

The Future of Mergers & Acquisitions? Risk Allocation in AI-Guided Transactions

Maarten Herbosch¹ and Floris Mertens²

ABSTRACT

This article explores the emerging legal challenges and responsibilities associated with the use of artificial intelligence (AI) in mergers and acquisitions (M&A). As AI tools increasingly support key aspects of M&A transactions—particularly due diligence—their imperfect nature raises significant legal implications for both external actors (tool providers, service providers) and internal corporate governance (boards of directors). Drawing on comparative legal analysis across German, French, English, Belgian, and US (notably Delaware) jurisdictions, the article examines liability thresholds, contractual standards, and fiduciary duties implicated by AI deployment. It argues that the validity of M&A agreements may be undermined by reliance on flawed AI-generated information, especially when due to misinformation by the seller. It further examines the potential liability of AI tool and service providers in such cases and considers how contractual clauses and risk allocation influence these assessments. Regarding corporate governance, it scrutinizes how AI impacts the informational duties of directors and the standard of judicial review applied to their decisions, including the Delaware business judgment rule. The article concludes with best-practice recommendations to mitigate shareholder exposure, emphasizing AI system selection, supervision, and explainability as key legal safeguards.

Keywords: artificial intelligence, mergers and acquisitions, corporate law, technology law, liability law, contract law

INTRODUCTION

This article assesses the legal implications and risks associated with deploying artificial intelligence (AI) in the mergers and acquisitions (M&A) process. AI is increasingly being used to drive the overall efficiency and profitability of M&A deals.³ In 2025, it was reported by Deloitte that 97% of its responding companies and private equity firms have used AI, data analytics and other automation technologies to support the M&A due diligence process, up from 69% in 2022.⁴ For other M&A aspects such as target selection and post-merger integration, some surveys indicate that approximately 80% of M&A professionals anticipate an overall AI adoption in the near future.⁵ Considering the prevalence of AI in this field, this article offers a

¹ Assistant Professor of Artificial Intelligence and Law, KU Leuven Faculty of Law and Criminology, maarten.herbosch@kuleuven.be. The author would like to thank Fulbright as well as Rotary Belgium and the Belgian American Educational Foundation for their support that made this research possible.

² PhD Candidate at Ghent University, Belgium, floris.mertens@ugent.be. The author would like to express his gratitude to Columbia Law School for cultivating thought-provoking discussions on this topic, in addition to Fulbright and the Belgian American Educational Foundation for their support that made this research possible.

³ Siebecker 2019, pp. 108–110.

⁴ Deloitte 2025, p. 22. Compare with Deloitte 2022, p. 4.

⁵ See, e.g., Bain & Company, 2024.

timely and essential legal analysis, covering German, French, English, Belgian, and American law, with particular focus on Delaware as corporate law precursor.

Beginning with an introduction to AI and its actual and potential use in M&A transactions, the article turns to the legal implications of such deployment. A key characteristic of AI systems is that, like humans, they are inherently imperfect. The increasing use of AI thus entails a risk of erroneous output and potentially undesirable transactions. This shifts responsibility to the human actors, prompting assessments of how they selected and deployed the relevant AI tools. This includes factors such as system accuracy, explainability, and the extent of human oversight.

The article evaluates the applicable legal thresholds in both external and internal contexts. Externally, it examines the obligations of AI tool providers—where the buyer-company implements the tool themselves—as well as service providers, such as law firms, that use AI in delivering their services. It also considers the legal consequences of completing a transaction based on incorrect AI-generated information, including the possibility of invalidating such transactions.

Internally, the article explores the potential liability of board members who rely on AI tools, towards the company and its shareholders. This includes an analysis of both the informational standard of conduct expected of them, and the standard of review applied by courts.

The resulting in-depth legal analysis yields significant insights into the regulatory regimes and the broader legal impact of AI on M&A transactions. It underscores key differences and commonalities in the external versus internal effects of AI deployment. Ultimately, it suggests that many of the associated risks are likely to fall on shareholders of acquiring companies. Based on this conclusion, the article proposes measures these companies can adopt to mitigate such risks.

AI-SUPPORT OF M&A TRANSACTIONS

ARTIFICIAL INTELLIGENCE

To begin, it is crucial to have a proper understanding of AI systems, their capabilities, and their limitations. The definition of artificial intelligence has a long history,⁶ often beginning with references to human intelligence (*i.e.*, anthropocentrism).⁷ While such definitions are still occasionally used today,⁸ they have largely been abandoned for legal purposes.

In a legal context, the definition proposed by the European AI Act is particularly useful.⁹ Rather than emphasizing the abstract criterion of simulating human intelligence, it focuses on the

⁶ See notably McCarthy et al., 2014.

⁷ McCarthy et al., 2014; Goldberg 1990, p. 673 (“*thinking computers*”).

⁸ Grossman, Cormack 2014, p. 87; Van Oostrom-Streep 2017, p. 563; Scheau et al. 2018, p. 12; Yu and Ali 2019, p. 2; Linke 2021, p. 27.

⁹ See Article 3 (1) of the European AI Act.

independence or autonomy of AI systems.¹⁰ A system qualifies as an AI system when it, *inter alia*, determines on its own what output to produce for a given input.¹¹

A widely used technique to achieve this independence or autonomy is machine learning.¹² Machine learning refers to AI techniques that enable a system to learn by itself what constitutes a good output for a given input.¹³ For example, by processing numerous classified data samples, the system can derive its own statistical rules for classifying new data.¹⁴ This allows an AI system to, for instance, assist in identifying change of control clauses within large document sets.¹⁵ It is important to note that AI's "decision-making process" generally does not resemble human conceptual decision-making.¹⁶ Instead, it relies entirely on mathematical correlations within the data.¹⁷ As a result, AI systems do not necessarily align with human intuition or reasoning but instead apply a more direct statistical approach.¹⁸

The autonomy of existing AI systems is nuanced. While these systems can often perform exceptionally well—and autonomously—within a specific targeted application, their autonomy remains strictly limited to those applications. This is why current AI is often referred to as “weak”.¹⁹ This distinction helps differentiate it from a potential future generation of AI systems, known as “strong”²⁰ or “artificial general intelligence”,²¹ which would be capable of acting autonomously across any context, much like a human²²—although some use that notion far more leniently.²³ The latter is currently impossible,²⁴ and some do not expect this to change.²⁵

Among today's “weak” AI systems, there are significant differences in autonomy. Some AI systems take on a more supportive role, requiring a human to be present and/or authorise the final decision.²⁶ These systems can assist board members in executing practical or

¹⁰ See Article 3 (1) AI Act (“a machine-based system that is designed to operate with varying levels of autonomy and that may exhibit adaptiveness after deployment, and that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments”); European Commission, 2024..

¹¹ See Article 3 (1) AI Act; European Commission, 2024.

¹² Also see Kowert 2017, p. 183; Surden 2019, p. 1317-1318; Ebers 2021, p. 206.

¹³ Kirn, Müller-Hengstenberg 2014, p. 229; Specht, Herold 2018, p. 40. Also see Article 3(1) AI Act (on inference).

¹⁴ Surden 2014, p. 89; Ashley 2017, p. 234; 2; Surden 2019, p. 1311. Also see Calo 2018, p. 185.

¹⁵ See, e.g., Baumgartner, 2024.

¹⁶ Katz 2013, p. 918; Giuffrida et al. 2018, p. 755; Surden 2019, p. 1315.

¹⁷ Giuffrida et al. 2018, p. 766; 2; Surden 2019, p. 130.

¹⁸ Surden 2014, p. 95.

¹⁹ De Neef, Colson 2018, p. 9; Frye 2018, p. 18; Merabet 2020, p. 21; Kuntz 2022, p. 183.

²⁰ Meneceur, Barbaro 2019, p. 277 ff; Kuntz 2022, p. 183.

²¹ Buyers 2018, p. 6; Haney 2018, p. 152; Milton et al. 2018, p. 1; Weaver 2018, p. 202; Linarelli 2019, p. 331; Reinbold 2020, p. 874

²² Goldberg 1990, p. 673, note 116; Elias 2015, p. 87; Frye 2018, p. 19; McGinnis 2018, p. 42; S.K. 2019, p. 41; Henderson 2019, p. 3.

²³ Particularly AI companies are sometimes eager to stress the “general” or “AGI” nature of the autonomy of their AI system capabilities—although they squarely fall in the “weak” category by the strict terminology deployed here.

²⁴ Elias 2015, p. 72; Buyers 2018, p. 6; Frye 2018, p. 19; Weaver 2018, p. 202; Henderson 2019, p. 7-8; Linarelli 2019, p. 331; Kleczewski 2020, p. 516; Naudé, Dimitri 2020, p. 368; Reinbold 2020, p. 874; Savary, Reuter 2020, p. 271; Feldman, Stein 2022, p. 102.

²⁵ E.g., McGinnis 2009, p. 369.

²⁶ In that sense, many supportive tools facilitate human review of their analysis, by pinpointing the source of the information/clause for their users.

administrative tasks (“assisted intelligence”),²⁷ or augment board decision-making by serving as an information source to business judgments (“augmented intelligence”).²⁸ Others are less dependent on human validation but may still require a human to be available for potential intervention. AI-powered autonomous vehicles that require a human to be present (“hands on the wheel”) are a clear example.²⁹ In a corporate context, this could even take the form of so-called “autonomous intelligence”, *i.e.*, AI systems entrusted with limited governance tasks through a delegation of powers, supervised by human directors.³⁰

A highly sophisticated type of autonomous intelligence concerns so-called AI “agents” which operate with minimal or no human supervision,³¹ such as robo-directors.³² While such AI agents are intriguing, our focus will mainly be on systems that rely more closely on human oversight. This is based on the observation that today’s M&A-related tasks are primarily supported by assistive AI tools rather than fully autonomous agents.³³

AI systems can be used for various reasons—in M&A transactions and beyond. One key reason is that they can outperform humans in certain instances.³⁴ A human using an AI tool can thus achieve better results than a human without AI assistance. While some media reports—often alarmist—argue that AI systems are (not) well-suited to replace humans,³⁵ this argument is misplaced. Given the current state of AI development and practical deployment, the relevant comparison is between humans responsibly³⁶ using AI systems and humans working without them, rather than between AI and humans themselves.³⁷ This need for human involvement or supervision is also emphasized by the European AI Act for high-risk systems.³⁸

²⁷ See on assisted intelligence and similar autonomy categories: Kolbjørnsrud, Amico, Thomas 2016; Rao 2016; Agarwal et al. 2018; Petrin 2019, p. 980–981; Siebecker 2019, p. 105; Hilb 2020, p. 861; Kreutzer, Sirrenberg 2020, p. 12–13; Drukarch-Villaronga 2022, p. 355.

²⁸ See on augmented intelligence and similar autonomy categories: Kolbjørnsrud, Amico, Thomas 2016; Rao 2016; Agarwal, Bersin, Lahiri, Schwartz, Volini 2018; Petrin 2019, p. 981–982; Enriques, Zetzsche 2020, pp. 66–67; Hilb 2020, p. 861; Kreutzer, Sirrenberg 2020, p. 12–13; Hickman, Petrin 2021, p. 600; Raisch, Krakowski 2021, p. 194; Drukarch-Villaronga 2022, p. 355.

²⁹ Some legal systems explicitly require humans to be present in autonomous vehicles in a similar capacity, see, *e.g.*, Kasap. 2023, p. 342.

³⁰ See on autonomous intelligence and similar autonomy categories: Kolbjørnsrud, Amico, Thomas 2016; Rao 2016; Möslin 2018b, p. 663–666; Petrin 2019, p. 982–983; Drukarch-Villaronga 2022, p. 355; Weber et al. 2023, p. 43.

³¹ *E.g.* Herbosch 2025, p. 397.

³² See on robo-directors: Möslin 2018b, p. 663–666; Gramitto Ricci 2020, p. 900–906; Armour, Eidenmüller 2021, pp. 176–177.

³³ Nevertheless, our conclusions can be readily extended to such more autonomous agents deployed in a supportive capacity.

³⁴ Calo 2018a, p. 1124; Hamdani, Hashai, Kandel, Yafeh 2018, p. 229; Kolber 2018, p. 205; Matsuzaki 2018, p. 255–273; Möslin 2018a, p. 209; Hatfield 2019, p. 1060; Samek, Müller 2019, p. 5–6; Cattoor et al. 2020, p. 8; Fierens et al. 2020–21, p. 964.

³⁵ See, particularly in a legal context, *e.g.*, Hesse Jones, “Risk Or Revolution: Will AI Replace Lawyers”, <https://www.forbes.com/sites/hessiejones/2025/03/20/risk-or-revolution-will-ai-replace-lawyers/>.

³⁶ See, *e.g.*, Cecco, 2024.

³⁷ See similarly Rose, 2023.

³⁸ Article 14 AI Act.

While AI performance is often impressive and can help cut costs and save time³⁹—also in an M&A context—these systems also present significant challenges. First, as is evident from our description of AI independence and autonomy, the outputs these systems produce are not predetermined by their programmers. As a result, the programmer cannot anticipate the system's response in a given instance.⁴⁰ AI systems are thus largely unpredictable.⁴¹

Second, AI systems base their decisions on mathematical and often statistical processes that do not necessarily resemble human reasoning (*supra*).⁴² Consequently, it can be difficult to conceptualize their decision-making process or even to grasp the mathematical logic behind it.⁴³ This challenge is captured by describing AI systems as opaque, unexplainable black boxes.⁴⁴ It is important to note that this issue goes beyond a mere lack of transparency.⁴⁵ In theory, a programmer could reveal the mathematical processes underlying the system's decision-making. However, the real challenge lies in the fact that it is often difficult—if not impossible—for a human to conceptually understand the rationale or role of all relevant calculations.⁴⁶ To put this into perspective, some of the most widely used AI models, particularly deep-learning models, involve millions or even billions of calculations to transform input into output.⁴⁷

This issue is, to some extent, mitigated by the fact that human decision-making is also often difficult to explain.⁴⁸ Nevertheless, the European Union has sought to limit the impact of this obstacle by requiring that all high-risk AI systems be explainable to a reasonable extent.⁴⁹ The exact scope of this requirement remains unclear.⁵⁰ In any case, systems can be made more explainable either by integrating explainability into the system from the outset (*ab initio*)⁵¹ or by adding it later (*ex post*),⁵² a distinction we will explore further.

³⁹ This relates more generally to the fact that these systems also present many of the advantages of “traditional” automation, as discussed below.

⁴⁰ Yu, Ali 2019, p. 5.

⁴¹ Deeks 2019, p. 1829; Yu, Ali 2019, p. 5; Fierens, Van Gool, De Bruyne 2020-21, p. 965. Also see Spindler 2019, p. 126; Selbst 2020, p. 133.

⁴² In that sense, current AI is often called “subsymbolic”, see Mitchell 2020, p. 12.

⁴³ Karnow 2017, p. 137; Rebala et al. 2019, p. 2. Also see Australian Human Rights Commission, 2021, p. 63.

⁴⁴ Bathaee 2017, p. 897; Hatfield 2019, p. 1118 note 278; Rebala, Ravi, Churiwala 2019, p. 2; Samek, Müller 2019, p. 6; Yu, Ali 2019, p. 5; De Cooman 2020, p. 92; Fierens, Van Cool, De Bruyne 2020-21, p. 963–964; 74; Kreutzer, Sirrenberg 2020, pp. 11–12; Solow-Niederman 2020, p. 657; Devillé et al. 2021, p. 10; Price, Rai 2021, p. 779; Stein 2022, p. 1005.

⁴⁵ See Karnow 2017, p. 137; Rebala et al. 2019, p. 2.

⁴⁶ Karnow 2017, p. 137.

⁴⁷ See in this sense Giuffrida et al. 2018, p. 755; Körner 2020, p. 46.

⁴⁸ See, e.g., Simon 2004, p. 511 ff; Friedenberg, Silverman 2006, p. 85 ff; Seaman 2008, p. 427; Abnar et al. 2019, p. 1 ff.

⁴⁹ Article 13 AI Act (without using the term “explainable”, rather using the notion “transparency”—“to ensure that their operation is sufficiently transparent to enable deployers to interpret a system’s output and use it appropriately”).

⁵⁰ See, e.g., Corrêa 2024, pp. 347–350.

⁵¹ Du et al. 2020, p. 69; Kamath, Liu 2022, p. 16.

⁵² Du et al. 2020, p. 69-70; Rai 2020, p. 138; Kamath, Liu 2022, p. 17. A popular method is to deploy counterfactuals, see Bobek et al. 2021, p. 40 ff; Gianfagna, Di Cecco 2021, p. 83 ff.

Third, AI systems are inherently imperfect.⁵³ It is impossible to create an AI system that produces only “ideal” outputs.⁵⁴ Without delving into the various causes of this,⁵⁵ it is a fundamental reality that must be acknowledged. When an AI system generates erroneous outputs that lead to harm or undesirable consequences, it is thus not always a valid response to argue simply that the system should have performed “better”.⁵⁶ There is an inherent limit to how well AI systems can function, with further improvements coming at an increasingly high cost.⁵⁷

A particularly challenging aspect of AI is that its statistical reasoning process means its errors do not necessarily resemble human mistakes.⁵⁸ More specifically, AI systems do not adhere to human-conceptual boundaries, which allows them to make errors that are egregious by human standards.⁵⁹ Such manifestly incorrect outputs can even arise from seemingly insignificant variations in input data.⁶⁰

These and other risks have prompted the White House to adopt a Blueprint for an AI Bill of Rights,⁶¹ and the European Commission to develop the extensive AI Act.⁶² The latter imposes numerous requirements on AI systems, particularly those classified as high-risk. However, it is important to note that the AI tools discussed in this contribution do not necessarily fall within the scope of high-risk systems.⁶³

OPPORTUNITIES FOR MERGERS AND ACQUISITIONS

AI offers various opportunities for M&A transactions.⁶⁴ On a general level, the benefits are twofold. AI systems can help automate tasks, saving time and labour costs for human deployers,⁶⁵ which may also result in lower fees for third parties. This is beautifully illustrated by a Canadian court case in which the court decided to lower the fee a lawyer could charge, reasoning that he would have spent less time on the case if he had used AI tools.⁶⁶ Additionally, the high performance quality of some AI systems (*supra*) may help prevent or correct human errors.

⁵³ Greenblatt 2016, p. 48. See similarly, Shariff et al. 2017, p. 695; Choi 2019, p. 86 (discussing software more generally).

⁵⁴ Greenblatt 2016, p. 48. Also see Chagal-Feferkorn 2019, p. 84; Selbst 2020, p. 1318. See similarly Shariff et al. 2017, p. 695.

⁵⁵ These can, for example, relate to the training data used, the chosen model, or more broadly to the fact that the system is deployed in a probabilistic context.

⁵⁶ Furthermore, it may be unclear what “better” means for a given AI system, as various metrics are available, see, *e.g.*, Herbosch 2025, p. 429-430.

⁵⁷ See Thompson et al. 2021, p. 55; Majot, Yampolskiy 2017, p. 148.

⁵⁸ *E.g.*, Nguyen et al. 2015, p. 427 ff.

⁵⁹ See for a painful illustration, Lohr, 2018.

⁶⁰ *E.g.*, by changing a single pixel in an input image, see BBC News 2017.

⁶¹ Office of Science & Technology Policy, 2022.

⁶² Also see Expert Group on Liability and New Technologies, 2019.

⁶³ See Article 6 of the AI Act.

⁶⁴ See generally Siebecker 2019, p. 107; Chanda 2021; Kostas 2022, pp. 145–159.

⁶⁵ Superior Court of Justice Ontario November 22, 2018 (Cass v. 1410088 Ontario Inc., 2018 ONSC 6959), <http://canlii.ca/t/hw728>; Brown 2015, p. 226; Bonnaffé 2018, p. 868; Naudé, Dimitri 2020, p. 367.

⁶⁶ Superior Court of Justice Ontario 22 November 2018 (Cass v. 1410088 Ontario Inc., 2018 ONSC 6959), <http://canlii.ca/t/hw728>.

These benefits present themselves across various tasks during M&A transactions. In a preliminary phase, these tools can help early-stage investors and asset managers assert the value or desirability of a potential target company or its assets,⁶⁷ shifting the M&A selection procedure away from intuition and influence of interpersonal relationships to a more quantitative process.⁶⁸ Similarly, AI systems can be used to help draft relevant contracts.⁶⁹ Other AI tools can support negotiations,⁷⁰ or can help communicate relevant information to prospective buyers through an AI-powered chatbot-like interface.⁷¹

Despite these numerous opportunities, the most commonly used AI applications in practice today focus on supporting the due diligence analysis.⁷² The latter category includes tools that help detect potential liabilities or problematic contractual clauses within the vast number of documents provided by the target company (seller), in an attempt to reduce the information disadvantage of the acquiring or merging company.⁷³ When performed manually, this task is often highly expensive, labour-intensive and time-consuming.⁷⁴

AI tools can facilitate both the structured and unstructured aspects of the due diligence analysis.⁷⁵ They can rapidly extract crucial information from structured data⁷⁶ and flag potential issues in unstructured data⁷⁷. While AI tools are not a substitute for a qualified professional in either area (*supra*), they offer valuable support by identifying liabilities or risks that a professional might overlook or by quickly highlighting major issues. A qualified professional can then verify the AI system's findings. Most of these tools are designed with the expectation that a human professional will conduct such a review, which is precisely why more autonomous M&A agents are not the primary focus of this contribution.

It is important to note that the use of such tools may require the seller's approval. Deploying AI tools to analyse these documents typically necessitates either their integration into the virtual data room itself or explicit permission from the seller to download the documents and upload them into the AI tool's environment.

AI tools in M&A context can also help the board of directors comply with specific fiduciary obligations that jurisdictions might impose. For instance, according to the *Lyondell* and *Revlon*

⁶⁷ See, e.g., Turner 2017; Choe, Hahn, Rabbitt-Tomita 2018; Elleneweig 2024.

⁶⁸ European Securities and Markets Authority 2023, pp. 5–9.

⁶⁹ Betts, Jaep 2017, p. 217 ff; Hricik et al. 2017, p. 468 (“*augmented drafting services*”); Lipshaw 2018, p. 136; Sartor 2018, p. 271.

⁷⁰ See, e.g., consideration AG of European Parliament, Resolution on Civil Law Rules on Robotics, P8_TA(2017)0051, 16 February 2017, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52017IP0051>.

⁷¹ On the legal implications of such deployment of AI-powered chatbots, see more extensively Herbosch 2024, p. 1. ff.

⁷² Lauritsen 2017, p. 68; Semmler, Rose 2017, p. 86; Hansson 2018, p. 13-14; Walters, Wright 2018, p. 18; Colloway 2019, p. 42-43 (future); Sapkota et al. 2020, p. 218-219; Mebius 2020, p. 30.

⁷³ See, e.g., Piehler 2007, p. 13; Lietke 2009, p. 57; Gencheva, Davidavičienė 2016, pp. 19–21; Wangerin 2019, pp. 2348–2349.

⁷⁴ See, e.g., Lajoux, Elson 2010, pp. 3–7.

⁷⁵ The structured component entails the review of documents, while the unstructured component involves investigating implicated facts and interviewing relevant parties. See Remus, Levy 2017, p. 517.

⁷⁶ For instance, Kira Legal can be used to analyse the contractual obligations of the target, by identifying clauses such as those based on a change of control. See Remus, Levy 2017, p. 517; Armour, Parnham, Sako 2021, p. 68; Armour, Sako 2021, p. 8.

⁷⁷ For instance, the start-up Neotas uses AI to run background checks on management teams by scraping data from the internet. See Choe, Hahn, Rabbitt-Tomita 2018.

cases, the duty of good faith requires Delaware directors to attain the best price for a (merger) transaction,⁷⁸ or to maximize the short-term value of the company when a hostile takeover is imminent.⁷⁹ A knowing and complete “utter failure” to achieve the best deal might result in a breach of duty.⁸⁰ To help build the case that they properly discharged this obligation, the directors might benefit from relying on an AI model that uses market data to analyse a certain transaction and investigate the plausibility of alternatives.⁸¹ The latter may help them in their defence against complaints about the transaction, as the Delaware Supreme Court requires them to conduct “a market check” or to “demonstrat[e] an impeccable knowledge of the market”.⁸²

At the same time, the imperfections of AI systems are fully evident in the domain of M&A. It is not only possible, but inevitable—if these systems are deployed frequently enough—that AI tools may attribute an incorrect value to a purchase target, identify poor targets, draft an imperfect contract, or disrupt negotiations. Similarly, due diligence tools carry the risk of incorrectly flagging harmless contracts or clauses as problematic or failing to detect critical provisions, such as a highly significant hostile takeover clause. Rather than dismissing these tools outright—after all, a junior associate might make similar mistakes—this highlights the critical importance of proper tool selection and supervision.

Each of these instances raises important legal questions, both concerning the internal decision-making process of the buyer and regarding their “external” relationships, such as with the provider or deployer of the tool. More broadly, it prompts an inquiry into whether legal doctrines such as mistake or misrepresentation might apply and to what extent these can be excluded by the commonly used representations and warranties in M&A transactions. It also raises questions about the informational duties that the internal decision-making bodies of both transaction parties must adhere to. We will explore these questions below, beginning with the external legal exposure associated with the use of AI M&A tools. Our overarching objective, in both the external and internal discussion, is to distill best practices that maximise legal protection for all parties involved.

EXTERNAL IMPLICATIONS OF AI-SUPPORTED TRANSACTIONS

PROVIDERS & DEPLOYERS

With regard to the external relations of the buyer relying on erroneous AI output in the context of an M&A transaction, two parties come to mind. First, there is the party that provided the AI tool that the buyer used. Second, the buyer may not have used the tool directly themselves, but may have hired an external party—such as a legal professional or consultant—to assess some aspects of the transaction for them. In case the latter relied on erroneous AI output, this raises the question of their liability. We will generally discuss both as if the buyer of the M&A

⁷⁸ *Lyondell Chemical Co. v. Ryan*, 970 A.2d 235, 242–243 (Del. 2009). There is no similar case law in Belgium, the UK or Germany, as these jurisdictions generally require the board to balance all stakeholder interests in case of a company sale.

⁷⁹ *Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc.*, 506 A.2d 173 (Del 1986). See also Velasco 2019, p. 72.

⁸⁰ *Lyondell Chemical Co. v. Ryan*, 970 A.2d 235, 243–244 (Del. 2009).

⁸¹ Cowger 2022-23, p. 171.

⁸² *Lyondell Chemical Co. v. Ryan*, 970 A.2d 235, 243 (Del. 2009).

transaction is relying on the tool, but the discussion applies similarly if the tool—*e.g.*, a negotiation tool—is used by the seller.

I. PROVIDERS

First, let us consider the scenario in which the buyer deployed an externally developed AI tool in-house. A key consideration—one to which we will return later—is whether the buyer was justified in relying on the AI tool’s output in the first place. For now, we will examine whether the buyer may hold the AI tool provider liable for the tool’s undesirable performance.

A critical factor in this analysis is that AI systems are inherently imperfect (*supra*). As a direct consequence, the mere fact that an AI tool generated erroneous output does not, in itself, establish that the provider failed to supply an adequate tool.⁸³ Any AI tool will produce some degree of erroneous output. This issue and its broader implications are central to many discussions on AI-related liability,⁸⁴ though we will not explore them in detail here.

