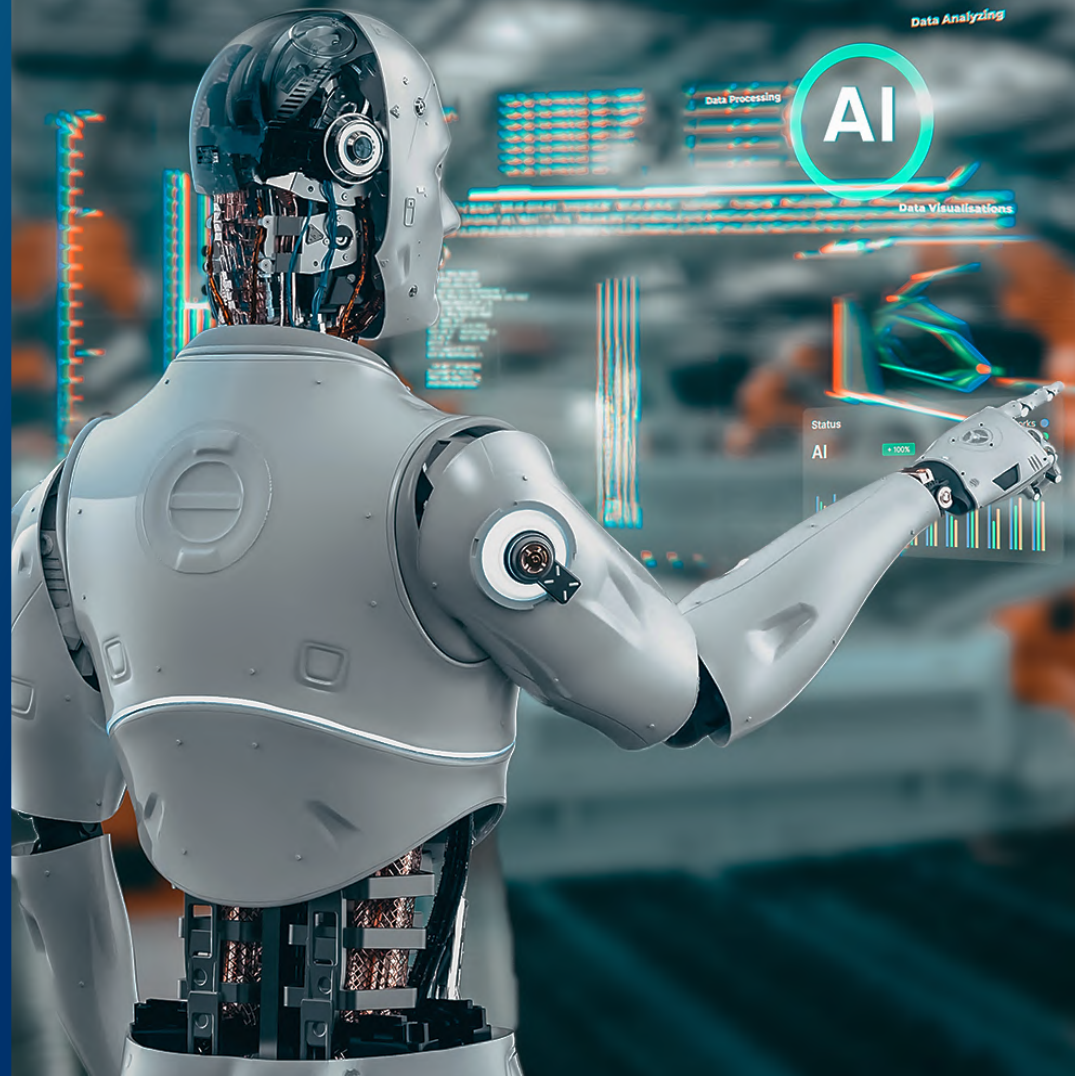


Smart Manufacturing:

Strengthen Your Foundation
for AI Success With Data
Quality & PLM Integration for
Microsoft Dynamics 365

Last mile solutions to
peak your business
performance



Introduction: Navigating supply chain disruptions with AI-powered solutions



As tariff changes, climate disasters, and supply chain disruptions continue to plague the Manufacturing industry in 2026, Manufacturers are looking to smart manufacturing to fill in the skills gap and labor shortages and navigate current challenges. In the 2025 State of Manufacturing Report, 95% manufacturing leaders either have already invested or plan to invest in AI/ML, Gen AI, or causal AI in the next five years.¹

