



## **New winds of opportunity**

Navigating to sustainable growth  
in the Dutch insurance industry

October 2017



# Executive Summary

**The Dutch insurance industry has found itself in stormy weather for quite some years now: growing competition, miss-selling scandals, and a financial crisis that resulted in a long-lasting, low-interest environment. These developments have seriously affected the once favourable position of insurers: they have found that growth and profitability were no longer self-evident, and insurers have had to face serious headwinds that were quite uncommon to the industry.**

It has taken a while before the industry accepted this 'new normal', got used to the situation, and took adequate measures. A reset had to take place and reorganisation was necessary. At the same time, complex new regulations—Solvency II—had to be implemented.

Over the past years we have witnessed insurers take gradual, essential decisions and we see real change starting to happen. Solvency II is, for the most part, implemented and is becoming part of daily steering, although it will probably take some more time before both the insurance industry and its stakeholders come to grips with the new system. The heavy capital charges that Solvency II has put on guarantees, the continuously low interest, extra regulatory requirements, and the standstill in sales have driven insurers to new business models, especially in life insurance. Not surprisingly, there is a strong focus on cost efficiency, through closed book management, automation, and robotics. It is interesting to see how relatively quick wins can be gained by Robotic Process Automation, a technology that can be further industrialised and optimised.

The resulting cost savings are needed to strengthen financial positions, but are also being used for innovative projects. Insurers are responding to the changes in client behaviour and client wishes. As society is changing, so does demand for insurance. Although it is likely that the volume of traditional backbones of the non-life product portfolio, such as motor insurance, will rapidly decline, new risk types and more personalised solutions in a digitalised environment offer relevant opportunities. To name an example, experiments are currently being carried out with dynamic pricing that enables insurers and customers to make use of actual product and price preferences. Traditional distribution is thus being replaced by modern sales models, based on data analytics and value-driven customer journeys. Insurance products are becoming solutions that connect to one's personal needs and actual situation, to an extent that one may wonder whether or not this will harm solidarity; the basis of insurance. Both moral and practical questions arise here.

The impact of artificial intelligence and robo-advice is growing fast. In addition, digital technologies like blockchain offer interesting possibilities, although their applicability needs to be further developed. The development of these technologies require a change in the way insurers have traditionally worked and





organised themselves: 'agile' working will help to break down the silos and facilitate quicker development and implementation.

On the life and pensions side, the expected changes in pension regulations clearly offer opportunities for insurers, although non-industry competitors will also be interested in, and capable of, taking a part of this market. Insurers will have to transform themselves into client-oriented wealth accumulation service providers in order to be able to remain relevant here.

Cyber risk is a double-edged sword. On the one hand, insurers should be in control of their own risks, especially now the volume and importance of data increases, and strict regulations around the use of it are being imposed. On the other hand, customers face similar risks and will want to protect these, which gives an opportunity for new products around cyber. In this area, but not only here, we see insurers offering preventive and otherwise risk-reducing products and services that go far beyond their traditional core business.

It is positive to see that the Dutch insurance industry seems to be more and more on top of these developments, changing its course back towards possibilities for sustainable growth. In our interviews with market leaders we found some careful optimism. The number of insurers aiming for this horizon, however, will inevitably decline, and so will the number of people working in this industry. The long foreseen concentration of the Dutch market has started and will most probably continue. It is therefore our vision that a smaller but potentially more agile and impactful industry will continue to sail on 'the winds of opportunity'.

One could say that after the long and costly implementation of Solvency II, and just before the equally impactful implementation of IFRS 17 kicks in, there is a window of opportunity in both financial terms and management attention. This is the time where insurers can take the necessary and innovative steps to prepare for the future, by working on margin improvement, looking for pockets of growth and optimising capital structure.

Dutch sailor Marit Bouwmeester is on her journey towards another Olympic gold medal in 2020, with Deloitte as her personal sponsor. The Dutch insurance industry may need the same perseverance and toughness as Marit on the journey towards a comparable goal in the near future!

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# Introduction



It is my pleasure to present a new edition of Deloitte's Dutch Insurance Outlook: New winds of opportunity.

Last year's outlook presented our vision on the insurance industry and focused on several trends with game-changing potential in the medium and long term. In this year's Outlook, we explore the possibilities insurers have for achieving sustainable growth in the near future, by means of the following three dimensions:

- Margin improvement
- Pockets of growth
- Capital management

These three dimensions provide the structure of this Outlook, which consists of ten sections that have been developed based on our vision, insights, experience, and interviews with thought leaders in the Dutch insurance industry. I would like to thank all of the contributors of this Outlook, particularly the industry leaders that we interviewed. We have been inspired by their vision and ideas.

We hope this Outlook provides you with relevant insights that help your organisation to achieve sustainable growth.

“We hope this report helps you find the course to sustainable growth”

**Marco Vet, Partner, Insurance leader  
Deloitte NL**

## Note from Marit Bouwmeester

“Getting ready for the Olympics in 2020 is my focus on a daily basis. I spend every single day in my boat, trying to optimise my skills and strategy in order to win the coveted Olympic gold medal.

There are obviously many external factors that can influence my success at the Olympics: minimal wind, high waves, or strong currents, for example. These factors are not something I can control, but training to master these forces with my boat allows me to get the best out of the race. The designers of the boat that I sail have also invested a lot in technological innovations over the past decades, which increases my chances of conquering these forces. These technological innovations have resulted in a light-weight dinghy with a fast planing hull that is quick to rig and launch, which makes it very agile.

But having a well-equipped, savvy boat does not guarantee a gold medal at the Olympics. We all have the same chance of winning; it all comes down to your own sailing ability. Each and every one of us therefore has to invest time in transforming during the window of opportunity we have until 2020. Your start, the position of your sail, your course, the analysis of external factors, and the decisions and risks you take can determine whether you earn a gold medal or have to pay the price of losing the race.

So, stay focused, prepare, anticipate on external factors, assess risks, and invest in technologies where possible and necessary. This is your chance to win your gold medal of sustainable growth and to stay ahead of the fleet. Take it!”

*Marit Bouwmeester, World and European Sailing Champion, Olympic Gold and Silver Medals*





# Setting sail for sustainable growth

The insurance industry has experienced some turbulent years, and more challenges will need to be conquered in the near future. In order to achieve sustainable growth, Dutch insurers will need to prepare for and adapt to an increasingly saturating market, changing employee- and customer needs, new regulations and innovative technologies.

## **Stormy weather in the insurance industry**

From a regulatory perspective, insurers have just finished implementing Solvency II, and are making final adjustments to that. IFRS 17, the new accounting standard for insurance contracts, was published earlier this year and will come into effect for financial periods starting 1 January 2021. New procedures are being implemented to comply with the ban on paying commissions for selling complex financial products.

According to Verzekeraars in Beeld, a market survey performed by Kantar TNS, consumer trust in insurers is at 7.10, on a scale of 1 to 10, while insurance companies are still dealing with the aftermath of the policy miss-selling affair ('woekerpolisaffaire') in the Netherlands<sup>1</sup>. Interest rates remain low and are taking their toll: traditional life and pensions business has come to an almost complete standstill, life insurers face increasing competition from banks in customer wealth accumulation, which was traditionally the life insurers' playing field. Non-life insurers are fiercely competing with each other and also face external competition, for example from car manufacturers who include lifelong insurance coverage with the vehicles sold.

In this Insurance Outlook we explore options for insurers to achieve profitability and growth in a sustainable way. A complicating factor is that, despite the fact that from a Solvency II perspective most insurers seem to be adequately capitalised, capital is definitely not plentiful. Capital requirements (locked-in capital) are increasing following risk-based regulations, and insurers need to hold even higher margins before being able to provide dividend payments. There is limited return on locked-in capital so the right balance between available and required capital is a challenge. Additional capital for new risky initiatives remains limited.

To use an analogy with the insurer as a ship; sailing that ship to new territories requires strategic choices along the three dimensions of profitability, growth, and capital. In this Insurance Outlook, we provide a nautical chart of the waters, we try to forecast the weather, we discuss ways of improving the ship, and we provide tactics for winning races, using state-of-the-art tools and techniques.

### The nautical chart | The market

The Dutch insurance market is mature, so how feasible is profitable growth in this market? For most insurance products, the market is both saturated and highly competitive. The life market is still shrinking, due to tax reforms and low interest rates. See figure 1. For non-life business, the regulator has indicated that insurers should focus on sound combined ratios and on changing the business model where required. The traditional distribution model has come under pressure, as insurance products are increasingly sold online and the role of the independent broker is shifting from sales to service. Technology is both disrupting and enabling.

Numbers disclosed by Insurance Europe indicate that, compared to other countries, the amount people spend per capita on insurance is relatively high in the Netherlands: the Netherlands is ranked second<sup>2</sup>. For a large part this is due to our healthcare system, but, also for other insurance types, the expenditure remains significant, and gross written premium spend in the Netherlands is within the top ten.

Gross written premiums for life and non-life have been showing a decreasing trend for many years, see figure 2. In the property and casualty ('P&C') market, on the other hand, we see a stabilisation, driven by increased premiums in motor (due to pressure from the regulator) and

in the fire portfolio. At the same time, combined ratios are still high, and rising, influenced by a negative trend in bodily injury claims and higher claim costs due to fire and hail damages. Both trends (of decreasing premiums and of increasing claim expenses) put pressure on cost reduction in order to remain competitive and profitable, see figure 2.

Figure 1 (source: Verbond van Verzekeraars)



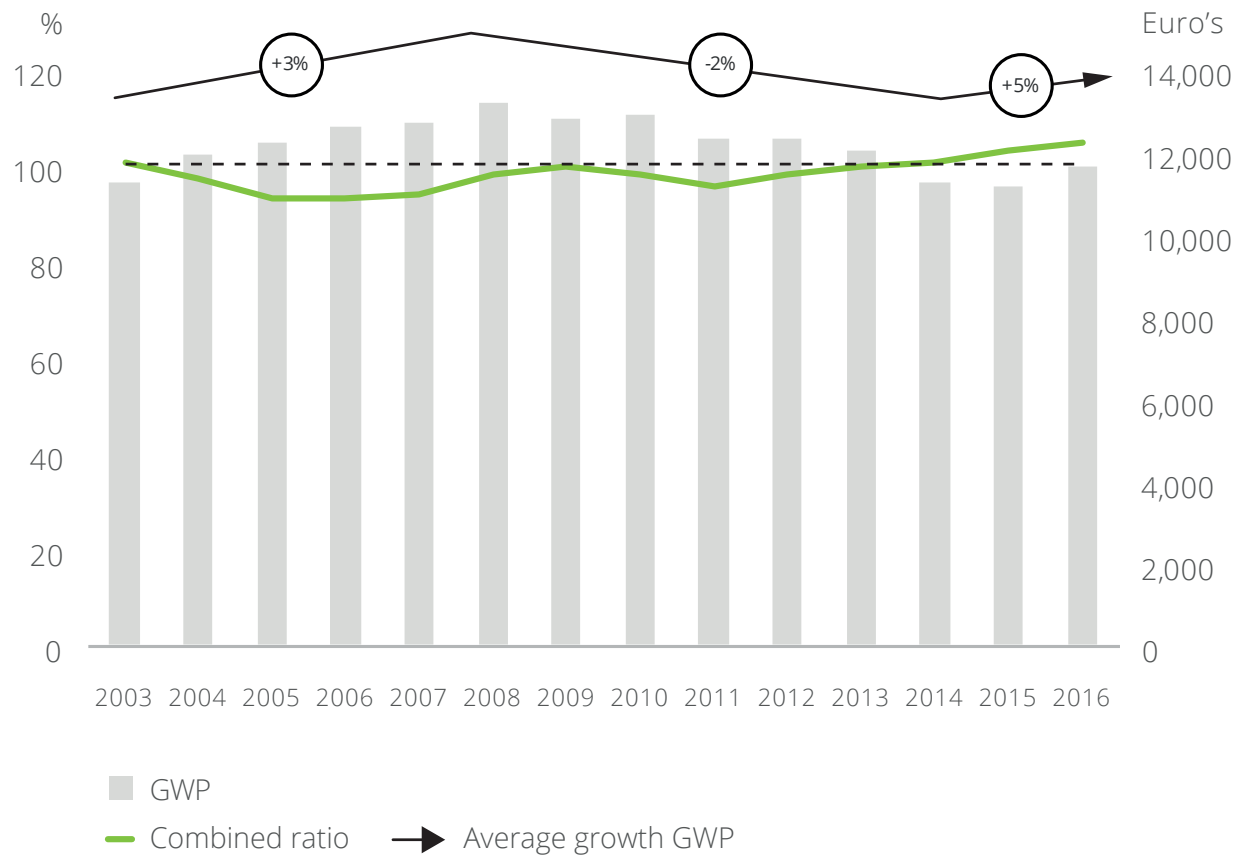
**The other ships | The competition**

Historically, the insurance industry is not generally known for its innovative power. The market denominators have been the same for years. Besides health insurance, the Dutch market used to have the 'big six' insurers. Together these companies had more than 80 percent of the markets for non-life and life, according to the Verbond van Verzekeraars<sup>3</sup>. The market was expecting consolidation, but it took quite some time before we saw the first big acquisition in the Dutch market. Recently, an old and strong brand (Delta Lloyd) was acquired by another, bigger brand (NN). This acquisition enables NN to grow, and if synergies materialise, this may release capital and increase profits, leading to profitable growth for NN. More recently, ASR acquired Generali's Dutch operations.

But, this may not be the last acquisition in the Dutch market. The five biggest players are all multiline insurers: they offer both life and non-life business, using multiple distribution channels. Strategic consolidation can lead to growth, but the question is whether those huge conglomerates should offer the whole breadth of products, or whether focus might lead to a better risk return profile. Why would it be inconceivable for a big insurer to sell their life business? Yes, closed book life business remains sufficiently profitable to keep it on the balance sheet, but selling this run-off

Figure 2 (source: DNB)

**P&C Market Development**



business could release capital that can be used to strengthen other strategic business lines. In a time when capital is not infinite, decisions like these are becoming more important, especially when shareholders increasingly interfere with company strategy. Only time will tell, but maybe more than before in these fast changing times, the insurer should formulate a solid strategy, monitor the market closely, and be prepared to act quickly on market developments.

Despite the withdrawal of Generali from the Dutch market, pockets of the market remain attractive to specific foreign insurers. Examples of growing foreign insurers and investors are Anbang (Vivat), RGA (Leidsche), Chesnara (Waard and Legal & General) and Eli Global (Conservatrix).

Growth comes from better or new capabilities that so-called InsurTechs could provide. We see that InsurTechs are increasingly entering the insurance market. These start-ups generally focus only on parts of the value chain. Many interesting initiatives have been introduced in the insurance company domain, such as product solutions, services, or process optimisation. Is the business model of InsurTechs to become the 'insurer of the future', or are these companies solely founded to be sold for a high price to traditional insurers? Irrespective of the ambition of these start-ups, their efforts are both a risk and an opportunity for the existing players.

### The crew | The employees

Over time, ships have evolved considerably using newly invented technologies. In the time of the Romans, trade galleys used manpower to row the boat against the wind. This required many people and a lot of food for those people, with little room left for merchandise. Nowadays, cargo ships only have a limited number of people on board, making use of engines and automation, leaving more room for cargo.

Not that long ago it was still common for an employee to work for one company for many years. This employee was educated and trained internally, had his career mapped out and was a proud advocate of the brand. Recently, various reorganisations were initiated in the insurance industry, leading, among other things, to the release of personnel. Consequently, the number of people working for insurers has decreased by almost 20% from 2011 to 2015<sup>4</sup>. All major insurers went through some kind of reorganisation or have outsourced parts of their business to low salary environments. These change programmes also led to new ways of working. A very visible change insurers have gone through in the last five years is the so-called 'new way of working': providing flexible working, building open offices, encouraging working from home, and having remote meetings.

But not only companies change. Employees are changing too: young people want project-based

work, and want to keep learning and to keep developing themselves. This is in line with the agile way of working currently being introduced at many insurers. The agile way of working was initially implemented in IT departments, but is gaining popularity in other departments, including finance and risk. The decrease in personnel and the new way of working led to a reduction in the number of insurance offices, shorter time-to-market. The corresponding cost savings are helping to improve profitability.

Another development is the recent implementation of Solvency II, and the fine-tuning of the risk management framework following that implementation. The effectiveness of risk frameworks has come under scrutiny and governance structures are in the spotlight. Companies are making their control frameworks more effective, rationalising controls where possible, and striking a balance between efficiency and being 'in control'. The responsibilities of the three lines of defence are also defined more clearly, and any overlapping responsibilities eliminated. Business units should take full ownership of the risks in their area, while the risk management function should focus on its risk control role through oversight and by challenging the business. If implemented correctly, fewer risk managers are required, resulting in a reduction of costs.

### The fans and spectators | The clients and customers

In the consumer market we see several trends. Consumers of insurance products tend to be more focused on the real benefits of insurance for the individual, rather than blindly insuring their risks through a standard format. Consumers are increasingly willing to share information, especially if discounts are offered in return. On the other hand, consumers are more aware of data protection issues. The use of digital platforms for buying insurance policies is increasing, although for complex products, personal advice is still appreciated. New online peer-to-peer platforms, such as self-organised hospitality platforms, integrate individual and commercial insurance needs. This offers opportunities, but could also potentially result in unclear expectations and misinterpretation.