A crucial question regarding the potential liability of the AI system provider is what the parties contractually agreed upon.⁸⁵ If the agreement explicitly stipulated that the AI tool—such as a classification tool for identifying “problematic” contract clauses in due diligence—would achieve a certain level of performance or accuracy in correctly identifying or missing clauses, then the system must meet that threshold.⁸⁶

However, in many cases, contractual agreements are less specific about the performance standards the system must meet. This ambiguity is further complicated by the fact that the training of the AI tool—its “learning”—may be partially or entirely the responsibility of the party deploying it. In such cases, and more generally when the contract with the tool provider does not explicitly define performance requirements, the standards the tool must meet are less clear. In general, the relevant standard⁸⁷ is that the the system should be fit for its relevant use by the person purchasing the tool.⁸⁸ This encompasses various components. First, given how crucial it is for humans to be able to verify the system’s analysis, the system should arguably support some level of human verification. We will return to some of the relevant elements in this assessment below. Second, and perhaps more evidently, the tool must still meet reasonable standards of accuracy. It is not always easy to accurately assess this. While a “clause-spotting” tool that is inherently incapable of identifying targeted clauses does not meet this standard, the

⁸³ See Claes, Herbosch 2023, p. 485-486. Also see on the difficulty of qualifying the relevant contract (as a sales contract or a services contract): Cole 1990, p. 160, footnote 109 (in the context of a potential application of products liability).

⁸⁴ In that context, this is reflected in some of the challenges of causality in AI contexts, on which, *e.g.*, Gerstner 1993, p. 249; Lai 2021, p. 628-631.

⁸⁵ Claes, Herbosch 2023, p. 485-487.

⁸⁶ Claes, Herbosch 2023, p. 486-487.

⁸⁷ See on the difficulty of that assessment in more detail: Kaulartz 2021, no. 24; Claes, Herbosch 2023, p. 485.

⁸⁸ See, *e.g.*, on this standard in the sales regime in Belgium: art. 1641 old CC; Cass. 7 juni 2019, *RW* 2019-20, 1105; Cass. 27 april 2020, *TBO* 2020, 354; Bellinck 2019, p. 137; Dambre 2020, p. 76. For France: Collart-Dutilleul et al. 2019, p. 690; Barret, Brun 2019, nos. 536 ff. For Germany: §434 BGB; Westermann 2019, nos. 1 ff. See similarly in Article 35 CISG. Even if the contract is not a sale in the strict sense, this standard applies analogously, see Claes, Herbosch 2023, p. 485.

assessment is far more difficult for a tool that, for example, accurately identifies 60% of the change of control clauses but misses 40% of them.

The relevant standards are inherently abstract. That flexibility is, however, a feature and not a bug:⁸⁹ it allows for a highly tailored, contextual assessment. That assessment can include the costs the provider would incur to further improve the system—resembling the American Learned-Hand test.⁹⁰ It is also impacted by external standards, such as those in the European AI Act, which, while not necessarily applicable in the context of low-risk AI systems such as those discussed here (*supra*), help identify benchmarks. It can further be influenced, for example, by the contractual terms between the provider and the deployer.⁹¹ These terms can, directly, limit the buyer’s expectations of the tool’s specifications—for instance, by lowering the required accuracy threshold. If the buyer subsequently decides to purchase the tool, this indicates that they envisage a more supportive role for the tool in their due diligence process—correspondingly impacting the thresholds the system should meet.

Additionally, the contract can restrict the provider’s liability if the AI system fails to meet the required system performance threshold. An important barrier in this regard is that such liability limitation clauses cannot eradicate the essence of the contract.⁹² That may be the case if the contract says that the provider is not liable regardless of the performance of the tool. This holds, in particular, if the parties had explicitly agreed on a minimal level of system performance in their contract.⁹³ While different legal systems impose varying limits on the extent to which such liability restrictions are enforceable,⁹⁴ these provisions are likely to play a crucial role in determining compensation for deficiencies in AI systems.

II. DEPLOYERS

The situation differs when the buyer relies on a service provider, such as a lawyer or legal consultant, who deploys an AI tool to assess the desirability of an acquisition target. In such cases, the buyer has no direct relationship with the AI tool provider or developer. Instead, the focus shifts to the relationship between the buyer and the service provider.

⁸⁹ Cf. Wachter et al. 2021, p. 8 (discussion discrimination law).

⁹⁰ This test serves as a tool to establish negligence. It compares the burden of precaution with the expected harm, holding a party liable if they could have avoided that harm through a burden of precaution of lower economic value than that harm, see *United States v. Carroll Towing Co.*, 159 F.2d 169, 173 (2d Cir. 1947); O’gorman 2014, p. 127 ff.

⁹¹ Also see Claes, Herbosch 2023, p. 487-488.

⁹² For Belgium: Art. 5.89 §1 fourth part. See similarly for German law on “Kardinalpflichten”, Kaulartz 2021, no. 30. Also see Claes, Herbosch 2023, p. 480. Similarly, under American law, such a clause may be argued to be unconscionable as it renders the contract one-sided, see §208 Restatement (Second) of Contracts.

⁹³ Kruithof 1984, p. 280-281 (in general); Claes, Herbosch 2023, p. 487-488 (for AI contracts). Also see Froomkin et al. 2019, p. 61.

⁹⁴ *E.g.*, many legal systems do not allow liability limitations for intentional breaches of the contract (for Belgium: Art. 5.89 §1 third para 1° CC; for France: Cass.com 15 June 1959, *D.* 1960, p. 97; for Germany: § 276 (3) BGB). Similarly, some exclude liability limitations for physical harm (*e.g.*, for France: Cass.fr. 21 November 1911, *DP* 1913, I, p. 249; for Belgium: Art. 5.89 §1 third para 2°).

Generally, the presence of an AI tool does not alter that relationship:⁹⁵ the relevant duties that apply are those characterizing the relationship between the two parties (*e.g.*, those between a lawyer and their client).⁹⁶ While the contract between the buyer and the service provider could, in theory, contain provisions regarding the use of AI tools, this is typically not the case. Interestingly, the Flemish Bar Association in Belgium adopted a guideline that explicitly states that lawyers are not required to inform their clients about their use of AI tools.⁹⁷ As a result, the use of an AI tool does not change the nature of the service provider's obligations.⁹⁸ A service provider is generally not expected to deliver perfect or flawless services but rather to make a reasonable effort.⁹⁹ The reasonableness of some level of service, however, may be impacted by the cost charged for those services¹⁰⁰ and the way they were advertised.

However, AI tools can have an indirect impact. First, the duty of reasonable efforts may, in some cases, require the use of AI tools,¹⁰¹ given the advantages that these systems may offer.¹⁰² This is well illustrated by the Canadian case mentioned earlier, in which a court reduced a lawyer's fee on the grounds that he would have spent less time on the case had he used an AI tool.¹⁰³ Second, the use of AI tools shifts the focus to how the tool was selected¹⁰⁴ and how it was deployed,¹⁰⁵ making the service provider's choices in deploying AI a relevant consideration.

Since most service providers are generally held to a duty of reasonable efforts, they must select and use their AI tools with reasonable care (*cf. infra*).¹⁰⁶ This means choosing—or developing, if the tool is developed in-house (also *cf. infra*)—an AI tool that is well-suited for the task at hand and achieves an adequate level of performance.¹⁰⁷ If the deployer is responsible for training the tool, that means they should train for a sufficiently reasonable amount of time with sufficient amounts of training data.¹⁰⁸ That does not mean the tool has to be perfect—which is impossible (*supra*). To assess which measures are reasonable, the Hand formula offers a useful framework. It states that some behaviour is negligent if the expected harm (*i.e.*, the product of

⁹⁵ Claes, Herbosch 2023, p. 489 ff.

⁹⁶ See similarly Selbst 2020, p. 1319-1320.

⁹⁷ Orde van Vlaamse Balies, 2025.

⁹⁸ See Schirmer 2016, p. 664; Claes, Herbosch 2023, p. 489.

⁹⁹ See, *e.g.*, for Belgium: Panis 2011-12, p. 233; Brulez 2019, p. 2-3; Wéry 2021, p. 558. For France: Le Tourneau, Poumarède 2019, no. 80. For the Netherlands: Blei Weissmann 2018, no. 2.3. For Germany Wagner 2012, p. 791; Weller, Benz 2015, p. 472.

¹⁰⁰ In this sense, the explanatory notes to Article 5.230 Belgian CC indicates the notion of “force majeure” is expanded or restricted based on the price paid, in attributing a failure to perform due to the use of a “defective” tool to a contractual party (Parliamentary preparation of the law proposal introducing book 5 into the Belgian Civil Code, Parl.St. Kamer 2020–2021, no. 1806/001) p. 266.).

¹⁰¹ See similarly Herbosch 2025, p. 420-421.

¹⁰² See similarly Weber et al. 2018, p. 1133-1134; Van Esch 2020, p. 19.

¹⁰³ Superior Court of Justice Ontario 22 November 2018 (Cass v. 1410088 Ontario Inc., 2018 ONSC 6959), <http://canlii.ca/t/hw728>.

¹⁰⁴ See similarly Mwafulirwa 2022, p. 411 (for self-driving cars).

¹⁰⁵ See similarly Cofone 2018, p. 191.

¹⁰⁶ See similarly Cofone 2018, p. 191 (use); Mwafulirwa 2022, p. 411 (selection).

¹⁰⁷ Also see Herbosch 2025, p. 436. See similarly on the requirement of an adequate level of performance for high-risk systems: Art. 15 of the European AI Act.

¹⁰⁸ See similarly Herbosch 2025, p. 436.

the harm's magnitude and its probability) exceeds the cost of precautions.¹⁰⁹ Additionally, standards such as in the European AI Act may play a similar role as for providers (*supra*), despite not being binding in this context of low-risk systems.

Other relevant factors include the degree of supervision the tool allows or facilitates, as well as its level of explainability.¹¹⁰ Particularly in the context of legal due diligence work, it is relevant that a lawyer is able to verify the system's output—thus stressing the added value, or added diligence, of deploying tools that facilitate supervision.¹¹¹ For a given level of time and effort spent on supervision, explainability can ensure higher results, underscoring the relevance of explainability as well.¹¹² These considerations are also crucial in assessing how the tool is actually used. While it is generally more reasonable to use an AI tool with attentive supervision—such as briefly reviewing its output—than to rely blindly on the same system, questions of whether some level of supervision is adequate are very context-dependent,¹¹³ mimicking the cost-benefit reasoning considerations discussed earlier for tool providers (*supra*). In any case, service providers can be expected to spot obvious errors by the system.

Interestingly, initiatives such as the European AI Act offer inspiration here as well. The standards and requirements developed in the context of the Act may help to identify benchmarks. In that sense, it is more diligent to deploy a system that meets that Act's requirements in terms of supervision and explainability, despite the fact that this may not be strictly required.¹¹⁴ Another key guideline is that it is more reasonable to use an AI tool in accordance with its user manual.¹¹⁵

Interestingly, some jurisdictions include specific provisions for assessing tools used in contract performance. This is exemplified by Article 5.230 of the Belgian Civil Code and Article 6:77 of the Dutch Civil Code. The latter holds a debtor contractually liable for failing to perform their obligations if the failure was due to an “unsuitable” tool or object used to perform the contract,¹¹⁶ while the former states that a debtor is liable if non-performance results from the use of a “defective” tool.¹¹⁷ Arguably, determining whether an AI tool is “unsuitable” or “defective” should be guided by the general requirements outlined above. For instance, if an AI tool relevant to the task performs poorly, that deficiency may be precisely what renders it defective.

Notably, this argument is reinforced by the Belgian legal framework, which considers the “defectiveness” of a tool in relation to the price paid for the service,¹¹⁸ essentially adding a layer

¹⁰⁹ See *United States v. Carroll Towing Co.*, 159 F.2d 169, 173 (2d Cir. 1947).

¹¹⁰ Both elements are also found in the European AI Act for high-risk systems, see Articles 13 and 14 of that Act.

¹¹¹ See in a similar sense Cofone 2018, p. 191.

¹¹² See similarly Herbosch 2025, p. 432-433.

¹¹³ Also see Herbosch 2025, p. 438-439.

¹¹⁴ See similarly Herbosch 2022, p. 18-19.

¹¹⁵ Marchant, Lindor 2012, p. 1327. See also Selbst 2020, p. 1328-1329.

¹¹⁶ De Graaf, Wuisman 2021, p. 907-908.

¹¹⁷ Jafferali 2023, p. 48.

¹¹⁸ Parliamentary preparation of the law proposal introducing book 5 into the Belgian Civil Code, Parl.St. Kamer 2020–2021, no. 1806/001) p. 266.

of subjectivity to this assessment. A lower price thus implies that the service provider is afforded greater leeway in selecting, training, and supervising the AI tool, as the standard of care is adjusted accordingly.

Much like when the AI system constitutes the object of the contract, liability limitations covering AI use in the deployment of a contract cannot go as far as to eradicate the essence of the contract (*supra*). For legal services, and due diligence more specifically, a contractual clause in a contract between a lawyer and a client can thus not go as far as to specify that the lawyer only “runs” their AI tool without any obligation to verify. The only exception would be if the contract's primary purpose is not the provision of legal services or consultancy, but rather access to the AI tool itself—in which case the buyer in the M&A transaction would be the relevant deployer.¹¹⁹

M&A COUNTERPARTY AND TRANSACTION

Another important implication of AI deployment concerns the M&A transaction itself. In theory, the validity of the contract could be affected if it was concluded based on an erroneous perception of reality.¹²⁰ However, applying this legal framework to support a buyer who relied on an AI tool presents several challenges. In examining these obstacles, we will also briefly consider their relevance in cases where it was not the buyer but the seller who deployed an AI tool—such as a chatbot-like application used to distribute information to prospective buyers.

A key obstacle in the context of AI deployment is that, in most legal systems—German law being a notable exception—the mistake regime generally¹²¹ requires the mistaken party to have erred “excusably”.¹²² This means that the mistake must have been reasonable—*i.e.*, one that a reasonable person could also have made,¹²³ without falling short of standards of good faith and fair dealing.¹²⁴ The crucial question is whether reliance on an AI system meets that criterion, given that the party deploying the system was reasonably aware of its inherent imperfections. That assessment contains a subjective component. What behaviour is reasonable depends on the party exhibiting the behaviour. That threshold is inherently higher for a professional than for a layman, and more precisely, accounts for the mistaken party’s relevant experience¹²⁵—

¹¹⁹ In most jurisdictions, ethical guidelines prevent lawyers from deploying the tool in this way—thus necessitating a separate legal entity to provide this kind of service to clients.

¹²⁰ See, *e.g.*, § 153 Restatement (Second) of Contracts; Art. 5.34 Belgian CC; Art. 1130 and 1133 French CC; § 119 BGB.

¹²¹ This requirement does not exist in German law, see, *e.g.*, Flume 1965, p. 420; Fuchs 2019, no. 1.

¹²² For Belgium: Article 5.34 CC. For France: Art. 1132 CC. For the USA: § 157 Restatement (Second) of Contracts, and also, *e.g.*, *Williams v. Fernandez*, 335 So. 3d 194, 197 (Fla. Dist. Ct. App. 2022); Artc. 1577 Californian CC.

¹²³ See, *e.g.*, for Belgium: Cass. 6 January 1944, *Arr. Cass.* 1944, 66, *Pas.* 1944, I, 133, annotated by R.H.; Goux 2000, p. 18; Del Corral 2011, p. 63; Peeraer 2019, p. 150.

¹²⁴ § 157 Restatement (Second) of Contracts.

¹²⁵ See in this sense for Belgium Dirix 1985, p. 102-103; Von Kuegelgen 1994, p. 319; De Boeck 2007, p. 62; Del Corral 2011, p. 72-73; De Boeck, Waelkens 2017, p. 37-38; Samoy et al. 2021, p. 168. For France Cass.fr. 26 October 2005, no. 04-15354, <https://www.legifrance.gouv.fr/juri/id/JURITEXT000007500077>; Cass.fr. 28 November 2019, no. 18-22088, ECLI:FR:CCASS:2019:C301007, <https://www.legifrance.gouv.fr/juri/id/JURITEXT000039465874>; Pellet 2010, p. 297; Taylor 2021, p. 232-234.

both with AI systems (and the corresponding knowledge of their imperfections) or in the domain where the system is applied (*e.g.*, in due diligence).

Some argue that the awareness of the imperfections of AI excludes the mistake regime entirely.¹²⁶ A similar argument is found in more traditional contexts,¹²⁷ although it is not very convincing in either context.¹²⁸ It is difficult to be absolutely certain about all aspects of the contract in any context, regardless of the deployment of AI.¹²⁹ The excusability requirement offers a far more nuanced assessment whether that lack of certainty was in violation of good faith requirements, or if the mistaken party deserves protection nonetheless.

This is also supported by considering an alternate scenario in which a party does not rely on an AI tool, but instead relies on the advice of an external expert. The fact that a party seeks expert advice can, in fact, be considered as a sign of diligence or excusability.¹³⁰ The relevant criterion in such situations, too, is whether the mistaken party behaved reasonably in selecting their advisor and in relying on their advice.¹³¹

For legal professionals, as discussed here, the resulting threshold is inherently more strict than for consumers (*supra*). This discussion closely mirrors the discussion above regarding liability for the deployment of an AI system. Using an AI system is not inherently unreasonable—in fact, it may be entirely reasonable under the circumstances, as illustrated by the example of the Canadian lawyer mentioned earlier. The key issue is, again, not *whether* an AI system was used, but *how*. This raises questions regarding the selection of the system, its accuracy, and the level of supervision exercised over its output. Depending on these factors, the excusability requirement can be met. The specific assessment of the diligence of some AI deployment resembles that in the context of (contractual) liability claims, discussed earlier (*supra*).

Interestingly, this threshold is generally lowered when the mistaken party relies on a statement made by the counterparty,¹³² although this does not automatically result in excusability.¹³³ Similarly, an explicit excusability requirement is usually¹³⁴ absent in cases of fraudulent misrepresentation by the counterparty.¹³⁵ While the evaluation becomes more nuanced when fraudulent intent is absent—particularly if the counterparty has explicitly stated that the

¹²⁶ See in such a sense, deeming a mistake inherently speculative in the context of AI deployment to form the contract itself: Pieper 2020, p. 255-256; Säcker 2021, no. 199.

¹²⁷ Captured in French as “*l’aléa chasse la nullité pour erreur*”, see Von Kuegelgen 1994, p. 327; Ghestin, Serinet 2018, nos. 58 ff.

¹²⁸ Also see Ghestin, Serinet 2018, pno. 60.

¹²⁹ See Ghestin, Serinet 2018, nos. 68 ff. Also see De La Durantaye 2020, p. 17-19.

¹³⁰ See, *e.g.*, United States v. Schilling, 454 F. Supp. 2d 831, 838 (N.D. Iowa 2006) (negligence because no advice was sought). See similarly Janis, Mann 1977, p. 59.

¹³¹ See in this sense for France: Gorphe 1928, p. 134. See similarly for Belgium: Del Corral 2011, p. 74; De Boeck, Waelkens 2017, p. 41.

¹³² See, *e.g.*, §153 (b) Restatement (Second) of Contracts; Article 6:228 b) Dutch CC. Also see for Belgium: Del Corral 2011, p. 75; De Boeck, Waelkens 2017, p. 42. For France: Ghestin et al. 2013, p. 998-999, no. 1221.

¹³³ See, *e.g.*, for Belgium: De Boeck 2007, p. 63.

¹³⁴ Sometimes, such a requirement is deemed present in the US, although it is equally often rejected, see Lord 2021, p. §69:33; Amendola et al. 2022, p. §236.

¹³⁵ For Belgium: Cass. 6 October 1977, *Arr.Cass.* 1978, 168. For France, see Art. 1139 French CC.

mistaken party should verify some or all information independently¹³⁶—this remains a relevant consideration for a party relying on an AI tool’s assessment, especially when the tool’s erroneous conclusion stems from incorrect information provided by the counterparty. This issue is particularly relevant when information is provided through a chatbot-like AI tool deployed by the seller.

While we would hope that fraudulent intent is generally absent in M&A due diligence, the provision of incorrect information by the target company may thus make it easier to invoke the mistake regime. If fraudulent intent¹³⁷ is present—such as when the target knowingly deploys a subpar AI system that is more likely to mislead the prospective buyer than other reasonably available tools—the buyer may be able to rely on fraudulent misrepresentation to annul the contract.¹³⁸

A second potential obstacle is that many jurisdictions limit the application of the mistake regime to errors affecting the essential elements of the contract, excluding mistakes related to the value of the purchased object.¹³⁹ The subjective assessment of value is often considered a matter of motive rather than an essential element of the contract, thereby precluding the application of the mistake doctrine.¹⁴⁰ As a result, incorrect assessments of a target’s value by an AI tool do not, in themselves, entitle the buyer to annul the contract.

However, in many cases, an erroneous valuation of the target is based on assessments of the target’s essential characteristics,¹⁴¹ for which the mistake regime may yet apply.¹⁴² It is important to note that in some jurisdictions, this regime is applied more restrictively to share purchases than to asset purchases.¹⁴³ A share purchase is sometimes interpreted as limiting the essential elements to the direct characteristics of the corporation itself, rather than extending to the essential elements of its assets. This reasoning is less persuasive in cases where the holdings of the corporation are precisely the primary motivation for the purchase of the shares.¹⁴⁴

Perhaps the most significant obstacle to invoking the mistake regime in an M&A transaction is the well-established practice of contractually allocating mistake-related risks to the buyer, often with the aim of excluding the application of the mistake doctrine altogether or heightening the

¹³⁶ In the US, such statements can be interpreted as shifting the risk of the mistake in the sense of § 153 Restatement (Second) of Contracts. It is useful to stress, though, how some legal systems limit the extent to which the mistake regime can be excluded using such statements, *e.g.*, for Belgium: Demarsin 2013, p. 454-455.

¹³⁷ See on this requirement of fraudulent misrepresentation: for the USA: SIGA Techs., Inc. v. PharmAthene, Inc., 67 A.3d 330 (Del. 2013); Amendola et al. 2022, p. §220. For France: Demolombe 1868, p. 155, no. 173; Dissaux 2021, no. 146. For Belgium: Verdict 2011, p. 183; Goossens 2020, p. 38. For Germany: Singer, Von Finckenstein 2021, no. 50; Wendtland 2021, no. 17.

¹³⁸ See more extensively Herbosch 2024, p. 6-9.

¹³⁹ For Belgium: Art. 5.34 fourth part CC. For France: art. 1136 CC. See similarly in Germany: De La Durantaye 2020, p. 330 ff (where some types of mistake are still permissible in this case). In the USA, such mistakes are excluded as the risk of the mistake is likely to be placed with the mistaken party, in the sense of § 153 Restatement (Second) of Contracts.

¹⁴⁰ See, *e.g.*, De Page 1962, p. 53; De Boeck, Waelkens 2017, p. 9-10; Zalewski-Sicard 2016, p. 326 ff.

¹⁴¹ *E.g.*, for Belgium: Parmentier 1984, p. 62; Herbots et al. 1985, p. 790-791. For France: Dissaux 2021, no. 141.

¹⁴² Similarly, in Germany, such mistakes may still constitute an Erklärungsirrtum, see LG Koblenz 28 juli 2011, MMR 2011, 657; Glossner 2013, no. 55; De La Durantaye 2020, p. 332

¹⁴³ See particularly for Belgium: Reniers 2017, p. 185; Tilleman et al. 2024, p. 261-262.

¹⁴⁴ This, however, means that the buyer may be required to be more communicative regarding how important the underlying assets are, see Tilleman et al. 2024, p. 262-263. Also see Hellemans, Heynickx 2007, p. 223-224.

relevant thresholds. While a complete exclusion of mistake may not be legally permissible in every jurisdiction (*supra*), contractual clauses allocating such risks can make it significantly more difficult—if not nearly impossible—to rely on the mistake regime. They will particularly impact the excusability requirement (*supra*),¹⁴⁵ making it more difficult to reasonably rely on information provided by the counterparty—especially when that information has been processed by an AI tool. This increases the challenge of invoking the mistake regime and, by extension, makes it harder to excusably rely on AI tools.

The foregoing highlights key considerations that buyers deploying AI tools should take into account. First, the accuracy of the AI tool is crucial, as the mistake regime will often fail to provide protection. Additionally, tools that facilitate human supervision and verification are clearly preferable. Second, buyers should be cautious about accepting full responsibility for mistakes, particularly when the information in question has been provided by an AI system on behalf of the seller. Like any AI tool, such systems are prone to occasional errors, which may be difficult for the buyer to detect.

INTERNAL IMPLICATIONS OF BOARD'S AI USE

The legal implications arising from the use of AI systems in M&A context do not only exist externally with regard to counterparties, but are also pervasive in the internal decision-making process of the deploying company. Here, it is the board of directors who is responsible for most steps of the M&A process leading up to the final agreement, such as price negotiations. Still, the agreement is in most jurisdictions subject to a final approval from the general meeting of shareholders,¹⁴⁶ whether a share purchase (SPA) or a (substantial¹⁴⁷) asset purchase (APA).

It is therefore a responsibility of the board to diligently prepare, negotiate and present the intended M&A transaction to the general meeting of shareholders. In this process, the board should pay attention to the information that it uses to assess the value of the target company. Famous Delaware cases, such as *Smith v. Van Gorkom* (or *Trans Union*¹⁴⁸), have shown that poorly informed M&A decisions may expose the board to derivative duty of care challenges

¹⁴⁵ If a party was warned about the potential uncertain nature of an element, the standards of good faith and fair dealing applied in the context of the excusability requirement impose a more thorough examination.

¹⁴⁶ For Delaware, see S. 251 (b) and (c) Delaware General Corporation Law 2016 (merger or consolidation of domestic corporations). For Belgium, see art. 12:30 WVV (merger through sale), art. 12:43 WVV (merger through establishment of new company), art. 12:53 WVV (to merger assimilated transactions). For the UK, see S. 907 (1) Companies Act 2006 (merger of public companies). For Germany, see S. 13 (1) Umwandlungsgesetz (merger through sale), S. 36 (1) Umwandlungsgesetz (merger through establishment of new company).

¹⁴⁷ The threshold for what constitutes a substantial APA, subject to shareholder approval, differs from jurisdiction to jurisdiction. In this respect, S. 271 (a) Delaware General Corporation Law 2016 refers to “all or substantially all of its assets”, which implies that the assets are quantitatively vital to the operation of the company, that the sale is extraordinary, and that the sale substantially affects the existence and purpose of the company (see *Gimbel v. Signal Companies, Inc.*, 316 A.2d 599, 606 (Del. Ch. 1974)). Other jurisdictions apply mathematical ratios to determine whether the APA requires shareholder approval, such as Germany (a transfer of *all* of the assets; cf. S. 179a (1) Aktiengesetz) and Belgium (a transfer of $\frac{3}{4}$ of the assets; cf. art. 7:151/1 WVV for listed companies). The German case law and literature, however, agree that a transfer of “almost” all assets suffices in this respect. See BGHZ 83, 122, 128 (BGH 1982); Stein 2021, AktG §179a, no. 17.

¹⁴⁸ See, e.g., Fischel 1985, p. 1437.

from minority shareholders.¹⁴⁹ Taking into account the inherent risks of AI usage in the M&A preparation process (cf. *supra*), these cases raise significant questions about the board's due care requirements.

STANDARD OF CONDUCT

In a traditional context, the literature accepts that a director should be able to rely on the professional advice of persons inside or outside the company (other than directors), of whom the director reasonably believes that they have the necessary professional or expert competence for the matter at hand.¹⁵⁰ In a similar vein, the majority of scholars views the use of technology as an advisory tool to the board, which generally has a positive effect for the information basis of the decision, as in principle permissible.¹⁵¹ In deploying AI as a support tool for M&A transactions, however, the board should ensure compliance with its (sometimes fiduciary¹⁵²) duties, such as the duties of care and loyalty.¹⁵³ The impact of these duties to the information procurement process plays a crucial role here, as the described AI applications are essentially used by the board as an *information source* to its various intermediary decisions in the M&A process, in addition to the final resolution to the shareholders.

