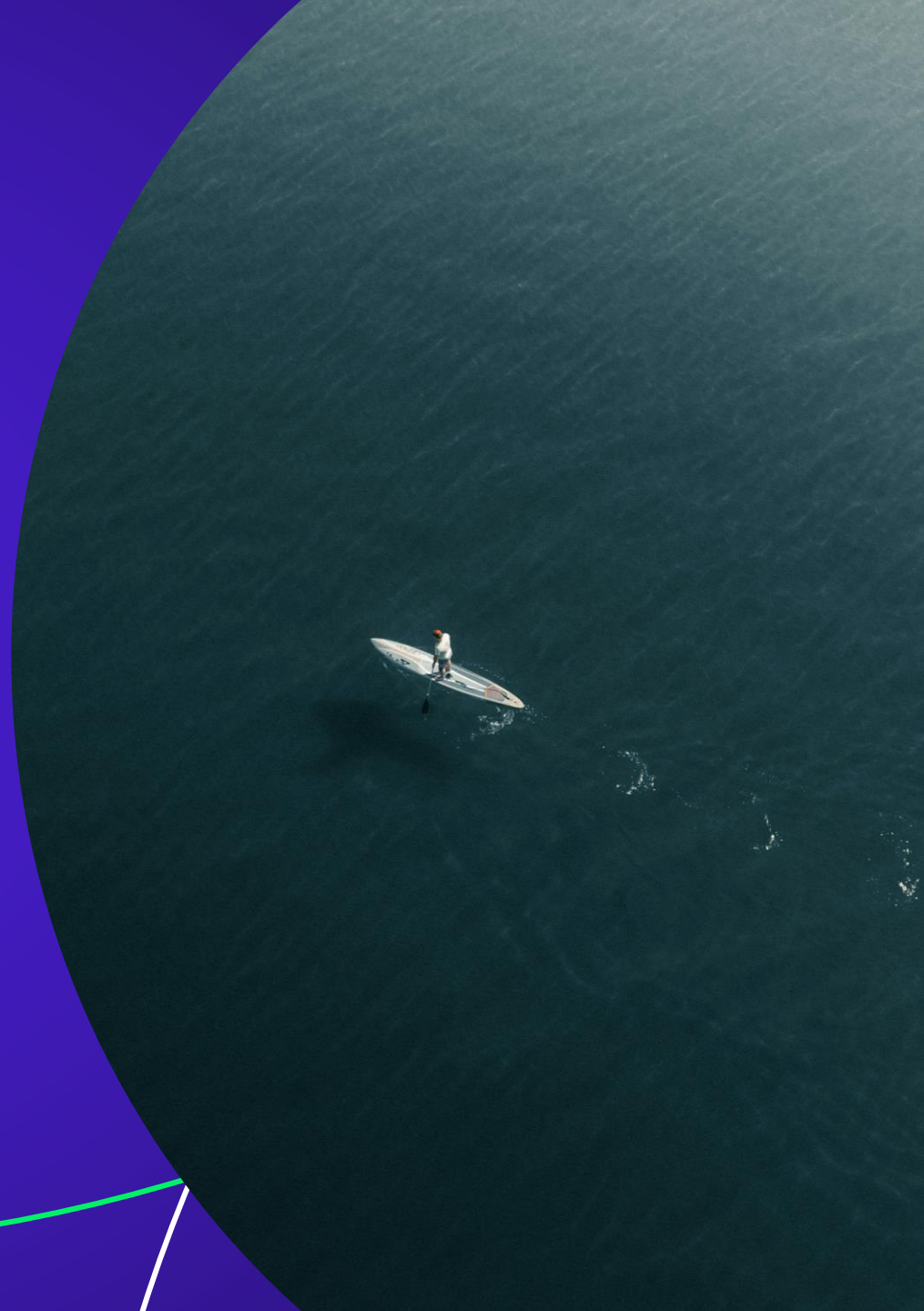


# The Future of Finance in Insurance

Mastering the finance transformation agenda by building new capabilities for regulation and business while embracing new technology

WAVESTONE



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# 1. Introduction to the insurance CFO's finance transformation agenda

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For more than ten years, investments into finance departments were primarily focused on complying with various mandatory regulatory requirements. Despite already significant regulatory workloads, way more challenges lie ahead for finance departments – stemming from their business models and external factors which are not all industry-specific, e.g. climate change, geo-political crises and cyber security. We believe now is the time to refocus and see where the business needs to be supported better in order to anticipate or react to major trends in the market.

CFO budgets in insurance were inflated by regulatory implementation projects (IFRS 9/17, LDTI, ESG...) and the first instinct might be to call for a cut after go-live. However, the regulatory challenge is far from over, the rise of new technologies and the ever-increasing importance of platform economies for business models call for new investments. Market players understanding this will further strengthen finance and finance IT budgets in the upcoming years. The operating model of the future finance department is directly linked to business & technical capabilities

that answer those changed needs, like leveraging the new depth in data granularity or upskilling the team to handle new technology. Future-proofing the operating model is a must for sustaining business models.

