



Practical Challenges for Compliance Professionals in an AI-Driven World

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industry bodies must be complemented by similar engagement with the Government of Ireland. It is worth noting the Department of Finance on 21 July launched its "public consultation on new international financial services strategy." Responses are open until 19 September 2025. The evolving regulatory framework presents both challenges and opportunities. Staying informed and advocating for simplification over stratification will be key to navigating this dynamic environment.

In conclusion, the BPF's recent position paper on simplification represent important milestones in the ongoing effort to refine Ireland's regulatory framework. By fostering open communication and collaboration, the CBI and industry stakeholders can work together to create a more efficient and effective regulatory environment.

Introduction

AI (Artificial Intelligence) adoption is accelerating at pace with transformations once taking decades now happening within months.

Financial services firms, by nature, operate within formal governance structures and robust internal controls to meet business and regulatory requirements. While these frameworks provide stability and discipline, they can be slower to adapt to the rapid, iterative changes being driven by AI. Firms that integrate AI effectively and at pace can gain a significant competitive advantage. Conversely, poorly planned adoption can expose firms to regulatory breaches, strategic misalignment and reputational harm.

This article explores the key considerations financial services organisations should address as they navigate the opportunities and risks of the AI revolution.

Background

Firms that fail to adapt to AI risk losing customers, talent and market share to more innovative competitors.

Recently, the Central Bank of Ireland issued a questionnaire to the insurance sector to better understand the current and anticipated use of AI in insurance, as well as the governance and risk

management measures in place to ensure its ethical and secure application. The questionnaire noted that "rapid technological developments have the potential to significantly impact the (re)insurance sector" and asked firms with no AI usage or no plans to adopt AI within the next three years to justify this position.

This sent a clear message: firms without an AI strategy appear to be operating at a disadvantage, missing out on potential new business opportunities, operational efficiencies and the competitive edge enjoyed by early adopters.

In this article we set out some of the key practical challenges that firms face and how compliance professionals can begin to address them.

Key Practical Challenges

It is critical that senior management recognise and address the challenges and threats AI can pose, both to their own business and to the wider economy. Some of the key risks are outlined below:

- **Cost:** AI technology is expensive, especially for businesses without in-house expertise. This includes initial investment as well as ongoing costs for training, system maintenance and software updates.
- **Skills shortage:** Firms may struggle to find qualified data scientists, machine learning

- engineers and AI experts needed to develop and maintain AI.
- Data quality and availability:** one of the biggest challenges to AI adoption is poor data quality. Data is often fragmented, inconsistent and outdated making it difficult for businesses to use AI effectively.
- Integration with existing infrastructure:** outdated / incompatible infrastructure will impede implementation of AI technologies and this will involve upgrading hardware and software to enable integration.
- System Maintenance:** AI systems need regular updates and can be costly and slow to restore if they fail.
- Privacy and transparency:** AI often processes sensitive data, raising compliance challenges.
- Ethical considerations:** Firms need to take account of issues such as job displacement due to AI automation; possible algorithmic bias to ensure AI models are fair, transparent and unbiased; security risks from hacking; and unintended consequences as AI learns and evolves.

Understanding the AI Tools in Use

Understanding AI tools in use is key for a compliance function and intrinsically links with GDPR and privacy obligations. Compliance Professionals/DPOs should have a good understanding of processing activities taking place within their business and the technology used to support those activities. The ability to process large amounts of data can also challenge the concept of data minimisation and can potentially encourage the collection of large volumes of personal data that is not required.

Monitoring and Managing AI-Driven Business Risk

Firms must weigh both the risks of adopting AI and of failing to do so in a competitive market.

By monitoring the performance on an AI model, human oversight and expected outcomes should be built into relevant processes and be subject to validation. In addition, compliance professionals should be acutely aware of any high risk AI systems being used, such as those using biometric identification, categorisation or emotion recognition. Understanding these systems is important to be able to manage any potential issues, e.g. bias effects.

Business owners responsible for the deployment of AI tools should consider *“human in the loop”* and *“stop mechanisms”* to ensure that full control is retained where there is use of high risk AI systems.

Leveraging AI use within the Compliance Function

Large Language Models (LLMs) can boost



compliance efficiency. The insurance industry has already seen AI applications to support humans in discharging repetitive tasks such as underwriting decisions, claims processing, pricing decisions, and image-based damage assessments.

To date, AI has been used by Compliance Functions for:

- Rules mapping:** AI can analyse compliance/regulatory requirements and link them to existing policies or identify gaps, saving time for validation and identifying uplifts.
- Metric monitoring:** AI can identify trends, automate breach alerts, and review justifications from metric owners.
- Pre-trade compliance:** BNY Mellon¹ leveraged an AI solution to *“predict 40% of settlement failures in Fed-eligible securities with a 90% accuracy”*.
- Chatbots:** Widely used in banking, especially among younger demographics, with potential for reducing mis-selling risks.
- Quality assurance:** AI can expand sample testing far beyond typical levels of manual reviews.

Creating a Culture of Responsible AI Use

It is important Compliance Professionals ensure

- Training staff members on responsible use of AI. Training should be rooted in sound internationally accepted practices and compliance requirements and tailored for the firm's AI strategy.
- Policy amendments where responsible AI could have an impact.
- Controls relating to the introduction and proliferation of AI in the firm.

Establishing an Organisational AI Strategy

Implementing AI is a long-term strategic commitment requiring significant planning.

There are a range of key steps required to build an AI business strategy⁵:

- Understand business needs** and how AI can help, using an AI scorecard to assess readiness.
- Conduct a data audit** assess the organisation's data infrastructure and AI maturity or how prepared the organisation is to leverage AI.
- Develop an ethical framework** addressing privacy, bias and transparency issues to avoid serious consequences.
- Choose the right AI technologies** and tools: select AI technologies that align with the firm's objectives.
- Prioritise AI skills** identify gaps in machine learning, data science, engineering and address gaps through training or recruitment.
- Get employee buy-in** communicate the AI vision clearly and show how it benefits their roles.

Summary

While AI offers transformative opportunities for financial services firms, it also presents complex challenges that require careful oversight. For compliance professionals, success lies in balancing innovation with robust governance, ethical safeguards, and regulatory alignment. By developing clear AI strategies, addressing risks proactively, and fostering a culture of responsible use, firms can harness AI's potential while protecting customers, reputation, and the integrity of the wider financial system.

that AI is used responsibly and adheres to high standards of ethical practices. According to the International Organisation for Standards² (ISO), responsible AI is building *“trustworthy AI systems that are, all at once, reliable, fair and aligned with human values”*.

To meet these standards Compliance Professionals should consider:

- “Tone from the top”** regarding responsible AI use within the firm, including clear consequences for irresponsible uses. Instances of irresponsible uses of AI^{3,4} systems may include those that: (i) make decisions on staff performance appraisals or employment status, (ii) are negatively biased towards customer or staff segments, (iii) result in stakeholder detriment at the expense of firm gain, or (iv) fabricates the firm's financial performance.

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