How to Build Scalable and Trusted Data and AI Solutions on IBM watsonx

Research from McKinsey & Company has uncovered a rising need for AI solutions. McKinsey's The state of AI in 2025 report found that almost all organizations are using AI. However, most organizations are still in the experimental phase, with 62% trying out AI agents. Nearly two-thirds of companies have not begun to scale AI across the business.

To fully integrate AI into business operations, companies need help building AI solutions. The IBM watsonx platform provides a foundation for building data and AI solutions that overcome company challenges and fulfill industry use cases.

ASB Resources brings deep expertise in Data, AI, Cloud, and Governance to help organizations turn the watsonx platform into real business value. As an IBM partner, we specialize in converting AI concepts into deployable solutions through a structured delivery approach, rapid Proof of Concepts (POCs), and cross-functional teams that understand both technology and industry-specific challenges. Our goal is to help companies modernize responsibly and scale AI with confidence.

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#1 Overcoming Business Challenges with AI

Organizations face several common challenges as they attempt to adopt AI at scale. These challenges impact organizations differently depending on their size, which is why our data and AI solutions built on watsonx are tailored for small businesses needing agility, mid-sized firms looking to optimize operations, and large enterprises requiring robust governance, security, and integration. ASB Resources takes an approach that ensures AI adoption is right-sized, scalable, and aligned to each client's maturity level.

Some of the challenges faced by companies that are looking to adopt AI include:

Data Fragmentation

Many companies have difficulty making business decisions because they are working with fragmented data that is stored across the organization on different systems. AI uses machine learning and intelligent platforms to automate data integration, improve data quality, and transform scattered data into unified, actionable insights.

Legacy Systems

Working with legacy systems holds companies back from achieving transformation and modernization. AI adds intelligent layers to legacy systems for data insights, automating modernization tasks, such as code translation and testing, enhancing security, improving integration, and enabling predictive maintenance, all without requiring the risk of a full replacement. By acting as an intelligent augmentation, AI makes old systems scalable, efficient, and future proof.

Meeting Compliance

Increasingly strict compliance regulations put pressure on companies to control access to the sensitive, mission-critical data they use to make decisions. AI helps with compliance by automating the monitoring of access attempts. AI can analyze huge volumes of data for risks, interpret complex compliance regulations, and proactively flag violations. With AI, companies can transform meeting compliance from a reactive to a predictive function, saving time, reducing errors, and ensuring continuous adaptation to changing rules.

AI acts as an intelligent assistant, handling manual tasks such as document analysis and reporting, allowing compliance teams to focus on strategic risk mitigation, decision-making, and reducing costs associated with breaches.

Bridging Governance Gaps

To be confident about decision-making, companies need to have policies and procedures in place to ensure that data is current, complete, and accurate. AI bridges governance gaps by providing automated oversight, predictive analytics, and enhanced transparency. AI moves governance from reactive policy to proactive management through continuous monitoring, anomaly detection, and streamlined operations, enabling faster, more adaptable, and trusted decision-making in complex environments such as government agencies and enterprises.

With AI, organizations can transform governance from a siloed, manual process into an integrated, real-time system that supports agility and accountability.

#2 Building Solutions Across the 3 Pillars of IBM watsonx

Taking an approach to building data and AI solutions that leverages the IBM watsonx platform unifies data, AI, and governance into deployable solutions. ASB Resources uses the core components of the watsonx platform to develop custom AI-powered data solutions that can be updated as needs change and scaled to accommodate growth.

Watsonx.data

Watsonx.data ensures secure, scalable data management for reliable AI outcomes. With watsonx.data, companies can power AI and analytics wherever their data resides. Based on a company's existing data landscape, watsonx.data can be used to develop a customized data fabric strategy to ensure security, agility, and actionable insights.

Watsonx.ai

Watsonx.ai provides an integrated, end-to-end studio for AI solution development. Companies can use watsonx.ai to create powerful and tailor-made AI solutions, including intelligent assistants, with user-friendly interfaces and workflows.

Watsonx.governance

Watsonx.governance eliminates risk, enabling companies to feel confident about AI projects so they can scale. Watsonx.governance is an end-to-end tool kit for responsible, transparent development of AI workflows. The solution allows companies to monitor and manage AI across all their automated business processes, giving peace of mind knowing that they are meeting compliance regulations for keeping sensitive data secure.

#3 Using Data and AI Solutions to Solve Problems in Key Industries

At ASB Resources, we design data and AI solutions using IBM watsonx that fulfill use cases in a range of industries.

Banking, Financial Services & Insurance (BFSI)

Companies in the financial services and insurance industry need to analyze risk because they work with data that can be exploited for profit. AI for financial risk analytics uses machine learning, deep learning, and big data to predict, assess, and mitigate risks such as fraud, credit defaults, and market volatility.

AI-powered fraud detection in finance uses machine learning to analyze large volumes of data in real-time, spotting complex patterns and anomalies to stop fraud faster and more accurately than traditional methods, which is vital in the fast-paced financial industry. AI fraud detection uncovers credit card fraud, money laundering, account takeovers, and application fraud by monitoring behavior, location, and device data for instant risk scoring and proactive prevention, significantly reducing losses and improving customer experience.