Consumer appetite for insurance products in general is changing, along with the services they expect from an insurer and the way in which they want to be contacted. Consumer categories can be identified so that the insurer can contact them using the most appropriate communication channel. Products are becoming more tailor-made, jeopardising solidarity principles: specific groups of high-risk consumers may find it increasingly difficult to get insurance.

As digital touchpoints increase and the opportunities of having personal contact reduce, the quality of the personal contact becomes more important. Therefore it is important to balance the value insurers derive from the customers with the value insurers provide to the customer. Insurers need to differentiate their service treatment. As part of the total contact strategy, chatbots can play a role.

Clients do not compare the service performance of insurers with that of other insurers. Clients compare the service performance of insurers with the services received from well-known e-commerce organisations. Therefore, they no longer tolerate a lengthy underwriting process but expect a split-second quote and acceptance. In order to facilitate this, unnecessary steps should be removed from the process, systems should be updated, data should be connected, and technological improvements should be implemented in order to help to meet customer expectations.

### The law of the sea | Compliance, rules, and regulations

Compliance, rules, and regulations still have a huge influence on insurers. The three dominant regulations and standards currently affecting the insurance industry are:

- Solvency II: regulatory capital
- IFRS 17: financial reporting
- GDPR: privacy regulations

Complying with regulations can be very costly, but non-compliance can also come at a high price, in the shape of capital add-ons (Solvency II), or share price drops and penalties (IFRS 17, GDPR).

Solvency II is the current capital regime drawn up by EIOPA and applies to nearly all European insurance companies. Solvency II disclosures include the capital position of the insurer. Compliance with Solvency II is costly. Even though Solvency II is already in force, many refinements still need to be made in areas like risk management, data quality, governance, model improvement, and validation. Risk management in particular can be improved; instead of being purely compliance driven, it can also be used to power an organisation's strategic choices and help drive performance. Investors and analysts use Solvency II disclosures in their assessment of the insurer's financial position, and solvency position is

one of the main drivers for mergers and acquisitions.

After many years of drafting, the International Accounting Standards Board (IASB) published the final version of IFRS 17 in May 2017. The IASB's objective was to develop a common, high-quality standard that will address recognition, measurement, presentation, and disclosure requirements for insurance contracts. The new standard requires insurance liabilities to be measured at a current fulfilment value and provides a more uniform measurement and presentation approach. IFRS 17 is expected to become effective for annual reporting periods beginning on or after 1 January 2021 (pending EU endorsement) and is applicable to insurers listed in the EU. IFRS 17 introduces a new way of presenting the performance of the insurer and requires separation between onerous and non-onerous portfolios, explicitly showing the distinction between profitable and loss-making contracts. The implementation of IFRS 17 is expected to be just as burdensome and costly as the implementation of Solvency II. During the implementation phase of IFRS 17, insurers need to already think about how to structure their portfolios in order to present profits in a balanced way. Too little profit may scare off investors, too much profit might chase customers away.

General Data Protection Regulations (GDPR) is the legislative act that sets out the minimum standards on data protection in Europe. It protects individuals' privacy and strengthens the individual's rights to control his own data. Slowly, the market seems to understand the tremendous impact GDPR will have: Not only because of the introduction of the Data Protection Officer, but also because of the huge sanctions for violating the articles of GDPR. The maximum fines depend on the violation category. For less serious violations, the maximum penalty is the higher of 10 million euros or 2 percent of total annual worldwide turnover of the preceding year. For more serious violations, this increases to 20 million euros or 4 percent of turnover<sup>5</sup>. However, implementing GDPR should not be just about avoiding sanctions: insurers can implement GDPR in a smart way, achieving synergies, and ensuring the investment is well spent.

The common denominator of Solvency II, IFRS 17, and GDPR is the importance of data. Implementation requires the gathering, storing, and securing of enormous amounts of data. Given the overarching role of data, a holistic view on these regulations could prevent inefficiencies, and provide upside potential through better and more secure use of data. The implementation projects should be scoped in such a way that they ensure compliance and simultaneously add value.

### Tooling and navigation | Technology and data-driven insights

Many insurers have considered themselves to be data driven organisations for some time, since data and analytics have been at the heart of insurance business. However, the extent to which data and analytics are used is limited to a few core processes such as reserving and pricing. Increasingly, insurers recognise the value of data analytics: to enhance risk assessment in underwriting, to reduce the cost of claims, to identify new sources of profitability, to identify favourable customer segments, and to improve the customer experience, to name a few examples.

Technology has always played an important role in the insurance industry, and its importance will only increase. Several insurers are considering investing in new digital platforms to facilitate connectivity and benefit from new technologies such as blockchain, artificial intelligence (AI), automation, and robotics—things which will become household terms in the insurance industry. Innovation capabilities, new technologies, improving hardware, the cloud, big data storage, and analysis will enable insurers to grow their business. These are exciting times!

To remain competitive, the insurance company will have to reinvent itself. Many capabilities can be automated or strengthened in partnerships

within the insurance ecosystem. Fundamental questions arise: How big does the company want to be? What has to be kept in-house and where can partnerships be leveraged? What activities should the business units perform, and what can be centralised? Thorough analyses may be required to answer these questions.

### Sustainable growth | Winning the race

The competitive sailor's goal is to win the race. To win, the sailor has to have the fastest boat, shed excess weight, gain knowledge of the best winds along the track, and formulate a strategy for beating the competition. For an insurance company, it is not so different. The insurer needs to improve margins by focusing on high profit activities and by cutting costs where possible, identify pockets of growth in the market, and optimise the deployment of available capital.

Below we discuss margin improvement, pockets of growth, and capital optimisation.

### Margin improvement

The first and obvious way to create profitable growth is by improving margins. But improving the margin is not about increasing profits at all cost. It is about the long-term, sustainable, and positive development of that margin. The insurer has several key ways to improve margin; for example by cutting costs, creating more

efficiencies, improving claim management, or pricing and underwriting in a smart way.

Many cost-cutting measures have been implemented over the past years, but more opportunities still remain. Outsourcing to low-cost countries has increasingly been reversed, with Robotic Process Automation (RPA) implemented instead—robots are found to be cheaper, they are closer to home, and the insurer has more control over them. Data processes are increasingly automated, enabling professionals to focus more on the higher value tasks, such as analysis and strategy.

Insurers are rolling out the agile way of working. The resulting self-steering teams have a different type of hierarchy: fewer managers, shorter meetings, and higher efficiency. Employees increasingly want to work on a project basis, get hired on flexible terms and focus on learning and development. By hiring these flexible workers during the peak season, insurance companies can reduce the permanent workforce.

Another way to improve the margin is by improving the client portfolio or by selling products to more profitable market segments. Dynamic pricing is increasingly used to determine the fair price of products, given the client's risk characteristics. By adapting prices quickly to the specific client, balanced subsidies

are set in risk pools and the total amount spent on underwriting and claims payments is reduced. Claim costs can also be reduced by automating claims processes; by using the client's mobile devices to record damages, for example, or by using data analytics to detect fraud. By also applying data analysis to the providers of repair services, such as body shops for example, the costs of claims can be significantly reduced. Existing third-party contracts may need to be renegotiated, and certain capabilities or services may need to be outsourced.

There are many interesting ways to improve margins. In this Outlook, we highlight three, which we believe are of great importance for the current insurance market: RPA, dynamic pricing, and Agile HR.

### Pockets of growth

Although the Dutch insurance market has shrunk over the past years, growth is still possible. Growth can be realised in the areas of portfolio management, underwriting, and sales. New technologies, societal developments and climate change create new risks that customers wish to insure. Customers increasingly want to take out insurance for defined periods ('pay-as-you-go'): when passing the border, when leaving the house, or when driving along a specific road. The dividing line between private and commercial coverage disappears, following

developments such as self-driving cars, the sharing economy, and online peer-to-peer platforms, such as self-organised hospitality platforms. Such usage-based insurance has definite growth potential.

Digitalisation also creates new hazards. The May 2017 worldwide cyber-attack using ransomware affected hospitals, electricity companies, and other organisations, revealing the potential for upheaval in society after such an attack. Cyber insurance products have been developed and insurers are gaining more experience in this field, making it an increasingly attractive product.

The evolving Dutch pension system is another business area that offers potential growth for insurers, provided they broaden their scope from a product to a customer focus. The population is aging, and legislation is likely to be overhauled at some point in the coming years. There will most probably be a shift from collective and one-size fits all schemes with much solidarity, towards more individualised solutions. This gives rise to opportunities for new products, especially in the so-called third and fourth pillars (individual pensions and savings).

A technology that is in its infancy, but that may change the insurance sector profoundly, is blockchain. Blockchain has the potential

to drastically bring down onboarding costs, by recording and encrypting customer data, and sharing this information across insurers. But it can also prove to be a growth enabler, by facilitating peer-to-peer insurance, by connecting an Internet of things environment or by radically transforming the policy and claim processes.

Another driver for growth is selling more products to existing clients using cross-selling or upselling. This is achieved by applying new data-driven techniques and by using advanced data analytics. These techniques can help insurers to find more successful combinations of insurance products or insurance covers to meet the client's needs. If the insurer is able to identify strategic client segments and to define client values across products, this will help grow the portfolio. Technology can also be used to decrease the perceived distance between insurer and customer. High-quality interaction, digital or analogue, can identify clients' needs and enable the offering of a better, suitable product.

Finally, acquiring other market players remains an important way of growing the business inorganically. The trend of consolidation in the insurance market is not likely to abate any time soon.

Five potential growth areas and enablers are highlighted in this Insurance Outlook: blockchain, customer contact, data analytics, the retirement market, and cyber insurance.

### Capital optimisation

The final area relevant in generating profitable growth is optimising the cost of capital. Capital is required to meet regulatory solvency capital demands, leaving little capital available for investing in further growth. Many opportunities for growth, such as acquiring a business or investing in technology, require large investments and do not always increase margins. Therefore, it is crucial to have a solid capital management strategy. Possible elements of such a strategy are divestments, product selections, asset allocations, portfolio management, mergers, and acquisitions.

Currently, capital strategies are often linked to the optimal asset allocation, with the aim of reducing the dominant market risk of an insurer. The capital optimisation strategy often does not take growth or profitable opportunities into account. But underwriting risk models make it possible to distinguish between more or less capital intensive products. The practice of designing a holistic capital optimisation strategy, where both assets and liabilities are taken into account, is not yet commonly seen but can yield great benefits.

“This short timeframe between Solvency II and IFRS 17 offers us a ‘window of opportunity’ to set our house in order and prepare for the future”

**Maarten Edixhoven, CEO, Aegon Nederland**

Additionally, the outcome of the sophisticated economic capital models for Solvency II can be refined, parameters can be recalibrated and aggregation models adjusted in such a way that locked-in capital can be released. In a risk-adjusted return framework, both economic profits and required capital are drivers. Once Solvency II and IFRS 17 models and assumptions are sufficiently consistent, these combined frameworks could be the integrated driver for the insurance company.

Insurance companies should also review their risk mitigation strategies. Reinsurers are offering capital relief solutions tailored to Solvency II requirements. Having an optimised reinsurance strategy can help balance the risk and capital needed for profitable growth. New technologies can help prevent claims from arising, thus lowering claim costs and decreasing the difference between claim expectations and realised claim payments.

In this Outlook we look forward and discuss capital optimisation, in preparation for the upcoming IFRS 17 accounting standard.

### **Raise the anchor | Conclusion**

This is the time to shed excess weight, trim the sails and set course for new, profitable shores!

From a distance, the sea might look flat and quiet but as one comes closer he or she will see huge waves. And although you cannot see it, underneath the surface even more is going on. The sea changes, strong currents change directions, high tide and low tide alternate. Sailing these waves in a controlled manner is challenging and requires advanced equipment and continuous improvement. Like the sea, the insurance sector is always changing. To an outsider, it may appear that not much is going on, but beneath the surface there is a lot of movement.

The competition is not standing still. One should aspire to be faster and cleverer than the competition, and to quickly respond to their moves. That, in itself, is challenging enough. And then the rules and regulations keep piling up, too.

The race has started, so the players must raise the anchor and choose the right course, forecast the weather conditions, improve the ship and determine the tactics. There's a window of opportunity and we hope this Insurance Outlook can inspire you on the journey to the destination of your choice.



# Adjusting the sails for an optimal course

Margin improvement

# Robotic Process Automation: it's time to industrialise

## The keys to successful scaling of Robotic Process Automation

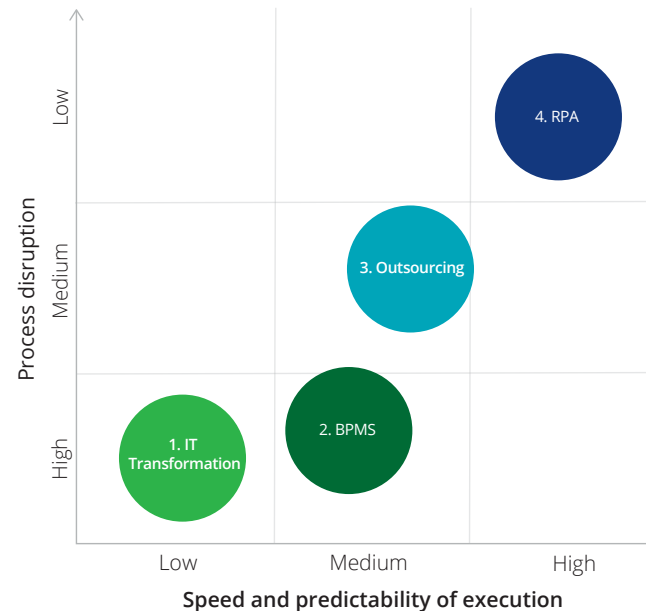
Over the last years, Robotic Process Automation has gradually moved through the stages of the hype cycle and today it is at the peak of expectations. Insurance companies have valid reasons to be highly interested in the concept of RPA, as they have many activities with a high potential for automation.

Various studies concluded that the majority of all activities performed by an insurer today can be automated by using currently available technologies like RPA. For example, the collection and processing of data in a rule-based manner. Our experience has shown that proper deployment of just one robot can result in savings in the range of four to eight FTEs.

Many insurers have already experimented with a 'proof of concept' to investigate the potential and technical feasibility of RPA within their organisation. However, scaling up the use of RPA remains a challenge. In many cases, the use of RPA remains rather limited and RPA is considered 'just another IT tool'. While in fact it can be so much more. Full-scale deployment of RPA, driven by the business, can revolutionise the way we work today. It can even impact the outsourcing decisions that have been made in the past, as process robotisation is becoming an attractive

alternative to traditional labour arbitrage. See figure 3, in which RPA is compared to traditional process transformation approaches<sup>6</sup>.

Figure 3 (source: Deloitte)



When scaled properly, RPA can result in breakthrough improvements in costs, quality, and operational risks. Five main enablers help to ensure a successful scaling up of RPA within an insurance context:

1. Make it strategically important
2. Create demand
3. Implement quick and principle-based decision-making
4. Remove barriers for RPA development
5. Sell the change

### 1 Make it strategically important

One of the largest inhibitors that prevents RPA from delivering its full potential is the lack of appropriate strategic positioning and a clear growth strategy. Traditionally, the strategic change agenda for insurers has been dominated by large transformations that aim to realise high business value, often accompanied by high complexity and a need for endurance. RPA implementations are, often mistakenly, associated with lower benefits and therefore approached in a more operational manner, with relatively low management attention, priority, and budget. However, due to the short delivery cycles and high applicability in the insurance landscape, RPA can actually contribute significantly to strategic industry targets, moving beyond short-term operational cost reductions. Some examples are:

**Increase Net Promotor Score** by implementing RPA in critical customer journeys and enabling employees to spend their valuable time on interaction moments that really matter. Increase workforce flexibility by embracing the unlimited amount of virtual resources RPA offers. It can support one-off data cleansing and compliance projects, for example, or flatten peak loads and process backlogs in back-office processes.

**Reduce operational risks** by eliminating human shortcuts and workarounds, replacing unstable macros, and establishing 100 percent accurate audit trails in RPA logs.

**Lower the cost ratio** by eliminating manual, repetitive work on active or run-off portfolios on legacy systems.

The strategic intent should be set-out in a clear RPA vision that acts as a single point of direction for the roll-out of RPA. It should clarify how RPA contributes to selected strategic objectives within the organisation. The vision should be concise and accessible, owned by an executive business sponsor and created in close collaboration with Business, IT, and HR. The vision can be translated into a concrete growth strategy including SMART goals for the deployment of RPA. 'Start small, organise big' is advised as a guiding principle for large-scale implementation.

By making it a strategic priority, RPA has the ability to be more than 'just another IT tool' and grow into a business-driven, full-scale solution that contributes significantly to the company's strategy.

## 2 Create demand

Once the vision is clear, it is time to start creating demand for RPA in the organisation. Selecting the right processes to be robotised using RPA is one of the most important key success factors.

