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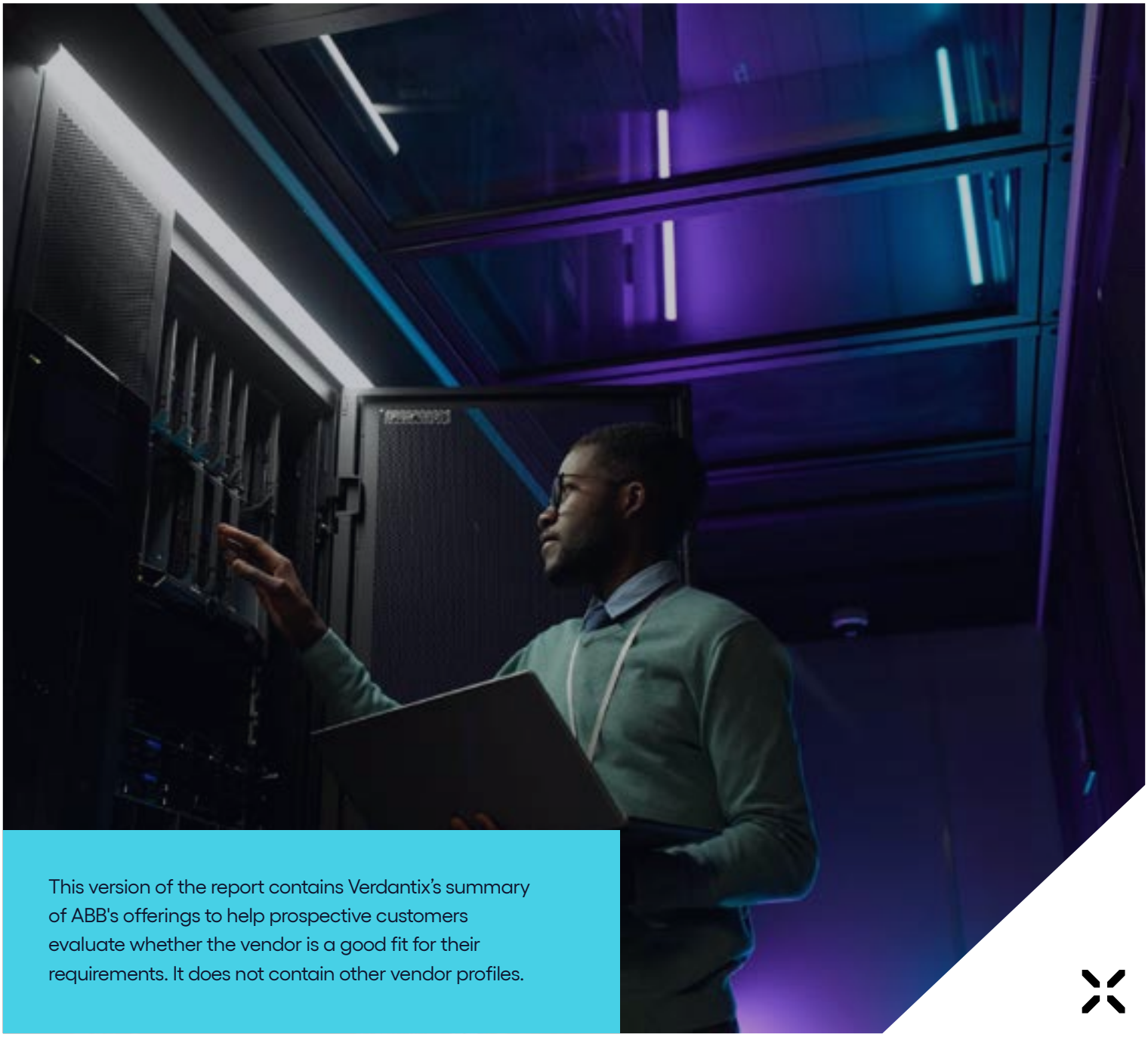
Industrial Analytics & Data Management

Green Quadrant: Industrial AI Analytics Software (2025)

By Henry Kirkman, Jatinder Devgun and Josh Graessle
With Malavika Tohani

September 2025



This version of the report contains Verdantix's summary of ABB's offerings to help prospective customers evaluate whether the vendor is a good fit for their requirements. It does not contain other vendor profiles.

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This report provides a detailed, fact-based benchmark of 19 of the most prominent industrial AI analytics software providers in the market. Based on the proprietary Verdantix Green Quadrant methodology, our analysis included live briefings, customer interviews and vendor responses to a detailed 105-point questionnaire, covering 14 capability and seven momentum categories. This study finds that the industrial AI analytics market is evolving, as organizations prioritize platforms that can scale beyond pilots, unify and contextualize diverse data sources, and embed AI-driven insights directly into operational workflows. Firms are seeking solutions that not only predict and prevent failures, but optimize yield, quality and energy use, while supporting enterprise-wide performance improvement and sustainability goals. Among the providers featured in the Leaders' Quadrant, nine firms – ABB, Augury, AVEVA, C3 AI, Cognite, GE Vernova, IBM, Seeq and SymphonyAI – demonstrated the most comprehensive industrial AI analytics capabilities.

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Organizations mentioned

A2A, ABB, ACCIONA, Adisseo, ADM, ADNOC, Aker BP, Amazon, Amazon Web Services (AWS), Amgen, Anglo American, Ansell, Ash Grove, AspenTech, Augury, AVATA, Avathon, AVEVA, BAE Systems, Baker Hughes, Bayer, Best Maid, Big West Oil, Birla Opus, BP, C3 AI, Camstar Systems, Celanese, Chocolate Shoppe Ice Cream Company, CK Enerji, Cognite, Colgate-Palmolive, Con Edison, Databricks, Delta Airlines, Deltalys, DP World, DuPont, Eli Lilly, Emerson, ERCOT (Electric Reliability Council of Texas), ESIM Chemicals, ExxonMobil, Fiix, First Solar, Grundfos, GSK, HighByte, Hill's, Honeywell, IBM, IFFCO, Imubit, Inmation Software, Inspekto, International Paper,Kimberly-Clark, Koch, Kraft Heinz, Litmus Automation, Mendix, Merck, Metro, Microsoft, Minera Gold Fields, Minetek, Moeve (formerly Cepsa), Nanoprecise, Nesquik, Nestlé, Novate Solutions, Nucor, NVIDIA, OAuth, Optimistik, Orion, Oxbow, PepsiCo, Plex, Preactor Group, PTC, Python, Raytheon, Red Hat, Reliance Industries, Repsol, Rockwell Automation, SAP, Schaeffler, Schneider Electric, Seeq, Senseye, Shell, Skjern Paper, SymphonyAI, thyssenkrupp Automation Engineering, Toray Plastics, Toshiba, TrendMiner, TwinThread, US Air Force, US Department of Defense, Vale, Xcel Energy, Yaletown Partners, ZEISS.