The Delaware Supreme Court renders the director's duty to exercise an informed business judgment as in the nature of his fiduciary duty of care.¹⁵⁴ The Court states that "the determination of whether a business judgment is an informed one turns on whether the directors have informed themselves prior to making a business decision, of all material information reasonably available to them" (the Aronson-test).¹⁵⁵ Material facts are, according to the Court, those that are "relevant and of a magnitude to be important to directors in carrying out their fiduciary duty of care in decision-making".¹⁵⁶ This duty entails the procedural component of the duty of care—besides the substantive component that affects the substance of business decisions rather than their preparation.¹⁵⁷ Other jurisdictions, such as the UK and Belgium, do

¹⁴⁹ Smith v. Van Gorkom, 488 A.2d 858, 870–893 (Del. 1985). See also Allen, Jacobs, Strine 2001, p. 872; De Wulf 2002, pp. 466–468, no. 894–896; Shu-Acquaye 2004, pp. 21–26; Mölslein 2007, p. 132; Sharflan 2008, pp. 291–293.

¹⁵⁰ In the United States, the Model Business Corporation Act entitles directors with that right (S. 8.30 (e)-(f) Model Business Corporation Act 2016). The corporate governance codes of Belgium and the United Kingdom implicitly recognise the ability of the board of listed companies to seek independent professional advice for certain matters. See Principle 4.8 Corporate Governance Committee 2020; Provision 35 Financial Reporting Council 2018.

¹⁵¹ See, e.g., Lücke 2019, p. 1989; Zetzsche 2019, p. 7; Noack 2020, p. 953–956; Hoerdemann-Napp, Pauli 2021, p. 134; Fleischer 2023, § 76, no. 74 and 77; Langheld, Haagen 2023, p. 1537.

¹⁵² E.g., while the director's duty of care is fiduciary in nature under Delaware law, it is not under UK law. See Esser, Loughrey 2020, pp. 1515 ff; Davis et al. 2021, pp. 250–251, no. 10-004.

¹⁵³ In addition to, for instance, the explicit "duty of legality" under German law.

¹⁵⁴ Smith v. Van Gorkom, 488 A.2d 858, 872-873 (Del. 1985).

¹⁵⁵ Aronson v. Lewis, 473 A.2d 805, 812 (Del. 1984). See also Smith v. Van Gorkom, 488 A.2d 858, 872 (Del. 1985); Brehm v. Eisner, 746 A.2d 244, 259 (Del. 2000); Kaplan v. Centex Corporation, 284 A.2d 119, 124 (Del. Ch. 1971); In re Walt Disney Co. Derivative Litigation, 907 A.2d 693, 749 (Del. Ch. 2005). For a discussion, see Furlow 2000, p. 1084; Uebler 2010, pp. 1026-1027. For a different opinion, see Shu-Acquaye 2004, p. 31.

¹⁵⁶ Brehm v. Eisner, 746 A.2d 244, 260, footnote 49 (Del. 2000). See also Sutherland v. Sutherland, 2010 WL 1838968, 10 (Del. Ch. 2010).

¹⁵⁷ Although not explicitly distinguished in all jurisdictions, Delaware case law states that the substantive due care component requires the board to "use that amount of care which ordinarily careful and prudent men would use in similar circumstances";

not make this explicit distinction and consider challenges to the information basis of business decisions under the umbrella concept of the (substantive) duty of care.¹⁵⁸

In contrast, German corporate law considers the sufficient information basis as a condition for the protection of the business judgment rule.¹⁵⁹ A failure to prove the fulfillment of that condition often leads to the finding of a breach of the duty of care,¹⁶⁰ albeit not automatically.¹⁶¹ In this respect, statute requires the board to act on the basis of appropriate information that it reasonably considers adequate.¹⁶² By way of interpretation of this provision, the Bundesgerichtshof stated that the board should “exhaust all available information sources of a factual and legal nature in the specific decision-making situation, and, on this basis, carefully assess the advantages and disadvantages of the existing options for action and take into account the recognizable risks” [own translation].¹⁶³ While this standard conflicts with the wordings of statute and preparatory works,¹⁶⁴ it also seems unrealistic and factually impossible to attain.¹⁶⁵ The literature agrees that the standard set by the Bundesgerichtshof is too strict and should not be applied.¹⁶⁶

In its evaluation of the reasonableness of its information basis, the board should instead make a sensible selection of information by considering the costs and benefits of an extensive factfinding,¹⁶⁷ which is in itself a business decision.¹⁶⁸ Such an analysis should especially take

while the procedural due care component, as mentioned, requires the board to “consider all material information reasonably available”. See *Grobow v. Perot*, 539 A.2d 180, 189 (Del. 1988); *In re Walt Disney Co. Derivative Litigation*, 907 A.2d 693, 749 (Del. Ch. 2005).

¹⁵⁸ For example, the UK Chancery Division ruled in *Revenue & Customs Commissioners v. Holland* that a director failed to obtain sufficient advice from a tax specialist on the tax scheme of a corporate group, and was thus found liable to account for the dividends paid out by the insolvent companies as the director lacked the necessary information to make an informed decision about that dividend pay-out. See *Revenue and Customs Commissioners v Holland (Paycheck Services 3 Ltd, Re, Holland v Revenue and Customs Commissioners)*, [2011] B.C.C. 1. Similarly, in *Re Sunrise Radio Ltd.*, the Chancery Division indicated that the board should seek an independent evaluation of a fair share price before making the business judgment to issue new shares at that given price. See *Re Sunrise Radio Ltd (Kohli v. Lit)*, [2010] 1 B.C.L.C. 367.

¹⁵⁹ See *infra* for an account on the German standard of review.

¹⁶⁰ E.g., ZIP 2010, 28, no. I-6 W 45/09 (OLG Düsseldorf 2009). However, there are exceptional cases where the protection of the business judgment rule is denied, but the board decision was still deemed valid and no breach of duty was held. See, e.g., ZIP 2017, 372, no. 23 U 3582/16 (OLG München 2016); ZIP 2017, 372, no. 23 U 3582/16 (OLG München 2017).

¹⁶¹ According to the Bundesgerichtshof, the mere finding that the board did not fulfill its informational duty under the business judgment rule does not automatically lead to a breach of the duty of care or the nullity of the board decision. See NJW 2017, 578, no. 31 (BGH 2016).

¹⁶² S. 93 (1), second sentence AktG.

¹⁶³ NJW 2008, 3361, no. 11 (BGH 2008). The Bundesgerichtshof refers to Goette 2000, pp. 140–142 on this matter. See in a similar sense ZIP 2010, 28 (OLG Düsseldorf 2009). See also ZIP 2013, 1712, no. 30 (BGH 2013); NJW 2017, 578, no. 34 (BGH 2016).

¹⁶⁴ Entwurf eines Gesetzes zur Unternehmensintegrität und Modernisierung des Anfechtungsrechts (UMAG), Drucksachen Deutscher Bundestag (Bundesrat) 2002-05, no. 15/5092, pp. 11–12. See also Lutter 2007, pp. 844–845; Hopt, Roth 2015, p. 156, no. 11.

¹⁶⁵ Peltzer 2013, p. 866; Spindler 2018a, p. 42. See also Helleringer, Möslin 2025, p. 6.

¹⁶⁶ *Inter alia* Fleischer (2009), p. 2339; Cahn 2013, p. 1298; Fleischer 2015a, p. 146; Fleischer 2023, § 93, no. 57; Spindler 2023, § 93, no. 57.

¹⁶⁷ Fleischer 2004, p. 691; Kock, Rinkel 2004, p. 444; Paefgen 2004, p. 254; Spindler 2006, p. 681; Böttcher 2009, p. 1049; Bosch, Lange 2009, p. 231; Kocher 2009, p. 220; Meyer 2011, p. 42; Makatsch 2015, p. 128; Spindler 2017, p. 717; Lieder 2018, pp. 556–557; Spindler 2018b, p. 45; Spindler, Seidel 2022, p. 714, no.26; Fleischer 2023, § 93, no.92; Langheld, Haagen 2023, p. 1537; Spindler 2023, § 93, no.55.

¹⁶⁸ Easterbrook, Fischel 1991, pp. 107-108; Möslin 2007, p. 131; Möslin 2018b, p. 661.

into account three parameters, namely (i) the nature, scope and importance of the decision (strategic decisions generally require a more extensive information basis);¹⁶⁹ (ii) the urgency of the decision, *i.e.*, the time available to find and clarify the facts and discovered information;¹⁷⁰ and (iii) the costs of obtaining the information (and the relationship with the expected benefits of the information).¹⁷¹ Exceptionally, the factual and legal possibility of obtaining the information is also taken into account.¹⁷² The Bundesgerichtshof accepted these criteria in 2016 and 2022.¹⁷³ In other words, there is a limit to how informed managers should be before making a decision, as shareholders only want directors to spend additional resources on the acquisition of information to the point where this generates a better decision-making result and additional economic value.¹⁷⁴

A breach of the board's informational duties does not always result in monetary liability of the board. Certain jurisdictions, most notably Delaware and Germany, provide directors with protection from liability in case of "proper" or "reasonable" reliance on an expert with relevant professional competence. Delaware law explicitly states that "a member of the board of directors [...] shall, in the performance of such member's duties, be fully protected in relying in good faith upon the records of the corporation and upon such information, opinions, reports or statements presented to the corporation by any of the corporation's officers or employees, or committees of the board of directors, or by any other person as to matters the member reasonably believes are within such other person's professional or expert competence and who has been selected with reasonable care by or on behalf of the corporation".¹⁷⁵ The German Bundesgerichtshof developed a similar doctrine for the reasonable reliance defence in its landmark *Ision*-decision.¹⁷⁶ Both doctrines relieve the board from liability (even though a

¹⁶⁹ Brömmelmeyer 2005, p. 2067; Koch 2006, p. 788; Peters 2010, p. 813; Hopt, Roth 2015, pp. 153 and 155, no. 104 and 107; Koch 2018, § 93, no. 20 and 22; Lücke 2019, p. 1991; Seibt 2019, pp. 831 and 839; Fleischer 2023, § 93, no. 92; Langheld, Haagen 2023, p. 1537; Spindler 2023, § 93, no. 59 (also with regard to strategic decisions).

¹⁷⁰ The preparatory work of the law affirms that especially when decisions have to be made under an extraordinary time pressure that is not self-induced, the proper preparation of board decisions is hard or even impossible. See Entwurf eines Gesetzes zur Unternehmensintegrität und Modernisierung des Anfechtungsrechts (UMAG), Drucksachen Deutscher Bundestag (Bundesrat) 2002-05, no. 15/5092, p. 12; Koch 2018, § 93, no. 20; Seibt 2019, pp. 831 and 842–843; Fleischer 2023, § 93, no. 92; Langheld, Haagen 2023, p. 1537. See for a different opinion Lücke 2019, p. 1991.

¹⁷¹ Brömmelmeyer 2005, p. 2067; Koch 2006, p. 788; Seibt 2019, pp. 831 and 842–843; Fleischer 2023, § 93, no. 92.

¹⁷² Meyer 2011, p. 42; Seibt 2019, pp. 831 and 843; Fleischer 2023, § 93, no. 92; Langheld, Haagen 2023, p. 1537.

¹⁷³ NJW 2017, 578, no. 34 (BGH 2016); ZIP 2022, 2435, no. 14 (BGH 2022).

¹⁷⁴ Fischel 1985, p. 1441; Bainbridge 2009, p. 217; Hagenlocher 2009, pp. 121 ff; Miller 2017, pp. 147–148; Möslin 2018a, p. 205; Lücke 2019, p. 1991; Seibt 2019, p. 840; Graumann 2021 pp. 61–70.

¹⁷⁵ S. 141 (e) Title 8 Delaware Code. As applied in *Graham v. Allis-Chalmers Mfg. Co.*, 188 A.2d 125, 130 (Del. 1963); *Cheff v. Mathes*, 199 A.2d 548, 556 (Del. 1964); *Smith v. Van Gorkom*, 488 A.2d 858, 874–875 (Del. 1985); *Cinerama, Inc. v. Technicolor, Inc.* (Cinerama II), 663 A.2d 1156 (Del. 1995); *Brehm v. Eisner*, 746 A.2d 244, 261–262 (Del. 2000); *Prince v. Bensinger*, 244 A.2d 89, 94 (Del. Ch. 1968); *Michelson v. Duncan*, 386 A.2d 1144, 1156 (Del. Ch. 1978); *Cinerama, Inc. v. Technicolor, Inc.*, 663 A.2d 1134 (Del. Ch. 1994); *Ogus v. SportTechie, Inc.*, 2020 WL 502996, 14 (Del. Ch. 2020).

¹⁷⁶ *Ision*, NZG 2011, 1271, no. II ZR 234/09 (BGH 2011) (in the context of relying on the advice of a legal counsel with regard to a capital increase). See also NJW 1994, 2220, no. II ZR 292/91 (BGH 1994); NJW 2007, 2118, no. II ZR 48/06 (BGH 2007); DStR 2007, 1641, no. II ZR 226/06 (BGH 2007); NZG 2012, 672, no. II ZR 171/10 (BGH 2012); NZG 2015, 792, no. II ZR 63/14, no. 35 (BGH 2015). The criteria set out in these decisions can be transposed to the reliance of directors on experts in general, *i.e.*, not only legal counsel, see Fleischer 2023, § 43, no. 314.

breach can still be established¹⁷⁷), insofar the advice was followed in all material aspects,¹⁷⁸ was sought for in good faith,¹⁷⁹ and was within the expert’s professional competence according to the reasonable belief of the director.¹⁸⁰ German law also requires that the advisor is independent,¹⁸¹ and that the expert advice is subject to a plausibility review by the board.¹⁸² Other jurisdictions, such as Belgium and the UK, do not guarantee liability protection in case of proper reliance, but take the reliance on an expert into account as one of the factors that determines the board’s diligence.¹⁸³

The procedural due care standards are without a doubt applicable to the board’s AI use. Whether the proper reliance doctrine can also be applied to AI output, is hotly debated. The majority of the literature contends that an AI system is subject to equivalent criteria as those for a human expert,¹⁸⁴ under the argument that it makes no relevant difference whether the board is advised by a human or machine-based expert.¹⁸⁵ However, some argue that the notion of an “expert” presupposes a natural person,¹⁸⁶ and that is legally unfeasible to qualify an AI system as an expert in a certain field,¹⁸⁷ since AI output cannot be reviewed in the same way as a human-made report (assuming that the report has a certain quality).¹⁸⁸ Here, it is important to underpin that human expert advice can also be opaque for a non-expert director,¹⁸⁹ and that methods are

¹⁷⁷ Interestingly, the Delaware Court of Chancery claims that while S. 141 (e) Delaware Code “fully protects” directors from liability in case of proper reliance, they can still be found to have breached their duty of care under the applicable standard of review, in spite of their conscientious compliance with the requirements of the provision. In a similar vein, under German law, the reasonable reliance on expert advice does not exclude an objective breach of duty, but only prevents the subjective component (“ein Verschulden”, culpability or fault) from being attributed to the director. See for Delaware: *In re Rural Metro Corporation Stockholders Litigation*, 88 A.3d 54, note 13 (Del. Ch. 2014). See for Germany: Ision, NZG 2011, 1271, no. II ZR 234/09, no. 17 (BGH 2011); Strohn 2013, p. 184. Both regimes are criticized. See, e.g., Atkins 2014; Binder 2012a, pp. 767 ff; Fleischer 2019, § 93, no.35g; Fleischer 2023, § 43, no.53.

¹⁷⁸ See for Delaware: *Brehm v. Eisner*, 746 A.2d 244, 262 (Del. 2000); *Ash v. McCall*, 2000 WL 1370341, 9 (Del. Ch. 2000); *In re WonderWork, Inc.*, 626 B.R. 94, 116 (Bankr. S.D. NY 2020) (applying Delaware law). See also Hawes, Sherrard 1976, p. 35; Uebler 2010, p. 1045. See for Germany: Fleischer 2023, §43, no.53.

¹⁷⁹ Delaware law does not protect corporate waste or fraud. There is also a lack of good faith if the director knows that the advice is careless, or if he adopts only favorable advice and rejects other experts’ opinions (*i.e.*, opinion shopping). See *Brehm v. Eisner*, 746 A.2d 244, 262 (Del. 2000); *In re Emerging Communications, Inc. Shareholders Litigation*, 2004 WL 1305745, 38–43 (Del. Ch. 2004). See also Uebler 2010, p. 1044; Rokas 2013, 330–331; Fleischer 2023, § 43, no.314.

¹⁸⁰ See for Delaware: Uebler 2010, pp. 1042–1043; Rokas 2013, p. 332. See for Germany: Peters 2010, p. 815; Wagner 2018, p. 1102.

¹⁸¹ NJW 2007, 2118, no. II ZR 48/06, no. 16 (BGH 2007); Ision, NZG 2011, 1271, no. II ZR 234/09, no. 18 (BGH 2011); NZG 2015, 792, no. II ZR 63/14, no. 36 (BGH 2015); CCZ 2010, 112, no. 20 U 5/09 (OLG Stuttgart 2009). See also Fleischer 2019, § 93, no.35c.

¹⁸² NJW 2007, 2118, no. II ZR 48/06, no. 16 (BGH 2007); Ision, NZG 2011, 1271, no. II ZR 234/09, no. 18 (BGH 2011).

¹⁸³ See, e.g., Rokas 2013, p. 328. The UK Chancery Division provides a non-exhaustive number of circumstances that determine whether the director’s reliance on the advice was reasonable, see *Saxon Woods Investments Ltd v. Costa*, [2024] 2 WLUK 348, no. 210.

¹⁸⁴ See, e.g., Weber et al. 2018, pp. 1133–1134; Seibt 2019, pp. 841–842; Zetzsche 2019, p. 8; Hoerdemann-Napp, Pauli 2021, p. 133; Spindler, Seidel 2022, pp. 711–713, no. 19–25; Lasar 2023, p. 105.

¹⁸⁵ Langheld, Haagen 2023, p. 1539.

¹⁸⁶ Hoch 2019, p. 677.

¹⁸⁷ See, e.g., Wagner 2018, p. 1102; Hoch 2019, pp. 675–682; Linardatos 2019, p. 508, note 58; Lücke 2019, p. 1992; Noack 2019, p. 119; Noack 2020, p. 954; Cowger 2022–23, pp. 182–183; Dubovitskaya, Buchholz 2023, pp. 67–68; Langheld, Haagen 2023, p. 1539.

¹⁸⁸ See implicitly Dubovitskaya, Buchholz 2023, p. 68; Langheld, Haagen 2023, p. 1539.

¹⁸⁹ See *supra*. Similar to AI systems, human experts can be considered a black box from the perspective of the board. See Linardatos 2019, pp. 507–508; Möslin 2020, p. 2; Noack 2020, p. 950.

available to explain the output of AI models.¹⁹⁰ It is assumed, for that reason, that the proper reliance conditions can be applied to AI, although these requirements should certainly not be overstretched.¹⁹¹

The expectation of the board to consult the reasonably available information, has an effect on the desired *accuracy* and *explainability* of the consulted information sources. As a result, there are two types of organisational measures that the board may need to implement to ensure a diligent use of AI as information source to M&A transactions.

It is argued that the conditions of the proper reliance doctrine are more strict than the diligence measures expected under procedural due care. The following paragraphs show, however, that the former conditions are merely a special application of the board's informational due care standards.

I. ACCURACY

The first set of organisational measures pertains to the accuracy of the information basis to a decision. In this respect, the German Bundesgerichtshof does not deem it decisive that a board decision is actually taken on the basis of appropriate information, as long as the board could reasonably assume that this was the case.¹⁹² Similarly, under Delaware law, not so much the concrete accuracy of the consulted information is relevant, as the reasonable belief to be sufficiently informed is enough for a duty discharge.¹⁹³ For example, in *Smith v. Van Gorkom*, the board was found in breach as it failed to obtain a valuation study (either from independent investment bankers or in-house financial personnel) to inform itself of the intrinsic value of the company.¹⁹⁴ The mere fact that the board based itself on inaccurate information did not constitute a breach, but the failure to make a reasonable effort to obtain such accurate information was.

The main criterion is that a prudent director, placed in the same circumstances, could also have rightfully been under the impression that he was acting on the basis of appropriate information.¹⁹⁵ The standard of conduct is, in other words, based on an objective test. Under UK law, additional subjective elements such as the director's specialist knowledge and expertise in IT or computer science can be taken into account to increase this objective standard (which only serves as a minimum).¹⁹⁶ Such subjective elements are not considered in other jurisdictions such as Delaware, Germany and Belgium.¹⁹⁷

¹⁹⁰ See *infra*.

¹⁹¹ Weber et al. 2018, p. 508; Linardatos 2019, p. 508; Seibt 2019, p. 842.

¹⁹² NJW 2017, 578, no. 34 (BGH 2016); ZIP 2022, 2435, no. 14 (BGH 2022). See also Spindler 2018a, p. 43; Fleischer 2023, § 93, no. 93. See for a normative analysis Graumann 2021, pp. 67–69.

¹⁹³ Greenhow 1999, p. 47.

¹⁹⁴ *Smith v. Van Gorkom*, 488 A.2d 858, 874 (Del. 1985). See also Miller 2017, pp. 156–157.

¹⁹⁵ NJW 2017, 578, no. 34 (BGH 2016).

¹⁹⁶ S. 174 (1) and (2) Companies Act 2006. See also Davies et al. 2021, pp. 294–295, no. 10-046.

¹⁹⁷ Although there are certainly scholars who defend stricter due care requirements for knowledgeable and experienced board members. See for Germany: Peters 2010, p. 813; Spindler 2023, § 93, no. 58. See for Belgium: De Wulf 2002, pp. 202–203, no. 430–431; Tilleman, Dewaele 2022, pp. 299–300, no. 471.

Assessing the effort that the board undertook to achieve accuracy of AI output poses a greater challenge as compared to other—traditional—sources of information available to the board. Of course, any reckless or fraudulent use cases of (poorly performing) AI systems in decision-making are relatively easy to qualify. However, as explained earlier, in other cases, an AI system may on average produce results that are superior to those achieved by humans for a specific task, and only occasionally miss the mark. The problem here is that when an AI model renders incorrect output, often that output deviates to such an extent that it surpasses the margin of error typically seen in human performance.¹⁹⁸ Thus, the board’s informational due diligence should take into account the extent to which the board was able to reasonably mitigate the risk that such an unusually inaccurate output had an impact on the eventual decision of the board.

The due care determination hinges on the board’s efforts with regard to the (i) reasonable selection of the AI system, and the (ii) supervision on the AI system during its operation. That way, not so much the exact accuracy rate of the AI system is relevant for the due care assessment, but the accompanying measures to achieve an accurate information basis for a specific decision are. For high risk AI-systems, the European AI Act requires an appropriate level of accuracy in light of their intended purpose, and a consistent performance throughout their lifetime.¹⁹⁹ The provision’s referral to “appropriate” allows for an objective test of accuracy, indicating a similar standard of conduct as the director’s duty of care.

§1. Selection of the AI System

First and foremost, the AI system must be appropriately selected for the decision for which the board intends to use it, *i.e.*, the system must be specific enough to provide accurate and reliable answers to the relevant M&A questions based on available and appropriate data.²⁰⁰

As part of the acquisition or development process of a potential AI model,²⁰¹ the board must ensure that the system is properly tested. The predominant reliance on the output of an AI system of which the board, or its subordinates, does not have an idea of the performance accuracy, is in any case negligent.²⁰² A minimum amount of testing is required, and the board has the responsibility to set up organisational structures that allow this.²⁰³ The duty of care and the European AI Act appear to disagree on the situations that the system should be tested for, as the duty of care requires testing for the reasonably foreseeable situations,²⁰⁴ while the AI Act

¹⁹⁸ Nguyen et al. 2015 pp. 427–436; Lohr 2018.

¹⁹⁹ Art. 15 (1) AI Act.

²⁰⁰ Hoch 2019, p. 677; Armour, Eidenmüller 2021, p. 169; Hoerdmann-Napp, Pauli 2021, p. 134; Langheld, Haagen 2023, p. 1538; Spindler 2023, § 93, no. 136.

²⁰¹ On the board’s make-or-buy decision with regard to a governance AI model, see Lasar 2023, pp. 137–138.

²⁰² See in precontractual context: Herbosch 2023, p. 151, no. 185. See in corporate governance context: Langheld, Haagen 2023, p. 1538.

²⁰³ Linardatos 2019, p. 508.

²⁰⁴ For instance, under Belgian law, there is a violation of the standard of care under tort law if it was reasonably foreseeable for the director that his conduct could result in some kind of damage. See Van Gerven, Covemaeker 2001, 239–240; Vansweevelt, Weyts 2009, pp. 134–136; Kruithof 2018, pp. 48–49; De Bruyne, Ooms 2025, p. 172.

only explicitly requires suitable testing which ensures that high-risk systems perform consistently for their intended purpose.²⁰⁵

Moreover, the board should make sure that the training and test data used for the AI model has a sufficient quality, *i.e.*, is representative and relevant enough for the model's intended purpose.²⁰⁶ As the capture of appropriate internal data is especially difficult for strategic board decisions, generic external data may be used to assist in scenario planning.²⁰⁷

This requirement translates to the reasonable selection criterium under the proper reliance doctrine, which prompts the board to ensure the objective suitability of the model to support a specific task (analogous to the subjective “professional qualification” or “expertise” of the expert).²⁰⁸ The required suitability can be attained by an *ad hoc* evaluation of the AI system prior to deployment (mostly for models developed by the deploying company itself), or an independently issued certificate (mostly for third-party models).

In case an *ad hoc* evaluation of system performance is chosen, the fundamental question arises when a system can be considered “good enough”. As common benchmark, an AI model is often considered suitable when it produces similar or better outcomes than a human expert would.²⁰⁹ This approach, however, is proving less and less convincing, for a number of reasons. First, as AI capabilities advance, outperforming human experts may no longer suffice. The benchmark would then shift from comparing AI to humans, to comparing the performance of various AI models. Second, comparing the performance of an AI system to that of a human expert is an intricate exercise. While the system performance is generally quantifiable, for instance by applying accuracy metrics such as the F₁-score,²¹⁰ the human performance may be harder to measure—resulting in an assessment *in abstracto*.²¹¹ Third, the AI system's failure to outperform humans does not necessarily imply negligence, as the system may still facilitate meaningful value creation through cost savings.²¹² The *ad hoc* evaluation should therefore balance system capabilities with user expectations.²¹³ The proper reliance doctrine requires this evaluation to take place once, prior to the engagement of the system for a specific decision or series of

²⁰⁵ Art. 10 (6) AI Act.

²⁰⁶ Giuffrida et al. 2018, p. 753; Rebala et al. 2019, p. 246; Surden 2019, p. 1315.

²⁰⁷ Armour, Eidenmüller 2021, p. 169.

²⁰⁸ See in a similar sense Weber et al. 2018, pp. 1132–1133; Hoch 2019, p. 682; Hoerdemann-Napp, Pauli 2021, pp. 137–138. It would be incorrect to attribute formal or professional qualifications to an AI system, in order to prove its level of expertise. See Noack 2019, p. 119; Noack 2020, p. 954; Spindler, Seidel 2022, p. 712, no. 22.

²⁰⁹ Möslin 2018a, p. 209; Borghetti 2019, pp. 68–69; Zetzsche 2019, pp. 8–9 (implicitly); Stiemerling 2020, no. 77; Thöne 2020, p. 200; Herbosch 2020, p. 21; Herbosch 2023, p. 149, no. 182; Lasar 2023, p. 105. See also Cowger 2022–23, p. 183 (arguing that because of the unavoidable error rate of AI, it is virtually impossible to find that the algorithm was selected with reasonable care).

²¹⁰ The F₁-score of a classifier represents the harmonic mean of precision (the ratio of true positive predictions to all positive predictions) and recall (the amount of true positive predictions, compared to the total amount of elements that should have been predicted to belong to a certain category). See Han et al. 2012, p. 364–365; Murphy 2012, p. 183; Rebala et al. 2019, p. 60 ff; Lindholm et al. 2022, p. 88; Herbosch 2023, pp. 37–38, no. 42. According to Hacker 2023, p. 34, a normalized F₁-score of over 0.8 could be presumed to imply an appropriate level of accuracy. The exact satisfactory score may depend on what is customary in the respective industry, and the available appropriate data for a specific decision or task.

