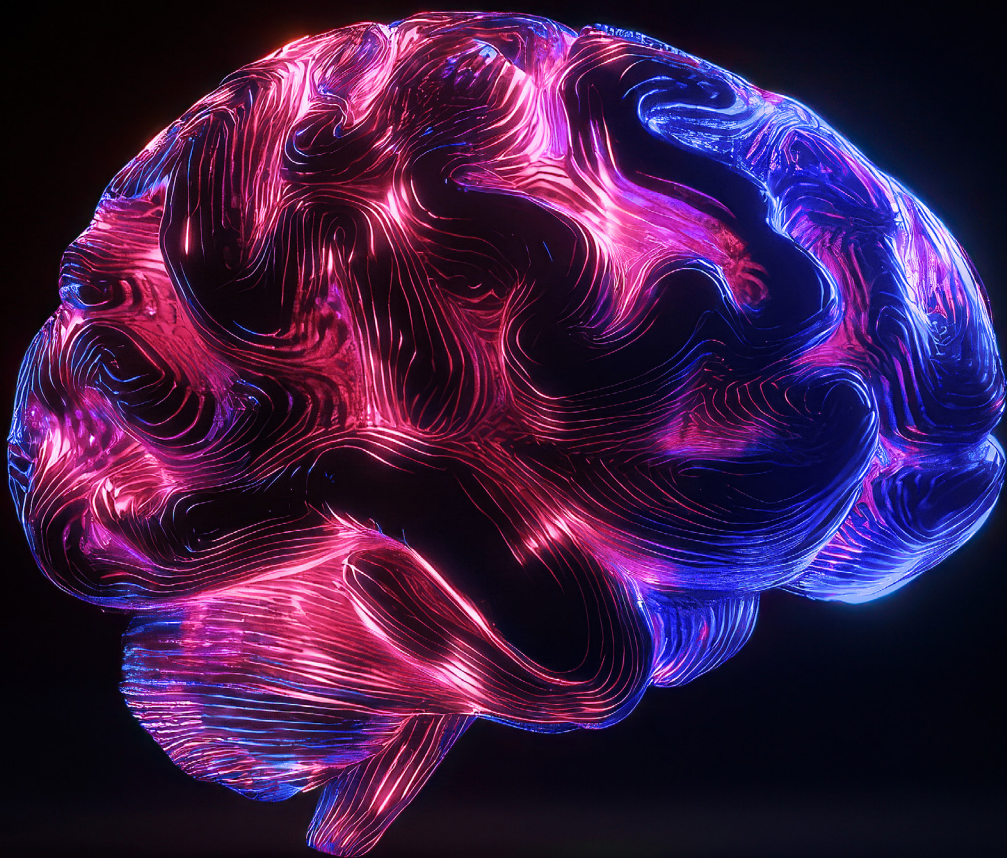


# THE FOUNDATION OF AI

FROM DATA ADVISORY TO AI-READY SUCCESS



**NEXXER**



# CONTENTS

THE AI REVOLUTION IN MANUFACTURING	4
WHY DATA ADVISORY IS CRITICAL	6
AN AI-READY DATA FOUNDATION	8
AI USE CASES IN MANUFACTURING	10
DATA ADVISORY + DATA PLATFORMS	12
THE BUSINESS IMPACT OF “GETTING IT RIGHT”	14
CONCLUSION	16

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44%

The AI in manufacturing market is projected to grow at a CAGR of 44.2%, increasing from \$5.94 billion in 2024 to \$8.57 billion by 2025<sup>(1)</sup>.



# THE AI REVOLUTION IN MANUFACTURING

Manufacturing is evolving fast, and AI is right at the heart of this transformation. Predictive maintenance, quality control, and supply chain optimisation are no longer futuristic concepts—they're happening now. AI is making factories smarter, processes smoother, and operations more efficient.

But here's the catch: many businesses dive into AI without laying the groundwork. Data issues, governance gaps, and security concerns can derail even the most promising AI initiatives. Without a solid foundation, AI projects can become costly disappointments rather than game-changers.

In this eBook, we'll walk you through the must-have elements of AI readiness, helping you build a strong data foundation that fuels AI success.

AI adoption in the automotive and manufacturing sectors varies across Europe, with some countries leading the way<sup>(2)</sup>:





# WHY DATA ADVISORY IS CRITICAL

## THE MANUFACTURING DATA CHALLENGE

Manufacturers generate vast amounts of data from IoT devices, ERP systems, production lines, and supply chains. However, without a structured approach, this data remains scattered, inconsistent, or locked in silos. The consequences? Inaccurate reporting, poor insights, and missed opportunities to optimise operations.

