Future of Insurance Data 2023

How 100 Insurance Industry Data and Analytics Leaders are Supercharging Their Data Analytics Strategies to Prepare for the World of Tomorrow

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Executive Summary

The unprecedented disruption of the last several years has created a new urgency for data-driven transformation among UK insurers in 2022. Fast-tracking digitization, advanced analytics, and AI/ML projects are critical in the post-pandemic era.

This representative survey of 100 insurance industry data and analytics leaders in Europe, conducted in partnership with Oracle, reveals how the industry is racing to reimagine itself to prepare for the world of tomorrow.

It highlights what insurers are doing to align their data strategies to business objectives to harness the value of their data more effectively. Then, it explores the data-driven innovations they'll be developing in the months ahead to more accurately model risk and revolutionize the underwriting process.

What's more, it looks at how executives can overcome the cultural, ethical, and data management challenges that are slowing the pace of change at many insurance companies.

With in-depth commentary from six industry experts, it provides an essential snapshot of the forces shaping the data-driven insurer of the future. ■

Key Takeaways

73%

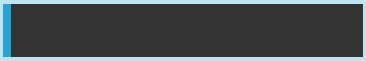
of respondents said they were **less than two years** into their digital transformation journey

86%

of respondents **agree or strongly agree** that we are years away from **fully achieving the benefits of AI/ML technologies**

Only

2%



of UK insurance firms are **fully leveraging their data to create business value**

60%

of respondents said **fraud detection** has the **greatest potential to revolutionize the insurance industry**

44%

of respondents said that they were **using AI/ML to reduce human error** but are also using these tools for a **wide range of applications**

67%

of insurance data leaders have defined a data strategy that **aligns with their business objectives**

Source: Corinium Intelligence, 2022

Methodology

We polled 100 data and analytics leaders, primarily from the UK. The respondents are from insurance firms, both medium-sized and multi-national. All respondents are at least C-suite level executives at their companies, and they influence data, analytics, and cloud strategies.

They answered 15 questions about their enterprises' digital transformation strategies, creating business value from their data, and their use of AI/ML technologies. ■

Contributors

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Disclaimer: The views and opinions expressed in this report are those of the contributors and do not necessarily reflect the views or positions of any entities they represent.

CHAPTER ONE

Generating Business Value from Insurance Data

KEY FINDING

Only 2% of UK insurance firms are fully leveraging their data to create business value

Insurance is a data-heavy sector that requires data to determine risks and evaluate how to price products and services. They need data to analyze risk, manage claims, and prevent fraud. However, while many organizations have started their digital transformation journeys, few have yet fully realized the full potential of their data.

Digital transformation is helping insurers get the insights they need to personalize products and services, improve operations, make faster and more strategic business decisions, and drive more value across the insurance value chain. ▶

Establishing a successful digital transformation strategy

According to our research, 73% of respondents are fewer than two years into their digital transformation journeys.

However, our research also shows that data leaders have already taken some of the strategic steps necessary to align their data strategies with business strategies. According to our study, two-thirds of respondents said they have successfully defined a 'strategic north star' for their data strategy that aligns with the aims of the business.

"A data strategy is never built in isolation. Instead, it starts with understanding the company's business strategy and objectives and overlaying a data strategy that supports it," says Ramakrishnan Subramanian, Head of Data and Analytics for a major UK financial services firm.

"A data strategy is never built in isolation. Instead, it starts with understanding the company's business strategy and objectives and overlaying a data strategy that supports it."

Ramakrishnan Subramanian
Head of Data and Analytics, A Major UK Financial Services Firm

"Data strategy should aim for pragmatic outcomes where certain projects deliver immediate value while others need a longer horizon," Subramanian continues. "The first stage is to align the data strategy to the business priorities and goals."

Digital transformation strategies often require several phases to complete. The early stages often focus on quick wins before expanding into more advanced methods like those offered by AI and machine learning technologies.