²¹¹ Herbosch 2023, p. 149, no. 182.

²¹² Herbosch 2025, p. 409–410 and 431.

²¹³ *Ibid.*

decisions. Nonetheless, as the system's learning process continues to evolve, the good faith duty necessitates a regular reassessment of the suitability, as the director cannot reasonably state that the AI system he deploys is similar to the system that he selected, *e.g.*, three months ago.²¹⁴

Undertaking an *ad hoc* evaluation may be costly and practically difficult, especially when the AI model is licensed or acquired from a third party (as there may be an information asymmetry between the acquirer and the developer in respect of the model's qualities and performance).²¹⁵ To reduce these costs,²¹⁶ the board could limit the evaluation process to an assessment of the system's utility function²¹⁷ and the usefulness thereof for the supported decision, when the performance of the system has already been established by an AI certificate. Such certificate proves that certain system qualifications or its compliance with certain standards has been assessed and verified by an independent organisation.²¹⁸ It could amount to a similar status as that of the formal qualification of a human advisor (*e.g.*, as engineer, certified accountant, or lawyer who passed the bar).²¹⁹ While the certificate can help the board in proving that the deployed AI system maintains a desirable performance, the certificate itself is not sufficient to guarantee that the system is suitable to support a certain decision.²²⁰ Above all, certification requires appropriate standards against which the certification process is conducted, which do not yet specifically exist for corporate governance applications.²²¹ The certificates issued under the European AI Act also appear to have limited legal value.²²² It is the responsibility of the board to assess whether an industry certification process is suitable for the AI system in question, and whether the chosen system is appropriate for the decision that requires information input.

§2. Supervision of the AI system

Insofar the AI output is *only one information source out of others*, the board's informational duties are not focused on the AI output alone. The procedural due care is applicable to the entire information basis of the board. Therefore, it is crucial that the board invests a reasonable effort to obtain other sources, and to ensure that they are reliable.

While the information basis of recurring decisions and decisions of minor importance does not require special attention from the board, a different standard is set for decisions that are

²¹⁴ Cowger 2022-23, p. 183.

²¹⁵ See generally Möslin, Zicari 2021, p. 362; De Bruyne 2023, p. 73.

²¹⁶ On certification as a solution to information asymmetry, see Von Wangenheim 2019, pp. 11–22; Cihon et al. 2021, pp. 200–209.

²¹⁷ *I.e.*, the task or objective for which the AI model is developed.

²¹⁸ De Bruyne 2019, p. 3, no. 2; Lansing et al. 2019, p. 4; Möslin, Zicari 2021, p. 357; Winter et al. 2021, p. 9; De Bruyne 2023, p. 72; Kwiatkowska, Saillant 2024, p. 711; Wischnewski et al. 2024, p. 145.

²¹⁹ See implicitly Hoch 2019, p. 679; Zetzsche 2019, p. 8. See for a different opinion: Noack 2019, p. 119; Dubovitskaya, Buchholz 2023, p. 68.

²²⁰ Möslin 2018a, p. 212; Spindler 2018a, p. 41.

²²¹ Zetzsche 2019, p. 8.

²²² Under the AI Act, independently issued certificates (as part of the mandatory conformity assessment for high-risk systems in accordance with art. 43 (1) and Annex VII of the AI Act) focus strongly on the technical documentation of the AI model, as opposed to the system's performance. Therefore, their legal value and economic significance are fairly limited. See, *e.g.*, Möslin, Zicari 2021, p. 365; Kwiatkowska, Saillant 2024, p. 714–715.

economically important to the success and survival of the company,²²³ such as M&A resolutions given to the general meeting. For those decisions, the board is expected to give critical and thorough consideration to the information sources on the table and compare individual pieces of contradicting information.²²⁴ Transposed to decisions supported by AI, the board has the burden to perform a *de facto* cross-verification of the obtained AI output, by comparing it to the other reasonably available information sources.²²⁵

On a more general note, the Delaware Supreme Court insists that the board is “entitled to good faith, not blind reliance”.²²⁶ Similarly, in a 2010 judgment of the Queen’s Bench Division, the Court stated that it is “a breach of duty for a director to allow himself to be dominated, bamboozled or manipulated by a dominant fellow director where such involves a total abrogation of this responsibility”.²²⁷ There is consensus in the literature that the duty of care does not allow the board to blindly rely on AI output for economically important decisions.²²⁸ The European AI Act explicitly prohibits blind reliance for high-risk AI systems.²²⁹ Overconfidence in the system could cause the board to become passive in the exercise of its judgment as it (unduly) trusts the system’s output as infallible.²³⁰ This overconfidence may result in poor governance decisions and other adverse results (*i.e.*, the tech nirvana fallacy),²³¹ creating a similar (or even exacerbated²³²) effect as when the board is dominated by one member, or blindly relies on the advice of a human expert. Moreover, such an abdication of responsibility might constitute a *de facto* delegation of a certain task or decision to AI, which could be incompatible with the distribution of powers within the company.²³³ To prevent this, the board must reasonably consider the veracity of the system’s result, and reject obviously erroneous output.

Whether the duty of care allows the board to *exclusively* rely on the system’s output as the sole basis for its decision (which is exceptional in M&A context), depends on a number of factual

²²³ Spindler 2017, p. 723; Spindler 2018b, p. 45.

²²⁴ *Ibid.* See also *Smith v. Van Gorkom*, 488 A.2d 858, 874 (Del. 1985) (in which the board approved a merger, based solely on a 20-minute presentation by the CEO, without obtaining a prior independent evaluation of the company’s share value; and was thus found to have breached its duty of care with gross negligence); Rokas 2013, p. 337.

²²⁵ *E.g.*, Judin 2023. For high-risk AI systems, the AI Act requires the system provider to perform a prior assessment of the availability, quantity and suitability of the needed data sets, an examination in view of possible biases, and the identification of possible data gaps and shortcoming. These mandated practices must be applied in an “appropriate” manner; see art. 10 (2) AI Act. They introduce a duty to the board to have the training and test data of high-risk systems checked for their relevance and representative dimensions with regard to the intended use case and decision. Interestingly, the latter implicitly requires a comparison and assessment of individual input data, while the director’s duty of care requires a comparison of output data (to other information sources). See also Yordanova 2024, pp. 270–275.

²²⁶ In the context of proper reliance, although increasingly applied in general, see *Smith v. Van Gorkom*, 488 A.2d 858, 875 (Del. 1985). See also Rokas 2018.

²²⁷ *Madoff Securities International Ltd (In Liquidation) v Raven*, [2013] EWHC 3147 (Comm), no. 191.

²²⁸ Spindler 2017, p. 723; Möselein 2018, p. 209; Spindler 2018b, p. 45; Wagner 2018, p. 1099; Zetzsche 2019, pp. 8–9; Hoerdemann-Napp, Pauli 2021, p. 134; Dubovitskaya, Buchholz 2023, p. 67; Lasar 2023, p. 106; Herbosch 2024, p. 168.

²²⁹ See art. 14 AI Act on the requirement of human oversight for high-risk AI systems.

²³⁰ Ahern 2024, p. 426.

²³¹ Enriques, Zetzsche 2020, p. 61.

²³² Hoerdemann-Napp, Pauli 2021, p. 134.

²³³ See generally Staake 2011; Binder 2012a, p. 773; Wagner 2012, p. 657.

elements.²³⁴ The system may be trained on all reasonably available information, potentially more information than the human board members would have consulted without AI.²³⁵ Still, if presented to a court, the judge might take issue with the fact that the board did not comprehend the information on which their decision is made in case an unexplainable AI model is deployed. Some even argue that the board is by definition unable to make an advised judgment (and can even be considered grossly negligent) when no explainability methods are applied.²³⁶ However, for decisions that require large amounts of data, the use of explainability methods is an intricate (and sometimes impossible) process, while the deployment of an AI model may be the only method to understand the available data. Paradoxically, in those cases, *not* relying on an AI model could be considered as grossly negligent behaviour.²³⁷ Still, to prevent blind reliance, the board should take additional steps to assess the accuracy of the system that serves as sole information source.

The German Ision-doctrine requires the board to perform a “careful” plausibility review on the obtained AI output, in order to gain liability protection.²³⁸ In a traditional context, it is accepted that this review does not require a substantive review of the expert opinion,²³⁹ but can be limited to evaluating the existence of (i) obvious errors, (ii) contradictions, or (iii) gaps in the reasoning process of the expert.²⁴⁰ The majority of German scholars accepts that it is possible to assess the plausibility of the results of an AI model,²⁴¹ but that the board is not required to analyse the inferences of the system in great detail (such as its parameter distributions).²⁴² This would be too demanding in light of the board’s lacking technical expertise,²⁴³ and would not be practically feasible for unexplainable AI models.

While the Bundesgerichtshof seems to maintain that an *ad hoc* evaluation of individual expert advice is necessary, implying a continuous and labour-intensive monitoring task, it is contended that the Ision-monitoring duty should be more limited with regard to AI output.²⁴⁴ The review

²³⁴ See for a different opinion: Cowger 2022-23, p. 166 (arguing that the director who solely relies on the data selection and processing of an AI system will never be able to assert that he relied on all material information that is reasonably available to him).

²³⁵ See, e.g., Hamdani et al. 2018, p. 229; Hickman, Petrin 2021, p. 600; Tokmakov 2021, p. 669.

²³⁶ See Cowger 2022-23, p. 166.

²³⁷ This is part of the (larger) debate about a potential circumstantial duty for the board to rely on AI as information source, as an appropriate information basis could otherwise not be achieved. See Spindler 2017, pp. 722–723; Möslin 2018a, pp. 209–210; Möslin 2018b, pp. 660–662; Sattler 2018, p. 2248; Spindler 2018a, p. 43; Spindler 2018b, p. 45; Wagner 2018, p. 1099; Weber et al. 2018, pp. 1133–1134; Lücke 2019, p. 1991, Noack 2019, p. 122; Seibt 2019, p. 8; Zetzsche 2019, p. 8; Bruner 2022, pp. 794–804 (with regard to the board’s monitoring function); Hoerdemann-Napp, Pauli 2021, p. 136; Cowger 2022-23, p. 159; Spindler 2023, § 93, no. 56; Koch 2024, § 93, no. 43.

²³⁸ Ision, NZG 2011, 1271, no. II ZR 234/09, no. 18 (BGH 2011). See for an affirmative view: Strohn 2012, pp. 141–142.

²³⁹ Ision, NZG 2011, 1271, no. II ZR 234/09, no. 33 (BGH 2011) (stating that “[t]he plausibility check does not consist of a legal review of the obtained legal information” [own translation]).

²⁴⁰ These criteria are based on NZG 2015, 792, no. II ZR 63/14, no. 33 (BGH 2015). See also Binder 2008, p. 286; Fleischer 2010a, p. 124; Fleischer 2010b, p. 195; Peters 2010, p. 816; Binder 2012a, p. 772; Binder 2012b, p. 893; Merkt, Mylich 2012, p. 529; Strohn 2012, pp. 141–142; Hahn, Naumann 2013, p. 162; Fleischer 2015b, p. 1769; Steber 2015, pp. 2394–2395; Vetter 2015, p. 894; Buck-Heeb 2016, pp. 1350–1353; Fleischer 2019, § 93, no. 35e; Hoch 2019, p. 679.

²⁴¹ Sattler 2018, p. 2248; Weber et al. 2018, p. 1133; Seibt 2019, p. 842; Spindler, Seidel 2022, p. 713, no. 25; Spindler 2023, § 93, no. 136.

²⁴² Möslin 2018a, p. 211; Wagner 2018, p. 1103; Hoch 2019, p. 682; Linardatos 2019, p. 508; Seibt 2019, p. 842.

²⁴³ Wagner 2018, p. 1099; Spindler, Seidel 2022, p. 708, no. 11.

²⁴⁴ Spindler, Seidel 2022, p. 713, no. 25; Dubovitskaya, Buchholz 2023, p. 69.

process cannot require the board to justify every single result of the AI system,²⁴⁵ rather, it imposes a specific supervision duty in respect of the overall consistency of the output.²⁴⁶ The plausibility test should in principle only relate to the general functionality or stability of the system.²⁴⁷ More stringent control requirements exceptionally exist in case of far-reaching decisions.²⁴⁸

In respect of the general functionality of the system, the review must focus primarily on the questions of which data sets were fed to the model, how it was trained and tested, what the basic assumptions of the algorithm are, and what forms of feedback it received in case of reinforcement learning.²⁴⁹ In addition, the board must be in a position to identify obvious returning problems such as overfitting and data biases,²⁵⁰ and is then required to have the model retrained, or to fully refrain from using the model. Frankly, these requirements do not add much to what is already expected from the board under the duty of care.²⁵¹

In case the decision has significant economic importance, such as an M&A transaction, a review of the system's general functionality will not suffice. For such decisions, the board is not only required to compare the output to other information sources, but also to rely on explainability methods.²⁵² The literature maintains that the board should use counterfactuals (one specific type of *post hoc* explanations²⁵³), where minimal changes are made in the input data to achieve more desired output data, to fulfill the proper reliance conditions.²⁵⁴

Both the selection prior to deployment and the supervision on the operation (the plausibility review in Germany) are a final responsibility of the board.²⁵⁵ The board, however, is ill-equipped to do so, as it is generally not well-educated about technology matters.²⁵⁶ Therefore, it is accepted that the board depends on an independent expert with the necessary skills to judge

²⁴⁵ In line with NZG 2015, 792, no. II ZR 63/14, no. 33 (BGH 2015). See also Kort 2015, p. 534; Buck-Heeb 2016, p. 1349; Weber et al. 2018, p. 1133; Hoch 2019, p. 682; Hoerdemann-Napp, Pauli 2021, p. 137.

²⁴⁶ Noack 2020, p. 954.

²⁴⁷ Sattler 2018, p. 2248; Wagner 2018, p. 1103; Hoch 2019, pp. 681–682; Linardatos 2019, p. 508, footnote 58; Hoerdemann-Napp, Pauli 2021, p. 137.

²⁴⁸ Linardatos 2019, p. 508, footnote 58; Spindler, Seidel 2022, p. 713, no. 25.

²⁴⁹ Zetzsche 2019, pp. 8–9; Noack 2019, p. 119; Spindler, Seidel 2022, p. 713, no. 25.

²⁵⁰ Sattler 2018, p. 2248; Hoerdemann-Napp, Pauli 2021, pp. 137–138.

²⁵¹ See *infra*.

²⁵² See *infra*.

²⁵³ See *infra*.

²⁵⁴ Noack 2019, p. 119; Spindler, Seidel 2022, p. 713, no. 25; Dubovitskaya, Buchholz 2023, p. 68.

²⁵⁵ See for the selection of the expert: ZIP 2009, 2389, no. 20 U 5/09 (OLG Stuttgart 2009) (stating that the management board cannot rely on a suggestion of the supervisory board about the professional qualification of an expert); Peters 2010, p. 815; Selzer 2012, p. 14; Spindler 2017, p. 720 (applied to AI systems). See for the supervision on the expert: Ision, NZG 2011, 1271, no. II ZR 234/09, no. 22 (BGH 2011) (stating that a confirming suggestion from the supervisory board does not relieve the management board from its duty to perform the plausibility test); Staake 2011, p. 326141; Binder 2012a, p. 773; Wagner 2012, p. 657; Sattler 2018, p. 2248 (applied to AI systems).

²⁵⁶ It is argued that in the future, there may be an increasing number of directors who combine a high degree of specialist knowledge with a deep understanding of AI. As a result, no third-party expert would need to be involved any longer to ensure a reasonable selection of the system. See Hoerdemann-Napp, Pauli 2021, p. 134.

the advising AI system.²⁵⁷ The professional competences of this independent expert should then again be assessed by the board. Notably, the board should only engage the expert in case of doubt about the model's performance, as it would otherwise have been more efficient to consult a human expert in the first place.²⁵⁸

II. EXPLAINABILITY

The general meeting of shareholders and other stakeholders are entitled to request an explanation of the decisions and actions of the board.²⁵⁹ Any questions on board decisions may make it necessary to explain the logic behind the AI system's output if the board decision or action is based on it.²⁶⁰ In general, it is more careful to deploy an *explainable* AI system with a certain level of performance, than it is to deploy an *unexplainable* system with a similar level of performance, since interpretability allows the user to verify the output and prevent an undesirable decision on the basis of it.²⁶¹

While establishing some sort of conceptual reasoning behind the process wherein the model attaches weights (parameters) to the input data may help detect incorrect correlations and prevent exposure to legal risks, that knowledge does not necessarily create additional value for the company. Moreover, explainability brings forth additional human responsibility and supervision,²⁶² which may diminish the efficiency benefits of deploying the AI system.²⁶³ As mentioned, the breadth of the information basis of any board decision implies a cost-benefit analysis.²⁶⁴ The expectation of the board to implement explainability measures depends on the availability of the used method, the impact on the system's accuracy rate, and the usefulness of explainability for the decision in question. A distinction should be made between the two main methods to reach an explainable model, *ante hoc* transparency and *post hoc* explanations.

With regard to *ante hoc* transparency, there is a general conception that *a priori* conceptual explainability comes to the detriment of the accuracy rate of certain models, such as random forests and deep neural networks.²⁶⁵ At the same time, it is argued that explainability may result in better decision-making in the long run,²⁶⁶ but we cannot see how this would be the case in relation to a single M&A transaction. An exception to this trade-off problem is the case of linear or logistic regressions, small decision and classification trees, and fuzzy inference systems,

²⁵⁷ See for the selection of the expert: Spindler 2017, p. 720; Wagner 2018, pp. 1098 and 1103; Seibt 2019, pp. 841–842; Spindler 2023, § 93, no.136. See for the supervision on the expert: Krieger 2012, p. 502; Wagner 2012, p. 657; Fleischer 2019, § 93, no.35f; Wagner 2018 p. 1103 (applied to AI systems); Hoedemann-Napp, Pauli 2021, p. 134 (applied to AI systems).

²⁵⁸ Wagner 2018, p. 1103; Hoch 2019, p. 682; Linardatos 2019, p. 508, footnote 58; Spindler, Seidel 2022, p. 713, no.25.

²⁵⁹ Linardatos 2019, p. 508.

²⁶⁰ Lücke 2019, p. 1993; Lasar 2023, p. 114; Siebecker 2025.

²⁶¹ See in the precontractual context: Konertz, Schönhof 2020, pp. 123–124; Haagen 2021, pp. 283–284; Herbosch 2023, pp. 152–153, no. 188.

²⁶² The interpretability of an AI model only becomes useful insofar a human operator verifies the given conceptual explanation.

²⁶³ Hatfield 2019, p. 1119; Lee et al. 2021, p. 276.

²⁶⁴ See in relation to the board's reliance on big data Spindler 2018b, p. 45.

²⁶⁵ See Simonyan et al. 2013, pp. 1–7; Kleinberg 2016, pp. 1–2; Ribeiro et al. 2016, pp. 1135–1144; Calo 2017, p. 415; Doshi-Velez, Kim 2017, p. 2; Doshi-Velez et al. 2017, p. 3; Karnow 2017, p. 142; Lipton 2018, pp. 45–50; Knight 2017; Deeks 2019, p. 1834; Du et al. 2020, p. 70; Rai 2020, p. 138; Hacker, Passoth 2022, pp. 345–346; Kamath, Liu 2022, pp. 1–15.

²⁶⁶ See generally Schemmer et al. 2022; Coussement et al. 2024.

which are highly transparent predictors with high accuracy.²⁶⁷ However, these models can only be designed for simple tasks, and are in general not suitable for a complex M&A environment. For these complex tasks, the board may not be inclined to opt for a transparent version of the AI model if that will result in a lower accuracy rate.

With regard to *post hoc* explanations, there is no accuracy trade-off as a surrogate AI model is used in an attempt to make the underlying black box model explainable.²⁶⁸ The black box model is not altered to achieve explainability. Depending on the economic importance of the supported decision, the board may act more diligently if it considers a *post hoc* explanation. An interesting aspect of these explanations, is that they can be visualized into graphs, tables and diagrams, which allows the board to gain more insights from the model's output, and more importantly, to identify false negatives and false positives. So far, however, there is no one-size-fits-all surrogate model that can be bought off the market.²⁶⁹ Surrogate models are generally custom-built to approximate the behaviour of more complex models and vary based on the specific use case, data, and requirements.²⁷⁰ While there are popular methods to build such models, such as LIME (for classifiers), BETA (for classifiers) and SHAP (for any model, but in terms of game theory),²⁷¹ the application of those methods implies a development cost.

Importantly, when the board chooses to deploy an explainable rather than an unexplainable AI model, the board may expose itself to an increased expectation to evaluate its learning process. Then, it is possible that the board can no longer argue in good faith that it was unable to detect erroneous output, for example by assessing the subsequent decision nodes of a decision tree. Notably, this increased liability risk for directors is a cost that cannot be taken into account when the board makes the cost-benefit analysis in respect of a decision's information basis, as only costs for the company can be part of that balancing exercise.

The board's understanding of an AI model can either concern its basic properties,²⁷² or the process that led to its outcomes. From the perspective of the duty of care, there seems to be differential treatment between the understanding that the board should have of AI output, in comparison to traditional information sources.

In general, the information on which the board bases its decision must be clear and comprehensible at face value, but does not necessarily require an apprehension of the process that has led to the information result. This matter can be compared to the board's approval of

²⁶⁷ Bologna, Hayashi 2017, pp. 265–266; Holzinger et al. 2017, p. 2; Lipton 2018, pp. 45–50; Rudin 2019, p. 207; Chen 2021, p. 245; Hacker, Passoth 2022, pp. 345–346; Retzlaff et al. 2024, p. 3.

²⁶⁸ Pruett, Hester 2016, p. 2; Deeks 2019, p. 1837.

²⁶⁹ See, e.g., Ferreira et al. 2019, pp. 451–452; Jiaa et al. 2020, pp. 1–2; Williams, Cremaschi 2021, pp. 451–452.

²⁷⁰ Hwanga, Martins 2018, pp. 74–75.

²⁷¹ LIME (Local Interpretable Model-Agnostic Explanations) is a system that can explain the predictions of any classifier or regressor in a faithful way, by approximating it locally with an interpretable model; see Ribeiro et al. 2016, p. 1135; Mahya, Fürnkranz 2023, p. 427. BETA (Black Box Explanations through Transparent Approximations) is a framework for explaining the behaviour of any black-box classifier by simultaneously optimizing for the fidelity to the original model and the interpretability of the explanation; See Lakkaraju et al. 2017, pp. 1–5. SHAP (SHapley Additive exPlanation) is a game theoretic approach to explain the output of any machine learning model; see Lundberg, Lee 2017, pp. 4768–4777.

²⁷² Basic properties of an AI model concern its input and output variables. An important output variable is the target variable, i.e., what the model measures. The basic properties also relate to proxy variables, biased proxies, etc.

small loans to business partners, upon the request of the executive committee. In a relatively old case, an English court ruled that the board cannot severally examine the propriety of every loan, even as they turn out to defraud the company.²⁷³ Similarly, in case the board relies on human experts, there is no general expectation that the board obtains advice that it can reasonably understand (insofar this is possible²⁷⁴).

Compared to the use of AI models, one would expect that there is no legal expectation for the board to comprehend the reasoning behind AI output, except when this is cost-efficient. In spite of this, there seems to be a consensus that the board needs to have a higher level of understanding when it comes to information gathered from deployed AI models.²⁷⁵ In any case, the board should make a reasonable effort to understand the basic properties of the deployed model, *i.e.*, its functioning (input and output variables, learning method) and its limitations.²⁷⁶ Conversely, the board should not be aware of the exact inference process that led to a specific output.²⁷⁷ These requirements may be tightened for economically important decisions, in which case the board may be found negligent if it chooses not to rely on an explainable model, insofar that would be cost-efficient.²⁷⁸ As explained above, the German *Ision*-doctrine also requires the use of an explainable model for those decisions.

Interestingly, the European AI Act only places explainability obligations on the provider of the system.²⁷⁹ High-risk AI systems must be designed and developed in such a way to ensure that their operation is sufficiently transparent to enable users to interpret the system's output and use it appropriately.²⁸⁰ Low-risk AI systems intended to interact with natural persons must be designed and developed in such a way that natural persons are informed that they are interacting with an AI system, unless this is obvious from the point of view of a natural person who is reasonably well-informed, observant and circumspect, taking into account the circumstances and the context of use.²⁸¹ Presumably, the AI models deployed by the board in M&A context classify as low-risk.²⁸² It will usually be clear to board members that the information they rely on is provided by AI. Moreover, the board has the general expectation to be aware of its information sources. Therefore, the low-risk transparency provision of the AI Act is not relevant in board context.

²⁷³ *Land Credit Company of Ireland v. Lord Fermoy*, [1869-70] L.R. 5 Ch. App. 763.

²⁷⁴ It is hard to argue or even expect that a director is able to understand the reasoning behind the advice of a human expert, especially when that director does not have a specialist background or experience. In that respect, the discussion about the need for explainable AI in corporate governance context may be misplaced.

²⁷⁵ In this sense, see Möslin 2018a, p. 209; Sattler 2018, p. 2248; Wagner 2018, pp. 1098-1099; Weber et al. 2018, p. 1132; Linardatos 2019, p. 508; Noack 2019, 118; Seibt 2019, p. 842; Zetzsche 2019, p. 7; Spindler, Seidel 2022, p. 708, no.10; Lasar 2023, pp. 175–176.

²⁷⁶ Zetzsche 2019, p. 7.

²⁷⁷ See *supra*. See also Sattler 2018, pp. 2247–2248; Linardatos 2019, p. 508; Seibt 2019, p. 842.

²⁷⁸ Cowger 2022-23, p. 179; Lasar 2023, pp. 145–147.

²⁷⁹ Art. 16 (a) AI Act and art. 52 (1) AI Act. As suggested by Konertz, Schönhof 2020, pp. 123-124.

²⁸⁰ Art. 13 (1) AI Act.

²⁸¹ Art. 50 (1) AI Act.

²⁸² In certain exceptional scenarios, such as when the board makes decisions in a labour relationship, the supportive AI system may fall within the high-risk classification, necessitating the implementation of an explainable AI model in accordance with the provisions outlined by the AI Act.

STANDARD OF REVIEW

The informational standards of conduct, which arise from the duty of care, cannot in all cases be fully reviewed by the courts. Most jurisdictions apply limited standards of review, such as the business judgment rule, that limit the extent to which it is allowed to judicially review of the substance of a board decision, and the procedure used to reach that decision. With these standards, corporate law systems try to reduce the risk of hindsight bias, which is the inclination, after an event has occurred (*ex post facto*), to think that the outcome was predictable, despite the fact that there was no objective basis for that at the moment of making the decision.²⁸³ There is also a consensus that courts may lack the necessary knowledge about economics, business and finance.²⁸⁴ Directors should be able to take economic risks inherent to running a business, without being frightened to face liability claims as this might instigate risk aversion.²⁸⁵ The protection of these mechanisms therefore only applies to business judgments, as opposed to decisions for which the board is legally bound by a statutory provision that prescribes a certain course of behaviour.²⁸⁶

I. THE BUSINESS JUDGMENT RULE

The undeniable precursor of the business judgment rule is Delaware, which defines the rule as “a presumption that in making a business decision, the directors of a corporation acted on an informed basis, in good faith and in the honest belief that the action taken was in the best interests of the company”.²⁸⁷ To rebut the presumptive applicability of the business judgment rule, the plaintiff has the burden of proving that the board, in reaching its challenged decision, violated any one of its fiduciary duties under Delaware law (*i.e.*, due care, loyalty, or good faith)

²⁸³ *Production Resources Group, L.L.C. v. NCT Group, Inc.*, 863 A.2d 772, 794 (Del. Ch. 2004). See also Eisenberg 1997, p. 586; Bainbridge 2004, pp. 127–129; Veasey 2005, p. 1424; Assink 2007, pp. 19–27; Freitag, Korch 2012, p. 2284; Roese, Vosh 2012, p. 411; Hopt, Roth 2015, §93, p. 133, no. 63; Spamann 2016, pp. 352–353; De Wulf 2017, pp. 264–265; Gurrea-Martínez 2018, p. 423–424; Tilleman, Dewaele 2022, pp. 749–750, no. 1175; Spindler 2023, § 93, no. 43.