These issues are even more pronounced for organisations with multiple locations or complex supply chains. Disjointed systems slow down decision-making, limit collaboration, and increase inefficiencies. Failing to address these data challenges in a rapidly evolving industry can put manufacturers at a competitive disadvantage.

## WHAT IS A DATA PLATFORM & WHY DOES ADVISORY MATTER?

A modern data platform is the foundation that allows manufacturers to manage, integrate, and analyse their data efficiently. It centralises information, ensuring data is accessible, reliable, and AI-ready. However, implementing a data platform without expert guidance can create more challenges than it solves—misaligned strategies, poor scalability, and governance issues can quickly derail AI initiatives.

This is where Data Advisory plays a critical role. Expert advisors ensure that data platforms are designed for long-term success, helping businesses select the right technologies, implement best practices, and establish governance frameworks that enhance AI capabilities.

## ADVISORY AS A CATALYST FOR AI

Even the most advanced AI tools can underperform if not aligned with business goals. AI is only as good as the data behind it.

Data Advisory helps bridge the gap between raw data and actionable AI insights. It ensures data is structured, governed, and scalable, providing a solid foundation for AI to drive real business outcomes. Manufacturers can optimise their AI investments with expert guidance, ensuring their digital transformation efforts deliver measurable value.





# AN AI-READY DATA FOUNDATION

Manufacturers need more than just a data platform to fully leverage AI—they need a structured approach to data management that ensures accuracy, accessibility, and security. Without this foundation, AI initiatives can be inefficient, unreliable, or difficult to scale. Here are six key steps manufacturers must take to create an AI-ready data foundation:

## 1 ESTABLISH DATA GOVERNANCE

Data governance is the rulebook for managing, protecting, and using data effectively. Without clear policies, businesses risk security breaches, compliance violations, and unreliable AI models. Governance ensures that data remains consistent, high-quality, and aligned with regulatory requirements. Advisory experts help manufacturers:

- Define clear ownership of data.
- Implement regulatory compliance measures.
- Establish policies to maintain data quality.

## 2 UNIFY DISPARATE DATA SOURCES

Manufacturing data comes from IoT sensors, production systems, ERP software, and supply chains. When data is siloed, real-time decision-making becomes impossible.

A unified data strategy integrates structured and unstructured data into a cohesive platform. Advisory services help by:

- Selecting the right integration tools.
- Ensuring seamless system interoperability.
- Providing a clear roadmap for data unification.

## 3 OPTIMISE DATA QUALITY & SCALABILITY

AI models rely on high-quality data. If the data is messy, outdated, or inconsistent, insights will be inaccurate and unreliable. By automating key processes, manufacturers can:

- Improve accuracy with automated cleansing and validation.
- Reduce AI-driven errors by eliminating poor-quality inputs.
- Scale infrastructure with platforms like Microsoft Fabric.

## 4 CHANGE MANAGEMENT FOR AI SUCCESS

AI adoption isn't just about technology—it's about people. Many AI projects fail due to resistance to change. Employees need the right training and support to adopt new AI-driven workflows effectively. A strong change management strategy helps by:

- Educating teams on AI's value in daily operations.
- Providing training to ensure smooth adoption.
- Aligning AI initiatives with existing business processes.

## 5 CYBER SECURITY AS A CORNERSTONE OF AI READINESS

As AI adoption grows, so do security risks. AI systems process vast amounts of sensitive business data, making them prime targets for cyber threats. To mitigate risks, advisory services help manufacturers:

- Implement robust security measures.
- Ensure compliance with cybersecurity regulations.
- Safeguard intellectual property and prevent unauthorised access.

## 6 ACTIVATE DATA FOR AI

A data platform isn't just for storage—it powers AI-driven decision-making. With governance, quality, and security in place, manufacturers can turn raw data into actionable insights. Expert advisory helps manufacturers:

- Deploy predictive models for maintenance and production.
- Leverage AI-powered analytics for faster decision-making.
- Automate workflows to enhance efficiency.





# AI USE CASES IN MANUFACTURING

AI is already revolutionising manufacturing. Here's how companies use AI—and how Data Advisory ensures success:

## PREDICTIVE MAINTENANCE

By analysing IoT and machine-sensor data, AI can predict equipment failures before they occur. Advisory services ensure these models:

- Are aligned with maintenance schedules and business goals.
- Reduce unplanned downtime and increase efficiency.

