

Realize the Promise of GenAI Today— and Avoid Common Pitfalls

Kickstart your journey to GenAI excellence
with seven steps that ensure data readiness.

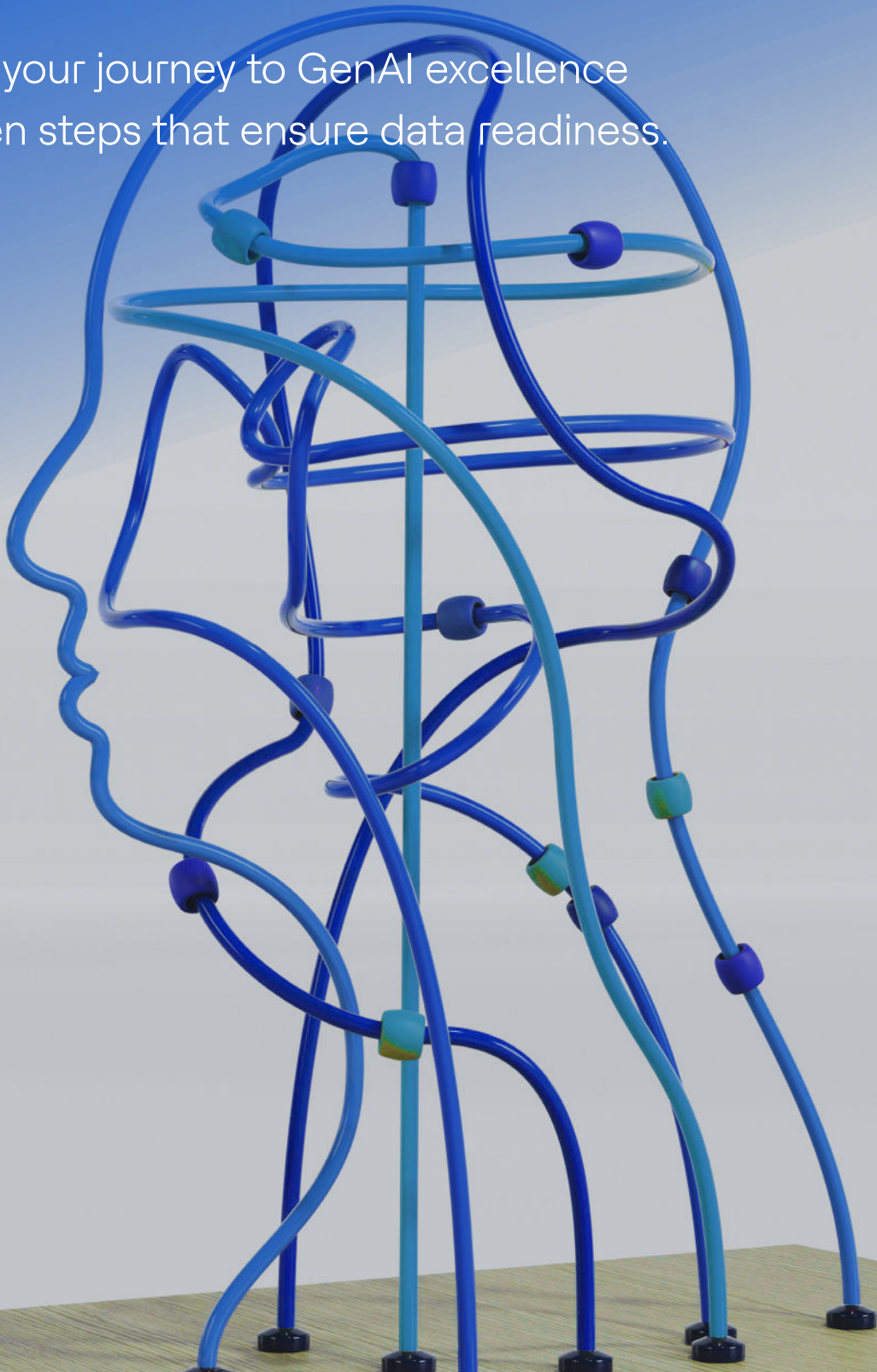
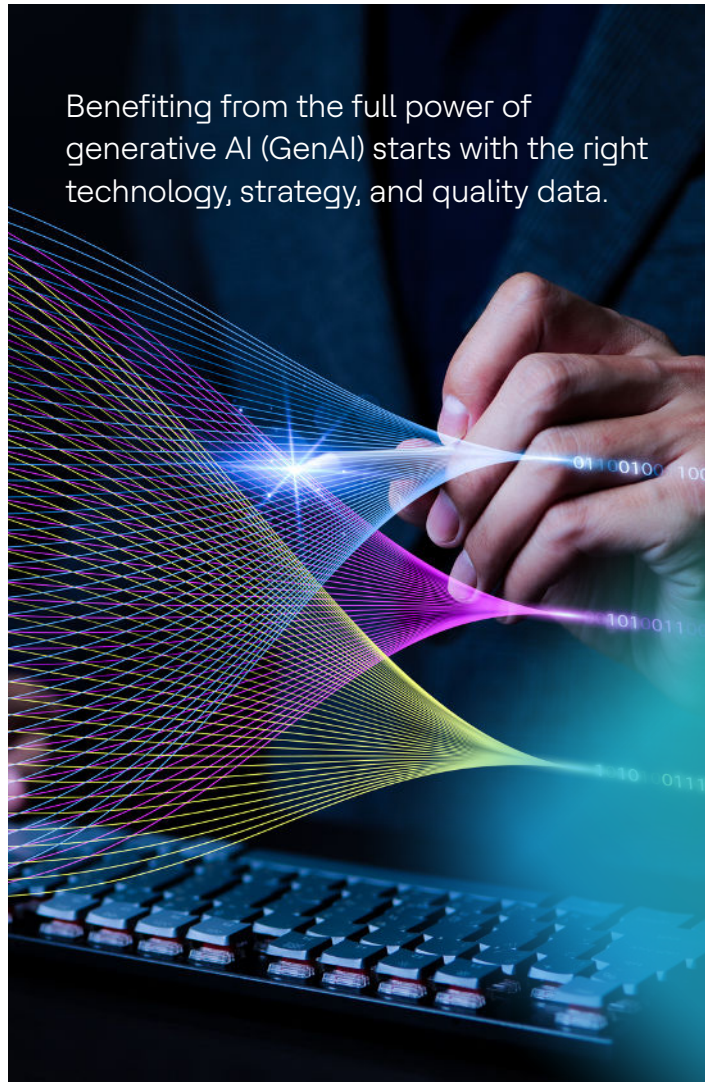


