**MarkLogic®** | **Rii** RESEARCH IN INSURANCE

# Insurance 360

## The Current State of Big Data-Driven Transformation in the Insurance Industry

The following report presents insights from the findings of a global research study conducted by MarkLogic in partnership with Research in Insurance in 2019. The objective of the research was to identify key big data management challenges experienced by insurance organizations, and better understand where opportunities exist to optimize the integration and use of big data assets for improved customer insights and business performance across the enterprise.
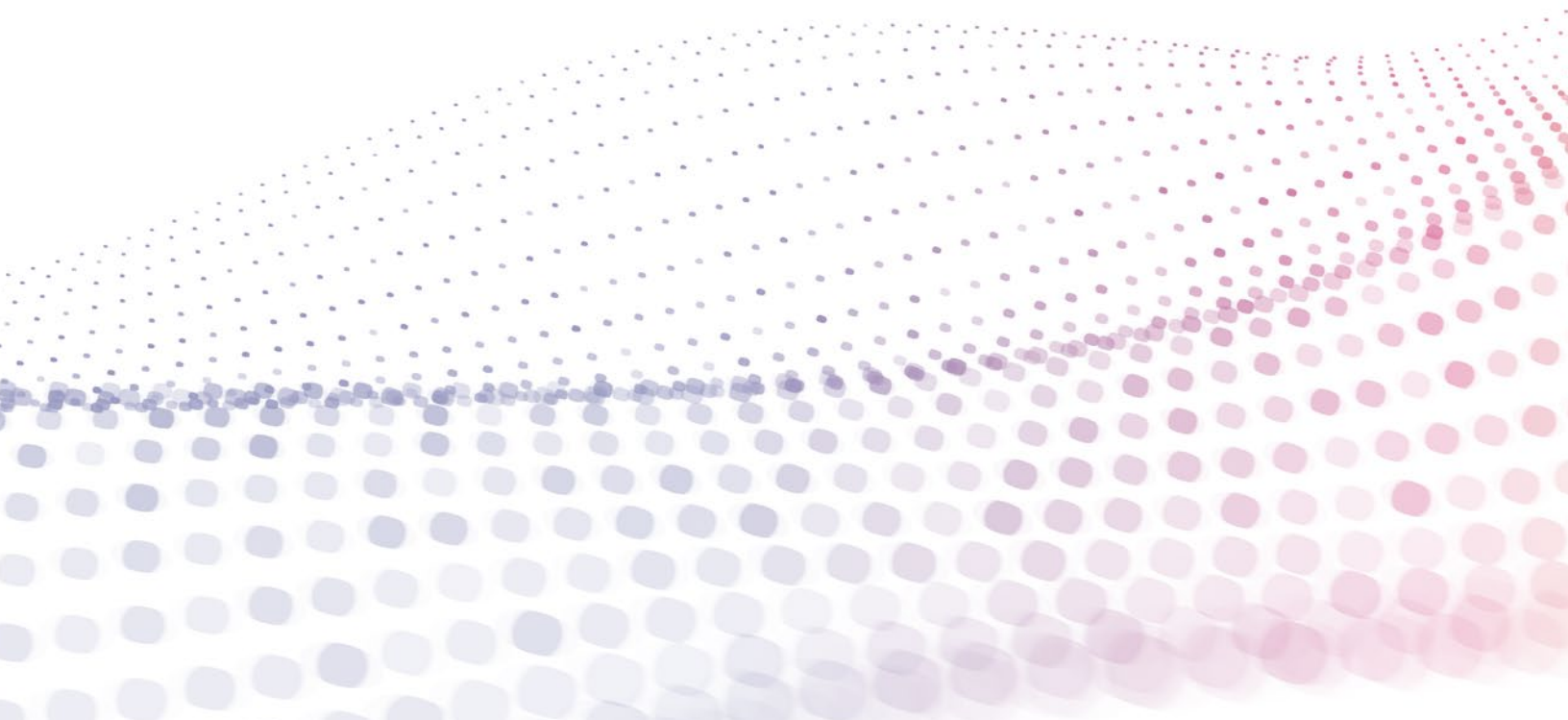
# Contents

# Executive Summary

During the first quarter of 2019, Research in Insurance (Rii) conducted in-depth interviews and an online survey with senior management, operational management and frontline staff primarily working in data, underwriting and claims. This encompassed a wide range of insurers operating across various regions. The principal objective was to identify key big data management issues currently experienced across insurance organizations and understand their vision for where better big data management should be leading.

The key takeaways for all insurance executives emerging out of this exclusive research project reveal the breadth of engagement with the big data challenge but also the urgency of facing up to it and delivering transformational change.

## Key Takeaways

**Legacy big data is an opportunity, legacy systems a constraint.**
New competitors have the technology but not the data, and there is no room for complacency as they have the ability to build new datasets quickly.

**The insurance industry can be a super-tanker that takes time to change direction.**
It can be risk averse and wary of new ways of working. In some firms there is a lack of appreciation of the extent of the challenge.

**Winning on big data brings genuine competitive advantage.**
The key drivers for digital transformation are to improve process efficiency, better assess risk, unlock cross-selling opportunities, facilitate product innovation and increase fraud detection.

**The C-level is starting to appreciate value of big data but needs to develop a more sophisticated understanding of where that value lies.**
Short-term expectations of return on investment are sometimes set too narrow.

**Frontline operational functions – underwriting, claims, customer service – must play a critical role in executing digital integration.**
Accessibility is a key issue if they are to use integrated data to improve efficiency and customer service.

**Leaders across insurance overwhelmingly consider data critical to their job,**
Yet most cannot get a good view of their enterprise data.

**The Single Customer View (SCV) is the "Holy Grail".**
It is a goal worth aiming for even if it can't be reached. For B2C insurance organizations, it is part of becoming much more customer- and brand-focused.

**Machine learning will have huge applications in insurance.**
Some of the big players do not feel they are leading the way on it and need to build predictive analytics into their big data strategies.

*Digital transformation with data integration at its heart and a SCV as its vision creates a platform for fundamental change.*

# Research Methodology

A key focus of the research project has been to understand the views and concerns of those who work with data in frontline functions, as well as senior management and data experts. The research was carried out in two phases: an in-depth qualitative phase with a carefully selected sample, followed by a quantitative phase involving a much wider spectrum of interviewees.