## SUPPLY CHAIN OPTIMISATION

AI enhances demand forecasting, inventory management, and logistics planning. Advisory experts help manufacturers:

- Integrate AI-driven insights across global supply chains.
- Reduce disruptions and improve efficiency.

## PRODUCTION QUALITY CONTROL

Machine vision and deep learning detect defects early in the production process. Advisory services ensure AI-driven quality control:

- Improves accuracy and reduces waste.
- Enhances product consistency and compliance.

## WORKFORCE PRODUCTIVITY & SAFETY

AI-powered analytics optimise staffing decisions and enhance workplace safety. Advisory experts support manufacturers in:

- Implementing AI tools for compliance monitoring.
- Enhancing worker efficiency and operational safety.

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# 78%

of Nordic companies have adjusted their cloud strategies to align with advancing AI initiatives, highlighting strong executive-level commitment to AI adoption<sup>(3)</sup>.





# DATA ADVISORY + DATA PLATFORMS

Technology alone doesn't guarantee AI success—expert guidance is required to align platforms with business needs, ensure smooth integration, and maximise long-term value. Data Advisory is crucial in helping manufacturers design, implement, and optimise their AI-ready data platforms.

## LEVERAGING MICROSOFT FABRIC FOR SCALABLE AI SOLUTIONS

A robust data platform is essential for AI readiness. Microsoft Fabric provides a scalable, AI-ready environment that allows manufacturers to:

- Unify and manage complex data sources in a single, integrated platform.
- Leverage advanced analytics to gain real-time insights into operations.
- Support AI-driven decision-making with powerful data processing capabilities.

## THE ROLE OF DATA ADVISORY IN AI READINESS

At Nexer Insight, we provide strategic Data Advisory services to help manufacturers:

- Develop long-term data strategies that align with business goals.
- Establish governance frameworks to ensure high-quality, reliable data.
- Integrate and unify data sources across multiple systems for real-time decision-making.
- Optimise scalability and performance to support AI adoption and growth.

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By combining Nexer Insight's Data Advisory expertise with platforms like Microsoft Fabric, manufacturers can build a solid AI foundation that drives efficiency, innovation, and long-term success.



# THE BUSINESS IMPACT OF “GETTING IT RIGHT”

AI is transforming manufacturing, offering new opportunities to optimise operations, reduce downtime, and enhance decision-making. However, the true value of AI can only be realised when data is properly structured, governed, and secure. Without a strong foundation, AI initiatives risk producing unreliable insights, inefficiencies, and missed opportunities.

By investing in Data Advisory, governance, and scalable platforms, manufacturers can create an AI-ready environment that drives real business outcomes. Predictive maintenance can minimise costly disruptions, AI-powered supply chain optimisation can enhance efficiency, and automated decision-making can improve responsiveness across the organisation. But achieving these benefits requires a strategic approach to data management, security, and organisational readiness.

## THE QUANTIFIABLE BENEFITS OF ADVISORY-LED AI



### REDUCED DOWNTIME

Predictive maintenance prevents costly failures.



### INCREASED EFFICIENCY

AI optimises supply chain and workforce management.

