and above any fees they charge their clients"**. 48% did not know or would not try to guess the commission that their broker earned. The rest guessed an average of 9.7% for their main commercial combined insurance policy, while typical commission was "actually between 17.5 percent and 20 percent"

We think the lack of transparency is unfair – the Vernam platform will eliminate such speculations!

Insurance is one of the industries, where selling could be difficult, especially to smaller companies and individuals, and when a non-necessary and non-obligatory product (e.g. life insurance) is being discussed. This explains insurer's interest in working through intermediaries and the generous commissions. As an article observed, "Life insurance is not a product that people have traditionally sought out to buy. In fact, quite the opposite -life insurance agents are known globally for their pesky hard sales pitches. The difficulty of selling life insurance has encouraged the insurance industry to front load (collapse a large part of a lifetime of commissions into the first year) the first few premiums in order to incentivize the sales agent. **Commissions on the first premium of life insurance policies were as high as 40%** till 2010, when they were reduced for unit-linked insurance plans"

It makes sense that brokers' incentives are higher when a hard-to-sell product is being peddled. It does not make so much sense, however, that commissions are still high, when products have a high customer demand – e.g. vehicle or property insurance – especially when the administrative process is not overly complicated. Standard motor insurances typically require general vehicle data (make, year, engine size, horsepower, etc.) and driver information (e.g. years of driving experience) to calculate premium and to prepare the necessary paperwork. The standardization of information and procedures and the general customer awareness mean that most of these insurances can easily be completed online! We will digitalize the insurance sector!

A different issue, however, is that certain population segments are often unaware or simply not willing to purchase insurance through the internet. As can be expected, the main "division line" is generational. As the following figure, based on a September 2016 survey shows, **almost 90% of Americans, aged 60 and above either did not know about the possibility or would not use online insurance, while the share among 18-29 year-olds is only 37% .**

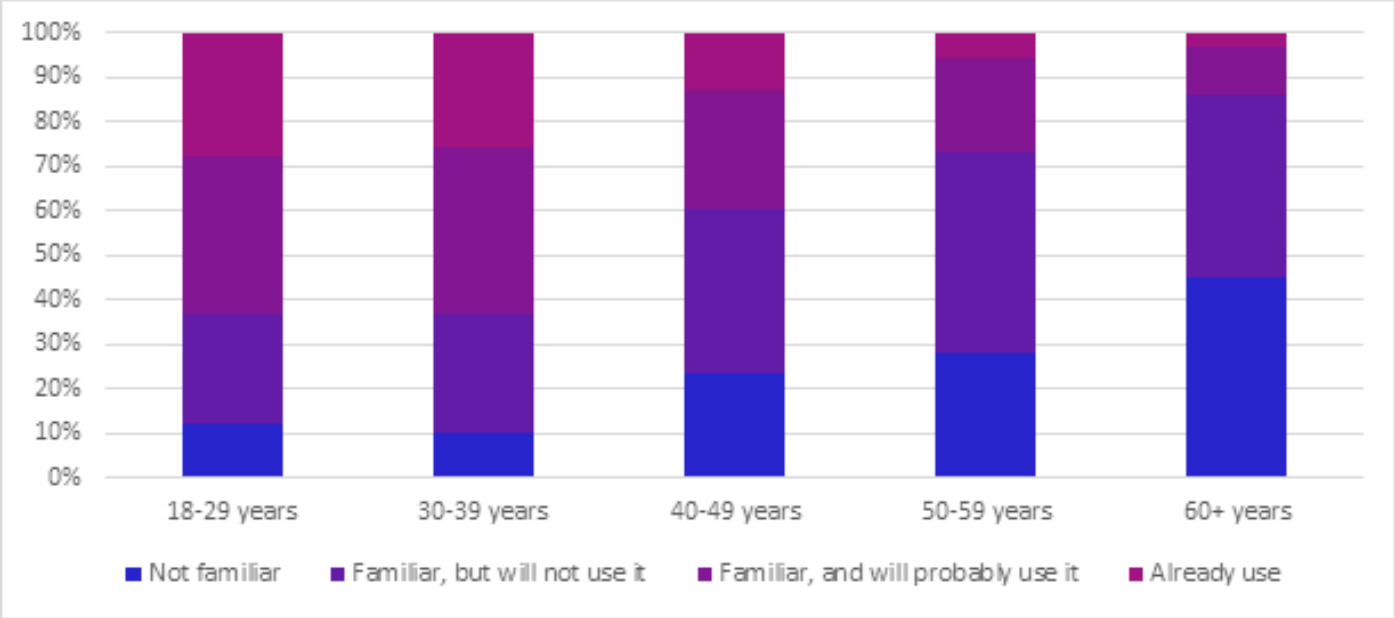


Figure 9: Consumer awareness of online insurance in the United States, 2016

Our plan, therefore, is to provide an online solution which can optimize pricing and increase information transparency for end clients, while maintaining the current level of customer service.
In this way we will accomplish our goal – we will transform the insurance sector into a fair and honest environment!
The following chapter will share more details about how we plan to achieve this.

05/

THE VERNAM PLATFORM

Our plan is to use blockchain technology to resolve the inefficiencies on the insurance market, resulting from the asymmetric information and lack of transparency between end customers, brokers, and insurance companies. We will create a marketplace, powered by a decentralized ledger, **which will allow providers to optimize their risk calculations, while customers will benefit from lower insurance premiums!** To provide a comprehensive experience, **we will set up a network of brokers in different countries to be operated by the marketplace,** which in the future will eventually include our proprietary blockchain powered C2C insurance company, operating with Vernam tokens. At the same time, our decentralized blockchain based platform will be open to all stakeholders, who would like to take advantage of its customer, insurance providers and their insurance products data base as our decentralized model will increase transparency and decrease transaction costs.

The Vernam Platform will completely revolutionize the insurance sector!

5.1. BLOCKCHAIN AND MARKETPLACE

One of the most important questions that all recent ICOs face is “why is blockchain even necessary for this project?” This is a very valid question, having in mind the proliferation of initial token offerings and shared ledger-based initiatives.

Given the lack of transparency and the resulting misinformation, or loss of trust between end customers, insurance providers, and intermediaries, such as brokers and agents, we are confident that the decentralized nature of the blockchain technology will help to recover the lost balance and will provide a platform, driven by shared data and mutual trust, while at the same time the clients may benefit from reducing administrative cost of the insurance products.

Blockchain technology is an excellent mechanism for transferring and securing funds. It can also support the complex multi-party agreements between participants in the insurance industry value chain, using smart contracts.

Since data remains stored in a **re-distributed ledger, which constantly validates itself and is free from central authority**, clients can be sure that their data will not be tampered with. Simultaneously, user identity and transaction history can be securely managed, providing the **information and transparency**, which the insurance industry is currently missing. Because of the constant revalidation, **data cannot be manipulated** and no external “manager” or authority is required.

"...the blockchain technology also offers potential use cases for insurers that include innovating insurance products and services for growth, increasing effectiveness in fraud detection and pricing, and reducing administrative cost..."

McKinsey&Company

The win-win scenario!

The immutable decentralized ledger holds advantages for both end clients and insurers. **Blockchain can be utilized to create a tamper-free, perpetual record of clients' insurance history, which can be used by insurers to optimize risk assessment, whereas from customers' perspective blockchain can be the key to lower their own insurance premiums.**

Over time, maintaining the shared ledger of insurance transactions, including premiums and claims history, will create a substantial database which may be used to derive a customer "insurance risk" score, similar, for example, to one's credit rating. While similar solutions are already in development, using blockchain would make the data itself free and available to everyone – unlike proprietary databases.

Data protection is an issue, central to the success of similar projects. The General Data Protection Regulation (GDPR) of the European Union and other similar legislative acts aim to regulate personal and "sensitive" data, including the rights of access, erasure, and portability of personal information.