## Qualitative Stage

Rii conducted in-depth discussions, mainly by phone but some face to face, with Global Data Directors, Chief Information Officers, Claims Directors and Underwriting Directors to fully explore the issues being experienced at top and second tier global insurance firms.

Rii recruited and conducted 23 in-depth interviews within the following segments:

- 12 with those ultimately responsible for the management of data (including Global Data Directors, CTO's, CIO's and Chief Data Officers);
- 6 with Claims Directors (including senior decision makers within Claims Operations);
- 5 with Underwriting/Risk Directors (including Chief Underwriting Officers and senior decision makers in underwriting/risk management).

The quotes have been taken directly from this qualitative research.

The findings of this stage helped the team to formulate a survey for the quantitative stage.

## Quantitative Stage

Rii conducted a structured online survey with 188 people working in claims, underwriting, data, risk management and customer service departments at top and second tier insurance organizations. The geographic breakdown of the survey respondents were: North America, Europe, Middle East and Africa (86%), with the remainder representing Asia-Pacific and Latin American organizations.

The graphs and data points come from the quantitative research.

Both stages of the research were carried out by Research in Insurance exclusively for MarkLogic.

Interviewees had the option to donate their participation fee to a charity of their choice, raising a total of £1,650 for the Insurers United Against Dementia (IUAD) campaign (alzheimers.org) and a further £2,800 across a variety of other great causes.

" *In this business, data is king.* "

—Data Director, UK subsidiary of global insurance company

# Introduction

Data no longer serves the insurance business: it drives the insurance business.

Insurers are battling to re-imagine relationships with their customers and at the heart of the new vision they are developing is liberating the power of data. Much of it is buried in their legacy systems but it is also to be found elsewhere as the age of digital connectivity generates new datasets.

Many insurers have made great strides towards a future shaped by data.

In doing so, they are tackling a broad range of strategic and operational inefficiencies deeply embedded in the way insurance organizations work. Just how they are going about this has been the focus of in-depth research carried out for MarkLogic by Rii. The results provide a fascinating insight into how insurers are facing up to the challenges posed by the complex, inefficient legacy IT systems found in every insurance organization.

They show how firms are re-positioning data as a key business function. It now has a seat at the top table and a new generation of job roles and titles has been born, drawing in new skillsets and knowledge.

> *Data has in the past been something which has been produced as a by-product of our business, not at the heart of our business. This is changing. "*
>
> —Data Director, global specialty insurance company

The research also reveals how delivering this strategic vision has not been universally successful with leaders of core functions, such as underwriting and claims, often expressing frustration at the poor focus data projects have on their needs.

The research also exposes a wide variation in the perceived engagement and support of senior management for data integration projects.

One of the key messages that comes out of the research is that most people believe the opportunity is there for established insurers to flourish in the age of data enabled customer relationships but that time is short: how short is by no means clear in the minds of respondents.

While the overwhelming majority of respondents placed data issues and the creation of the coveted SCV high on the agenda in their organizations, the degree of urgency to which this is being addressed varies widely.

**Q. On a scale of 1 to 5, how low or high on the agenda are data issues to your organization?**



| * DON'T KNOW | 1 EXTREMELY LOW | 2 | 3 | 4 | 5 EXTREMELY HIGH |
|---|---|---|---|---|---|
| 6% | 0% | 2% | 11% | 37% | 44% |
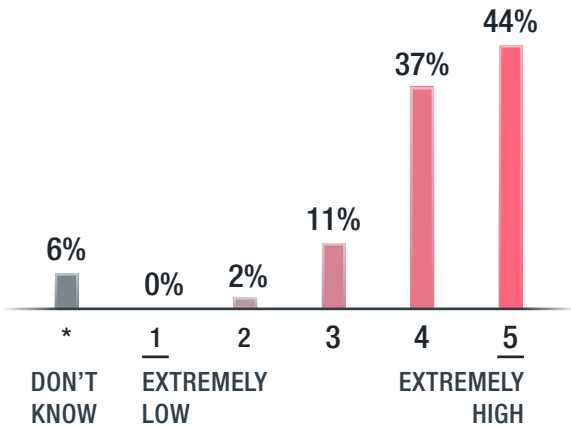
81% of insurance professionals perceive data issues to be high on the agenda across insurance firms and this cuts across the data, claims and underwriting groups.

It is one thing to believe in the importance of data projects but quite another to have faith that they can be delivered quickly, or least quickly enough to equip firms to meet the full force of the competition from new entrants and from existing, reinvigorated competitors.

**Q. When would your organization ideally like to have achieved a single customer view by?**



| * YESTERDAY | 0.5 | 1 | 2+ | * DON'T KNOW |
|---|---|---|---|---|
| 18% | 5%  11% | 14% | 13% | 39% |
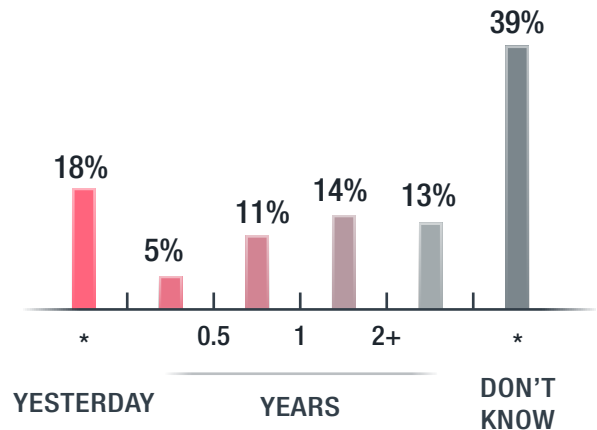
For those who see the ultimate goal of data integration to be the creation of a SCV, nearly *four in 10* are unsure of when their organization would ideally like to achieve that. A fifth already fear they might have missed the opportunity.

The data revolution has already brought great changes and it is set to accelerate, with implications for how insurance organizations are run and which ones are best placed to thrive.

The prize is big but time is short.

> " *Data is a critical, critical thing here … Everything we do is 100 per cent reliant on data. There's huge importance given to that data being reliable.* "
>
> —Underwriting/Risk Director, specialist international B2B insurance company

# Context of the Challenge

The key for established insurers is unlocking the potential of their data by moving away from a siloed, process-driven approach to one that matches the expectations of today's customers. Those expectations are being set by firms outside the insurance industry, such as Amazon, Uber, Netflix and others.

