

# Digitising Reinsurance - The Key For Success In a Post-COVID World

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# Introduction

The Maginot Line cost the French approximately \$1.5 Billion in today's money. Between 1930 and 1940 this was the guarantee of safety from an aggressive neighbour. Sadly, it was proven to be a great example of 'Generals always fight the last war'. In the post-COVID world we face a different challenge, perhaps we will find the new Perspex wall as redundant as a Concrete one.

Far from 2020 just being a uniquely turbulent year, there are now fundamental forces that will drive reinsurance companies to consider how and where they do business. This paper seeks to define some of the key drivers in the market and how forward-looking companies can develop the agility to manoeuvre in an increasingly digital age, when others remain entrenched.

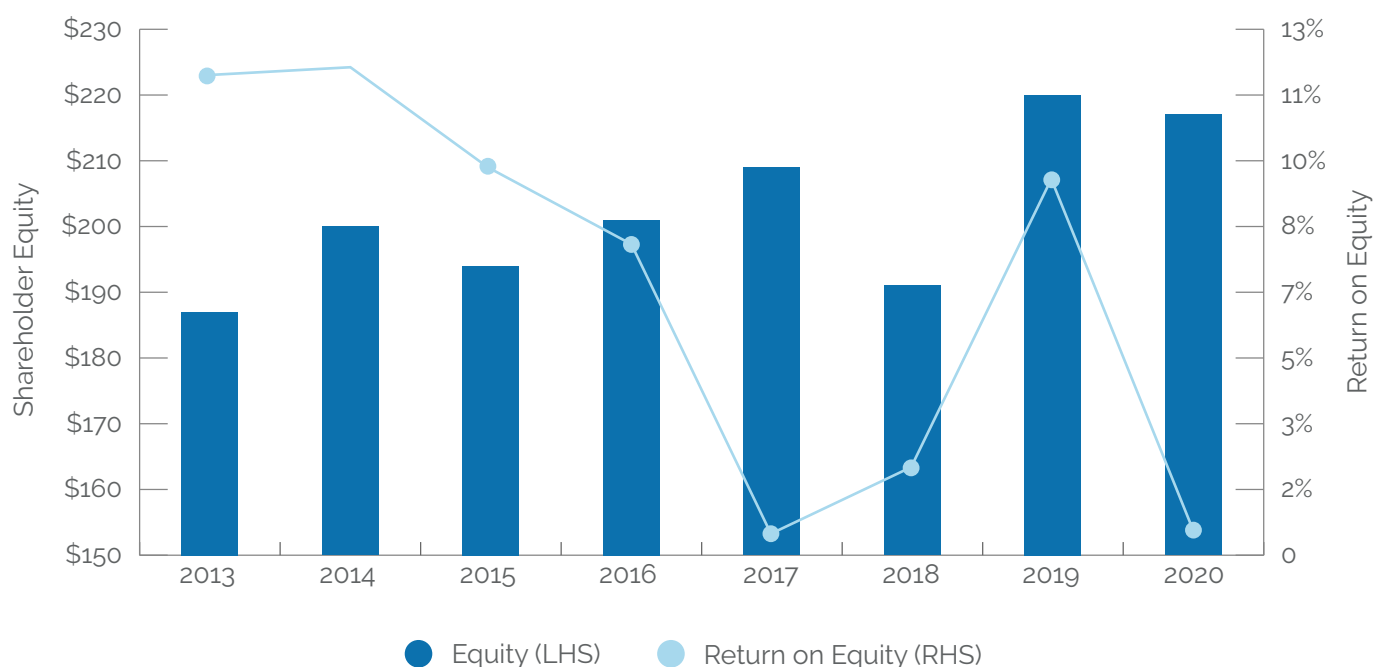
Let us begin by considering the technology pressures that drive our market. Data consumption, manipulation, and exposure continue to grow – alongside the associated costs for the staff to load, process, and share the information. The continuing availability of capital to the reinsurance market vs the returns on that investment mean that competition remains fierce and costs tightly controlled.<sup>1</sup> So, with a background of 'do more with less', the market is looking for efficient data management and cost savings through automation.

The need for face-to-face meetings cannot be completely replaced, but a post-pandemic world will see risk management in companies take on new Disaster Recovery scenarios.

These will be focused on the impact that a sudden change in process has had. The natural extension of this will be to design processes that can work both in an office setting and under socially distanced conditions. It is the contention of this paper that new technologies will capture information and allow business processes to be undertaken without personal contact. To start, we will discuss collecting the data previously entered manually by the user.