Storing sensitive information on the blockchain secures us GDPR compliance, as pseudonymisation and encryption of personal data are one of the key measures to ensure a level of security according to Art. 32. Through the use of cryptography (digital signatures, encryption, time-stamping) and systemically embedded economic incentives for network maintaining entities, blockchains provide a secure way of storing and managing information, including personal data. "Hashing" the data – e.g. transaction record, vehicle or property ownership registry, etc. creates a compressed digital "snapshot", which is identifiable only to the involved parties and cannot be "reconstructed" without revealing the confidential keys, used to create the hash. As described in a recent Forbes article:

"...The collecting, hashing, and then discarding of all but the hashes of your personal data permits a globally distributed digital system to behave in a very similar fashion to the plastic ID card in your wallet. As long as you can keep your personal device secure nobody has your ID or personal information, but you can prove yourself when and where you need to do so..." [17]

While hashing makes personal information safe, it is also likely that customers themselves will be happy to maintain their transaction history on the shared ledger as this will help them to eventually lower their insurance premiums. Also, by not having a central authority behind the ledger and by keeping the transaction history public (i.e. by not trying to monopolize the information and to profit from it), the platform will increase its value to potential stakeholders.

Having in mind that market middlemen take around 20% of each "deal", releasing the Vernam ledger as a decentralized solution will return this value to the end customer, eventually allowing cheaper insurance premiums.

The Vernam platform's main goal is to incentivize clients to purchase insurance products using the platform, in return for which they will receive a crypto currency-denominated award in Vernam tokens of up to the typical broker's commission.

The platform will have a public and a private section. The former will provide insur-ance-related information. The private one will allow clients to purchase crypto digital and insurance products. These products will be in the form of smart contracts, deployed on Ethereum network and their autonomy- triggering a set of events when all prerequisites are met – will allow the replacement of the "paper" business, making it paperless and accelerating transparency and data integrity. **The encryption technology behind Vernam is the safest possible!**

WHY "VERNAM"?

Of all the methods of encryption ever devised, only one has been mathematically proved to be completely secure. It is called the Vernam cipher or one-time pad. In cryptography, the one-time pad (OTP) is an encryption technique, requiring the use of a one-time pre-shared key of the same size (or longer) than the message being sent, which cannot be cracked.

The "worth" of all ciphers is based on computational security. If a cipher is "computationally secure" this means the probability of cracking the encryption key using current computational technology and algorithms within a reasonable time is supposedly extremely small, yet not impossible.

UNITED STATES PATENT OFFICE.

SECRET SIGNALING SYSTEM.

1,310,719. Patented July 22, 1919.

In theory, every cryptographic algorithm except for the Vernam cipher can be broken given enough cipher text and time.

5.2. VERNAM TOKEN

The platform will be powered by Ethereum based ERC20 utility token named Vernam Token (VRN), which might be used by clients, insurers, brokers and third parties.

Each new insurance contract, signed on the Vernam platform will be denominated in VRN.

Tokenizing the platform will allow the unique identification of customers and assets, and the transfer of this information through the blockchain to insurers as an unalterable digital record.

Besides the purchase of insurance products, the rewards and incentives for platform users will also be given in Vernam tokens, which will thus be an integral part of the ecosystem and will be used to access the decentralized ledger.

While the use of VRN tokens will not be a requirement for the purchasing of digital insurance instruments through the Vernam platform, its built-in algorithm will convert any method of payment (such as fiat currency) into Vernam Tokens – under the current exchange rate of participating platforms. The reward tokens, received as an incentive for purchasing digital insurance products through the platform could be converted back to fiat money through a digital exchange, retained to purchase subsequent insurance (at an approximately 20% lower rate, than purchasing it with fiat money and receiving a VRN-denominated discount). As the Vernam platform gains traction, **the growing recog-nition and acceptance of crypto insurance products will result in a wider circulation of the VRN Token. In addition, the increased circulation will create a significant pool for exchanging tokens into Euro, Dollars, or other fiat currency – thus guaranteeing liquidity to VRN holders and prospective platform users.**

5.3. PURCHASING INSURANCE THROUGH THE VERNAM PLATFORM

After the Vernam platform is operational, customers will be able to purchase conventional insurance products through a broker network – including proprietary Vernam brokers. Sales and claim compensations will be covered through the platform, while risk analysis, claim adjustment and examination will be provided by the insurance company. Communication between Vernam and the insurer will be real-time and completely automated.

Purchasing process will start with a request from the customer. The platform will return quotes from participating brokers and insurance companies, which will be denominated in Vernam tokens. If accepted, depending on the availability of VRN in the customer's wallet, either the quoted amount will be transferred to Vernam / third party broker, or the required VRN tokens will be purchased from a digital exchange. An insurance contract will be created, where information will be retrieved from the shared ledger, or provided / updated from the client.

When insurance products are purchased through our dedicated broker network, clients will receive a VRN-denominated incentive, approximately equal to the standard broker commission for the specific type of insurance (typically, around 20%). A minor share will be retained for platform maintenance and to cover additional operating costs. This will increase the appeal of the Vernam platform to potential customers, thus creating a positive network effect.

The Vernam tokens could be exchanged for fiat money, or kept for future VRN-denominated purchases. As discussed earlier, **direct purchase of insurance products in Vernam tokens will be cheaper by an amount, equal to the abovementioned incentive**, which will also stimulate the development of the platform and its tokenized economy.

When a client signs an insurance contract on the platform a small floating fee* will be deducted from the reward for the operation. The revenue from this fee collection and advertising will be used to run the business and cover operational costs.

**The fee will depend on the number of clients on the platform. The more clients, the smaller the fee. But even in the worst case scenario of small client base, this fee will be much lower than standard broker commission.*