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Quality Data Fuels GenAI

Benefiting from the full power of generative AI (GenAI) starts with the right technology, strategy, and quality data. Accurate, trusted data enables GenAI to drive faster innovation, smoother operations, and ongoing competitive advantage. However, using flawed data for GenAI introduces serious risks, including operational inefficiencies, missed opportunities, and potential business failures.

Real-world examples highlight the dangers—a law firm used GenAI to submit court filings that had fabricated references, an airline faced legal trouble over bad chatbot advice, and AI recruiting tools showed bias. In another instance, a real estate company misused AI to predict home prices, leading to layoffs of 25% of its workforce and more than \$300 million in an inventory write-down in just one quarter.

The repercussions of deploying GenAI without ensuring data quality are undeniable—ranging from potential lawsuits and compliance violations to reputational harm and customer dissatisfaction. Poor data can also cause projects to be discontinued before they deliver value.

At least 30% of GenAI projects will be abandoned after proof of concept by the end of 2025, due to poor data quality, inadequate risk controls, escalating costs, or unclear business value, according to Gartner¹.

So, is your data ready for GenAI? Many executives believe it is. Actian's research, based on a survey of 550 professionals, found that:

- **87%** acknowledge the importance of data prep for successful GenAI outcomes
- **79%** rate their data quality and cleanliness above average or outstanding
- **78%** feel confident about their data preparation
- **74%** have high confidence in their data governance
- **73%** believe their data management and staffing are sufficient



Get the GenAI Checklist

Racing to capture the transformative power of GenAI brings a critical challenge—ensuring your data is of the highest quality and truly ready for usage. Get the essential steps to prepare your data for GenAI by downloading our comprehensive checklist at [Actian.com](https://actian.com).