<sup>1</sup> - Reinsurance Price Hikes Attract Capital Amid Coronavirus Fallout, 2020, Fitch Ratings

## CORONAVIRUS LOSSES WILL LIMIT RETURN ON EQUITY IN 2020<sup>1</sup>



## Obtaining the Data

Firstly, reinsurers are getting closer to the risk, the amount of analytics information being requested is growing, with data predicted to reach 175 Zettabytes by 2025. For context that is approximately 4 times the data used across the industry today (Swiss Re Institute, 2019).<sup>2</sup> The pressures of writing a profitable book of business has required global reinsurers to invest in additional sources of information. However, as reinsurers have collated these new sources, they have also needed to comprehend it, in parallel with existing information. For example, Eurobase is currently engaged with clients who wish to obtain more information from their cedents about claims experience. Insurers are passing increasingly detailed information to the reinsurer, rather than a summary.

Information captured in this way can be in many forms: text (whether in emails, documents, or hand-written), values, diagrams, maps, pictures, and video. The variety of these sources of data leads to the first technical hurdle to overcome – structure. Many existing policy administration platforms are designed only to accept traditional, structured, information. However, many of the sources that today's reinsurer needs are written with people, not machines in mind. This data (for example emails, reinsurance contracts, survey reports) holds valuable insight into the risk, but does not explicitly provide this data in a way that databases can store and retrieve.

Syntax and Semantics are key here. Modern algorithms can extract the meaning of text by considering the other words in the sentence, and connections between extracted data by understanding how these have been used in paragraphs. This is critical to the algorithm being able to determine how to 'tag' this data item. Therefore, the more exposure the algorithm is given to suitable text, the better able it is to identify data correctly. Good quality data in volume is required – and is often the first stumbling block of a project. Before embarking, the source of the data should be the priority and serious consideration given to the validity of any project when no suitably large data source can be found.

As the report from Deloitte, *This Time is Different - the future of global non-life reinsurance*, says: *"Reinsurers will strengthen their relevance by pivoting away from providing primary insurers with capacity, which they need less than in the past. Instead, reinsurers will focus on [...] offering them value-added services."* (Deloitte, 2020).<sup>3</sup>

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2 - Sigma 4/19, *Advanced Analytics: Unlocking New Frontiers in P&C Insurance*, 2019, Swiss Re Institute

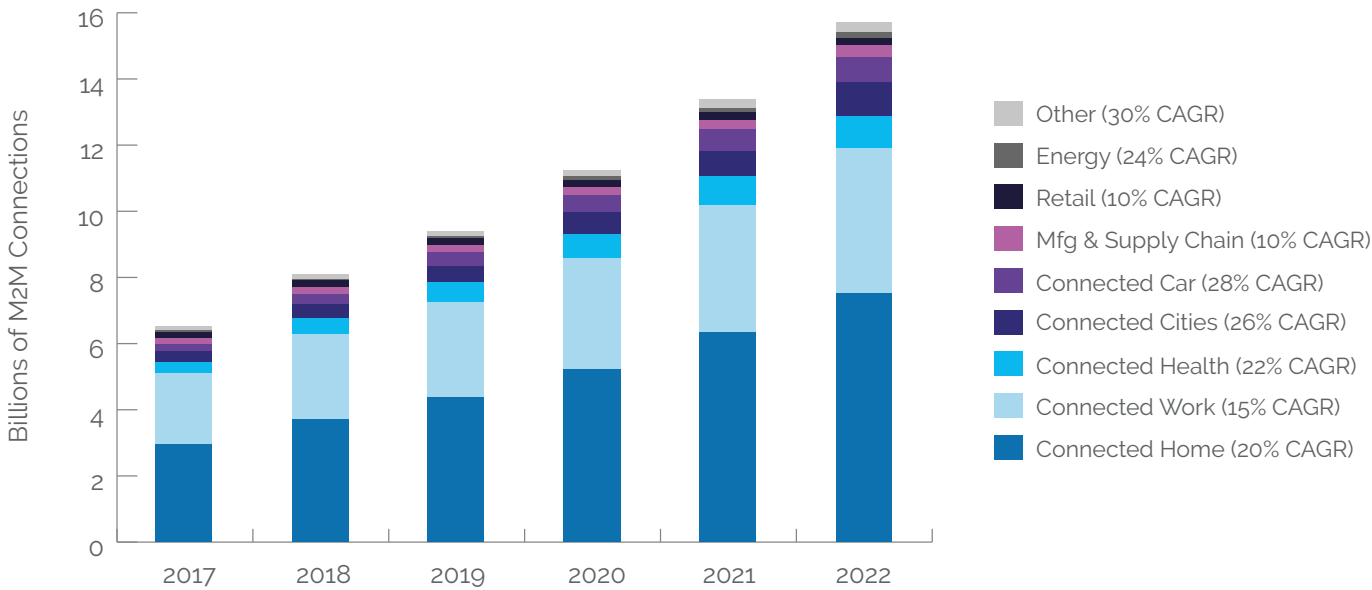
3 - *This Time is Different, Six Trends That Will Determine The Future of Global Non-life Reinsurance*, 2020, Deloitte