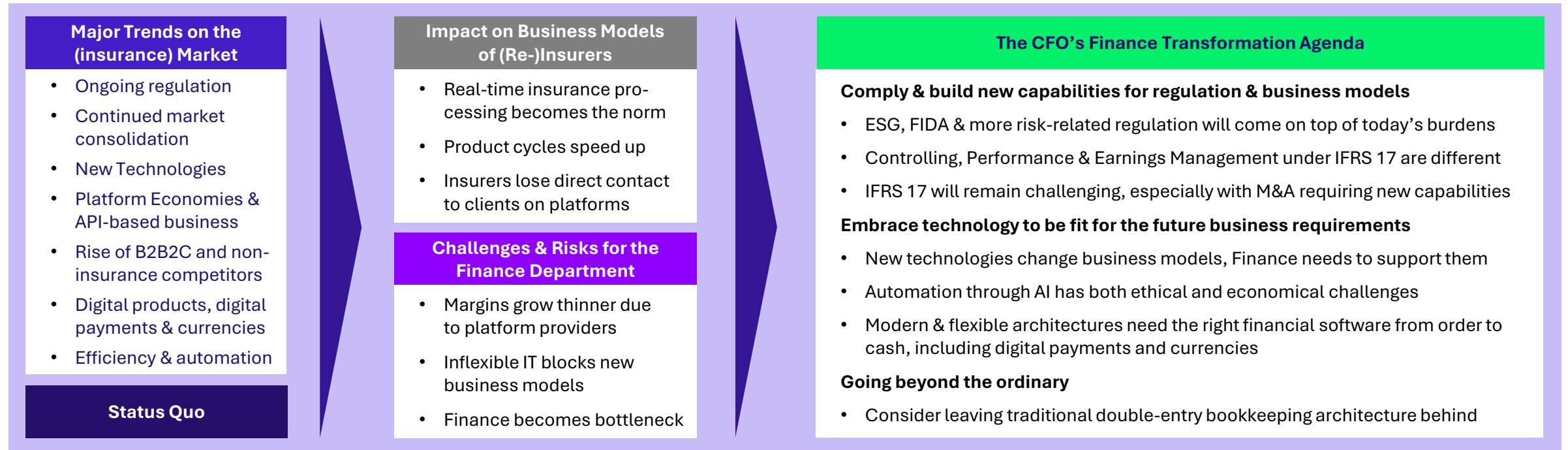
We want to support the transition of the CFO from tactical to strategical, to become the right hand of the CEO by dominating the Investor Story, complying with all regulatory requirements, while controlling the business to ensure that the bets are set properly.

This whitepaper therefore does not compile surveys nor historical data, as these did not predict the advent of new technologies, market shifts nor regulations.

Instead, we explore existing and upcoming risks and challenges impacting the CFO's transformation agenda and hold them against market realities.



# The CFO's finance transformation agenda



Major trends on the insurance market and beyond challenge the status quo for the CFO and the Finance Department. Areas impacted are compliance, architecture, business and technological capabilities and the future Finance Target Operating Model (TOM).

Finance is affected directly and indirectly by the major trends, despite the fact that the department is already battling its own challenges like needing more automation and new hires to balance barely automated processes and an ageing staff not ready to and leaving

before embracing new technology. This is an organisational debt which will need significant investments in technology and possibly lead to more near- and off-shoring.

The topics on the transformation agenda form the chapters of this whitepaper. While they are related, they can be read in any order, depending on the reader's preferences. Each chapter aims at drilling down to practical levels and holds expected impact against market realities, so that the reader can form an opinion and make choices fitting their situation.

## Regulation

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# 2. Regulation drives operations and requires new capabilities in the finance department

The continuous stream of new regulations is reshaping the operations of finance functions within the insurance sector. Finance departments must develop new capabilities to ensure compliance and maintain operational efficiency.



Aside from finance, risk management is also affected under new regulations like Environmental Social Governance (ESG), Financial Data Access (FiDA) and others.

While regulations force finance departments to innovate and adopt advanced analytics tools, the real urgency comes from implementation programs. This urgency reveals a **lack of readiness due to capability shortages and a mismatch with regulatory demands**. For instance, IFRS 17 changes how insurers report earnings, requiring calculation adjustments that finance teams may not

be prepared for, impacting forecasting and necessitating improvements in models and earnings management.

The consolidation of the market continues worldwide and M&A under IFRS 17 as well as post-merger integration demands new capabilities regarding due diligence and integration strategies. The gap between existing skills and what is required by the new regulations further complicates this process.

## Risk Management

# 2.1. Strengthening Risk Management to manage new regulations

Modern-day finance departments are increasingly required to adopt advanced analytics and build robust risk management frameworks if they want to reliably comply with new regulations. Two of the more recent are regulations around ESG standards and the future framework for Financial Data Access (FiDA).

### Strengthening risk management

Advanced analytics play a vital role in the current enterprise risk management landscape. Machine learning and artificial intelligence-based predictive analytics help organizations identify potential risks by analyzing past data and existing trends. This more proactive approach supports better decision-making and is aimed at mitigating risk.

Furthermore, stress testing via scenario analysis checks the influence of a range of adverse conditions, such as economic downturns or changes in regulations, on the financial health of an organization. Big data advances even further leverage risk management: some patterns and correlations will not stand out using traditional analysis.

Effective frameworks in risk management are central to compliance and operational resilience. They can be strengthened by investing in:

- **Enterprise Risk Management (ERM):**  
Which provides a holistic approach to the identification, assessment management, and monitoring of risks that the company is facing;
- **Compliance management:**  
Increasingly significant function monitoring whether all regulatory requirements are followed. This involves constant scanning of regulatory changes and making necessary modifications to the relevant policies and procedures;
- **Managing operational risk:**  
Mitigating risks arising from internal operations and systems, and those arising from external events, and ensuring that business continues to operate.





### Tackling new regulations

Integrating ESG (Environmental, Social and Governance) considerations into corporate strategy is one key component of effective risk management. ESG risks are to be treated as a part of the usual business risks in the current setting and their risk management should be part of regular risk management practices.

Given the increased importance of data, data privacy and security have become key risk factors. Incorporating the new EU framework for financial data access into risk management practices requires a strategic approach, as it transforms how financial institutions manage, share, and utilize data. To successfully integrate this, institutions should enhance data governance, address third-party risks, and fortify cybersecurity and operational resilience. Additionally, leverage data-driven insights for risk analytics,

incorporate open finance risks, and refine risk models for a more adaptive risk management approach.