In order to scale fast and fully leverage the potential of RPA, there should be substantial demand, with sufficient feasibility and potential. We advise a combination of bottom-up and top-down demand generation. Bottom-up demand generation is all about mobilising the insights on the work floor. It starts with creating awareness about what RPA is and where it can be applied. Town hall sessions and awareness workshops are some examples of how this can be put into practice. Next, a simple and clear mechanism for idea generation and collection should be put in place, which employees can use to articulate their ideas. This process should already assess the proposed use case on basic knock-out criteria, such as the absence of rule-based, structured data.

A prerequisite for successful bottom-up demand generation is that employees feel secure. If cost reduction or productivity increase is the main objective of implementing RPA, employees will probably not be inclined to put forward their best ideas. Investing in a sense of security and providing incentives can counter this risk to a certain extent. However, in order to ensure that all RPA potential comes to the surface, it is worthwhile to also engage in top-down demand generation.

Top-down demand generation starts by translating the strategic objectives into value drivers and cost drivers. For cost reduction purposes this will translate into drivers like FTE reduction and outsourcing spend. If quality improvement is the objective, the focus will be on drivers like the first-time-right-percentage, number of complaints or failure cost. Once the key drivers are identified, a business analyst will typically start a company- or department-wide analysis to determine where the most impact can be made with the least amount of effort. The Pareto principle is often applicable: 20 percent of the processes harness 80 percent of the potential. The top-down analysis focuses on determining the feasibility of RPA automation and the potential of end-to-end value chains. In contrast, bottom-up analysis often mainly focuses on tasks and sub-processes.

A Deloitte team worked with a financial institution in Europe to automate 15 processes over six months. The processes were carefully selected across the institution to ensure no complete team would be impacted. In one department where three selected processes were handled by five FTEs, work remaining after RPA was reallocated to three of those five. Meanwhile, the fourth was deployed to another department, and the fifth was redeployed on a strategic project within the same department. In another case, implementation of 1,300 robots saw a migration of 260+ processes over 16 months, with a significant headcount reduction.

The combination of both types of demand generation will result in a richly filled pipeline – or roadmap – of processes in the organisation that have the potential to be automated.

### 3 Implement quick and principle-based decision-making

Next, a clear procedure and governance for prioritising and planning should be put in place. Experience shows that a complete and fail-proof set of decision criteria is hard to set up, and can lead to unnecessary bureaucracy. Formulating a basic set of principles for prioritising, and setting up an effective decision-making body have proven to be more effective. The principles should clarify what the primary objective is and how parameters like business case, quality, risk, and client satisfaction are weighed.

The scope for application of RPA also needs to be set:

- Are we going to apply RPA to business critical processes?
- Are we going to make changes in our core system to resolve the issue or will we apply RPA?
- Are we first going to optimise before robotising?

To ensure employees keep a sense of security, as mentioned earlier, inclusion of a people-oriented principle is recommended. This will lead to questions such as:

“Is the key focus to reduce costs or is the focus to perform an increasing amount of work with the same amount of people?”

The decision-making body should at least include executive representatives from the business, for example from Claims, IT, and Risk. The frequency of the meetings depends on the degree of scaling and should align with the intensity with which new processes are being automated.

### 4 Remove barriers for RPA development

Once the right processes and priorities are determined, and the decision-making body is in place, it is of crucial importance that all barriers for RPA development have been removed. This means that the required architecture and infrastructure have been set up and made available, and that contracts with selected solution vendors are in place. Standard roles and responsibilities need to be defined and a comprehensive training curriculum should be in place. In order to counter a potential shortage of development skills or capacity, it is advisable to have contracts with external partners in place to provide support. This provides extra flexibility for scaling up quickly if necessary. When combined with a result-based fee model, this is an effective approach for realising the desired benefits.

### 5 Sell the change

When scaling up, things get real. And when things get real you'd better be prepared. Firstly, a 'burning' platform has to be created to raise the sense of urgency and to get people moving. Secondly, a compelling change story needs to be told that articulates the why, how, and what of the upcoming transformation and its impact on customers, employees, society, and shareholders. Thirdly, employees have to be given clarity about the impact RPA has on their own jobs.

Cost reduction is usually the primary objective of introducing RPA and people may lose their jobs. What will the procedure look like and what are the available options? In our experience, employees are often pleased to be able to perform activities with more added value and we see that savings are often achieved, not by letting people go but through recruitment stops. It could however be useful to involve the works council at an early stage in order to get a full understanding of the upcoming changes. If productivity is the main objective, i.e. 'doing more with the same number of people': what are the growth areas and corresponding roles, and how will the transition take place? If quality improvement or increased value creation.

#### **Making it real**

The previously mentioned five key enablers allow insurers to successfully scale RPA. Setting up a Centre of Excellence (CoE) is a proven way to successfully operationalise these enablers. Depending on the organisational structure and robotics strategy, a CoE can be set up centrally, decentrally, or in a hybrid form. After 'starting small', it is now time to 'organise big'. The pace of scaling will go hand-in-hand with the effort put into the enablers and the impact made by the deployment of RPA. Strong benefits management and communication of results will furthermore act as a catalyst for implementation. In the near future, the virtual workforce will gradually take on more intelligent

work by means of cognitive solutions, which can be integrated within the RPA workforce. For now, the technological readiness of RPA can already provide significant benefits for repetitive, rule-based tasks. Many Dutch insurers have experimented with a proof of concept, or even successfully implemented an RPA in a pilot. So, the technology is there and has proven to be ready for Robot Process Automation!

**“RPA could be more effective than current outsourcing practices, and it helps insurers to retain control over the value chain”**

**Ron van Oijen, CEO, VIVAT N.V.**



# Accelerating the agile insurer

## Seven accelerators for scaling agile in the insurance industry

Digital technology is having a profound effect on 21st century organisations. It is fundamentally changing the way we work, the way we manage, where we work, how we organise, the products we use, and how we communicate<sup>7</sup>.

Despite of the previously mentioned changes, some aspects remain constant. Insurers still exist to unite around a common purpose, common values, and strategic objectives to get things done and remain relevant players in the market. People remain the most critical asset for insurers—but they are increasingly surrounded by technology. Individuals are still bound by the hours in a day and their mental ability to process information. Work (done by computers and people) must be coordinated to create maximum value for customers.

In order to adapt to increasingly digital workplaces and work, many insurers are implementing agile ways of working. Agile is a set of values, principles, and a mindset that combines multiple techniques to drive customer focus, increases collaboration across an organisation by removing 'silos', and strengthens the ability to adapt to a continuously changing environment.

Deriving from software and product development originally, these ways of working are now also being applied across insurance companies, for example through the introduction of multi-disciplinary teams, combining workers from commercial teams, software development, quality, pricing, and marketing. Even a redesign of the boardroom to adopt agile principles and an agile mindset is not uncommon anymore. For more details see 'Organisational agility in a nutshell' on the next page.

### Start small, fail fast, and scale quickly

If agile ways of working are implemented successfully, the effective collaboration in multi-disciplinary teams leads to a reduction of time to market, an increase in customer satisfaction, and increased problem-solving capabilities. The prime focus of true, mature agile insurance companies is on generating continuously improved value for its large corporate clients and institutions, as well as its private clients. Insurers on the path towards increasing agility tend to focus on optimising services and alignment with internal customers first. In robust 20th century organisations, initiating transformations on a large scale is complex. To kick-start larger scale transformations successfully, we apply an iterative approach, applying the principle 'start small (with experiments), fail fast, and scale quickly'. This generates quick wins and establishes credibility first, before changes are rolled-out on larger scale.

### So what challenges are tackled once agile ways of working are adopted effectively?

Agile transformations are usually initiated when companies search for ways to keep up with rapid changes in customer needs. For insurers, experimenting with the implementation of operational agility, this may mean that the initial focus is on internal 'customers' of the IT teams; parties within the company. However, regardless of the sector in which agile ways of working are adopted, the ultimate aim is always to bring the focus on continuous improvement of customer value back to the heart of the organisation.

These are some strategic challenges that insurance companies aim to tackle by applying agile ways of working on a larger scale:

1. Agile ways of working strengthen the flexibility to adjust effectively to rapidly changing customer behaviours, following lifestyle changes and new trust concepts, by tapping into the wisdom of the crowd.
2. As customers are adopting new digital channels rapidly, agile insurers have the ability to benefit effectively from the opportunities to build more intimate

### Organisational agility in a nutshell

In the financial sector we see companies maturing in mastering operational agility. Most insurance companies are already using an agile methodology, such as Scrum, with their IT teams. This means that work is organised in short product development iterations, so-called sprints, delivering working products, or so-called Minimum Viable Products (MVP). Work is prioritised based on customer needs, defined in user stories, and coordinated through backlogs, guiding the planning and execution of work activities. Customer representatives, Product Owners, translate customer requirements, prioritise these and provide feedback to teams during sprints. Agile teams work autonomously, jointly finding the best ways to continuously improve value to customers. Operational agility usually mainly brings efficiency gains and quality improvements.

**Strategic agility** refers to the ability to remain competitive by continuously adjusting and adapting strategic direction in core business, as a function of strategic ambitions and changing circumstances. This means going beyond creating only new products and services, to also launching new business models and innovative ways to create value for a company (in new markets). This can be achieved when agile ways of working are adopted across the organisation, with direction provided by an Agile Board.

- customer interaction, and use data to personalise services and product offerings.
3. Once agile ways of working and the agile mindset are adopted across an insurance company, and operational and strategic agility are combined effectively, financial benefits usually follow.
  4. New generations of professionals want to contribute and make a valuable impact, each in their own way, in an environment that provides meaningful, purpose-driven careers. Agile organisations seek to effectively align corporate ambitions with personal development goals of their employees.

For many insurers, significant changes are needed to increase their organisational nimbleness. Traditionally, insurers were organised in product line structures. In these types of organisations everybody is focused on his or her specialised area. All specialised areas are connected around a specific product category such as individual life, pensions, or non-life. From a risk and product perspective, this provides overview and control. However, from a customer value perspective this might not be very service-oriented. It could lead to multiple required log-ins when the customer wants to access his personal insurance portal. A product line structure also does not facilitate delivering best advice or best next action to the customer if the full overview of the customer portfolio is not known. An agile approach allows for new, flexible ways of interacting with the market, though a continuous conversation, replacing the 20th century insurers built solely for 'pushing products and services'.

### Lesson learned from banks: organising around the customer journey

A useful approach for organisational redesign that strengthens the focus on customers, starts by defining customer journeys. So called 'value streams' are defined along the customer journey, targeting a specialised area of the customer journey. These value streams consist of agile, multidisciplinary teams. Dedicated teams can deliver valuable improvements across product/service lines on topics such as customer onboarding, claim management, and divorce settlement. Banks sometimes add an additional dimension and map the customer journey per target segment. This results in agile teams which, for example, focus on the onboarding of students, or on facilitating international expansion for SME customers. A value-based approach to customer journeys—as described in this Insurance Outlook—also facilitates a fact-based agile approach. Objectives can be quantified and successes of the agile methodology can be measured. Lastly, adopting a customer journey approach to organising agile teams also facilitates organisations to think in terms of partnerships and networks. Because the teams are output driven, solutions for achieving the desired output can lead to refreshing insights and new types of collaboration across a wider insurance ecosystem.

### Scaling up agile ways of working across the insurance company

Many insurance organisations start by implementing agile ways of working at

operational levels, usually within the IT division first. Initial experiments generally work fine, when a limited number of multidisciplinary teams are guided by product owners. The teams use task boards (scrum or Kanban) for prioritisation of work, and for the alignment in and between teams they have stand-up meetings and 'scrum of scrum meetings'. But once work needs to be scaled up to more than 8 or 10 teams, alignment and decision-making become more complicated. When scaling up the agile ways of working across an insurance company, we recommend using a central body, an Agile Center of Expertise (CoE), as a 'change engine' to support teams to stay aligned and connected to strategic goals, so called 'epics', which in turn can be translated into features and user stories. Coaches and experts in this Agile CoE help both the teams and executive management to shape common language around agile principles. This helps to ensure teams are guided and coached in working towards the common purpose.

We are often asked if agile transformations should be initiated top-down or bottom-up, but in our view, a shift to get customer focus back at the heart of the insurance company starts by shifting the perspectives from the outside-in. If agile ways of working do not support a 'bigger purpose' that adds value for customers, the focus on an agile way of working can easily become a means to an end, which usually limits the impact that working with agile values and an agile mindset potentially offers.



“Insurers will increasingly operate in ecosystems - sometimes of third parties - but the question is to what extent insurers can retain control.”

Richard Weurding, Managing Director, Verbond van Verzekeraars

Today, the key to organisational success is not ‘scalable efficiency’, but ‘scalable learning’. Insurers must be able to experiment, put prototype products in front of customers, rapidly learn from competitors, and benefit from technological trends. This implies that the insurance organisation has to focus on customer-centric learning, experimentation, and time-to-market<sup>8</sup>.

To align value streams and teams around a common purpose and common Objectives and Key Results (OKR), we work with these value streams, describing their genuine value to customers, focusing on maintaining relevancy for the future. Customer journey mapping is one of the powerful tools for aligning teams with their strengths and weaker spots in serving their customers, internally and externally.

Scaling agile practices and genuinely making them stick, requires a redesign of organisational structures. It requires fundamental shifts in the ways in which work is organised (prioritised). Employees collaborate with more autonomy, and in different connections with the parties in the organisational ecosystem. Successful agile teams work with high levels of trust, openness, and leadership, based on expertise rather than on hierarchy. The cultural changes that insurance companies go through on a path towards more agility are therefore often significant. This does not necessarily mean a ‘big bang’, but a step-by-step roll-out across those business units that show the highest readiness and relevancy for agile work. Deloitte uses the Change Adoption Profiler<sup>9</sup> to assess change readiness using data-driven insights.

#### An agile scaling framework

Some insurers have used methodology from the Scaled Agile Framework (SAFe), LeSS (Large Scale Scrum), the Spotify Model or NEXT to support their efforts in rolling out nimble ways of working across their organisation. Experiments with these frameworks in the last few years have shown that the silver bullet for scaling agile has not yet been found in one single methodology. Some insurers have left the framework they originally chose for their roll-out, others have implemented parts or combinations of elements of multiple frameworks. The context in which agile ways of working are being scaled always demands careful selection and embedding of any of the frameworks in the organisational context, if

used at all. Once a clear focus has been created around the broader efficiency and effectiveness benefits that insurers aim to achieve through scaling, it can be very helpful to use a set of agile principles or one of the scaling framework methods for guidance on rolling out these agile ways of working on larger scale.

#### A critical role for HR

Early involvement of HR is crucial for the successful scaling of agile ways of working. Besides changing roles, and an often significant reduction of job categories and titles, HR can help to redesign performance support, recognition and reward systems. As we redesign organisations to work more effectively with customer feedback, younger generations of employees also demand more frequent feedback. Salary, lease cars, and bonuses are no longer the highest motivational means for recognising high performance<sup>10</sup>. This is where Human Resources experts have a valuable role to play.

#### Seven accelerators for scaling agile

Based on our experience in multiple industries we advise seven accelerators for scaling agile in the insurance industry:

1 Start with a **common purpose** around which teams can align. All successful transformations have a clear view on their ambitions to **deliver (unique) customer value**. Detailing value-driven customer journeys helps to bring this focus and to spot opportunities for optimising client and customer value.

- 2 Framing aspirations and agreeing on the best ways to achieve these can always count on **active board involvement** and buy-in.
- 3 Implement agile principles in those areas where, for example, continuous alignment with rapidly changing customer needs is required or opportunities across the customer journey are eminent. This is where nimble ways of working add most value. Agile principles do not necessarily have an impact in all types of work activity.
- 4 Review the benefits and downsides of using one of the **scaling agile frameworks**. These may offer guidance for the tailored redesign towards improved organisational nimbleness.
- 5 Establish a central **agile expertise center** (‘change engine’) to design and implement a governance structure, coach teams, and establish alignment between teams, but also to ensure a common language is built to facilitate effective communication.
- 6 **An iterative implementation** approach drives the ‘start small, fail fast, scale quickly’ mentality, and allows quick scaling of successes. This is more effective than a large-scale longer-term roll-out.
- 7 Attention and effort will be needed to transform the organisational culture, because the **mindset shift** in an agile transformation is profound. It takes much more than training and skill building for agile ways of working to really ‘stick’.

# Dynamic pricing is not just about profitability

## Explore the ample opportunities of dynamic pricing

In the years to come, dynamic pricing in the insurance sector will become business as usual for many insurers. As private and SME insurance propositions are highly commoditised, price has become one of the decisive factors for most customers. But profitable pricing is only possible when insurers have insight into the risk, profitability, and the expected behaviour of their customers. In this section we discuss the most important aspects and considerations with regard to dynamic pricing.

### Technology has changed the insurance market

For years, incumbents have had a rather traditional and inside-out pricing model: pricing started with the calculation of the risk premium by actuaries based on internal data resources. Then several costs and expected profit percentages were added to that premium. The price customers had to pay for their insurance was cost price plus a loading (based on the total client portfolio) with perhaps several commercial discounts. Traditional risk models were mostly based on historic data and commercial models that did not take actual and individual customer behaviour into account.