Janthana Kaenprakhamroy, CEO of Tapoly, an award-winning technology and insurance provider for the Gig economy, took a three-phased approach: "Phase one is all about building end-to-end automation and a short-term solution for the industry. Phase two is the enhancement of our existing systems and enhancing it with AI and machine learning. Finally, phase three involves implementing machine learning throughout the entire platform." ▶

Getting the most business value out of your digital transformation

As more insurance consumers move online to compare products and prices and make purchases, the volume of data available for analysis is steadily growing. This has resulted in insurance companies adjusting their business strategies to accommodate the increasing amount of data and understanding how to make the best use of it.

However, despite the rapid growth of available data, few insurance companies are generating significant value from their data. According to our research, only 2% of insurance companies in the UK are fully leveraging their data to create business value.

This underlines the importance of senior data leaders having a deep understanding of the business and how to execute on use cases that will have a meaningful effect on business KPIs in the short term. This, of course, is in addition to having a long-term strategy for value delivery.

"It's all about finding value in your data and acting on the story that it describes."

Dominic Stewart
Cloud Engineering Senior Director, Oracle

"In order for the data to be relevant and meaningful, analytics must be aligned with the current business strategy," says Subramanian. "However, you also need to identify what's needed by the organization to understand business performance, which encompasses all the technical work of collecting, aggregating, cleansing, and processing the data for consumption."

An effective digital transformation strategy can positively impact a company's business capabilities, improve its adaptation to changes in the market, and increase the amount of value derived from its data. It can also increase productivity by incorporating AI and automation.

"It's all about finding value in your data and acting on the story that it describes," says Dominic Stewart, Cloud Engineering Senior Director at Oracle. "Many organisations have embarked on their digital transformation journey, but wherever they are in that journey, every step should improve data-based decision making, that offers insurers a competitive advantage."

Our research shows that insurance firms use their data to generate value in several ways. For example, 52% is being used to improve customer-facing tools and experiences, 51% to enable data-based decision-making, and 49% to strengthen broker relationships or tools.

"We're generating value from our data to a fairly large degree," says Jamie Pocock, Head of GC Cyber Analytics at Guy Carpenter. "It's about being active and leading from the front by defining the problems and being proactive about the solutions."

As a first step, companies should spend less time thinking about how much data they have and where it comes from. Instead, they should start by identifying where their organization might create more value than their competitors and then understand the data assets they need to make that happen. ■