Meeting continuously evolving regulations is daily business of finance departments but that necessitates significant resources and expertise, too. The need for specialization in data analytics, AI and regulatory knowledge requires an investment in training and hiring.

Furthermore, integrating advanced analytics and other new technologies into existing systems is challenging and must be done with care and proper preparation. Focusing only on meeting compliance requirements will not ensure continued competitiveness in this evolving regulatory landscape.



## IFRS 17

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## 2.2. Managing earnings and forecasting under IFRS 17

Earnings management and forecasting have always been part of the tasks of the accounting and controlling departments of insurance companies. New is that IFRS 17 requires forecasting and earnings management to be done in an earlier stage of the closing process.

“Forecasting and Earnings Management is a strategic imperative.”

### Changes in forecasting and earnings management

In terms of externally communicated forecasts, providing relevant information in an accurate format to external stakeholders can bring a wide range of benefits. Apart from reaching more informed decision-making, enhanced market responsiveness and an improved resource allocation within the company, management can use forecasts to showcase their capabilities and understanding of their business. A reliable outlook on future performance improves the relations with financial market analysts thus directly enhance business value on top of guaranteeing regulatory compliance.

Whereas forecasts allow the management to guide market expectations ahead of time, earnings

management is a strategic imperative with the objective of **optimizing the profits that are reported to stakeholders** and is often used to present the current state of a company in a favorable manner. Earnings management can help with information consistency and smoothing the earnings trajectory which is both rewarded by the financial market. Other reasons for earnings management might be linked to loan covenants or compensation incentives that depend on certain financial ratios. Under IFRS 17 this is no longer easily possible, as the standard aims to increase the transparency of the financial reports, and therefore limits the freedom of choice options. One key tool to tackle this challenge is the implementation of a forecast that enables the CFO at an early stage to make strategic decisions.



“The complexity of preparing financial reports for insurance companies is constantly increasing due to additional market trends in the insurance market, the calculation complexity of the IFRS 17 standard and the resulting technological limitations.

## MARKET TRENDS

### Volatile market developments and general uncertainty

The frequency of unplanned events is increasing. Companies must decide, which of these events are non-recurring and thus can be counted as outliers and which events point to the fact that market conditions are shifting. Changing assumptions is a difficult but necessary task and requires a thorough understanding of economic principles.

### New mega trends and data availability

Emerging fields (e.g. cyber insurance) often lack sufficient historical and structured data making proper modelling challenging. Furthermore, these fields are rapidly changing by nature making straightforward conclusions scarce. For these reasons, it is even more important to utilize all available data. Advanced data models and analytic tools are the key to success. Beyond that, robust systems must be in place to handle big datasets and to detect easily overlooked patterns inside them.

### New and additive regulatory regimes

Forecasts are influenced by multiple regulatory standards such as local GAAP, group GAAP, IFRS standards, ESG, Solvency II and many others. All of these add complexity to financial planning and reporting. Unique demands regarding data collection and reporting require sophisticated software solutions to achieve compliance and generate helpful insight into the data.



### Calculation complexity of the IFRS 17 standard

The introduction of IFRS 17 has challenged the way international insurers report their figures yet another time significantly.

More than ever, the quality of results reflects the quality of the data used. Investing in data quality measures is a

pre-requisite for reliable forecasting. The nature of forecasting calls for repetitive calculations such as sensitivity analysis or the validation of assumptions. Additionally, setting up KPI-based cases to simulate the business model of a company or group has become a challenge of its own.

**The new standard differs drastically from previous accounting standards thus leads to two main implications:**

**Accurate forecasts are now tied to a more complex calculation process with extended system runtimes.**

**Prospective P&L statements and balance sheets cannot be approximated using linear extrapolation anymore if they are meant to survive more than superficial scrutiny.**

### Technological limitations

In addition, the complex requirements of IFRS 17 and its implementation result in technological restrictions that limit management's scope of action:

- Many insurance companies built customized system landscapes to handle the large volume and detailed granularity of data.
- Last-minute adjustments and re-runs have become very difficult to execute, as any changes are propagated all the way up to the feeder systems and require intensive re-calculations.
- The development of the system landscape was often oriented towards the requirements of actual closing. For this reason, the systems are not suitable for processing and resource-intensive repetitions and data from many future periods. Performance issues and long runtimes are the result.



### APPROACHES TO MANAGE IFRS17 PROCESSING COMPLEXITY

1. Automatization of processes and controls in combination with adequate reporting tools
2. End-to-end data management
3. Focus process on must-have figures (for P&L and B/S) and dimensions to streamline data volume
4. Involvement of process executors mixed with trainings and capability development

### Approaching the complexity

Balancing auditability and compliance with the need for simplified approaches and quick processes is a significant challenge for insurers and reinsurers alike. This holds even more true since the introduction of IFRS 17.

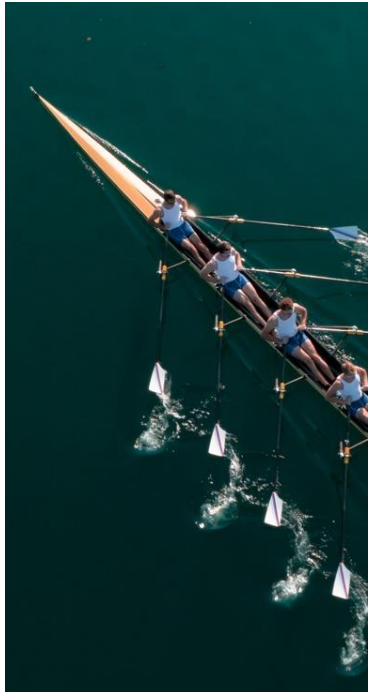
Finance departments need to develop forecasting capabilities that can anticipate future scenarios and their financial impacts. Many players in the market therefore build separate but compliant tools for scenario modelling and analysis to accommodate a range of economic and operational variables.