The confidence business leaders report is in stark contrast to what data leaders say. According to Gartner "We Shape AI, AI Shapes Us: 2023 IT Symposium/Xpo Keynote Insights," your data is probably not AI-ready. In the 2023 Gartner² IT Symposium Research Super Focus Group, only 4% of respondents said their data is AI-ready. While 37% said they are well-positioned to have AI-ready data, 55% tell Gartner² it will be difficult². This disparity between data leaders and executives underscores the critical need to reassess your data's readiness and understand the steps required for success. This eBook will guide you through that journey.

¹ Gartner, Press Release, Gartner Predicts 30% of Generative AI Projects Will Be Abandoned After Proof of Concept By End of 2025, July 29, 2024. <https://www.gartner.com/en/newsroom/press-releases/2024-07-29-gartner-predicts-30-percent-of-generative-ai-projects-will-be-abandoned-after-proof-of-concept-by-end-of-2025>

² Gartner, We Shape AI, AI Shapes Us: 2023 IT Symposium/Xpo Keynote Insights, By Mary Mesaglio, Don Scheibenreif, Hung LeHong, Rita Sallam, 16 October 2023

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Solving the GenAI Dilemma: 7 Steps to Pave the Way for Data Readiness

GenAI use cases range from simple tasks for non-technical users, like generating FAQs from documents or creating support tickets, to more complex applications. These advanced use cases can involve everything from managing sensitive data and automating workflows to informing real-time business strategies.

While business leaders increasingly recognize the promise of GenAI, the pitfalls that can derail even the best intentions are less understood. Many organizations are prioritizing the deployment of GenAI for mission-critical use cases, yet they may not be as prepared as they think. Insufficient data preparation is setting up many organizations for costly and time-consuming setbacks.

Here are seven critical steps to mitigate problems and drive ongoing success:

1. Ensure data quality and cleanliness

Trusted, accurate, and quality data is a must for GenAI. For instance, in retail, inaccurate or duplicate sales data, or product data that's incomplete or riddled with errors, can lead to flawed demand forecasts. This in turn results in stock imbalances—shortages or overstocking. With properly cleansed and integrated data, GenAI can provide accurate predictions to optimize inventory and enhance customer satisfaction.

Poor data quality—even uncertainty about data quality—manifests itself in flawed decision-making and missed opportunities due to inaccurate GenAI outputs. Incomplete, outdated, or inaccurate data undermines GenAI's effectiveness, making accurate predictions and insights difficult to achieve.

In any industry, the accuracy and reliability of GenAI hinges on the quality of the data fed into the model. Ensuring you have clean, well-prepared data allows GenAI to identify patterns and deliver precise, actionable insights that can drive smarter decision-making and innovation. Investing in data quality is essential for achieving the full potential of GenAI to transform business operations and create a competitive edge.



2. Provide data governance and lineage

This is especially critical in highly regulated industries. In the financial sector, for example, a bank leveraging GenAI for risk analysis must ensure data compliance with regulatory standards. Strong governance and data lineage mitigate the risks of governance gaps, ensuring trustworthy insights while meeting compliance requirements.

Compliance concerns and regulatory challenges, from data privacy laws to industry-specific regulations, complicate GenAI implementations and threaten to derail progress. Navigating these complex rules is essential to avoid the risks of biased outputs, privacy violations, and non-compliance penalties.

Having a strategy for data governance and lineage is foundational to ensuring data integrity, security, and compliance. Governance frameworks set clear policies for data management, while data lineage tracks the origin and transformations of data throughout its lifecycle, offering transparency and traceability. This visibility is crucial for maintaining trust in GenAI outputs.

3. Address shifting data sets

Data is never static, and you must account for changes in data and changes in business requirements. In healthcare, for example, if patient data is updated to reflect new treatments, the GenAI model must evolve accordingly. Managing shifting data sets ensures your models remain accurate and productive, addressing the problem of outdated or irrelevant insights. Planning for the data quality lifecycle and building flexibility into your processes are essential to adapting to change and ensuring long-term success.

A lack of a clear data management strategy that addresses changing data sets puts your outcomes at risk. Without a strong, well-defined data management framework, inconsistent data quality can undermine insights, reduce the effectiveness of GenAI models, and expose your organization to risk.

It's important to plan for data that's constantly evolving—whether due to changing customer behaviors, market trends, or operational shifts. GenAI models need to be adaptable to these dynamic changes to deliver relevant insights. Managing these changes helps ensure trusted, relevant outputs.