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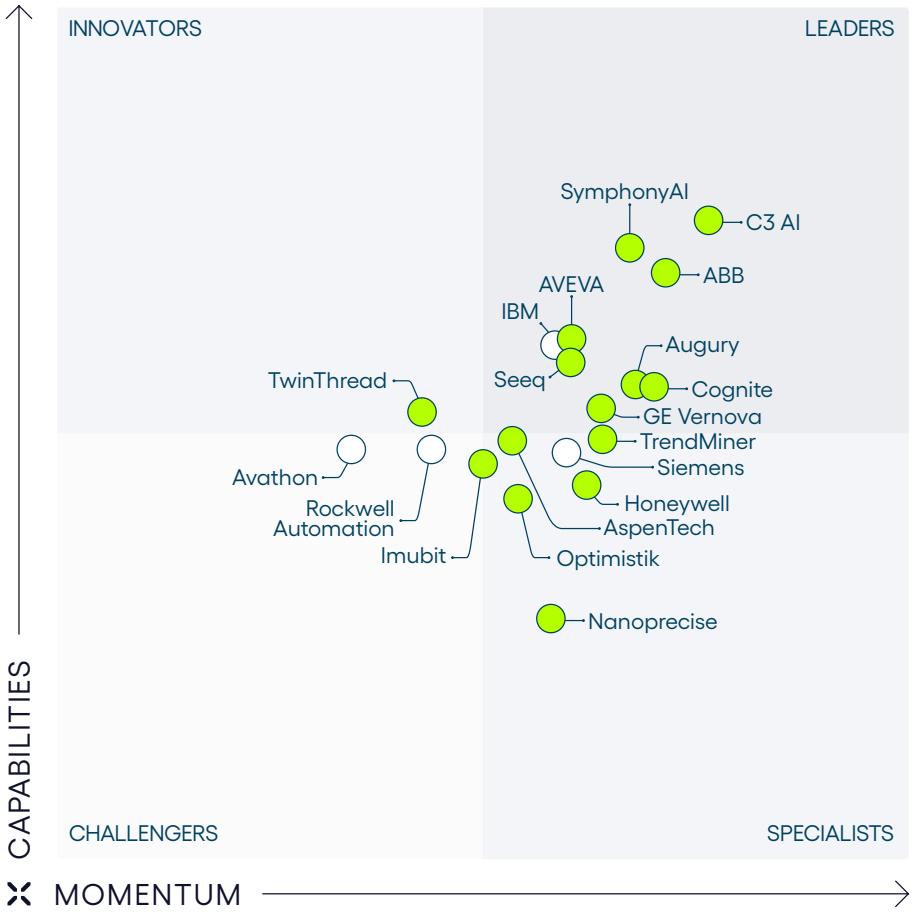
Summary for decision-makers

- This report is designed to help heads of operations, maintenance, engineering and IT identify the best-fit industrial AI analytics providers, to support resilience, predictive maintenance and performance optimization across their industrial assets. Vendors should use this report to benchmark their capabilities, innovation pipelines and market momentum against competitors.
- The report leverages data from two-hour demonstrations, a 105-point questionnaire and 11 buyer interviews, to provide an evidence-based view of the industrial AI analytics market.
- The industrial AI analytics market is evolving from pilots to enterprise-wide platforms that unify complex data, embed predictive intelligence into daily operations, and deliver measurable improvements in uptime, efficiency and sustainability. Growth is being driven by rising demand for predictive maintenance, the need to bridge workforce expertise gaps, and executive pressure to optimize yield and sustainability through scalable AI-enabled architectures.
- Of the 19 vendors evaluated in this Green Quadrant, nine emerged as Leaders: ABB, Augury, AVEVA, C3 AI, Cognite, GE Vernova, IBM, Seeq and SymphonyAI.

Figure 6

Green Quadrant for industrial AI Analytics software 2025



Note: A white plot indicates a non-participating vendor.
Source: Verdantix analysis

How to use the Green Quadrant for industrial AI analytics software

This Green Quadrant analysis applies to industrial AI analytics software, which Verdantix defines as:

> *"Computer programs that can ingest operational technology (OT) and other industrial data, such as time series, events and control logs – and/or visual data, audio and free text – and use learned pattern recognition and even reasoning to deliver real-world automation, such as highlighting anomalies, predicting asset failure, optimizing processes and completing open-ended, multi-step tasks."*

This Green Quadrant report assesses and benchmarks 19 leading vendors of industrial AI analytics solutions. The report will help heads of operations, maintenance, engineering and IT select industrial AI analytics providers based on their needs. The report positions the vendors into four Quadrants: Leaders, Innovators, Specialists and Challengers – each with specific benefits and drawbacks. The report answers the following questions:

- **How are vendors innovating to meet evolving customer needs for industrial use cases using AI?**
- **What differentiates vendors in this space?**
- **Who are the leading industrial AI analytics vendors?**
- **What should a buyer look for when selecting an industrial AI analytics provider?**

To answer these questions, Verdantix evaluated 19 vendors using a 105-point questionnaire and live product demonstrations lasting two hours each. We also conducted 11 interviews with buyers of industrial AI analytics solutions. The analysis uses the proprietary Verdantix Green Quadrant methodology, which provides an evidence-based, objective assessment of vendors offering comparable products or services. Additional Verdantix insights into industrial AI analytics can be found in Verdantix Market Overview: Industrial AI Analytics Solutions.

