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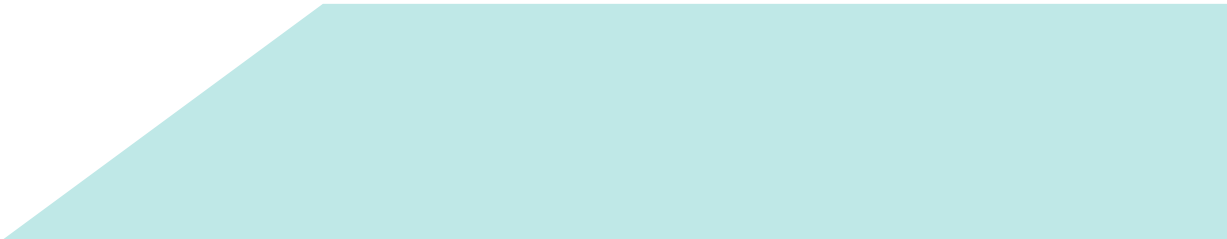
# Digitalisation in Insurance

## Digitalisation Survey

May 2023

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# Introduction

Understanding the future of the insurance sector and the potential impact of emerging risks is an important factor for the Central Bank of Ireland (the Central Bank) in enabling delivery of the ‘Future-Focused’ strategic theme. In 2021 we published ‘Understanding the Future of Insurance’, which presented the findings from a survey on climate and emerging risks. We now publish this report on digitalisation in insurance, based on a recent survey.



Addressing the challenges and opportunities posed by digitalisation is a priority for the Central Bank. Being future-focused is critical to enabling us to better understand, anticipate and adapt in the context of changes taking place in the insurance industry due to digitalisation.

This report seeks to share some of the main insights gained from the *Insurance Digitalisation Survey* (the Survey)<sup>1</sup>, which was issued in late 2022 to develop a high-level understanding of the adoption and impact of digitalisation across the insurance value chain.

This report sets out, at a high level, some of the Central Bank’s initial observations on those insights in the context of its supervisory work.

<sup>1</sup> The Survey is one of two specific initiatives which examined different aspects and potential impacts of digitalisation within the insurance sector. Separate (but related) work has focused on the ethical use of Big Data and Related Technologies across the insurance value chain.

“We see innovation in financial services as a good thing. However, not all innovations are good and not all innovations are done well. We must be able to harness the benefits of innovation while also mitigating the risks.”

*Sharon Donnery, Deputy Governor, Financial Regulation.*

*November 2022*

# Executive Summary

Effective supervision requires a clear understanding of the current state and future direction of the Irish insurance sector. This enables supervisors to identify, assess and respond to the risks which may arise.

To this end, the Central Bank issued an Insurance Digitalisation Survey (the Survey) to Irish (re)insurance undertakings in October 2022. The purpose of the Survey was to develop a clearer understanding of the impact of digitalisation throughout the insurance value chain and to identify key opportunities, risks and challenges.

Overall, the Survey results indicate that the majority of respondents are undertaking, or plan to undertake, initiatives to digitalise business models. However, the Irish insurance sector, on average, appears to be at a relatively early stage in this process.

Digital maturity appears moderate and somewhat concentrated in more established digital technologies at present. The Survey results suggest that an initial focus of digitalisation is on improving the efficiency of processes within the firm.

Firms indicated that they will continue to digitalise over the next three years and that digitalisation will have impacts across the insurance value chain. However, the vast majority of firms (98%) did not indicate an ambition to fully digitalise or be regarded as a ‘digital leader’ within this timeframe. Overall, the Survey results indicate a steady pace of digitalisation and incremental, rather than transformational, change during the next three years.

Use of key technologies such as cloud computing and Artificial Intelligence (AI) is often facilitated by a relationship with group or third parties – 86% of respondents indicated a commercial relationship with “BigTech”. It is important that the risks to critical business services created by these relationships are identified and managed in line with Central Bank guidance<sup>2</sup>.