Technology has sparked an explosion in the availability and processing of data. Data which enables potential customers to compare the price of insurance products. Data which makes it possible for insurers to measure the true individual risk of their customers more accurately, and predict their behaviour after they receive a particular policy offer. Conversely, technology has also had an effect on policy holder behaviour. The speed of transactions has increased and customers

expect to be able to receive a quote and start (and stop) their insurance policy instantly, at any time—not wanting to wait for a lengthy pricing process and underwriting procedure. Technology has changed the marketplace, not only for consumer insurance, but also for SME insurance clients, who are acting more and more like private clients. To compete in this fast-changing market, insurers are looking for technologies that allow them to adjust their products and prices rapidly and to monitor the profitability of their portfolio in real-time.

### Dynamic pricing offers ample opportunities

Dynamic pricing brings together the expected customer value and expected customer behaviour, the overall market for the customer and the strategy of the insurer. Its aim is not to maximise short-term profits. Instead, dynamic pricing provides tools for optimising the portfolio by making it balanced and sustainable, and for identifying opportunities for both profitability and growth.

Customer value projections require predictive models to accurately forecast the true risk, the

policyholder's propensity to hold or buy (churn and conversion), and the actual behaviour of the policyholder: claim frequency, customer service requirements, channel usage, and other products owned. Where the true risk provides information on the expected cost price of the customer over time, behavioural models identify whether a client is willing to hold or buy given the offered premium and market environment. When insurers have insight into the actual customer value, they can start to improve the value of their client portfolio, set a higher price for segments that are loss-giving, and offer discounts to profitable clients who are likely to consider a switch.

The premium based on a client's behaviour should be challenged by margins. Dynamic pricing needs both an inside-out and an outside-in approach. In considering the inside-out, internal margins and strategic objectives play a significant role. For outside-in, the price the insurer is willing to offer is affected when competing insurers offer a significantly higher or lower price. External prices also influence the discount an insurer is willing to offer their customer to prevent him from switching to, or buying from, the competition if this is valuable on a portfolio level and in line with the strategic objectives.

The availability of new data and technology enables insurers to gain new insights into all

the components of their business. The reserve setting, risk management, performance management, product management, marketing, sales, and underwriting can all benefit from new technologies and data. Dynamic pricing is one of the available tools which can help insurers to respond to competition in the market and create their optimal portfolio. Dynamic pricing allows insurers to adjust individual pricing swiftly, in line with changing customer behaviour or market circumstances. For existing clients, automatically-adjusting prices can reduce churn and relocate solidarities between clients to optimise the portfolio, improve margins and long-term value. For new clients it can help acquire attractive new customers and identify cross-sell and upsell opportunities. This helps the insurer to outline a profitable growth path.

#### What about ethics?

At first glance, dynamic pricing could be regarded as a powerful tool with the sole purpose of increasing profits. Adversaries of dynamic pricing argue it can drive unethical behaviour by insurance companies. Why would one customer agree to pay a different price for his individual insurance than another? Well, different pricing mechanisms operate in different markets: When we dine in a restaurant we expect to pay the same price as anyone else ordering the same courses, but if we book a plane ticket we accept that ticket prices change with the hour.

While a private insurance contract is regarded as highly commoditised from the customer's point of view, from an insurer's point of view two insurance contracts can be highly differentiated. A thatched roof is more likely to catch fire than a roof covered with tiles. Similarly, driving skills can vary widely between individuals. Should two different risks require the same premium? Insurance is about pooling costs for adverse events, but to which extent is an insured customer willing to subsidise riskier profiles? Our society is moving towards a future where the individual is becoming more important. It questions the solidarities rooted in our pension system, our health benefit system and our social securities, increasingly preferring a more individual solution. The key challenge in dynamic pricing is to weigh the importance of solidarity in the insurance portfolio versus tailoring a quote to the individual's risk characteristics. Dynamic pricing forces the insurer to accurately determine the impact of specific characteristics on behaviour, and to subsequently choose which characteristics to use to differentiate between quoted premiums, while creating a balanced and stable portfolio with profitable and satisfied clients.

#### Setting the right infrastructure

Dynamic pricing requires a solid infrastructure. The infrastructure must allow for connecting and analysing the different types and amounts of data. Many of the required

data elements are available at an insurance organisation. Unfortunately, they are often hidden away, scattered over systems which are often outdated or inaccessible: the policy administration, marketing databases or some system that is only available at the customer contact centre. Connecting the various sources of data can provide a wealth of insights and strengthen the predictive modelling required to conduct dynamic pricing. Predictive models need to be continuously tested, updated and improved—calculating customer value is an ongoing process.

Although legacy systems will require modernisation to be able to facilitate dynamic pricing, it is not always necessary to completely replace them. There are several existing IT solutions that can collect data from legacy systems and connect them to other available data, such as website usage data, or online customer clicking behaviour. Moreover, traditional insurers are already working on data management improvements, driven by regulatory requirements. They should review their strategic focus and decide to what extent they should invest in data requirements and processes for dynamic pricing. In that sense, incumbents in the insurance industry have a data advantage over new entrants in the insurance market, as they are better able to accurately define a policy holder's true risk.

Some incumbents already integrate legacy systems with digital marketing. For example, each individual customer's website can be automatically adapted to his or her profile. Some insurers are expanding beyond cars for example, and are moving into term life and health insurance. Dynamic pricing is also being integrated on different channels, such as those of brokers or in affinity distribution. New entrants, on the other hand, are not hampered by the legacy challenges and accompanying investments. They are often technology-driven and are continuously building up their own data history.

**"It is extremely important that the product management, marketing, sales, underwriting, and actuarial departments work closely together when implementing dynamic pricing."**

### Internal cooperation is key

It is extremely important that the product management, marketing, sales, underwriting, and actuarial departments work closely together when implementing dynamic pricing. After all, the essence of dynamic prices is that they can be quickly adjusted in light of new information and that is not contained to a specific silo in the organisation. Each department has its own role in this cooperation. The actuarial department brings its models to the table; the marketing department calculates which customers are worth investing in and decides on how to reach out to them; the sales department comes up with the commercial offer; the underwriting department sets the rules of acceptance; and product management defines the needs for potential product changes; all under the umbrella of the boards' strategic directions.

The departments should develop a decision-making model together, that the pricing specialists can use to set the price. These specialists should have a mandate to act immediately on a competitive observation or on a customer response.

### Start experimenting now

Implementing dynamic pricing is about using individual customer parameters to set the right price, given the market. This way, the client portfolio can be optimised and strategically

selected segments can achieve profitable growth. It is not about squeezing every cent out of the individual customer. Insurance thrives on the pooling of homogeneous risks, and dynamic pricing as a tool helps insurers to determine the risk-sharing pools and re-establish the right balance in the portfolio.

Using both an inside-out and an outside-in view, creating a supportive infrastructure, having the right predictive models, and good internal cooperation are ingredients for the successful implementation of dynamic pricing. As always, the ethical aspects, regulations, and strategic direction should be taken into consideration before applying dynamic pricing. Incumbent innovators have the insurance experience and large amounts of data, but face the challenge of dealing with legacy systems. On the other hand, new entrants have flexible data systems, but lack internal data. Both have the same goal: to gain more insight into the prospective client's behaviour than the competitor, which enables the insurer to make better-founded decisions on the product and pricing strategy.

# Catching new wind blasts

Pockets of growth

# Making blockchain a building block in the insurance value chain

## Getting started with distributed ledger technologies

The expectations for the disruption that will be brought on by blockchain technology are high. It is receiving a lot of attention, especially within the financial and FinTech world. Deloitte is of the opinion that there is also huge potential for the Dutch insurance industry to take the lead and further invest in blockchain knowledge and experience, in order to improve the economics and customer experience of the insurance industry. Despite the high expectations, however, it is important to distinguish between the real business opportunities blockchain offers and the inflated expectations in the market. In this section we elaborate on the opportunities that blockchain can offer insurers.

### **Blockchain has the potential to add value to insurers**

We live in a time of rapid change in new technologies. These technologies don't only offer a competitive advantage, but are necessary in order to stay relevant. Blockchain technology provides a solution that potentially improves efficiency in the insurance value chain by providing transparency, enabling secure real-time mutations and minimising the role of third parties.

Currently, we see an increase in the development of blockchain proofs of concept. Insurance companies are increasingly investing in practical knowledge and learning. A recent example is the 'Blockchain Insurance Industry Initiative' (B3i), by a group of international insurers, including some Dutch companies, to explore the potential use of the distributed ledger technology between insurance and reinsurance companies and develop common standards for the industry. This will allow insurers to identify use cases that have a high potential for success, such as the ones described in this chapter. Blockchain potentially brings growth and new business offerings to existing players, but these players also run the risk of disruption. Blockchain is a technology which intends to remove the middle man. Large insurance companies need to show their added value or run the risk of having their role as a trusted third party taken over by, for instance, new startups that are using blockchain, or by incumbents that are moving faster.

### Where do insurers stand now with regard to blockchain?

In 2017, Deloitte conducted a survey among Dutch insurers about blockchain technology. In the survey, 51 percent of insurance executives indicated they had very little to no understanding of the technology<sup>11</sup>. See figure 4. About half of all insurance companies indicated they had earmarked budgets for blockchain initiatives, though amounts vary. Respondents identified the major barriers in the use of blockchain as the complexity of the technology and privacy and regulatory concerns, see figure 5.

“New technological, data-oriented trends continue to emerge: blockchain is only the beginning of an even bigger development.”

**Robert Otto, Member of the Executive Board, Achmea**

Figure 4

### Level of understanding of blockchain

When asked: 'How would you describe your personal, IT-department's and executive team's level of understanding of blockchain', the majority indicates they only have a broad understanding. Of executive teams, 51% has only very little understanding.

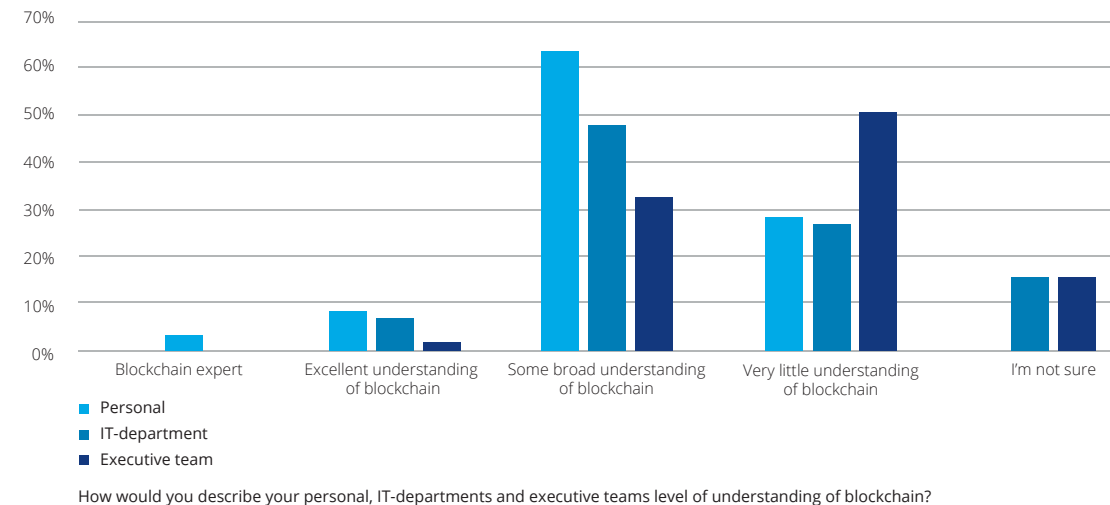


Figure 5  
The main benefits of blockchain technology are seen as administrative cost reduction and reducing settlement time.

**Benefits of blockchain adaption**

5 benefits are the top reason for blockchain adoption among insurers. Cost and time reduction are seen as most important.

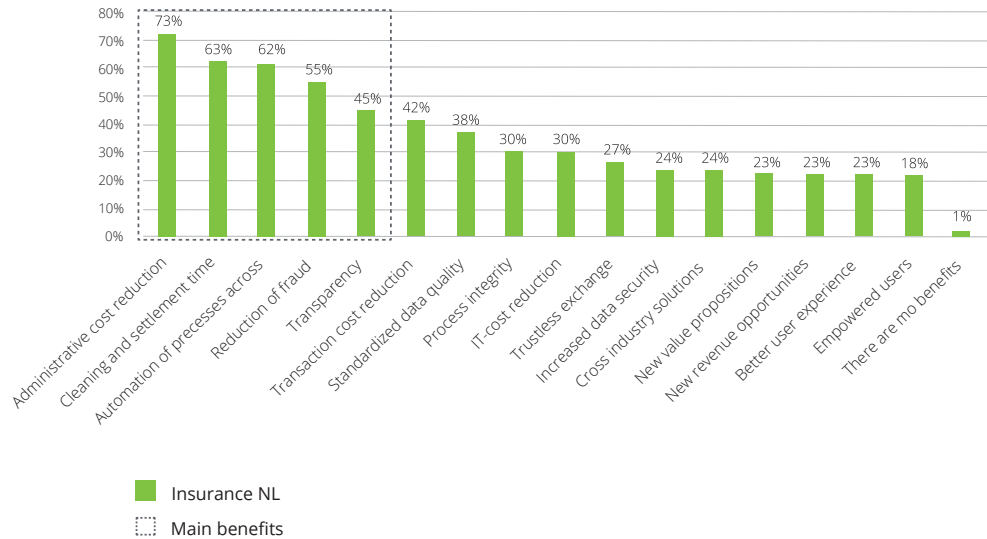
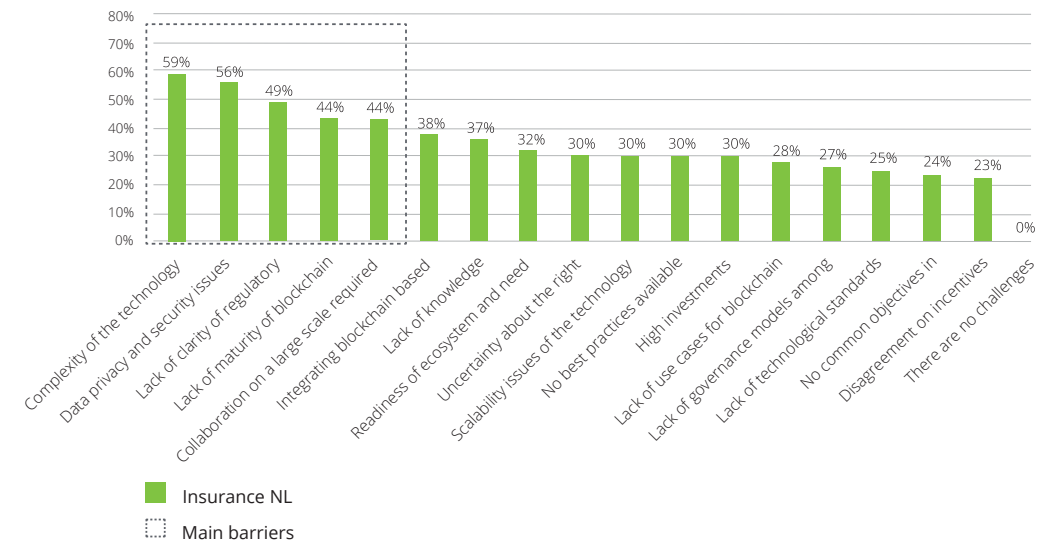


Figure 6  
The main benefits of blockchain technology are seen as administrative cost reduction and reducing settlement time.

**Barriers of blockchain adaption**

Top 5 barriers are mentioned by almost all respondents



**Basics of blockchain: a distributed ledger for trusted transactions**

To better understand the use cases for insurers, we first give a brief introduction of blockchain technology in general. As described in more detail in a Deloitte report<sup>12</sup>, a blockchain is a digital, immutable, distributed ledger that chronologically records transactions in real time. The prerequisite for each subsequent transaction to be added to

the ledger is the consensus of the network participants (called nodes), thereby creating a continuous mechanism of control with regard to manipulation, errors, and data quality. A blockchain network therefore has the following qualities:

**Confidentiality of information**

The encryption of data and distributed storage makes the technology secure and robust,



without needing a trusted third party. This makes it a good tool for the transfer of valuable information or assets that go beyond financial value.

**Integrity of data**

Data that is placed on a blockchain is immutable, and using digital signatures, the data integrity can be trusted because the records are tamper-proof. Every change is recorded, creating a chronological record of events that is a 'single source of truth' for everyone in the network.

**Availability**

The distributed structure of the network means that data is always available, and there is not 'a single point of failure'. All relevant parties in the network share a copy of the blockchain and can access and view the same data.

**Speed and convenience**

Transactions on the blockchain are transmitted through the network in near real-time and can be pre-programmed with conditions under which a transaction will automatically execute. These conditional transactions are called 'smart contracts', and are a specific feature that can make blockchain networks attractive for the insurance industry.

Please see figure 7 for an overview of what blockchain entails. To conclude, the blockchain offers qualities that could help insurers in times where clients request more flexibility (speed and real time underwriting), transparency and security but it can also be potentially disruptive.