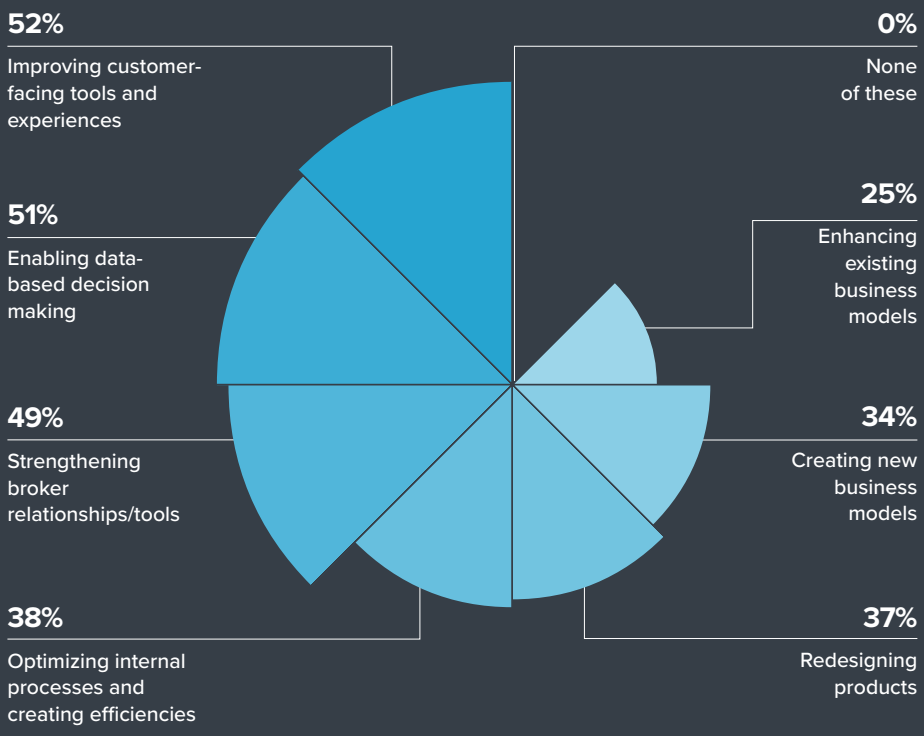
RESEARCH FINDINGS

Digital Transformations are underway

But most organizations are yet to leverage their data fully

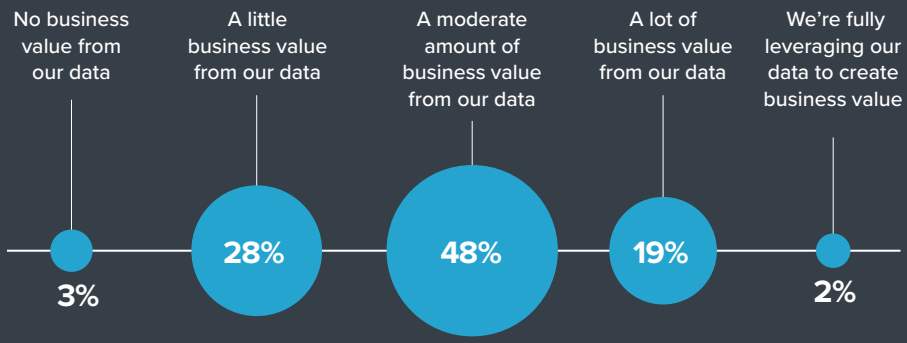
Insurance organizations are principally generating value with data

In what ways is your organization principally using data to generate business?



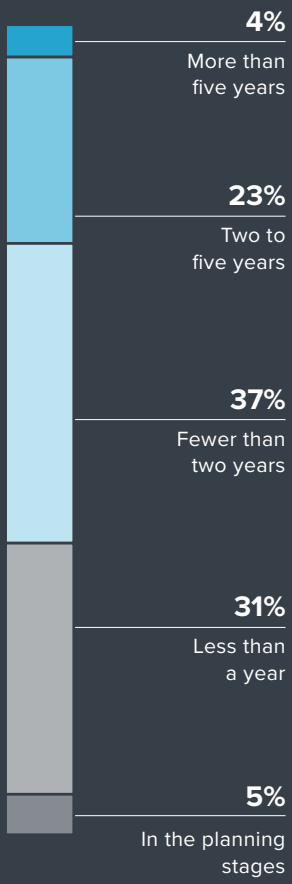
Only 2% of UK insurance firms are fully leveraging their data to create business value

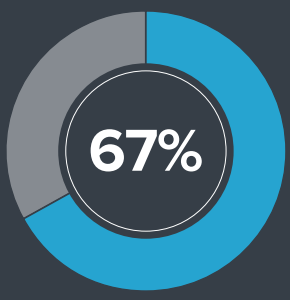
To what extent is your organization currently able to generate business value from its data?



73% of respondents said they were fewer than two years into their digital transformation journeys

How far along is your organization on its digital transformation journey?





of data leaders in insurance have defined a strategic north star aligning data strategy with business objectives

Source: Corinium Intelligence, 2022

CHAPTER TWO

How AI and ML Technologies are Set to Transform the Insurance Industry

KEY FINDING

Many companies are scaling up the use of AI/ML technologies, but the actual benefits may yet be some years away

Much has been said about the potential of AI and ML technologies to revolutionize industries of all kinds.

Insurance is no different. A report by McKinsey last year predicted that AI/ML would dominate all aspects of the insurance industry by 2030.

The insurance sector has been increasingly implementing new artificial intelligence and machine learning technologies, enabling them to save time, reduce costs, improve customer experiences, and increase profits.

Our research shows that while this transformation has already begun, many data leaders in the insurance industry in the UK are unsure about how much investment to put into this nascent technology and how to target it most effectively.

However, these technologies have also been instrumental for insurance companies in providing policy advice, processing underwriting claims, fraud prevention, risk management, and direct marketing.

Our research suggests that insurance firms in the UK are already prioritizing technologies that will most likely have other transformative effects in the future.

According to our survey, most respondents are using AI/ML technologies to reduce human error and a wide range of other applications, such as fraud detection and underwriting.

