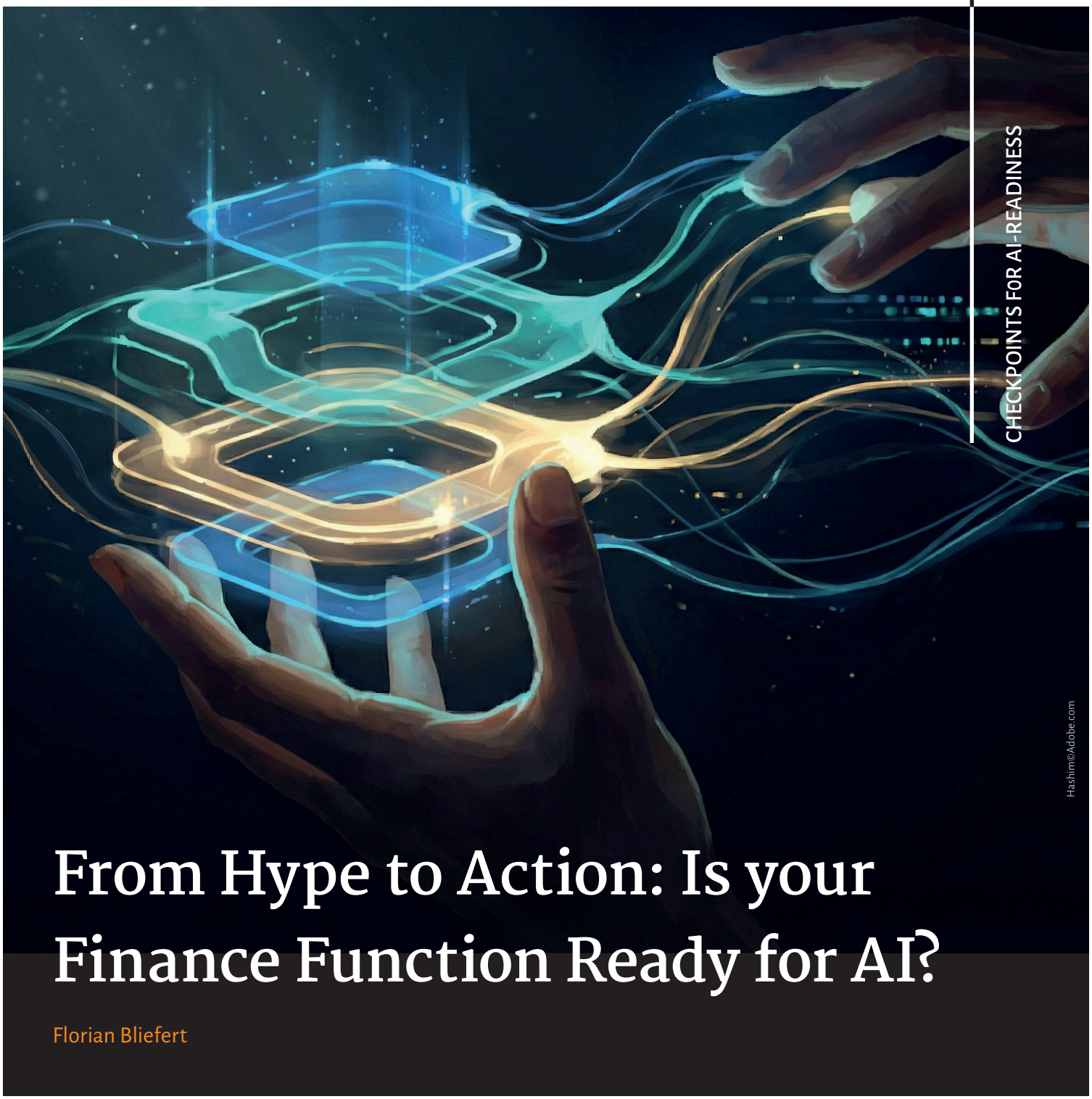

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From Hype to Action: Is your Finance Function Ready for AI?

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Summary

Despite high investments, 95% of companies achieve no measurable AI benefit! The reason is often the lack of organizational embedding. A structured check along four dimensions helps with implementation: Data & Technology, Roles & Organization, Governance & Compliance, and Culture & Willingness to Change. Those who identify their own gaps and close them in a targeted manner lay the foundation for successful, modern controlling.