However, AI also seems to be a boon and a curse for some companies, so we recommend treading with caution. 87% of projects fail² and do not make it past the pilot phase. Organizations have reaped extreme success and failure. For example, organizations such as Lumen Technologies deliver \$50 million in annual savings using CoPilot, while Amazon's Watson Health collapsed, costing them \$4 billion.³



Most AI projects fail due to:

- ✓ Poor data quality and governance controls
- ✓ Infrastructure challenges, especially using disconnected legacy systems
- ✓ Lack a clear connection to business objectives and the solutions
- ✓ Lack of specialized skills

Success comes to those who start by ensuring data quality governance, cutting out data silos, understanding real-world business problems, and ensuring they have the right skills to get the job done.

At STAEDEAN, we've been working alongside Microsoft to bring you AI-powered solutions that solve real business problems and create measurable value. And our Data Quality and PLM Integration Solutions embedded in Microsoft Dynamics 365 Finance & Supply Chain Management also help you establish the building blocks for a strong AI foundation. STAEDEAN's Data Management Solution supports integration, data quality governance, and compliance – all of which are key components in the success of an AI-powered, secure Dynamics 365 environment.

In Q4 2025, we introduced our first set of AI agents for our PLM Integration and Data Quality Solutions (Data Quality Studio), which transforms complex integration changes into intelligent insights and data quality configuration into a guided experience. Our multi-agent AI agents leverage Microsoft's CoPilot capabilities and put the user in control while eliminating the technical barriers that slow down business operations.

Make data quality the cornerstone of your AI strategy

Ensure consistent, accurate, **AI-ready data quality across Dynamics 365** using our Data Quality Solution (Data Quality Studio) embedded in Dynamics 365.

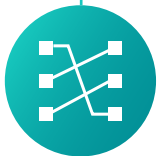
Key Solution highlights



Reduce data errors that undermine forecasting and reporting.



Improve productivity with real-time guidance and automated validations.



Track and remove duplicates using fuzzy matching.



Rapid configuration with natural language AI validation rule creation.



Real-time data validation & error notification for imports and data entry.



No-code rule creation for any field or table and organization-specific assignments.



Data enrichment/auto-population using third-party web services.



Schedule data assessments to enrich data quality.



Data Quality Studio (DQS) Policy Agent

The challenge

Configuring data entry sequences and quality rules in ERP systems requires deep technical knowledge and navigation through complex forms and pages. New users struggle to translate their business requirements into system configurations, leading to implementation delays.

The solution

Built on Copilot Studio and integrated with Dynamics 365 F&SCM, the DQS Agent simplifies data quality configuration through natural language interaction. Our Data Quality Solution AI Agent is deployed as a Copilot Studio solution built on Microsoft's Power Platform directly in your environment, enabling immediate use once enabled in your ERP system.

Using the DQS Agent, users can:

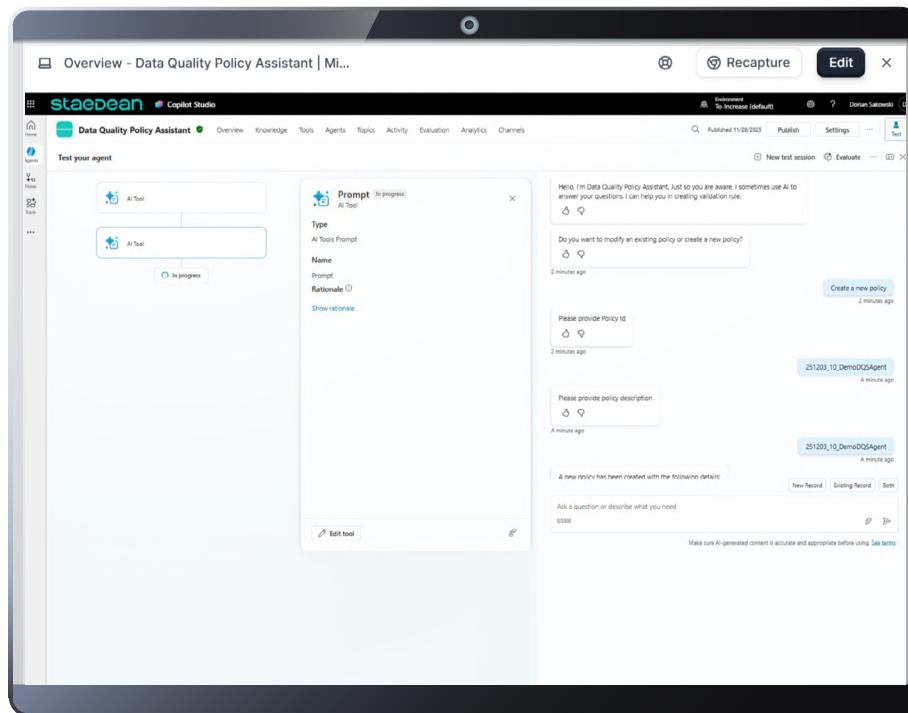
- ➔ Describe their requirements in plain English through D365 Copilot, Microsoft Teams, or the Copilot application.
- ➔ Let AI build the configuration automatically based on their business rules and requirements.
- ➔ Iterate and refine settings through conversational guidance.
- ➔ Implement immediately without technical expertise or complex navigation.