The introduction of IFRS17 has not only revolutionized established processes but has also established actuaries as key players in the financial reporting and forecasting process.



## M&A transactions

### 2.3. Navigating IFRS 17 for effective M&A transactions



#### Operational challenges

IFRS 17 implementation has changed the business of financial reporting for insurance contracts. The compliance journey, with its related challenges in operational complexities, requires advanced data management and reporting capabilities. Furthermore, the changing dynamics in M&A create both opportunities and challenges under the new IFRS 17 setup.

While driving more transparency and comparability in the insurance industry, IFRS17 also brought a challenge of complexity to many organizations' operations. The critical operational challenges are as follows:



**Data Management:** IFRS 17 calls for a high level of granularity in data. Effective systems of managing data are needed, which will handle vast amounts of information in terms of processing. Insurers will have to capture, process, and store data at a very detailed contract level, and this requires a **significant capacity upgrade** to the current IT architecture of most insurers. Advanced data analytics tools and platforms are instrumental in handling the data influx.



**Reporting Capabilities:** IFRS 17 reporting requires the integration of actuarial, financial, and risk data to provide a single view of the financial position within an organization. This can only be accomplished with advanced reporting systems capable of **consolidating information from diverse sources** and display it in a meaningful way. Real-time reporting and predictive analytics are becoming more and more critical to meet such demanding disclosure.



**Change Management:** The transition to IFRS 17 has also resulted in significant changes to processes, systems, and personnel. Effective change management in these strategies becomes the **basis of a smooth transition**, including personnel training, policy and procedure revision, and keeping communication up inside the organization to create a climate of compliance and adaptability.

Additional challenges arise for M&A transactions in terms of complexity, methodological principles for recognition or derecognition, organizational structure and knowledge transfer:



Regardless of whether the acquired company has already implemented IFRS 17 or not, a completely **new valuation of the business is necessary**. Economic parameters, acquisition date and segmentation have a direct impact on P&L statement and balance sheet. They must be considered from the start.



Methodology for IFRS17 M&A integration needs to be specified and implemented in the central and local systems. **New data requirements**, such as calculating proxy premium, simplifications like handling transitions, and derecognition of existing datasets upon company sale, **must be developed and implemented**.



To ensure end-to-end implementation, **the organizational structures must be adapted** accordingly. The PMI team supports the interaction between the actuarial, accounting and IT departments at local and central level. Prior clarification of roles and responsibilities for all parties involved is fundamental to successful integration.



The operational implementation of the IFRS 17 requirement after the M&A transaction also requires **a skilled and competent workforce**. Companies need to invest in the training of their employees to provide them with the skills and knowledge necessary for their work.

### Implementing the change

The tasks resulting from the M&A transactions come up against an already full agenda of employees and must be dealt with on top. Additional resources from the PMI project team can help to cushion the impact. Nevertheless, existing employees must continue to be involved in elaborations and decisions. Prioritization of existing tasks and M&A tasks is essential.

M&A transactions always offer the opportunity or risk of employee increases or fluctuations due to personal preferences and attitudes towards the acquisition. The changed resource conditions must also be considered at an early stage and compensated for if necessary.

Depending on the location of the company to be integrated, not only time zone differences and language barriers but also cultural differences must be managed. In this way, the project team can achieve a successful merger and long-term business success through diversity.

To summarize, **careful consideration of the challenges and appropriate planning are key to a successful M&A transaction** under IFRS 17 conditions. In addition to growth opportunities, this also offers companies the chance to generate long-term economic added value for the entire group.

## AI in finance

### 2.4. Safe use of AI in finance requires understanding of its ethics



New Artificial Intelligence (AI) potential use cases are being discovered and as such require critical assessment of ethical considerations.

Insurance is strong in regulations, but AI was not built around compliance. Employing AI in finance requires critical thinking to ensure that the technology causes no harm.

#### Strategic Importance of AI in Finance and Insurance

AI is taking transformational roles across the financial sector, unlocking changes in efficiency, accuracy, and competitive advantage. Immediately visible impact can be found in fraud detection, customer services, risk assessment and claims processing. AI offers organizations **significant strategic advantages by reducing costs and increasing operational efficiency** in routine and repetitive tasks.

In the insurance industry, AI is expected to automate compliance monitoring, claims processing, and underwriting, which can lead to shorter turnaround times and reduced operational costs.

**Improved decision-making** through AI is another important benefit. For example, AI can detect patterns or anomalies indicative of fraudulent practices, and AI-driven analytics can refine risk assessment models. This can make pricing strategies more accurate and competitive.

AI also enables **personalized customer experiences**. By analyzing individual behavior and preferences, institutions can provide tailored product and service deliveries, increasing customer satisfaction and loyalty. AI can also help redesign personalized policies to better meet individual needs. Additionally, chatbots and virtual assistants can provide instant support at any time, improving customer service and engagement.