The figures are sobering. A 2025 MIT study (Project NANDA) found that despite billions invested in artificial intelligence, 95% of organisations have not yet achieved a measurable return on those investments. The problem is not inadequate algorithms or insufficient computing power. More often, it stems from a lack of organisational readiness.

AI models do not operate in a vacuum. They depend on high-quality data, clearly defined responsibilities, transparent governance, and an environment that genuinely supports data-driven decision-making.

It is therefore only natural that finance leaders and controllers ask themselves a fundamental question: Are we

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truly ready for Data Science and AI? Before committing resources to sophisticated forecasting models or AI-powered analytics, organisations should take a structured look at their current situation. The following assessment provides exactly that: a practical review of the four key dimensions that determine success.

Dimension 1: Data and Technology

Key Question: Do we have access to reliable, structured data, and are we able to use it effectively?

The success of Data Science in Controlling depends heavily on the availability, quality, and accessibility of the underlying data. While many organisations focus early on AI tools and modelling techniques, experience shows that certain fundamentals must be in place before the first forecast can be generated or the first anomaly detected.

Checkpoints:

- **Data Access:** Can relevant data sources, such as ERP, CRM, and HR systems, be consolidated and made available through automated processes? Simple CSV exports may be sufficient for experiments, but sustainable solutions require controlled access through databases, APIs, or data warehouse architectures.
- **Data Quality:** Are key business definitions applied consistently across the organisation? Metrics such as full-time equivalents (FTEs), sales volume, or planning versions must mean the same thing to everyone. Data initiatives rarely fail because there is too little data; they fail because existing data is inconsistent, delayed, or interpreted differently across departments.
- **Tool Integration:** Modern controlling teams no longer rely on a single application. Instead, they work with an integrated technology stack: Excel for exploration, Power BI for visualisation, and Python for advanced analytics. But can these tools interact seamlessly? A standalone Excel workbook stored on a network drive does not constitute a sustainable data flow.
- **Execution Environment:** Can Python models be executed automatically? Is there an environment for testing and validating different model versions? Once models move into operational use, organisations need scalable and reliable infrastructure, whether that involves virtual machines hosted on-premises or cloud-based platforms.

Assessment: If more than two of these checkpoints are answered with No or Partially, the technical foundation should be strengthened before pursuing more advanced AI and Data Science use cases.

Dimension 2: Roles and Organisation

Key Question: Are responsibilities clearly defined, or is friction occurring at organisational interfaces?

Data Science is a team effort. No single function can - or should - cover every aspect of the process alone. What matters is that responsibilities are clearly defined across the entire analytics lifecycle and that everyone understands their role.

This is not primarily about formal job titles. Rather, it is about functional responsibilities that must be covered regardless of organisational size. In smaller companies, several of these roles may be performed by the same individual.

Checkpoints:

- **Controlling as the Business Lead:** Is it clear that controllers define the business problem, assess the logic behind models, and take responsibility for the quality and relevance of the results? Controllers act as translators between technology and business. They convert model assumptions into meaningful business insights and interpret analytical outcomes within the context of performance management and decision-making.
- **Data Science Expertise:** Are there individuals - whether internal or external - who possess the methodological and technical capabilities required to develop analytical solutions? These specialists design models, engineer features, test algorithms, and optimise predictive performance, working closely with controllers throughout the process.
- **IT and Data Engineering:** Are data providing processes automated, systems operated securely, and models effectively integrated into the broader technology landscape? Responsibilities in this area typically include data pipelines, process automation, permissions management, monitoring, operational stability, and error handling.
- **Data Ownership:** Is there clear accountability for the business definition and accuracy of data? Without clearly assigned ownership, models may function perfectly from a technical perspective while producing outputs that are not trusted or accepted by management.

Assessment: A lack of clarity regarding these roles inevitably leads to delays, duplicated effort, and, in some cases, project failure. Well-defined governance should not be viewed as bureaucratic overhead. On the contrary, it provides a framework that enables speed, transparency, and quality simultaneously.

Dimension 3: Governance and Compliance

Key Question: Are there clear guardrails for the responsible use of Data Science and AI?

Governance, policies, and compliance frameworks define the environment within which data-driven models are developed, deployed, and monitored. Without such a framework, organisations expose themselves to unnec-

essary risks and uncertainties. In the worst case, decisions may be made that cannot be adequately explained, justified, or audited.