²⁸⁴ *Auerbach v. Bennett*, 47 N.Y.2d 619, 630 (NY 1979). See also Fischel 1985, pp. 1439–1440; Dooley, Veasey 1989, p. 521; Easterbrook, Fischel 1991, p. 93; Enriques 2002, p. 756; Bainbridge 2004, pp. 117–124; Assink 2007, pp. 14–19; Hopt, Roth 2015, §93, p. 133, no. 63; Velasco 2015, pp. 660–661; Gurrea-Martínez 2018, pp. 422–423.

²⁸⁵ Hopt, Roth 2015, § 93, p. 133, no. 63; De Wulf 2002, pp. 393–406, no. 795; Gurrea-Martínez 2018, pp. 420–422. See also ZIP 1997, 1027, 1029 (BGH 1997).

²⁸⁶ To be afforded protection by the business judgment rule, a decision must have been consciously made and a judgment must have been factually exercised. See *Aronson v. Lewis*, 473 A.2d 805, 813 (Del. 1984). See also Block, Prussin 1981, p. 33; American Law Institute 1994, pp. 174–176; Greenhow 1999, pp. 39–40. The mechanisms used in Belgium (marginal review) and Germany (business judgment rule) can also only be invoked for decisions involving a business judgment. See for Belgium: De Wulf 2002, p. 400, no. 784–785; Explanatory Notes *Parl.St. Kamer* 2017-18, no. 54-3119/008, p. 60. See for Germany: Entwurf eines Gesetzes zur Unternehmensintegrität und Modernisierung des Anfechtungsrechts (UMAG), Drucksachen Deutscher Bundestag (Bundesrat) 2002-05, no. 15/5092, p. 11; Koch 2006, pp. 784–787; Lutter 2007, p. 843; Ott 2017, pp. 151–162; Spindler 2023, § 93, no. 48–51.

²⁸⁷ *Aronson v. Lewis*, 473 A.2d 805, 812 (Del. 1984); *Smith v. Van Gorkom*, 488 A.2d 858, 872 (Del. 1985); *Revlon, Inc. v. MacAndrews & Forbes Holdings, Inc.*, 506 A.2d 173, 180 (Del. 1986); *Emerald Partners v. Berlin*, 787 A.2d 85, 91 (Del. 2001). This definition is repeated in recent decisions of the Supreme Court, such as *In Re Match Group, Inc. Derivative Litigation*, A.3d 446, 459 (Del. 2024). See also Furlow 2009, p. 1083; Uebler 2010, p. 1027.

with gross negligence.²⁸⁸ Courts have described gross negligence in many ways,²⁸⁹ such as a “devil-may-care attitude or indifference to duty amounting to recklessness”²⁹⁰ or a “reckless indifference to or a deliberate disregard of the whole body of stockholders or actions which are without the bounds of reason”.²⁹¹

When the plaintiff fails to rebut one of the presumptions of the rule, the court will not second-guess the decisions of “disinterested” directors.²⁹² The reviewing court will only interfere if the decision lacks any rationally conceivable basis, thereby resulting in corporate waste or a lack of good faith.²⁹³ Should the plaintiff succeed in rebutting a presumption of the rule, the directors are required to prove on remand that the challenged M&A transaction was entirely (objectively²⁹⁴) fair as to both price and process (“dealing”), despite having violated a fiduciary duty.²⁹⁵ This rebuttal is known as the “entire fairness review”.²⁹⁶

Notably, the board’s Revlon duty to achieve the best sale price reasonably available under the circumstances, is subject to an “enhanced scrutiny” review—Delaware’s intermediate standard of review.²⁹⁷

²⁸⁸ *Cede & Co. v. Technicolor, Inc. (Cede II)*, 634 A.2d 345, 361 (Del. 1993); *Cinerama, Inc. v. Technicolor, Inc.*, 663 A.2d 1156, 1164 (Del. 1995); *McMullin v. Beran*, 765 A.2d 910, 916-917 (Del. 2000). See also Uebler 2010, p. 1027.

²⁸⁹ See *Aronson v. Lewis*, 473 A.2d 805, 812, footnote 6 (Del. 1984), which gives an overview of different descriptions used to illustrate the connotation of gross negligence.

²⁹⁰ *Firefighters’ Pension System of City of Kansas City, Missouri Trust v. Presidio, Inc.*, 251 A.3d 212, 287 (Del. Ch. 2021).

²⁹¹ *Tomczak v. Morton Thiokol, Inc.*, 1990 WL 42607, 946 (Del. Ch. 1990); *Benihana of Tokyo, Inc. v. Benihana, Inc.*, 891 A.2d 150, 192 (Del. Ch. 2005); *McPadden v. Sidhu*, 964 A.2d 1262, 1274 (Del. Ch. 2008); *Zimmerman v. Crothall*, 2012 WL 707238, 8 (Del. Ch. 2012). See also *In re Walt Disney Co. Derivative Litigation*, 907 A.2d 693, 780 (Del. Ch. 2005).

²⁹² Uebler 2010, p. 1027.

²⁹³ *Sinclair Oil Corp. v. Levien*, 280 A.2d 717, 720 (Del. 1971); *Aronson v. Lewis*, 473 A.2d 805, 812 (Del. 1984); *Unocal Corp. v. Mesa Petroleum Co.*, 493 A.2d 946, 954 (Del. 1985); *In re Walt Disney Co. Derivative Litigation*, 906 A.2d 27, 74 (Del. 2006); *In re Tesla Motors, Inc. Stockholder Litigation*, 298 A.3d 667, 708 (Del. 2023); *In Re Match Group, Inc. Derivative Litigation*, A.3d 446, 459 (Del. 2024).

²⁹⁴ The transaction itself must be found objectively fair, independent of the board’s beliefs. See *Gesoff v. ICC Industries, Inc.*, 902 A.2d 1130, 1145 (Del. Ch. 2006); *In re McDonald’s Corporation Stockholder Derivative Litigation*, 291 A.3d 652, 686 (Del. Ch. 2023).

²⁹⁵ *Cede & Co. v. Technicolor, Inc. (Cede II)*, 634 A.2d 345, 361 (Del. 1993). See also *Weinberger v. UOP, Inc.*, 457 A.2d 701, 703 (Del. 1983); *Mills Acquisition Co. v. Macmillan, Inc.*, 559 A.2d 1261, 1279 (Del. 1989); *Nixon v. Blackwell*, 626 A.2d 1366, 1375-1376 (Del. 1993); *Cinerama, Inc. v. Technicolor, Inc.*, 663 A.2d 1156, 1162 (Del. 1995); *Emerald Partners v. Berlin*, 787 A.2d 85, 91 (Del. 2001); *In re Walt Disney Co. Derivative Litigation*, 906 A.2d 27, 52 (Del. 2006).

²⁹⁶ *Allen, Jacobs, Strine* 2001, pp. 874–878; *Allen, Jacobs, Strine* 2002, pp. 460–462; Uebler 2010, pp. 1027–1028.

²⁹⁷ Enhanced scrutiny requires that challenged directors “bear the burden of persuasion to show that their motivations were proper and not selfish” and that “their actions were reasonable in relation to their legitimate objective”. See *Unocal Corp. v. Mesa Petroleum Co.*, 493 A.2d 946, 955 (Del. 1985).

Germany also applies a version of the business judgment rule,²⁹⁸ although it can certainly not be considered a real safe harbour mechanism for business decisions. There are several²⁹⁹ differences between the German and Delaware version of the rule.

First of all, there is no reversal of the burden of proof as it is presumed that the director breached its duty of care as soon as the facts show that there was a possibility of wrongdoing,³⁰⁰ such as the use of a poorly performing AI model. As a result, the German rule only comes into play when the director proves that he could reasonably assume that he acted on the basis of appropriate information, *i.e.*, that he deployed AI in a diligent manner, whereas the Delaware version presumes that *prima facie* (although the latter is challenged, cf. *infra*).³⁰¹

Secondly, the explanatory notes of the draft law refer to the *ARAG v. Garmenbeck* case for the interpretation of “reasonably”,³⁰² and thus state that a business decision is not protected by the business judgment rule when it involves risks that are taken in “a totally irresponsible way”.³⁰³ The court is required to review whether the director took irresponsible business risks by deploying AI tools in order to grant the protection of the business judgment rule, whilst the Delaware business judgment rule fully precludes judges from assessing the risk of that business decision.³⁰⁴

The wordings of the Delaware rule appear to imply that the informed basis of a business decision, *i.e.*, compliance with the standards of conduct for AI use, is presumed. To that end, it is important to highlight an inconsistency in Delaware case law. In *Smith v. Van Gorkom*, the Delaware Supreme Court stated that the party attacking a board decision as uninformed, must rebut the presumption that its business judgment was an informed one.³⁰⁵ Paradoxically, in that same opinion, the Court admitted that the business judgment rule offers no protection to directors who have made “an unintelligent or unadvised judgment”.³⁰⁶ The Court then concluded that the board was not entitled to the rule’s protection because it made procedural

²⁹⁸ The German business judgment rule states that “there is no breach of duty when the [...] director, on the occasion of a business judgment, could reasonably believe to be acting in the best interests of the company and on an appropriately informed basis” [own translation]. See S. 93 (1), second sentence AktG. This rule originates from *ARAG v. Garmenbeck*, NJW 1997, 1926 (BGH 1997).

²⁹⁹ Besides those explained, there are some other differences. For instance, the German rule only shields directors from violations of the duty of care, while the Delaware rule also covers breaches of the duty of loyalty and good faith. Also, the Delaware rule presumes that the director pursues the interests of the company in good faith, whereas the German rule requires the director to prove that his actions are unaffected by conflicts of interests or self-dealing, and serve to the benefit of the company (often considered as two separate conditions). See Entwurf eines Gesetzes zur Unternehmensintegrität und Modernisierung des Anfechtungsrechts (UMAG), Drucksachen Deutscher Bundestag (Bundesrat) 2002-05, no. 15/5092, p. 11.

³⁰⁰ S. 93 (2), second sentence AktG. See also Seibert 2007, p. 772; Roth 2013, pp. 346–347; Holle 2016, p. 271; Koch 2016, § 93, no. 16; Ott 2017, p. 159; Spindler 2023, § 93, no. 92. See for a minority view stating that the presumption of the business judgment rule is not rebuttable: Paefgen 2004, p. 258; Hopt, Roth 2015, § 93, p. 135, no. 67.

³⁰¹ Von Hein 2008, p. 921; Redeke 2011, p. 61.

³⁰² In German: “vernünftigerweise”. For a dogmatic discussion on its correct translation, see De Wulf 2017, pp. 263–264.

³⁰³ Reference to *ARAG v. Garmenbeck*, NJW 1997, 1926 (BGH 1997); made in Entwurf eines Gesetzes zur Unternehmensintegrität und Modernisierung des Anfechtungsrechts (UMAG), Drucksachen Deutscher Bundestag (Bundesrat) 2002-05, no. 15/5092, p. 11.

³⁰⁴ Even when taking that risk is clearly irresponsible or unacceptable. See, *e.g.*, In re Citigroup Inc. Shareholder Derivative Litigation, 964 A.2d 106, 130–131 (Del. Ch. 2009). See also De Geyter 2012, p. 1215, no. 33.

³⁰⁵ *Smith v. Van Gorkom*, 488 A.2d 858, 872 (Del. 1985).

³⁰⁶ *Smith v. Van Gorkom*, 488 A.2d 858, 872 (Del. 1985).

errors, thus establishing that procedural due care is a *prerequisite* for invoking the business judgment rule.³⁰⁷ Similarly, in the *Aronson v. Lewis* case, the Court insisted that the business decision at hand must be an informed one, for the director to invoke the protection of the business judgment rule.³⁰⁸

These considerations created confusion about the allocation of the burden of proof with regard to the decision's information basis. A decade later, in the *Cede II*³⁰⁹ and *Cinerama II*³¹⁰ cases, the Supreme Court upheld the presumption that the decision to approve an M&A agreement was sufficiently informed,³¹¹ and thereby completely reversed its stance on the informational burden of proof.³¹² Since then, the Court of Chancery has consistently treated the informed basis as one of the presumptions that must be rebutted by the plaintiffs.³¹³ This evolution is criticized,³¹⁴ which has left certain authors to side with the original opinion of *Smith v. Van Gorkom* in terms of the burden of proof allocation.³¹⁵

In Germany, it is clear that the business judgment rule does not apply to the process leading up to business decisions.³¹⁶ Still, the majority of the German literature acknowledges that the specific condition of an appropriate information basis should be reviewed by the court with reluctance.³¹⁷ German courts usually judge the preparation of a decision with a sense of proportionality,³¹⁸ and recognise that the informational requirements for directors may not be

³⁰⁷ Eisenberg 1990, p. 959; Bainbridge 2004, p. 92.

³⁰⁸ *Aronson v. Lewis*, 473 A.2d 805, 812 (Del. 1984).

³⁰⁹ *Cede & Co. v. Technicolor, Inc. (Cede II)*, 634 A.2d 345, 361 (Del. 1993).

³¹⁰ *Cinerama, Inc. v. Technicolor, Inc. (Cinerama II)*, 663 A.2d 1156, 1162 (Del. 1995). See also *Aronson v. Lewis*, 473 A.2d 805, 812 (Del. 1984); *Solomon v. Armstrong*, 747 A.2d 1098, 1111-1112 (Del. Ch. 1999).

³¹¹ Such as the fact that the board failed to make a prudent search for alternatives before approving the agreement. See *Cede & Co. v. Technicolor, Inc. (Cede II)*, 634 A.2d 345, 369 (Del. 1993).

³¹² Bainbridge 2004, pp. 93–95.

³¹³ See the wordings of *inter alia* *Levine v. Smith*, 1989 WL 150784, 7 (Del. Ch. 1989); *Solomon v. Armstrong*, 747 A.2d 1098, 1111–1112 (Del. Ch. 1999); *Krim v. ProNet, Inc.*, 744 A.2d 523, 527 (Del. Ch. 1999); *Crescent/Mach I Partners, L.P. v. Turner*, 846 A.2d 963, 984 (Del. Ch. 2000); *In re Walt Disney Co. Derivative Litigation*, 825 A.2d 275, 286 (Del. Ch. 2003); and more recently *In re Sears Hometown and Outlet Stores, Inc. Stockholder Litigation*, 309 A.3d 474, 513 (Del. Ch. 2024); *Palkon v. Maffei*, 311 A.3d 255, 268 (Del. Ch. 2024); *Firefighters' Pension System of City of Kansas City v. Foundation Building Materials, Inc.*, 318 A.3d 1105, 1139 (Del. Ch. 2024). See however, as dissenting opinion: *In re Citigroup Inc. Shareholder Derivative Litigation*, 964 A.2d 106, 124 (Del. Ch. 2009).

³¹⁴ This evolution is supposedly giving the business judgment rule the primary function of assigning the burden of proof, as opposed to precluding the court from deciding whether the directors violated their duty of care. By requiring the plaintiffs to rebut the rule by showing that the directors violated their duty of due care, the scope of judicial review of board decision-making is widened (to not just its process, but also its substance). See Bainbridge 2004, pp. 94–95 and 101–102.

³¹⁵ See, e.g., Giraldo, Cañon 2005, pp. 21–22; Cowger (2022–2023), p. 166; Helleringer, Möslin 2025, pp. 1 and 4. See for a different opinion, e.g., Furlow 2009, pp. 1083–1084.

³¹⁶ There are only discussions about the extent to which the substance of those decisions can be reviewed. See, e.g., Holle 2011, p. 783; Redeke 2011, p. 62; Nauheim, Goette 2013, p. 2523; Bayer 2014, p. 2547; Holle 2014, p. 64; Spindler 2014, §93, no. 56; Hopt, Roth 2015, § 93, p. 135, no. 159, p. 157, no. 114 and pp. 161–162, no. 124; Nietsch 2015, pp. 661–665; De Wulf 2017, pp. 265–266; Ott 2017, p. 170; Fleischer 2023, § 43, no. 91–93.

³¹⁷ Entwurf eines Gesetzes zur Unternehmensintegrität und Modernisierung des Anfechtungsrechts (UMAG), Drucksachen Deutscher Bundestag (Bundesrat) 2002–05, no. 15/5092, p. 12; Fleischer 2004, p. 691; Fleischer 2006, § 7, no. 59; Koch 2006, p. 789; Binder 2008, p. 280; Fleischer 2024, § 93, no. 93.

³¹⁸ E.g., ZIP 2007, 224, no. II ZR 243/05, no. 5 ff (BGH 2006); ZIP 2006, 2087, no. 1 U 34/03 (OLG Oldenburg 2006); ZIP 2010, 1799, no. 18 W 1/10, I-18 W 1/10 (OLG Köln).

construed in an unrealistically demanding way.³¹⁹ The board is granted some leeway in making a sensible cost-benefit analysis about the information basis of decisions,³²⁰ such as whether AI can be a component of that basis or not.

In theory, the cost-benefit analysis that the board makes in its decision to implement or rely on AI as information source, is a business judgment in itself,³²¹ which may be protected by the business judgment rule. According to Chancellor Allen, “the amount of information that it is prudent to have before a decision is made is itself a business judgment of the very type that courts are institutionally poorly equipped to make”.³²² One could argue that, in a similar vein, the courts are ill-equipped to determine whether the use of an AI system in the preparation of a corporate decision is prudent or not.

The burden of proof allocation under Delaware law implies that board’s AI use is presumed to comply with the procedural due care standards. Thus, the rule protects the board’s reliance on AI and gives the board the necessary leeway to use that technology. Any gross negligence committed in deploying AI should be proven by the plaintiffs, which leaves the directors in a comfortable position to experiment with AI systems in advisory position. The board cannot be held liable for normal business risks associated with its AI use, even if they result in damage to the company (except for “waste”³²³).

Under German law, no presumption is applied, which results in the board’s burden to prove that (i) the entire information basis of its decision (including, potentially among other sources, the output of AI) was appropriate; (ii) no irresponsible risks were taken by relying on AI; (iii) the board was disinterested; and (iii) the board reasonably believed that the decision was taken in the best interests of the company. When that high bar of proof cannot be met, the board is not protected by the rule. The latter does not automatically result in the finding of a breach,³²⁴ as it is up to the plaintiff shareholders to substantiate such a breach. If the directors succeed in proving the aforementioned elements, they are protected by the rule and cannot be held liable for decisions based on an incorrect analysis of AI that turns out to be disadvantageous *ex post*.³²⁵

³¹⁹ *E.g.*, ZIP 2012, 2061, no. 41 O 45/10 (LG Essen 2012); BB 2014, 2388, no. 39 O 36/11 (LG Düsseldorf 2014). See also De Wulf 2017, p. 266.

³²⁰ See for criticism Hoor 2004, p. 2107.

³²¹ Binder 2008, p. 284 (in general); Spindler 2018a, p. 41; Möslin 2018a, p. 211; Lücke 2019, p. 1989; Zetzsche 2019, p. 8; Hoerdmann-Napp, Pauli 2021, p. 134; Spindler, Seidel 2022, p. 711, no. 19; Cowger 2022-23 pp. 165–166 (implicitly); Langheld, Haagen 2023, p. 1537; Langenbucher 2024, p. 12. See for a different opinion Helleringer, Möslin 2025, p. 6.

³²² *In re RJR Nabisco, Inc. Shareholders Litigation*, Del J Corp L 1989, 1132, 1165 (Del. Ch. 1989).

³²³ A board decision constitutes waste if the plaintiff succeeds in proving that the exchange was “so one sided that no business person of ordinary, sound judgment could conclude that the corporation has received adequate consideration”. See *Brehm v. Eisner*, 746 A.2d 244, 263 (Del. 2000); *In re Walt Disney Co. Derivative Litigation*, 906 A.2d 27, 74 (Del. 2006); *Glazer v. Zapata Corp.*, 658 A.2d 176, 183 (Del. Ch. 1993); *In re Walt Disney Co. Derivative Litigation*, 731 A.2d 342, 362 (Del. Ch. 1998).

³²⁴ According to the Bundesgerichtshof, the mere finding that the board did not fulfill its informational duty under the business judgment rule does not automatically lead to a breach of the duty of care or the nullity of the board decision. See NJW 2017, 578, no. 5 Str 134/15, no. 31 (BGH 2016).

³²⁵ Spindler 2023, § 93, no. 136.

For the purpose of a Delaware rebuttal of gross negligence, a “reckless” deference to AI as support tool for important corporate decisions should be proven. This may be the case when the board is deferring to an AI system that is not explainable, while an explainable AI system with a similar accuracy rate was available, and no other reliable information sources were considered. Gross negligence may also be established when the board failed to obtain information about accuracy rate of an AI system that appears to generate an abnormal amount of erroneous output, while the system was the only method to understand the complex available dataset. Another instance of gross negligence is the board’s decision to choose untested or unreliable information sources over an AI system that shows demonstrable performance.

Upon a successful rebuttal by the shareholder plaintiffs, the Delaware board is given the burden of proving that the M&A transaction was entirely fair with regard to its price and its process. The ability of the board to prove that fair process, hinges once again on the measures that it took to gain an insight into the learning process of the AI system, and to supervise its operations.³²⁶ The board can substantiate its fair dealing by sharing the accuracy score of the system, sharing the training dataset, detailing its applied supervision model, and generating a *post hoc* explanation for the model’s output. As this review focuses on the fair dealing of the transaction in its entirety, the board should not prove that the help of AI allowed it to reach a deal that could have also been reached if the board relied on the advice of a human expert.

Delaware shareholders can also choose to *a priori* exculpate directors from personal liability for a breach of most of their fiduciary duties.³²⁷ To this end, the shareholders or founders of the company can insert a provision in the certificate of incorporation. When implemented, personal liability for breaches is eliminated, but the duty of care as such remains,³²⁸ enabling injunctive relief to still take place.³²⁹ Inconspicuously, the exculpation does not eliminate liability for breaches of the duty of loyalty, acts or omissions in bad faith or with intentional misconduct or violation of the law, or any transaction from which the director derived an improper personal benefit.³³⁰ The exculpation option yields shareholders the power to fully eliminate the monetary liability for any breaches of the informational standards of conducts in relation to AI—with respect to internal liability.

Most other jurisdictions do not allow a Delaware-style *a priori* exculpation. The system of *a posteriori* shareholder approval (such as “Corwin cleansing” in Delaware,³³¹ duty discharge in

³²⁶ For a different opinion, see Cowger 2022-23, p. 167.

³²⁷ S. 102 (b) (7) Delaware (US) General Corporation Law 2016.

³²⁸ Eisenberg 1990, p. 970; Velasco 2015, p. 656.

³²⁹ Delaware Supreme Court (US) 25 June 1996, *Arnold v. Society for Sav. Bancorp, Inc.*, 678 A.2d 533, 542; Delaware Supreme Court (US) 27 August 2001, *Malpiede v. Townson*, 780 A.2d 1075, 1093.

³³⁰ S. 102 (b) (7) Delaware (US) General Corporation Law 2016. For criticism, see Allen, Jacobs, Strine 2001, pp. 877–878.

³³¹ Under Delaware law, shareholders are provided with the conditional option to approve or cleanse an M&A transaction that was initially ill-informed from the perspective of the board (“Corwin cleansing”). In case of a successful Corwin cleansing, the presumption of the business judgment rule is in principle deemed irrebuttable, and the entire fairness standard is not applied. See *Corwin v. KKR Financial Holdings LLC*, 125 A.3d 304, 309 (Del. 2015). See also, *e.g.*, *In re Volcano Corporation Stockholder Litigation*, 143 A.3d 727, 739 (Del. Ch. 2016); *In re Dell Technologies Inc. Class V Stockholders Litigation*, 2020 WL 3096748, 14 (Del. Ch. 2020); *In re Columbia Pipeline Group, Inc. Merger Litigation*, 299 A.3d 393, 493 (Del. Ch. 2023).

Belgium,³³² and liability relief in Germany³³³) should be preferred over the system of *a priori* exculpation. The main reason for this is the legitimate concern that exculpation gives shareholders the option to waive their liability claims without proper knowledge of the circumstances of a board decision and the extent to which AI has been used in that decision-making process. Any such liability waivers should only be given after a full disclosure to the shareholders of the facts that shaped the decision process, as the board can otherwise abuse the shareholder approval to recklessly rely on AI technology.

II. ALTERNATIVE APPROACHES

Not all jurisdictions apply strong limitations on the judicial review of business judgments. For instance, Belgium³³⁴ and the Netherlands³³⁵ apply the principle of so-called “marginal review” (“marginale toetsing”) as a vague signal to refrain judges from engaging in the policy aspects of directors’ business judgments.³³⁶ As opposed to Delaware’s business judgment rule, this principle does allow the judicial review of the substance of the decision, albeit with the necessary precaution and reluctance.³³⁷ Also in contrast with Delaware, Belgian law does not presume that the director acted in a careful manner, hence there is no reversal of the burden of proof.

In the United Kingdom, the Law Commissions thought the business judgment rule unnecessary, as they confirmed the existence of a long-established judicial approach not to “judge directors with the wisdom of hindsight and [...] ‘second-guess’ directors on commercial matters”.³³⁸ Traditionally, English courts have upheld the idea that it would be wrong “to substitute [their] opinion for that of the management, or indeed to question the correctness of the management’s decision [...] if bona fide arrived at”.³³⁹ They insist not to “interfere with the business judgment

³³² Under Belgian law, the general meeting is expected to hold a vote on the duty discharge (“kwijting” or “décharge”) of the board of directors. The Belgian discharge is more general than that of Corwin cleansing, as it relieves the board from all liability claims of the company in relation to duty violations committed in the capacity of director over the past fiscal year, as opposed to only those claims with regard to a single M&A transaction. See Art. 5:98, par. 2 WVV; art. 6:83, par. 2 WVV; art. 7:149, par. 2 WVV. See also Vandenberghe 2009, pp. 35–41; Braeckmans, Houben 2021, p. 348, no. 722; Tilleman, Dewaele 2022, pp. 734–735, no. 1159.

³³³ Under German law, liability relief can only be given by the general meeting three years after the suspicious board action has taken place. See S. 93 (4), third sentence AktG; Roth 2013, p. 343.

³³⁴ Art. 2:56, para. 1, third sentence WVV. See also Explanatory Notes Kamer 2017-18, no. 54-3119/008, pp. 59–60; Geens, Vananroye 2002, p. 8, no. 8; Vandenberghe 2009, p. 66; Braeckmans, Houben 2021, p. 306, no. 639; Tilleman, Dewaele 2022, pp. 747–749, no. 1174.

³³⁵ Art. 2:9 (2) BW (NL) states that Dutch directors may be held liable, unless when no “serious reproach” (“*ernstig verwijt*”) can be attributed to them. The literature accepts that this provision refers to the principle of marginal review. See Roest 2023, art. 9. For a comparison between the Dutch principle of marginal review and the Delaware business judgment rule, see Assink 2007, pp. 243 ff.

³³⁶ Geens, Vananroye 2002, p. 8, no. 8; Clottens et al. 2022, pp. 1661–1662, no. 216.

³³⁷ De Wulf 2002, pp. 393–394, no. 771–772.

³³⁸ The Law Commission, The Scottish Law Commission 1999, p. 53, no. 5.28–5.29; Davies et al. 2021, pp. 297–298, no. 10-048. For a critique, see Riley 1999, pp. 697 ff.