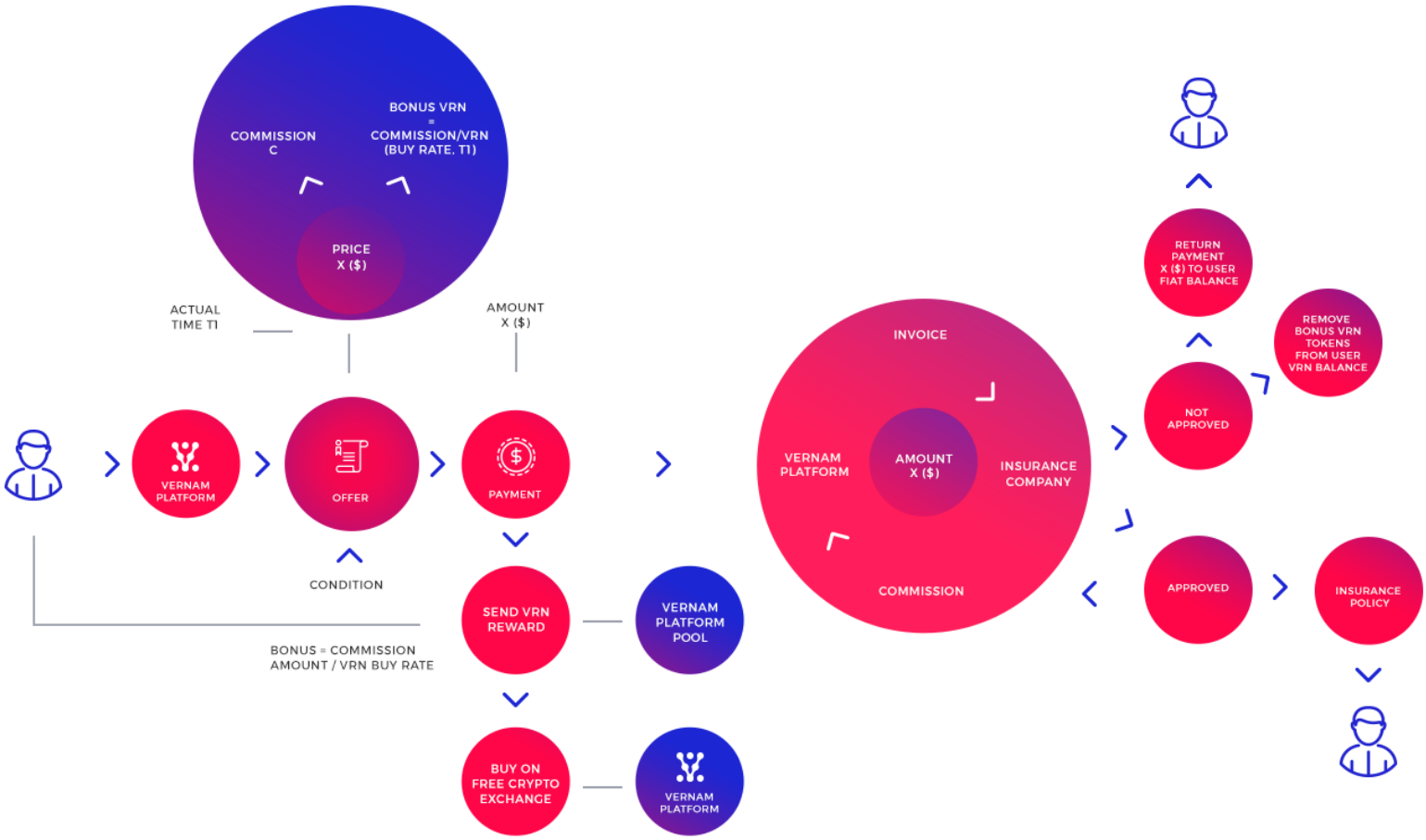


Figure 10: Purchasing general insurance in fiat money through the Vernam platform (flowchart)

The nature of the platform creates additional revenue opportunities!
Besides simply purchasing insurance policies, the Vernam platform will allow registered clients to actively solicit insurance products and thus create a reverse bidding process and an additional revenue opportunity for insurance providers and third party brokers.
When a client wants to take advantage of this facility, it would be able to outline service terms (e.g. what type of insurance is it looking for, what is the timeline, what are the main characteristics of the insurance required, etc.) Brokers will be able to place an offer, stating their terms and premiums. The platform mechanism will automatically select a broker or provider, based on a defined match of bid- and offered terms and conditions, and the contract will automatically be signed. At the same time, the iden-tity of the customer will remain secret for the remaining insurers and brokers.

5.4 CRYPTOSAFE

The CryptoSafe (CS) will be a digital crypto product, only available through the Vernam platform. Each registered platform user, who has a sufficient number of its proprietary Vernam Tokens, will be able to purchase the CS, which is a type of a **smart contract, guaranteeing that when a defined set of events occur, the client will be com-pensated with a certain amount of Vernam Tokens (VRN).** Smart contracts are autonomous and execute without the need of a third party.

CryptoSafe will be developed jointly with the leading global claim management company Insuralis Germany, which will provide risk assessment methodology and will take care of the claims management process.

The main differences between the CryptoSafe and the “conventional” insurance are as follows:

- CryptoSafe will provide an end-to-end digital process, which will be fast and automated. The use of a smart contract will guarantee correctness towards the end client
- We will use mathematical and statistical models for risk assessment, but will provide a transparent premiums and coverage policy (again underpinned by the use of a smart contract)
- When no damage has been claimed, the CS smart contract will return a defined percentage of the premium to the client

The CS purchasing process will be initiated by the customer, which will generate a request, and return a VRN-denominated quote, based on the risk assessment methodology of our partner. Shared ledger data will be used to optimize the calculations, determining the CS policy premium. If the quote is accepted, Vernam tokens will be deducted from the client's account, or purchased from a participating digital exchange.

The following figure illustrates the CS workflow process:

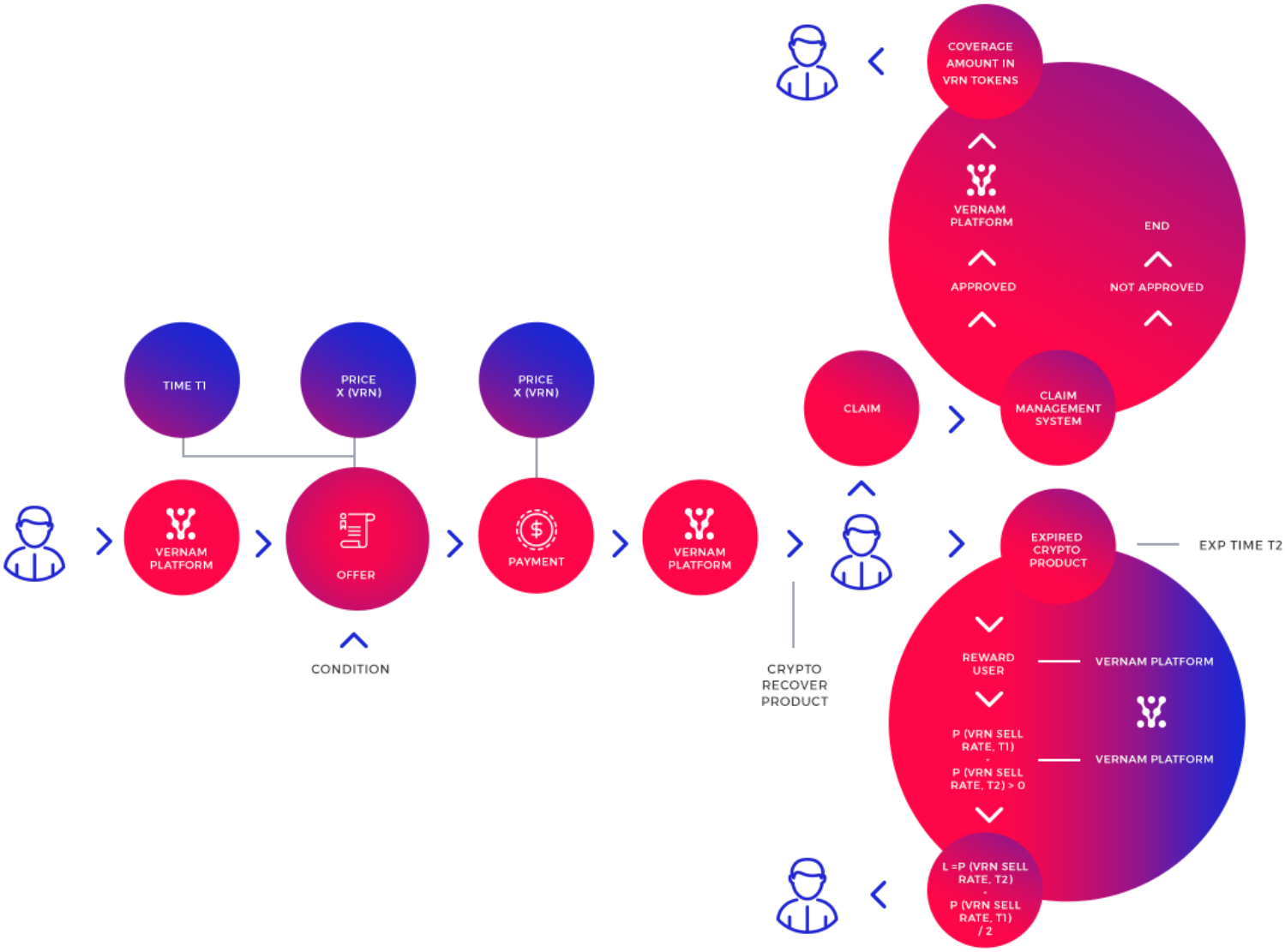


Figure 11: Purchasing CSG through the Vernam platform (flowchart)

06/

WORKFLOW AND INSURANCE REGISTRIES

6. WORKFLOW AND INSURANCE REGISTRIES

The blockchain sub-system of Vernam, is system of inter-related smart contracts.
It has two main purposes:

- Create Insurance Smart Contracts as a proof of the issuance of insurance and its details
- Transfer a commission back in the form of VRN Tokens