The result

Better data quality configurations, faster implementations with reduced risk, and empowered users who can focus on business logic rather than technical complexity.

An example

A new ERP administrator needs to configure data entry rules to make critical fields mandatory. Instead of navigating through multiple system screens and technical documentation, they simply tell the DQS Agent:



"Make the credit rating field mandatory."

The configuration is generated automatically after you share the required details with the DQS Agent

[Read the factsheet](#)

Bridge engineering & operations with two-way integrations

Connect PLM systems with Dynamics 365 F&SCM to enable seamless real-time data exchange.

Key Value



Faster time-to-market for engineered products with real-time data access across key integrated systems.



Automatic bills of material (BOM) synchronization from PLM/PDM/CAD systems to Dynamics 365 ERP.



Version management across product lifecycle stages and managing local change orders in Dynamics 365.



Provide complete visibility into product status, release date, and BOM changes.



Out-of-the-box connectors for **Teamcenter** and **Windchill**. Configurable integrations for **3DX Dassault, Autodesk, Revit, Oracle Agile, Ansys, and Vault**.



Initiate release from anywhere in a complex BOM, enabling planning, procurement, and production.



Assess business impact through **AI-powered insights** drawn from BOM changes in integrated systems.



BOM Comparison Agent

The challenge

When Bill of Materials changes occur in integrated PLM systems, production managers and engineering teams face a time-consuming, error-prone process of understanding what changed and assessing downstream business impact. Traditional approaches require manually copying data to Excel, performing comparisons, and trying to interpret the implications across complex manufacturing stages.

The solution

Our BOM Comparison Agent transforms this challenge into an intelligent, automated workflow. Built as an integrated workspace within Dynamics 365 F&SCM, the agent can help you:

- ➔ Automatically detect changes in integrated PLM systems through STAEDEAN's integration engine.
- ➔ Structure and summarizes changes using Azure AI Foundry in clear, business-friendly language.

- ➔ Analyze downstream impact across production, inventory, costing, and scheduling.