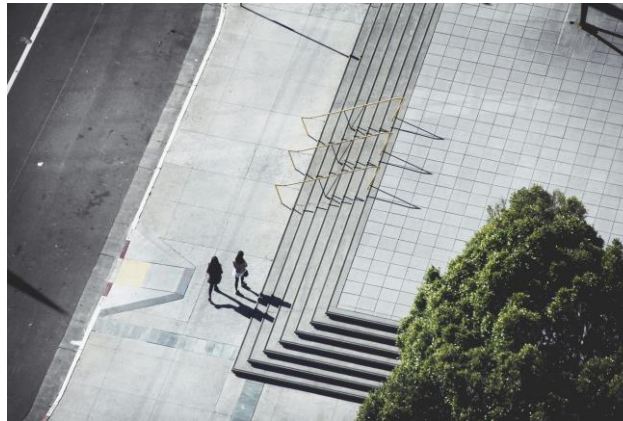


### Ethical Considerations in the Adoption of AI

One of the most important ethical considerations in adopting AI is bias. Indeed, AI algorithms trained on biased or non-representative data sets can perpetuate or even exacerbate existing discrimination in financial and insurance services. This is especially critical in the insurance industry, where fairness in decisions regarding pricing policies, claims approval, and risk handling is essential. In addition, understanding and explaining decisions taken by AI systems is problematic because some AI works in a "black box" manner. Financial and insurance institutions need to ensure that AI models can be opened for understanding and that there is a transparent chain of accountability for them. This shall not just include technical transparency but shall also comprise governance frameworks defining the responsibility for AI-driven decisions. **Ensuring diversity in data sets and conducting periodic audits of AI models can help reduce risks and maintain fairness and trust.**

Data security and privacy are essential because AI systems depend a lot on large volumes of sensitive data. Stringent data protection laws and measures on cybersecurity must be in place to protect customer privacy and data safety from breaching.

Moreover, as automation through AI can lead to job displacement, institutions have a responsibility to manage this transition ethically by providing retraining and upskilling opportunities for affected employees.



## CRUCIAL STEPS FOR CREATING COMPETITIVE ADVANTAGE THROUGH AI

# 1.

AI is a technology which needs qualified personnel for development and maintenance. Attracting and retaining talent with expertise in AI, machine learning and data science requires **rethinking current team structures and hiring practices.**

# 2.

A sound data strategy is also essential for successful AI implementation and for all projects involving data. IFRS 17 showed how difficult this can be in the current finance IT landscape. **Investments into data integrity, quality and analytics** will bring benefits also outside AI activities. This includes data governance, too, as the organization needs to be able to understand data quality and act accordingly.

# 3.

In this context, you need guidelines on ethical use and best practice in accordance with organizational values and public expectations. As AI and its use cases will continue to evolve, organizations will need to **update** the strategies, models, processes, trainings and guidelines **regularly to avoid falling behind.**

# 4.

Building and training an own AI team may not be possible as quickly as needed. In the meantime, and to leverage deep insights into the technology, companies should actively **pursue partnerships and collaborations.** AI is already at the heart of many fintech and insurtech startups, but even larger players can be good partners because they understand the needs of large corporations and regulations.

## Architecture & Operating Model

### 3. Embracing new technology in architecture & operating model to be fit for the future

While all eyes are on AI right now, the insurance industry has not yet digested the changes caused by much less recent technology.

Platform-driven, cloud-based business models like online price comparison portals are not merely additional sales channels. They ultimately change the rules of the game: Customers now expect real-time transactions, many a diverse payment option and seamless management of their needs across various online and offline touchpoints.

Insurers find their operating model unable to change nor meet these new demands and much of the industry's IT still relies on updating databases in batch mode nightly.

All the while, the large cloud providers are positioning themselves as key enablers of innovation in the industry. This has the potential to reduce operational costs, increase innovation but also to create a more competitive landscape.

Insurers must therefore continue overhauling their IT architectures and operational models to be able to interact with external systems and platforms.

This affects the finance department, too, as ultimately payments and bookings need to reflect the new business realities.

The solution is not one integrated tool but a flexible and modular architecture which allows for transitioning step-by-step reflecting business priorities and available resources.



## New technologies

### 3.1. Finance needs to support new business models caused by new technologies



Insurers do not only face the trend towards ever-increasing regulation. Also on the business side, there are trends affecting the traditional business models that have stood unchallenged for centuries.

For one, the importance of B2B2C business models is growing disproportionately. The integration of insurance products into the value chain of end providers is increasing with the trend towards platforms and ecosystems. This blurs the line between products and services due to increasing data collection. Products and processes are increasingly being thought of digitally.