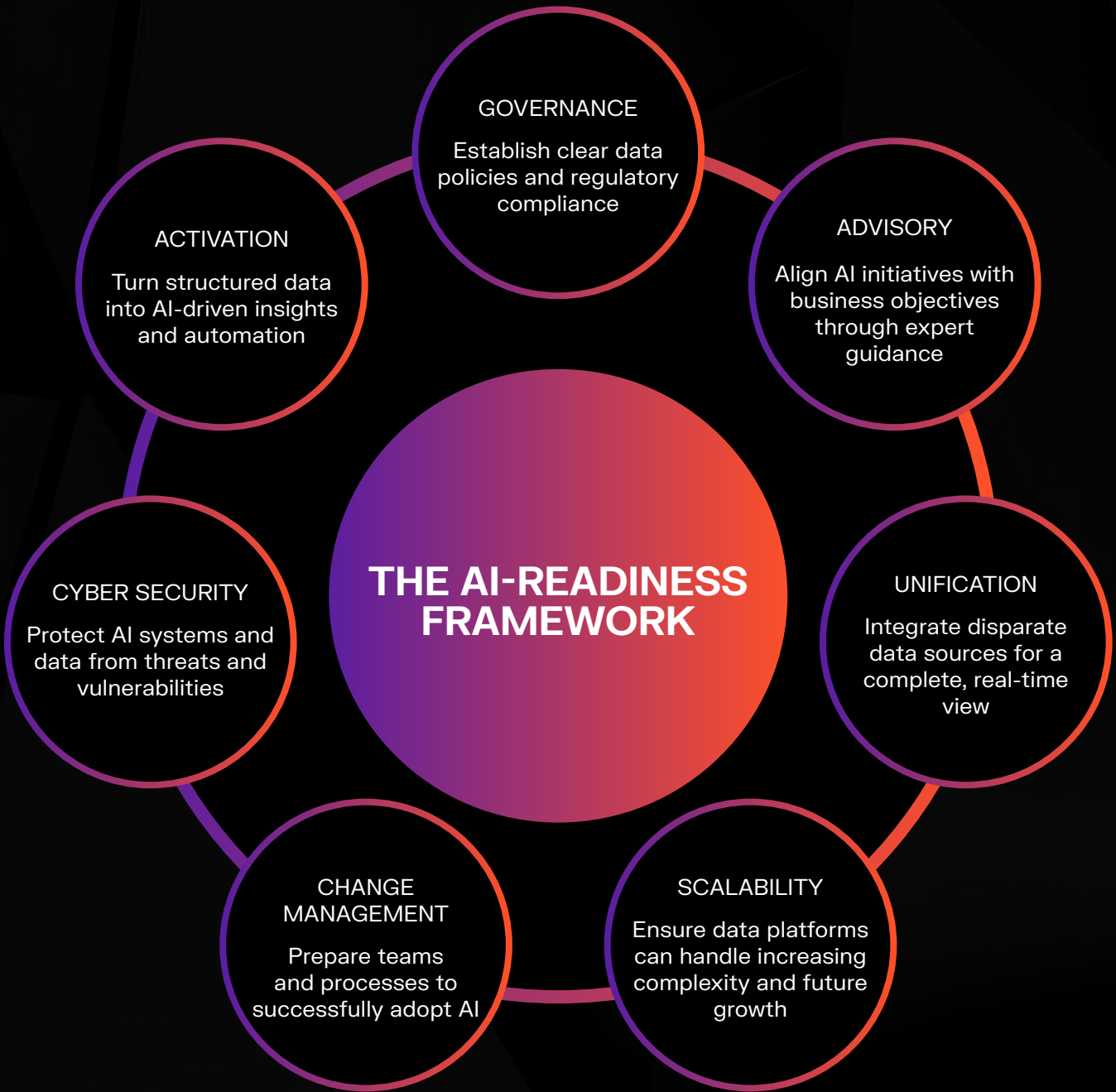


### IMPROVED DECISION-MAKING

AI-driven insights enable faster, smarter business decisions.

## BUILDING A STRONG AI FOUNDATION

AI success isn’t just about technology—it’s about following a structured approach to ensure long-term scalability and value. The AI-Readiness Framework outlines the key pillars needed to build a strong foundation for AI-driven transformation.



By taking the right steps, manufacturers can unlock the full potential of AI, ensuring that their investments drive real, measurable business impact.



# CONCLUSION

AI is only as powerful as the data that fuels it. Without expert guidance, a clear governance strategy, and a scalable data foundation, even the most ambitious AI projects can fall flat. Data Advisory ensures that manufacturers aren't just collecting data but turning it into a strategic asset that drives innovation and growth.

Laying the right foundations today will set your business up for long-term success. The future of manufacturing is AI-driven—make sure you're ready for it.

# ABOUT US

Nexer Insight, a proud member of the Nexer Group, specialises in IoT and advanced analytics, leveraging leading cloud platforms to deliver tailored solutions for our customers. Our expertise in multi-cloud environments enables seamless adaptation to diverse technologies, ensuring flexibility and innovation.

From product development to service transformation, we cover every aspect of digital evolution. Our team of dedicated experts—including Cloud Specialists, Fullstack Developers, Mobile Developers, IoT Specialists, Data Engineers, and Data Scientists—drives meaningful change.

As a trusted leader in advanced analytics, we empower businesses to optimise operations and make data-driven decisions. Through cutting-edge data analysis, predictive modelling, and AI, we enhance efficiency, boost performance, and uncover new opportunities for growth.

# CONTACT US

AI success starts with a strong data foundation. Without the right governance, integration, and strategy, AI investments can fail to deliver real business value. At Nexer Insight, we provide expert Data Advisory services to help manufacturers:

- Unify and govern data for AI-driven insights.
- Implement scalable platforms for long-term growth.
- Ensure compliance with evolving regulations like the EU AI Act.

Contact us to schedule a consultation today and explore how we can help you establish a solid AI-ready data platform tailored to your business needs.



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