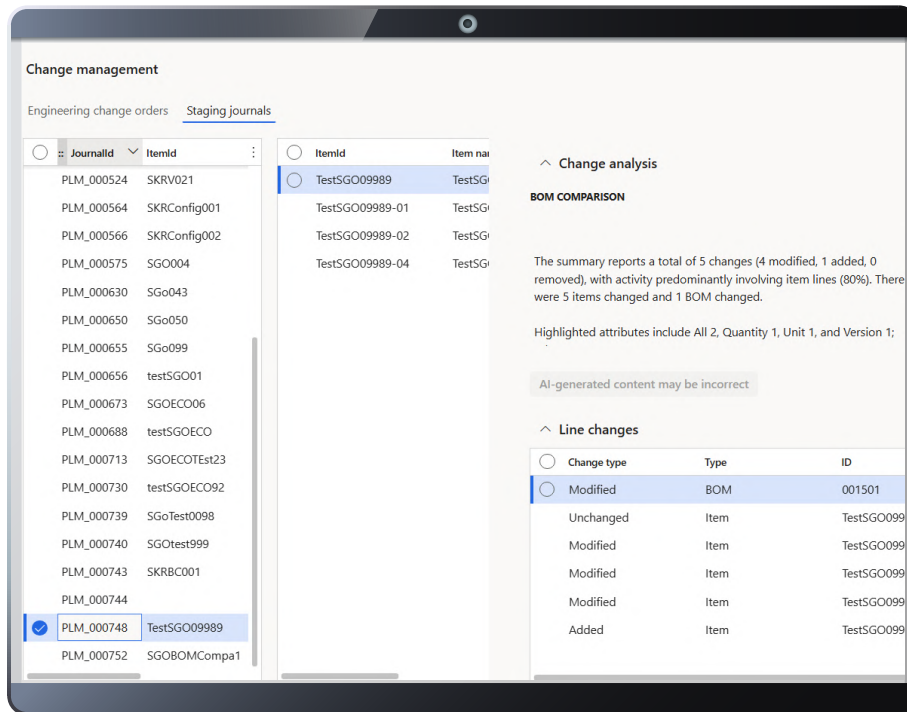
The result

Production managers gain immediate visibility into engineering changes with a clear understanding of business implications, enabling faster, more reliable decision-making without the manual effort of data analysis.

AI Agent Advantage

The BOM comparison agent interprets engineering changes and assesses downstream effects.

Let's take an example: A production manager receives an engineering change notification. Instead of spending hours analyzing spreadsheets and checking system impacts, they open the BOM Comparison workspace and immediately see:



- Exactly what components changed
- Impact on existing inventory
- Production schedule implications
- Cost variations
- Recommended actions

BOM differences are summarized in business language, giving you a quick view of the impact on production, inventory, and costing. This saves your team time, resources, and gives you the required insights to act faster and minimize damage.



ECM Impact Agent

The challenge

Lack of synchronization between engineering change management (ECM) and production drives 2–4 hours of manual impact analysis per ECO, delaying decisions and creating bottlenecks. Severity is often classified inconsistently, leading to poor prioritization and resource misallocation. Stakeholders who don't understand the importance of these changes often push back, causing rework. These gaps manifest as downstream surprises after release, triggering production delays and customer escalations. Additionally, siloed PLM systems lead to duplicate data entry, more errors, and introduce misalignment.

The solution

The ECM Impact Agent is an AI-powered assistant integrated with Dynamics 365 F&SCM that automates and accelerates engineering change impact analysis. Using conversational AI, teams across production to procurement can understand the downstream business impact of engineering changes before they're released to production. Drawing information from the engineering change management module, powered by Copilot Studio and supported by D365 F&SCM Backend Calculation Engine.

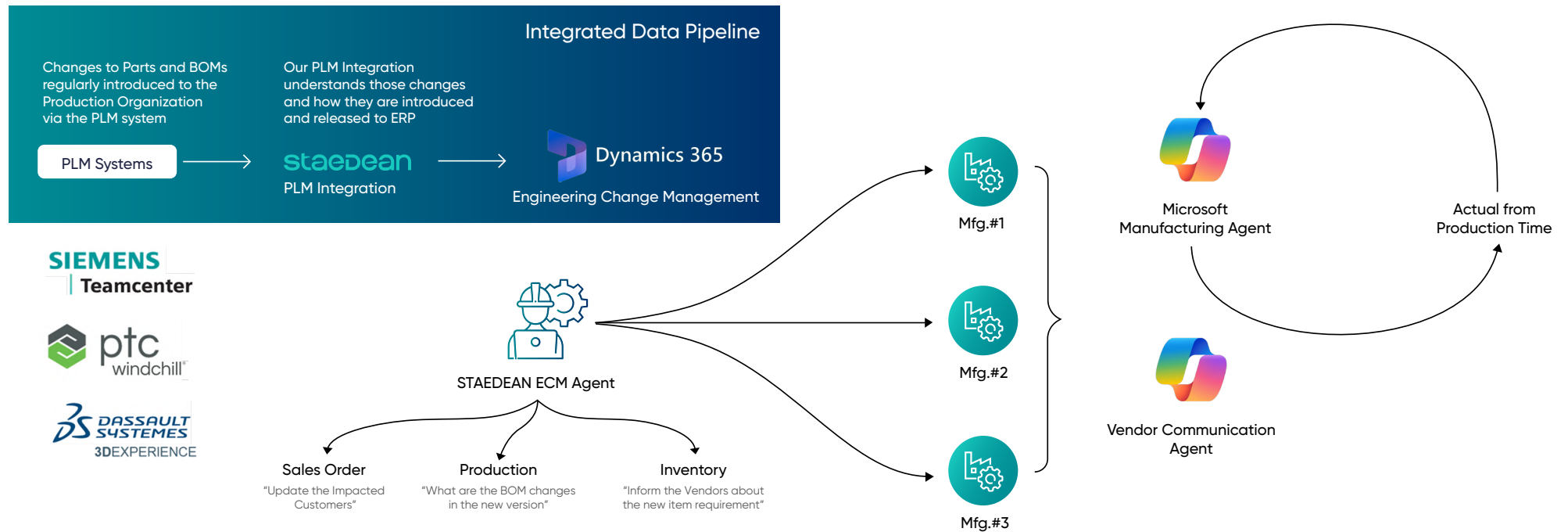
Using the solution, you can:

- ➔ Complete impact analysis 60–80% faster
- ➔ Reduce unexpected downstream errors by 70%
- ➔ Speed up the decision cycle by 40–60%
- ➔ Reduce stakeholder alignment effort by 85%
- ➔ Reduce PLM-ERP integration cost by 90%

The result

Accelerate engineering changes with confident decision-making and catch high-impact changes early in the process; reducing risk and improving go-to-market performance. Our solution allows you to scale with confidence and handle 10 times more ECOs without adding headcount. Our AI agent ensures an auditable, consistent impact assessment process. Additionally, our vendor-neutral API (powered by MCP) enables ecosystem connectivity.

Engineering Change Management Agent



The STAEDEAN advantage

Our agents are designed to empower business users and reduce technical dependence. All our agents provide:

- ✓ Guided setup processes with comprehensive documentation
- ✓ Natural language interfaces that understand business terminology
- ✓ Automated configuration that translates business requirements into technical implementations
- ✓ All agents operate within the Microsoft ecosystem, ensuring your data remains secure while providing enterprise-grade governance, compliance, and scalability.
- ✓ Our agents are designed for rapid deployment and immediate value demonstration, with built-in feedback mechanisms to ensure continuous improvement.

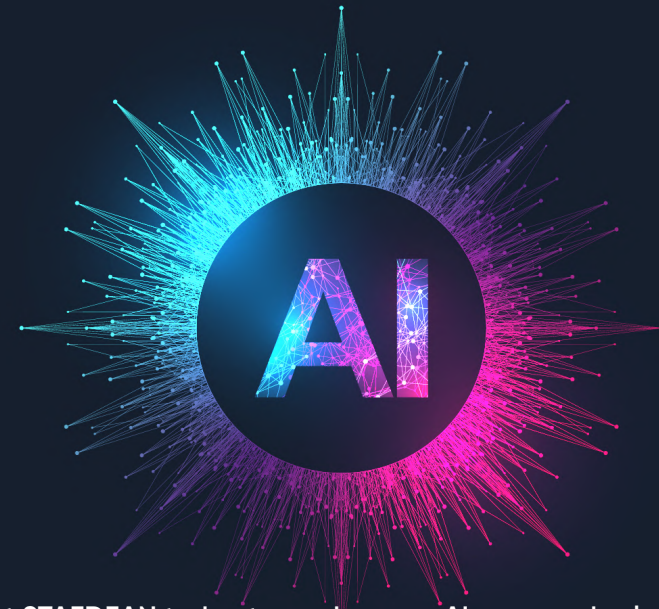


Our AI-powered solutions are a testament to our commitment to powering up your Microsoft Dynamics 365 experience. STAEDEAN (formerly To-Increase) has 2 decades of deep domain expertise, Microsoft ecosystem integration, and an unwavering focus on solving real business problems. We don't build AI for the sake of cashing in on a trend; our focus is to build intelligent solutions that solve real-world business challenges and considerably elevate business processes.

This is just the beginning of our exciting AI journey. Coming soon in the next wave of releases, you can expect more agents across our solutions portfolio such as:

- **Data Security and Compliance Agent**
Automated governance and risk management
- **Connectivity Studio Agent**
Intelligent integration management and troubleshooting

Each new agent builds on our multi-agent architecture, creating increasingly sophisticated workflows that handle end-to-end business scenarios while maintaining our human-in-the-loop approach.