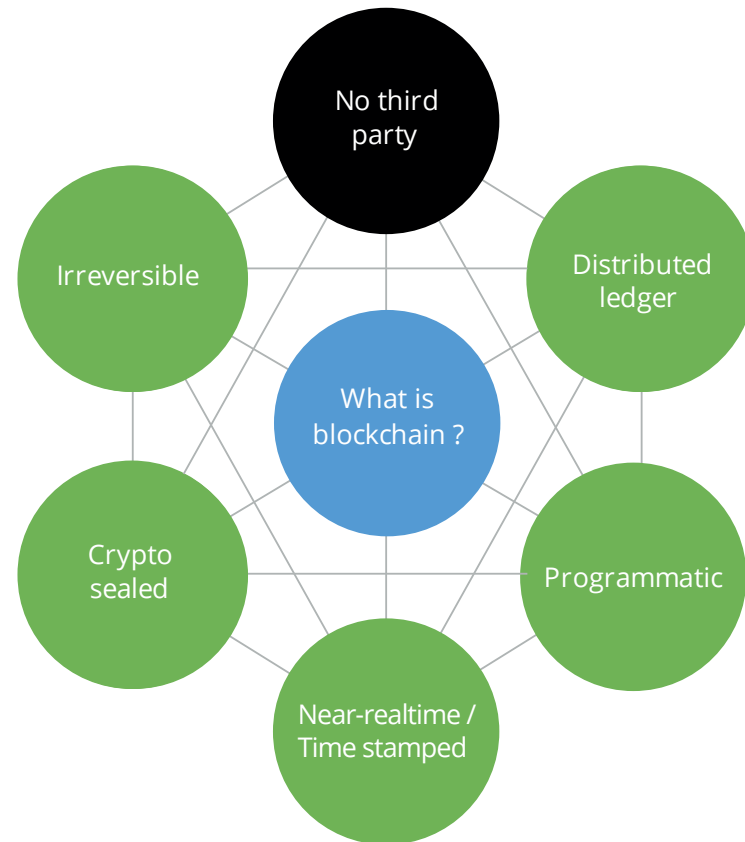
**Blockchain technology has applications in many areas of the insurance process**

**Client onboarding**

From the insurers' perspective, client onboarding and the associated regulatory compliance is a cross-industry problem and source of friction for a large group of customers. This offers one of the most attractive blockchain use cases for cross-industry collaboration. By creating a platform that enables clients to securely manage their own validated data, it becomes possible to securely share that data between companies. This can greatly reduce the administrative burden of 'Know Your Customer' (KYC) and anti-money laundering (AML) procedures by only having the information vetted once by a trusted party.

In 2016, Deloitte developed a KYC blockchain platform<sup>13</sup> to simplify the sharing and transfer of validated KYC information. Customers only need to provide access to their identity information when the company is required to onboard the customer. After an initial

Figure 7



verification of the personal information, this information, along with the proof of validation, can be shared with other companies. This removes the need to check the same data over and over again. The onboarding of new clients is faster and more efficient, without reducing security. The immutability of the data also makes it easy for auditors to verify AML and KYC compliance at a later stage. Finally, by putting the customer in control of sharing his or her personal information, this decentralised identity solution goes a long way towards satisfying the requirements of new European privacy directives (mainly GDPR<sup>14</sup>).

It should be noted that a KYC platform as described will only add value if it is used by multiple parties. This means that ideally, insurers should aim for an industry-wide initiative, creating an open standard that others can join. The challenge here is to find companies that are willing to start together and take the first step to implement this in their onboarding process, in such a way that collaboration can be further expanded.

### Identity and data access management

Blockchain technology can, in addition, be used to develop digital identity schemes that aggregate user information across a variety of sources. As opposed to the client onboarding, which is seen from an insurer's perspective, identity and data access management is seen from a client and consumer perspective. The blockchain provides the means of validation and verification, and the data can be encrypted so that it cannot be intercepted or viewed without the user's permission. Customers control the data – such as social media, birth and death registries, government issued ID, biometric data, and health records – on their own devices<sup>15</sup>. On the blockchain, they can grant temporary access to specific data to trusted third parties, such as insurance companies (e.g. driver behaviour data that is created at the lease company can be exchanged with the insurer through blockchain). This creates a more efficient and trusted relationship between insurance companies and their customers. An identity management solution becomes most beneficial for insurance companies when developed in a consortium with other parties. Start-ups like Civic<sup>16</sup> and 2way<sup>17</sup> use blockchain technology to create a user-centric global digital identity. Identity networks have much more uses than just insurance of course, but the benefits for insurance companies are obvious. For example, a single source of truth regarding clients' (insurance) histories on a blockchain

can be instrumental in reducing administrative costs and fraud. At the same time, it can enable insurers to better engage with customers and provide customised offerings based on a richer understanding of the clients' behaviours and interests—assuming the customer is agreeable to data being leveraged in this way. This could allow insurers to use the trustworthy data as input for analytics to predict future events more accurately, thus facilitating underwriting and risk selection (see also the section on data analytics in insurance).

### Fraud prevention

Fraudulent claims and costs associated with reimbursement can potentially be reduced using blockchain technology. This works as follows: The assets to be insured are registered on a distributed, shared ledger. This blockchain ledger provides a history of all relevant moments in the lifecycle of the asset, and any registered claims can be checked against this trusted log of events. Fraud risks are reduced due to the blockchain's immutability and trusted time stamps. Note that a blockchain will not prevent all types of fraud, especially in cases of collusion between parties, but it will make fraud harder to conceal. Fraud detection measures are therefore still important, but can now be aided by the transparency of information provided by a blockchain-based network.

### Two examples of the application of blockchain in other industries

1. Everledger<sup>18</sup> is a London-based start-up that uses blockchain technology to track diamonds and other valuables throughout their lifecycle. By creating a record of ownership on the blockchain, they can prevent counterfeiting and theft by proving the provenance of the valuable stones.
2. A similar service is offered by Provenance<sup>19</sup>: They focus on transparency in the supply chain, tracking for example clothes, luxury items, and food, making it possible for consumers to check fraudulent transactions and the origin of goods, preventing the purchase of counterfeit or stolen goods. Note that this company, like many others in the blockchain space, are still very much in the start-up phase. It remains to be seen whether they can deliver on the promise of their innovative ideas.

In comparison with insured objects as assets, the blockchain basically provides data as an asset as well. One could think of many examples. One commonly known example is administrating claim-free insurance years for car insurance. In current processes, this is often a point of debate between the insured and the insurer. But also data items, such as marital status or information on inheritants can be of great value in the blockchain for life insurance and pensions business.

Other opportunities in fraud detection lie in joint efforts (that may be cross-industry) to identify patterns across data. Specific benchmarking can be performed even on anonymous data, to find possible fraudulent claims or illogical patterns. An example is to be able to identify claim patterns from health institutions to insurers.

### **Automatic claims processing**

A key moment in the insurance lifecycle and the cause of much friction is the claims process. A cross-industry blockchain could dramatically reduce claim costs and make for a better customer experience. For an industry-wide solution, multiple insurers would record contracts and claims on the blockchain, and thus would be able to ensure only valid claims are paid. Smart contracts can enable the automatic payment of claims if pre-determined criteria are met. This makes the claims process faster, cheaper, more

transparent and potentially more accurate. Note that for existing insurance companies this would require a significant investment: existing processes would need to be overhauled, and existing systems would need to be integrated. Companies should research whether the added value outweighs the required investments. The B3i initiative, for instance, explores a process for reinsurance activities using blockchain and smart contract technology features for the major elements of the Property Cat XL (excess of loss) reinsurance contract life cycle—from smart contract setup, to premium settlement and claim settlement.

### **Example**

Start-ups like InsurETH<sup>20</sup> and Etherisc<sup>21</sup> have developed solutions for decentralised automatic processing of travel insurance and claims. By registering policy details in a smart contract on the blockchain, an automatic payment is triggered once a flight is delayed or cancelled. By having an easy-to-use application, customer experience is improved and customer engagement is enhanced while claims processing costs are reduced. Blem Information Management<sup>22</sup> has used blockchain technology on top of their existing software solutions to improve the administration process and security around the re-insurance process.

Dynamis<sup>23</sup> is a start-up that uses a smart contract to create peer-to-peer insurance. They offer supplementary unemployment insurance by using LinkedIn as a reputation system, serving as an oracle (an impartial source of information) that facilitates the approval of new applications. Another start-up called Teambrella<sup>24</sup> allows individuals to cover each other and vote on claims. Finally, Lemonade<sup>25</sup> offers cheap and instant home insurance while promising full transparency and paybacks of unused credit. While these kinds of innovative insurance products touch the core of the insurance industry and can therefore be highly disruptive, for the larger insurers it can be hard to implement such products due to the highly regulated environment they operate in. It can be beneficial to experiment in a controlled environment and possibly collaborate with start-ups.

### **Innovative services and new products**

With the increasing use of new connected devices (the Internet of things) and online platforms, customers are increasingly enabled to participate in the sharing economy. This creates new market opportunities based on the changing attitudes of customers, for instance for start-ups. Blockchain technology can be used for these market opportunities, by facilitating products like peer-to-peer insurance, by connecting with Internet of things devices, or by processing claims based on voting mechanisms written into smart contracts. Pay-per-use insurance can be effectively arranged for a short 20-minute ride in a loaned car, a service that relies on the near real-time processing blockchain provides.

### **Potential growth opportunities for insurers thanks to blockchain innovation**

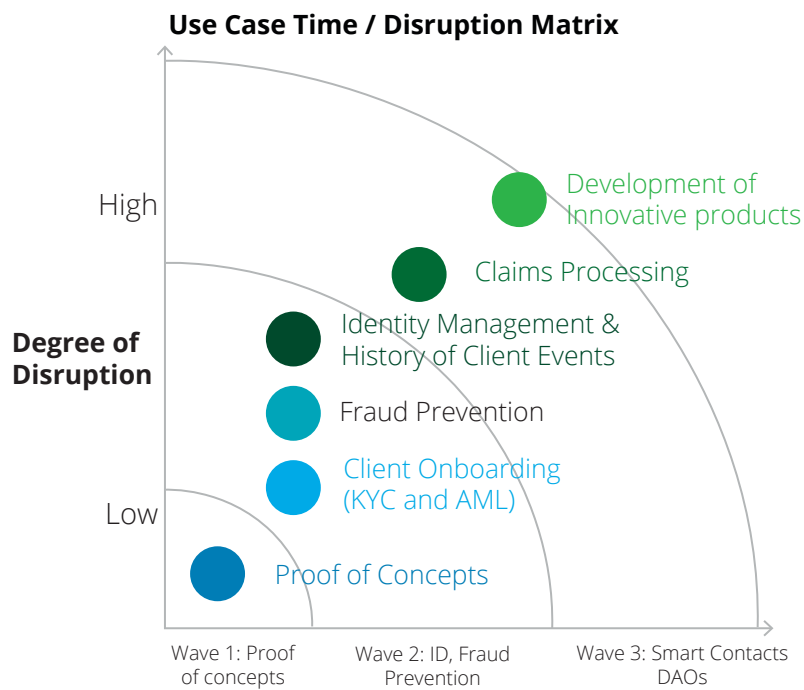
A report by Deloitte and the World Economic Forum<sup>26</sup> examines the impact of blockchain on the future of financial services, including insurance. While cautioning that blockchain is not an all-encompassing solution but rather one of many technologies that form the basis for 'next-gen infrastructure', the authors assert that blockchain will "redraw processes and call into question orthodoxies that are foundational to today's business models".

It will take several years before blockchain reaches its full potential in the insurance industry. The unique qualities of blockchains, like the distributed and immutable storage of data, does bring a lot of potential for insurers. As shown in the previous use cases, processes can become more efficient, enabling the insurer to be more competitive and supporting sustainable growth. The challenges for applying this technology lie in the involvement of technology developers, start-ups, regulators, and legal authorities. Blockchain networks are meant to exchange trusted data between parties that don't necessarily trust each other, so setting up a blockchain solution within a single company will not create many benefits.

Blockchain technology brings insurance companies the opportunity to offer new products and services to their clients. Part of this is that new players are entering the market which could disrupt the market. If a smaller, more flexible start-up can launch an innovative business offering, it is key for incumbents to demonstrate their added value to prevent losing their customers. Currently, the initiatives are still very much in the proof of concept phase. Insurance companies will need to explore use cases and experiment in order to establish where blockchain can bring added value to them and their customers.

Figure 8 shows the use cases described in the previous paragraphs ranked by their time to develop and the degree of disruption for the industry. It is clear that applications that are more at the heart of the insurance process will have a greater potential for disruption but, due to the added complexity and need for more thorough testing, these will take longer to implement.

Figure 8



**What should insurers do with blockchain technology?**

The previous paragraphs have outlined the various possibilities of blockchain technology for processes within the insurance industry. The question is how insurers should further use this new technology to protect their market position.

Blockchain technology can provide insurers with one of the building blocks for automating their processes. To successfully integrate blockchain technology, Deloitte has some important recommendations:

**Combine technologies.** Blockchain technology is most effective when combined with other technologies, such as advanced analytics, robotic process automation, and Internet of things sensors. Blockchain becomes a tool for fundamentally rearranging business processes and improving data exchange with partners.

**Acquire expertise.** Existing IT departments may not have the manpower or expertise to practically implement a blockchain. Insurers should therefore identify and invest in a relationship with technology partners, as well as engaging with experts in the field of blockchain development.

**Establish industry standards.** Individual insurers, as well as the industry as a whole, should pro-actively work with a broader network of stakeholders on standards. Establishing open and interoperable industry

standards ensures that the applications built on them are future proof and can be used across the industry.

**Gain hands-on experience.** Insurers should experiment and develop proofs of concept and prototypes. Hands-on experience will enable them to create the next generation of products and services. Building prototypes also provides a platform for engaging with other stakeholders, such as regulators and banks, as well as players from other industries and non-traditional competitors.

Building up knowledge through experimentation and conversation with stakeholders helps to distinguish the current hype around blockchain from the real business opportunities. It is important to realise that most start-ups are still far from actual implementation and that for the foreseeable future, the existing way of working will continue to exist in parallel to blockchain-based solutions. Insurers should act on the developments in the market and embrace the current state of the technology, in order to become frontrunners in this domain. The greatest opportunities extend beyond making incremental improvements to current business models: Instead, they lie in harnessing blockchain technology to create entirely new value propositions like interactive policies, instant claim settling, and peer-to-peer micro insurance. This adds value for both the customer and insurer, and will grow the insurer's business at the same time.



# Data Analytics: Improve customer service and gain sustainable growth

## What might the future hold in store?

Data is at the heart of an insurer, since the servicing of clients and risk management is based on data. Deloitte believes it is essential to strengthen an insurer's data and analytics capabilities, since it can improve an insurer's services, underwriting, sales, risk profiling and personalisation of offers. In this section we will specifically focus on the possibilities of using data analytics in client services, and provide three recommendations that help insurers know where to start when building their data analytics capabilities.

Data analytics in the insurance marketplace  
In today's rapidly changing world we see that innovative, technology-oriented companies grow faster than their competitors because they collect, analyse, and use data in an intelligent way. Insurers have collected a lot of data over time but the analysis and usage of that data has been relatively limited. However, insurers seem to have reached a turning point: data and data analytics can be the hidden power of insurers, opening up endless opportunities.

Current computing power and technological developments have increased the focus on the value of data analytics over a wide spectrum of functions, including: improving the customer experience, enhancing risk assessment in underwriting, reducing the cost of claims, and identifying new sources of sustainable growth. But a recent Deloitte study<sup>27</sup> on data analytics among 68 EMEA insurers showed that they are still struggling to get value out of data analytics, even though they have historically managed, gathered, stored, and interpreted data across various different departments.

The key observations from the market study are:

- The analytics strategy is not in line with the business strategy, making it difficult to obtain and monitor the value from analytics.
- The focus is on short-term tactical initiatives as opposed to long-term strategically aligned projects, stating that insurance companies might not be focusing on the biggest opportunities.
- That analytics is not embedded into strategic decision-making and (senior) management focus, making it difficult to change the

decision-making culture.

- The added value of analytics cannot be identified or linked to the investment, leading to a discussion about the added value.
- The focus is on building an in-house capability, making insurers at risk of comprising on the agility and quality of analytics solutions.

Do these struggles mean insurers should stop investing in data analytics? On the contrary. Since 2011, insurance tech companies have raised large amounts of money. These organisations often use data analytics to cost-effectively serve tailored products to customers. We also see that incumbents are interested in adapting to new technologies, such as RPA (see section on RPA in this outlook), and making data analytics a core capability. Therefore, we think now is the time to take an extra step forward and put the spotlight on a data analytics strategy in order to defend market share in the (near) future and find opportunities for sustainable growth.

### Three data analytics applications in the customer service domain

We believe, and have seen, that data analytics can radically improve the service to customers and provide sustainable growth for stakeholders. We will elaborate on what we believe are three key data analytics applications that insurers can invest in to improve their products and services for customers and clients. They can also help to provide better insights and define best actions in order to retain and grow a sustainable and well-balanced portfolio:

- |                                    |   |
|------------------------------------|---|
| 1. The insurer perspective:        | Data-fuelled cross- and upsell approach |
| 2. Service from insurer to client: | Optimised underwriting process          |
| 3. The client perspective:         | Services and products                   |

#### 1. Data-fuelled cross- and upsell approach

The insurer needs to have a solid client base in which the clients' risks are pooled and cross-subsidising effects create a well-balanced and overall profitable portfolio. This means that specific segments of the portfolio might be loss giving, which is then offset by other profitable segments (subsidisation). To manage the balance between revenue, costs to service, and the risks of the portfolio, it is really necessary to

understand, recognise and manage the current client portfolio. As opposed to dynamic pricing (see section on Dynamic Pricing in this Outlook), which is more pulling driven by client value, client behaviour and market movements, we see data analytics also as a very good tool to identify interesting segments and target groups across the full spectrum of the (potential) portfolio (pushing).