³³⁹ *Howard Smith Ltd v Ampol Petroleum Ltd*, [1974] A.C. 821, 832 (Privy Council 1974). See also *Re Smith & Fawcett Ltd*, Ch. 304 (Court of Appeal 1942); *Re Tottenham Hotspur plc v Edenote Plc*, [1994] B.C.C. 681 (Chancery Division 1994); *Runciman v Walter Runciman plc*, [1992] B.C.L.C. 1084 (Queen’s Bench Division 1992). See also Cheffins 1997, pp. 312–314.

of directors in the absence of allegations of mala fides”.³⁴⁰ However, not all empirical studies support this assertion.³⁴¹

The English tradition can assumedly be positioned between the German and Delaware regimes, in light of the strong conviction that the court may not evaluate the director’s balancing exercise between competing interests. The common law “no-conflict” rules³⁴² still yield courts the power to assess conflicts of interests, as these conflicts essentially prevent the board from performing a proper balancing exercise. In a similar vein to the corporate waste exception under Delaware law, the Privy Council held that “a director may not knowingly stand by idly and allow a company’s assets to be depleted improperly”, indicating that courts have the power to review such a failure to act.³⁴³

Notably, the principles on judicial review that Belgium and the United Kingdom apply, only curb or discourage the court’s assessment of the substance of business decisions. The procedure leading up to those decisions, such as their information basis, appears to be subject to a full judicial review. As a result, the standards of review in both jurisdictions do not appear to protect the board in relation to its advisory AI use.

BRIDGING THE GAP BETWEEN EXTERNAL AND INTERNAL AI-GUIDED M&A IMPLICATIONS

REGIME OVERVIEW

The preceding discussion allows us to draw some general conclusions regarding the relevant legal protections when using AI to support M&A transactions. At an external level, in the relationship with potential tool providers, it is evident that the inherently imperfect nature of AI implies that incorrect AI output does not in itself constitute negligence on the part of the system provider or deployer. Additionally, our analysis highlighted the critical importance of contractual performance guarantees and liability clauses in this context. In the absence of a relevant clause, the tool provided should generally be fit for the intended purpose. In such cases, the tool should also perform reasonably well—an abstract standard to be assessed contextually. Part of that context includes how costly or accessible it may have been for the provider to improve the tool’s performance, implying a cost-benefit analysis. The assessment is also impacted by external standards, even when they are not directly applicable, such as the high-risk system standards found in the European AI Act. It was also clear that such tools should facilitate human verification of the AI output.

When the tool is deployed by a service provider—such as a law firm—external to the buyer, it is crucial to emphasize that the presence of AI does not alter the fundamental obligations of the

³⁴⁰ *Devlin v Slough Estates Ltd and others*, 1 WLUK 91 (Chancery Division 1982).

³⁴¹ One study found that British courts do review the substance of business decisions and that rates of liability for business judgments have increased since 1 October 2007 (*i.e.* the entry into force of the Companies Act of 2006). See Keay et al. 2020.

³⁴² See Davies et al. 2021, pp. 299–300, no. 10-051.

³⁴³ *Byers v Chen*, [2021] B.C.C. 462, no. 92 (Privy Council 2021). This judgment is affirmed by *Henderson and Jones Ltd v. Ross*, [2023] 5 WLUK 399, no. 407 (Chancery Division 2023).

service provider. Generally, a duty of best efforts continues to apply. Indeed, the increasing development and adoption of AI tools may render their use commonplace, or even necessary, for such providers. The duty of best efforts requires that the service provider reasonably selects the tool, ensures its adequate training—if that training is not handled by the tool provider—and supervises its use. The latter likely entails a duty to spot obvious errors. More generally, the degree of training and supervision required will vary depending on the context, in addition to the price of the service. In any event, it is advisable that parties expressly incorporate this understanding into their contracts where desired, but the service provider generally cannot contractually exclude his obligation to exercise some degree of supervision over the tool's deployment.

Regarding the potential implications for contract validity, it is important to note that any mistake based on AI-generated output should be excusable, consistent with traditional principles. This requires that the mistaken party acted reasonably—an assessment that is, once again, context-dependent, entailing the elements discussed earlier in the context of potential liability claims against the developer or deployer. Reliance on an AI system does thus not automatically equate to reasonable behaviour, although the deployment of such a tool may be considered an indicator of reasonableness, akin to consulting a human expert. To ensure excusability, the buyer must ensure the AI system's suitability and accuracy for the specific task. Depending on the context, supervision may also be required.

If the tool malfunctions due to data provided by the counterparty, excusability is more likely—especially where that data was provided intentionally on purpose. Generally, the mistake regime is excluded when the error concerns the value of the target. However, this may differ if the mistake also concerns a crucial contractual element influencing that value. Additionally, courts are more reluctant to recognise mistakes, traditionally, in share purchases if the error relates to the target company's assets. Buyers should also be aware of contractual clauses limiting the applicability of the mistake regime. While a complete exclusion may not be valid in all jurisdictions, such clauses can significantly hinder reliance on excusable mistake.

Turning to the internal process in corporate decision-making, the board bears a best efforts duty that is similar to that of the tool provider towards the company. The procedural due care component requires intermediate M&A decisions of the board to be based on available information with a reasonable accuracy and reliability. Insofar AI output makes up part of that information basis, the deployed AI system should be sufficiently suitable for the intended M&A task, as already required in the external relationship. In this context, the system must be appropriately tested, and its training and input data must be relevant to its use case. If the board wants to enjoy liability relief under the German and Delaware proper reliance doctrines, an *ad hoc* evaluation or certification of performance levels may be necessary, and as the tool evolves, an ongoing reassessment. External certifications and standards, such as those under the European AI Act, can inform this assessment but are not, in themselves, conclusive as of yet.

Regarding AI system supervision, the duty of good faith precludes the board from blindly relying on AI output, and generally necessitates a *de facto* cross-check against other reasonably available sources. Increased diligence is especially required for economically significant

decisions—such as in M&A context. Boards are in any case expected to identify obvious errors, even if they are not obligated to verify every detail of the system’s operation. Assistance from an external IT expert is generally not required, but may become necessary where doubt persists over the obtained results of the system, especially when the board does not have technical expertise or specialist knowledge. In case the AI output is the only available information source to the board, cross-checks against other sources are not possible, and stricter supervision expectations prevail.

On explainability, boards must understand the basic functioning of any AI tool they use—its inputs, outputs, and limitations. For high-impact decisions, explainable models are preferable to black box models where cost-efficient, and occasionally required when liability protection is sought for under the proper reliance doctrines of Delaware and Germany. A full understanding of the system’s internal workings is not generally required unless when justified by the decision’s impact. If the AI system’s “decision-making process” is not understandable, the need for careful selection and training of the tool should be underscored.

In making these assessments, the board enjoys some discretion. Under the Delaware business judgment rule, it is presumed that the board acts in the company’s best interest and on an informed basis. Board liability requires proof of gross negligence, which the board can rebut by demonstrating the fairness of its decisions in price and dealing. Accordingly, erroneous decisions, including those involving AI, do not result in liability absent gross negligence—such as reckless selection or reliance on AI. Similarly, UK law alleges to avoid second-guessing board decisions, even without a formal business judgment rule, provided that decisions were made in good faith. Empirical studies do not always back this claim.

The German business judgment rule does not include a presumption of due care. Instead, boards must demonstrate that decisions were based on appropriate information. If the board can show, among other things, that no irresponsible risks were taken, liability is generally avoided. The German courts appear reluctant when reviewing the procedure of business judgments. Conditions of the Ision-doctrine, however, are subject to a full judicial review.

The review of board decision-making is most stringent in jurisdictions such as Belgium and the Netherlands, where no review standard akin to the Delaware rule exists. Even so, courts typically refrain from scrutinizing policy decisions that fall within the bounds of reason. Therefore, board liability for AI use is unlikely if the tool was employed reasonably and for its intended purpose, although there is no review standard that prevents the courts from second-guessing that AI use.

COMPARISON AND DISCREPANCIES

The preceding overview helps identify commonalities that M&A acquirers should consider to optimize their internal and external legal protection. In this section, we will pay particular focus to the position of the buyer and its shareholders, assessing the elements that determine whether they might end up bearing the risk of AI deployment.

Beginning with similarities between the internal and external regimes, a first similarity is how both components highlight the need for AI tools with a reasonable level of accuracy in order for external service or tool providers and board members to be able to shield themselves from potential liability claims. It is equally required in most jurisdictions, with a notable exception for German law, should the buyer desire to invoke the mistake regime to annul the sale altogether—although the relevant threshold in that instance is generally difficult to meet given the impact of contractual clauses affecting the mistake doctrine.

More generally, the highly context-dependent requirement of adequate accuracy can be specified through a cost-benefit analysis—not requiring parties to train or develop an AI system if it is not economically viable—or through external standards. Although the European AI Act’s standards are not directly binding for low-risk AI systems such as those discussed here, they may exert an indirect influence. More particularly, in the relationship with external tool or service providers, this assessment can be influenced by the terms of the relevant contract.

Similarly, both the internal and external regimes emphasize the importance of a certain level of explainability, as this enables and reinforces supervision. In the internal context, this may be crucial under the German *Ision*-doctrine. More generally, both contexts limit legal protection for boards or external service providers that rely blindly on AI tools. Each regime also underscores the need for careful selection of prospective AI tools or providers, eerily similar to the diligence expected when consulting a human advisor.

A second similarity, more broadly, is that for both regimes these requirements are evaluated through the decision-making of the relevant actors. When the board or an external service provider did not program the AI tool themselves, the relevant question becomes how they selected and deployed the AI tool in light of the tool’s limitations and strengths. A clear conclusion is that AI does not excuse parties from fulfilling existing obligations. Where traditional legal frameworks require reasonable effort, that standard is not diminished in the AI context, but rather translated into efforts related to tool selection—including accuracy and explainability—appropriate optimization, and ongoing supervision.

Thirdly, both regimes do not require perfect performance, which would not be technically attainable. Standards of reasonableness are assessed through a cost-benefit analysis. This helps determine the extent of the relevant obligations under both.

Fourth, both regimes allow AI involvement to be to be considered a “positive”, contributing to behaviour that can be qualified as “diligent” or “reasonable” or at least more so than in the absence of AI. AI deployment can be considered akin to consulting external expertise. Under the mistake regime, for example, a strong parallel exists between obtaining “advice” from a human expert and an AI system. This resemblance also appears in the internal regime under German law, albeit with some hesitation, where AI may be qualified as expert if sufficiently supervised and explainable. Thus, it is generally more diligent to involve an AI system than to rely solely on internal resources. This assessment can be further reinforced by a cost-benefit analysis that may well support the use of an AI tool over a human expert in domains where AI systems excel, such as data-based environments alike M&A.

Fifth and finally, both regimes share a crucial implication in case the acquiring company or its shareholders fail to show how an external provider or their board failed to live up to the required standards of reasonableness. In that case, the buying corporation will bear the risks of the AI deployment. Moreover, contractual terms heavily influence this assessment, particularly with regard to the external component. If the buyer fails to show their own diligence, for example, which is generally burdened by contractual terms and conditions allocating risks and responsibility, they are unable to invoke the mistake regime and annul an undesirable acquisition. Similarly, terms in contracts with service and tool providers may make it very difficult to show that these providers have failed to live up to the contract. A crucial safeguard in this regard, however, is that such clauses cannot go as far as to eradicate the essence of the contract. More generously but in the same vein, many legal systems exclude liability for gross negligence.

While the impact of contractual terms is generally more nuanced for internal board liability, the starting point there is equally skewed against shareholders—in the sense that they need to overcome the (sometimes explicit) presumption that the board has acted diligently. In each of these instances, should the risks of erroneous AI output materialize, shareholders are thus most likely to pay the price.

Nonetheless, key differences persist between the internal and external regime. First, the external regime is largely driven by a detailed assessment of the reasonableness of reliance on AI output, for which the mistaken buyer ultimately bears the burden of proof. This applies similarly if the buyer obtained the tool themselves through an external AI tool provider. The internal regime, by contrast, is characterized by an implicit trust in the board's business judgments—particularly in jurisdictions such as the US, UK, and Germany. Delaware law explicitly presumes the board's good faith, and requires the plaintiff to prove gross negligence. The German board only needs to demonstrate that its decision had an overall appropriately informed basis, and that no irresponsible risks were taken. For regular business risks that were taken by relying on AI, board liability may be hard to achieve for shareholders.

The external component's emphasis on an in-depth assessment may be problematic in light of the risk hindsight bias, and the general finding that courts may be ill-equipped to assess the AI use in an M&A context. Faced with an underperforming AI tool or an underperforming service provider deploying AI, corporations may have a difficult time obtaining damages for a contractual breach. For the former category, that would be greatly facilitated if the contract were to explicitly state the minimum performance levels the tool should meet. More generally, M&A buyers are likely to be confronted with contractual clauses that limit the liability of the tool or service provider for any poor AI quality or deployment, as stated earlier.

Second, there is a contrast in the nature of the assessment. The internal standards of conduct for AI uses are predominantly objective, with only a minor exception under UK law, whereas the external assessment is more subjective. This applies, generally, for liability assessments, but it is even more evident in the mistake regime. Consequently, increased experience with AI tools may raise the diligence standard in the external context, while largely leaving internal standards unchanged. The fact that a director has specialist knowledge about AI, raises the external

diligence standard for the company, but not necessarily the internal standard for the director itself. The latter may cause a moral hazard issue.

Combining these two elements, it is crucial to underscore the fundamental differences regarding the risk distribution for improper AI use in M&A context. Different thresholds are deployed to assess external liability and internal liability—indicating that instances of external liability of the company (*e.g.*, as a poor AI service was provided) do not necessarily give rise to internal liability of the board (*e.g.*, because of poor selection of the service provider) and vice versa. This applies, in particular, under the board-friendly safe harbour regime of Delaware.

These similarities and differences, taken together, indicate how the risks of improper AI use largely rest with M&A acquirers, and more particularly their shareholders. This applies even despite the fact that shareholders regularly have no direct or positive say on if or how AI is deployed, as they are precluded from interfering in governance matters. As with other high-risk decisions taken by the board, shareholders cannot do much to limit that risk, besides launching non-binding shareholder resolutions and refusing the board an exculpation or duty discharge. Shareholder agreements can also be a valuable tool, although they are not easily enforceable against the company or its board. When the improper AI use comes to light before the closing of the transaction, a refusal to approve could be an ultimate remedy, although shareholder approval is in many cases just a formality.

Externally, shareholders could try to ensure that clauses with external tool providers—if they decide to deploy the tool themselves—explicitly detail the required performance of that tool. Similarly, for service providers deploying the tool for them, they could require minimum performance of the tool deployed and expand on the supervision the service provider should implement. With regard to the M&A transaction itself, they should ensure that the preliminary agreements with the target company do not excessively broadly allocate the risk of incorrect information or verification to the acquirer.

CONCLUSION

AI systems play an increasingly important role in facilitating all aspects of M&A transactions, particularly in the due diligence analysis that precedes such transactions. With that potential come significant risks. The inherently imperfect nature and distinct “decision-making” of AI systems mean some outputs will be manifestly incorrect and conceptually inexplicable, potentially leading to undesirable transactions.

This article has analysed the legal implications of such AI use. It has highlighted the relevance and applicability of existing legal standards concerning external tool and service providers, contract validity, and the potential internal liability of board members. Our analysis shows that standards such as the duty of care already imply thresholds for responsible AI deployment, both externally and internally, without requiring entirely new regulatory regimes. The interplay between internal and external regimes leads to the general finding that the risks of that AI use rest with the shareholders of the acquiring company.

On a more general level, this article raises questions about AI exceptionalism. Despite their potential and uniquely challenging traits, AI tools may be more akin to traditional products than they first appear. In many respects, the challenges AI presents in relation to risk allocation in an M&A context mirror more traditional and general issues inherent to corporate decision-making and contract law.

REFERENCES

- Agarwal D, Bersin J, Lahiri G, Schwartz J, Volini E (2018) AI, robotics, and automation: Put humans in the loop. <https://www2.deloitte.com/us/en/insights/focus/human-capital-trends/2018/ai-robotics-intelligent-machines.html> (accessed on 3 April 2025)
- Ahern D (2024) Corporate Law, Corporate Governance and AI: Are We Ready for Robots in the Boardroom? In: Lim E, Morgan P (eds) *The Cambridge Handbook of Private Law and Artificial Intelligence*. Cambridge University Press, Cambridge, pp 409–430
- Allen WT, Jacobs JB, Strine LE (2001) Function Over Form: A Reassessment of Standards of Review in Delaware Corporation Law. *Del J Corp L* 26:859–895
- Allen WT, Jacobs JB, Strine LE (2002) Realigning the Standard of Review of Director Due Care with Delaware Public Policy: A Critique of Van Gorkom and its Progeny as a Standard of Review Problem. *Nw U L Rev* 96:449–466
- Amendola F C, Buchwalter J, Coltoff P M, Fuhr C, Griffith L E J, Grossman E L., Kimpflen J, Lindsley W, Oakes K, Simmons K C, Surette E C (2022) Contracts. In: *Corpus Juris Secundum*. Thomson Reuters, Minnesota, pp §1–1062
- American Law Institute (1994) § 4.01 Duty of Care of Directors and Officers; the Business Judgment Rule. In: *Principles of Corporate Governance: Analysis and Recommendations*. American Law Institute Publishers, Saint Paul
- Armour J, Eidenmüller H (2021) Self-Driving Corporations? In: Eidenmüller H, Wagner G (eds) *Law by Algorithm*. Mohr Siebeck, Tübingen, pp 157–186
- Armour J, Parnham R, Sako M (2021) Unlocking the potential of AI for English law. *Int J Leg Prof* 28:65–83
- Armour J, Sako M (2021) Lawtech: Levelling the Playing Field in Legal Services? <https://dx.doi.org/10.2139/ssrn.3831481>
- Article 29 Data Protection Working Party (2016) Guidelines on Automated individual decision-making and Profiling for the purposes of Regulation 2016/679. https://edpb.europa.eu/our-work-tools/our-documents/guidelines/automated-decision-making-and-profiling_en
- Ashley K D (2017) *Artificial intelligence and legal analytics: new tools for law practice in the digital age*. Cambridge University Press, Cambridge
- Assink FJ (2007) *Rechterlijke toetsing van bestuurlijk gedrag*. Doctoral thesis at Erasmus University Rotterdam
- Atkins P (2014) Reliance by Directors: What’s a Conscientious Director to Do? *Harvard Law School Forum on Corporate Governance*, <https://corpgov.law.harvard.edu/2014/04/11/reliance-by-directors-whats-a-conscientious-director-to-do/>
- Australian Human Rights Commission, 2021, “Human Rights and Technology: final report”, https://tech.humanrights.gov.au/sites/default/files/2021-05/AHRC_RightsTech_2021_Final_Report.pdf,
- Bain & Company, 2024, *Generative AI in M&A: Where Hope Meets Hype* (2024) <https://www.bain.com/insights/generative-ai-m-and-a-report-2024/>
- Bainbridge SM (2004) The Business Judgment Rule as Abstention Doctrine. *Vand L Rev* 57:83–130
- Bainbridge SM (2009) The Story of *Smith v. Van Gorkom*. In: Ramseyer JM (ed) *Corporate Law Stories*. Foundation Press, Goleta, pp 197–226
- Barret O, Brun P (2019) Vente : formation. In: *Répertoire de droit civil*. Dalloz, Paris, nos. 1–679
- Baumgartner M, 2024, “How AI will impact due diligence in M&A transactions”, https://www.ey.com/en_ch/insights/strategy-transactions/how-ai-will-impact-due-diligence-in-m-and-a-transactions
- Bayer W (2014) Vorstandshaftung in der AG de lege lata und de lege ferenda. *Neue Juristische Wochenschrift* 2546–2550
- BBC News, “AI image recognition fooled by single pixel change”, Nov., 3rd 2017, <https://www.bbc.co.uk/news/technology-41845878>
- Bellinck L (2019) (Pre)contractuele fouten bij vastgoedtransacties tussen vennootschappen. In: Muylle M, Swinnen K (eds) *De contractuele fout. die Keure / la Charte*, Brugge, pp 113–146
- Betts K D and Jaep K R (2017) The Dawn of Fully Automated Contract Drafting: Machine Learning Breathes New Life into a Decades–Old Promise. *Duke L & Tech R* 15:216–233
- Binder JH (2008) Geschäftsleiterhaftung und fachkundiger Rat. *Die Aktiengesellschaft* 274–287

- Binder JH (2012a) Mittelbare Einbringung eigener Aktien als Sacheinlage und Informationsgrundlagen von Finanzierungsentscheidungen in Vorstand und Aufsichtsrat. *Zeitschrift für Unternehmens- und Gesellschaftsrecht* 757–775
- Binder JH (2012b) Anforderungen an Organentscheidungsprozesse in der neueren höchstrichterlichen Rechtsprechung – Grundlagen einer körperschaftsrechtlichen Entscheidungslehre? *Die Aktiengesellschaft* 885–898
- Blei Weissmann Y G (2018) Boek 6, titel 5, artikel 217 – Aanbod en aanvaarding. In: *Groene serie verbintenissenrecht*. Wolters Kluwer, Deventer, nos. 1–4.5
- Block DJ, Prussin HA (1981) The Business Judgment Rule and Shareholder Derivative Actions: Viva Zapata? *Bus Law* 37:27–75
- Bologna G, Hayashi Y (2017) Characterization of symbolic rules embedded in deep DIMLP networks: A challenge to transparency of deep learning. *J Artif Intell Soft Comput Res* 7:265–286
- Bonnaffé R (2018) Nieuwe technologieën en het recht: de impact van artificiële intelligentie op de rechtspraak. *TRV*, 856–869
- Borghetti JS (2019) How can Artificial Intelligence be Defective? In: Lohsse S, Schulze R, Staudenmayer D (eds) *Liability for Artificial Intelligence and the Internet of Things*. Bloomsbury, London, pp 63–76
- Bosch N, Lange KW (2009) Unternehmerischer Handlungsspielraum des Vorstandes zwischen zivilrechtlicher Verantwortung und strafrechtlicher Sanktion. *JuristenZeitung* 64:225–237
- Böttcher L (2009) Bankvorstandshaftung im Rahmen der Sub-Prime Krise. *Neue Zeitschrift für Gesellschaftsrecht* 27:1047–1051
- Braeckmans H, Houben R (2021) *Handboek vennootschapsrecht*. Intersentia, Antwerp
- Brömmelmeyer C (2005) Neue Regeln für die Binnenhaftung des Vorstands – Ein Beitrag zur Konkretisierung der Business Judgment Rule. *Zeitschrift für Wirtschafts- und Bankrecht* 44:2065–2069
- Brown S (2015) Peeking inside the Black Box: A Preliminary Survey of Technology Assisted Review (TAR) and Predictive Coding Algorithms for Ediscovery. *Suffolk J. Trial & App. Advoc.* 21: 221–288
- Brulez P (2019) Over de draagwijdte van contractuele verbintenissen: garantie-, resultaats-, middelenverbintenissen. In: Swinnen, K, Muylle M (eds), *De contractuele fout. die Keure / la Charte*, Brugge, pp 1–30
- Bruner CM (2022) Artificially Intelligent Boards and the Future of Delaware Corporate Law. *J Corp Law Stud* 22:783–805
- Buck-Heeb P (2016) Die Plausibilitätsprüfung bei Vorliegen eines Rechtsrats – zur Enthaltung von Vorstand, Geschäftsführer und Aufsichtsrat. *Betriebs-Berater* 1347–1355
- Buyers J (2018) *Artificial Intelligence: the practical legal issues*. Law Brief Publishing, Minehead
- Cahn A (2013) Aufsichtsrat und Business Judgment Rule. *Zeitschrift für Wirtschafts- und Bankrecht* 28:1293–1305
- Calo R (2017) Artificial Intelligence Policy: A Primer and Roadmap. *UC Davis L Rev* 51:399–435
- Calo R (2018) Artificial Intelligence Policy: A Primer and Roadmap. *Univ. Bologna Law Rev.* 3: 180–218
- Cecco L, 2024, “Canada lawyer under fire for submitting fake cases created by AI chatbot”, *The Guardian* Feb. 29, 2024, <https://www.theguardian.com/world/2024/feb/29/canada-lawyer-chatgpt-fake-cases-ai>
- Cheffins BR (1997) *Company Law: Theory, Structure and Operation*. Clarendon Press, Oxford
- Chen JM (2021) Interpreting linear beta coefficients alongside feature importances. *Mach Learn* 49:245–247
- Choe W, Hahn AA, Rabbitt-Tomita J (2018) Powering opportunity: How dealmakers are harnessing AI. <https://mergers.whitecase.com/highlights/powering-opportunity-how-dealmakers-are-harnessing-ai/> (accessed on 7 April 2025)
- Cihon P, Kleinaltenkamp MJ, Schuett J, Baum SD (2021) AI Certification: Advancing Ethical Practice by Reducing Information Asymmetries. *IEEE Trans Technol Soc* 2:200–209
- Claes H, Herbosch M (2023) Artificial intelligence and contractual liability limitations: a natural combination? *ERPL* 31:469–496.
- Clottens C, Cools S, De Dier S, Geens K, Le Paige Y, Van Baelen B, Van Eetvelde J, Wyckaert M (2022) Overzicht van rechtspraak. Vennootschappen en verenigingen (2012–2019). *Tijdschrift voor Privaatrecht* 1455–1987
- Cofone I N (2018) Servers and Waiters: What Matters in the Law of A.I. *Stan. Tech. L. Rev.* 21: 167–197.
- Cole G S (1990) Tort Liability for Artificial Intelligence and Expert Systems. *Computer L.J.* 10: 127–231.