Customers want speed, efficiency, transparency and a service that supports and enables their lifestyles. Interaction has to be on their terms, not driven by the internal processes of the product or service provider. They do not expect to be asked the same question twice and, despite concerns about data privacy, expect insurers to know about them and their risks. In insurance, there still exist many processes that do not meet the expectations of customers as we move towards the third decade of the 21st century deeply embedded in legacy systems.

> *We have our own term for single customer view and it's baked into our strategy from board level down. It's about making interactions more personal and relevant for the customer … it's about seeing ourselves from the customer's point of view.*
>
> —Underwriting/Risk Director, UK, large global insurance company

This goes beyond data integration, as it requires re-engineering processes to align them with customer expectations. Established firms that have faced up to that challenge are reaping the benefits.

> *We have just transformed our direct business … We spent three years re-creating it on a new platform. This has made possible new products and a new customer journey.*
>
> —Data Director, large UK insurance company

Where these benefits are already being realized, the corporate agenda is looking further ahead to where the innovative tech-led players in other markets are working to excite customers.

> *The next wave of IT will bring more in the way of intelligent process innovation – combining predictive modelling with chatbots and so on, automation end-to-end … we're getting 2-3 hour processes down to 2-3 minutes.*
>
> —Data Director, large European-based insurance company

Established players have the advantage of holding vast amounts of customer data but face enormous challenges in extracting it from different databases and combining it to enhance business efficiency. Meanwhile, the new generation of firms without the burden of legacy systems, such as Lemonade, Next and Root, are emerging as competitive threats. They are fleet of foot but do not have the depth of data.

For some, it is like comparing a super-tanker to a speed boat. But that super-tanker has an immensely valuable cargo: data. It is packed into discreet silos that are themselves a further inhibitor to delivering digital transformation.

The benefits are to be found not just in improved efficiency overall, but through real commercial advantage. The ability to both connect up existing data sources more efficiently and bring new data sources into the picture enables more accurate risk evaluation and better pricing for underwriters. It is a "win-win" across the whole business.

> *It's all about data. Are your competitors' decisions better than your decisions? … The real value-add in our business is informing the underwriting side with the outputs of the claims portfolio.*
>
> —Claims Director, global specialty insurance company

Integration and the improved customer experience and insight that comes with it will enable insurers to know their customers better, understand the particulars of their lifestyle, and translate that into additional offerings that will be meaningful and valuable to that customer. This will unlock the cross-selling opportunities insurers have known exist for decades but which have remained elusive.

> *Now there are more ways to see which of your products a particular customer has …Cross-selling is a big opportunity. Selling more to existing customers is more efficient and less costly. The insurance industry has been crap at cross-selling because it's set up on legacy systems that don't talk to each other. And the staff haven't been incentivized to cross-sell.*
>
> —Underwriting/Risk Director, UK, large global insurance company

Used in these ways, data starts to drive change.

> " **It is like comparing a super-tanker to a speed boat. But that super-tanker has an immensely valuable cargo: data. It is packed into discreet silos that are themselves a further inhibitor to delivering digital transformation.** "

# Identifying the Benefits

Customers are more likely to stay loyal to insurers that meet their expectations. New customers will be attracted by simplicity, speed of service, understanding of their lifestyle and how insurance can enable it. This is something the InsurTech disruptors understand and are already exploiting.
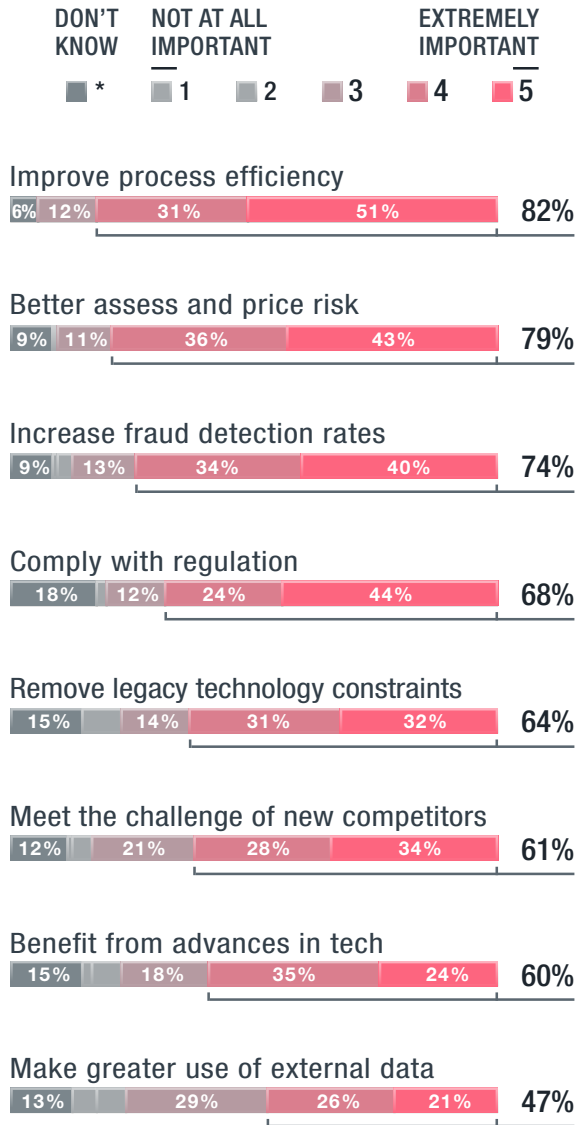
Established players need to embrace that customer-centric simplicity and add it to the insight and knowledge they have of their customers through the data they already own. Beyond their own data there will be opportunities to marry internal data with new sources of data outside the business. This currently has a lower priority among business managers focused on internal digital transformation. This is a mistake as the InsurTech disruptors will exploit those datasets, potentially creating a competitive advantage for them.

For decades the insurance industry has been talking about transformation and has launched many ambitious projects involving systems, the way it services customers, the way it sells through different channels, handles claims and prices products. None of these have truly transformed the customer-facing proposition and the processes from front to back. Sadly, many of them have actually created additional layers of complexity and added to the silos of data that plague the industry today.

Digital transformation with data integration at its heart and a SCV as its vision creates a platform for fundamental change. The impact this could make is recognized across the business. Everyone wants to be in on the action.

