

# Blockchain in the Insurance Sector

A CLEAR OPPORTUNITY

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The emergence of new and not-so-new technologies and business ideas, together with some marketing (and sometimes, a little more than “some”), are revolutionising sectors as solid and strongly regulated as the insurance or banking sectors, giving rise to new players that can challenge long-standing organisations, which are now obligated to research and invest in new technologies.

Maybe, some of these new technologies, such as Blockchain, might have a more natural application than we could ever imagine in a sector as developed as that of insurance having. Let’s see how.

It’s already been 10 years since Nakamoto published the article<sup>i</sup> that started this unstoppable “wave” of Blockchain through bitcoin, but it’s only been in the last few years that this technology truly exploded, seeking applications in sectors as complex as that of insurance.

This “wave” is only part of the InsurTech movement, (FinTech, RegTech, xxxTech, etc.) in which newly established companies normally create a new business idea in an already mature sector, supporting new technologies such as Blockchain, Big Data, Machine Learning, etc. and which lead to a “break” in the distribution chains and standard business models.

Just in Spain, there are around 100 companies<sup>ii</sup> which already declared themselves to be InsurTechs, proposing new ideas and new technology that’s not standard in the sector. This implies a threat and a major incentive to the large companies in the insurance sector, both insurance companies and transversal companies and even official organizations in this sector.

## Current situation

Currently the main players in the sector (insurance companies, brokers or technology companies) join forces to work together on use cases that have potential in the real world, so one of the keys for the Blockchain technology to extend and show its virtues, **is the consortium between the actors.**

So much so that partnerships have been formed around this technology in order work on initiatives based on this technology, specific to the insurance sector, such as **B3i**, The Blockchain Insurance industry Initiative<sup>iii</sup>, as well as in several sectors, **Alastria**<sup>iv</sup> in the case of Spanish.

Meanwhile, others companies work with Blockchain technology on their own solutions and products, such as Axa, which already offers an insurance that covers the client in the event of flight delays with **fizzy**<sup>v</sup>, or Sanitas, which has decided to delegate this innovative task to other companies by creating an incubator

for start-ups specialized in health with the programme **Disruptive**<sup>vi</sup>.

It is clear that **no one wants to get left behind**. The potential has been recognized and not being at its forefront could mean losing a share in an ever more competitive market.

## Blockchain's promises

The purpose of this text is not to go into explaining what this technology is; we're assuming that the reader already understands the basic concepts of this technology. There are hundreds of articles, books and conferences that explain everything **wonderfully**<sup>vii</sup>, so let's jump ahead and focus on the basics to see how to use Blockchain in real life.

Using **Blockchain technology is ideal when there are several actors working on one process**. So, there is nowhere better than the insurance sector where we have insured people, insurance companies, reinsurers, brokers, assessors, workshops or other service providers, regulators, partnerships, etc.

In this scenario, Blockchain offers:

- **Security**, each one of the blocks in which information is stored is signed and insured through cryptography.
- **Transparency**, in which all the interested parties can potentially have access to relevant information.
- **Immutability**, so that the existing information cannot be manipulated and everything that happens is completely traceable at all times.

All these promises are great, they're excellent, but at the end of the day, numbers must be crunched, and technology must be put in its place through a cost/benefit study that justifies the investment, which is the crux of the matter.

Okay so, other, more interesting, promises must be added to those already mentioned when we put this technology in the context of the insurance sector, in which there are long and sometimes slow processes, and when we have several parties involved, each one with its own IT system.

And Blockchain can provide a significant cost reduction to the sector since:

- It can **simplify the integration and exchange of information** among all the parties involved.
- It can provide **higher efficiency of several processes**, cutting them down and systemizing them.
- It can **accelerate the use and exchange of information structured in standardized electronic formats**.

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*And Blockchain can contribute an important cost reduction to the sector*

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Are you starting to get it?

## Agreement among the participants

None of this would be possible without an agreement among the participants of this industry, an agreement that can also possibly be reached with other technologies.

But in this case, Blockchain is becoming the perfect excuse to align the different actors of the insurance industry (and also many others) to **mutually achieve cost reduction, efficiency in the processes and, ultimately, better customer service**.

As we have already seen with partners such as B3i, this agreement is underway, although not yet reached.

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*To mutually achieve cost reduction, efficiency in the processes and, ultimately, better customer service*

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One of the reasons for which this agreement has not been reached by the actors or materialized with more solid steps, is possibly the uncertain existence of using Blockchain in already existing business processes, which won't end until it is put into practice in real cases that demonstrate its savings and benefits.