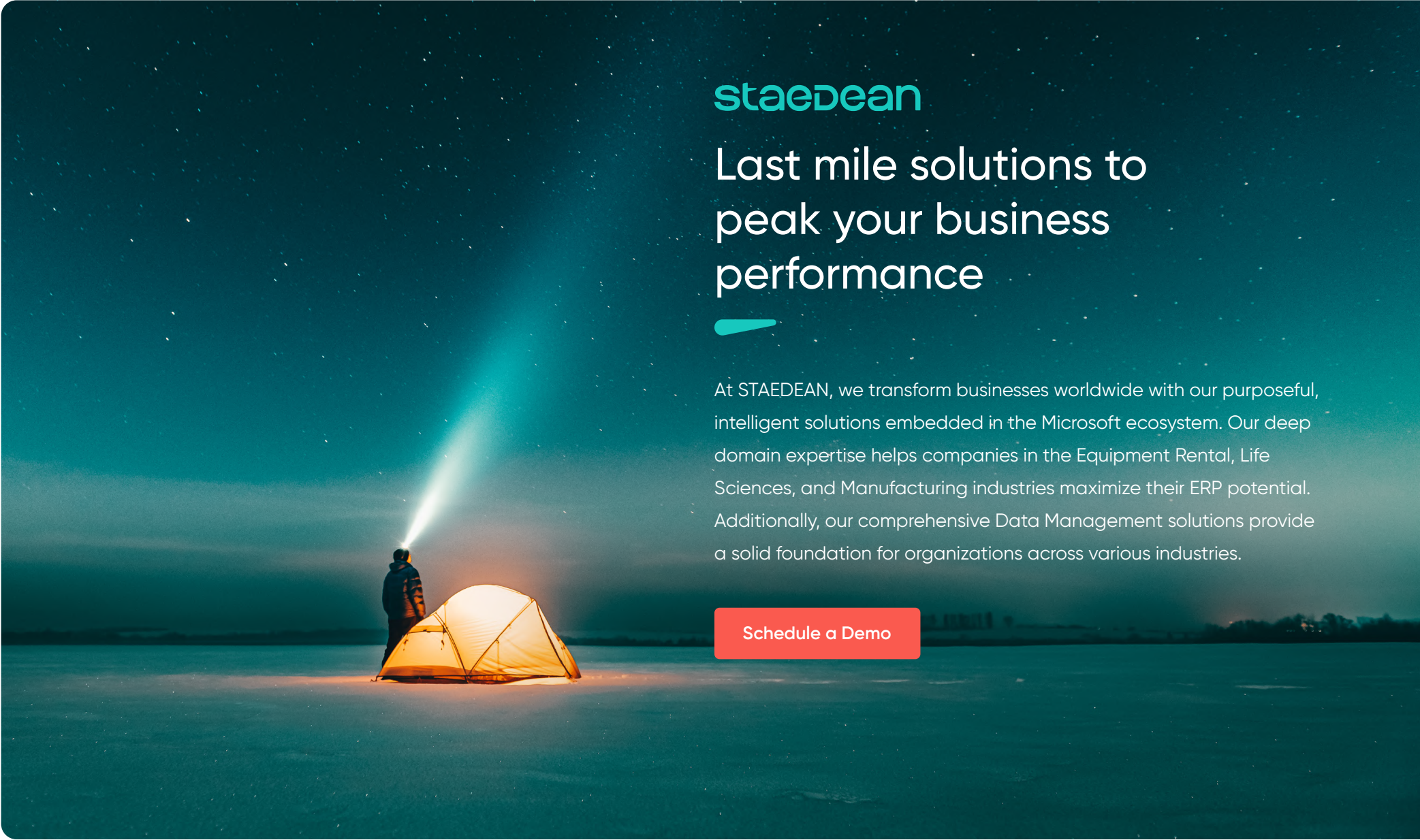
Contact STAEDEAN today to see how our AI-powered solutions can transform your organization's relationship with data from manual processes to intelligent automation.

[Get a demo](#)

References



- 1 **2025 State of Smart Manufacturing Report** – Rockwell Automation in association with Sapio Research
- 2 **The Root Causes of Failure for Artificial Intelligence Projects and How They Can Succeed: Avoiding the Anti-Patterns of AI** – James Ryseff, Brandon F. De Bruhl, Sydne J. Newberry
- 3 **Lumen's strategic leap: How Copilot is redefining productivity and employee engagement** – Microsoft
- 4 **IBM Watson: From healthcare canary to a failed prodigy** – Healthark.ai



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Last mile solutions to peak your business performance

At STAEDEAN, we transform businesses worldwide with our purposeful, intelligent solutions embedded in the Microsoft ecosystem. Our deep domain expertise helps companies in the Equipment Rental, Life Sciences, and Manufacturing industries maximize their ERP potential. Additionally, our comprehensive Data Management solutions provide a solid foundation for organizations across various industries.

[Schedule a Demo](#)