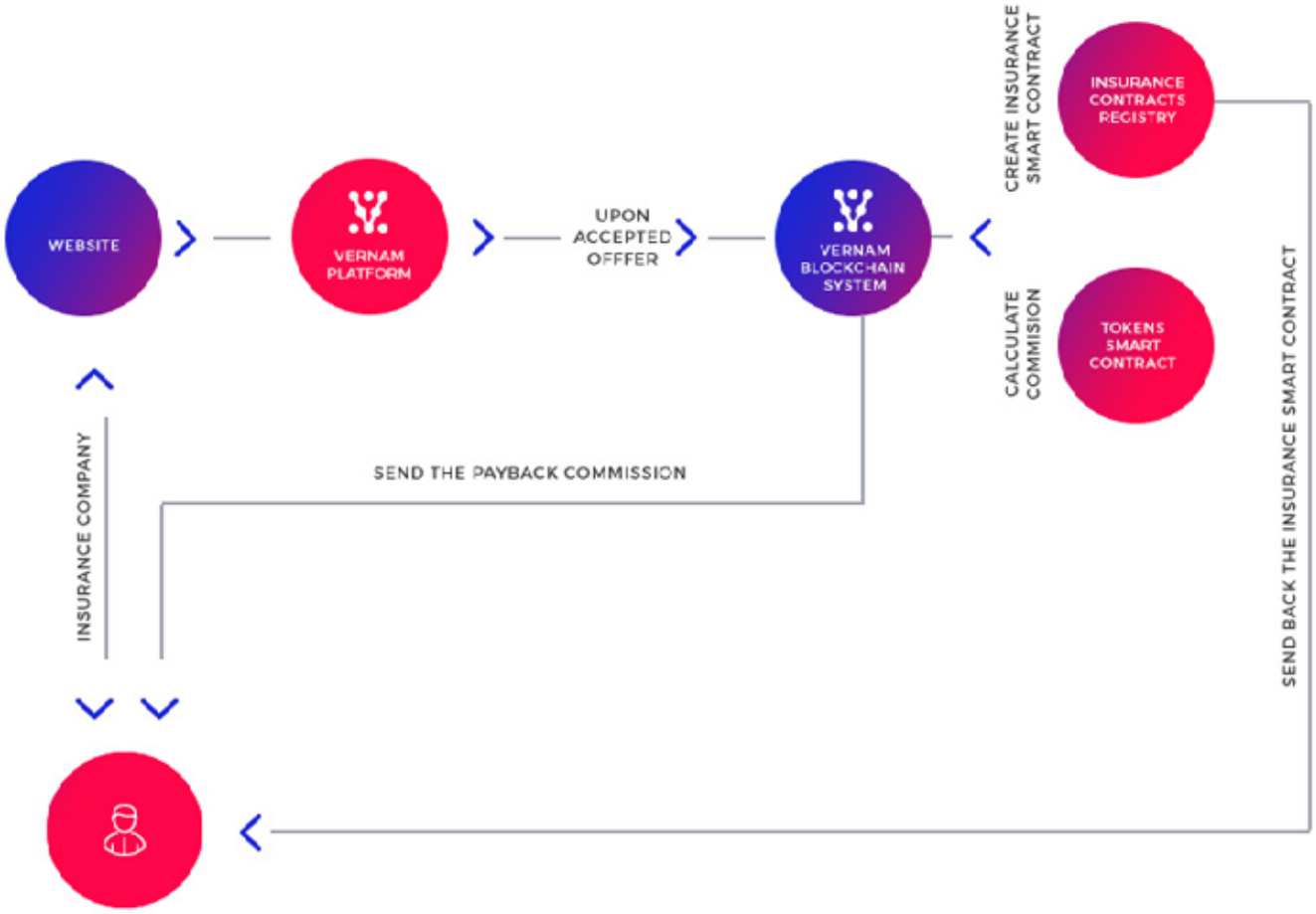


Figure 16: General interaction architecture of the whole system

General Workflow

The Vernam system is divided to several subsystems. All of them interact with each other (as could be seen in Figure 16). The user interacts with the Website, which later interacts with the logical subsystem in order to achieve happiness in form of Insurance Contract and paid back commission.

WORLDWIDE INSURANCE REGISTRIES REGISTRY

For this and all of the following poitnts refer to Figure 17

Naturally, due to the differences in the laws and regulations for the different countries a need of having different insurance smart contracts for different countries arises. This would require a more complex system consisting of:

- Worldwide Insurance Smart Contract Registries Registry – This smart contract is the "master" smart contract that is the single linking point between the different nation-wide registries. It holds the list of all available registries for the different countries. Also, this is the smart contract that whitelists the registries in order for them to be able to transfer the commission VRN tokens.
- National Registry Smart Contracts group – a system of smart contract obliging the famous Factory-Registry design pattern.

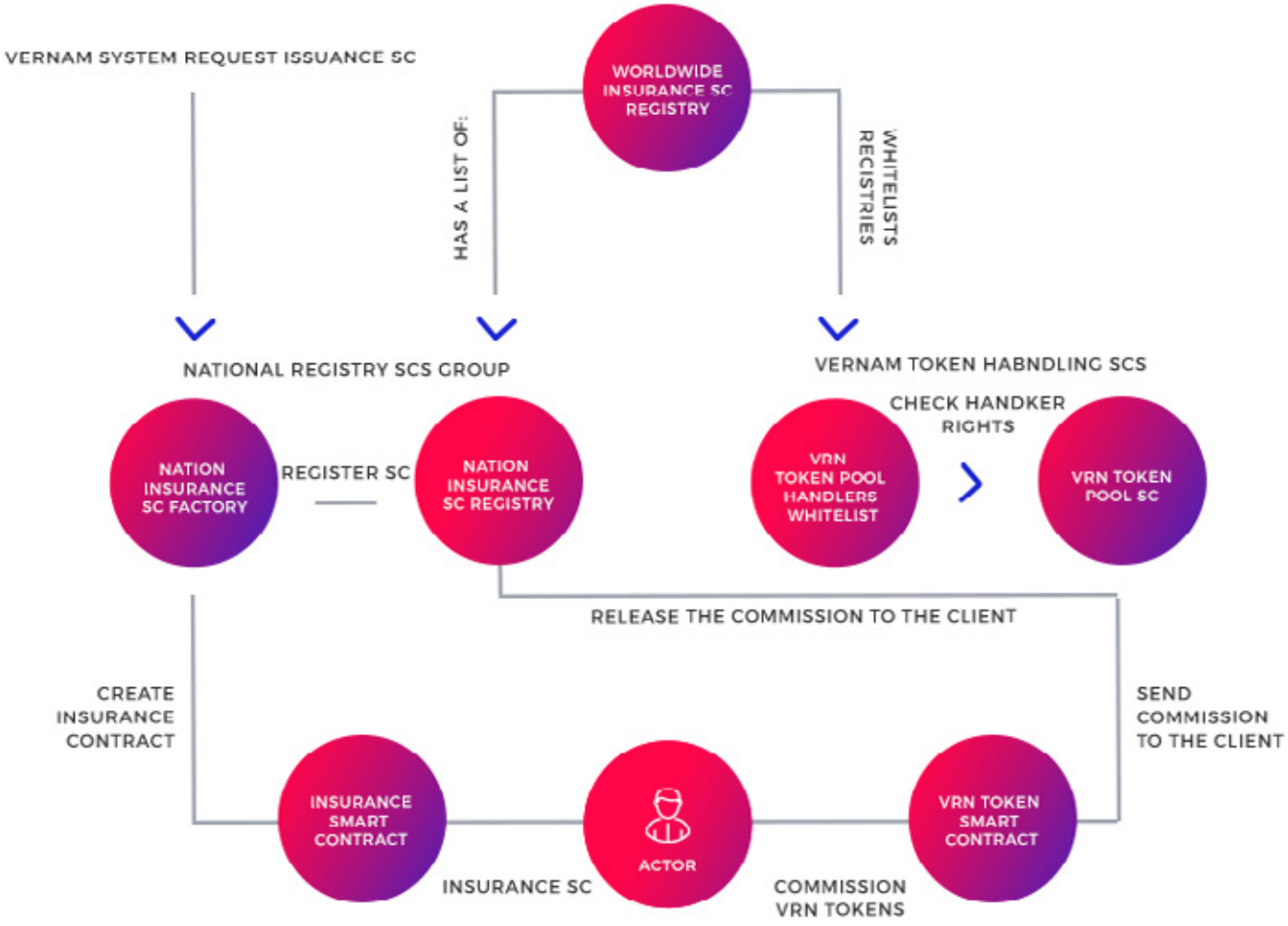


Figure 17: Worldwide Smart Contracts Sub-System Architecture

Nation Insurance Smart Contracts Group

Factory Smart Contract

This contracts goal is to be used for creating insurance smart contracts for the given country. It stores the necessary supplied data into new insurance smart contract and registers it into the registry smart contract.