"My goal is to have a fully automated InsureTech platform so that all the underwriting, all the pricing could be done automatically," says Janthana Kaenprakhamroy, CEO of Tapoly, an award-winning technology and insurance provider for the Gig Economy.

"The whole insurance industry will evolve to the next level when you can use AI/ML to tackle all the manual and operational processes. Once issues like data quality and human error can be eliminated, you can reduce the time it takes to provide products and services online to the customer to seconds," she adds. ▶

"The whole insurance industry will evolve to the next level when you can use AI/ML to tackle all the manual and operational processes."

Janthana Kaenprakhamroy
CEO, Tapoly

Tapping into the benefits of AI/ML

86% of respondents to our research amongst senior data leaders at UK insurance firms believe that while AI/ML have promise, we may yet be years away from achieving the full benefits.

However, the research also shows the urgency of acting now to get a first-mover advantage. For example, 69% of respondents agreed or strongly agreed that insurance companies investing in AI and ML today will have a significant advantage over their competitors.

Today, AI has also helped insurers to reduce human error by analyzing and examining large amounts of data. It can also perform statistical operations at an extensive scale that would otherwise be very time-consuming and complex.

Insurers are also learning lessons from other industries with similar challenges, datasets, and regulatory burdens, like the broader financial services industry.

"In financial services, our fraud detection capabilities are underpinned by AI algorithms," says Dushmanta Roy, Regional Sales Director for Oracle Cloud. "This helps banks and payment processing companies identify unusual and potentially fraudulent transactions as they are taking place so they can stop those transactions."

In addition to reducing human error and fraud detection, AI/ML technologies have helped insurers handle claims and assess risks. In our research, 37% of respondents said they were implementing AI/ML to speed up insurance underwriting and claims processing, while 36% said these technologies were used to assess credit risk.

AI/ML technologies will likely dominate underwriting and risk assessments in the future due to their potential for improved risk evaluation processes. These technologies may also be more effectively used to supplement human decision-making rather than replace it.

However, our research indicates mixed opinions on whether AI will entirely replace human underwriters.

"AI can help to provide accurately priced insurance to customers quickly. It can even go a little further to advise customers on insurance products they should consider based on their profile," Kaenprakhamroy reveals.

"I think the next five to 10 years, you will see more automation and more AI being readily available and used and adopted across the industry." ▶

"In financial services, our fraud detection capabilities are underpinned by AI algorithms. This helps banks and payment processing companies identify unusual and potentially fraudulent transactions as they are taking place so they can stop those transactions."

Dushmanta Roy
Regional Sales Director, Oracle Cloud

Avoiding the risks of AI/ML in the insurance industry

AI/ML have significant potential to do harm if not implemented relatively and in customers' best interests. Our research shows that the potential risks inherent in the use of AI/ML technology are not lost on UK data and analytics leaders in insurance.

According to our research, the potential for reputational risk to their organization is the primary concern of data and analytics leaders when using AI/ML technologies.

Effective data and AI governance are essential elements of using AI and ML technologies. But organizations that are in the early stages of development into AI and ML technologies should focus on the basics first, according to Subramanian.

"I think the potential benefits of AI and ML, as well as challenges of implementing it right, are not in doubt at all," he says.

"AI is the tip of the iceberg, but you still require very skilled people with great capabilities along with the technology itself."

Alessandra Chiuderi
Group Head of Analytics & AI, Generali

"Organizations are better served by investing in foundational areas like data governance and quality, infrastructure, and data engineering. It's hard to get far with AI/ML without some of these basics in place."

In addition, areas such as compliance and regulatory risk are growing concerns for insurers as AI and ML technologies have become increasingly important for their daily processes and are influencing decisions that impact people's lives.

As UK insurance firms continue to iterate on their AI and ML initiatives to improve their business and improve outcomes for their customers, it's essential for data leaders to continue to deliver incremental value with the technology that exists today, warns Alessandra Chiuderi, Group Head of Analytics & AI at Generali.