This leads to a vicious circle that can only be broken if a step forward is taken to implement its use in real cases.

## From theory to practice

We are going to take this step by presenting some of the many possible cases of use.

The insurance sector is already partway there since they already have horizontal systems managed by impartial bodies.

The best example of this in Spain is Tirea<sup>viii</sup>, an entity backed by over 130 companies from the insurance sector and that already offers systems to consult and exchange information among companies, covering the needs of an insurance agency's several general processes.

Based on experiences such as that of Tiera, it will be much easier to reach an agreement, especially if the mentioned entities start to move some of their solutions towards this technology.

From the processes point of view, we will present some cases of use which would make sense to implement in Blockchain, providing the already mentioned benefits.

Some of the candidate processes for implementing cases of use in Blockchain are:

- Client registration.
- Policy pricing.
- Claim processing.
- Consultation of policy information by third parties.

Without analysing each of the processes mentioned in depth, we will briefly go over these real cases of use that may be candidates for implementation in this technology.

## Client registration

The process of registering a new client for the insurance and banking environment has been transformed due to the new regulations implemented, in which a client, depending on the product they wish to contract, must provide a series of documentation and the company providing the product or service must perform a series of validations in the known process, such as Know Your Customer or KYC. Among others (SAR, Suspicious Activity Report, or PEP, Politically Exposed Persons), some of the validations that are necessary to perform in this process are:

- PBC/AML, in which the company must perform the necessary checks to try to prevent money laundering.
- Sanctions Screening, in which it must be verified that the client is not related to crimes of a financial nature or terrorism.

Therefore, each time a client contracts a product or service with a new company, it must provide a series of documentation that must be analysed, validated and stored by each of the product or service provision companies, which becomes a repetitive process for both the client and company.

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*It creates a clear efficiency by eliminating redundant actions for both the client and companies of the financial sector.*

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Through Blockchain technology, it will be possible to build a single repository with the information of the clients of the insurance companies and banking institutions that is provided one time and is valid and approved by one of the product or service provider companies (the first one contracted). It can also be reused in each of the following product procurements, by both the client who will no longer have to provide all new documentation, and by the provider company, which will be able to avoid revalidating the provided information, since it was already validated by the first company that the client contracted.

This case of use generates a clear efficiency by eliminating redundant actions, both for the clients and companies of the financial sector. In fact, there are already concept tests associated with the banking sector, such as this<sup>ix</sup>, initiated by IBM.

## Policy pricing

Insurance policy pricing processes are traditionally performed based on a good amount of up-to-date data on the insured party and the good or object to be insured, but they do not tend to consider, in most branches, additional data on the history of the insured party or the life style they carry out, which may condition the fixed premium.

Today, there is a big exception to this in the car insurance industry, in which SINCO<sup>x</sup>, a system created by the company Tiera and in which insurance companies

associated with sharing policy data and the accident rate of their insured parties can participate. This way, when a new car policy pricing project is performed, the accident rate history of the applicant can be considered to adjust the premium based on real data.

The model proposed by SINCO and implemented by Tiera is a clear example of the system that may be implemented under a Blockchain technology, in which the insured party can also have access to their accident rate data, not only the car insurance industry, but by any other branch, such as the home and even medical insurance industries (considering all the necessary conditions to comply with the current legislation, given their sensitivity).

**A transverse system that allows for the storage of contracted multi-branch policy history and the accident rate associated with each of them will allow companies to apply a much more complete pricing system, which also allows companies to undertake a much more cohesive selection of risk, and grants insured parties with low accident rates to benefit from better prices when searching for new insurance.**

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This kind of system will of course be able to consider the requirements imposed by the ever more restrictive data protection laws and will also be able to prevent the

companies from being able to use this system as a database of potential clients to be recruited.

These challenges, which are undoubtedly salvageable, should not be an obstacle to enjoy the great benefits that they can provide to the insured parties and insurance companies.

## Claim processing

Claim processing is one of the most complicated processes within an insurance company, given that the flow they may follow is truly complex and may vary depending on the branch, product or specific casuistry of the case.

But what all claim processing processes do have in common is that **the number of parties involved is high** and the **communication requirements** among everyone, including the insured party, are **vital** when providing **transparency** over the process and, above all, when **streamlining the processes**, reducing times, saving costs and improving the satisfaction of the insured party, which always demands more and better information on the processing of their claim.