Industrial AI analytics solutions address the core levers of industrial resilience

Firms are facing intensifying pressure to unlock more value from industrial data, as they contend with volatile markets, higher energy costs, shifting customer demands and scrutiny of operational efficiency. Within the industrial AI analytics market, customer priorities are moving towards faster decision-making, embedding predictive intelligence into daily operations and delivering measurable improvements in productivity and sustainability. To meet these needs, organizations are adopting AI-enabled platforms built on core technologies such as agentic automation, multimodal models, predictive machine learning (ML) and retrieval-augmented generation (RAG) (see **Figure 1**). Traditional reporting and dashboards are no longer sufficient: organizations are increasingly turning to AI-enabled platforms that can detect anomalies, anticipate failures and optimize production in real time. Yet barriers such as fragmented data architectures, limited scalability of proofs of concept, and shortages of AI expertise continue to slow progress, pushing firms to rely more heavily on vendor-provided, domain-specific AI applications. As these pressures mount, buyers are prioritizing solutions that help address core industrial analytics challenges, such as:

Figure 1

Four fundamental industrial AI analytics technologies

Technology	Definition
Agentic automation	Generative AI models capable of following task descriptions, using analytics tools and completing multi-step, open-ended tasks, while adapting to a dynamic environment (including failed attempts).
Multimodal AI	Generative AI models capable of ingesting visual and audio data alongside text to take actions such as flagging user-defined object presence, drawing bounding boxes, creating detailed text descriptions, transcribing speech and even sending commands to drive real-world robotic automation.
Predictive analytics	Task-specific machine learning models capable of using historical data from sensors on industrial assets and other industrial data systems to assess the probability of future events and their associated risks.
Retrieval-augmented generation (RAG)	A system combining a search engine with a generative AI model to answer user queries and fetch up-to-date and proprietary data to deliver answers grounded in the user's context, reducing reliance on jagged intelligence gained through model training alone.

Source: Verdantix analysis

- **Contextualizing and unifying siloed, messy data into actionable insights.**
  Industrial firms generate enormous volumes of process, asset and operational data, but much of this remains locked in isolated systems and inconsistent formats. AI analytics solutions are stepping in to bridge the gap by integrating, cleansing, normalizing and mapping heterogeneous data into a unified model that can be queried and acted upon. This shift is enabling maintenance teams to move from reactive troubleshooting to proactive insight generation, while giving operations leaders a single version of truth across sites and assets. Vendors such as ABB, Seeq and Symphony AI are embedding knowledge graphs, automated data labelling and semantic models to accelerate time to insight and ensure data integrity at scale. For executives, the ability to surface accurate, real-time intelligence directly from complex data estates translates into better resource allocation, faster problem resolution and clearer justification for investment decisions.
- **Combatting the plague of unplanned downtime.**
  Unexpected equipment failures remain one of the most costly and disruptive challenges in industrial operations, with even short outages leading to lost production, missed commitments and emergency repairs. Traditional preventative maintenance often fails to catch early warning signs, prompting many firms to adopt asset performance management (APM) solutions that support both reliability-centred and predictive maintenance strategies (see Verdantix Green Quadrant: Asset Performance Management Solutions 2024). Predictive maintenance software continuously monitors asset health, analyses data such as vibration, energy use and process deviations, and flags conditions likely to cause breakdowns, enabling earlier intervention and better resource allocation. At a pharmaceutical contract development and manufacturing organization, Nanoprecise's predictive maintenance detected severe unbalance in a critical methanol/water pump within three weeks, preventing a $9 million batch failure, avoiding emergency repairs and extending equipment life.

- **Bridging the expertise gap and empowering the workforce.**
  Many industrial firms are struggling with a shrinking pool of skilled technicians. As experienced workers retire, valuable know-how risks being lost, while fewer new entrants are stepping in to replace them. The result is an expertise gap that leaves less experienced staff responsible for increasingly complex assets. Industrial AI analytics solutions are helping to address this by embedding domain knowledge into algorithms, automating diagnostics and guiding operators with clear, actionable recommendations. Insights delivered through tools such as mobile apps or augmented reality (AR) give frontline teams the confidence to act quickly and accurately, even without decades of experience (see Verdantix Strategic Focus: Innovating Workforce Management With Connected Worker Platforms). This support shortens training curves, reduces reliance on a handful of experts and allows newer employees to play a more active role. By capturing and codifying knowledge in ML models, firms also preserve critical expertise for the long term and ensure more consistent decision-making across their operations.

- **Optimizing yield, quality and sustainability.**
  Industrial leaders face pressure to deliver more output with fewer resources, while meeting higher standards for quality and sustainability. AI analytics can balance variables such as feedstock, process conditions and energy use to maximize yield and reduce waste, while real-time monitoring detects deviations early, to cut re-work. From a sustainability perspective, insights enable energy optimization, emissions reduction and resource efficiency. In the Verdantix 2025 industrial transformation survey of 304 executives, 44% plan double-digit budget increases for production and yield optimization and 31% expect single-digit growth – making this one of the fastest-rising areas of operational excellence investment (see Verdantix Global Corporate Survey 2025: Industrial Transformation Budgets, Priorities And Tech Preferences). Vendors are also developing industry-specific applications, such as predictive analytics that reduce scrap in metals production, optimize water use in chemicals manufacturing, or, as demonstrated through Imubit's work with Oxbow, apply closed-loop AI control to maximize refinery yield and cut natural gas consumption.

- **Scaling AI for enterprise-wide impact.**
  While many firms have piloted AI initiatives, too often they stall before delivering tangible benefits at scale. The challenge lies not in proving that AI works, but in embedding it across complex operations with reliability and trust. Successful scaling requires robust data governance, seamless integration with IT and operational technology (OT) systems, and clear alignment with business goals. Leading AI vendors are addressing these needs with modular platforms, low-code deployment environments and pre-built connectors to common industrial applications. Equally important is the ability to provide explainable insights that build user trust and satisfy regulatory scrutiny. As adoption matures, firms are beginning to move beyond isolated use cases, towards enterprise-level programmes that drive measurable improvements in uptime, efficiency and sustainability across their entire asset base. This shift transforms AI from a promising experiment into a core strategic capability.

Green Quadrant for industrial AI analytics software

Buyers of industrial AI software prioritize vendors that offer deep domain expertise, scalable deployment capabilities, seamless integration with existing systems and the ability to support all relevant stakeholders. Selection often depends on the quality of an organization's data and a vendor's proven track record, ease of platform deployment and cost-effectiveness.

Green Quadrant methodology

The Verdantix Green Quadrant methodology provides buyers of specific products or services with a structured assessment of comparable offerings at a certain point in time. The methodology supports purchase decisions by identifying potential vendors, structuring relevant purchase criteria through discussions with buyers and providing an evidence-based assessment of the products or services in the market. To ensure objectivity of the study results, the research process is guided by:

- **Transparent inclusion.**
  We aim to analyse all providers that qualify for inclusion in the research. For those providers that offered insufficient information or were unwilling to cooperate fully on the 105-point questionnaire and two-hour product demonstration, we included them in the report based on public information, where we believe this provided an accurate analysis of their market positioning.

- **Analysis from the market perspective.**
  We integrated findings from our latest global industrial transformation survey of 304 decision-makers, many of whom have bought or plan to buy software products such as those analysed in this Green Quadrant. The data-driven survey findings inform how we define the relevant software categories, sub-categories and weightings that propel the Green Quadrant graphical output.