Data is also now widely available from new sources. The infographic below, IoT to drive growth in connected devices through 2022 (Cisco, 2018)<sup>4</sup>, shows the growth of Internet of Things (IoT). However, of equal importance is the number of verticals that now exploit information directly taken from the source. The new sources of information across many commercially insured lines of business also means that reinsurers can assess underwriting risk in ways previously unavailable.

Given the number of sources of information and that some will be unstructured, the second challenge of gathering this information is to store this in an effective way. The project must have clarity on what is to be achieved with the data (i.e. avoiding unnecessary data capture and providing the correct structure to the accumulated, unstructured data).

Finally, with new data sources available in well-structured formats, we can consider how technologies can exploit these.

**GLOBAL M2M CONNECTIONS / IOT GROWTH BY VERTICAL<sup>4</sup>**



<sup>4</sup> - IoT to Drive Growth in Connected Devices Through 2022, 2018, Cisco

## Exploiting the Data

The previous section has described new processes for capturing information. However, the scale of information that it is now possible to collect means that a single person cannot process all the information necessary to make an underwriting or claim decision. While we have the data, can we present this in a useful way to the user? Indeed, with only 29% of companies describing themselves as 'Digitised' within the ACORD Insurance Digital Maturity Study (ACORD, 2020)<sup>5</sup>, how can we make sense of this?

The purpose of the data can help here, as not all information needs to be presented immediately, and some will be used to drive new processes designed to reduce the workload overall. ACORD's insightful survey (referenced above) includes three functional areas that are measures of digitisation. These are:

- **Data and Analytics** – big data, real-time analytics, cognitive computing
- **Ecosystem Integration** – electronic information exchanges, Internet of Things
- **Operational Optimization** – straight-through processing and robotic process automation

These three pillars support the transfer of data into decision-making, and insight. They have very different uses of the data captured in the previous section:

### Data and Analytics

Data and Analytics will compare and analyse the data captured. The purpose being not just to display the data gathered, but to prepare this to provide that data in the context of the business process. Firstly, this is to reduce the number of data-points that the individual must consider (which is achieved using visualisations and calculations such as the various ratios and forecast values commonly used in (re)insurance).

Secondly, this allows the comprehension of data in relationship with other variables (for example time, or geography) to allow the individual (and the cognitive algorithms) to spot trends and relationships. Such tools are already used in (re)insurance, but the key here is to provide

immediacy of information with minimal manual intervention. Indeed, the fundamental change here is that, through the automated comprehension of unstructured information, we have added speed and accuracy to the decision-making process.

Consider the following questions:

- What information is used by staff to make decisions?
- What extra information (e.g. from telematics or unstructured data) do you require?
- What other sources of information are there (e.g. third-parties, or extra information from the insurer)?

<sup>5</sup> - Insurance Digital Maturity Study, 2020, ACORD



## Ecosystem Integration

As Deloitte mentions, services will form an increasing part of the reinsurance value-chain. Therefore, the importance of data must also include the ability to share this with others. This information has added value particularly if the information has been categorised and structured, via the methods described above. In this way, both the ability to source information and manipulate it into usable forms will differentiate reinsurers in the market and improve the quality of the underwritten risk.

Therefore, while companies previously may have focussed on internal data capture, modern methods (particularly ones that do not require face-to-face contact) require the exchange of data using standards to ensure that the transaction is fully understood by both parties.

To help to differentiate yourself, consider the following questions:

- What areas of specialism and expertise do you have in the organisation?
  - What do they do when compared to their peers?
  - Where do they source their information?
- What thought leadership do you produce – can you quantify this?
- What information can be provided to upstream or downstream partners to assist them in understanding your risks?