The majority of firms (75%) indicated that they have a digital strategy in place. It is important that the sustainability of business models

The majority of respondents indicated that they are undertaking, or plan to undertake, initiatives to digitalise business models.

The Survey results indicate a steady pace of digitalisation and incremental, rather than transformational, change during the next three years.

<sup>2</sup> [Cross Industry Guidance on Operational Resilience.](#)  
[Cross-Industry Guidance on Outsourcing.](#)

over the longer term is given due consideration by all firms, particularly in the context of increasing digitalisation.

Although examples of sound governance and risk management practices were indicated, some firms may need to reflect on the appropriateness of their overall approach to the management of digitalisation risks, to ensure continued adherence with relevant requirements.

Whilst it is acknowledged that the extent of digitalisation may vary significantly from firm to firm, a clear strategy and robust oversight (including at board level) remain of fundamental importance.

# Methodology

The Survey analysis is based on responses from 44 life, non-life and reinsurance firms, that together comprise approximately 70% of the Irish insurance sector by asset value.

The Survey included 42 questions covering current and anticipated future digitalisation and its impact across the insurance value chain. It sought to identify:

- Key opportunities, risks and challenges arising from digitalisation
- The extent to which these opportunities, risks and challenges have been integrated within firms' business strategy and system of governance.

The findings presented relate to a consolidation of respondents' self-assessed responses to the relevant question(s).

## Key Findings

- The majority of firms stated that they have a digital strategy or plan to develop one.

Most respondents (75%) indicated that there is a digital strategy in place and that the strategy is integrated within the risk management framework to some extent, or there are plans to integrate it.

However, 14% of respondents said they have no digital strategy in place and no plans to develop one, including some respondents that indicated they have adopted or will adopt digitalisation to at least a moderate extent. The Central Bank observes that, as part of the system of governance, it is good practice for firms adopting digitalisation to consider developing a digital strategy and integrating this within wider business model, governance and risk management frameworks.

Most firms (95%) pointed to support from their wider group for the development of their digital strategy. The Central Bank notes that it is important that the digital strategy takes account of the specificities of the firm and the markets it operates in. In this regard, the responses received were encouraging - 74% of respondents indicated that they have included in their strategy aspects that are unique to the Irish firm.

- The Survey suggests that digital maturity is moderate, but increasing, and is somewhat concentrated in more established digital technologies.

The majority of respondents reported that digitalisation has been adopted, to varying extents. There are examples of digitalisation throughout the value chain, and particularly in pricing and underwriting, claims management, and post-sales servicing.

Cloud computing and APIs<sup>3</sup> appear to already be widely used amongst firms. Respondents, in general, indicated that investment in digitalisation has to date focussed on back-office processes rather than customer-facing applications. In line with this, the level of sales via digital channels appears modest; over 80% of respondents indicated that this made up less than 10% of total premiums written.

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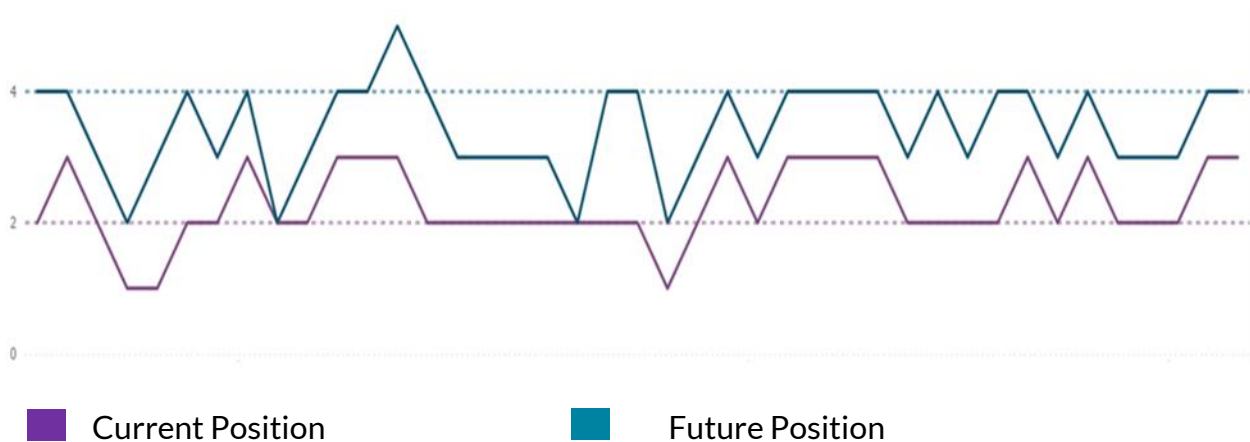
<sup>3</sup> Application Programming Interfaces