Retail

Retail companies can use AI to enhance customer experience, increasing satisfaction, and earning loyalty. AI-powered agents can draw on customer histories and use natural language to create a personalized and conversational experience for customers.

AI helps optimize supply chain management for retailers. AI can be used to monitor supply chains and predict issues that might interrupt shipping and delivery operations.

With AI, retailers can automate and gain real-time insights into order management. AI provides visibility into the entire order process from fulfillment to delivery, ensuring that retailers and customers can track orders.

Manufacturing

AI empowers manufacturers to conduct predictive maintenance. Using AI, manufacturers can anticipate when equipment needs repairs, so maintenance can be conducted before a problem arises that would interrupt production and lower product quality. AI can analyze data generated by sensors on production line equipment to manage and maintain assets, as well as for quality control.

Transportation

The transportation industry depends upon logistics to plan, execute, and control the movement of and storage of goods. Transportation logistics are complex because they involve multiple forms of transport, inventory management, and warehousing.

AI revolutionizes transportation logistics by optimizing routes, predicting maintenance, automating tasks, and enhancing customer service through real-time data analysis, machine learning, and predictive analytics, leading to more accurate deliveries. AI tackles complex challenges like dynamic routing, demand forecasting, and disruption management, enabling smarter, data-driven decisions from warehouse to delivery.

Government Agencies

Government agencies need better ways of interacting with and solving problems for constituents. Digital citizen services powered by AI help government agencies serve constituents by using agents to automate complex and routine tasks. Chatbots personalize citizen interactions by drawing on data regarding the questions constituents ask and using the information to understand what matters to them.

#4 Data and AI Strategies and Solutions

ASB Resources works with companies to develop data and AI strategies to ensure success and promote the scalability of AI programs through the continued development of data and AI solutions. We strategize by scoping out your AI projects and building a roadmap in collaboration with your team to work towards your business goals

Data and AI Strategies

To successfully adopt AI and scale it across the business, companies need to lay a strong data foundation. A Data Foundation Strategy will centralize, govern, clean, and secure data to build trusted data products, including those for Master Data Management (MDM), data lineage, and data quality.

A Business Alignment Strategy for AI provides a roadmap for integrating AI with core business goals to ensure AI projects drive measurable value, including increased revenue, efficiency, and growth. This data and AI strategy enables companies to define specific AI use cases that align with overall business objectives and involve cross-functional teams.

A Domain-Specific Data Strategy focuses on relevant, industry-specific data centered on a specific purpose to build more accurate and relevant AI models that address critical problem areas.

A Responsible AI Strategy implements ethics, transparency, and explainability (XAI) to build trust, especially in high-risk areas.

A Technology & Infrastructure Strategy guides the building of platforms for data integration, high-performance storage, and AI/ML workloads.

Data and AI Solutions

Once data and AI strategies have been developed, companies can begin building AI solutions to fulfill opportunities for advanced analytics and automation.

Predictive Analytics Solutions forecast trends, prevent downtime, and move companies from reactive to proactive decision-making.

AI-Driven Automation Solutions automate routine tasks, such as document processing, Human Resources (HR) tasks, and complex financial reporting workflows, to free up human capital, increase efficiency, and reduce errors.

Personalization Solutions use historical data and AI analytics to deliver hyper-personalized customer experiences and marketing outreach.

Data & AI Orchestration Solutions move AI from isolated tools, such as AI models and data pipelines to a core strategy that coordinates and manages entire enterprise systems.

#5 Benefits of Data and AI Solutions Built on IBM watsonx

Building data and AI solutions on the IBM watsonx platform provides many benefits to companies that are looking to adopt AI or expand their AI programs.

Modernize Data

Solutions built on IBM watsonx.data modernize data by providing an open, hybrid cloud data lakehouse architecture that unifies and governs access to all data, whether structured and unstructured, for AI and analytics workloads using a Zero-Extract, Transform, Load (ETL) approach to data integration that doesn't require complex data movement.

Responsible AI Adoption

Building solutions on watsonx enables companies to adopt AI responsibly because watsonx.governance ensures they are working with trusted data. Responsible AI adoption allows organizations to implement AI in an ethical, transparent, and human-centered way by focusing on fairness, accountability, privacy, and minimizing harm while maximizing benefits like innovation and efficiency.

Accelerated Operational Efficiency

Watsonx helps companies create solutions that accelerate operational efficiency through AI-powered automation using agentic AI, which allows multiple agents to collaborate and work together to carry out complex workflows.

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#6 Getting Started with Data and AI Solutions Built on IBM watsonx

If your company is ready to get started with data and AI solutions but hasn't gotten past the experimental stage, ASB Resources can help.

We focus on creating responsible AI solutions for small, mid-sized, and enterprise organizations. We deliver rapid POCs for AI solutions built on IBM watsonx. Our onshore and offshore teams give us the ability to scale.

Is your company ready to get started developing data and AI solutions that meet your needs?

Schedule a no-obligation call