- **Reliance on professional integrity.**
  As it is not feasible to check all data and claims made by vendors, we emphasize the need for professional integrity. Assertions made by software providers are put in the public domain via this Verdantix report and can be checked by competitors and existing customers. Verdantix also retains previous iterations of vendors' Green Quadrant questionnaire responses and makes comparisons and scoring adjustments as needed, to ensure accuracy.

- **Scores based on evidence, briefings and customer interviews.**
  To assess software vendors' expertise, resources, business results and strategies, we gather evidence from public sources and conduct interviews with multiple spokespeople and industry experts. When providers claim to be 'best in class', we challenge them to present supporting evidence.

- **Comparison based on relative capabilities.**
  We construct measurement scales ranging from 'worst in class' to 'best in class' performance at a certain point in time. A provider's position in the market can change over time, depending on how its offering and success evolve relative to its competitors. As a result, a vendor's Quadrant positioning may not necessarily improve – even if it adds new applications, makes a strategic acquisition or receives investment – as the assessment is relative to what other vendors are offering or have been doing since the previous Green Quadrant study. The Green Quadrant analysis is typically repeated every one-and-a-half to two years.

Scope and methodology for the 2025 Green Quadrant industrial AI analytics software study

Verdantix studies reflect the current state of customer requirements and product capabilities. As such, we have developed assessment criteria to ensure alignment with the present state of the market. In this 2025 industrial AI analytics Green Quadrant, Verdantix:

- **Developed industrial AI analytics scenarios from capability assessments.**
  For this study, we established a set of the most important and relevant capability areas in which customers expect vendor functionality. Drawing on insights from our 2025 industrial data management and industrial computerized maintenance management system (CMMS) Green Quadrants, our 2024 asset performance management (APM) and enterprise asset management (EAM) Green Quadrants, and input from vendors

and customers, we developed a framework of 14 capability areas spanning production, quality, maintenance and energy management (see Verdantix Green Quadrant: Industrial Data Management Solutions 2025; Verdantix Green Quadrant: Industrial Computerized Maintenance Management Systems (CMMS) (2025); Verdantix Green Quadrant: Asset Performance Management Solutions 2024; and Verdantix Green Quadrant: Enterprise Asset Management Software 2024).

- **Weighted the questionnaire categories to reflect market priorities.**
  The Verdantix Green Quadrant evaluates the latest customer technology preferences, to ensure that the weightings of all high-level criteria reflect global buyers' current priorities across all industrial AI analytics capabilities. Following extensive interviews with 304 senior industrial transformation decision-makers, we applied adjusted weightings for each high-level capability criterion to mimic its relative priority for improvement and to reflect industrial AI analytics spending plans for 2025 amongst customers.
- **Included coverage of customer success and adoption.**
  Customer success strategies are often overlooked in assessment criteria for buyers. To account for these, Verdantix included questions around total customer count, renewal rates and strategy. Furthermore, we undertook 11 customer interviews with users of vendor solutions highlighted in this Green Quadrant.

Evaluated firms and inclusion criteria

Verdantix defines vendor inclusion criteria to ensure that the Green Quadrant analysis only compares firms providing similar services. The 19 industrial AI analytics providers included in this study were selected because they have:

- **Functionality across all three core industrial AI analytics capabilities.**
  We evaluated the market to identify vendors that provide end-to-end industrial AI analytics solutions. Using either their own technologies or directly licensed offerings, the participating vendors deliver functionality across the three core capabilities of AI-driven industrial analytics: (1) user-configurable acquisition of industrial data; (2) transformation and contextualization of these data to prepare for analytics; and (3) generation of insights through AI-based methods.
- **At least 10 named asset-heavy customers using their industrial AI analytics solutions.**
  The Verdantix Green Quadrant on industrial AI analytics software is designed to evaluate the leading vendors in this market. To be included, vendors were required to have at least 10 named asset-intensive customers actively using their industrial AI analytics solution.
- **At least $5 million in annual revenues from industrial AI analytics solutions.**
  To ensure that only vendors with a meaningful presence and commitment to the market were included, the study required participants to have at least $5 million in annual revenues specifically from AI-focused industrial analytics solutions. This threshold reflects both commercial traction and dedicated investment in developing and supporting these technologies, helping to distinguish established players from emerging or peripheral providers.

Based on the inclusion criteria above, this report looks in depth at the industrial AI analytics software offerings available from 19 vendors: ABB, AspenTech, Augury, Avathon, AVEVA, C3 AI, Cognite, GE Vernova, Honeywell, IBM, Imubit, Nanoprecise, Optimistik, Rockwell Automation, Seeq, Siemens, SymphonyAI, TrendMiner and TwinThread. With the exception of Avathon, IBM, Rockwell Automation and Siemens – which were invited to take part, but did not actively do so, or did not respond – all vendors actively participated in the research through responses to a 105-point questionnaire, by allowing customer interviews and by engaging in a two-hour product demonstration.

Evaluation criteria for industrial AI analytics software vendors

Verdantix defined the evaluation criteria for the Green Quadrant for industrial AI analytics software through a combination of interviews with corporate practice managers and software executives, desk research, discussions with multiple customers and staff expertise. Our analysis was also informed by responses to the Verdantix global corporate industrial transformation surveys. In full, this year's Green Quadrant analysis compares offerings from 19 software vendors, using a 105-point questionnaire covering 14 categories of technical capabilities and seven categories of market momentum. In our analysis:

- **Capabilities measure the breadth and depth of functionality.**
  The capabilities dimension, plotted on the vertical axis of the Green Quadrant graphic, is a measure of the breadth and depth of each software provider's functionality. To assess this, we evaluated data for 14 technical capabilities. The technical capabilities were data acquisition and integration; data storage and management; data processing and transformation; model development; model training; user interfaces; platform APIs; workflow automation; visualization and reporting; supply chain and logistics optimization; process and production optimization; quality management; predictive maintenance; and resource and energy management (see **Figure 2**).
- **Momentum measures strategic success factors.**
  The momentum dimension, plotted on the horizontal axis of the Green Quadrant graphic, measures each software vendor on a range of strategic success factors. The criteria that make up the momentum score are grouped into seven high-level categories: market vision and business strategy; product strategy; innovation process; organizational resources and growth; financial resources; customers; and brand preference (see **Figure 3**).

We assessed the evidence provided by all the software vendors using a quantitative model that started with the sub-criteria scores. Each sub-criterion was individually weighted to generate the overall score for each capability area. For example, workflow automation is one of the high-level criteria evaluated in the capabilities section, but is composed of four sub-criteria covering event-based triggers and conditions, workflow orchestration and management, no-code and low-code workflow builders, and agentic automation. These are individually weighted to determine the overall data modelling score.