Chart 1 below illustrates that firms expect to increase digitalisation over the next three years. The current median response of *‘the firm has not made significant changes to its business model as a result of digitalisation’* is expected to shift closer to *‘the firm leverages digital technologies’* in three years’ time. All but two respondents indicated at least some increase in digitalisation over the next three years, although only one respondent projected that they would be *‘fully digitalised’* within this time period.

The Survey suggests that this increased digitalisation will be seen across the value chain, with large increases in firms adopting digitalisation in claims management, fraud detection, and product development in particular.

In the context of increasing digitalisation, the Central Bank notes the importance of firms considering the sustainability of business models over the longer term. Appropriate governance and oversight should be applied to the implementation of digitalisation-related changes to the business model, in line with system of governance requirements. This may include robust discussion and challenge at board and senior management levels, to enable full consideration of the opportunities and risks presented by digitalisation.

**Chart 1 Each (re)insurer’s self-assessment, on a scale of 1-5, of current and likely future adoption of digitalisation**



Key: 1 = No digitalisation (legacy products and services only), 5 = Fully digitalised (digital strategy integral to business model)



- Digitalisation may create significant dependencies on the wider group and on third parties.

Survey responses suggested that the use of cloud computing and Artificial Intelligence (AI) is often facilitated by a relationship with group or third parties – 86% of respondents indicate a commercial relationship with “BigTech”. In this regard, it is important that vulnerabilities to critical business services are identified in line with the *Central Bank Cross Industry Guidance on Operational Resilience*<sup>4</sup>. Furthermore, the governance and oversight principles outlined in that guidance and in the *EIOPA Guidelines on outsourcing to cloud service providers*<sup>5</sup> should be considered carefully.

- Digitalisation will give rise to new risks and challenges for firms but may also provide significant opportunities for both firms and consumers.

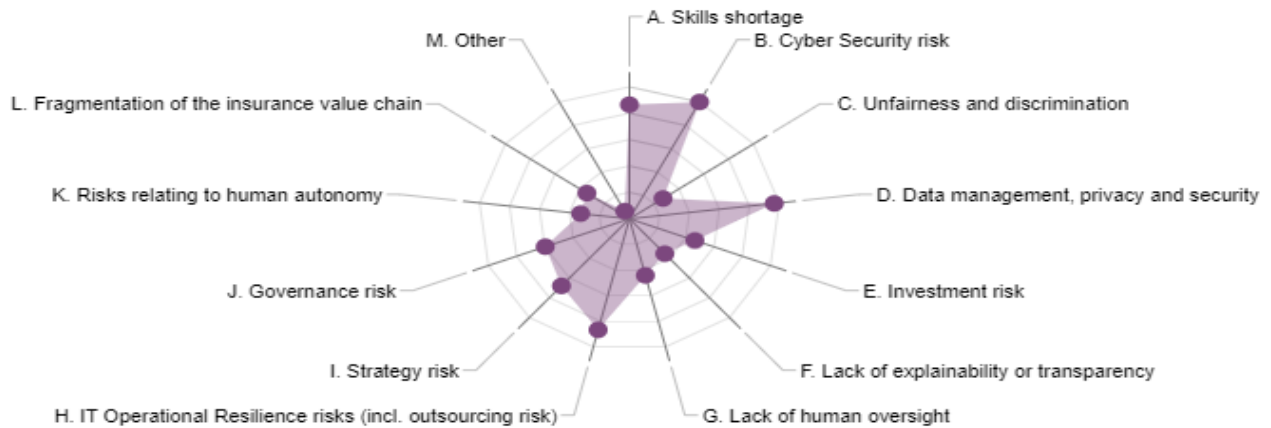
Amongst the main risks or challenges associated with digitalisation cited by respondents were cyber security, data and privacy management, and operational resilience. These responses highlight the importance of robust management of outsourcing and cyber security risks in a digital environment. Responses also suggest a potentially significant risk of skills shortages in this space, which firms may need to reflect on if they plan to increase digitalisation within their business models.