Registry Smart Contract

This contracts goal is to be a registry of all insurance smart contracts issued for this nation. It is used for querying for insurance smart contract using the necessary supportive meta-data associated with it (issuer, client, commission fee etc.).

It has an interface that allows issuing and recording smart contracts in its storage, but is limited to be accessed only by the factory smart contract. In addition, this is the smart contract that is whitelisted by the worldwide insurance registries registry to be able to handle and operate (think sending back the commission) VRN tokens form the VRN Token Pool. This ensures that only once a successfully issued smart contract is written in the nation registry a commission is sent to the client.

In addition, this smart contract holds a historical data about the claims in relation with the insurance smart contracts. This allows for this data to be used as “rating” of the different clients thus providing for adaptive algorithms of price-calculation to be created.

VRN Token Handling Smart Contracts

The VRN Token handling smart contracts sub-system is in charge of the VRN Token Pool. It consists of three main smart contracts:

VRN Token Pool

This smart contract is used as holder of VRN tokens. These tokens will be used for commissions. This smart contract can only be requested to perform a token transfer by whitelisted nation registries whitelisted in the VRN token pool handlers whitelist smart contract.

VRN Token Pool Handlers Whitelist

This smart contract goal is to be a list of whitelisted nation registries that can operate with the token pool. It’s owned and operated by the worldwide insurance registries registry smart contract.

07/

TOKEN SALE

We offer you an exclusive chance to become part of a historical moment for the insurance industry! Our token sale process will start on N/A, 2018 and last until N/A 2018. Exactly 50% of all 1 billion VRN tokens will be available during the event. New tokens will never be created. Unsold tokens will be burned. Purchasing coins during the pre-sale period will confer of up to 40% discount

The token will conform to the ERC20 standard. The minimum target for the token sale is set to 40 million VRN tokens while the hard cap will be set to 500 million VRN tokens. If the minimum goal is not reached, the Vernam team will make a full refund to the contributors.

Overview

Token name	Vernam Token
Token symbol	VRN
Total VRN token amount	1,000,000,000 VRN
Hard Cap	500,000,000 VRN
Conversion Rate USD	1 VRN = 0.051 - 0.085 USD
Conversion Rate ETH	1 VRN = N/A ETH*
Conversion Rate BTC	1 VRN = N/A BTC*

*The crypto currencies exchange rates, used during the event will be locked to the first day of the crowd sale.

Token Sale Event

Exchange rates	Private placement	Up to 10%	Not locked
	“Three Hot Hours”	1 VRN = 0.051 USD	Locked (6 months)
	Day 1	1 VRN = 0.068 USD	Not locked
	Day 2- 7	1 VRN = 0.077 USD	Not locked
	After Day 7	1 VRN = 0.085 USD	Not locked
	After Day 7 (> ETH 15)	1 VRN = 0.072 USD	Not locked
Minimum transaction amount	ETH 0.1, BTC 0.01, Wire Transfer 1000 USD		
Main token sale distribution period	N/A – N/A, 2018		
Distribution method	The VRN tokens will be distributed immediately after purchase but will be locked until the end of the token sale		
Minimum goal	VRN 40,000,000		
Hard Cap	VRN 500,000,000		

7.1 TOKEN DISTRIBUTION

A total number of **1 billion VRN tokens will be created**, from which **50% (500 mln) will be availble in the Token Sale.**

The Token Sale ends if the hard cap has been reached or on its closing date (N/A, 2018) whichever comes first. In case the token sale is not successful (i.e. the “soft cap” has not been reached), all contributed funds will be returned to token sale participants.

Besides the token sale proceeds, additional **3% will be distributed to early stage project supporters** in the form of Airdrop and Bounty. Furthermore, **7% will go to our advisor’s, half of which locked** and other “project champions”.

20% will be set aside for an Internal Reserve Fund. These 20% VRN will be locked in a smart contract and used only for covering our CryptoSafe insurance product. (When a client is insured through our CryptoSafe product and a claim occurs it will be paid through this fund after it is approved by a third party claim management company.)

5% Liquidy Fund will be used for reserve to cover operating costs.

Finally, a 15% share will be awarded to the **project founders and the Vernam team** to recognize their role in digitizing the insurance industry. These will have a vesting period of 18 months to ensure commitment.

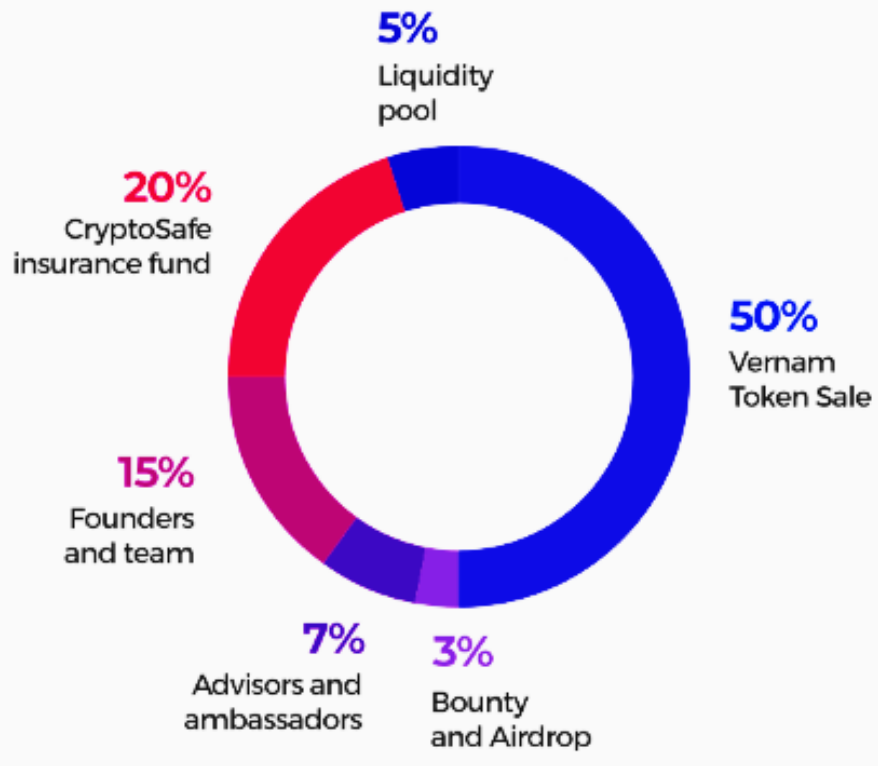


Figure 12: VRN token distribution

7.2 TOKEN SALE EVENT STAGES

We are ready to go! The token sale will include five distinct stages, starting from N/A and lasting until N/A, 2018. The maximum number of tokens, which will be available during the event is 500 million VRN.

Initially, a private placement will take place, with token distribution reserved for early stage project supporters and contributors. **Up to 10% of the VRN tokens will be sold during the private placement stage.**

The token sale itself will start on N/A, 2018 and last for N/A days!

The first stage of this process, called **"three hot hours"** will make VRN tokens publicly available to the most enthusiastic contributors. This stage will last from 09:00am GMT to 12:00pm GMT, during which Vernam tokens will be sold for USD 0.051 (representing a **40% discount** of the "standard" token sale cost).

To minimize "token dump", which is relatively frequent after the end of a new token sale project, the amount of **VRN that have been purchased during the "three hot hours" will be partially locked after the completion of the token sale** – each contributor that has purchased tokens during the "three hot hours" will be able to make use of 1/6 of its VRN per month, over 6 months' period.

No more than 20% of the tokens for sale could be sold during this stage – if the limit is reached, tokens will be available for purchase at the next stage's price.