We scored all sub-criteria between the values of zero ('no capability') and three ('best in class'). Subsequently, we allocated each high-level criterion a percentage weighting that determined its contribution to the overall score for the specific capability. Weightings were based on customer survey data regarding the industrial AI analytics software functionality that is most widely used, along with analyst perceptions of the broader industrial AI analytics software landscape. The combination of high-level criteria scores in the capabilities and momentum sections generated the Green Quadrant rankings (see **Figure 4** and **Figure 5**) and graphic (see **Figure 6**).

Figure 2

Capabilities criteria for industrial AI analytics software

Capabilities	Questions
Data acquisition & integration (5%)	Describe how your solution ingests data directly from industrial sources (e.g. sensors, PLCs, ICS, IIoT devices). Include details on any partnerships with equipment providers or OEMs, and provide examples or customer success stories. Explain how your solution integrates data from enterprise systems (e.g. CMMS, ERP, EAM, document management systems) and other legacy or specialized systems. Specify the protocols or methods used (e.g. OPC-UA, MQTT) to ensure robust integration. Detail the measures your solution takes to ensure data quality upon acquisition, including any AI capabilties. How are data errors, missing values or inconsistencies identified and corrected during the ingestion process?
Data storage & management (4%)	Describe how your solution creates and maintains a unified, centralized data repository (e.g. via a unified namespace, asset hierarchies or knowledge graphs) that consolidates data from multiple sources. Explain the features provided for managing data storage. Do you offer caching, prioritization of frequently accessed data, archiving policies or scheduled deletion? Describe any configurable rules available to customers. Also detail your back-up strategies, storage media options and disaster recovery mechanisms, explaining how you ensure data integrity and continuity in the event of system failures or cyber incidents.
Data processing & transformation (6%)	Describe your approach to data modelling, such as relational schemas with DataFrame compatibility, graph or hierarchical tracking of assets, asset-centric models for industrial equipment, and process-oriented frameworks for digital twins. Describe your approach to data contextualization, such as synchronizing event timelines with operations, spatial mapping for asset relationships, generating self-describing data payloads, applying configurable annotation layers on documents, and utilizing low-code data pipelines for cross-functional collaboration. Describe your approach to data discoverability, such as real-time UI-level indexing with fuzzy matching for asset tags, NLP integration for interpreting queries, direct integration with relational databases for immediate responses, and graph database searches for generating relationship visualizations.
Model development (7%)	Describe your low-code/no-code development environment for model development and training. How does it enable users to construct, deploy and iterate on ML models with minimal coding, and what pre-built modules or visual tools support experimentation and customization? Describe your high-code development environment for model development and training, including support for a Python SDK. How does your environment empower advanced users to write custom code, integrate popular libraries and manage debugging and version control for tailored model development?
Model training (7%)	Describe your approach to model training and tuning. How do you support distributed training, automated hyperparameter optimization (e.g. grid search or Bayesian optimization), early stopping techniques, and robust validation methods to continuously adapt to new data while ensuring optimal predictive performance? Describe your approach to model inferencing and deployment support. How do you ensure efficient and scalable inferencing across varied deployment scenarios, including leveraging easy inference techniques for larger model training and execution? Describe your approach to MLOps governance and observability, including how you monitor model performance, manage version control and compliance, and ensure continuous traceability and alerting throughout the model life cycle.
User interfaces (4%)	What is the usability/user-friendliness of the enterprise app interface? This includes mobile functionality [This will be assessed by Verdantix in the demo]. Do you offer any accessibility functionality? How many languages are offered out of the box? Can users easily switch to other units of measure? In what ways do you engage customers with regard to obtaining user feedback/strengthening user experience?
Platform APIs (3%)	Describe your approach to API access for third-party systems, including how you support RESTful APIs with standard HTTP methods (GET, POST, PUT, DELETE), GraphQL and gRPC for integration with IT, OT and ET systems, and how you secure these integrations with OAuth 2.0 for token-based authentication and key management. Discuss the availability of comprehensive API documentation, such as end-point descriptions, request/response examples and usage best practices, alongside developer portals and SDKs.

Figure 2 (continued) ↓

Figure 2 (continued)

Workflow automation (5%)	Describe your approach to event-based triggers and conditions within your workflow automation. How do you configure workflows to react to specific events or conditions in real time, and what mechanisms do you support to ensure timely and accurate execution of automated responses? Describe your approach to workflow orchestration and management. How do you coordinate and sequence multiple automated tasks, including error handling, retries and event-based triggers, while providing centralized monitoring and control for end-to-end automation? Describe your approach to no-code/low-code workflow builders. How do you enable users to design and deploy automated workflows using visual interfaces and drag-and-drop tools, and what features support integration with existing systems for seamless automation? Describe your approach to agentic automation. How do you implement autonomous agents that can proactively assess situations, make decisions in real time based on contextual inputs, and execute actions within your workflow automation environment, while ensuring appropriate safeguards and oversight?
Visualization & reporting (4%)	What pre-built reports does the platform offer? Can reports be scheduled and automatically sent to stakeholders? Can users create custom reports and dashboards? Does the system support drill-down capabilities for deeper insights? Which key KPIs does the system track? Can customers set and monitor these KPIs over time?
Supply chain & logistics optimization (7%)	What type of AI are you using (anomaly detection, computer vision, predictive analytics, GenAI, multi-modal fusion) for supply chain and logistics optimization? What algorithms and techniques does your solution support, and how are models selected and configured for different types of tasks, asset types and operational contexts? In what ways are AI analytics applied within your supply chain and logistics optimization efforts, for instance, in demand forecasting, inventory management, warehouse automation, or route planning and optimization? How do you allow the user to trace back how the AI arrived at a particular outcome (e.g. via dashboards, reasoning chain of thought, in-app tooltips)?
Process & production optimization (16%)	What type of AI are you using (anomaly detection, computer vision, predictive analytics, GenAI, multi-modal fusion) for process and production optimization? What algorithms and techniques does your solution support, and how are models selected and configured for different types of tasks, asset types and operational contexts? How are AI analytics utilized to enhance manufacturing operations and optimization, such as improving production planning and scheduling, enabling real-time process control and adjustments, optimizing yield and throughput, or automating shop-floor tasks? How do you allow the user to trace back how the AI arrived at a particular outcome (e.g. via dashboards, reasoning chain of thought, in-app tooltips)?
Quality management (8%)	What type of AI are you using (anomaly detection, computer vision, predictive analytics, GenAI, multi-modal fusion) for quality management? What algorithms and techniques does your solution support, and how are models selected and configured for different types of tasks, asset types and operational contexts? How are AI analytics utilized to enhance manufacturing operations and optimization, such as improving production planning and scheduling, enabling real-time process control and adjustments, optimizing yield and throughput, or automating shop-floor tasks? How do you allow the user to trace back how the AI arrived at a particular outcome (e.g. via dashboards, reasoning chain of thought, in-app tooltips)?
Predictive maintenance (16%)	What type of AI are you using (anomaly detection, computer vision, predictive analytics, GenAI, multi-modal fusion) for APM? What algorithms and techniques does your solution support, and how are models selected and configured for different types of tasks, asset types and operational contexts? How are AI analytics employed in APM to improve maintenance and performance (e.g. implementing predictive or prescriptive maintenance) or to continuously monitor overall asset health and reliability? How do you allow the user to trace back how the AI arrived at a particular outcome (e.g. via dashboards, reasoning chain of thought, in-app tooltips)?
Resource & energy management (8%)	What type of AI are you using (anomaly detection, computer vision, predictive analytics, GenAI, multi-modal fusion) for resource and energy management? What algorithms and techniques does your solution support, and how are models selected and configured for different types of tasks, asset types and operational contexts? In what ways do AI analytics support resource and energy management initiatives, such as optimizing energy consumption patterns and tracking/forecasting emissions? How do you allow the user to trace back how the AI arrived at a particular outcome (e.g. via dashboards, reasoning chain of thought, in-app tooltips)?
Figures in brackets represent the weighting given to each criterion in the flexible multi-criteria model that generates the Green Quadrant graphical analysis	