## Operational Optimisation

Information has been used above to provide analysis to the end-user. One of the defining features of machine learning algorithms is the ability to accept feedback from this user - i.e. the user can provide a correction to the result and the algorithm will take account of this feedback in future decisions. This allows the efficiency of the automation to improve over time and the relationship can also work the other way round as the actions of the user can be monitored by the algorithm and provide suggestions and decisions.

In this way, the objective of Straight Through Processing (that is, to provide all the information necessary to allow a person to take a decision, complete an action, or otherwise move a process forwards) and Process Automation (whether Robotic or otherwise) is where the machine can take actions like the ones above without intervention of the user.

The purpose of these technologies is to remove low-value activities from the workload of the user. The introduction of machine learning allows the scope of these activities to be widened and the actions of the machine to be scrutinised in an interactive way.

The identification of the processes can be helped by answering the following:

- What activities are performed the most, and by the highest number of people?
- What activities are reported as awkward and time-consuming?

- Where do you find the fewest errors in the data and have the best knowledge of what data drives the result?

Finally, and in addition to ACORD's guidance, there are other market changes that play a pivotal role in digitising commercial (re)insurance. Coming back to Deloitte, the areas identified may contribute new ways of working in their own right – as well as being affected by the technologies already discussed.

**Parametrics** - can we clarify underwriting risk and reduce uncertainty through new measures? Can we obtain the measurements automatically and in real-time? For example, what could this do to simplify the placing of property catastrophe?

**Increased use of ILS** – we already see the trend of ILS expanding into new lines. With the clear benefits of efficient capital access being useful in some parts of the market, the success of ILS could play a huge part in modernising (re)insurance. How will companies agree to place these risks? How will the Future @ Lloyd's initiative affect the market?

**Secondary markets** – managing the horizon of investment capital at a (re)insurance company remains a challenge. The 'holy grail' may be to agree a sale to another party wishing to take risk and allowing the early release of capital. How would this be priced and agreed? What disputes may arise?

## Conclusion - Gaining the Benefits

Today's Generals must make tough decisions. No doubt there are immediate needs to manage PPE, social distancing, and Perspex walls in the coming months, but the changes imposed on the workplace have proved that work can be achieved remotely for financial services. Even when a return to the office may become possible, how long will it be until another challenge means that businesses must adapt?

With the de-facto proof that business can be completed remotely and digitally, benefits can be seen in areas across our market. Some of the changes we can predict are below:

**Office space** must be on every agenda in the City (and beyond). While prestige may play a part in the company address, the cost of housing hundreds, potentially thousands of people in the same location not only demands additional justification but must be a risk assessed by every corporation in a post-pandemic world.

**Outsourcing** will again be considered by companies trying to widen a global footprint but will also look to outsource to multiple world-wide locations. Digital processes will be critical to the success of these deals.

**Core Business Drivers** of efficiency and cash flow will continue to drive the need to process accurate data quickly. When data can be sourced in real-time and in ever increasing volumes, digital processing power will provide the competitive edge.

**New lines**, such as Cyber, will see an increase in demand as processes move online but also require increased amounts of data to underwrite effectively. Could we see epidemic maps and digital vulnerability visualisations in the same way we consider hurricane tracks today?