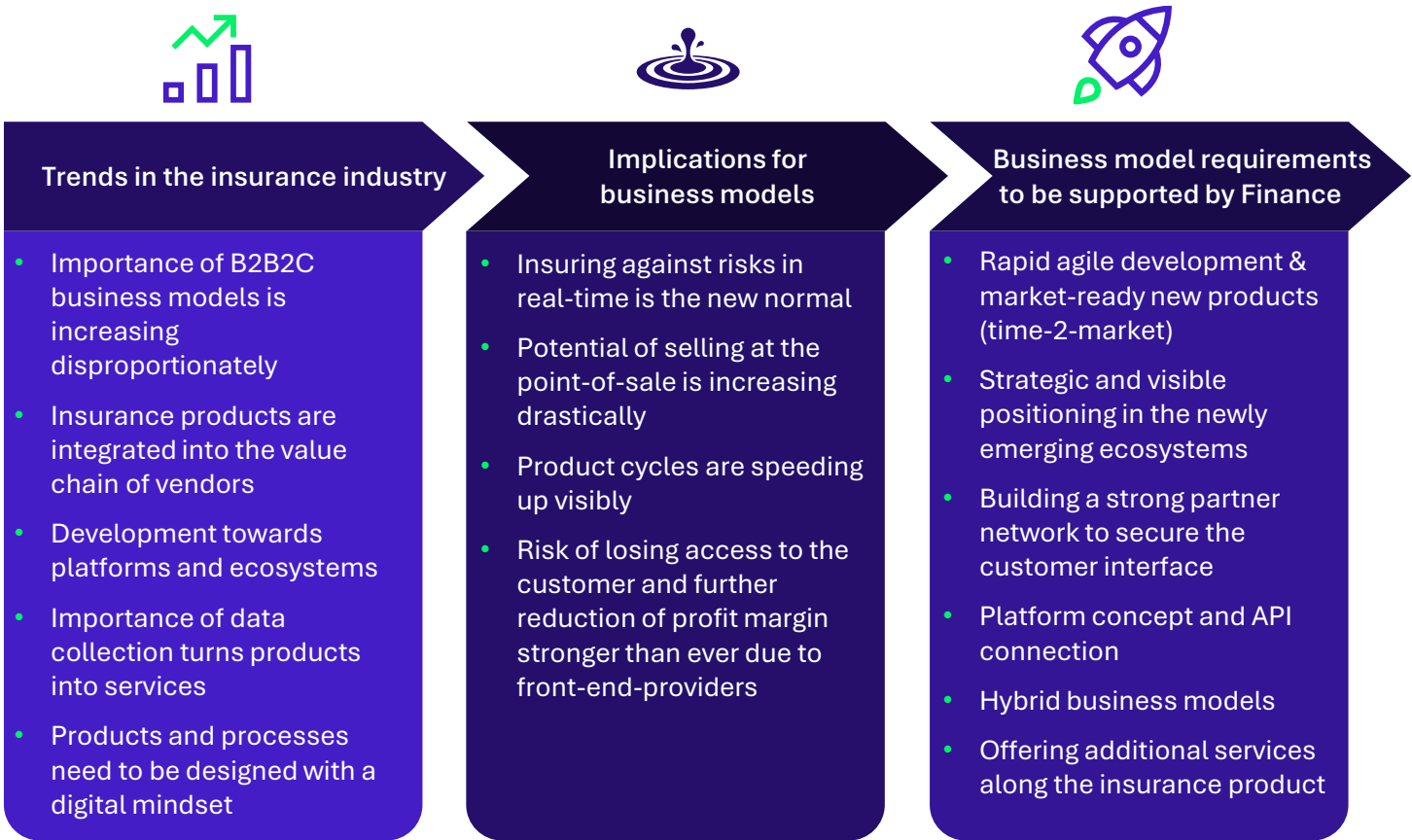
#### Relevance of platform competition and positioning the company

While large platform providers like Google or Amazon are still reluctant to offer their own insurance services and instead rely on partnering, they would be fierce competitors based on their access to the clients and their data if the margins were interesting enough.

Still, while new sales opportunities arise at the point of sale, **platform deals offer lower margins**, and insurers risk losing the interface with the customer or involuntarily limit direct interaction with the client to the moment a claim is raised. This is usually not the ideal situation for improving one's image on the market.



INSURANCE BUSINESS MODELS ARE CHANGING –  
AS ARE THE REQUIREMENTS TOWARDS FINANCE



Business departments will invest in activities to respond to the trend and position themselves competitively. Rapid agile development & market-ready new products (time-2-market) deployed through partner networks or even on their own platforms may sound like they do not affect finance – rather, the opposite holds true.

**FUTUREPROOFING THE FINANCE DEPARTMENT THROUGH NEW CAPABILITIES**

Finance departments need to build or extend their capabilities to support the following:

- **Creating or modifying invoice flows and adapting booking concepts**
- **Embracing alternative forms of payment and reconciliation**
- **Producing reports and analytical insight into unprecedented transaction volumes**

These tasks cannot afford delays of three to six months; they must be executed nearly in real-time. Often, the finance team does not possess the skills or knowledge to perform the necessary changes to the technology, while external consultants may not be readily available.

## Order-to-cash

### 3.2. Leveraging order-to-cash middleware for the transformation agenda

#### Legacy Finance IT and Platform Economy Integration

Legacy finance IT systems have been optimized for batch-oriented bulk handling of payment transactions and invoice data. They were not designed to be accessible through Application Programming Interfaces (API), to handle event-driven payments, real-time transactions, nor scale flexibly.

However, these requirements must be met to prevent finance from creating bottlenecks to new and sustainable business models. Integrating with the platform economy is a strategic imperative for finance. Yet, transforming the existing IT landscape is no overnight endeavour, regardless of budget size, due to numerous poorly documented

dependencies and interfaces. Business and IT teams responsible for these systems often lack the agility to swiftly adopt new technologies without extensive training and reorganization.


#### Using Order-to-Cash Systems (O2C) to build a modern, real-time capable finance architecture

The order-to-cash process in finance traditionally relies on batch-oriented processes, which have significant limitations. However, there is a **growing demand for real-time data** and processing in the finance industry due to the benefits of improved customer experience, faster decision-making, and enhanced operational efficiency.

Transitioning from batch-oriented to real-time processes requires leveraging modern technologies, like cloud computing, advanced analytics, and real-time data processing tools. Integrating real-time capabilities with legacy O2C systems can be achieved through middleware and API solutions.

Among recent fintech startups, financial middleware emerges as best practice to bridge the gap between API-based platforms and legacy systems using web-based services. Employing scalable middleware, finance departments can build capabilities quickly, while allowing for smoother transitions. Individual systems can be replaced, and data migrated at the company's pace without interrupting services. The initial invest is then limited to making the systems accessible via API.

The evolution of O2C systems in the finance industry will likely be driven by AI, machine learning and robotic process automation. Finance departments investing in the transformation will benefit from increases in efficiency, reduction in operating cost and new options for automation.



Use cloud-based middleware to follow the transformation path at a pace the company can sustain.

## Clients experience

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### 3.3. Clients expect digital payments and currencies to be part of the experience

#### Digital payments and digital currencies on the rise

Insurers must adapt to the growing demand for digital payments and currencies. Customers increasingly expect transparent, flexible, and intelligent products and services that cater to their unique life circumstances, such as marriage, retirement, or relocation. To meet these expectations, insurance providers must develop smart platforms that not only manage personal risks but also offer tailored advice and optimize existing insurance plans. Also, reporting and management tools must deal with these real-time and tailored services, products and payments for good and fast decisions.