The next stage, lasting for a day, will start at 12:00 GMT on N/A, 2018. **The "Day 1" stage will provide tokens at a 20% discount** (USD 0.068) and there would be no vesting period, or availability cap for the tokens, issued at this stage. Token sale contributors, who pur-chase tokens after the first day of sales, but before the end of the first week of the event (i.e. from 12:00pm GMT on N/A until 12:00pm on N/A) will be able to take advantage of a **10% discount** and purchase VRN for 0.077 USD. Similar to the previous stage, there will not be vesting or availability limitations on the funds, issued during this stage.

The last part of the token sale event, will take place during the final three weeks (from 12:00 GMT on N/A until 12:00pm on N/A, 2018). There will be no discount and the cost of 1 VRN during this period will be USD 0.085. However, during this token sale stage, contributors purchasing tokens in excess of ETH 15 **(or corresponding amount in other accepted crypto currencies) will enjoy a 15% discount** (i.e. USD 0.072 for VRN 1).

7.3 USE OF PROCEEDS

Figure 13 illustrates the allocation of funds, collected during the various stages of the token sale process. 25% of the proceeds are expected to cover the platform development costs (blockchain platform, desktop and mobile clients)

Marketing is a critical element for the platform's success and "Insurtech" is one of the most expensive industries in terms of marketing costs. 30% of the token sale funds will be allocated to cover social platform and other market-ing channels, including website and content development, the organi-zation of events, etc.

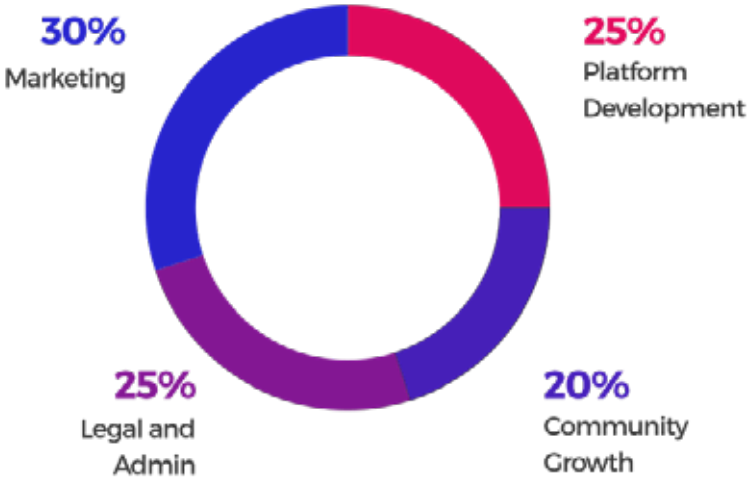


Figure 13: VRN token allocation

Legal and administrative fees will be substantial, given the platform's target of regis-tering brokers in two EU countries by Q2 2019 and covering 8 countries by the end of 2020. Therefore 25% of the token sale funds will be directed to cover such expenses.

The remaining 20% will be used for **network development** (i.e. negotiating initial broker collaboration, potential acquisitions and other equipment / physical asset costs).

Figure 13: VRN token allocation

08/

NEXT STEPS

The Vernam project will start with the token sale event in Q2 2018, followed by the initia-tion of platform development shortly afterwards. Depending on the amounts contributed at the token sale event,...

...we will develop our proprietary broker network across a number of European Union countries.

8.1 PROJECT ROADMAP AND MILESTONES

The following graph illustrates the main milestones from Vernam's development. Con-tingent to reaching the TSE's minimum cap, the platform development will start on Q2, 2018. This will include blockchain, web and mobile platforms. This stage is expected to finish at the end of the year, and the **platform is intended to go live in Q1, 2019.**

8.2 Milestones

Besides platform development, our growth strategy foresees the establishment of a broker network across a number of EU countries at first, depending on the funds raised.

Soft Cap 40m VRN

Platform core blockchain integration and first EU county broker license.

250m VRN

Opearate up to 8 EU countries and integrate country specific platform upgrades.

500m VRN

Expand beyond Europe and develop additional platform features and products. Buying licensed brokers with network.

The business development part of the process will also start in Q2, 2018. It will include the setting up and development of our broker network, to ensure coverage of several EU countries – initially with conventional insurance products, sold through the Vernam platform (and with a VRN-denominated incentive when using our own brokers), and eventually with the CryptoSafe digital insurance products, described in section 6.

8.2 EXPANSION STRATEGY

Besides platform development, we plan to establish a proprietary network of brokers across a number of EU countries.

- Our network of brokers will initially target the biggest EU insurance markets, UK, Austria, Belgium and Italy among them.
- The first markets we will enter will be the "crypto-friendly" ones, securing the fast adoption of our platform.
- Our main focus will be Switzerland, considered by many to be Europe's "Crypto Nation"

While we aim to digitalize the insurance industry, the current regulatory landscape requires that many steps of the insurance process would still go through a licensed intermediary.

With time, brokers and agents would join the Vernam platform, as it provides an increasing access to customers across the continent and – with development of the shared ledger – a mechanism to estimate customer risk and optimize premium calculations. Nevertheless, to stimulate platform development and customer adoption, we would develop our own broker network, guaranteeing control over the complete insurance contracting process.

Two strategies are possible – the establishment of brand new broker companies, or the acquisition of existing ones. The first path is cheaper, but might require a longer planning horizon, as many licensing and legal steps might take a significant amount of time.

Acquiring an existing broker is more expensive, but has the added benefits of inheriting the existing relationships with insurers and with clients. While the latter is important, we believe that releasing the value-added back to end customers (through the return of the "traditional" brokerage commission) would stimulate client adoption – especially in an industry where customer loyalty is not very high. Therefore, a good marketing strategy and an effective and intensive promotional campaign will be more important than acquiring an existing broker's client portfolio.

Acquiring the relationship between brokers and insurers, on the other hand, is of primary importance, as it will allow a faster and more efficient operations roll-out.

Our interviews with industry experts have confirmed that setting up the documentary and administrative relationship for a new broker might take up to a year.

M&A activity in insurance brokerage has traditionally been stronger than across other industry areas. A recent report from KPMG noted that "[as expected], insurance broking was the most active segment in 2015, particularly in the Europe, Middle East and Africa region, with a wave of transactions throughout the year." In North America, 2017 has been the most active year by far, when it comes to M&A in the insurance agency sector. According to OPTIS Partners, an insurance-focused consultancy, there have been 604 announced deals specifically for brokers and agents in 2017, representing a 31% growth over the previous year

Most of these acquisitions have been driven by a wave of consolidations, or private equity-financed with a focus on price optimization and financial leveraging. This explains the high price tag – for example, in 2015, the UK-based Willis Group acquired the remaining 70% in Gras Savoye, which it did not already own for EUR 550 million. The French company, founded in 1907 is the leading insurance broker in the country, employing over 3,900 people, insuring over 500 thousand vehicles and offering healthcare protection to over 2.2 million people worldwide

At the same time, the wave of acquisitions included regional and small players. According to a Deloitte report, "[approximately] 50 percent of the [2015 U.S.] deals were purchases of small and/or regional brokers by serial acquirers, the five most active being Hub International, AssuredPartners, Inc., Arthur J. Gallagher & Co., Confie Seguros California, Inc., and Acrisure, LLC."

Typical M&A drivers for insurance brokerage firms include their product mix – with better portfolio width commanding a higher valuation, contract renewal rates – with agencies depending on a smaller number of major clients suffering a valuation penalty, compared to brokers with a diversified client portfolio. Geography matters, as Agencies in high population and/or high income demographic markets sell for higher multiples because there are more local buyers and better opportunities for growth. Large brokerages in small markets even often sell at lower multiples than small ones in high population areas. Staff experience is an important driver, just like in most other industries, and contractual independence from insurance providers (rather than having exclusivity clauses) increasing the broker's valuation.

Given the contribution limits for our token sale event, and the 20% allocation for community growth, we expect to have about $7-8m available for broker acquisitions. This is clearly below the value of the deals from the examples above, but as mentioned earlier, we are not looking to purchase brokers because of their installed customer base and office network, but because of the administrative relationship with the insurance providers.