"AI is the tip of the iceberg, but you still require very skilled people with great capabilities along with the technology itself," she says. "I would move the conversation a little bit from AI and ML to [the potential of] data as a whole. I think it's a mistake to think that AI and ML are the solutions to every problem." ■

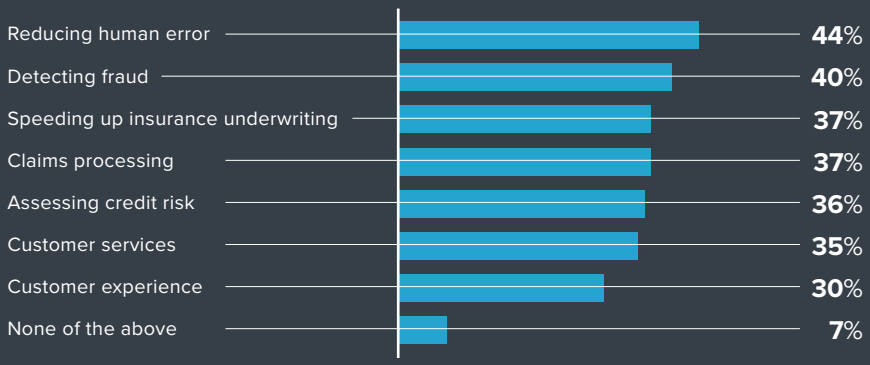
RESEARCH FINDINGS

AI and ML are helping to reduce human error and detect fraud

But the potential for reputational damage is a concern

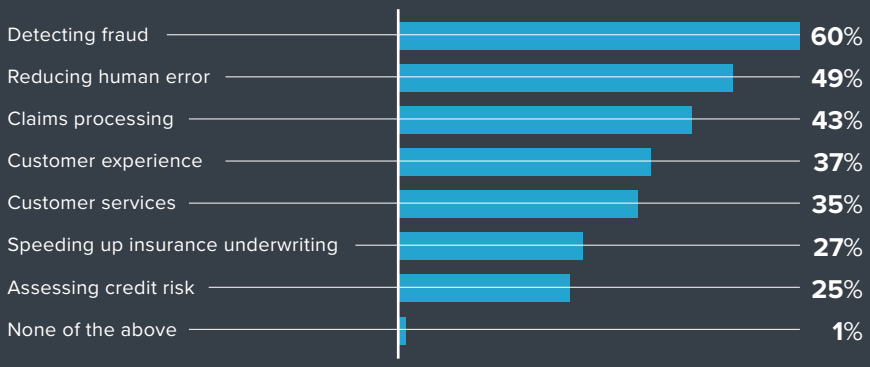
Insurance providers in the UK are using AI/ML for a wide range of applications but reducing human error leads the pack

In what capacity are you currently using AI/ML technologies?



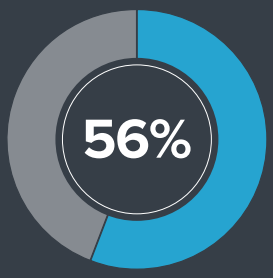
Fraud detection has the greatest potential to revolutionize the insurance industry according to 60% of respondents

In which of the following areas do you think AI/ML technologies have the greatest potential to revolutionize the insurance industry?

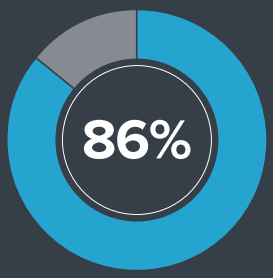


The majority of respondents said that reputational risk was their primary concern when using AI/ML technologies

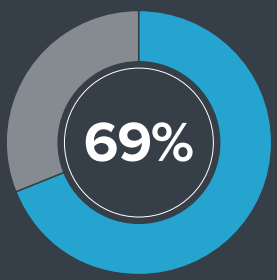
Which of the following risks are of the greatest concern to you when you think about implementing AI/ML solutions?



of respondents agree or strongly agree that **human underwriters** will one day be **replaced by AI/ML technologies**



agree or strongly agree that we are **years away** from **fully achieving the benefits** of AI/ML technologies



agree or strongly agree that insurance companies who invest in AI/ML technologies today will get a **significant advantage over their competitors**

Source: Corinium Intelligence, 2022

CHAPTER 3

Addressing Data Culture Challenges

KEY FINDING

While data cultures are continuing to develop in the UK insurance industry, only 3% of organizations consider themselves to be genuinely data-led

Many insurance firms in the UK increasingly see data as an essential pillar of their company culture. As data strategies mature, data leaders focus on driving data cultures throughout their organizations.