Approximately *eight in 10* insurance professionals recognize improving process efficiency, better risk assessments and pricing of risk as important drivers for digital transformation. Nearly *three in four* also agree that increasing fraud detection rates is another important driver of digital transformation.

**Q. Please rate on a scale from 1 to 5 the importance of the following statements in driving digital transformation within your organization.**

| DON'T KNOW | NOT AT ALL IMPORTANT | | | EXTREMELY IMPORTANT |
|---|---|---|---|---|
| * | 1 | 2 | 3 | 4 5 |

**Improve process efficiency**
6% | 12% | 31% | 51% — **82%**

**Better assess and price risk**
9% | 11% | 36% | 43% — **79%**

**Increase fraud detection rates**
9% | 13% | 34% | 40% — **74%**

**Comply with regulation**
18% | 12% | 24% | 44% — **68%**

**Remove legacy technology constraints**
15% | 14% | 31% | 32% — **64%**

**Meet the challenge of new competitors**
12% | 21% | 28% | 34% — **61%**

**Benefit from advances in tech**
15% | 18% | 35% | 24% — **60%**

**Make greater use of external data**
13% | 29% | 26% | 21% — **47%**

Behind each of these headline benefits lie other big wins. For instance, improving the accuracy of pricing will enable the development of dynamic new products that meet the expectations of the modern customer. Alongside this, claims processes can be greatly enhanced by reducing touch points, deepening customer loyalty. All of these initiatives create an effective platform for cross-selling, a long-cherished but barely realized objective for insurers.
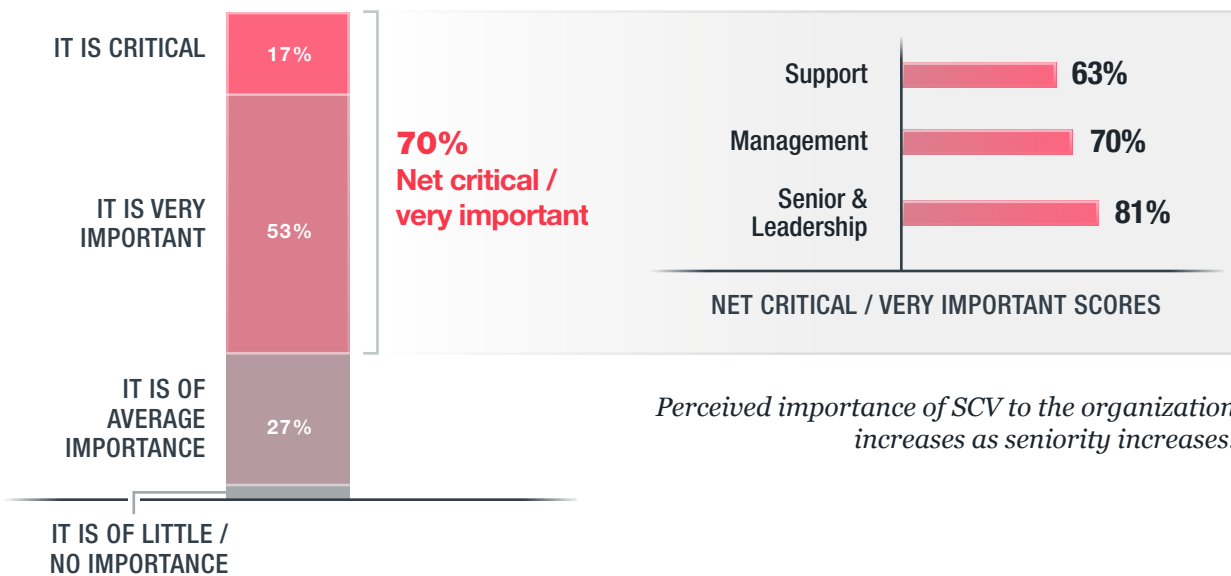
In addition to further squeezing fraud, compliance is also another major beneficiary as integrated data can be very responsive to enquiries from regulators as they demand greater insight and transparency from the firms they regulate. Regulators care about customers and whether they have been sold the most appropriate products at the right prices. Placing data at the heart of product design and the customer journey will enable firms to respond to the regulators with confidence and clarity.

The SCV – which can only be created if data is thoroughly and intelligently integrated – can offer greater insight across the entire business. Integrated data becomes the enabler of change and innovation, not the servant of outdated processes and systems.

That vision is something that is now shared widely across businesses. *Seven in 10* insurance professionals believe that a SCV is critical or very important to their organization.

## Q. How important do you believe a single customer view is to your organization?

| | |
|---|---|
| IT IS CRITICAL | 17% |
| IT IS VERY IMPORTANT | 53% |
| IT IS OF AVERAGE IMPORTANCE | 27% |
| IT IS OF LITTLE / NO IMPORTANCE | |

**70% Net critical / very important**

| | |
|---|---|
| Support | 63% |
| Management | 70% |
| Senior & Leadership | 81% |

NET CRITICAL / VERY IMPORTANT SCORES

*Perceived importance of SCV to the organization increases as seniority increases.*

While 70% believe that having a SCV is critical or very important to their organization, *nine in 10* insurance professionals believe that they have not achieved a single unified view of their customers, or don't know.

As they work at identifying the benefits, some in the larger insurance organizations, particularly Data Directors, looked with envy at the freedom enjoyed by newer, tech-driven insurance start-ups to build purpose-made data systems but it was striking that they regarded themselves as being in much the stronger position overall to benefit from exploiting large datasets, many of which they own. The note of caution is the lower priority given to integrating with external data.

The power of data is not just created by the analytics or systems – it also depends on the volume, variety and quality of the raw data. New players with slick technology are not seen as an existential threat in-and-of themselves. Their emergence has been a major catalyst, showing what data-driven strategy can do, highlighting to big firms how held back they are by legacy IT challenges.

There was a bullishness about the massive potential power of the data held by big firms, in the era of big data they still hold a strong underlying belief that they are in prime position.

It is not just claims that wants to be part of this mission to create a single database but underwriting, risk management and core customer operations. They all need to be fully embedded in the planning phase and the development of company-wide objectives.