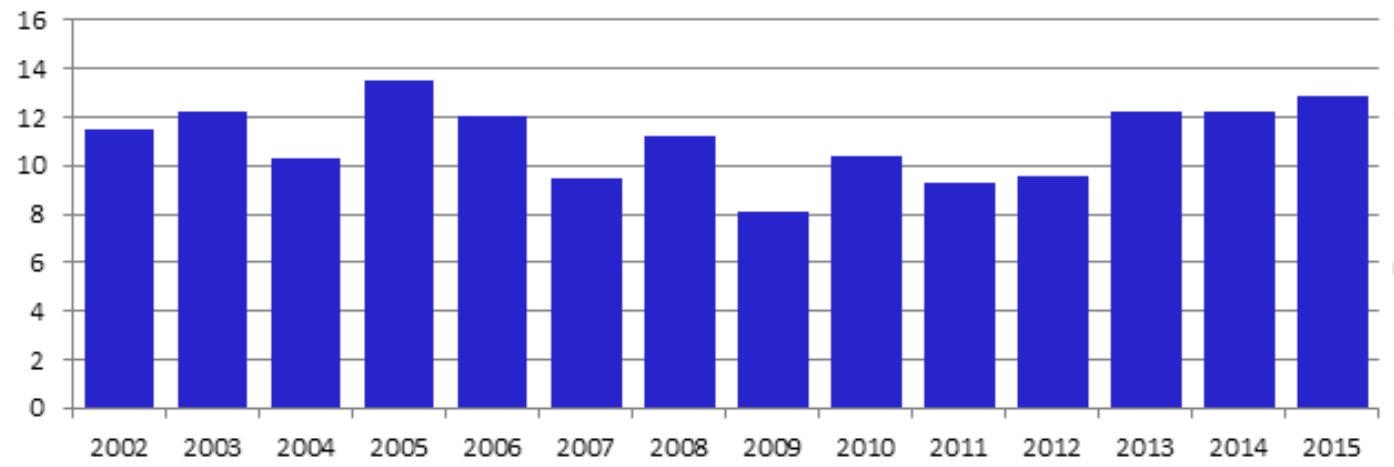


Figure 15: Valuation multiples (public brokers)

The figure above shows average valuation multiples (Enterprise Value / EBITDA) for publicly traded broker companies. Ratios above 12x in 2014-2015 are relatively high, when compared to historic data. **Typically, a small insurance agency is valued at 4-6x (pro forma) EBITDA, a mid-sized agency is valued at 6-8x and a large agency is valued at 8-10x.** In general, larger broker/agencies have less risk than smaller ones, giving them a higher relative multiple. However, smaller brokers that are high performing relative to their competitors can achieve multiples similar to the public companies, as well.

EBITDA margin, itself varies across companies, depending on their product lines, client portfolio and other factors. Reagan Consulting, a management consulting and merger-and-acquisition advisory firm for the insurance distribution system, has estimated Q1 EBITDA margin across the industry at 22-30%, yet noting that full-year margins typically decrease to about 20%.

Taking this information into account, we would be able to acquire existing broker companies with an annual revenue of about $3-4 million. As mentioned in the beginning of the section, we would target companies in Switzerland and several large EU insurance markets which have a good existing relationship and administrative experience with insurance company.

09/

TEAM AND PARTNERS

Roman Angelov

CEO, CO-FOUNDER

CEO of DIMIROMA GROUP, leading Bulgarian consulting, IT and digitization company. Rewarded DNI Innovation funding by Google.

Ivan Georgiev

COO, CO-FOUNDER

Member of the board of direc-tors of one of the biggest holdings in Bul-garia. Founder and manager of a successful mobile app devel-opment compan

Dimitar Mitrev

CBDO, CO-FOUNDER

Experienced in creating and managing different B2B IT proj-ects. CEO of DEAFOR. Member of the Bulgarian Association of Information Technologies (BAIT)

Borislav Stefanov

BUSINESS DEVELOPMENT

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Boris Cuchran

INSURANCE EXPERT

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Zhelyo Hristozov

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Experienced Insurance executive, professor at the University of Finance, Business and Entrepre-neurship. Former CEO of Olympic Insurance Company and the DBJZ Insurance Company

George Matev

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Vesselin Zahariev

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René Rosenberg

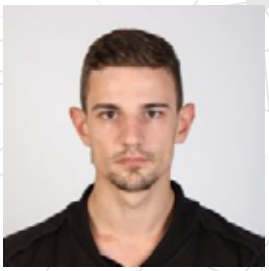
GERMAN OPERATIONS

Experienced executive with over 13 years of professional experi-ence in the outdoor advertising industry. Previously worked for German company OOH Wall AG

Ivan Manchev

MARKETING EXPERT

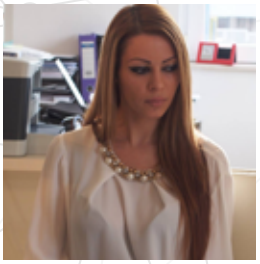
Experienced data-driven creative generalist, with a rich track of successful projects in advertising, online marketing and social media. Co-Founder and CMO of software development



Venimir Petkov

BLOCKCHCAIN DEVELOPER

Blockchain lecturer at SoftUni.bg, Owner of Global Academy Place - Investment and Forex e-learning platform. Blockchain developer and crypto advocate.



Nadya Kaloyanova

CMO

Master of digital marketing. Co-founder and marketing manager of Woomie.gr, one of the leading e-commerce stores in Greece.

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N.B. BE AWARE THAT ICOs ARE EXTREMELY RISKY AND HIGHLY SPECULATIVE. NEVER PUT MONEY THAT YOU CAN'T AFFORD TO LOSE. MAKE SURE YOU READ AND UNDERSTAND THE WHITEPAPER AND TERMS & CONDITIONS.

PLEASE READ THIS SECTION CAREFULLY. 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).

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No regulatory authority has examined or approved of any of the information set out in this Whitepaper. No such action has been or will be taken under the laws, regulatory requirements or rules of any jurisdiction. The publication, distribution or dissemination of this Whitepaper does not imply that the applicable laws, regulatory requirements or rules have been complied with. There are risks and uncertainties associated with Vernam and its respective businesses and operations, the VRN tokens, the VRN Token Sale (each as referred to in this Whitepaper). This Whitepaper, any part thereof and any copy thereof must not be taken or transmitted to any country where distribution or dissemination of this Whitepaper is prohibited or restricted. No part of this Whitepaper is to be reproduced, distributed or disseminated without including this section 10. Legal Disclaimer.

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All statements contained in this Whitepaper, statements made in press releases or in any place accessible by the public and oral statements that may be made by Vernam or its respective directors, executive officers or employees acting on behalf of Vernam (as the case may be), that are not statements of historical fact, constitute "forward-looking statements". Some of these statements can be identified by forward-looking terms such as "aim", "target", "anticipate", "believe", "could", "estimate", "expect", "if", "intend", "may", "plan", "possible", "probable", "project", "should", "would", "will" or other similar terms. However, these terms are not the exclusive means of identifying forward-looking statements. All statements regarding Vernam financial position, business strategies, plans and appraisals of the industry which Vernam is in are forward-looking statements.

These forward-looking statements, including but not limited to statements as to Vernam Company's revenue and profitability, prospects, future plans, other expected industry trends and other matters discussed in this Whitepaper regarding Vernam are matters that are not historic facts, but only predictions. These forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual future results, performance or achievements of Vernam to be materially different from any future results, performance or achievements expected, expressed or implied by such forward-looking statements.
These factors include, amongst others:

(1) changes in political, social, economic and stock or cryptocurrency market conditions, and the regulatory environment in the countries in which Vernam Company conducts its respective businesses and operations;

(2) the risk that Vernam may be unable or execute or implement their respective business strategies and future plans;

(3) changes in interest rates and exchange rates of fiat currencies and cryptocurrencies;

(4) changes in the anticipated growth strategies and expected internal growth of Vernam;

(5) changes in the availability and fees payable to Vernam in connection with their respective businesses and operations;

(6) changes in the availability and salaries of employees who are required by Vernam to operate their respective businesses and operations;

(7) changes in preferences of customers of Vernam;

(8) changes in competitive conditions under which Vernam operate, and the ability of Vernam to compete under such conditions;

(9) changes in the future capital needs of Vernam and the availability of financing and capital to fund such needs;

(10) war or acts of international or domestic terrorism;

(11) occurrences of catastrophic events, natural disasters and acts of God that affect the businesses and/or operations of Vernam;

(12) other factors beyond the control of Vernam; and

(13) any risk and uncertainties associated with Vernam and their businesses and operations, the Vernam tokens, the Vernam Token Sale (each as referred to in the Whitepaper).