Our research reveals that while data cultures are maturing in the UK insurance industry, most organizations have some way to go before they genuinely consider themselves 'data-led'.

While 45% report that data is being used consistently to inform decisions, 37% admit that data-informed insights may be overridden if they conflict with the 'gut feeling' of decision-makers. Only 3% consider themselves truly data-led and use their data to shape business strategy and enable new operating models.

Although data-based decisions have become a mainstay for many companies, some businesses still have a culture where industry experience and overall personal intuition overrule analytics.

"I think we need a few things to support data enablement and data literacy across an organization to empower everyone for self-service analytics," Ramakrishnan Subramanian, Head of Data and Analytics for a major UK financial services firm.

"Data culture requires a trusted set of data sources that are easy to access, regular internal training, and workshops from data and analytics teams, identifying and supporting champions in different departments, and finally encouraging a data-driven decision-making culture across the firm," he concludes.

Data culture is also achieved by focusing on the goal of encouraging employees and giving them a sense of purpose. Without this, the idea of accomplishment can get lost. ▶

Cybersecurity and the Cloud

The growing influx of personal information to a company's databases presents a greater risk of identity theft, fraud, and cybercrimes that data leaders must work hard to prevent. As a result, more and more companies are storing their data in the cloud.

Our research showed that all respondents had begun their transformation to the cloud, with 88% already storing between 26-75% of their data in the cloud.

"Many customers believe that some of the data, especially critical or sensitive data, are not suitable for the public cloud," adds Dushmanta Roy, Regional Sales Director for Oracle Cloud.

"We absolutely respect that, and to this end, we have built Cloud infrastructure that can not only be deployed in public cloud but also behind our customers firewalls in their datacenters. This offering is unique in that it makes almost all Oracle cloud services available in either of our public cloud or the customers datacenter."

"All organizations have critical systems they rely on. In the transformation organisations are making, it is vital to recognise the risks to these systems and how those risks have changed."

Dominic Stewart
Cloud Engineering Senior Director, Oracle

When it comes to storing data, rather than solely relying on data storage onsite, companies have begun to realize that cloud-based structures have helped cut costs and provide a secure system.

"All organizations have critical systems they rely on. In the transformation organisations are making, it is vital to recognise the risks to these systems and how those risks have changed," advises Dominic Stewart, Cloud Engineering Senior Director at Oracle.

"New and increasing malicious actor breaches are a very real risk to many organizations," he continues. "So, having cloud platforms that are immutable or can restore data before it gets encrypted, ransomed, corrupted, or lost is what many organizations are doing. Technology is available to protect your business, and a multi-cloud strategy can play a key role in this protection."

As a result of the growing risks of data theft or loss, data security technologies allow companies to put a wall up on sensitive data while providing secure access to it. In addition, cloud virtual private networks (VPNs) are also considered an excellent method to protect any data travelling over the internet. ▶

According to our research, the use of VPNs, the application of perimeter defences, and educational awareness programs topped the list of cybersecurity measures.

"On the cyber security front, our capabilities are all underpinned by artificial intelligence and machine learning tools to help ward off any threats from hackers and fraudsters for protecting the security of data and systems," Roy explains.

"At Oracle, we use AI to detect suspicious behavior and other anomalies in real time, whilst machine learning is used to enable threat-detection systems to continually learn from their experiences and get better over time."

Data Platforms and Challenges

Data platforms allow companies to organize, discover, and analyze their data to reveal actionable insights that can help them improve decision-making and advise their business strategy. Business and data analysts use this software to prepare, model, and transform data to understand the day-to-day performance of the company better and inform their decision-making.

However, our research showed that while 59% of insurance firms said they could produce timely analysis, 29% said they struggled to turn their insights into actions.