Other service industries show new ways of putting the client-centric thinking into practice: Electricity and cell phone providers routinely offer improved contract conditions on an annual basis. Insurers still stick with traditional methods like leaflets or calls from agents, which are often perceived as intrusive unless they provide concrete discounts or significantly better terms. While not all insurance products are easily adjustable, there are many scenarios where **smart contracts could significantly improve customer satisfaction**. Smart services and contracts could provide additional benefits, such as guidance on tasks like drafting a will (for life / casualty insurance) and arranging bank authorizations, while seamlessly integrating with partner companies.

#### Modern-age requirements regarding finance processes

Finance processes and the corresponding payment and billing systems need to service multiple payment forms, event-driven, granular transactions at scale and fast turnaround requirements on product changes. As discussed in the previous chapter, current finance IT architecture is seldomly equipped to satisfy these requirements without heavy intervention in the systems. Financial middleware, be it on-premises or as a service, reduces time-to-market, increases flexibility and thereby limits costs of adaptations caused by new products, new payments options etc.

The above examples may seem like remote requirements for CFOs and their teams. Experience shows that setting up the company to provide such services is a transformation which goes beyond simply enhancing the efficiency of finance departments or expanding payment service options. It involves rethinking and redesigning interdepartmental connectivity, modular systems and platforms enriched by

AI, and integrating external partners to achieve true customer centricity. The initial investments will bear fruit through lower costs and lower risks at scale, higher flexibility, shorter time to market, higher customer and employee satisfaction and loyalty.





## Bookkeeping vs. blockchain technology

### 3.4. Going beyond traditional bookkeeping

#### DOUBLE-ENTRY BOOKKEEPING VS. BLOCKCHAIN TECHNOLOGY

The traditional double-entry bookkeeping system, a cornerstone of accounting since the beginning of the 16th century, has served well in ensuring financial accuracy and accountability. Emerging technology, especially blockchain-based transactions, is challenging this position, as double-entry bookkeeping does not scale well:

- It requires **extensive reconciliation processes** to ensure that all entries balance correctly. This process is time-consuming and prone to human error, especially when dealing with large volumes of transactions and multiple accounts.
- It ensures its accuracy through checks and balances but is still **susceptible to manipulation and fraud**. Blockchain technology offers a more transparent and immutable ledger system, where each transaction is time-stamped and cannot be altered once recorded.
- Insurers and reinsurers often deal with complex **financial instruments**, such as derivatives and multi-layered reinsurance contracts, which are **not easily managed** using traditional bookkeeping methods.

Today's business environment demands more real-time data processing, regulators demand enhanced transparency and robust security measures. It may be worthwhile exploring the use of technology to evolve above and beyond the current system.

Blockchain and Distributed Ledger Technology (DLT) present a significant leap forward by offering immutable ledgers that enhance transparency and reduce fraud risks. The integration of smart contracts automates the execution of contractual terms, streamlining transactions. Additionally, Artificial Intelligence and Machine Learning are transforming financial analysis and reporting by providing AI-driven insights and predictive analytics for risk assessment.

#### New blueprints for financial architecture

Cryptography and data security are challenged by quantum computing: although still in its early stages, progress here promises to solve complex financial and mathematical problems at unprecedented speeds. Cybersecurity is not at the heart of this analysis but another major topic with relevance to all industries and corporate functions.

The Internet of Things (IoT) further supports this transformation by enabling real-time data collection and analysis, enhancing underwriting, claims processing, and asset tracking.

These technologies collectively offer a blueprint for a more efficient, secure, and responsive financial architecture. So, how does this play out?

Operational design must evolve to support the seamless integration of these emerging technologies. Integrated Financial and Risk Management Systems will profit and provide real-time data integration across (financial) operations and ensure interoperability between various financial platforms while remaining compliant. This is supported by event-driven architecture which will replace traditional batch processing. Real-time responses to financial transactions and market changes become normal. Organizations may go one step further and adopt the concept of Decentralized Autonomous Organizations (DAOs), introducing self-governing structures that utilize blockchain technology for automated decision-making processes. These innovations not only enhance operational efficiency but also provide a flexible framework that can adapt to the rapidly changing financial landscape.



### Long-term planning of technology adoption

The adoption of transformative technologies brings about several important ramifications. Everybody immediately thinks of data and security, but this will also cause change to processes and the surrounding organizational setup.

Unfortunately, the regulatory landscape will not change as quickly as one market player can, and the business case will need to be calculated to see whether the benefits from decentralized operations and cutting-edge architecture justify the continued cost of keeping legacy capabilities to satisfy the authorities.

For CFOs, the journey toward adopting these new technologies involves strategic planning and collaboration with other C-

level officers, including both business and IT. **Developing an adoption roadmap** with phased implementation allows organizations to pilot new technologies and assess their impact before full-scale deployment.

**Effective risk management** is crucial for navigating the change. Focus should be on identifying and mitigating potential risks related to adopting the concrete technologies, including contingency planning for technology failures or cyber threats. **Investing in innovation** is essential, with budgets allocated for research and development and collaborations with tech startups and fintech companies. Leadership and vision are key drivers of this transformation, promoting a culture of innovation and encouraging a forward-thinking mindset within the organization.

## Key takeaways

# 4. Conclusion & outlook

Regulation continues to drive daily operations of insurers and reinsurers alike. Meeting these demands requires new capabilities in the finance department. This is already a significant change to previous challenges.

On top of that, new technologies are changing the business models of insurers and reinsurers. The CFO department needs to overhaul its architecture and operating model to be able to sustainably deliver their part for the company to stay relevant in the market.

For CFOs, the journey toward adopting new technologies and developing appropriate capabilities involves strategic planning and risk management. The corresponding roadmap should emphasize iterative

approaches and early feedback through pilots.