**Q. Which of these best describes your current situation in terms of achieving a single customer view?**



Bar chart values: 9%, 23%, 15%, 18%, 6%, 2%, 28%
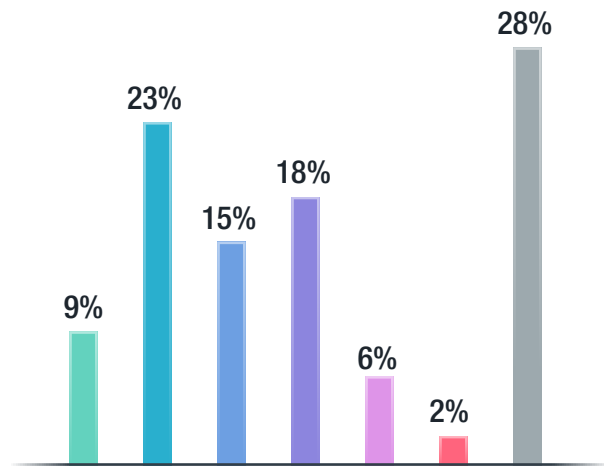
- We are satisfied that we have achieved a single, unified view of our customers
- We are in the implementation stages of a SCV project
- We are in the planning stage of a SCV project
- It is something our organization is looking to currently
- It is something we may look into in the next couple of years
- It is not something we will be considering in the near future
- Don't know

> " *The advantage is with us, as we have more data across more categories to join up. We can feed in more claims experience.* "
>
> —Claims Director, large global insurance company

# Working with Senior Management to Set Deliverable Objectives

Data is the opportunity but silos are the barrier. There is a need to reinvest in a complete overhaul of systems and this needs leadership from senior management with the project placed at the heart of the business.

When firms step back to create a data strategy, they need to recognize that the whole business needs to be involved because the whole business stands to benefit. Customer service, underwriting, claims and compliance all want to be part of the data revolution, making it far broader than just another large-scale IT project.

> *I'm aligned to how the senior management sees it ... But it doesn't work if it's all top-down. Ideas and strategies come from the coalface as well.*
>
> —Data Director, UK, global specialty insurance company

Senior management support is essential but it does not always fully appreciate the radical nature of the organizational, technological and cultural changes required. There is frequently a need to deal with scepticism among senior management, often a result of previous failed IT projects. This presents one of the biggest barriers in many businesses.

Rivalries between different parts of the business can mean decisions get delayed or fudged, however much enthusiasm there is from individual board members.

> *All of the C-suite get it: the CFO, Chief Underwriting Officer, Chief Risk Officer – they all absolutely get it – but they have conflicting views on what they each want.*
>
> —Claims Director, large UK insurance company

> *It's very mixed. Some senior execs say we should be making better use of the data. Other people say data is only something for the actuarial team to be looking at.*
>
> —Data Director, UK subsidiary of global insurance company

Measuring the success of investment in new data management systems by focusing on cost reduction inhibits the development of truly integrated data systems as it underestimates the wider impact on the business. This has resulted in frustration and delay in some firms where every project finds itself challenged to justify itself against narrow, short-term cost benefit targets.

The success of data strategy projects was judged differently from firm to firm. Some boards required Data Directors to make a direct financial impact case, others worked on the basis of defined KPIs and timetables, others again went through formal performance review by management consultants to evaluate the value to the business.

> " *Initially, the business cases we made for data didn't stand up – they don't make money from the outset. However, when the broader strategic view of data is added in, this can make the difference, unlocking the value that's in the data.* "
>
> —Data Director, UK, for large global insurance company

Promising too much, creating unrealistic expectations and attempting over-ambitious "big bang" solutions are all hazards to be avoided at the decision-making stage. Many operational managers recognize the scale of the challenge they face but worry that it is not properly understood.

> *We are dealing with a landscape with hundreds of different applications, each built at different times … There was an appetite in the business to do far more with data. But there wasn't the maturity. I had to point out that they needed to start by fixing the foundations.*

—Data Director, UK subsidiary of large global insurance company

The ambition to completely overhaul legacy IT and data systems is seen, in many cases, as just too big to carry out as thoroughly as those driving projects would like. In some big insurance firms this has led to a more pragmatic approach being adopted.

> *Legacy systems are a big problem. We can't fundamentally change their architecture or migrate away from them, so we have to layer over the top of those legacy systems, leaving them in place."*

—Underwriting/Risk Director, large European-based insurance company

Placing a further layer on top of existing systems has to go hand-in-hand with fixing the foundations. Legacy systems must be re-aligned to meet the aspirations of the underwriting, risk management, claims, product development and customer service teams clamoring for a much more deeply integrated approach.
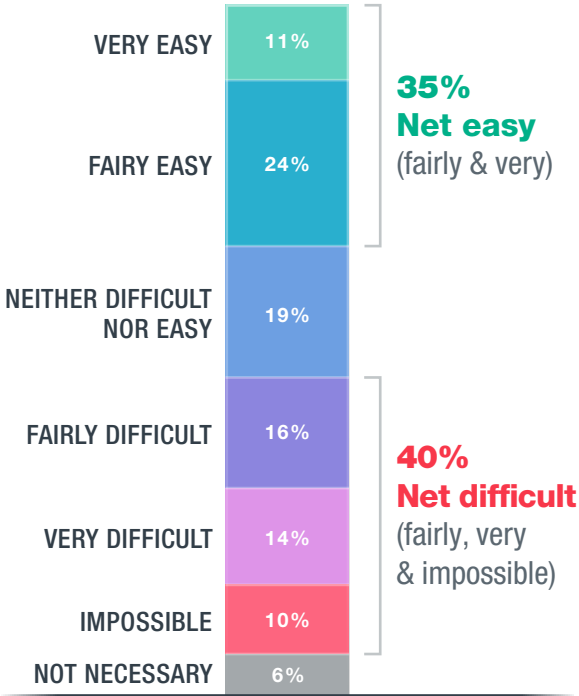
Deliverable objectives will be those set by the business units and which solve the problems they face. At the heart of these is an overwhelming desire to be able to access all the data the firm holds on its customers, their risks and their claims. They want quick, efficient solutions to the problems they currently face in accessing this information and then effectively combining it so that it can be analyzed.

The difficulty of accessing the data a company holds is a major source of frustration. 81% say data is critical to their job, but only 11% find it very easy to search, view, and analyse data cross their enterprise.

This means that access to data is an unmet need in insurance and needs to be a priority. Integration alone is insufficient if the result is just a larger data pool that is not easily accessible by the frontline business units.