- Collart-Dutilleul F, Laurent P, Blond-Laurent C, Hérail M, Ghemame-Pinoche M (2019) *Droit de la vente immobilière 2019/2020*. Dalloz, Paris
- Colloway J (2019) Artificial Intelligence and Everyday Law Practice. *Okla. Bar J.* 90: 42–43
- Corporate Governance Committee (2020) The 2020 Belgian Code on Corporate Governance. https://www.corporategovernancecommittee.be/assets/pagedoc/2003973319-1651062453_1651062453-2020-belgian-code-on-corporate-governance.pdf
- Corrêa AM (2024) Article 13 – Transparency and Provision of Information to Deployers. In: Pehlivan CN, Forgó N, Valcke P (eds.), *The EU Artificial Intelligence (AI) Act: A Commentary*. Kluwer, Alphen aan den Rijn, pp 333–350
- Coussement K, Abedin MZ, Kraus M, Maldonado S, Topuz K (2024) Explainable AI for enhanced decision-making. *Decis Support Syst* art 184:114276
- Cowger AR (2022-23) Corporate Fiduciary Duty in the Age of Algorithms. *JL Tech & Internet* 14:136–207
- Dambre M (2020) *Handboek bijzondere overeenkomsten. die Keure / la Charte*, Brugge
- Davies PL, Hare C, Micheler E, Worthington, S (2021) *Gower: Principles of Modern Company Law*. Sweet & Maxwell, London
- De Boeck A (2007) De wilsgebreken dwaling en bedrog vandaag Responsabilisering en ankerplaats voor de precontractuele informatieverplichting. In: Van Ransbeeck R (ed) *Wilsgebreken. die Keure / la Charte*, Brugge, pp 37–100
- De Boeck A, Waelkens J (2017) Dwaling. In: Dirix E, Tillemans B, Dambre M (eds), *Bijzondere overeenkomsten. Artikelsgewijze commentaar met overzicht van rechtspraak en rechtsleer*. Wolters Kluwer, Mechelen, pp 1–52
- De Bruyne J (2019) *Third-Party Certifiers*. Kluwer, Alphen aan den Rijn
- De Bruyne J (2023) Third- Party Certification and Artificial Intelligence – Some Considerations in Light of the European Commission Proposal for a Regulation on Artificial Intelligence. In: Kalpokas I, Kalpokienė J (eds) *Intelligent and Autonomous – Transforming Values in the Face of Technology*. Koninklijke Brill, Leiden, pp 67–88
- De Bruyne J, Ooms W (2025) Tort Liability and Artificial Intelligence – Some Challenges and (Regulatory) Responses. In: Schuma NA (ed) *The Cambridge Handbook of the Law, Ethics and Policy of Artificial Intelligence*. Cambridge University Press, Cambridge, pp 158–173
- De Dier S, Vananroye J (2022) Aansprakelijkheid van bestuurders in het WVV. In: Cools S (ed) *Lessen na twee jaar WVV*. Roularta Media Group, Roeselare, pp 399–454
- De Geyter S (2012) De toezichtstaak van de raad van bestuur. *Tijdschrift voor Privaatrecht* 1175–1221
- De Graaf T J, Wuisman I S (2021) Contractuele aansprakelijkheid voor het gebruik van AI-systemen in het licht van Europese voorstellen. *WPNR* 905–915
- De La Durantaye K (2020) *Erklärung und Wille*. Mohr Siebeck, Tübingen
- De Neef V, Colson E (2018) Robot et personnalité juridique : l’irremplaçable valeur d’un être chair. *R.D.T.I.* 5–18
- De Page H (1962) *Traité élémentaire de droit civil belge, Tome I: Introduction. Théorie générale des droits et des lois. Les personnes - la famille*. Bruylant, Brussels
- De Wulf H (2002) *Taak en loyauteitsplicht van het bestuur in de naamloze vennootschap*. Intersentia, Antwerp
- De Wulf H (2017) From Mannesmann to Siemens – Some thoughts on the use of deferred prosecution agreements and the German “Untreue” concept to reform corporate governance through criminal law. In: Siekmann H, Cahn A, Florstedt T, Langenbucher K, Redenius-Hövermann J, Tröger T, Segna U (eds) *Festschrift für Theodor Baums zum siebzigsten Geburtstag*. Beck, Munich, pp 251–278
- Deck L, Müller JL, Braun C, Zipperling D, Kühl N (2024) Implications of the AI Act for Non-Discrimination Law and Algorithmic Fairness. <https://doi.org/10.48550/arXiv.2403.20089>
- Deeks A (2019) The Judicial Demand for Explainable Artificial Intelligence Essays”, *Colum L Rev* 119:1829–1850
- Del Corral J (2011) *Dwaling*. Larcier, Brussels
- Deloitte (2022) 2022 M&A Trends Survey: A time to pivot. <https://www2.deloitte.com/content/dam/Deloitte/us/Documents/mergers-acquisitions/us-deloitte-2022-mna-trends-report.pdf> (accessed on 7 April 2025)

- Deloitte (2025) 2025 M&A Trends Survey: A time to pivot for M&A markets. https://www2.deloitte.com/us/en/pages/mergers-and-acquisitions/articles/m-a-trends-report.html?mod=article_inline (accessed on 7 April 2025)
- Demarsin B (2013) Clausules in verband met dwaling. In: Ballon G-L De Decker H, Sagaert V, Terryn E, Tilleman B, Verbeke A L (eds) *Gemeenrechtelijke clausules*, vol. I and II. Intersentia, Antwerp, pp 397–470
- Demolombe C (1868) *Cours de Code Civil: Tome Vingt-quatrième*. Auguste Durand, Paris
- Dirix E (1985) Dwaling en bedrog bij koop van kunst en antiek. In: Rimanque, K (ed), *Kunst en recht*. Kluwer, Antwerp, pp 95–11
- Dissaux N (2021) Contrat: formation. In: *Répertoire de droit civil*. Dalloz, Paris, nos. 1–263
- Dooley MP, Veasey EN (1989) The Role of the Board in Derivative Litigation: Delaware Law and the Current ALI Proposals Compared. *Bus Law* 44:503–542
- Doshi-Velez F, Kim B (2017) Towards A Rigorous Science of Interpretable Machine Learning. <https://doi.org/10.48550/arXiv.1702.08608>
- Doshi-Velez F, Kortz M, Budish R, Bavitz C, Gershman S, O'Brien D, Scott K, Schieber S, Waldo J, Weinberger D, Weller A, Wood A (2017) Accountability of AI Under the Law: The Role of Explanation. <https://doi.org/10.48550/arXiv.1711.01134>
- Drukarch H, Fosch-Villaronga E (2022) The Role and Legal Implications of Autonomy in AI-Driven Boardrooms. In: Custers B, Fosch-Villaronga E (eds) *Law and Artificial Intelligence – Regulating AI and Applying AI in Legal Practice*. Asser Press, Den Haag, pp 345–364
- Du M, Liu N, Hu X (2020) Techniques for Interpretable Machine Learning. *Commun ACM* 63:68–77
- Dubovitskaya E, Buchholz A (2023) Die Geschäftsleitung und der Rat des Algorithmus. *Zeitschrift für Wirtschaftsrecht* 63–73
- Easterbrook FH, Fischel DR (1991) *The Economic Structure of Corporate Law*. Harvard University Press, Cambridge
- Ebers M (2021) Liability for Artificial Intelligence and EU Consumer Law. *JIPITEC* 12: 204–220
- Eisenberg MA (1990) The Duty of Care of Corporate Directors and Officers. *U Pitt L Rev* 51:945–972
- Eisenberg MA (1997) The Director's Duty of Care in Negotiated Dispositions. *U Mia L Rev* 51:579–604
- Elias R A (2015) Facing the Brave New World of Killer Robots: Adapting the Development of Autonomous Weapon Systems into the Framework of the International Law of War. *Trinity L. Rev.* 21: 70–96
- Ellencweig B, van Oostende M, Silva R, “GenAI: Opportunities in M&A”, May 21, 2024, <https://www.mckinsey.com/capabilities/m-and-a/our-insights/gen-ai-opportunities-in-m-and-a>
- Enriques L (2002) Do Corporate Law Judges Matter? Some Evidence from Milan. *Eur Bus Organ Law Rev* 3:765–821
- Enriques L, Zetzsche DA (2020) Corporate Technologies and the Tech Nirvana Fallacy. *Hastings L J* 72:55–98
- Esser I-M, Loughrey J (2020) Stock corporations: corporate governance and external and internal controls. In: Vicari A, Schall A (eds) *Company Laws of the EU*. Beck, Munich
- European Commission, 2024, Commission Guidelines on the definition of an artificial intelligence system established by Regulation (EU) 2024/1689 (AI Act), <https://ec.europa.eu/newsroom/dae/redirection/document/112455>
- European Securities And Markets Authority (2023) ESMA TRV Risk Analysis – Artificial intelligence in EU securities markets. https://www.esma.europa.eu/sites/default/files/library/ESMA50-164-6247-AI_in_securities_markets.pdf (accessed on 7 April 2025)
- Expert Group on Liability and New Technologies, 2019, “Report on liability for Artificial Intelligence and other emerging technologies”, <https://op.europa.eu/en/publication-detail/-/publication/1c5e30be-1197-11ea-8c1f-01aa75ed71a1/language-en>
- Feldman R, Stein K (2022) AI Governance in the Financial Industry. *Stan. J.L. Bus. & Fin.* 27: 94–132
- Ferreira J, Pedemonte M, Torres AI (2019) A Genetic Programming Approach for Construction of Surrogate Models. *Comput Aided Chem Eng* 47:451–456
- Fierens M, Van Gool E, De Bruyne J (2020-21) De regulering van artificiële intelligentie (deel 1) – Een algemene stand van zaken en een analyse van enkele vraagstukken inzake consumentenbescherming. *Rechtskundig Weekblad* 962–980

- Financial Reporting Council (2018) The UK Corporate Governance Code. <https://www.frc.org.uk/getattachment/88bd8c45-50ea-4841-95b0-d2f4f48069a2/2018-UK-Corporate-Governance-Code-FINAL.pdf>.
- Fischel DR (1985) The Business Judgment Rule and the Trans Union Case. *Bus Law* 40:1437–1455
- Fleischer H (2004) Die „Business Judgment Rule“: Vom Richterrecht zur Kodifizierung. *Zeitschrift für Wirtschaftsrecht* 685–692
- Fleischer H (2006) § 7. Sorgfaltspflicht der Vorstandsmitglieder. In: *Handbuch des Vorstandsrechts*. Beck, Munich
- Fleischer H (2009) Aktuelle Entwicklungen der Managerhaftung. *Neue Juristische Wochenschrift* 2337–2343
- Fleischer H (2010a) Vorstandshaftung und Vertrauen auf anwaltlichen Rat. *Neue Zeitschrift für Gesellschaftsrecht* 121–125
- Fleischer H (2010b) Rechtsrat und Organwalterhaftung im Gesellschafts- und Kapitalmarktrecht. In: Kindler P, Koch J, Ulmer P, Winter M (eds) *Festschrift für Uwe Hüffer zum 70. Geburtstag*. Beck, Munich, pp 187–204
- Fleischer H (2015a) Vergleiche über Organhaftungs-, Einlage- und Drittansprüche der Aktiengesellschaft. *Die Aktiengesellschaft* 133–150
- Fleischer H (2015b) Vorstandshaftung und Rechtsirrtum über die Vertretungskompetenz beim Abschluss eines Interim-Management-Vertrags. *Der Betrieb* 1764–1769
- Fleischer H (2019) AktG § 93 Sorgfaltspflicht und Verantwortlichkeit der Vorstandsmitglieder. In: Spindler G, Stilz E (eds), *Kommentar zum Aktiengesetz*. Beck, Munich
- Fleischer H (2023) § 43 Haftung der Geschäftsführer. In: Fleischer H, Goette W (eds) *Münchener Kommentar zum GmbHG*. Beck, Munich
- Fleischer H (2023) § 76 Leitung der Aktiengesellschaft. In: Henssler M (ed), *Grosskommentar zum Aktienrecht*. Beck, Munich
- Fleischer H (2023) § 93 Sorgfaltspflicht und Verantwortlichkeit der Vorstandsmitglieder. In: Henssler M (ed), *Grosskommentar zum Aktienrecht*. Beck, Munich
- Fleischer H (2024) § 93 Sorgfaltspflicht und Verantwortlichkeit der Vorstandsmitglieder. In: Henssler M (ed), *Grosskommentar zum Aktienrecht*. Beck, Munich
- Flume W (1965) *Allgemeiner Teil des Bürgerlichen Rechts II: das Rechtsgeschäft*. Springer, Berlin.
- Freitag R, Korch S (2012) Die Angemessenheit der Information im Rahmen der Business Judgment Rule (§ 93 Abs. 1 Satz 2 AktG). *Zeitschrift für Wirtschaftsrecht* 2281–2286
- Froomkin A M, Kerr I, Pineau J (2019) When AIs Outperform Doctors: Confronting the Challenges of a Tort-Induced over-Reliance on Machine Learning. *Ariz. L. Rev.* 61: 33–100
- Frye B L (2018) The Lion, the Bat & the Thermostat: Metaphors of Consciousness. *Savannah L. Rev.* 5: 13–44.
- Fuchs J (2019) Anfechtung von Willenserklärungen. In: Weber K (ed), *Creifelds, Rechtswörterbuch*. Beck, Munich, nos. 1–3
- Furlow CW (2009) Good Faith, Fiduciary Duties, and the Business Judgment Rule in Delaware. *Utah L Rev* 3:1061–1096
- Geens K, Vananroye J (2002) Bestuursaansprakelijkheid in NV en BVBA. In: Geens K (ed) *Vennootschaps- en financieel recht*. Die Keure, Brugge, pp 5–26
- Gencheva D, Davidavičienė V (2016) Reduction of the Information Asymmetry in Mergers & Acquisitions Through the Means of Payment. *J Syst Manag Sci* 6:16–32
- George S.K. (2019) Can Artificial Intelligence Machines Be Patented Or Sued?, *Court Uncourt*, 6: 41–44
- Gerstner M E (1993) Liability Issues with Artificial Intelligence Software, *Santa Clara L. Rev.* 33: 239–270
- Ghestin J, Loiseau G, Serinet Y-M (2013) *Traité de droit civil: la formation du contrat*. Tome 1: Le contrat - Le consentement. LGDJ, Paris
- Ghestin J, Serinet Y-M (2018) Erreur. In: *Répertoire de droit civil*. Dalloz, Paris, nos. 1–380
- Gillis T, McLaughlin B, Spiess J (2023) On the Fairness of Machine-Assisted Human Decisions. <https://doi.org/10.48550/arXiv.2110.15310>
- Giraldo CAL, Cañon MPD (2005) Modern conception of business judgment rule: A case study on Delaware jurisprudence. *International Law: Revista Colombiana de derecho Internacional* 13–39
- Giuffrida I, Lederer F, Vermeyst N (2018) A Legal Perspective on the Trials and Tribulations of AI: How Artificial Intelligence, the Internet of Things, Smart Contracts, and Other Technologies Will Affect the Law. *Case W Res L Rev* 68:747–781

- Glossner S (2013) Die Grundregeln des elektronischen Geschäftsverkehr. In: Leupold, A (ed), Münchener Anwaltshandbuch IT-Recht. Beck, Munich, nos. 1–560
- Goetghebuer J (2020) De invloed van artikel 22 AVG op het gebruik van robo-advies binnen de beleggingssector. Met de rug tegen de muur? Tijdschrift voor Belgisch Handelsrecht / Revue de Droit Commercial Belge 135–164
- Goette W (2000) Leitung, Aufsicht, Haftung – zur Rolle der Rechtsprechung bei der Sicherung einer modernen Unternehmensführung. In: Geiss K, Nehm K, Brandner HE, Hagen A (eds) Festschrift aus Anlass des fünfzigjährigen Bestehens von Bundesgerichtshof, Bundesanwaltschaft und Rechtsanwaltschaft beim Bundesgerichtshof. Heymanns, Köln–Berlin–Bonn–Munich, pp 123–142
- Goldberg, S (1990) The Changing Face of Death: Computers, Consciousness, and Nancy Cruzan. Stan. L. Rev. 43: 659–684
- Goossens E (2020) Wat je zelf doet, doe je meestal beter? Over de onmogelijkheid voor de nalatige zelfbouwer-verkoper om zich te exonereren voor verborgen gebreken. TBO 37–42
- Gorphe F (1928) Le principe de la bonne foi. Dalloz, Paris
- Goux C (2000) L'erreur, le dol et la lésion qualifiée: analyse et comparaisons. TBBR 6–41
- Graumann M (2021) Angemessene Informationsgrundlage von Prognosen bei unternehmerischen Entscheidungen. Zeitschrift für Wirtschaftsrecht 61–70
- Greene WH (2003) Econometric Analysis. Prentice Hall, Upper Saddle River
- Greenhow A (1999) The Statutory Business Judgment Rule: Putting the Wind into Directors' Sails. Bond Law Rev 11:33–58
- Grossman M R, Cormack G V (2014) The Grossman-Cormack Glossary of Technology-Assisted Review. Fed. Cts. L. Rev. 7: 85–112
- Gurrea-Martínez A (2018) Re-Examining the Law and Economics of the Business Judgment Rule: Notes for its Implementation in Non-US jurisdictions. J Corp Law Stud 18:417–438
- Haagen C (2021) Verantwortung für Künstliche Intelligenz. Nomos, Baden-Baden
- Hacker P (2023) The European AI Liability Directives – Critique of a Half-Hearted Approach and Lessons for the Future. Comput Law Secur Rev art 51:105871
- Hacker P, Passoth JH (2022) Varieties of AI Explanations Under the Law. From the GDPR to the AIA and Beyond. In: Holzinger A, Goebel R, Fong R, Moon T, Müller KR, Samek W (eds) xxAI – Beyond Explainable AI. Springer, Cham, pp 343–373
- Hagenlocher T (2009) Grundzüge der Entscheidungslehre. Books on Demand, Norderstedt
- Hahn C, Naumann D (2013) Organhaftung trotz sachverständiger Beratung – Entscheidungskonflikte zwischen dem „Gebot des sichersten Weges“ und unternehmerischer Wagnis. Corporate Compliance Zeitschrift 156–164
- Hamdani A, Hashai N, Kandel E, Yafeh Y (2018) Technological progress and the future of the corporation. J Br Acad 6:215–245
- Han J, Kamber M, Pei J (2012) Data Mining – Concepts and Techniques. Morgan Kaufmann Publishers, Waltham
- Haney B S (2018) The Perils and Promises of Artificial General Intelligence. J. Legis. 45: 151–170.
- Hansson O (2018) Product Review: Kira, Colorado Lawyer, 47: 13–14
- Hatfield M (2019) Professionally Responsible Artificial Intelligence. Ariz State Law J 51:1057–1122
- Hawes DW, Sherrard TJ (1976) Reliance on Advice of Counsel as a Defense in Corporate and Securities Cases. Va L Rev 62:1–148
- Hellemans F, Heynickx B (2007) Wilsgebreken in het vennootschapsrecht. In: Van Ransbeeck R (ed), Wilsgebreken. die Keure / la Charte, Brugge, pp 169–231
- Helleringer G, Möslin F (2025) AI & The Business Judgment Rule: Heightened Information Duty. U Chi L Rev Online, <https://lawreview.uchicago.edu/online-archive/ai-business-judgment-rule-heightened-information-duty>
- Henderson S E (2019) Should Robots Prosecute and Defend? Okla. L. Rev. 72: 1–20
- Herbosch M (2022) The Diligent Use of AI Systems: A Risk Worth Taking? EuCML, 11: 14–22
- Herbosch M (2023) Intelligent Contracteren – Het precontractueel gebruik van systemen op basis van artificiële intelligentie. Kluwer, Mechelen

- Herbosch M (2024) AI-Infused Contracting: An Application to M&A Transactions. In: Gielen G, Herbosch M, Tilleman B (eds) *AI and Contracting – Opportunities and challenges for AI in contracting and deliberation*. Eleven, Den Haag, pp 155–174
- Herbosch M (2024) Fraud by generative AI chatbots: On the thin line between deception and negligence. *Comput. Law & Secur. Rev.* 52: 105941
- Herbosch M (2025) Liability for AI Agents. *N.C. J.L. & Tech.* 26: 391–458
- Herbots J H, Clarysse D, Werckx J (1985) Overzicht van rechtspraak: Bijzondere overeenkomsten (1977-1982) Deel 1. *TPR* 767–962
- Hickman E, Petrin M (2021) Trustworthy AI and Corporate Governance: The EU's Ethics Guidelines for Trustworthy Artificial Intelligence from a Company Law Perspective. *Eur Bus Organ Law Rev* 22:593–625
- Hilb M (2020) Toward artificial governance? The role of artificial intelligence in shaping the future of corporate governance. *J Manag Gov* 24:851–870
- Hoch VRS (2019) Anwendung Künstlicher Intelligenz zur Beurteilung von Rechtsfragen im unternehmerischen Bereich – Zulässigkeit, Grenzen und Haftungsfragen beim Einsatz von Legal Robots. *Archiv für die civilistische Praxis* 219:646–702
- Hoerdemann-Napp C, Pauli LP (2021) KI am Steuer der Aktiengesellschaft? In: Compes A, Thümmel RC, Winkler A (eds), *Festschrift für Alexander Reuter*. Otto Schmidt, Cologne, pp 127–140
- Holle PM (2011) Rechtsbindung und Business Judgment Rule. *Die Aktiengesellschaft* 778–786
- Holle PM (2014) Legalitätskontrolle im Kapitalgesellschafts- und Konzernrecht. Mohr Siebeck, Tübingen
- Holle PM (2016) Die Binnenhaftung des Vorstands bei unklarer Rechtslage. *Die Aktiengesellschaft* 270–280
- Holzinger A, Biemann C, Pattichis Cs, Kell DB (2017) What do we need to build explainable AI systems for the medical domain? <https://doi.org/10.48550/arXiv.1712.09923>
- Hoor G (2004) Die Präzisierung der Sorgfaltsanforderungen nach § 93 Abs. 1 AktG durch den Entwurf des UMAG. *Deutsches Steuerrecht* 2104–2108
- Hopt KJ, Roth M (2015) § 93 Sorgfaltspflicht und Verantwortlichkeit der Vorstandsmitglieder. In: Hirte H, Mülberr PO and Roth M (eds) *Großkommentar zum Aktiengesetz*. De Gruyter, Berlin–München–Boston
- Hricik D, Morgan A-L S, Williams K H (2017) The Ethics of Using Artificial Intelligence to Augment Drafting Legal Documents. *Tex. A&M J. Prop. L.* 4: 465–484
- Hwanga JT, Martins JRRA (2018) A fast-prediction surrogate model for large datasets. *Aerosp Sci Technol* 75:74–87
- Jafferali R (2023) La réforme du droit des contrats – Les principales nouveautés. *JT* 21–56
- Janis I L, Mann L (1977) *Decision making : a psychological analysis of conflict, choice, and commitment*. Free Press, New York
- Jiaa L, Alizadehb R, Haoa J, Wanga G, Allenb JK, Mistree F (2020) A rule-based method for automated surrogate model selection. *Adv Eng Inform* 45:1–16
- Jocqué G (2007) Bewustzijn en subjectieve verwijtbaarheid. In: Bernauw K, Bocken H (eds) *Aansprakelijkheid, aansprakelijkheidsverzekering en andere schadevergoedingssystemen*. Kluwer, Mechelen, pp 1–101
- Judin M (2023) Does the Business Judgment Rule protect decision based on AI? <https://www.linkedin.com/pulse/does-business-judgement-rule-protect-decision-based-ai-michael-judin/>. Accessed 19 March 2025
- Kamath U, Liu J (2022) *Explainable Artificial Intelligence: An Introduction to Interpretable Machine Learning*. Springer, Cham
- Karnow CEA (2017) The Opinion of Machines. *Colum Sci & Tech L Rev* 19:136–184
- Katz D M (2013) Quantitative Legal Prediction—Or—How I Learned to Stop Worrying and Start Preparing for the Data-Driven Future of the Legal Services Industry. *Emory L.J.* 62: 909–966
- Kaulartz M (2021), Künstliche Intelligenz. *Vertragsrecht*. In: Leupold A, Wiebe A, Glossner S (eds), *IT-Recht*. Beck, Munich, nos. 1–37.
- Keay A, Loughrey J, McNulty T, Okanigbuan F, Stewart A (2020) Business Judgment and Director Accountability: A Study of Case-law Over Time. *J Corp Law Stud* 20:359–387
- Kirn S, Müller-Hengstenberg C D (2014) Intelligente (Software-)Agenten: Von der Automatisierung zur Autonomie? *Verselbstständigung technischer Systeme*. *MMR*, 225–232
- Kleczewski A-G (2020) L'intelligence artificielle au service des administrateurs : une mise à l'épreuve de la collégialité ? *TRV*, 511–526

- Kleinberg J (2016) Inherent Trade-Offs in the Fair Determination of Risk Scores. <https://doi.org/10.48550/arXiv.1609.05807>
- Knight W (2017) The Dark Secret at the Heart of AI. MIT Technol Rev, <https://www.technologyreview.com/s/604087/the-dark-secret-at-the-heart-of-ai/>
- Koch J (2006) Das Gesetz zur Unternehmensintegrität und Modernisierung des Anfechtungsrechts (UMAG) – ein Überblick. *Zeitschrift für Unternehmens- und Gesellschaftsrecht* 6:769–804
- Koch J (2016) § 93 Sorgfaltspflicht und Verantwortlichkeit der Vorstandsmitglieder. In: Hüffer U, Koch J (eds) *Beck'sche Kurz-Kommentare Band 53 Aktiengesetz*. Beck, Munich
- Koch J (2023) § 93 Sorgfaltspflicht und Verantwortlichkeit der Vorstandsmitglieder. In: Koch J (ed) *Beck'sche Kurz-Kommentare Band 53 Aktiengesetz*. Beck, Munich
- Koch J (2024) § 93 Sorgfaltspflicht und Verantwortlichkeit der Vorstandsmitglieder. In: Koch J (ed) *Beck'sche Kurz-Kommentare Band 53 Aktiengesetz*. Beck, Munich
- Kocher D (2009) Zur Reichweite der Business Judgment Rule. *Corporate Compliance Zeitschrift* 215–221
- Kock M, Dinkel R (2004) Die zivilrechtliche Haftung von Vorständen für unternehmerische Entscheidungen – Die geplante Kodifizierung der Business Judgment Rule im Gesetz zur Unternehmensintegrität und Modernisierung des Anfechtungsrechts. *Neue Zeitschrift für Gesellschaftsrecht* 10:441–448
- Kolbjørnsrud V, Amico R, Thomas RJ (2016) The promise of artificial intelligence. Redefining management in the workforce of the future. <https://www.accenture.com/us-en/insight-promise-artificial-intelligence>
- Konertz R, Schönhof R (2020) Das technische Phänomen “Künstliche Intelligenz” im allgemeinen Zivilrecht. Nomos, Baden-Baden
- Kort M (2015) Beziehungen des Vorstandsmitglieds der AG zu Dritten: Drittanstellung, Interim Management, Personalleasing und Vergütung durch Dritte. *Die Aktiengesellschaft* 531–534
- Kowert W (2017) The Foreseeability of Human-Artificial Intelligence Interactions. *Tex. L. Rev.* 96: 181–204
- Kreutzer RT, Sirrenberg M (2020) *Understanding Artificial Intelligence – Fundamentals, Use Cases and Methods for a Corporate AI Journey*. Springer, Cham
- Kruithof M (2018) Tort Law in Belgium. *Kluwer Law International*, Alphen aan den Rijn
- Kruithof R (1984) Contractuele wijzigingen van aansprakelijkheid. *TPR* 233–298
- Kuntz T (2022) Künstliche Intelligenz, Wissenszurechnung und Wissensverantwortung. *Zeitschrift für die gesamte Privatrechtswissenschaft*, 177–206
- Kwiatkowska K, Saillant C (2024) Article 44 – Certificates. In: Pehlivan CN, Forgó N, Valcke P (eds) *The EU Artificial Intelligence (AI) Act: A Commentary*. Kluwer, Alphen aan den Rijn, pp 709–719
- Lai, A (2021) Artificial Intelligence, LLC: Corporate Personhood as Tort Reform. *Mich. St. L. Rev.* 2021: 597–654
- Lajoux AR, Elson CM (2010) *The Art of M&A Due Diligence – Navigating Critical Steps and Uncovering Crucial Data*. McGraw-Hill, New York
- Lakkaraju H, Kamar E, Caruana R, Leskovec J (2017) Interpretable and explorable approximations of black box models. <https://doi.org/10.48550/arXiv.1707.01154>
- Langenbucher K (2024) Ownership and Trust – A corporate law framework for board decision-making in the age of AI. <https://dx.doi.org/10.2139/ssrn.4746241>
- Langheld G, Haagen C (2023) Einsatz Künstlicher Intelligenz bei unternehmerischen Entscheidungen. *Neue Zeitschrift für Gesellschaftsrecht* 1535–1540
- Lansing J, Siegfried N, Sunyaev A, Benlian A (2019) Strategic signaling through cloud service certifications: Comparing the relative importance of certifications’ assurances to companies and consumers. *J Strateg Inf Syst* art 28:101579
- Lasar T (2023) Künstliche Intelligenz in der GmbH. *Fachmedien Recht und Wirtschaft*, Frankfurt am Main
- Lauritsen M (2017) Marketing Real Lawyers in the Age of Artificial Intelligence. *GPSOLO*, 34: 68–69
- Le Tourneau P, Poumarède M (2019) Bonne foi. In: *Répertoire de droit civil*. Dalloz, Paris, nos. 1–139
- Lee ZY, Karim ME, Ngui K (2021) Deep learning artificial intelligence and the law of causation: application, challenges and solutions. *Inf Commun Technol Law* 30:255–282
- Lieder J (2018) Unternehmerische Entscheidungen des Aufsichtsrats. *Zeitschrift für Unternehmens- und Gesellschaftsrecht* 47:523–583
- Lietke B (2009) *Efficient Consumer Response: Eine agency-theoretische Analyse der Probleme und Lösungsansätze*. Gabler, Wiesbaden