Furthermore, it is crucial to identify and mitigate potential risks associated with technology adoption, including contingency planning for technology failures or cyber threats. Such a framework will guide investments into innovation hubs, collaboration with tech startups and fintech companies.

Leadership and vision are key drivers of this transformation, promoting a culture of innovation and encouraging a forward-thinking mindset within the organization. The CFO should lead by developing a strategy to handle the key topics on the transformation agenda:

## KEY TAKEAWAYS

### 1. Regulatory Compliance and Risk Management Enhancement

CFOs must prioritize developing capabilities to comply with evolving regulations such as ESG, FiDA, and IFRS 17. This includes integrating advanced analytics and AI to enhance risk management frameworks, ensuring robust compliance, and managing operational risks effectively.

### 2. Technology Integration and Legacy System Modernization

Embracing and integrating new technologies into finance operations is crucial. CFOs should focus on modernizing legacy IT systems, leveraging APIs and financial middleware, and adopting real-time processing capabilities to meet the demands of digital business models and platform economies.

### 3. Advanced Data Management and Forecasting

Accurate forecasting and earnings management under IFRS 17 require significant improvements in data quality and management. CFOs need to invest in advanced data analytics tools and establish systems that can handle complex data requirements, ensuring reliable forecasting and compliance.

### 4. AI and Ethics in Finance

As AI becomes integral to financial operations, CFOs must ensure ethical use of AI by addressing biases and supporting data privacy and cybersecurity. Establishing a strong AI infrastructure, developing a sound data strategy, and navigating the regulatory landscape are critical to leveraging AI for strategic advantages.

### 5. Customer-Centric Finance Solutions

Adapting to the growing demand for digital payments and personalized financial products is essential. CFOs should focus on creating smart platforms that manage risks and offer tailored advice, integrating traditional and digital currencies, and ensuring real-time reporting and decision-making to enhance customer satisfaction and operational efficiency.



## Authors

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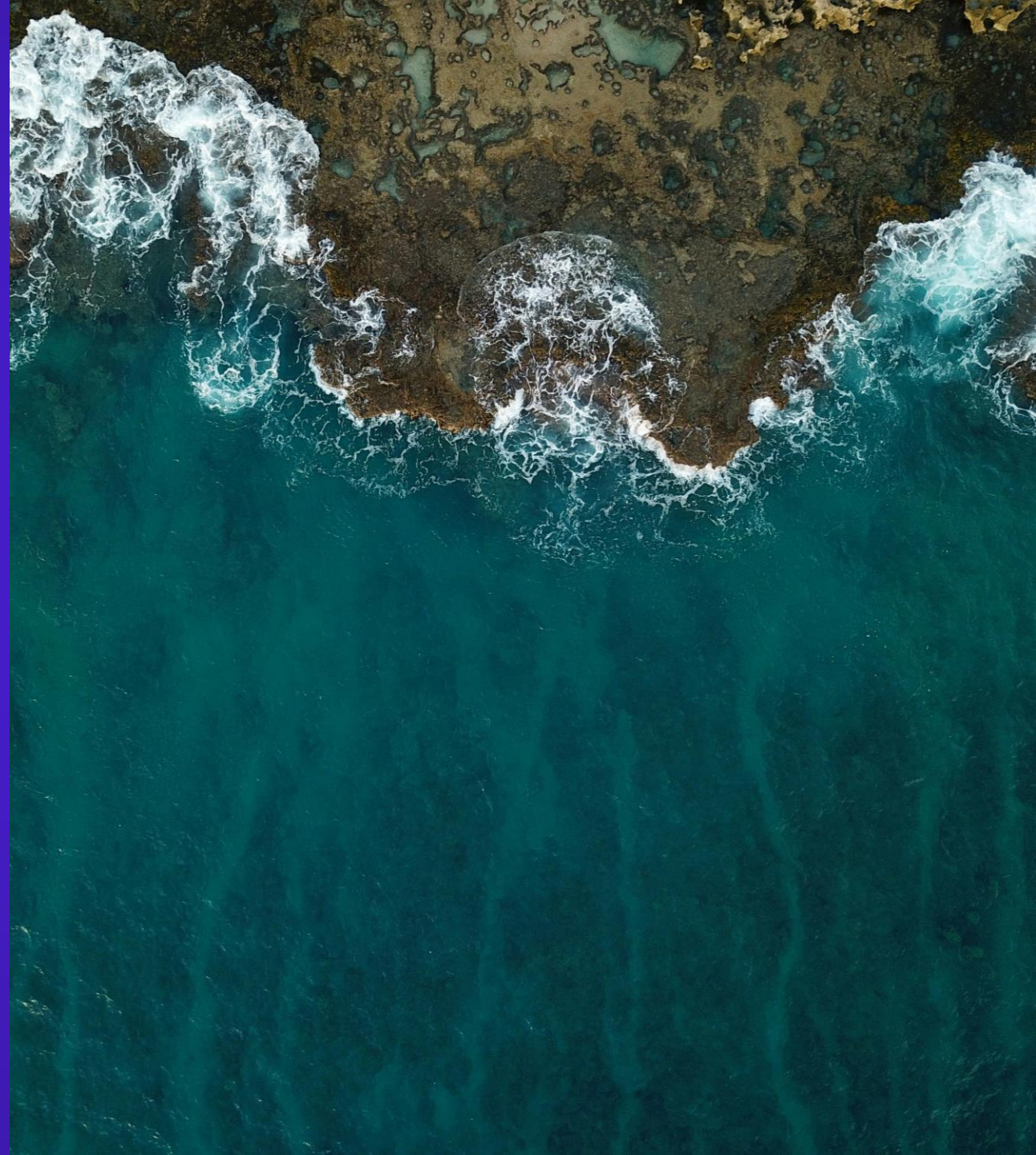
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