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<sup>4</sup> [Cross Industry Guidance on Operational Resilience](#).

<sup>5</sup> [EIOPA Guidelines on outsourcing to cloud service providers](#)

## Chart 2 (Re)insurers’ assessment of the main risks/challenges arising from digitalisation



Data points closer to the edge of the radar circle represent more significant risks and challenges

Amongst the main opportunities cited are customer experience and the convenient availability of products and services. However, almost half of respondents who cited customer experience as a relevant opportunity also indicated that they adopt digitalisation exclusively, or almost exclusively, in back-office rather than customer-facing processes. This may indicate a focus on enhanced processing and resolution as a means of delivering an improved customer experience. Other opportunities cited include increased sales and enhanced risk mitigation and prevention.

## Chart 3 (Re)insurers’ assessment of the main opportunities arising from digitalisation



Data points closer to the edge of the radar circle represent more significant opportunities

- The Survey indicated some good governance and risk management practices. However, some firms may need to reflect on the appropriateness of the overall approach to the management of digitalisation risks.

Survey responses suggest that digitalisation risks are mainly identified using established risk management practices e.g. internal workshops, engagement with the group, and through the Own Risk and Solvency Assessment (ORSA). Most firms pointed to an assessment of digitalisation risks in the most recent ORSA. Most of those firms indicated they included forward-looking analysis of digitalisation risks in that ORSA but some (24%) did not. In this regard, the Central Bank notes the importance of firms ensuring that the ORSA includes an assessment of digitalisation risk and related forward-looking analysis, in line with Solvency II requirements and where appropriate.

Considering the emerging and evolving nature of digital technologies, firms should reflect on how existing risk management practices could be supplemented by access to specialist knowledge and resources.

Firms indicated that responsibility for oversight of digitalisation risks generally lies with a specific individual or body, e.g. the Chief Executive Officer (with delegation in some cases), the Chief Operating Officer, the Chief Information / Technology Officer. The Central Bank observes that a regular review by firms of responsibilities for oversight of digitalisation risks and strategy may be important, where relevant, in light of ongoing developments in this area.

The Central Bank notes that the board is ultimately responsible for the management of digitalisation risks. However, the Survey suggests that in some cases there is no routine board engagement on digitalisation risks. Furthermore, about a third of respondents indicate that the board members and / or senior managers have not received training in relation to digitalisation risks in the last two years. This includes some firms who have a digital strategy or plan to have one. The Central Bank stresses the importance of regular, informed board engagement if digitalisation risks are material.

## Conclusion and Next Steps

The information captured through the Survey has provided valuable insights in relation to current and expected future digitalisation across the insurance value chain:

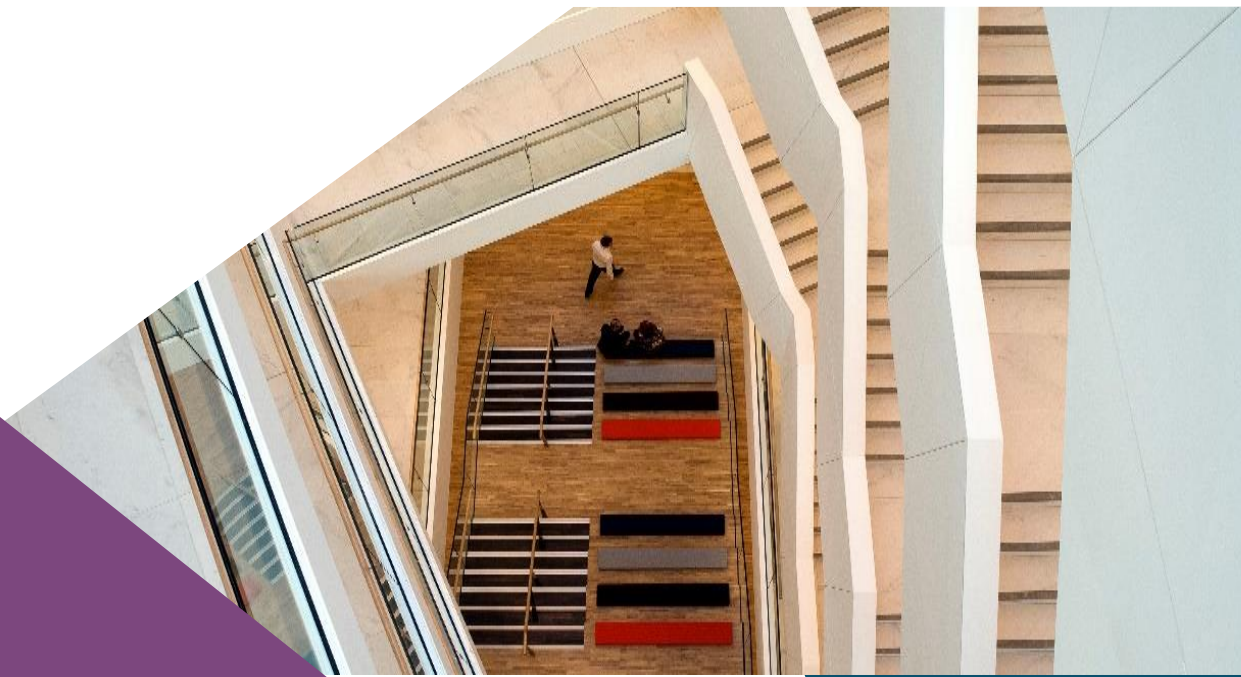
- Overall, the Survey results indicate that the majority of respondents are undertaking, or plan to undertake, initiatives to digitalise business models. However, the Irish insurance sector, on average, appears to be at a relatively early stage.
- Digital maturity appears moderate and somewhat concentrated in more established digital technologies. It seems that an initial focus of digitalisation is on improving the efficiency of processes within firms.
- The Survey points to an increase in the adoption of digitalisation over the next three years. Overall results indicate incremental, rather than transformational, change.

Increasing digitalisation presents significant opportunities across the insurance value chain. However, with this comes responsibility for effective management of the risks associated with digitalisation. Whilst it is acknowledged that the extent of digitalisation may vary significantly from firm to firm, a clear strategy and robust oversight (including at board level) remain of fundamental importance. In particular:

- It is important that the sustainability of business models over the longer term is given due consideration by all firms, particularly in the context of increasing digitalisation.
- Although examples of sound governance and risk management practices were indicated, some firms may need to reflect on the appropriateness of their overall approach to the management of digitalisation risks, to ensure continued adherence with relevant requirements.
- Where key technologies such as cloud computing and AI are facilitated by a relationship with group or other third parties, the risks created by these relationships should be identified and managed in accordance with Central Bank guidance.

The Central Bank will continue its work to expand its understanding of the nature and extent of digitalisation in the insurance sector, with the insights from the Survey informing Central Bank supervision.

Firms can expect an increasing focus from supervisors on how insurance business models, governance and risk management will evolve to take account of digitalisation. There will be engagement in relation to the individual findings noted during the analysis and, more generally, on key themes arising out of the work.



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