When offering clients products, or additional products and covers, it is very important to understand which offers are relevant for the customer:

- To attract new customers, Closed Loop Marketing (CLM) techniques help the insurer to create the best customer journey. Analytics are a major component of the work within CLM. For example to present the customer with the most appealing website to his or her taste, based on the data that is known about this customer.
- After a customer has become a client, the next step is to determine the right actions ('Next Best Action'). Determining the client's value over a portfolio range, as opposed to just looking at the product profitability of this client, can give some fresh insights. A client might seem to create a high risk appetite for one product or even one cover, whereas the client might feel this way for other products or covers. Based on this information, the insurer can decide whether the investment of offering additional products and/or covers is interesting for both clients and insurer. This approach will need sufficient past examples of successful and unsuccessful offers to be able to make good decisions. Hence, (starting) A/B testing often gives very useful information to include in the analysis. Pricing of the products, specific discounts, and product terms and conditions also influence the risk appetite of the clients.



Implementing a data-fuelled approach for cross-and upsell will allow more relevant offers to be provided to customers, improving customer satisfaction and making a difference in the portfolio. Furthermore, feeding the predictive models with new training data every year brings a wealth of opportunities and insights to the insurer. This is exactly what can be done and what we call 'the industrialisation of an analytical discovery'.

## 2. Optimised underwriting process

At the underwriting department, the output of workstreams of the risk pricing, dynamic pricing, marketing, sales and product management departments come together. The main question is: can we accept this client for this product and cover, given the risk profile, for the fair price, given the terms and conditions, and given the overall portfolio and strategy? The other workstreams already present a lot of data and analyses around this data. Combining this into a (preferably) automated and optimised process, requires the insurer to use a fair deal of data analytics as well. Using this in a good way, unlocks four areas of improvement:

- **Better decision-making on risk-acceptance:** If the insurer is able to collect more and better data about client risk, it can use data analytics to identify the high risks. This makes it better-positioned to decide on whether to take or mitigate this risk, or even not to accept it.
- **Better connection between underwriting and the distribution strategy:** Creating a data-driven underwriting platform gives the insurer the opportunity to better connect to all distribution channels (e.g. underwriting agents) and be more in control of the total risk acceptance and acclimatise the distribution strategy accordingly.
- **Automated underwriting process:** Using data analytics in a digital environment in the underwriting process gives the insurer additional opportunities for automating the process. This will bring cost reductions without compromising on quality.
- **Preparing the underwriting process for future innovative product development:** New products and services can be based on new data and technological possibilities. These developments will also have an impact on underwriting. Insights from data analytics help the insurer to set up the right processes and tooling to cope with this new environment.

The quality and reliability of the data (containing characteristics of the new customer) has to be of a high level. Adding more and better data sources can increase the performance of the predictive models. New ways to gather data are therefore being applied, such as using open source data or social network data. An example of such publically available data in The Netherlands is data about the history of a car. Another example is that of US-based organisation. Instead of the customer filling in long application forms, this organisation accesses (with your permission) your data from, stating: 'Instead of waiting a few days or weeks to decide whether you are worthy of credit, it gives you a verdict in minutes.'

This same process can be applied for life insurance. In most countries, a survey needs to be completed by applicants, followed by medical examinations and customer behaviour checks. The whole process can take up to 60 days. By gathering multiple data sources and, if required, performing a telephone interview, Deloitte helped a US-based insurance firm to reduce the 30 to 60 day application process to only 48 hours.

Blockchain solutions also aim to provide more reliable and useable information (see the blockchain section in this Outlook). Having and using this information in a blockchain can add to the speed and quality of the underwriting process.

Optimising the underwriting process will therefore not only improve profitability through better pricing and risk acceptance, but will also improve the efficiency of the applications process and increase customer satisfaction (i.e. a better Net Promoter Score). A much shorter and more efficient application process will be a big benefit, especially for agents and intermediaries, and in the future it may even be a requirement. But also in commercial lines insurance, optimising the underwriting process can be very valuable to insurers. This will provide vast opportunities for growing a sustainable customer base.

### 3. Services and products

A third application area in which data analytics can drive sustainable growth is in adapting services and products to customer needs. Customer behaviour is changing, and being able to identify new needs can clearly mean finding new ways to improve customer satisfaction and creating competitive advantage. The possibilities are along four paths: usage-based products, prevention, peer-to-peer insurance, and tailored services and policy conditions.

- **Usage-Based Insurance**

One of the reasons for an immense growth in data, besides the increase in unstructured data on social media and internet, is the rise of sensors and their data. Sensors can measure pressure, position and motion, vibration, temperature, humidity, chemical concentrations, radiation and many other things. Given the immense potential benefits, huge investments are made in further sensor improvements, which is likely to result in a growth in the number of sensor-equipped internet of things Units.

The rising use of sensors, combined with connectedness ('Internet of Things'), internet capacity, and cloud computing speed have made it possible to unlock the potential of sensor data to apply usage-based-products<sup>28</sup>. Based on the data collected, an analytics platform can help to correlate aspects of e.g. driving information with accident likelihood and claim size. Intelligent scoring algorithms can then be used to calculate and adjust the premiums based on costs to service and actual risks, driving sustainable growth. This also enables a close feedback loop to customer behaviour and new value-add services, such as trip reports and driver behaviour and patterns.

- **Prevention**

Another example of the application of sensor data is the quantified self; also described as self-knowledge through self-tracking with technology. Individuals can quantify biometrics that they never knew existed. In addition to improving risk-based pricing, the rise of quantified self-application provides insurers with the opportunity to fulfil a relevant role: prevention. It is in the interests of the insurer, as well as the consumer (and society), to prevent damage, disability, unemployment, or death. With the increasing and staggering amount of data being collected, insurers could find themselves to be more in the business of prevention rather than in the business of claim payments in the near future.

- **Peer-to-peer insurance**

The fact that customers also have more information available on their own risks and are able to share this with others, gives rise to the thought that pools of customers might want to share their risks together first and only insure the larger risks with insurers. This peer-to-peer insurance is also in line with other trends in the sharing economy. Bringing this service to clients has mainly received attention from InsurTechs so far, but gives the incumbents an opportunity to attract a new world of data. On the other hand, the insurers that cannot or do not provide this service

themselves, will need to adapt their analytics to this new environment.

- **Tailored services and policy conditions**

A last possible use of data analytics which we present here refers to tailored services and policy conditions. Data analytics can identify what customers might prefer as additional services to their insurance policy. Currently, insurance products (especially in private lines) normally include general services and conditions that are equal to all clients. However, analysis might indicate a customer has more interest in the insurance product if it includes certain services (e.g. prevention services on home insurance). Another example is to adjust deductibles or the maximum sum insured per customer, to be able to accept a risk that would otherwise be rejected or very costly. Adapting the product and its conditions dynamically, provide opportunities for an increased, and more satisfied, client base.

If the insurers are capable of using data analytics to find their clients' real needs, they can offer a better range of products to more satisfied customers.

### What to do and where to start

Unfortunately, there is no one size fits all approach regarding the use of data analytics at insurance companies. The size of the organisation, analytical maturity, involved business lines/functions, complexity of the process and products must determine the best approach. However, besides the abovementioned application of data analytics, we have three recommendations for increasing the added value derived from data analytics:

#### 1. Take a holistic approach to the long term business strategy but start small.

Our recommendation is to start with an organisation-wide holistic approach that keeps in mind the data analytics capability an insurer will require in the future. In addition, while keeping the bigger picture in mind, start small, with proofs of concept via an agile approach. This will help to focus on the long-term strategic goals (bigger picture), serving the organisation as a whole, but focus on agility and showing results in the short term. More information about an agile way of working can be found in the agile section of this Outlook.

**2. Leverage the ecosystem.** Because the marketplace changes rapidly, it is easy to be overwhelmed by the required data analytics capability to be at par, or even ahead of, the marketplace. There is also an obvious benefit in having the data and being able

to make sense of it yourself. However, as both sources and volumes of data grow exponentially and there is a scarcity of talent, insurance companies need to investigate different options. Our recommendation is to investigate the possibilities of analytics ecosystems: ecosystems focusing on the data (selling, supplying of brokering data), talent management (universities, business school, innovation hubs and consultancy firms), or crowd sources.

#### 3. Address the behavioural challenges.

Besides having the data, the scientist, and insights, there is a cultural and behavioural change required to obtain maximum value from data analytics. Hence, our third and last recommendation is to change the mindset of the organisation and decision-makers. By this we mean that a loud and clear message should be communicated about analytics and its importance, and that success stories should be spread across the whole organisation. This can be using the physical environment (war rooms, laboratories, large touchscreen) but also in the shape of cultural angles, such as thinking about talent in a new way.

Improving the application of data analytics in the abovementioned areas and keeping in mind the recommendations provided will help insurance companies to use data analytics to improve customer service and achieve sustainable growth. Not only will the business benefit from more insightful analyses, decisions will be based on facts, and the culture of an organisation will be data driven. Insurers need to be prepared to accept that the process of becoming data-driven is sometimes like A/B testing: some analytics initiatives will fail. But the key is to be agile, learn and grow!

# KYC enables customer service improvement

## Four steps that improve customer contact

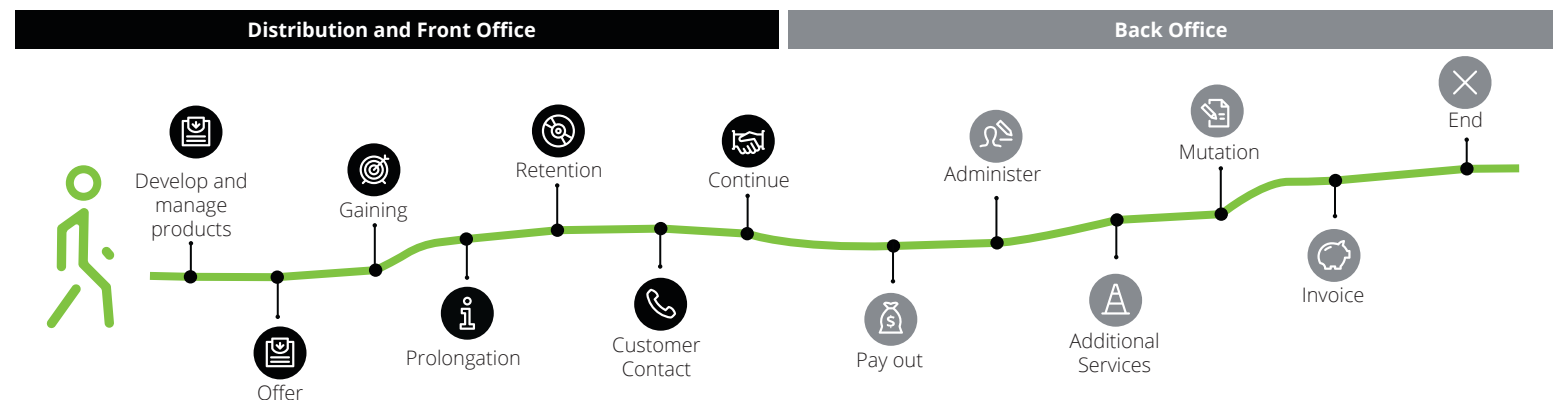
In the saturated Dutch insurance market, customer satisfaction is becoming increasingly important to retain client base. Drivers for customer satisfaction are price, service, and quality of interaction moments. In this section, we provide three main foundations for capitalising on the opportunities digital interaction offers, and a four-step approach for supporting and growing those foundations.

Traditionally, customer contact would involve mainly human interaction, be it through agents, call centres, or door-to-door sales. Nowadays, technical developments enable insurers to increasingly interact digitally with their customers and potential customers. Naturally, the degree of human versus digital interaction varies based on the complexity of the insurance product or event (e.g. complex claims). Personal customer contact can be staged, and focused on maximising the value for both the customer and the insurer, as well as delivering a differentiating branded experience as part of the customer journey. Important factors in customer contact are relevance, consistency, and empathy, which should be taken into account throughout the entire value chain (figure 9).

### Digital interaction and customer satisfaction

Customers use an increasing number of channels to interact with the insurer. Over a third of the interactions are digital and these, often still impersonal interactions are on the verge of taking over from voice interactions<sup>29</sup>. The way in which contact takes place differs depending on the level of commoditisation of the product. More commoditised products need less specialised thinking and reaction than complex products do. In the latter case, human interaction is usually required. Customers also prefer real human interaction in the case of complex products—for explanation and a feeling of safety. The same applies to claim notification. The First Notice Of Loss (FNOL) can be a burdensome event for clients if the

Figure 9



insurer is incapable of addressing the client's needs in the right way. Again, simple claims such as a death benefit or car damage can be handled fully digitally, while even increasing the client's satisfaction, while complex claims (e.g. a bodily injury claim) still need human interaction, possibly supported by digital support.

Customer satisfaction is increasingly seen as the most important customer KPI to businesses. It is therefore vital to virtually walk the steps of the customer journey and see where digital interaction can add value. But to be able to identify weak spots and potentially valuable improvements, insurers must know their clients.

Knowing your clients provides insight into their needs, enables better services, provides potential for creating loyalty and helps to identify cross- and upsell opportunities and pursue these. KYC instruments may be perceived as good for margin improvement and growth but they go hand-in-hand with customer satisfaction (valued by, for example the Net Promotor Scores) and growing these two areas in harmony is key.

### Adding value to customer satisfaction

Insurers are looking for ways to optimise the contact frequency with their clients using their portfolio management tools. Too many unnecessary contact moments might make

clients numb to relevant information, while not paying enough attention to clients might make them feel unappreciated and drive them away. Creating a balance is difficult, but quick improvements can often readily be found. From the clients' perspective, it is also important that not only the contact moments from insurer to client are well balanced, but that the possibilities for reaching the insurer are also smooth and optimised. Clients are increasingly demanding interaction through a variety of channels (e.g. chat, telephone (voice), app, social media), which brings extra challenges in investing in the right platforms.

Challenges in digital interaction also arise when connecting digital platforms to legacy systems. Dealing with customer perception is a related challenge. Customers do not consider other insurers' websites or apps as a reference, but rather compare digital performance with other frequently used websites in other industries (e.g. retail or airplane companies).

### Value-driven customer journeys

Not only the amount of customer contact or the technology used are relevant, but also the quality of the contact moment is key: creating the best possible experience for customers. Luckily, new technological developments can help to improve the experience and the services offered. Deloitte's Behavioural and Emotional Analytics Tool (BEAT)<sup>30</sup> can for

example identify risks of fraud or emerging complaints in real-time during a call, allowing companies to intervene during the interaction, leading to better and more satisfied results. AI techniques can become better at mimicking human interaction in the future and making digital communication feel less digital and more 'human', while data analytics can convert data to actionable information (see also the section on data analytics).

Customer journey design is a methodology already embraced by most Dutch insurers. Less common is to conduct fact-based analyses on the customer journey interactions. Digital technology allows for data-driven customer journey design, which quantifies the actual customer journey in terms of satisfaction per contact point, end-to-end throughput time, and channel hopping.

From a consumer perspective this is very relevant. A simple illustration: imagine a client going through a divorce who would like to split the insured retirement policy. Suppose this would require three activities: i) report of the request; ii) adapting the policy and ii) communication of the new policy. Suppose that in 95% of all instances an activity is conducted without delay and therefore within the boundaries defined by the internal Service Level Agreements. It would still imply that 15% of customers can expect a delay (95% x 95%

x 95%). The reality for insurance companies is often even more complex, leading to a higher probability of dissatisfied customers. Customers contact the insurers via multiple communication channels on a similar topic, further increasing the number of touchpoints in the journey. Insurers frequently require a 'four eyes' principle, adding an additional two steps to the process.

When data from multiple sources (e.g. site visits, social media, NPS, call contact, internal process data) is combined to analyse the actual customer journeys, insights are generated which provide focus to the insurance company. So, on the one hand, the number of digital interactions is expected to grow significantly at the cost of human interaction. On the other hand, service experience is seen as a competitive differentiator by 85% of interviewed companies<sup>31</sup>. Insurers should avoid lagging behind the competition in the race for customer satisfaction. Moreover, the digital transition gives rise to a great range of potential areas of improvement.

### A four-step approach

In order to improve customer experience, we advise a four-step approach with selected investments in both technology and personnel. See figure 10. First, reduce low-value tasks in the customer contact centre to free up time for high-value conversations. Second, build the

“Structural growth can be achieved by personalised, digital and relevant service and products that stand out in the competitive landscape.”

David Knibbe, CEO Nationale-Nederlanden

capability to recognise high-value customers and their context. Third, promote high-value conversations between customer and customer service agent, offering a personalised customer experience. And fourth, monitor outsourced services closely to quickly identify interference necessities.

