Risk - Blog

July 2026 - Stephan Dorner

Digitalization and AI in Risk Management

From Better Data to Better Decisions — and Better Insurability

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Risk management is undergoing a fundamental transformation. Today, the key question is no longer simply whether risks are identified, but how sound and reliable risk-related decisions can be made. Digitalization and the use of artificial intelligence (AI) are transforming precisely this aspect of decision-making—and, in doing so, influencing insurability, risk transfer, and overall market attractiveness.

Traditional risk management approaches are increasingly reaching their limits. More complex risk landscapes, growing regulatory requirements, and an ever-increasing volume of available data mean that document-based and person-dependent processes are no longer sufficient. At the same time, management teams, auditors, regulators, and insurers demand higher levels of transparency, consistency, and traceability in risk reporting and decision-making.

Digitalization in risk management therefore means far more than simply replacing spreadsheets with software. What matters is the structured identification of risks, standardized assessment methodologies, systematic management of mitigation measures, and consistent documentation and archiving. Only then can organizations establish a reliable foundation for informed decision-making. Digital risk dossiers enable information to be used consistently across management, audit, and external stakeholder functions while creating a unified and comprehensive view of risk.

Risk management methodologies remain just as important as ever. However, qualitative assessments, scenario analyses, and quantitative models can only realize their full potential when they are digitally integrated and continuously updated. Modern risk models make it possible not only to describe risks but also to actively support business decisions—for example, when prioritizing mitigation measures or evaluating the trade-offs between risk retention, avoidance, and transfer.

This is where AI comes into play. Artificial intelligence does not automatically make risk management more intelligent; rather, it enhances speed, scalability, and consistency. AI can analyze large volumes of data, identify patterns, evaluate unstructured information, and automatically classify risks. This capability is particularly valuable when processing maintenance reports, inspection records, technical documentation, claims files, and audit reports. Information that previously required significant manual effort can now be analyzed and utilized far more efficiently.

As a result, AI has become a powerful tool for deriving better decisions from data. It can uncover correlations, detect emerging trends at an early stage, and accelerate decision-making processes. This creates substantial value, particularly in industrial risk management, where risks must be assessed not in isolation but in the broader context of operations, technology, organizational structures, supply chains, and insurability.

The insurance market is evolving as well. Insurers are increasingly using data-driven and AI-supported models in underwriting, claims management, and risk assessment. For companies, this means that the quality of their risk data is becoming a critical competitive advantage. Organizations that can present risks in a structured, consistent, and transparent manner strengthen their negotiating position, improve their attractiveness to insurers, and

create a solid basis for informed decisions regarding risk transfer.

Insurability is therefore increasingly becoming an outcome of effective risk management rather than a separate consideration. It is not determined solely during discussions with insurers but is driven by the quality of internal risk data, the effectiveness of risk mitigation measures, and the consistency of documented decision-making processes.

At the same time, the growing use of AI introduces new categories of risk. Incomplete or inaccurate data, algorithmic bias, insufficient transparency, so-called "black-box" effects, and unverified outputs can all contribute to poor decision-making. AI systems may generate inaccurate information, misinterpret correlations, or produce recommendations that ultimately result in financial losses, compliance failures, or liability exposures.

The primary risk does not lie in the technology itself but in its uncontrolled application. When AI-generated analyses are adopted without proper validation or integrated into decision-making processes without clear governance structures, organizations expose themselves to new operational, legal, and reputational risks. This becomes particularly critical when inaccurate AI-generated content finds its way into internal reporting, external communications, or insurance submissions.

This creates a clear imperative: AI in risk management requires robust oversight. Organizations need well-defined policies governing the use of AI, clear data-classification frameworks, formal approval procedures, and mandatory human review for critical decisions. Transparency, documentation, accountability, and employee training are rapidly becoming key success factors.

Recent studies demonstrate that AI in risk management is no longer an emerging trend—it is already a reality. According to Moody's, more than half of risk and compliance professionals are currently using or testing AI, compared with only 30 percent in 2023. McKinsey reports that 88 percent of surveyed organizations regularly use AI in at least one business function, although nearly two-thirds have not yet scaled AI across the entire enterprise. The insurance sector is following the same path: EIOPA reports that 65 percent of European insurers are already actively using generative AI. The associated risks are equally significant. According to EY, 99 percent of surveyed organizations experienced financial losses linked to AI-related risks, with 64 percent reporting losses exceeding one million U.S. dollars. Meanwhile, the MIT AI Incident Tracker has documented more than 1,400 real-world AI-related incidents.

Recent studies show:
AI in risk management has
taken hold — but has not yet been mastered

~ 9 out of 10

Companies use AI on a regular basis

MCKinsey

> 50%

Risk & Compliance Professionals Use/Test AI

Moody's

65%

EU Insurers Are Actively Using Generative AI

EIOPA

< 50%

Companies with a formal AI risk framework

Gallagher

99%

Organizations Report Financial Losses Due to AI Risks

EY

> 1.400

Documented AI Incidents

MIT AI Incidents Tracker

Conclusion: AI improves risk management only when combined with data quality, methodology, human review, and governance

Sources: McKinsey, Moody's, EIOPA, Gallagher, EY, MIT AI Incident Tracker
Presentation: risk on mind GmbH

These figures make one thing clear: AI is no longer a topic for the future. It is a governance challenge of the present.

Ultimately, digitalization and AI should not be viewed as purely technological initiatives. They are quality initiatives aimed at improving decision-making. They enable organizations to identify, assess, and manage risks more quickly, more comprehensively, and more consistently. At the same time, they increase the importance of governance, organizational structures, and effective controls.

Risk management in the era of digital transformation therefore requires the seamless combination of three essential elements: sound methodologies, structured data, and the responsible use of technology. When these elements are successfully integrated, they create measurable value—not only by improving risk management itself but also by influencing how risks are perceived and evaluated in the insurance market.

Insurability is not the starting point. It is the logical consequence.

Stephan Dorner is the founder and CEO of risk on mind® GmbH in Vienna. With over 25 years of industry experience in mechanical engineering, fire protection, plant engineering, and insurance, he combines technical expertise with business risk management. As a TÜV-certified risk engineer, he has analyzed over 4,000 industrial facilities and helps companies manage risks in a targeted and cost-effective manner.
Stephan and his team's goal is to digitize risk management using their proprietary software solution, rismo®, in order to evaluate risks in a structured manner, improve decision-making, and create real added value for companies.