Source: Verdantix analysis

Figure 3

Momentum criteria for industrial AI analytics software

Momentum	Questions
Market vision & business strategy (15%)	What is your firm's vision for how the CMMS market will evolve over the coming 2-3 years? What analysis and studies have you completed to assess this vision? How have you invested or made decisions to respond to this vision?
Product strategy (20%)	What is your firm's 2-5-year product vision? How are you identifying in-demand new product features to build? What is on your 12-month product roadmap? How are you designing your solutions to maximize user value, ease of use and speed?
Innovation process (20%)	How are you maintaining momentum in your product development? What percentage of revenue are you reinvesting in R&D and your product? Do you have specific innovation-focused infrastructure or processes (labs, hackathons, developer communities) in place? How frequently do you update the product?
Organizational resources & growth (10%)	How many employees (in FTEs) work on this product? How many employees (in FTEs) worked on this product 12 months ago? Where do you have permanent offices?
Financial resources (15%)	What was your firm's revenue in the last calendar year? What was your firm's revenue specific to CMMS in the last calendar year? How much as a percentage did your firm's revenue specific to CMMS increase or decrease between the last calendar year and the prior year?
Customers (15%)	How many discrete customers/entities/firms are currently using a live version of your CMMS product? How many discrete sites are currently using a live version of your CMMS product? What is the net change of customers/entities/firms using a live version of your CMMS product between the last calendar year, and the prior year?
Brand preference (5%)	Based on Verdantix analysis
Figures in brackets represent the weighting given to each criterion in the flexible multi-criteria model that generates the Green Quadrant graphical analysis	

Source: Verdantix analysis

Figure 4

Vendor category scores: capabilities

	ABB	AspenTech	Augury	Avathon	AVEVA	C3 AI	Cognite	GE Vernova	Honeywell	IBM	Imubit	Nanoprecise	Optimistik	Rockwell Automation	Seeq	Siemens	SymphonyAI	TrendMiner	TwinThread
Data acquisition & integration	2.7	2.0	2.4	2.0	2.1	2.3	2.4	2.1	1.4	2.4	1.3	1.7	1.7	2.0	1.4	1.7	2.7	2.0	2.0
Data storage & management	2.0	0.7	2.0	1.0	1.7	3.0	3.0	2.0	1.3	1.0	1.0	1.3	2.0	1.7	2.0	1.7	2.7	1.0	2.0
Data processing & transformation	2.4	1.0	2.0	1.0	2.4	2.0	3.0	2.0	1.6	2.0	0.8	1.0	2.0	1.4	2.6	1.4	2.4	2.0	1.0
Model development	2.5	1.0	0.5	1.5	1.5	2.5	2.0	1.5	0.5	1.5	1.5	0.0	1.5	1.5	2.5	1.5	3.0	1.0	1.5
Model training	2.3	1.1	1.8	1.3	1.3	3.0	1.7	2.0	1.3	1.0	1.9	0.9	0.1	1.2	1.2	0.3	3.0	1.0	1.2
User interfaces	2.1	1.2	1.9	1.2	1.9	2.0	3.0	1.2	1.0	1.2	1.8	1.8	2.0	1.0	2.2	1.2	2.1	2.0	2.5
Platform APIs	2.0	0.0	1.0	1.5	1.0	2.5	3.0	1.5	1.0	2.0	0.5	1.0	2.0	1.0	1.5	2.0	2.0	1.0	1.0
Workflow automation	1.8	0.4	1.4	1.4	1.5	2.4	2.4	1.8	0.4	1.9	0.3	0.4	0.6	1.3	0.6	1.2	2.1	0.9	1.4
Visualization & reporting	1.6	1.3	1.7	1.6	1.3	2.0	1.2	1.6	2.3	1.3	1.3	1.0	2.3	2.0	2.0	1.0	1.6	1.9	1.6
Supply chain & logistics optimization	1.3	0.6	0.0	2.0	1.0	2.6	1.0	0.0	1.9	1.6	0.0	0.0	0.0	1.9	1.0	1.6	1.9	0.0	0.0
Process & production optimization	2.0	2.0	2.0	1.0	2.5	2.0	1.4	1.3	1.2	2.0	2.9	0.0	1.3	1.3	2.2	1.3	1.4	1.8	2.0
Quality management	1.9	1.0	1.0	1.9	2.9	1.0	1.0	1.3	1.0	2.0	1.2	0.0	1.6	1.9	1.6	2.5	1.9	2.0	1.3
Predictive maintenance	2.0	2.6	2.6	1.9	2.0	2.8	1.0	2.1	2.0	2.0	1.2	1.9	1.0	1.0	2.0	1.6	2.3	2.0	2.0
Resource & energy management	2.6	2.0	1.8	1.0	1.0	1.8	1.0	2.0	1.0	2.5	1.4	1.6	1.6	1.9	1.0	1.3	2.3	1.2	1.9

Scoring framework	
Evidence of market-leading functionality or positioning	3
Evidence of strong, above-par functionality or positioning	2
Evidence of on-par functionality or positioning	1
Lack of evidence, or evidence of sub-par or a lack of functionality or positioning	0

Verdantix research teams determine all scores at either sub-criteria level (for capabilities) or criteria level (for momentum), using the scoring framework above. These assessed scores are then weighted and compiled into derived scores at criteria or capability/momentum level.