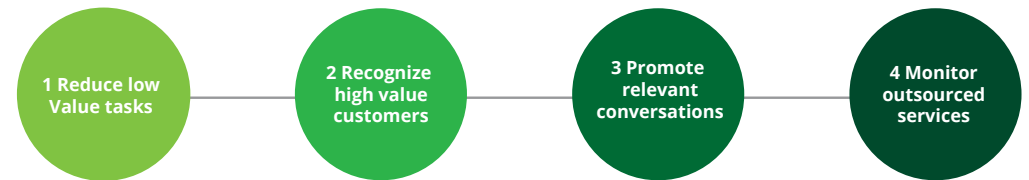
### 1. Reduce low-value tasks

In the past, reducing low-value tasks in the customer contact centre was a rather lengthy job, given the time it takes to extend, integrate, or replace the legacy systems common in most insurance companies. Luckily, modern technology has brought forward some lightweight solutions, two of which we highlight below.

The first solution is the use of Robotic Process Automation (RPA) to automate processes that extend across multiple applications. Instead of starting a complex IT integration project, RPA literally automates the interaction between the customer service agent and several IT applications. See also the section in this Outlook on Robotics Process Automation for more applications.

Another example we increasingly see is a virtual assistant that can automate customer interaction through intelligent chat. These next generation chatbots can provide intelligent responses to customer questions, carry out

Figure 10



transactions at the request of the customer (e.g. simple policy changes) and switch to interaction with a human agent. Some processes still need a human agent to carry out a few tasks (e.g. approval), but sales triggers (e.g. high-value customers) can also be a reason to switch from a virtual assistant to a human agent. By 2018, Gartner predicts that 25% of customer service operations will integrate virtual customer assistant technology across all engagement channels<sup>32</sup>.

At a large bank, Deloitte implemented a virtual assistant for customer service that could manage nearly 50% of cases without human interaction, leading to a 70% decrease in handling time.

By using these solutions, manual labour and average handling times can be decreased, enabling the human agent to focus on interacting with high-value customers, which also has a positive effect on customer satisfaction.

### 2. Recognise high-value customers and their context

Insurers are looking to acquire and retain high-value customers, in order to improve or keep a good portfolio value. High value can be defined as long-term clients with a fair margin. To actively manage the customer portfolio, insurers need to be able to recognise those customers and take the right actions. The insurer normally has data available on existing clients and potential customers. To find high-value opportunities in the existing client portfolio, data analytics (see also the section on data analytics) is combined with client value,

market conditions and behavioural modelling (see section about dynamic pricing in this Outlook). For example, high value customers are also attractive to the competition, making it extra necessary to monitor them and their market conditions specifically. In addition, analysis may show that non-high value customers can become high-value if the insurer takes the right actions (e.g. increasing premium, enabling a long-term relationship, or cross or deep-selling). Identifying potential high-value customers (not clients) can also be improved using the new technological solutions.

Recognising customers on (public) digital channels used to be a difficult challenge. However, with DMP technology (Digital Data Management Platform) we can now pinpoint a customer through a cookie on a company's own website, or even elsewhere on the web, and match them with customers in a company's own customer base.

Once we recognise the customer, we can track customer behaviour across channels and determine the customer's context and their intention accordingly. The next step is to determine the right action to take, which can be enabled by either Next Best Action technology and/or abovementioned DMP technology. By 2018, Gartner predicts that 50% of agent interactions will be influenced by real-time analytics<sup>33</sup>. The challenge is to ensure

all channels take the same action, rather than each channel making their own choices.

### 3. Promote relevant conversations

Relevance, consistency, and empathy are important factors in client and customer interaction. When the interaction is on a 'push' basis, the insurer seeks contact with the client. For the client to react, the information at hand should be relevant. Data analytics can help to tailor relevance to the individual client level and communicate accordingly (e.g. bring relevant preventative technological innovation information to specific homeowners).

Digital technology allows basic tasks to be automated, while the human agent becomes the primary point for service escalations and high-value sales. In order to deliver relevant conversations, the agent needs to be highly engaged with the insurance company and its customers. It brings insurers back to their basics: what value does it want to deliver to its customers? What is the purpose of the company? What story will drive a relevant conversation with each individual customer, and at what frequency?

As mentioned before, information and relevance can be tailored to each individual separately. Without any constraints, this could most probably lead to inconsistent information trails. Since consumers need awareness and familiarity to bond with brands, consistency is a

second important factor in the conversations, as it increases both.

The third factor in interaction, empathy, is mainly found in human interaction. Especially on the more complex products and claims, this factor becomes increasingly important and helps focus the interaction to the relevance and not distract to less relevant, but more emotional areas.

Creating relevance requires—besides increased data analytics—insurers need to rethink their approach to people and culture: empower agents, democratise information, promote a collaborative working style, hire suitable talent, and migrate to a distributed organisational structure as opposed to a hierarchical organisational structure.

### 4. Monitor outsourced services

Finally, knowing your customer also means monitoring outsourced services closely. Having access to the information related to outsourced services related to valued clients is part of treating the customer fairly as the insurer remains responsible. This urges the insurer to monitor outsourced services to quickly identify when it is necessary to intervene to prevent fraud, mistakes, or losing the clients with the required potential, but above all, preventing loss of reputation.

“Insurers should place greater emphasis on customer needs, which requires them to develop new skill sets.”

**Jos Baeten, CEO and Chairman of the Executive Board, ASR**

### Conclusion

Every insurer will state that the client is their most important stakeholder, but client behaviour is changing and competition is constantly adapting. Clients expect more digital interaction, but currently value it less. Insurers are advised to make digitalisation a pocket of growth. By being cleverer in the interaction, focusing on high-value segment opportunities, and improving the quality and relevance of the interaction moments, insurers can find profitable growth while simultaneously improving customer satisfaction.

## Opportunities for growth in the retirement market

How can insurers capture the opportunity and manage the transformation?

There is never a dull moment in the Dutch retirement industry, and several forces are likely to fundamentally change the Dutch retirement landscape in the near future. In this section we explore these forces, the opportunities they pose, and how insurers can capture them.

Changing labour conditions, the abandonment of life-long employment, and flexible labour contracts require different retirement solutions, ideally on an individual basis. Similarly, the 'silver' generation, the limited trust in retirement providers, and liberalisation all call for transparency and protection of retirement investments. At the same time, profitability and solvency of the sector is under pressure due to low interest rates, the replacement of Defined Benefit (DB) schemes by (Combined) Defined Contribution ((C)DC) schemes or Premie Pensioen Instellingen (PPIs) and Algemene Pensioenfondsen (APF), as well as liquidation of Ondernemings Pensioen Fondsen (OPFs).

In the midst of all these market forces, see figure 11, the government and regulators have been in discussions with the industry and society at large over the last years. These discussions are about designing a new and more individualised retirement structure, which is able to facilitate an ageing population. This provides a certain level of retirement guarantee to employees, and ensure that enough solidarity is enforced to protect those less fortunate in society. The new Dutch government is likely to prepare a legislation that proposes a new and revised retirement system.

Figure 11





Although there is still a lot of uncertainty, the worst conclusion to draw from the above would be to wait and see how these forces in the retirement market play out. In our opinion, the opportunity is here now. We believe there is a limited window—two to three years—of unprecedented opportunities for retirement providers to fundamentally transform to a new, digital, model and by doing so, provide better value propositions to their customers.

### Reforming the retirement system: possible scenarios

The political debate on the reformation of the Dutch retirement system focuses on the balance between the collective versus the individual. In the collective setting, risks are shared, solidarity is ensured and, presumably, cost efficiencies are achieved. In the individual setting, transparency to the individual customer is provided, individual choice is respected, and individual portability can be facilitated. In short, a couple of scenarios are available for the politicians to decide on:

#### a. Optimising the current system.

This would most likely imply a further increase in the retirement age ('AOW'), adopting the calculated interest rate and/or limiting the fiscal accumulation ceiling (2017 figure is €103,317) to €67,000 (third taxation layer) or even €52,000. Other options available for optimising the current system are to increase the freedom of

individual choice by, for example, abandoning the maximum 10% high/low limitation in annuities, as has been done in the UK. Another possible option for addressing the structural changes in society is compartmentalising the solidarity in age groups versus the current system—as used by lifecycle funds—of averaging out the ages ('doorsneesystematiek').

#### b. A new pension contract.

The new pension contract, known as variant 4C, and as described by the Social Economic Council (SER), is a liberalised pension system with individual accumulation of assets, while risks are shared by the group insured (group risk). The development of the individual retirement assets is dependent on 1) individual premium deposits, 2) return on assets, 3) costs of administration, 4) costs of risk insurance and, 5) the benefits paid out during the decumulation phase. Part of the assets, both in the accumulation and the decumulation phase, are set aside in a group fund to ensure solidarity in risk sharing and to ensure a maximised buffer in times of economic crises. Assets are invested in lifecycle funds. The assets accumulated are not inherited but will, in the variant described by the SER, return to the assets of the group insured. During the decumulation phase of retirement, investments can continue to deliver returns based on the individual risk profile as defined by the retiree.

#### c. Freedom of choice.

A third scenario, although less likely in the short term, given the current feedback of stakeholders, would be freedom of choice regarding retirement savings. It allows the employee to choose his preferred retirement administrator (or stay with the same retirement provider while changing jobs, for example). In this scenario, there is no mandatory retirement saving for all employees of the employer offering the retirement benefit. The employee can opt out and use the sum to his or her own discretion. This can be applied in both the accumulation as well as the decumulation phase.

Scenario B is likely to be more impactful for pension funds than for group life insurers, as the latter are to some extent already able to facilitate a combination of individual assets with group risk-sharing arrangements as part of an insured pension contract. Scenarios A and C, however, are likely to impact the market of group life insurers significantly. Scenario C would effectively level the playing field in the retirement sector although the voluntary consumer participation is likely to lead to a reduction in the number of participants. Premium accumulations will be capped more than current levels and will therefore impact many more employees. A significant portion of future premium volume will evaporate from the books of (traditional) group retirement

providers. Deloitte has calculated that the expected asset freefall in scenario A or B is likely to be between €26 billion and €42 billion (premiums and assets). The paradox of course is that, although the fiscal incentive to save for retirement is reduced, the consumers' need to save for retirement has never been so eminent.

### Unprecedented opportunities for Dutch retirement providers

Changes in the (fiscal) legislation of retirement over the last years have already led to a transfer of wealth to the fourth pillar, individual investments without fiscal retirement incentives. Structural future legislative reforms in the Dutch retirement sector will likely increase the importance of this fourth pillar even more, and may even add a fifth dimension (a human capital pillar): 'working more'. Working beyond the legal age of retirement (full-time or part-time) or working extra hours to accumulate additional retirement savings is already common practice in countries like Japan and the US. It is likely that in the near future, financial advisors will include this fifth dimension as part of their retirement planning advice in the Netherlands too. Flexibility in working arrangements also needs to be facilitated by collective labour agreements and insurers (e.g. through flexibility in the pension plan or additional disability insurance).

In addition, with a rapidly ageing population, a significant inflow of free assets is to be expected of those employees entering the retirement, or decumulation, phase. When the fiscal limitations are loosened for this category (DIP, DIL), entry barriers into the retirement industry will be further reduced, leading to a decline in the premium income of group life insurers. However, for those insurers who have managed to build a relationship and reputation on retirement with their customers, it also provides for an opportunity to help customers manage their wealth and risks while enjoying retirement.

Lastly, there is significant wealth with the elderly population in the Netherlands. Sometimes this wealth is in bank accounts or with wealth managers, and sometimes the value is the house the elderly are living in. As the older generation passes away, wealth is (partially) transferred to the younger generations. This presents a market of wealth transfer and both the elderly and the younger generations will require products and advice on how to best ensure an optimal transition of wealth. Although this is currently the focus of (private) banks, there is potential in this market for insurers who can successfully connect with their customers and extend the relationship beyond the accumulation phase. Especially when considering that new technology, such as robo-advice, extends the affordability of individual advice to mass consumer markets. Addressing consumer needs in the fourth pillar (and potentially in the abovementioned fifth dimension of 'working more'), as well as helping customers during the retirement phase, requires a focus on the needs of the individual employee or retiree. Some examples of these needs are:

- Goal-based investing
- Integrated, holistic advice on wealth, health, and risks
- Affordability of advice
- Acting in the best interest of the customer
- Proactively signalling opportunities or risks

Digital technology allows for a cost-efficient way of addressing these needs. So-called 'robo-advice' technology has matured to such a level that multiple capabilities can be offered for efficiently addressing the challenges of retirement wealth management. Examples of these robo capabilities or algorithms are:

- Connecting investors and their accounts
  - Account aggregation
  - Access to peer information
- Automated investment engine
  - Goal-based investing and planning
  - Automated asset allocation and portfolio rebalancing
  - Real-time alerts and recommendations
- Advanced analytics (not fully matured yet)
  - Correlating market events with investor actions
  - Algorithm-driven guidance to advisors
  - Rich client profiles for existing and prospective clients
  - Cognitive computing

In Australia and the UK, the transition of the retirement industry has led to the rise of retirement platforms. Combining these insights with the maturing robo-advisory technology is an opportunity for Dutch retirement providers to incorporate this technology as a building block in their digital transformation and provide employees and beneficiaries of retirement solutions with platform-like solutions. At least

one Dutch retirement industry participant has already recognised this opportunity. In July 2017, Brand New Day announced the launch of a 'pension robot' two years from now, which will define a risk profile, determine the aggregated pension needs, provide an automated advice, monitor the advice, and manage the risks in the portfolio accordingly, during the lifetime of the employee<sup>34</sup>.

### The key to capturing opportunities in the retirement sector

Considering the current market context and the opportunities described above, we see four areas for (group) life insurance companies to pursue a growth strategy in the retirement market:

1. Focus on addressing unmet needs of specific segments. The owner-director (DGA) of an organisation is, as of April 2017, no longer able to accumulate retirement wealth on his/her own company balance ('DGA in eigen beheer'). Therefore, the DGA is required to look for other solutions to save for his financial future and manage the risks accordingly. Similarly, independent contractors form a segment with limited fiscal incentives to save for retirement, but still have a need to achieve financial security, also after their retirement.
2. Develop digital interfaces and workplace solutions to help individual employees gain a better understanding of their retirement

savings and help them manage their financial future. Most 'MyRetirementSavings' portals in the Netherlands are poorly visited by employees. This is because they offer limited added value, are not integrated with other means of communication and do not offer proactive notifications. Leveraging robo-advice technology allows for holistic financial planning and proactive alerts. Digital interfaces can be purely informative or they can be built to also provide advice.

3. Develop holistic and flexible retirement propositions which allow for part-time work, combine total wealth, and guide employees from the accumulation to, and through, the retirement phase of decumulation. Ultimately customers are not merely looking for a pot of money when they retire. People want to enjoy retirement, which implies having sufficient money, living well and being healthy.

4. Leverage the Dutch capabilities and increase scale by expanding internationally. The PPI can be leveraged to also administer retirement plans in other countries. The Pan EU Personal Pension (PEPP) can also accommodate cross-border activities. This will increase the scale of operations and drive costs down—provided processes are digitised. Other capabilities related to retirement wealth management, such as retirement advice platforms or risk solutions, can also potentially be offered in other markets.

Finally, to capture the opportunity and manage the transformation of (group) life insurers we have a number of recommendations:

- 1. Automate as much as possible.** Digitised processes will facilitate compliance procedures, drive down costs and provide an opportunity for addressing individual needs.
- 2. Work with personal advisors,** not against them. Globally, there are only a few examples of successful 'digital only' platforms. We see a continued need for personal advice, particularly in the retirement industry. However, in combination with digital tooling, the advice can be richer, more tailored to the best interests of the client and can be delivered more efficiently.
- 3. Design** for a new generation of investors. Generations X or Y have different expectations of insurers and retirement providers. Digital communication, overviews, and insights are must-haves, not special features.

**4. It's about life,** not money. Focus on helping customers navigate through life. Money is a means to live life. When reframing the paradigm from 'retirement capital' to 'enjoying retirement' it opens new opportunities for innovation.

**5. Experiment and scale quickly.** Learn using prototypes and fail fast. However, when



identifying the smallest success, scale up quickly. Research by Deloitte and MIT Sloan<sup>25</sup> indicated that compared to other countries, Dutch companies are better in experimenting and innovation but lag behind in scaling successes up quickly.

**6. Be aware of the competition.** Banks, fintech companies, and technology giants

such as Facebook and Google are also eyeing possibilities in the retirement market. Insurers should leverage the advantages they have (existing client relationships, knowledge of the market, valuation and pricing expertise) and make the first move.

## Converting cyber risks into insurance opportunities

### Taking advantage of the two sides of technological developments

Everyone in the insurance industry is impacted by cyber. On the one hand there is the opportunity of connected technologies combining with analytics and artificial intelligence to make business more efficient and to develop new markets. On the other hand there is the growing risk of losing market share to fintech start-ups as well as the risk of cyber abuse, which ranges from fraud and theft to regulatory fines. Customers also deal with the same two sides of the technology coin, providing an opportunity for insurers to offer cyber insurance—enabling customers to transfer that risk. In this section, we discuss the opportunities, and the steps insurers can take to develop cyber risk transfer capabilities.