Checkpoints:

- **Data Protection and Security:** Is personal data adequately protected? Are GDPR requirements being met? It is important to remember that compliance extends beyond privacy considerations alone. Data security is equally critical.
- **Documentation Standards:** Are models documented in a transparent and comprehensible manner? This includes input variables, assumptions, training data, modelling approaches, and decision logic. The EU AI Act explicitly requires transparency and explainability for systems that support decision-making processes. Forecasting models and cost-centre simulations typically fall within this scope. Furthermore, sound corporate governance principles require organisations to document how decisions were made and which information formed the basis for those decisions.
- **Ethical Guardrails:** Are mechanisms in place to identify and correct bias, misuse, or unintended model effects? Models can unintentionally reinforce historical patterns and structural biases. Without appropriate controls, such effects may remain unnoticed and become embedded in decision-making processes.
- **Approval and Release Processes:** Who is authorised to deploy models into production? What quality standards must be met before a model can be used operationally? Clear approval processes help ensure consistency, reliability, and accountability.

Assessment: Governance is not a barrier to innovation - it is an enabler. Effective governance builds trust in data, promotes consistent decision-making, and creates the conditions necessary to scale analytical models across the organisation.

Dimension 4: Culture and Readiness for Change

Key Question: Is the organisation culturally prepared to embrace data-driven decision-making?

Technology, data quality, and clearly defined responsibilities are essential prerequisites - but they are not enough. Equally important is whether an organisation is culturally ready to work in a data-driven way. This does not mean that everyone must become a data scientist. Rather, it means that decisions are consistently guided by data, transparency, and a willingness to learn.

Checkpoints:

- **Tolerance for Uncertainty:** Are data-driven forecasts accepted for what they are: forecasts and not guarantees? Many organisations have traditionally treated budgets and forecasts as commitments that must be met. A mature data culture recognises that every forecast contains uncertainty and that deviations do not necessarily indicate failure or incompetence. Instead, they provide opportunities for learning and improvement.
- **Willingness to Experiment:** Are there spaces where prototypes can be developed, tested, and, even more importantly, discarded if they prove ineffective? Data Science thrives on iteration, experimentation, and pilot projects. The goal is not to achieve perfection on the first attempt but to generate learning quickly and continuously, embracing the principle of "fail fast, learn fast".
- **Transparency:** Are assumptions, data sources, and modelling approaches communicated openly - not only between Controlling and Data Science teams, but also to business stakeholders and senior management? In transparent organisations, models are not developed behind closed doors. They are openly challenged, discussed, and refined. Limitations are acknowledged, sensitivities are explained, and alternative scenarios are evaluated collectively.
- **Leadership Support:** Is Data Science actively supported and championed by leadership? Leaders play a critical role in shaping behaviour. They must encourage evidence-based decision-making, demand data-driven arguments, and support experimentation even when outcomes are uncertain. Without visible sponsorship from the top, data-driven initiatives often remain isolated pilot projects that never achieve broader organisational impact.

Assessment: The transition from deterministic planning to data-driven forecasting is not merely a technological shift, it is a cultural one. Without the right mindset, even the most sophisticated methodologies and advanced modelling platforms will struggle to deliver meaningful results.

From Assessment to Action: What Comes Next?

An honest assessment across these four dimensions quickly reveals where improvement is needed. Important: organisations do not need to achieve excellence in every area before taking their first steps. What matters is identifying the most significant gaps and addressing them systematically.

Common Starting Points:

- **Weak Technical Foundations?** Begin with a focused pilot project using familiar tools such as Excel. This allows teams to establish analytical methods and demonstrate value before investing heavily in infrastructure.
- **Unclear Roles and Responsibilities?** Bring all relevant stakeholders together in a workshop to clarify responsibilities and establish a shared understanding of how analytical initiatives should be organised.
- **Insufficient Governance?** Start with a lightweight governance framework that includes documentation standards, approval procedures, and clearly assigned data ownership responsibilities.
- **Cultural Barriers?** Focus on quick wins. Small, visible successes help build confidence, create momentum, and demonstrate the practical value of data-driven approaches.

Data Science in Controlling is not a sprint - it is a marathon. The critical question is not whether an organisation is perfectly prepared. The real question is whether it understands the next meaningful steps and is willing to take them consistently. This assessment serves as a compass for that journey. Use it to identify your priorities, strengthen your foundations, and move your organisation forward with purpose. ■