*Four in 10* insurance professionals find it is difficult to search, view and analyse data from across the entire enterprise in one place. *Only one in 10* find it 'Very easy' to do so at their organization.

**Q. How easy or difficult is it to search, view, and analyze data from across your enterprise in one place?**

| | |
|---|---|
| VERY EASY | 11% |
| FAIRY EASY | 24% |
| | **35% Net easy** (fairly & very) |
| NEITHER DIFFICULT NOR EASY | 19% |
| FAIRLY DIFFICULT | 16% |
| VERY DIFFICULT | 14% |
| | **40% Net difficult** (fairly, very & impossible) |
| IMPOSSIBLE | 10% |
| NOT NECESSARY | 6% |

This places integration and analytical capability firmly as twin, inseparable objectives for any project with the SCV as its ultimate destination.

To unlock all of these potential business-enhancing opportunities requires extracting data from millions of documents, files and structured data sets. The solutions have to have genuine enterprise capabilities and a sharp focus on creating transactional consistency. This is where common language and agreed taxonomies have an important part to play.

All of these should form part of a Gold Standard when setting the objectives for the project (see checklist).

There are risks, and an industry such as insurance that does not enjoy a high level of public trust needs to be very aware of them. Regulatory concerns and the fear of getting it wrong are fueling some of the hesitancy in investing in data integration. For instance, being able to search their data and at the same time restrict access to that data is a very difficult problem for many insurers. However, today it is possible to have a very rich data store, while maintaining granular, element-level security controls.

These concerns must be addressed at the outset.

By focusing on addressing the requirements of the whole business, senior management will inspire them to deliver it.

## Gold Standard Planning Checklist

- ☑ Make all your data easily searchable
- ☑ Create a single customer view
- ☑ Scalable, enterprise wide solutions
- ☑ Robust security and effective governance
- ☑ Create common language, shared taxonomy
- ☑ One view, in one place
- ☑ No more silos, all data shared
- ☑ Build in powerful, reliable analytical tools
- ☑ Facilitate integration with external data sets
- ☑ Ensure reliability and elimination of legacy bias
- ☑ Fully supported by senior management with clear objectives
- ☑ Buy-in from all frontline business units fully
- ☑ Enhance operational efficiency, especially speed of processing
- ☑ Meet objectives for tackling fraud, regulatory reporting
- ☑ Improve customer experience, especially in claims

# Creating and Delivering the Vision Throughout the Business

The need to get senior management totally onside is a constant theme. While the emergence of the Chief Data Officer is an indication that this is happening, identifying champions elsewhere in the business is also crucial. This only comes from involving them right at the start of a project.
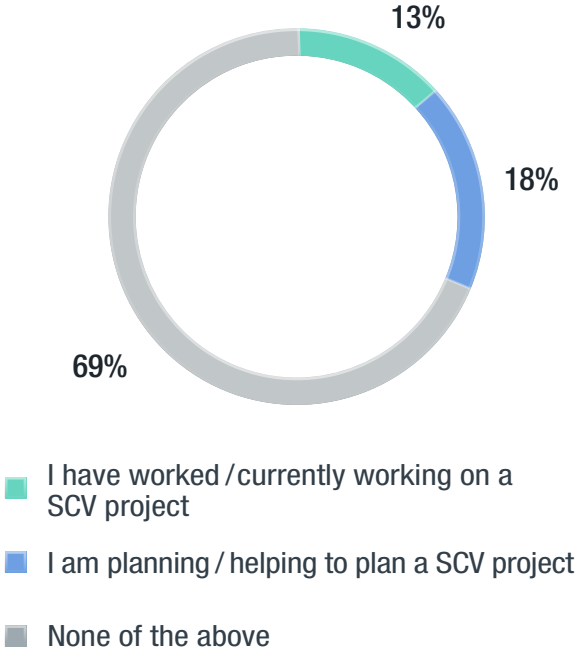
In some firms the degree of buy-in to the overall vision for a data integration project declines as you move down the management levels to the operational frontline. This is not a recipe for success. The vision needs to be shared and ways of inspiring that buy-in identified.

> " I'm aligned to how the senior management sees it … But it doesn't work if it's all top-down. Ideas and strategies come from the coalface as well. "
>
> —Data Director, UK, global specialty insurance company

Ensuring that vision is communicated effectively will be key so that everyone understands that the ability to integrate data from silos and interrogate it dynamically will unlock competitive advantages for the firm. No-one wants to sit there waiting for the new breed of agile, tech-driven disruptors to steal their business so they need to understand the advantages legacy carriers hold over potential disruptors and keep focused on the vision for maintaining that advantage through digital transformation.

**Q. Which of the following best describes your situation?**



- 13%
- 18%
- 69%

- ■ I have worked / currently working on a SCV project
- ■ I am planning / helping to plan a SCV project
- ■ None of the above

If data integration is going to deliver the vision of a SCV then complete buy-in of operational teams is essential. There is evidence that this is still seen as a data-led, data-owned project with only three in 10 of those responding across all disciplines and all levels having been involved in some way on a SCV project.

When this is broken down further it reveals that that 55% of data professionals, 22% of claims professionals and 28% of underwriting individuals have been involved in some way on a SCV project.

Another key challenge on the people front is finding the new skills and attracting them into the industry while ensuring that the institutional knowledge of old systems and processes is not lost. One ticking time bomb in running multiple legacy systems is that the people who built them and understand them are getting older and retiring so the institutional IT expertise has a deteriorating shelf-life.

> **"** *We have problems recruiting staff for this kind of IT work involving legacy platforms … It's just more attractive for a young IT professional I suppose to be working on something newer, fresher and frankly easier."*
>
> —Data Director, large global insurance company

> **"** *If it breaks, nobody knows how to fix it."*
>
> —Data Director, Large global insurance company

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It is not just a matter of retaining staff with knowledge about the legacy systems but also meeting the challenge on recruiting new staff. Firms are placing a high priority on recruiting from outside because they want the millennial mindset to be an integral part of their projects and need the new skills and knowledge they bring. This has not always proved an easy objective to deliver.

Working to get buy-in from all staff, especially those that fear data automation could threaten their jobs, is another priority for those leading the projects. Often, it is about exciting them about the opportunities to learn new skills and move into a growing part of the business.

Creating measures of success that reflect the true value of better data management for underwriting, claims and customer relationships is essential. It can reassure senior management that the benefits are flowing through to the business and also unlock further investment.