4. Map data sources to build trust in data

Many organizations face the problem of the same customer or vendor having multiple and fragmented data entries, which prevents a complete and accurate 360-degree view. For example, inconsistent entries for the same customer—such as "J. Smith" versus "John A. Smith" or "Jonathan Smith"—can skew personalization efforts and create redundant marketing communications.

Disparate formats, structures, and naming conventions can lead to inconsistencies and data silos, limiting GenAI's potential. That's because isolated data pools restrict access to the diverse datasets essential for training robust models. Siloed data can also lead to inconsistent outputs, undermining confidence in the results.

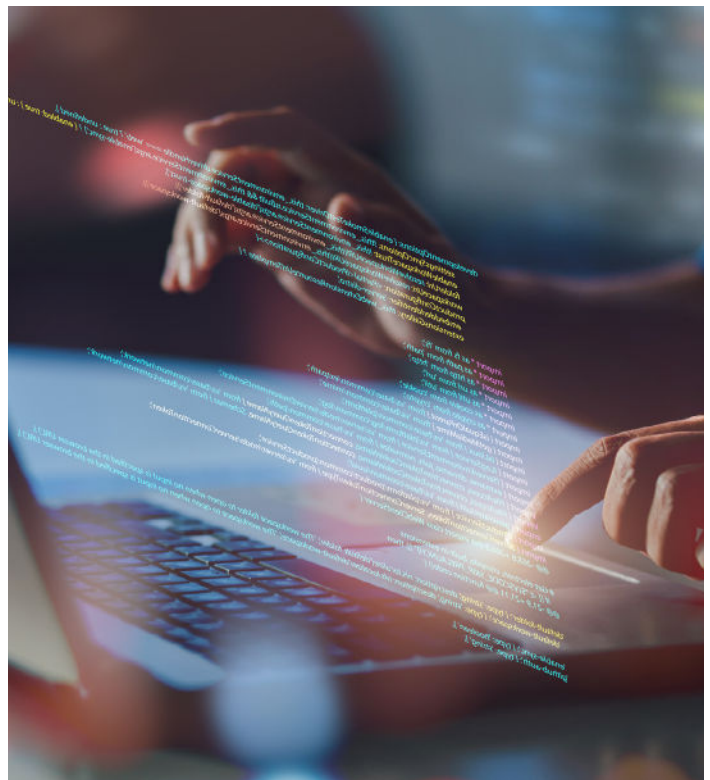
Proper data mapping helps ensure consistency and completeness. Mapping and standardizing entries across systems eliminates redundancies, prevents discrepancies, and enables GenAI to access a clean, unified dataset. This creates a reliable foundation for accurate insights and decisions based on a comprehensive view of customers and vendors, allowing GenAI to operate on a single, accurate source of truth.

5. Integrate data from all sources

Once data sources are mapped, integrating them across systems becomes critical for success. In manufacturing, for instance, data is often collected from various sources such as production machines, supply chain systems, and inventory management platforms. If these data sources remain siloed, it becomes difficult to gain a comprehensive view of the manufacturing process. This can result in miscalculating supply needs, leading to production delays or excessive inventory.

Data silos arise when different systems store data in separate formats or structures, preventing seamless communication and integration. GenAI's potential is significantly limited when it doesn't have access to a complete and unified dataset.

Integrating data sources connects silos from across the organization, which allows for deeper, more contextual and trusted insights. With comprehensive integration, GenAI can operate on a single, unified source of truth. This empowers the model to generate accurate, unbiased outputs and unlock valuable insights, leading to better decision-making and enhanced operational efficiency.



6. Use accurate data to train models.

The quality of your data directly impacts your model's ability to learn and predict accurately. Training GenAI on faulty or incomplete data can lead to unreliable outputs. For instance, sales data with incorrect attributions or inflated transaction amounts can distort GenAI-generated sales forecasts and customer behavior predictions.

Model training typically requires a modern infrastructure capable of delivering the computing power needed to process the massive data sets used for GenAI. Legacy systems often lack the scalability and capability needed to keep pace with data volumes, complex algorithms, and data integrations.