Source: Verdantix analysis

Figure 5

Vendor category scores: momentum

	ABB	AspenTech	Augury	Avathon	AVEVA	C3 AI	Cognite	GE Vernova	Honeywell	IBM	Imubit	Nanoprecise	Optimistik	Rockwell Automation	Seeq	Siemens	SymphonyAI	TrendMiner	TwinThread
Market vision & business strategy	2.4	1.4	2.0	1.4	2.0	2.4	2.4	2.0	2.0	1.0	2.0	2.0	2.0	1.6	2.0	2.0	2.0	3.0	1.0
Product strategy	2.0	1.3	2.0	1.0	2.0	3.0	1.7	1.7	2.4	1.3	1.7	1.7	1.7	1.0	2.0	1.3	2.3	2.7	1.3
Innovation process	2.2	2.2	2.7	1.0	1.7	2.8	2.8	1.9	1.6	1.9	1.2	1.9	1.7	1.6	1.8	1.9	2.0	1.6	2.0
Organizational resources & growth	1.7	1.6	1.9	1.5	1.7	1.7	1.6	1.7	1.2	1.7	1.5	1.9	1.0	1.7	1.5	2.1	1.6	1.0	0.6
Financial resources	2.4	1.7	2.1	0.7	1.7	2.0	2.0	1.9	1.9	1.9	1.6	1.6	1.6	1.1	1.6	1.9	2.3	1.3	1.3
Customers	2.0	1.4	1.7	0.7	1.7	1.7	2.3	2.0	1.4	2.4	1.3	1.6	2.0	0.7	2.3	1.4	2.1	2.0	1.3
Brand preference	2.6	1.4	1.0	1.0	2.0	1.4	1.0	3.0	3.0	3.0	0.6	1.0	0.0	2.2	0.4	3.0	1.0	0.4	0.4

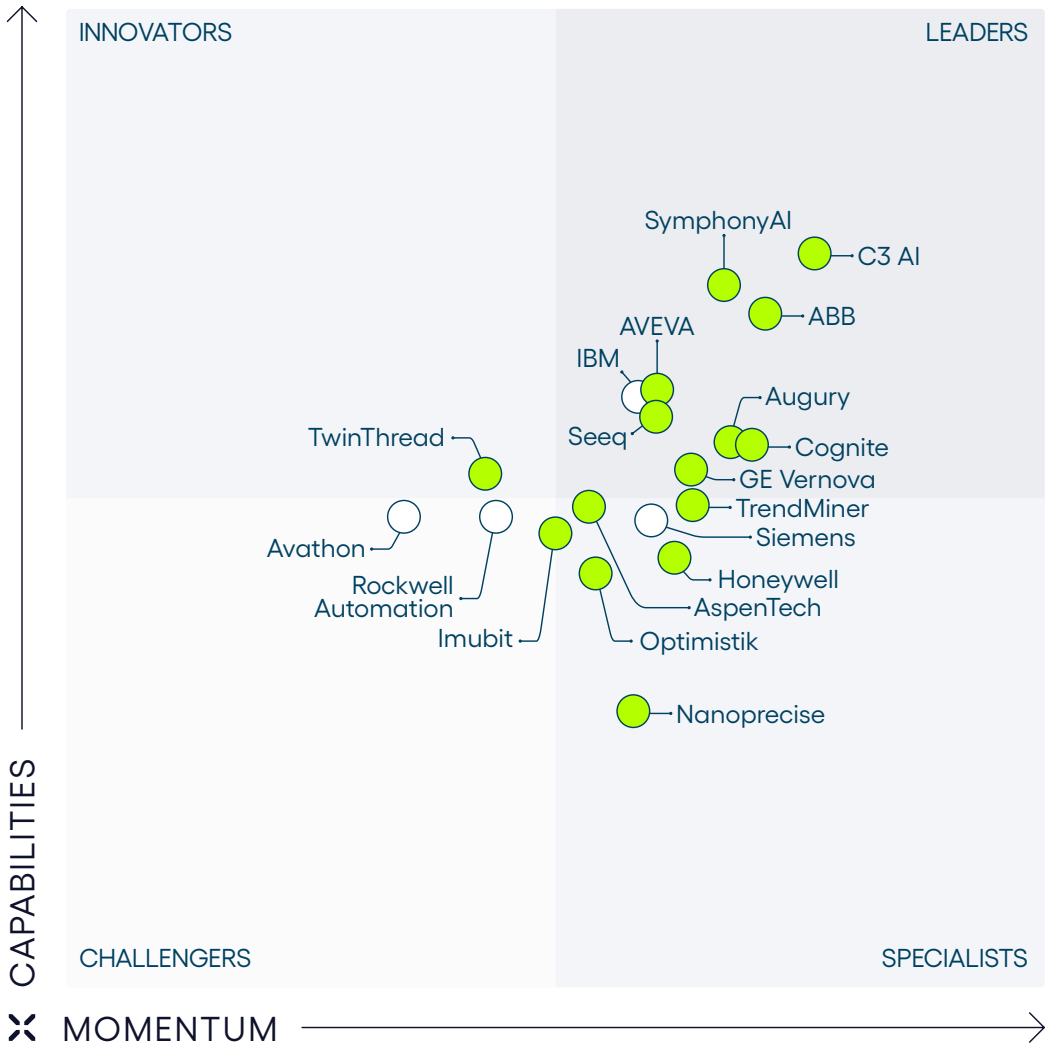
Scoring framework	
Evidence of market-leading functionality or positioning	3
Evidence of strong, above-par functionality or positioning	2
Evidence of on-par functionality or positioning	1
Lack of evidence, or evidence of sub-par or a lack of functionality or positioning	0

Verdantix research teams determine all scores at either sub-criteria level (for capabilities) or criteria level (for momentum), using the scoring framework above. These assessed scores are then weighted and compiled into derived scores at criteria or capability/momentum level.

Source: Verdantix analysis

Figure 6

Green Quadrant for industrial AI Analytics software 2025



Capabilities

This dimension measures each service provider on the breadth and depth of its industrial AI analytics solutions across 14 capability areas, as outlined in **Figure 2**.

Momentum

This dimension measures each service provider on seven strategic success factors, as outlined in **Figure 3**.