"You need to look at your data and understand what is going on," advises Alessandra Chiuderi, Group Head of Analytics & AI at Generali. "In addition, you need to take actions, like data democratization, to get your business to a place where the right decisions can be made," she adds.

The majority of respondents, 64%, also disclosed in our research that they were most likely to struggle with supporting a broad range of analytics and ML tools, creating a data-driven business culture, and ensuring the readiness of legacy systems.

On the other hand, most respondents reported they were most likely to overcome challenges like defining the ideal data architecture for the organization, ensuring data security in the cloud, and determining their cloud strategy.

"The growing amount of data presents its own set of challenges," reveals Subramanian. "We ask ourselves questions such as how we best catalog and make it accessible to users or how we enable analytics teams to navigate these data sets to find specific and relevant information."

"In addition, there are other considerations around having the right infrastructure and data architecture to support holding this data while ensuring compliance with data privacy regulations. Once you have defined an approach, try to explore tools and platforms that support your needs," he concludes. ■

"You need to look at your data and understand what is going on. In addition, you need to take actions, like data democratization, to get your business to a place where the right decisions can be made."

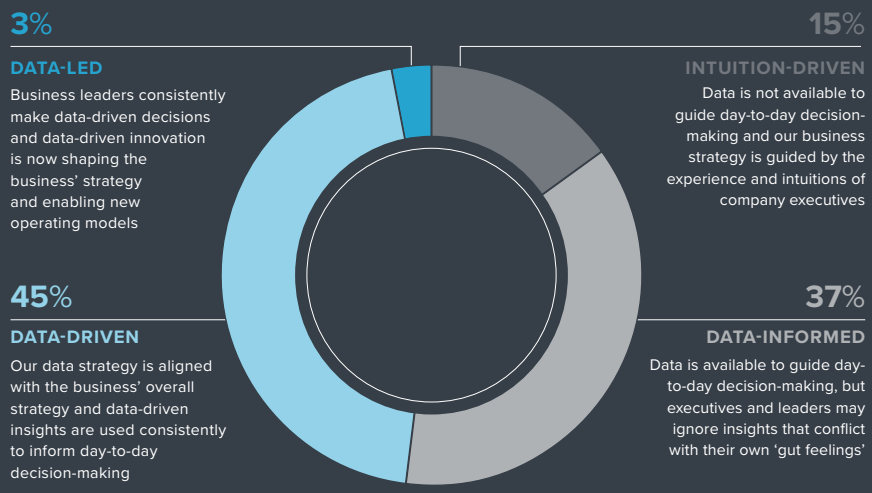
Alessandra Chiuderi
Group Head of Analytics & AI, Generali

RESEARCH FINDINGS

UK insurers are still struggling to effectively drive data cultures

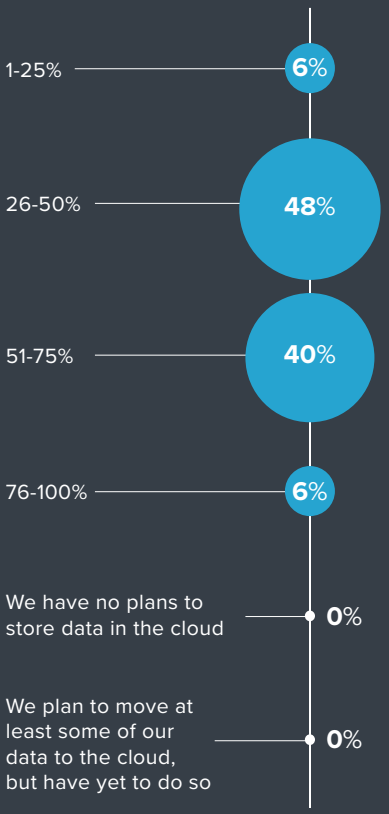
45% of respondents said they were a "data-driven" culture with a strategy that aligns with their business goals

Which of the following best describes the overall business culture within your enterprise today?