Once again, Blockchain is convenient when providing underlying technology in the claim processing systems since it allows for the safe storage of all actions carried out on a claim, making it possible to provide an exact view of the processing status to all those involved. It even makes it possible to model some process flows through “Smart Contracts<sup>xii</sup>”.

Despite the benefits of transparency and improved communication among the multiple parties involved, there are some drawbacks, or at least challenges, which could be strengthened by seriously

rethinking the implementation of this type of system on Blockchain technology.

- The first of those is the already mentioned complexity of the processes, and the maturity of the BPM systems when modelling and modifying them in the future, so at least it understands that Blockchain technology must be implemented with a BPM since they are strongly implemented in this area.
- The claim processing systems, given the transversality and complexity they present, tend to have a very high implementation cost, both in terms of time and money, which will always be a barrier in performing “concept tests”.

An alternative that may reduce, though not eliminate, the mentioned challenges, could be to use Blockchain as a claim information system and not a claim processing system, supplied by, in most cases, the already existing claim processing systems in companies.

## Reports and information queries by third parties

There is no question that, with every passing day, the regulations are stricter, and the requirements of the regulators and supervisors are more important regarding transparency and access to information on the activity of financial institutions.

In this context, when financial institutions are obligated to report more and more information in less and less time, there are several opportunities for Blockchain technology since it is not only the financial institutions that have the huge tasks of compiling, standardising, and communicating information, but also the regulators and supervisors who have the

enormous task ahead of them of absorbing, validating and analysing all the reported information.

Blockchain could reduce and greatly speed up this process if the financial institutions and regulators share a DLT, in which the information to be reported and Smart Contracts could streamline and automate processes and simple validations, reducing and optimising many of the processes involved.

Another example of this, which may be more relatable to us, occurs when it is necessary to verify that a car is currently insured. In order for this to be verified, there is a roster called FIVA<sup>xii</sup> that contains all the information on the insured vehicles, which is supplied through the information issued by all the insurance companies to Consorcio de Compensación de Seguros that, together with the Directorate General of Traffic, makes it possible to perform this control.

However, we have a scenario in which there are several players (insurance companies, Consorcio de Compensación de Seguros, the DGT, traffic agents, medical services, etc.) that may share information on the insured vehicles and coverages included in its policies.

This FIVA roster, which has been a breakthrough, could profit from the benefits of Blockchain technology if it were to become a DLT shared among all the players involved, controlled by Consorcio de Compensación de Seguros (and managed by Tiera), as up until now, by adding information, updated online, and allowing for the implementation of validations and automations through Smart Contracts, facilitating the consultation of included data to the interested and involved parties.

## Conclusions

There has always been talk of a more natural way for Blockchain technology to provide contributions to the banking sector, perhaps due to the inertia exerted by Bitcoin and the possibility of making instant payments, but there are many other sectors in which, outside of the standard marketing that accompanies all new technologies, there are opportunities for Blockchain to provide a solution to the existing problem or even improve it, optimising existing processes.

Among the many sectors that Blockchain can help, such as the distribution sector, at least (see Walmart<sup>xiii</sup>), or that which is unknown to many, the diamond sector (see Everledger<sup>xiv</sup>), is the insurance sector.

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In this traditional insurance sector, there are several opportunities for Blockchain technology to be able to, without much effort, generate cost and time reductions in the execution of processes (KYC, pricing, insurance vehicle consults, etc.), and there are also processes in which they can potentially be accommodated, although with entry barriers given the critical nature of the process (claim processing).

For this transition to take place, at Comunitytek we recognize that three basic conditions must be met before being able to naturally embrace this technology.

1. **Partnership.** If there is no shared intention to move towards this technology to be able to obtain a common benefit among all the involved parties, it will be very complicated for Blockchain to advance.
2. **Actions from transverse actors.** There are companies and bodies in the insurance sector that already provide systems that allow for the exchange of information among insurance companies. These actors are key in trying to see the benefits that moving these systems to Blockchain could generate. If they do see the benefits, the insurance companies that use these systems will continue along this path and will be able to see them in a real and natural way, and not as a proof of concept.

3. **Implementation of small cases of use.** The last step is that, once the companies have a consensus on the use of DLT, they will try to implement, after a “business case”, small cases of use within their own company or among the different actors (insurance companies, assessors, repairers, for example), so that it is possible to start with something that is not “core” to the business but that presents a clear benefit justifying its use.

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