A modern data platform that uses clean, accurate data is critical to ensure your models learn and deliver precise insights. Continuously monitoring GenAI outputs and refining algorithms as your business evolves helps ensure that GenAI remains a trustworthy and effective tool that drives confident decision-making.

7. Offer training to shorten the learning curve

It's essential to have a human who understands data and can assess whether the answers provided by GenAI are accurate or need adjustment. For example, a marketing team using GenAI to generate campaign insights will benefit from having a seasoned marketer who can assess whether GenAI's suggestions align with historical trends. This human oversight not only enhances productivity but also reduces the risk of errors in GenAI-driven processes.

Failing to train employees on how to effectively use GenAI can lead to significant productivity losses and inefficiencies. Without proper understanding, employees may struggle to validate the accuracy of AI-generated insights, leading to potential errors and incorrect assumptions.

By contrast, empowering your teams with the skills to understand and evaluate GenAI outputs is crucial. Training employees ensures they can interpret GenAI-driven insights and maintain a critical eye on the results.

While these obstacles may seem insurmountable, the right strategy can transform them into opportunities for growth. By addressing these challenges, you can release the full power of GenAI and drive continuous innovation.

The Rewards of GenAI Excellence

The benefits of achieving GenAI excellence aren't just theoretical—they're tangible, measurable, and transformative. Organizations that have successfully implemented GenAI are experiencing:

- **Improved efficiency.** Automating complex tasks and streamlining workflows allows teams to focus on higher-value, strategic initiatives.
- **Cost savings.** Reducing operational expenses by ensuring data is clean, complete, and ready for GenAI deployment.
- **Innovation boost.** Unlocking new product ideas and service improvements to stay ahead of market trends.
- **Competitive advantage.** Gaining an edge over competitors by making faster, data-driven decisions that resonate with customers.

5 Transformative Benefits with Actian

The power of Actian data products and expertise can help you unlock the benefits of GenAI faster. Actian delivers:

- 1. Fast time-to-insights.** Actian accelerates your journey from raw data to actionable insights, helping you reach those “aha!” moments faster than ever. Make informed decisions with confidence at the speed of thought, cutting through data complexity with ease.
- 2. Cost reduction.** In today’s business climate, every dollar matters. Actian streamlines your data processes, eliminating inefficiencies and reducing operational costs, so you can reinvest savings into advancing your GenAI initiatives and maximizing ROI.
- 3. Regulatory compliance.** Confidently navigate the intricate landscape of data regulations. Actian ensures you stay compliant, safeguarding your organization from the risks associated with unintended GenAI outcomes and regulatory violations.
- 4. Data quality improvements.** No more “garbage in, garbage out.” Actian elevates your data quality, ensuring your GenAI models are built on accurate, clean data. This leads to more precise and trustworthy outputs.
- 5. GenAI model performance enhancements.** Supercharge your GenAI models with high-quality, well-prepared data. Actian optimizes model performance, making them more accurate, efficient, and capable of handling complex tasks seamlessly.

Move into the GenAI Era With Confidence

Imagine standing on the threshold of a new era where your data not only informs decisions but actively shapes the future of your business. This isn’t a distant vision—it’s a reality within reach for organizations ready to embrace GenAI excellence.

With trusted, high-quality data, you can confidently embark on your GenAI journey. A modern, unified data platform, like the Actian Data Platform, accelerates this process by seamlessly integrating data from disparate sources, creating a single, comprehensive knowledge base to power your GenAI models.

The Actian Data Platform also excels in data cleansing, transforming raw data into pristine, ready-to-use datasets. By ensuring GenAI models are trained on the highest-quality inputs, the platform helps deliver real-time insights tailored to your unique business needs. What once seemed impossible—producing detailed, accurate insights from sophisticated datasets—becomes an achievable reality.

As you embark on your GenAI initiatives, remember that success doesn’t necessarily go to the first adopters but to those who get it right. Proper data preparation and governance provide the foundation for ensuring the reliable, trustworthy outcomes your business needs to thrive.

About Actian

Actian makes data easy. We deliver cloud, hybrid cloud, and on-premises data solutions that simplify how people connect, manage, and analyze data. We transform business by enabling customers to make confident, data-driven decisions that accelerate their organization’s growth. Our data platform integrates seamlessly, performs reliably, and delivers at industry-leading speeds. Learn more about Actian, a division of HCLSoftware: www.actian.com.