All forward-looking statements made by or attributable to Vernam or persons acting on behalf of Vernam are expressly qualified their entirety by such factors. Given that risks and uncertainties that may cause the actual future results, performance or achievements of Vernam to be materially different from that expected, expressed or implied by the forward-looking statements in this Whitepaper, undue reliance must not be placed on these statements. These forward-looking statements are applicable only as of the date of this Whitepaper. Neither Vernam, nor any other person represents warrants and/or undertakes that the actual future results, performance or achievements of Vernam will be as discussed in those forward-looking statements.

The actual results, performance or achievements of Vernam may differ materially from those anticipated in these forwardlooking statements. Nothing contained in this Whitepaper is or may be relied upon as a promise, representation or undertaking as to the future performance or policies of Vernam. Further, Vernam disclaim any responsibility to update any of those forwardlooking statements or publicly announce any revisions to those forward-looking statements to reflect future developments, events or circumstances, even if new information becomes available or other events occur in the future.

REPRESENTATIONS AND WARRANTIES BY YOU

By accessing and/or accepting possession of any information in this Whitepaper or such part thereof (as the case may be), you represent and warrant as follows:

(1) you agree and acknowledge that Vernam tokens do not constitute securities in any form in any jurisdiction;

(2) you agree and acknowledge that this Whitepaper does not constitute a prospectus or offer document of any sort and is not intended to constitute an offer of securities in any jurisdiction or a solicitation for investment in securities and you are not bound to enter into any contract or binding legal commitment and no cryptocurrency or other form of payment is to be accepted on the basis of this Whitepaper;

(3) you agree and acknowledge that no regulatory authority has examined or approved of the information set out in this Whitepaper, no action has been or will be taken under the laws, regulatory requirements or rules of any jurisdiction and the publication, distribution or dissemination of this Whitepaper to you does not imply that the applicable laws, regulatory requirements or rules have been complied with;

(4) you agree and acknowledge that this Whitepaper, the undertaking and/or the completion of Vernam Token Sale, or future trading of Vernam tokens on any cryptocurrency exchange, shall not be construed, interpreted or deemed by you as an indication of the merits of Vernam, the Vernam tokens, the Vernam Token Sale (each as referred to in this Whitepaper);

(5) the distribution or dissemination of this Whitepaper, any part thereof or any copy thereof, or acceptance of the same by you, is not prohibited or restricted by the applicable laws, regulations or rules in your jurisdiction, and where any restrictions in relation to possession are applicable, you have observed and complied with all such restrictions at your own expense and without liability to Vernam;

(6) you agree and acknowledge that in the case where you wish to purchase any Vernam tokens, the Vernam tokens are not to be construed, interpreted, classified or treated as:

(a) any kind of currency other than cryptocurrency;
(b) debentures, stocks or shares issued by any person or entity;
(c) rights, options or derivatives in respect of such debentures, stocks or shares;
(d) rights under a contract for differences or under any other contract the purpose or pretended purpose of which is to secure a profit or avoid a loss;
(e) units in a collective investment scheme;
(f) units in a business trust;
(g) derivatives of units in a business trust;

(h) any other security or class of securities;

(7) you are fully aware of and understand that you are not eligible to purchase any Vernam tokens if you are a citizen, resident (tax or otherwise) or green card holder of the United States of America or a citizen or resident of the Republic of Singapore, China, Canada, South Korea;

(8) you have a basic degree of understanding of the operation, functionality, usage, storage, transmission mechanisms and other material characteristics of cryptocurrencies, blockchain-based software systems, cryptocurrency wallets or other related token storage mechanisms, blockchain technology and smart contract technology;

(9) you are fully aware and understand that in the case where you wish to purchase any Vernam tokens, there are risks associated with Vernam platform and its respective business and operations, the Vernam tokens, the Vernam Token Sale (each as referred to in the Whitepaper);

(10) you agree and acknowledge that Vernam Company is not liable for any indirect, special, incidental, consequential or other losses of any kind, 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 by you; and all of the above representations and warranties are true, complete, accurate and no misleading from the time of your access to and/or acceptance of possession this Whitepaper or such part thereof (as the case may be).

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This Whitepaper includes market and industry information and forecasts that have been obtained from internal surveys, reports and studies, where appropriate, as well as market research, publicly available information and industry publications. Such surveys, reports, studies, market research, publicly available information and publications generally state that the information that they contain has been obtained from sources believed to be reliable, but there can be no assurance as to the accuracy or completeness of such included information.

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NO ADVICE

No information in this Whitepaper should be considered to be business, legal, and financial or tax advice regarding Vernam, the VRN tokens, the VRN Token Sale (each as referred to in the Whitepaper).
You should consult your own legal, financial, tax or other professional adviser regarding Vernam and its respective business and operations, the VRN tokens, the Vernam Token Sale (each as referred to in the Whitepaper). You should be aware that you may be required to bear the financial risk of any purchase of VRN tokens for an indefinite period of time.

NO FURTHER INFORMATION OR UPDATE

The VRN Token Sale (as referred to in the Whitepaper) shall not, under any circumstances, constitute a continuing representation or create any suggestion or implication that there has been no change, or development reasonably likely to involve a material change in the affairs, conditions and prospects of Vernam or in any statement of fact or information contained in this Whitepaper since the date hereof.

RESTRICTIONS ON DISTRIBUTION AND DISSEMINATION

The distribution or dissemination of this Whitepaper or any part thereof may be prohibited or restricted by the laws, regulatory requirements and rules of any jurisdiction. In the case where any restriction applies, you are to inform yourself about, and to observe, any restrictions which are applicable to your possession of this Whitepaper or such part thereof (as the case may be) at your own expense and without liability to Vernam.

NO OFFER OF SECURITIES OR REGISTRATION

This 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. No person is bound to enter into any contract or binding legal commitment and no cryptocurrency or other form of payment is to be accepted on the basis of this Whitepaper.

Any agreement in relation to any sale and purchase of VRN tokens (as referred to in this Whitepaper) is to be governed by only the T&Cs of such agreement and no other document. In the event of any inconsistencies between the T&Cs and this Whitepaper, the former shall prevail. You are not eligible to purchase any VRN tokens in the VRN Token Sale (as referred to in this Whitepaper) if you are a citizen, resident (tax or otherwise) or green card holder of the United States of America or a citizen or resident of the Republic of Singapore, China, Canada, South Korea. No regulatory authority has examined or approved of any of the information set out in this Whitepaper. No such action has been or will be taken under the laws, regulatory requirements or rules of any jurisdiction. The publication, distribution or dissemination of this Whitepaper does not imply that the applicable laws, regulatory requirements or rules have been complied with.

RISKS AND UNCERTAINTIES

Prospective purchasers of VRN tokens (as referred to in this Whitepaper) should carefully consider and evaluate all risks and uncertainties associated with VRN Token Sale, and the respective businesses and operations of Vernam Company, the Vernam platform, the Vernam tokens, all information set out in this Whitepaper and the T&Cs of the sale prior to any purchase of Vernam tokens. If any of such risks and uncertainties develops into actual events, the business, financial condition, results of operations and prospects of Vernam could be materially and adversely affected. In such cases, you may lose all or part of the value of the Vernam tokens.
Vernam itself is not a licensed insurance provider. Vernam will obtain an insurance broker license. Any insurance activity falling under the applicable laws and regulations will be done in cooperation with the licensed insurer on local markets

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