Tackling all of these areas will lead to the sought-after SCV evolving from the new data management systems.

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> **"** *Investment in data enrichment can pay back within 18 months or so. We measure it by loss ratios and the reduction in fraud levels, which can be very significant."*
>
> —Underwriting/Risk Director, large European-based insurance company

# Need for Action: The Time is Now

Most insurers believe in SCV and better data integration but many mistakenly believe they have the luxury of time to deliver the vision: they don't.

80% of those who are currently looking into or may look into a SCV project in the next couple of years believe it will take longer than six months, with 76% expecting a project to take more than a year. None anticipate that it will take less than six months.

69% of those who are in the process of completing or have completed a SCV project suggested that the full timeline of the SCV project will take longer than six months. Even among those working on an SCV project, 55% expect it to take more than a year to complete.

They must remove the barriers and speed up their journey. It doesn't require a huge project embracing the whole business and taking years. There are "quick win" solutions available.
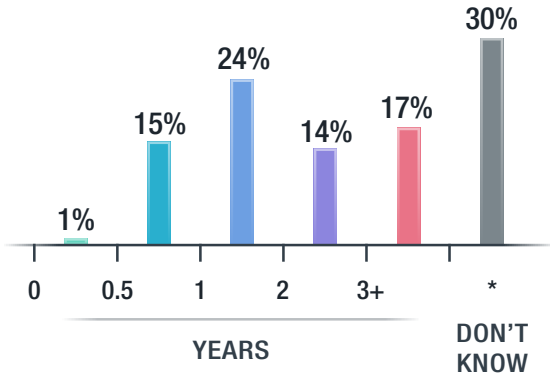
**Q. How long would you anticipate the project to take from start to finish?**

*Base: All who may look into SCV in the next couple of years or currently looking to achieve SCV*



0% | 4% | 18% | 38% | 20% | 20%
0 | 0.5 | 1 | 2 | 3+ | *
YEARS | DON'T KNOW
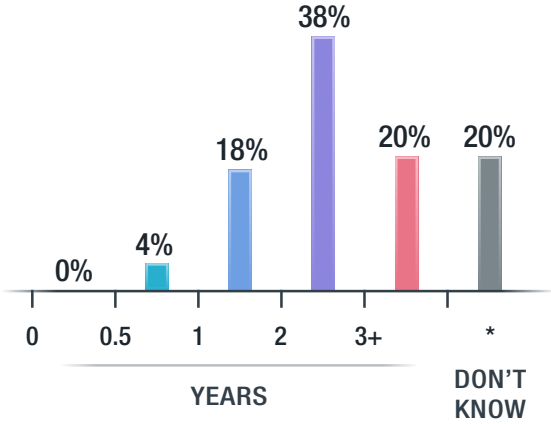
**Q. What was/is the full timeline of the project?**

*Base: All who are in the planning stage, implementation stage or achieved SCV*



1% | 15% | 24% | 14% | 17% | 30%
0 | 0.5 | 1 | 2 | 3+ | *
YEARS | DON'T KNOW

> " *Single customer view is massive, it's the Holy Grail … but we won't get anywhere in the next year or two on this in this company, we have other priorities – the problem is part legacy and part silos.* "
>
> —Underwriting/Risk Director, UK, large global insurance company

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# The Solutions

Fear of complexity should not be a barrier but the number one barrier to being able to integrate existing data and move towards creating a SCV is seen as the complexity of existing systems.
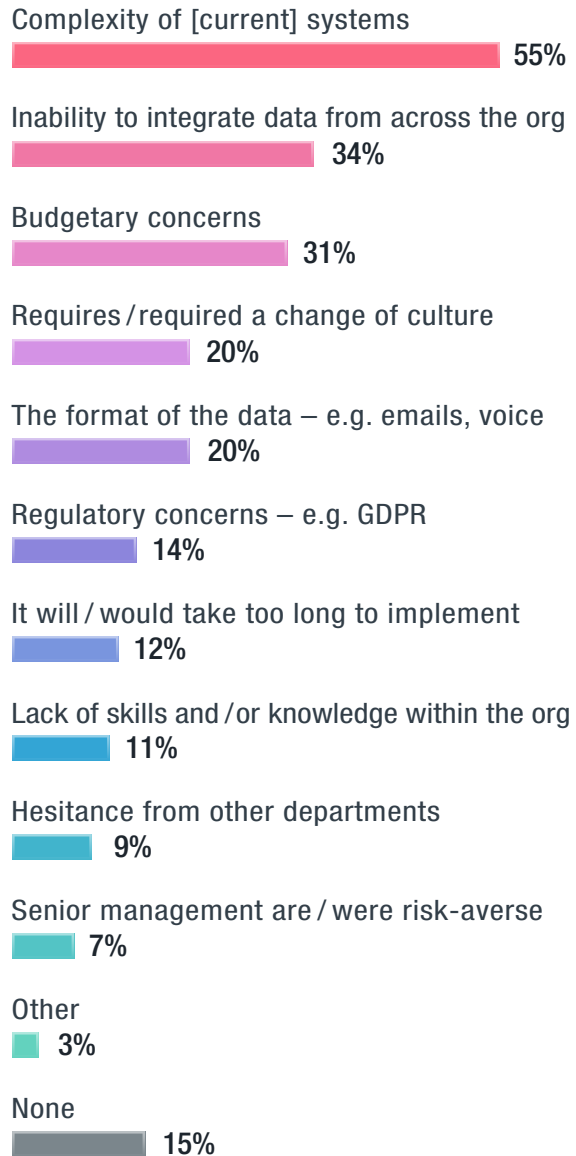
An SCV needs a single data management system, not another layer of processes and systems imposed on the top of many layers that already exist. However, ensuring underwriting, claims and core business systems are in alignment is essential. Some firms keep this as their overarching objective but set course for it by identifying achievable, smaller steps.

Setting the right objectives, choosing the right tools and working with partners who understand those objectives and can bring expertise and experience to the table are the key ingredients for a successful data integration project. Few firms have all the expertise they need available in-house. To source that expertise, build the knowledge and implement what seems a massive project is believed to be time-consuming and very costly. As we have seen, 18 months to three years is seen as a typical project timescale. That leaves the door open to more fleet-footed competitors. This is where step-by-step solutions can succeed by building early momentum and delivering quick wins.