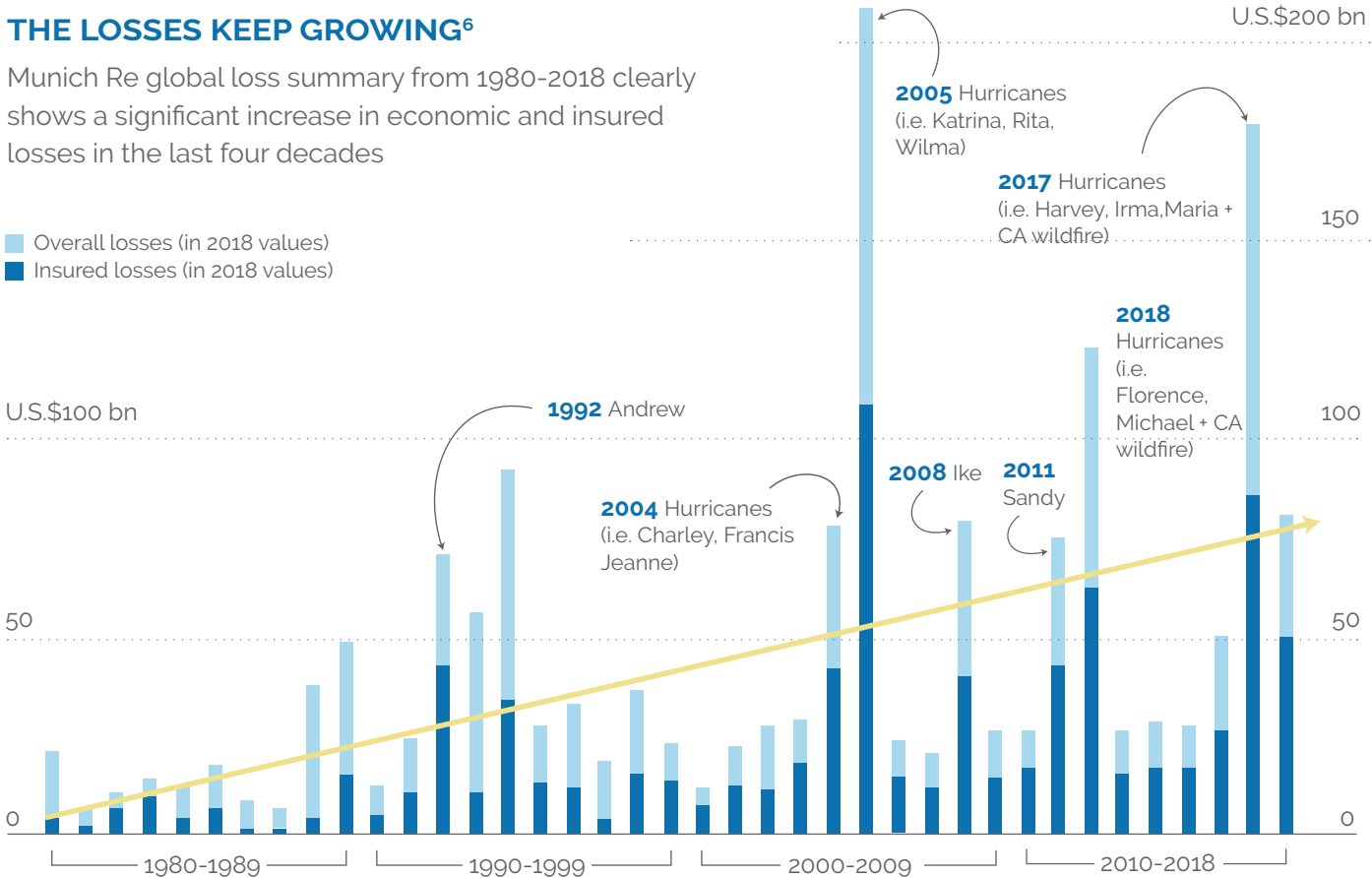
So, to avoid re-living past battles, let us consider what we can safely assume will happen. This will not be the last time that an infectious disease will make close contact impossible. The need for (re)insurance will remain, although changed, as it has done so during previous revolutions. Losses will grow, see the diagram below for a stark view from RMS (RMS, 2019)<sup>6</sup>, requiring dilution of risk in new ways. Technology will continue to solve today's business problems.

Finally, and most importantly, everything written is based on what we know of the past and think of the future. If history has taught us anything it is that we will be continually surprised at what the future holds.

The Schoenenbourg Fort is the most important Maginot Line fortification in Alsace, France. It is now a museum, offering visits in French, German, English, Italian and Russian. What monuments in our Cities could play that role in the future?

**THE LOSSES KEEP GROWING<sup>6</sup>**

Munich Re global loss summary from 1980-2018 clearly shows a significant increase in economic and insured losses in the last four decades



6 - Living in a World of Constant Catastrophes, 2019, RMS

## About eurobase

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Eurobase is a leading international software and services provider of insurance solutions. Established in 1988 and with customers in over 25 countries, we have gained extensive knowledge of the (re)insurance markets. Our aim is to be recognised as thought leaders in the sectors we operate, and to deliver innovative solutions that provide real business value to our customers. We pride ourselves on our personal approach, ensuring we deliver the support and flexibility our customers need and the service they expect. Our customers have long and lasting partnerships with Eurobase and all will verify our approach to doing business and commitment to product investment - delivering ongoing value above and beyond our initial engagements.

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