

## **Artificial intelligence presents complex challenges for the reinsurance industry**

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*The reinsurance industry finds itself at a critical juncture, balancing the benefits of AI adoption with legal, regulatory and ethical considerations*

A reinsurer's journey with AI – whether building capabilities in-house or licensing AI systems from a third party – will require careful navigation

Artificial intelligence (AI) is rapidly transforming industries worldwide and the reinsurance sector is no exception..

AI-powered predictive models can facilitate scenario modelling and stress testing, enabling reinsurers to assess the impact of potential catastrophic events and devise robust risk management strategies as well as identify patterns within underwriting portfolios/claims to rebalance exposure.

AI algorithms can also be used to analyse vast datasets with unprecedented speed and accuracy, which can help streamline repetitive tasks from claims processing to policy administration. By minimising manual interventions, reinsurers can reduce operational costs, mitigate errors and enhance productivity. AI holds significant promise for reinsurance companies.

However, alongside these benefits come challenges that necessitate careful navigation. As laws, regulations and standards governing the responsible development and deployment of AI are advancing globally, the reinsurance industry finds itself at a critical juncture, balancing the benefits of AI adoption with legal, regulatory and ethical considerations.

### **AI Act**

In the EU, the recent adoption of the world's first horizontal and standalone law governing AI represents a landmark regulatory initiative designed to address the opportunities and challenges posed by AI systems. Importantly, the EU's AI Act – which is expected to enter into force early in the second quarter of 2024 – will apply not only to companies established in the EU but also to companies established outside the EU that sell, import, distribute and deploy AI systems in the EU or where the AI output is intended to be used in the EU. Getting this wrong could result in huge fines (up to 7% of a company's annual worldwide turnover), the potential for civil redress claims and reputational damage.

The AI Act aims to regulate the use and provision of AI in the EU using a risk-based approach which imposes increasingly rigorous obligations according to the presumed risk an AI system or use case will have (eg on individuals and society). These risks have been considered against some of the key AI use cases for the reinsurance industry.

*Reinsurers using AI systems will be required to adapt to the evolving regulatory landscape (for example, the EU's AI Act) and carefully consider existing legal and regulatory requirements that apply to AI systems (for example, the PRA's and FCA's operational resilience rules and guidance)*

“Unacceptable risk”: AI systems that are considered a clear threat to the safety, livelihood and rights of people are deemed unacceptable and will be prohibited. However, it is unlikely reinsurance companies would be leveraging AI systems for the existing set of prescribed unacceptable use cases (for example, social scoring, behavioural manipulation).

“High risk”: AI systems and use cases deemed to present a “high risk” are subject to the most onerous obligations under the AI Act. In particular, there are certain use cases that might be considered high risk if used for: recruitment, promotion and termination of employees; and, more directly relevant for insurers than reinsurers, but an important consideration: a) evaluating creditworthiness of underlying insureds for the purpose of offering cover – other than to the extent this is used to detect financial fraud; and b) risk assessment and pricing in relation to underlying insureds in the case of life and health insurance.

“Limited risk”: natural language processing capabilities can also be used to analyse and extract information from unstructured data, such as claims notes and documents. AI-powered chatbots and virtual assistants can also be used to handle routine queries from insurers, providing quick responses and freeing up underwriters to focus on more complex tasks. To the extent reinsurance companies leverage AI systems intended to interact with insurers (for example, chatbots), they will likely be subject to a more limited set of obligations, primarily focused on transparency (that is, making clear to underwriters or brokers they are interacting with an AI system).

All other AI systems and use cases are deemed to present a “minimal risk” and are not regulated under the AI Act. However, given the rapid increase in development of AI regulation globally and the fact the AI Act is without prejudice to existing law and regulation, it is likely irrespective of whether a reinsurance company falls within scope of the AI Act it will nonetheless need to comply with other requirements in the context of its development and deployment of AI systems.

These include the General Data Protection Regulation, Solvency II Directive, the Prudential Regulation Authority’s (PRA) and Financial Conduct Authority’s (FCA) rules and guidance on operational resilience and the Senior Managers and Certification Regime.

### **Key challenges**

Indeed, a reinsurer’s journey with AI – whether building capabilities in-house or licensing AI systems from a third party – will require careful navigation of risks. Reinsurers will need to develop an AI governance strategy and implement appropriate systems and controls for monitoring use of AI. Some of the key challenges facing the reinsurance industry include:

- **Data quality and bias:** AI algorithms are only as effective as the data they are trained on. Inaccurate or biased datasets can lead to flawed predictions. Reinsurance companies will need to prioritise data quality assurance and implement measures to mitigate bias, ensuring AI-driven decisions align with ethical standards and regulatory requirements.
- **Lack of transparency:** AI systems must enable users to interpret the system’s use and output correctly. Opaque systems may compromise data security or lead to an incorrect understanding of decisions made by models used for assessing risk, pricing or reserves. Compliance with the AI Act necessitates robust governance structures and transparency measures to ensure the responsible use of AI technology.
- **Cyber security risks:** AI adoption has the potential to result in cyber security vulnerabilities as, for example, malicious actors may exploit AI systems to launch sophisticated cyber attacks. Reinsurance companies will need to consider the cyber security measures they have in place to safeguard sensitive data and AI algorithms from unauthorised access and manipulation.

While AI holds immense potential to transform the reinsurance industry, its adoption presents complex challenges that require careful consideration. Reinsurers using AI systems will be required to adapt to the evolving regulatory landscape (for example, the EU’s AI Act) and carefully consider existing legal and regulatory requirements that apply to AI systems (for example, the PRA’s and FCA’s operational resilience rules and guidance).

By embracing AI responsibly and implementing an effective AI governance framework, reinsurers can drive operational efficiency, enhance risk management practices and deliver innovative solutions to their clients. As regulatory frameworks continue to evolve, reinsurance companies must prioritise ethical AI governance and regulatory compliance to navigate the intricacies of the AI landscape successfully.

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