Focusing on creating simplicity where complexity currently dominates is essential but whatever else they do insurers must move away from a siloed approach to customer data. The ownership must reside with the whole business and not be separated into a data warehouse divorced from the day-to-day priorities of the business.

**Q. What are/were the barriers to your organization being able to create a single customer view?**

Complexity of [current] systems
**55%**

Inability to integrate data from across the org
**34%**

Budgetary concerns
**31%**

Requires / required a change of culture
**20%**

The format of the data – e.g. emails, voice
**20%**

Regulatory concerns – e.g. GDPR
**14%**

It will / would take too long to implement
**12%**

Lack of skills and / or knowledge within the org
**11%**

Hesitance from other departments
**9%**

Senior management are / were risk-averse
**7%**

Other
**3%**

None
**15%**

There is technology which is proven in other fields with complex data challenges. Insurance is not the only sector with large-scale legacy data issues: others have them and are moving faster to solve them. Indeed, for some industries data is their business and so unlocking the potential shut away in legacy systems has been essential for business survival. MarkLogic has worked alongside major businesses to produce successful dynamic, agile solutions that have transformed business models.

With new competitors emerging, the time to deliver solutions is tight. Many of the new firms are tech-driven but are quickly acquiring customer data from telematics, the Internet of Things and elsewhere that is not unencumbered by the constraints of legacy systems. The challenge for established firms is to move quickly to turn what others see as the dead-weight of legacy systems into a competitive advantage by mining the data held in them and integrating it with these new sources of data.

It is possible for larger firms to create their own solutions but typically these projects take 18 to 24 months with some expected to take three years from planning to operational effectiveness. Most insurers cannot afford to wait years while their competitors find faster solutions to the same problems.

The MarkLogic solution typically takes three months from inception to delivery of a business-ready solution, with many proof-of-concept (POC) projects capable of being completed in half that time. This gives time for the benefits of improved operational efficiency to be felt in the business.

> *Investment in data enrichment can pay back within 18 months or so. We measure it by loss ratios and the reduction in fraud levels, which can be very significant.*
>
> —Underwriting/Risk Director, large European-based insurance company

Whatever solution is chosen, senior management ownership, commitment and consistent support are key. It must align with broader business objectives and be capable of turning around the super-tanker with its valuable cargo of data in record time.

"
# The MarkLogic solution typically takes three months from inception to delivery of a business-ready solution, with many proof-of-concept (POC) projects capable of being completed in half that time. "

> **It will change the landscape of underwriting, by producing more and more underwriting factors."**
>
> —Data Director, UK, global specialty insurance company

## Looking to the Future

That technology is developing at a faster pace than ever before is a truism but a vitally important one. Some of the most forward-thinking respondents were acutely aware of the need to go beyond solving the legacy problems of yesterday by making their firm's data fit for today: they want to be ready for tomorrow too.

For instance, there was some discussion of the potential future impact of machine learning on underwriting by drawing in more information and processing it automatically. There was some scepticism but not to the extent of ignoring the potential.

> *I haven't seen a magic bullet to move underwriters into machine learning. Their skills are already very sophisticated and highly effective for what they do – they are about being able to make judgments on pricing changes, keep to loss ratios. It is a highly technical domain. If machine learning is to be embraced it will take leaders with the vision to see this – we're not here yet.*
>
> —Data Director, UK, large European-based insurance company

Those firms already equipped to integrate external data with their own data are investigating new sources of data, like GIS spatial data, all the time because they understand the transformational impact it could have.

Others picked up on this theme of automation empowering consumers and the need to match their rising expectations created by business from fast food delivery to online banking. These focus on speed, simplicity, transparency and mobility.

The insurance industry has to equip itself for this future. It has to place data at the heart of its business and enable it to drive change, innovation and customer relationships.

> **Five years ahead, there will be more self-service. Customers will access us through different channels that they choose …there will be more chatbots and AI. The next thing will then be chatbots that can learn and ultimately be able to settle some claims in a way we'd be happy with."**
>
> —Data Director, UK, global specialty insurance company

# Conclusions

Across the insurance market there is a strong recognition of the huge potential of better big data management and deeper data integration. Many insurers recognize they have a valuable resource which needs to be managed better if they are going to meet the challenges from new competitors unencumbered by the burden of legacy systems.

There is an overwhelming belief that realizing the vision of a SCV by creating an accessible, full 360-degree view of data assets is desirable. However, work still needs to be done to make that achievable.

The firms moving successfully along this journey have a unity of vision and purpose shared by senior management and the teams in all of the data-dependent areas of the business. This includes an understanding of the operational and customer engagement benefits and how to measure them. Securing agreement on what return on investment looks like is essential.

Time to market is also key. Many firms are looking at multi-year projects and do not have sufficient confidence in their own abilities to deliver them. Time is short as the most agile firms are already advancing quickly towards an SCV and new competitors with powerful systems are emerging all the time.

MarkLogic has the tools and expertise to help firms meet all of these challenges. Lifting legacy data out of silos, safely sharing it across the business, enhancing efficiency and creating that coveted SCV lie at the heart of its solutions.

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" *We're a data business now as well as a people business.* "

Claims Director, global specialty insurance company

# About MarkLogic

Data integration is one of the most complex IT challenges, and our mission is to simplify it. The MarkLogic Data Hub is a highly differentiated data platform that eliminates friction at every step of the data integration process, enabling organizations to achieve a 360° view faster than ever. By simplifying data integration, MarkLogic helps organizations gain agility, lower IT costs, and safely share their data.

Organizations around the world trust MarkLogic to handle their mission-critical data, including 6 of the top 10 banks, 5 of the largest global pharmaceutical companies, 6 of the top 10 publishers, 9 of the 15 major U.S. government agencies, and many more. Headquartered in Silicon Valley, MarkLogic has offices throughout the U.S., Europe, Asia, and Australia. For more information visit www.marklogic.com.

# About Research in Insurance

Research in Insurance (Rii) is a specialist market intelligence and business information provider focused on delivering actionable insight and advice to the UK and global insurance industry.

Boasting expertise across the full range of quantitative and qualitative research methodologies, conducting everything from brand tracking and segmentation analysis to in-depth interviews, focus groups and online diary projects.

With over 22 years' experience delivering business critical information and connecting individuals within the insurance markets, Rii's specialism and network of industry experts makes us a unique and invaluable research partner in this sector.

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