- Linardatos D (2019) Künstliche Intelligenz und Verantwortung. *Zeitschrift für Wirtschaftsrecht* 11:504–509
- Linarelli J (2019) Artificial General Intelligence and Contract. *Unif. L. Rev.* 24: 330–347
- Lindholm A, Wahlström N, Lindsten F, Schön TB (2022) *Machine Learning – A First Course for Engineers and Scientists*. Cambridge University Press, Cambridge
- Linke C (2021) *Digitale Wissensorganisation: Wissenszurechnung beim Einsatz autonomer Systeme*. Nomos, Baden-Baden
- Lipshaw J M (2018) Halting, Intuition, Heuristics, and Action: Alan Turing and the Theoretical Constraints on AI-Lawyering. *Savannah L. Rev.* 5: 133–176
- Lipton CZ (2018) The Mythos of Model Interpretability: In machine learning, the concept of interpretability is both important and slippery. *Queue* 16:31–57
- Lohr S (2018) Facial Recognition Is Accurate, if You're a White Guy. *NY Times* (9 February 2018), <https://www.nytimes.com/2018/02/09/technology/facial-recognition-race-artificial-intelligence.html>
- Lord R A (2021) *Williston on Contracts*. Thomson Reuters, Minnesota
- Lücke O (2019) *Der Einsatz von KI in der und durch die Unternehmensleitung*. Betriebs-Berater 1986–1994
- Lundberg SM and Lee SI (2017) A Unified Approach to Interpreting Model Predictions. In: *Proceedings of the 31st International Conference on Neural Information Processing Systems (NIPS' 17)*. Curran Associates, Red Hook, pp 4768–4777
- Lutter M (2007) Die Business Judgment Rule und ihre praktische Anwendung. *Zeitschrift für Wirtschaftsrecht* 841–848
- Mahya P, Fürnkranz J (2023) An Empirical Comparison of Interpretable Models to Post-Hoc Explanations. *AI* 4:426–436
- Majot A, Yampolskiy R (2017), Diminishing Returns and Recursive Self Improving Artificial Intelligence. In: *Callaghan V, Miller J, Yampolskiy R, Armstrong S (eds), The Technological Singularity: Managing the Journey*. Springer, Berlin, pp 141–152
- Makatsch T (2015) Kartellschadensersatz – Vergleichen oder Prozessieren? *Corporate Compliance Zeitschrift* 127–132
- Marchant G E, Lindor, R A (2012) The Coming Collision between Autonomous Vehicles and the Liability System. *Santa Clara L. Rev.* 52: 1321–1340
- McCarthy J et al., 2014, *A Proposal for the Dartmouth Summer Research Project on Artificial Intelligence* (Aug. 31, 1955, <http://www-formal.stanford.edu/jmc/history/dartmouth/dartmouth.html>)
- McGinnis J O (2009) Accelerating AI, *Northwestern University Law Review Colloquy*, 104, 366–381.
- McGinnis J O (2018) Accelerating AI. In: *Barfield W, Pagallo U (eds) Research Handbook on the Law of Artificial Intelligence*. Edward Elgar, Cheltenham, pp 40–54
- Mebius F (2020) Software Vervangt Stagiair. *Advocatenblad*, 30–31
- Meneceur Y, Barbaro C (2019) Intelligence artificielle et mémoire de la justice: le grand malentendu. *Les Cahiers de la Justice*, 2019, 277–289
- Merabet S (2020) *Vers un droit d'intelligence artificielle*. Dalloz, Paris
- Merkt H, Mylich F (2012) Einlage eigener Aktien und Rechtsrat durch den Aufsichtsrat – Zwei aktienrechtliche Fragen im Lichte der ISON-Entscheidung des BGH. *Neue Zeitschrift für Gesellschaftsrecht* 2012, 525–530
- Meyer A (2011) Finanzmarktkrise und Organhaftung. *Corporate Compliance Zeitschrift* 41–47
- Miller RT (2017) *Smith v. Van Gorkom and the Kobayashi Maru: The Place of the Trans Union Case in the Development of Delaware Corporate Law* *Trans Union Case in the Development of Delaware Corporate Law*. *Wm & Mary L Rev* 9:65-219
- Milton R, Hay D, Gray S, Buyuklieva B, Hudson-Smith A (2018) Smart IoT and Soft AI. In: *Institution of Engineering and Technology (ed) Living in the Internet of Things: Cybersecurity of the IoT - 2018*. Institution of Engineering and Technology, London, pp 1–6
- Mitchell M (2020) *Artificial Intelligence – A Guide For Thinking Humans*. Pelican Books, London
- Möslein F (2007) *Grenzen unternehmerischer Leitungsmacht im marktoffenen Verband*. De Gruyter, Berlin
- Möslein F (2018a) Digitalisierung im Gesellschaftsrecht: Unternehmensleitung durch Algorithmen und künstliche Intelligenz? *Zeitschrift für Wirtschaftsrecht* 39:204–212
- Möslein F (2018b) Robots in the Boardroom: Artificial Intelligence and Corporate Law. In: *Barfield W, Pagallo U (eds) Research Handbook on the Law of Artificial Intelligence*. Edward Elgar, Cheltenham, pp 649–668
- Möslein F (2020) Digitalisierung im Aufsichtsrat. *Der Aufsichtsrat* 2–3

- Möslein F, Zicari RV (2021) Certifying artificial intelligence systems. In: Vogl R (ed) *Research Handbook on Big Data Law*. Edward Elgar, Cheltenham, pp 357–373
- Murphy KP (2012) *Machine Learning: A Probabilistic Perspective*. MIT Press, Cambridge–London
- Mwafurirwa M M (2022) The Common Law and the Self-Driving Car. *U. S.F. L. Rev.* 56: 395–424
- Naudé W, Dimitri N (2020) The race for an artificial general intelligence: implications for public policy. *AI & SOCIETY* 35: 367–379
- Nauheim M, Goette C (2013) Managerhaftung im Zusammenhang mit Unternehmenskäufen – Anmerkungen zur Business Judgment Rule aus der M&A-Praxis. *Deutsches Steuerrecht* 2520–2526
- Nguyen A, Yosinski J, Clune J (2015) Deep Neural Networks are Easily Fooled: High Confidence Predictions for Unrecognizable Images. In: *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*. IEEE, Boston, pp 427–436
- Nietsch M (2015) Geschäftsleiterermessen und Unternehmensorganisation bei der AG. *Zeitschrift für Unternehmens- und Gesellschaftsrecht* 631–666
- Noack U (2019) Organisationspflichten und -strukturen kraft Digitalisierung. *Zeitschrift für das gesamte Handels- und Wirtschaftsrecht* 183:105–145
- Noack U (2020) Künstliche Intelligenz und die Unternehmensleitung. In: Bachmann G, Grundmann S, Mengel A, Krolop K (eds) *Festschrift für Christine Windbichler zum 70. Geburtstag am 8. Dezember 2020*. De Gruyter, Berlin, pp 947–962
- O'gorman D P (2014) Contract Law and the Hand Formula. *La. L. Rev.* 75: 127–174
- Office of Science & Technology Policy, *Blueprint for an AI Bill of Rights: Making Automated Systems Work for the American People 2022*, <https://bidenwhitehouse.archives.gov/wp-content/uploads/2022/10/Blueprint-for-an-AI-Bill-of-Rights.pdf>
- Orde van Vlaamse Balies, 2025, Richtlijnen voor advocaten Gebruik Artificiële Intelligentie, <https://www.ordevanvlaamsebalies.be/nl/kennisbank/digitalisering/richtlijnen-voor-advocaten-rond-gebruik-van-artificiele-intelligentie>
- Ott N (2017) Anwendungsbereich der Business Judgment Rule aus Sicht der Praxis - Unternehmerische Entscheidungen und Organisationsermessen des Vorstands. *Zeitschrift für Unternehmens- und Gesellschaftsrecht* 149–173
- Paefgen WG (2004) Grundlagen, Anwendungsbereich und Formulierung einer Business Judgment Rule im künftigen UMAG. *Die Aktiengesellschaft* 245–261
- Panis S (2011-12) De resultaatsverbintenis van de arts bij sterilisatie: de impliciete wil van de partijen. *T.Ge.z.*, 232–237
- Parmentier C (1984) La volonté des parties. In: *Les obligations contractuelles*. Jeune barreau, Brussels, pp 55–98
- Peeraer F (2019) Nietigheid en aanverwante rechtsfiguren in het vermogensrecht. *Intersentia*, Antwerp
- Pellet S (2010) *L'avenant au contrat*. IRJS, Paris
- Peltzer M (2013) Mehr Ausgewogenheit bei der Vorstandshaftung. In: Krieger G, Lutter M, Schmidt K (eds) *Festschrift für Michael Hoffmann-Becking zum 70. Geburtstag*. Beck, Munich, pp 861–870
- Peters K (2010) Angemessene Informationsbasis als Voraussetzung pflichtgemäßen Vorstandshandelns. *Die Aktiengesellschaft* 811–817
- Petrin M (2019) Corporate Management in the Age of AI. *Colum Bus L Rev* 3:965–1030
- Piehler M (2007) *Kontraktgestaltung bei M&A -Transaktionen: Bedingte Zahlungsstrukturen zur Verbesserung des Einigungsbereiches*. Deutscher Universitäts-Verlag, Wiesbaden
- Pieper F-U (2020) Vertragschluss mit KI, Anfechtung und Schadenersatz. In: Kaulartz M, Braegelmann T (eds), *Rechtshandbuch Artificial Intelligence und Machine Learning*. Beck, Munich, pp 239–269
- Podesta J, Pritzger P, Moniz EJ, Holdren J, Zients J (2014) *Big Data: Seizing Opportunities, Preserving Values*. https://obamawhitehouse.archives.gov/sites/default/files/docs/20150204_Big_Data_Seizing_Opportunities_Preserving_Values_Memo.pdf
- Price WN, Rai AK (2021) Clearing Opacity through Machine Learning Essay. *Iowa L Rev* 106:775–812
- Pruett WA, Hester RL (2016) The Creation of Surrogate Models for Fast Estimation of Complex Model Outcomes. *PLOS One*, <https://doi.org/10.1371/journal.pone.0156574>
- Rai A (2020) Explainable AI: from black box to glass box. *J Acad Mark Sci* 48:137–141
- Raisch S, Krakowski S (2021) Artificial Intelligence and Management: The Automation-Augmentation Paradox. *Acad Manag Rev* 46:192–210

- Rao A (2016) AI: Everywhere and Nowhere (Part 3). <https://www.insurancethoughtleadership.com/ai-machine-learning/ai-everywhere-and-nowhere-part-3>
- Rebala G, Ravi A, Churiwala S (2019) *An Introduction to Machine Learning*. Springer, Cham
- Redeke J (2011) Zur gerichtlichen Kontrolle der Angemessenheit der Informationsgrundlage im Rahmen der Business Judgment Rule nach § 93 Abs. 1 Satz 2 AktG. *Zeitschrift für Wirtschaftsrecht* 57–63
- Reinbold P M (2020) Taking Artificial Intelligence beyond the Turing Test. *Wis. L. Rev.* 2020:873–906
- Remus D, Levy F (2017) Can Robots be Lawyers: Computers, Lawyers, and the Practice of Law. *Geo J Legal Ethics* 30:501–558
- Reniers K (2017) *Gemeenrechtelijke beschermingsmechanismen bij de koop-verkoop van aandelen*. Intersentia, Antwerp
- Retzlaff CO, Angerschmid A, Saranti A, Schneeberger D, Röttger R, Müller H, Holzinger A (2024) Post-hoc vs ante-hoc explanations: xAI design guidelines for data scientists. *Cogn Syst Res* art 86:101243
- Ribeiro MT, Singh S, Guestrin C (2016) "Why Should I Trust You?": Explaining the Predictions of Any Classifier. In: *Proceedings of the 22nd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD '16)*. Association for Computing Machinery, New York, pp 1135–1144
- Riley CA (1999) The Company Director's Duty of Care and Skill: the Case for an Onerous but Subjective Standard. *Mod L Rev* 62:697–724
- Roose NJ, Vosh KD (2012) Hindsight Bias. *Perspect Psychol Sci* 7:411–426
- Roest J (2023) Artikel 9. Taakvervulling en aansprakelijkheid bestuur. In: Krans HB, Stolker CJJM, Valk WL (eds) *Tekst & Commentaar Burgerlijk Wetboek*. Kluwer, Deventer
- Rokas AN (2013) Reliance on Experts from a Corporate Law Perspective. *Am Univ Bus Law Rev* 2:323–351
- Rokas AN (2018) Experts and the Defense of Reliance in Delaware Corporate Law. *The CLS Blue Sky Blog*, <https://clsbluesky.law.columbia.edu/2018/05/25/experts-and-the-defense-of-reliance-in-delaware-corporate-law/>
- Rose N, "AI won't replace lawyers – so long as they embrace it," says top City firm, *Legalfutures* July, 6th 2023, <https://www.legalfutures.co.uk/latest-news/ai-wont-replace-lawyers-so-long-as-they-embrace-it-says-top-city-firm>
- Roselli D, Matthews J, Talagala N (2019) Managing Bias in AI. In: *Companion Proceedings of The 2019 World Wide Web Conference (WWW '19)*. Association for Computing Machinery, New York, pp 539–544
- Roth M (2013) Corporate Boards in Germany. In: Davies P, Hopt KJ, Nowak R, Van Solinge G (eds) *Corporate Boards in Law and Practice – A Comparative Analysis in Europe*. Oxford University Press, Oxford, pp 253–365
- Rudin C (2019) Stop explaining black box machine learning models for high stakes decisions and use interpretable models instead. *Nat Mach Intel* 1:206–215
- Säcker F J (2021) Einleitung. In: Säcker, F J, Rixecker, R, Oetker, H, Limperg, B (eds) *Münchener Kommentar zum Bürgerlichen Gesetzbuch: Band 1*. Beck, Munich, nos. 1–324
- Samoy I, Terryn E, Verbiest P, Auvray F, Peeraer F (2021) Legal Ignorance in Belgian Private Law. *ERPL* 29: 161–196
- Sapkota T P, Kunwar S, Bhattarai M, Poudel S (2020) Artificial Intelligence That Are Beneficial for Law. *U.S.-China L. Rev.* 17: 217–223
- Sartor G (2018) Contracts in the Infosphere. In: Grundmann, S (ed), *European Contract Law in the Digital Age*. Intersentia, Cambridge - BrusAntwerp - Portland, pp 263–278
- Sattler A (2018) Der Einfluss der Digitalisierung auf das Gesellschaftsrecht. *Betriebs-Berater* 2243–2253
- Savary F, Reuter A (2020) Gestaltung von Verträgen mit KI. In: Kaulartz, M, Braegelmann, T (eds), *Rechtshandbuch Artificial Intelligence und Machine Learning*. Beck, Munich, pp 270–289
- Scheau M-C, Arsene A-L, Popescu, G (2018) Artificial Intelligence/Machine Learning Challenges and Evolution. *Int'l J. Info. Sec. & Cybercrime* 7: 11–22
- Schemmer M, Hemmer P, Nitsche M, Kühl N, Vössing M (2022) A Meta-Analysis of the Utility of Explainable Artificial Intelligence in Human-AI Decision-Making. In: *AIES '22: Proceedings of the 2022 AAAI/ACM Conference on AI, Ethics, and Society*. Association for Computing Machinery, New York, pp 617–626
- Schirmer J-E (2016) Rechtsfähige Roboter. *JZ* 660–666
- Seibert U (2007) UMAG – Zu den Begriffen „Unredlichkeit oder grobe Verletzung des Gesetzes oder der Satzung“ in § 148 AktG und zu den Zusammenhängen zwischen §§ 93 und 148 AktG. In: Hommelhoff P, Rawert P,

- Schmidt K (eds) Festschrift für Hans-Joachim Priester – Zum 70. Geburtstag. Otto Schmidt, Cologne, pp 763–774
- Seibt CH (2019) Neuvermessung der „angemessenen Informationsgrundlage“ (§ 93 Abs. 1 Satz 2 AktG) unter VUCA-Rahmenbedingungen. In: Bergmann A, Hoffmann-Becking M, Noack U (eds) Recht und Gesetz – Festschrift für Ulrich Seibert. Otto Schmidt, Cologne, pp 825–845
- Selbst A D (2020) Negligence and AI's human users. B.U. L. Rev. 100: 1315–1376
- Selter W (2012) Haftungsrisiken von Vorstandsmitgliedern bei fehlendem und von Aufsichtsratsmitgliedern bei vorhandenem Fachwissen. Die Aktiengesellschaft 11–20
- Semmler S, Rose Z (2017) Artificial Intelligence: Application Today and Implications Tomorrow. Duke L. & Tech. Rev. 16: 85–99
- Sharfman BS (2008) The Enduring Legacy of Smith v. Van Gorkom. Del J Corp L 33:291–293
- Shu-Acuaye F (2004) Smith v. Van Gorkom Revisited: Lessons Learned in Light of the Sarbanes-Oxley Act of 2002 Sarbanes-Oxley Act of 2002. DePaul Bus & Com LJ 3:19–50
- Siebecker MR (2019) Making Corporations More Humane Through Artificial Intelligence. J Corp Law 45:95–149
- Siebecker MR (2025) A New Corporate Governance Paradigm for the AI Revolution. The CLS Blue Sky Blog, <https://clsbluesky.law.columbia.edu/2025/01/17/a-new-corporate-governance-paradigm-for-the-ai-revolution/>
- Simonyan K, Vedaldi A, Zisserman A (2013), Deep Inside Convolutional Networks: Visualising Image Classification Models and Saliency Maps. <https://doi.org/10.48550/arXiv.1312.6034>
- Singer R, Von Finckenstein B (2021) § 123. In: Von Staudinger J, Herrler S (eds), J. von Staudingers Kommentar zum Bürgerlichen Gesetzbuch mit Einführungsgesetz und Nebengesetzen. Otto Schmidt - De Gruyter, Köln, nos. 1–106
- Spamann H (2016) Monetary Liability for Breach of the Duty of Care? J Leg Anal 8:337–373
- Specht L, Herold S (2018) Roboter als Vertragspartner? MMR 40–44
- Spindler G (2006) Prognosen im Gesellschaftsrecht. Die Aktiengesellschaft 677–689
- Spindler G (2014) § 93 Sorgfaltspflicht und Verantwortlichkeit der Vorstandsmitglieder. In: Goette W, Habersack M Kalss S (eds) Münchener Kommentar zum Aktiengesetz. Beck, Munich
- Spindler G (2017) Haftung der Geschäftsführung für IT-Sachverhalte. Computer und Recht 11:715–724
- Spindler G (2018a) Gesellschaftsrecht und Digitalisierung. Zeitschrift für Unternehmens- und Gesellschaftsrecht 1:17–55
- Spindler G (2018b) Zukunft der Digitalisierung – Datenwirtschaft in der Unternehmenspraxis. Der Betrieb 41–50
- Spindler G (2023) § 93 Sorgfaltspflicht und Verantwortlichkeit der Vorstandsmitglieder. In: Goette W, Habersack M Kalss S (eds) Münchener Kommentar zum Aktiengesetz. Beck, Munich
- Spindler G, Seidel A (2022) Gesellschaftsrecht. In: Chibanguza KJ, Kuss C, Steege H (eds) Künstliche Intelligenz – Recht und Praxis automatisierter und autonomer Systeme. Nomos, Baden-Baden, pp 703–723
- Staaake M (2011) Eigene Aktien sind nicht sacheinlagefähig – Organhaftung trotz fehlerhafter anwaltlicher Beratung. Leitsätze mit Kommentierung 326141
- Steber T (2015) Die Weiterentwicklung der Rechtsprechung zur Enthaltung von Vorstandsmitgliedern bei Einholung von Rechtsrat – Zugleich Besprechung des Urteils des BGH v. 28.4.2015 – II ZR 63/14, DStR 2015, 1635. Deutsches Steuerrecht 2391–2395
- Stein A (2021) AktG § 179a Verpflichtung zur Übertragung des ganzen Gesellschaftsvermögens. In: Münchener Kommentar zum Aktiengesetz. Beck, Munich
- Stein AL (2022) Assuming the Risks of Artificial Intelligence. B U L Rev 102:979–1035
- Stiernerling O (2020) Technische Grundlagen. In: Kaulartz M, Braegelmann T (eds) Rechtshandbuch Artificial Intelligence und Machine Learning. Beck, Munich
- Strohn L (2012) Editorial – Beratung der Geschäftsleitung durch Spezialisten als Ausweg aus der Haftung? Zeitschrift für das gesamte Handelsrecht und Wirtschaftsrecht 176:137–143
- Strohn L (2013) Pflichtenmaßstab und Verschulden bei der Haftung von Organen einer Kapitalgesellschaft. Corporate Compliance Zeitschrift 177–184
- Surden H (2014) Machine Learning and Law. Wash. L. Rev. 89:87–116
- Surden H (2019) Artificial Intelligence and Law: An Overview. Ga State Univ Law Rev 35:1305–1337
- Surden H (2019) Artificial Intelligence and Law: An Overview. Ga. St. U. L. Rev. 35: 1305–1338
- Taylor S (2021) Legal Ignorance: France. ERPL 29: 223–252

- The Law Commission, The Scottish Law Commission (1999) *Company Directors: Regulating Conflicts of Interests and Formulating a Statement of Duties*. Cm. 4436, 53
- Thompson N C, Greenewald K, Lee K, Manso, G F (2021) Deep Learning's Diminishing Returns: The Cost of Improvement is Becoming Unsustainable, *IEEE Spectrum*, 58: 50–55
- Thöne M (2020) *Autonome Systeme und deliktische Haftung*. Mohr Siebeck, Tübingen
- Tilleman B, Dewaele K (2022) *Recht en onderneming 57 – Bestuur van vennootschappen*. Die Keure, Brugge
- Tilleman B, Herbosch M, Van Den Abeele F (2024) *Overeenkomsten 2: Bijzondere overeenkomsten A: Koop 1: Totstandkoming en kwalificatie van de koop*. Kluwer, Mechelen
- Tokmakov MA (2021) Artificial Intelligence in Corporate Governance. In: Ashmarina SI, Mantulenko VV (eds) *Digital Economy and the New Labor Market: Jobs, Competences and Innovative HR Technologies*. Springer, Cham, pp 667–674
- Tschantz MC (2022) What is Proxy Discrimination? In: *Proceedings of the 2022 ACM Conference on Fairness, Accountability, and Transparency (FAccT '22)*. Association for Computing Machinery, New York, pp 1993–2003
- Turner M (2017) Machine learning is now used in Wall Street dealmaking, and bankers should probably be worried. <https://www.businessinsider.in/Machine-learning-is-now-used-in-Wall-Street-dealmaking-and-bankers-should-probably-be-worried/articleshow/58018833.cms>
- Uebler TA (2010) Reinterpreting Section 141(e) of Delaware's General Corporation Law: Why Interested Directors Should Be "Fully Protected" in Relying on Expert Advice. *Bus Law* 65:1023–1054
- Van Esch R E (2020) De contractuele aansprakelijkheid voor schade als gevolg van het gebruik van kunstmatige intelligentie bij de nakoming van een financiële overeenkomst. *TFR* 11–22.
- Van Gerven W, Covemaeker S (2001) *Verbintenissenrecht*. Acco, Leuven
- Van Oostrom-Streep N C (2017) Over de ethiek van de toekomst en achterhaalde concepten. *WPNR* 563–567
- Vandenbogaerde M (2009) *Aansprakelijkheid van vennootschapsbestuurders*. Intersentia, Antwerp
- Vansweevelt T, Weyts B (2009) *Handboek Buitencontractueel Aansprakelijkheidsrecht*. Intersentia, Antwerp
- Veasey EN (2005) What Happened in Delaware Corporate Law and Governance from 1992-2004? A Retrospective on Some Key Developments. *U Pa L Rev* 153:1399–1512
- Velasco J (2015) A Defense of the Corporate Law Duty of Care. *J Corp Law* 40:647–703
- Verdict H (2011) Bedrog, vrijwaring voor uitwinning en de kwade trouw van de verkoper. *TBO* 181–184
- Vetter E (2015) Drittanstellung von Vorstandsmitgliedern, aktienrechtliche Kompetenzverteilung und Exkulpation des Vorstands bei rechtlicher Beratung. *Neue Zeitschrift für Gesellschaftsrecht* 889–895
- Von Hein J (2008) *Die Rezeption US-amerikanischen Gesellschaftsrechts in Deutschland*. Mohr Siebeck, Tübingen
- Von Kuegelgen M (1994) La responsabilité des professionnels de la vente d'oeuvres d'art. *Rev.not.b.* 302-342
- Von Wangenheim G (2019) Certification as Solution to the Asymmetric Information Problem? In: Rott P (ed) *Certification – Trust, Accountability, Liability*. Springer, Cham, pp 11–22
- Wachter S, Mittelstadt B, Russell C (2021) Why fairness cannot be automated: Bridging the gap between EU non-discrimination law and AI. *Comput. Law & Secur. Rev.* 41: 105567 1–31
- Wagner G (2012) Kodifikation des Arzthaftungsrechts? Zum Entwurf eines Patientenrechtgesetzes. *VersR* 789–802
- Wagner J (2012) Die Rolle der Rechtsabteilung bei fehlenden Rechtskenntnissen der Mitglieder von Vorstand und Geschäftsführung. *Betriebs-Berater* 651–658
- Wagner J (2018) Legal Tech und Legal Robots in Unternehmen und den sie beratenden Kanzleien. *Betriebs-Berater* 1097–1105
- Walters E, Wright M (2018) Putting Artificial Intelligence to Work in Law Firms, *AALL Spectrum*. 23: 16–19
- Wangerin D (2019) M&A Due Diligence, Post-Acquisition Performance, and Financial Reporting for Business Combinations. *Contemp Account Res* 36:2344–2378
- Weaver J F (2018) Everything Is Not Terminator: America's First AI Legislation. *RAIL* 1: 201–208
- Weber R, Kiefner A, Jobst S (2018) Künstliche Intelligenz und Unternehmensführung. *NGZ* 1131–1136
- Weller M-P, Benz N (2015) Frauenförderung als Leitungsaufgabe, *AG*, 467–476
- Wendtland H (2021) § 123. In: Hau W, Poseck R (eds) *Beck'scher Online-Kommentar BGB*. Beck, Munich, nos. 1–41
- Wéry P (2021) *Droit des obligations. 1: Théorie générale du contrat*. Larcier, Brussels

- Westermann H P (2019) § 434. In: Westermann H P (ed) Münchener Kommentar zum Bürgerlichen Gesetzbuch: Band 4. Beck, Munich, nos. 1–85
- Williams B, Cremaschi S (2021) Novel Tool for Selecting Surrogate Modeling Techniques for Surface Approximation. *Comput Aided Chem Eng* 50:451–456
- Winter PM, Eder S, Weissenböck J, Schwald C, Doms T, Vogt T, Hochreiter S, Nessler B (2021) White Paper – Trusted Artificial Intelligence: Towards Certification of Machine Learning Applications. <https://doi.org/10.48550/arXiv.2103.16910>
- Wischnewski M, Krämer N, Janiesch C, Müller E, Schnitzler T, Newen C (2024) In Seal We Trust? Investigating the Effect of Certifications on Perceived Trustworthiness of AI Systems. *Hum-Mach Commun* 8:141–162
- Yordanova K (2024) Article 10 – Data and Data Governance. In: Pehlivan CN, Forgó N, Valcke P (eds.), *The EU Artificial Intelligence (AI) Act: A Commentary*. Kluwer, Alphen aan den Rijn, pp 259–283
- Yu R, Ali G (2019) What's Inside the Black Box? AI Challenges for Lawyers and Researchers. *Legal Info. Mgmt.* 19: 2–13
- Zalewski-Sicard V (2016) L'impact des règles relatives au consentement en droit immobilier. *Rev. Dr. Immob.* 326 ff
- Zetzsche D (2019) Corporate Technologies – Zur Digitalisierung im Aktienrecht. *Die Aktiengesellschaft* 1:1–17