Note: A white plot indicates a non-participating vendor.
Source: Verdantix analysis

ABB overview

Information

ABB, headquartered in Switzerland, is a global technology provider in electrification and automation, with 140 years of heritage. ABB offers industrial AI analytics through its Genix Industrial IoT and AI Platform Suite, which integrates IoT, analytics and AI as foundational capabilities. It provides Genix AI Express and Genix Copilot as modular industrial AI offerings. ABB has strategic partnerships with AWS, IBM Red Hat and Microsoft to enhance its service offering through improved asset connectivity, software integration and edge-to-cloud portability.

Vendor info

Firm name	ABB
Headquarters	Zurich, Switzerland
Employees	110,000
Revenues	$11bn to $50bn
No. of offices	500+
Example customers	Birla Opus, Minera Gold Fields, Vale

Customer regional presence

Asia	◑
Oceania	◔
Europe	◕
Middle East and Africa	◔
Latin America and the Caribbean	◑
North America	◕

% Customer base

○ 0% ◔ <10% ◑ 10%-25% ◕ 25%-50% ● above 50%

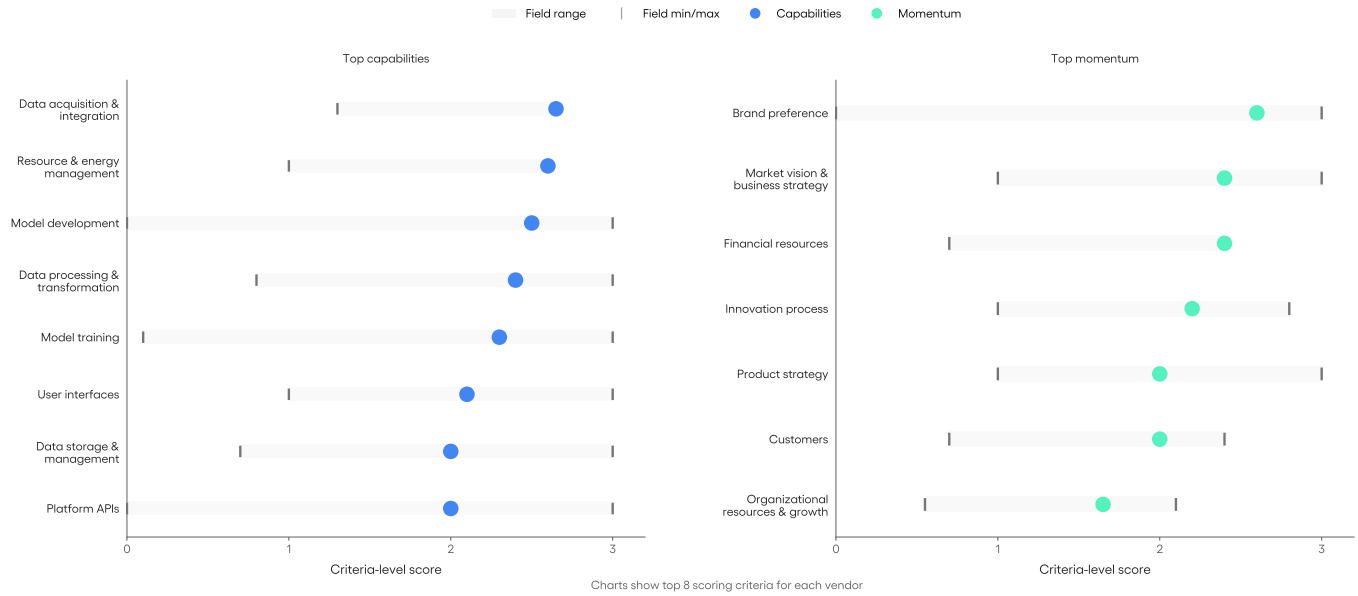
Top industry penetrations

Oil and gas

Utilities

Manufacturing

Performance vs Field (2025)



Charts show top 8 scoring criteria for each vendor

Note: See the main scoring figure for an explanation of the scoring framework.

ABB Ability Genix Industrial IoT and AI Suite unifies data to accelerate industrial AI at scale

The Green Quadrant analysis finds that ABB provides:

- **Excellent data integration, accelerated model development/training and energy management capabilities.** Genix connects to historians, supervisory control and data acquisition (SCADA) systems, computerized maintenance management systems (CMMS), enterprise asset management (EAM) platforms, enterprise resource planning (ERP) systems and Internet of Things (IoT) sources via pluggable adapters and an Industrial DataOps backbone that handles ingestion, lineage and governance. A semantic contextualization layer maps assets, processes and events, enabling multi-system data analytics, earning ABB Genix an impressive score of 2.7/3.0 for data acquisition and integration. For model development and training, ABB combines low-code/no-code tools – such as automated machine learning (AutoML) flows, feature stores and reusable templates – with notebook-based workflows and machine learning operations (MLOps) for deployment and monitoring, garnering it a score of 2.5/3.0 for model development. ABB Ability Genix also received the highest score, of 2.6/3.0, for resource and energy management, thanks to its solutions such as Ability Genix Datalyzer CEMS (continuous emission monitoring system) for predicting industrial emission breaches and Genix Digital Twin Hub for cooling tower energy optimization. A UK-based construction materials firm implemented Genix Datalyzer and witnessed an 8% to 12% reduction in CO_2 emissions at monitored sites.
- **Ongoing pilots and a roadmap for agentic automation.** ABB has piloted and deployed agents across use cases such as uploading asset hierarchies, IT-OT (operational technology) mapping, historical data upload, and model lifecycle management through its MMA+ and Genix APM Copliots. The Genix Agentic Automation framework aims to enable agentic automation to monitor conditions, interpret context and autonomously take actions. The firm adopts a human-in-the-loop and semi-autonomous approach to agents to ensure that users are in control. ABB has a roadmap for expanded agent coverage and is laying a scalable foundation to deploy agentic AI across industrial operations
- **Predictive maintenance and compliance for asset-intensive, multi-site firms scaling up.** Ability Genix is well-suited to multi-site manufacturers and heavy process industries – such as chemicals, metals, cement, power, water, and oil and gas – that need edge-to-cloud connectivity, strong data governance and pre-built industrial AI applications, rather than a DIY MING stack. Organizations pursuing predictive maintenance and energy or emissions improvements, while unifying OT, IT and engineering technology (ET) data, will benefit most, supported by ABB's impressive capability scores for resource and energy management, data acquisition and integration, and model development and training. Teams with clear data governance standards and an appetite to operationalize AI can use ABB Ability Genix to scale from site-level to enterprise-scale models, with measurable performance and sustainability outcomes.

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