#### Embracing risk and opportunity

Cyber developments can appear somewhat overwhelming for insurance companies. On the one hand there's an increasing need for digitalisation in order to cope with shrinking volumes, increasing competition, a need to enhance their own cyber risk management and the need to comply with new regulations like the GDPR (European privacy legislation which comes into effect in May 2018). On the other hand, they need to develop the capabilities needed to safely underwrite cyber risk, implicit or explicit in their products. Dealing with these challenges is best met by forging these two sides (of risk and opportunity) into a double-edged sword, through collaborations both outside and inside the company.

These two sides need to address two types of insurance risk that currently prevail in the cyber insurance market. On the one hand there, is the relation with customers and the opportunity of gaining (or risk losing) the product's reputation, the company brand, and the industry image. On the other hand, shareholders, capital markets, regulators, and supervisors demand that insurers are in control of their cyber risk—cyber risk can quickly accumulate due to large-scale abuse of common cyber vulnerabilities or large claims from cascading effects in third-party risks.

#### Current developments in the cyber insurance market

As argued in an earlier report by Deloitte, cyber risk transfer will be unavoidable for the insurance industry, yet it comes with a distinct list of significant challenges<sup>36</sup>. Investing in the insurer's understanding of cyber risk and developing the capability for its safe transfer is imperative. Digital innovation and the associated cyber risk will however keep changing more rapidly than traditional types of risk. Thus, seizing this opportunity requires a nimble organisation, able to adapt to a marketplace that is changing more drastically than perhaps ever before.

Other insurers face the same challenges. This becomes apparent when looking at cyber insurance market developments. Cyber insurance is profitable, with an average 47 percent direct loss ratio in 2016<sup>37</sup>. But even though profitability is decent, and long-term prospects are still looking good, markets have not developed as rapidly as some have predicted<sup>38</sup>. The main reason for this is the misalignment between customer awareness and need, versus product quality and price. This in turn leads to limited availability of claims data, and the claims data that is available rapidly gets outdated with changing risk factors. Subsequent concerns about accumulation and reputation risk then translate into market frictions, slowing down market growth.

As cyber insurance products can be profitable, it is no surprise that some Dutch insurers are developing, or are considering the development of, cyber insurance products following the success of foreign insurers. And the timing is right in the wake of incidents like Mirai, the DNC-hack, WannaCry, and Not-Petya that impacted many companies. With so many national bodies, ranging from MKB Nederland and its member organisations to the Dutch Ministry of Economic affairs and parliament, giving cyber risk a lot of attention, and the GDPR requirements on cyber security, cyber awareness is quickly increasing.

### Developing cyber insurance products

Cyber insurance products haven't fully matured yet and in most value chains there's a mismatch between customer awareness, customer need, how the product is offered, and what the product actually provides. The SANS Institute and Advisen reported that only 19 percent of brokers and 30 percent of underwriters said there is a common language of cyber risk<sup>39</sup>. An often cited reason for potential customers not to buy cyber insurance is that they perceive it as too expensive with too many exclusions, restrictions, and uninsurable risk. See figure 12.

In order to get out of this reputational conundrum, it is key to first develop cyber insurance products on a small scale in close collaboration with customers, intermediaries, and cyber security experts. Duty of care protocols and risk selection mechanisms need to be developed jointly. Principles around offering standalone versus integrated cyber security coverage to various market segments need to be worked out, leading to optimal clarity for customers in alignment with their actual needs. Initially, existing market channels will need to be carefully developed, and eventually the full range, from corporates to high-net-worth individuals, could be developed.

Of course, a cyber insurance product and its options cannot be developed independently from its pricing. In part, the price will be dictated by the market, especially while regulators still have to get up to speed, but data and models are, of course, still required. Although it is not easy to get the exact the data the actuaries would like to see, there a treasure trove of data and models to get them started. Apart from unpaid sources, including academic publications, quite a number of companies offer data and models to get started.

A recent report by Lloyd's states that accumulation risk may exceed that of hurricanes<sup>40</sup>, yet it is still extremely hard to estimate the likelihood of such an event. For the

time being, this can be dealt with by accepting high capital charges through Solvency II, taking on re-insurance, setting up a cyber risk pool, and writing terrorism-type exclusions. It makes sense for the insurance industry to align on risk sharing as well as on standards for products, cybersecurity concepts, and training of intermediaries, thereby jointly diminishing the limiting factors.

### Managing the market spirals

Until cyber insurance becomes a commodity, there are two spirals that need to be balanced by the market, and both spirals are apparent in the market today. One spiral is where lack of need and reputation strongly limit demand, thus limiting data availability and therefore the improvement of products. The other spiral is where insurers strive for market share limit selection criteria, offer coverage that is too broad at prices that are too low, so that in the event of a mass claims, solvency and reputations may be lost, feeding the first spiral.

Healthy market development requires balancing these spirals through cyber risk understanding and collaboration. First of all, collaboration is needed within the insurance community (including insurers, brokers, intermediaries, and regulators) to share language, knowledge, quality standards, heavy-tail cyber risks, and even (aggregated) data. This will help limit reputation risk and accumulation

Figure 12



“There is no avoiding cyber risk, in fact, it is the perfect opportunity to prepare for the digital future”

risk. Collaboration outside the traditional community is just as important. Working with cybersecurity, analytics, and standards firms<sup>41</sup> will enable the development of products that fit with customers' needs in protecting them from cyber harm, as well as development of cyber insurance models that are less data-intensive.

Collaboration inside an insurance firm is also important. Experience can be shared and leveraged between product and market development, digitisation, and the firm's own cybersecurity functions. More importantly, such internal cross-pollination will broaden the innovation community and form the basis for the nimble organisation, improving the chances of identifying, and swiftly implementing, the solutions that will help the organisation navigate into the future.

### What steps should insurers consider taking?

Development of cyber risk transfer capabilities takes time. It requires integrating the various perspectives of markets, business, technology, innovation, and cyber security and this requires organisational and cultural change. Moreover, it will take time for the organisational culture to become more connected and nimble in dealing with the increasing rate of cyber risk changes. This may put some insurers off, but there is no avoiding cyber risk. In fact, it is the perfect opportunity to prepare the company for the digital future and it contributes to achieving sustainable growth. The best time to start is now.

Suggested steps include:

- **Think of digitisation as an opportunity** to improve and learn for the company as a whole, fostering collaboration on innovation and becoming more nimble in dealing with change.
- **Enhance own cyber risk management capabilities** to stay ahead of evolving threats, comply with new regulations and use its knowledge and insight for product development.
- **Deepen client engagement** through joint development of cyber risk transfer products that fit the increasingly digital world and that differentiate themselves through ancillary services.
- **Collaborate with other insurers** on market quality and risk sharing, for the benefit of all customers, through sustainable cyber risk products.
- **Collaborate with cyber security firms, standards organisations, and regulators** to help identify and set market standards.
- **Develop cyber insurance products on a small scale**, in close collaboration with customers, intermediaries, and cyber security experts.

# Preparing for the next leg

Capital optimisation

## Preparing for IFRS 17: Choosing the right capital levers

### Assessing and implementing the optimal capital optimisation strategy

In May 2017, the IASB published IFRS 17 Insurance Contracts. This means that life insurers have to make important changes when it comes to accounting. In this section we tap into the difference between Solvency II and IFRS 17, capital levers that should be considered, and suggested ways of choosing and implementing the right capital optimisation strategy.

#### Solvency II reporting currently conveys more relevant information than IFRS 17

For lack of a better alternative, Solvency II has quickly gained a foothold among financial analysts and investors. The Solvency capital ratio and the potential 'capital generation' have become important indicators for assessing a European insurer's financial situation. For now, Solvency II measures are considered uniform and reliable, and therefore they are more important indicators than IFRS 17 when comparing the performance of different insurance companies.

Comparing insurance companies' insurance liabilities and profit figures as reported under IFRS 17 is a futile exercise. The reason is that IFRS 4, the current accounting standard that deals with insurance contracts, is an interim standard that allows the application of any other accounting framework for the

measurement of insurance liabilities. Even insurance companies that operate in the same country may apply different measurement principles: some use Dutch accounting principles, others US accounting principles, under IFRS 4, anything goes. This makes comparing insurance liabilities an impossible task. And as insurance liabilities drive gains and losses, IFRS profits are also hard to compare.

This may be about to change. In May 2017, after a lengthy standard-setting process, the IASB published IFRS 17 Insurance Contracts. No longer will insurers be able to apply a wide range of accounting principles for their insurance liabilities. Instead, IFRS 17 introduces clear and consistent accounting rules that will improve the comparability of financial statements. No longer will insurance companies be able to use the accounting framework of their choice. IFRS 17 will likely become effective

in the EU for financial periods commencing after 1 January 2021, which means that a full IFRS 17 opening balance sheet will be required for the financial year starting 1 January 2020. Please see figure 13 for the IFRS 17 timeline.

#### Solvency II is less suitable for measuring future performance

Despite the current popularity of Solvency II measures among market participants, the aim of Solvency II is not to reflect the insurance company's current and future financial situations. Instead, the aim is to determine the capital an insurance company should hold to reduce the risk of insolvency. Under Solvency, technical reserves are also based on best estimate assumptions, just like under IFRS 17, but the framework is aimed at prudence. So an insurer can be prudent, for example by applying simplified models or by adding extra capital buffers. Supervisory authorities won't object if the insurer reports more conservative figures, if this results in holding more capital than minimally required. Investors, however, want to be able to compare the financial state and future profitability of different insurers, which is impossible if insurers apply different levels of prudence.

IFRS 17, by contrast, does not allow the application of prudence. Reported figures should always be a 'best estimate'. So, although Solvency II reporting will still be relevant for investors, IFRS 17 allows for better comparison

and provides an improved indication of future profitability. Once IFRS 17 is fully adopted and understood by investors, the expectation is that they will rely more on IFRS 17 and less on Solvency II and on Market Consistent Embedded Value ('MCEV').

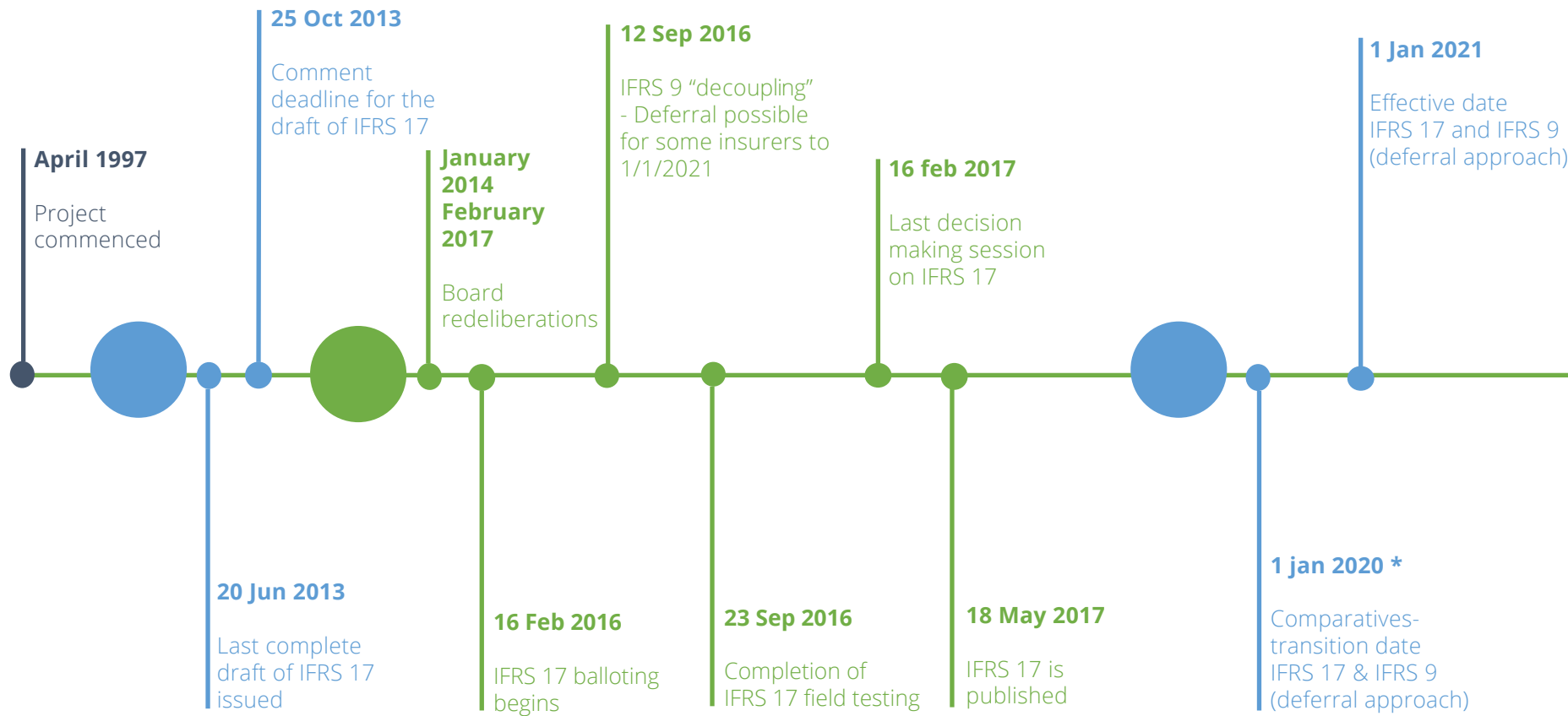
#### Insurers should consider the effect of Solvency II capital levers on the 2021 IFRS figures

When insurance companies publish IFRS 17 figures for the first time—in the financial statements over 2021 (with comparative figures for the year 2020)—financial analysts and investors will display a more-than-average interest in these figures. It is therefore important to take the effect of the insurance company's asset and liability portfolios on the 2021 reported figures into consideration. Given the current capital strategies, will the insurer be able to show profitable growth in the years following the implementation of IFRS 17? There are measures that should already be implemented now, for them to be in time to affect those 2021 financial statements.

"IFRS 17 provides an improved indication of future profitability"



Figure 13



\* Illustrative for entities with 31 December year-end

The impact of IFRS 17 on non-life insurance contracts is expected to be limited, as non-life insurance is generally short-tail. IFRS 17 will have the largest impact on the accounting for life insurance contracts and, therefore, the capital levers discussed will apply mainly to life insurers.

Some of the capital levers that can be considered are:

**Using the matching adjustment:** The ‘matching adjustment’ is a mechanism that prevents changes in the value of assets, caused by spread movements, from impacting companies’ Solvency II balance sheets for portfolios where companies have mitigated the impact of these movements. This mechanism can be applied if the insurance company holds assets until maturity, such as mortgages. Approval from the supervisor has to be obtained before it can be used.

Under Solvency II, this capital optimisation strategy can release capital, but in practice it has proven difficult to implement. However, for IFRS 17, this mechanism has even more benefits. Under IFRS 17, a discount curve is calculated to discount insurance liabilities. If matching adjustment is applied, and several other criteria are met, this could result in a more favourable discount curve under IFRS 17, and hence in an opportunity to manage future profits.

**Selling off onerous contracts (such as closed-book life portfolios):** This will lead to a one-off Solvency II liquidity inflow, and will eliminate the need to report a one-off loss on the IFRS 17 opening balance sheet. The onerous contracts will have to be sold at a discount, and any loss will have to be shown in the IFRS accounts. But from a timing perspective, it may be beneficial to show such a loss before the implementation of IFRS 17. Another advantage of such a sale is that calculating the required parameters for these portfolios under IFRS 17 can be avoided—potentially a very costly exercise.

**Selling off non-core strategic activities:** IFRS 17 should not be the main driver for following this strategy, but capital optimisation considerations may play a role when considering this course of action. This will lead to a one-off Solvency II liquidity inflow. The IFRS 17 impact will be limited.

**Selling off selected assets and implementing an optimised Strategic Asset Allocation:** If done right, this strategy will increase mid to long-term profitability, while decreasing required Solvency II capital. Under IFRS 17, this will increase mid to long-term profitability.

**Mitigating longevity and mass lapse risk:** Using reinsurance contracts, this strategy will

reduce the required Solvency II capital, but may increase volatility in the IFRS 17 financial statements.

**Changing the interest rate hedging strategy to a Solvency II ratio hedge:** Instead of hedging individual asset or liability portfolios, a more holistic hedging strategy is applied that ensures the Solvency II ratio doesn’t fluctuate as much when interest rates change. This strategy will decrease Solvency II ratio volatility. The effect under IFRS 17 can be either positive or negative. The results after implementation of IFRS 17 (and, as this concerns hedging, also IFRS 9) would need to be assessed.

### Now is the time to assess and then implement the optimal capital levers

In order to choose the optimal capital optimisation strategy, and maximise profitable growth once IFRS 17 is implemented, we have the following recommendations:

**Start in time:** the 2021 financial statements will include comparatives for the year 2020, so the appropriate measures should be in place before 1 January 2020. Some of the preparatory measures may take time to analyse, agree upon and implement.

**Be creative** in considering the possible capital optimisation strategies.

**Take a holistic approach:** look at the effect of capital optimisation strategies on assets, on liabilities, and on the insurance company as a whole. Don’t forget the banking activities that may be undertaken with the insurer.

**Leverage the experience** gained during the Solvency II implementation. Now more than ever, it’s crucial to **have Risk and Finance work together closely**, to assess the impact of capital optimisation strategies, both under Solvency II and under IFRS 17.

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# Endnotes

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