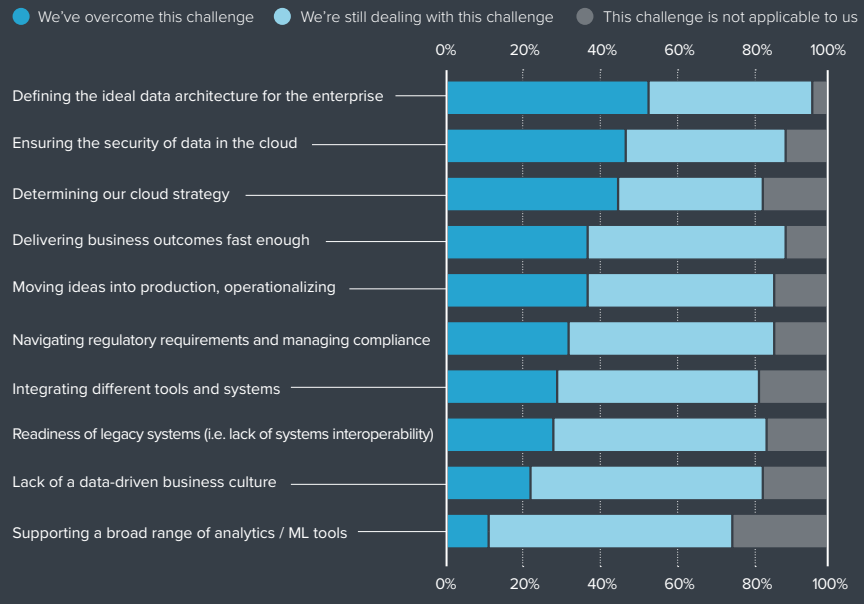
All respondents have begun their transformation to the cloud and 88% of respondents are storing between 26-75% of their data in the cloud already

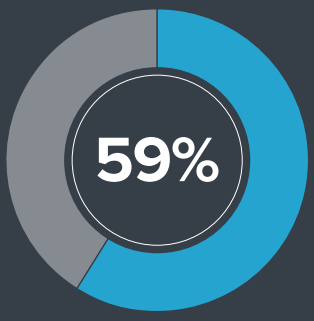
How much of your organization's data is stored in the cloud?



Over 60% of respondents said their were still dealing with the lack of a "data-driven business culture" that supports a range of AI/ML tools

Which of the following challenges have you encountered and overcome while modernizing your enterprise's data and analytics stack?





of insurance firms can produce timely analysis but **struggle to turn their insights into actions**

Source: Corinium Intelligence, 2022

Conclusion

The increasing use of data analytics by insurance companies has changed the way the sector has traditionally operated. They have been using their data to generate value to improve customer experiences, bolster decision-making capabilities, and strengthen broker relationships.

Insurance companies have also increasingly been turning to AI/ML to detect fraud and reduce human error. Furthermore, most survey respondents agreed that these technologies will one day replace human underwriters and that the sector is years away from fully achieving the benefits that these technologies can provide. The majority of insurance data experts also agreed that making significant investments in AI/ML technologies would give their companies a competitive advantage.

However, many insurance sector companies believe they still have a long way to go to generate significant value from their data. In addition, while data cultures in the UK insurance industry are becoming more developed, most organizations currently feel they cannot consider themselves “data-led” companies.

The benefits of AI/ML technologies have enabled insurance companies to save time, reduce costs, improve customer experiences, and increase profits. Nevertheless, many UK insurance industry data experts are unsure about how much investment to put into these emerging technologies and how to target them most effectively.

There is also uncertainty within the sector about the potential risks of these technologies, mainly if they are not implemented fairly and, in the customers’ best interests. In addition, there is a major concern about the potential for reputational damage when it comes to implementing AI/ML solutions.

While many insurance companies are continuing to develop their data strategies to inform their business decisions, there are still several within the sector that have a culture where industry experience and intuition take precedence over analytics. ■

About Oracle

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Oracle Cloud Infrastructure offers higher performance, security, and cost savings. It is designed so businesses can move workloads easily from on-premises systems to the cloud, and between cloud and on-premises and other clouds. Oracle Cloud applications provide business leaders with modern applications that help them innovate, attain sustainable growth, and become more resilient.

Find out more here:
www.oracle.com

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Alexandra Watson is a content strategist with over a decade of experience in journalism and content writing, with a focus on data and analytics, cybersecurity, and AI/ML technologies.

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