



# The Rise Of Enterprise Intelligence



John Ottman,  
Executive Chairman, Solix Technologies, Inc.



## **Everyone remembers the first time they experienced generative AI :**

According to OpenAI, ChatGPT grew to 1 million users in just 5 days after launch in November, 2022 breaking the Internet record. What a spectacular technology solution to improve lives and gain productivity.

But while generative AI is a game changer for just about anyone, what about gen AI for work? How do knowledge workers and employees use generative AI to blow through productivity goals, and solve problems better, faster and cheaper?

A race is now on to enable powerful generative AI solutions for the enterprise. The goal is enterprise intelligence which is achieved when generative AI applications are available to all employees to help them improve their job performance.

How much productivity gain is possible from enterprise intelligence? One example is code generation. SQL and Python code generation is such a powerful solution that Goldman Sachs has deployed generative AI developer solutions for all of its 12,000 programmers. CIO Marco Argenti reports, "We see easily 20% efficiency gained."

Retrieval-augmented generation (RAG) is another breakthrough generative AI solution. RAG solutions use large language models (LLMs) trained with your enterprise data to provide business accurate LLM responses. Imagine the total productivity impact of every employee being equipped with generative AI tools to do their job better. Write any document about anything using data and context from your business. Assist the medical prescription process. Draft a legal brief. Predict business outcomes, and add a bar chart in seconds, search databases while you wait for just what you need to know. Solve customer problems faster with chatbots. The list of generative AI opportunities in the enterprise is endless.

But two years after the launch of ChatGPT few companies have made substantial progress introducing generative AI solutions to the enterprise. Why? Because so few companies have the infrastructure in place or the skills needed to power a production enterprise AI program.

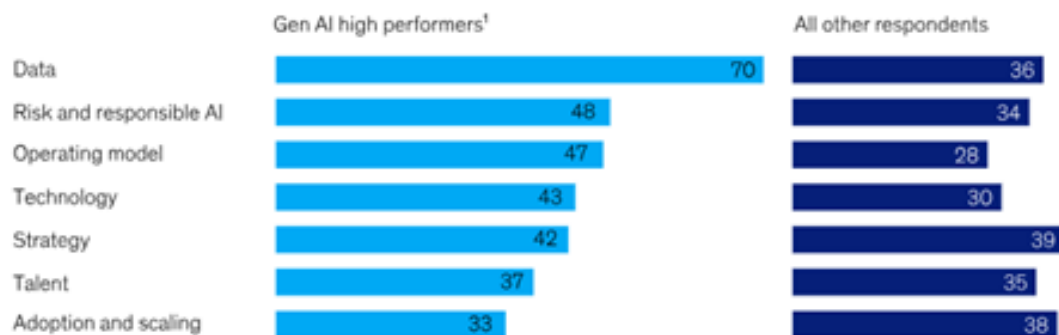
The challenge is how to safely and securely train AI models with enterprise data. Sensitive, personally identifiable information (PII) such as healthcare, credit card and other legally protected classifications

of data is located everywhere, and stored across the organization in vast data silos. Not only is enterprise data difficult to track, the sheer volume of data continues to grow exponentially. Compliance reporting is another challenge as new AI safety and security laws are already being issued. For many organizations security, risk and compliance challenges have forced enterprise intelligence to wait until AI safety and security can be assured.

The challenges facing enterprise AI implementations are so significant that Gartner has predicted a 30% project failure rate, and a recent McKinsey survey explains why. McKinsey found that seventy percent of organizations with gen AI experience reported that data posed the greatest challenge to achieving value especially regarding risk management and responsible AI. In fact, the problem may be even worse. Data governance concerns over pipelining enterprise data into 'black box' LLM solutions have forced many Fortune 1000 firms to ban their use entirely over fears of data breach.

## Generative AI high performers report experiencing a range of challenges in capturing value from the technology.

### Elements that have posed challenges in capturing value from generative AI (gen AI), % of respondents



Note: Figures do not sum to 100%, because respondents could choose multiple answer options.  
<sup>1</sup> Respondents who said that at least 11% of their organizations' EBIT in 2023 was attributable to their use of generative AI. For respondents at AI high performers, n = 46; for all other respondents, n = 830. Respondents who said "don't know/not applicable" are not shown.  
 Source: McKinsey Global Survey on AI, 1,353 participants at all levels of the organization, Feb 22–Mar 5, 2024

McKinsey & Company

Yet, despite all these challenges, the rise of enterprise intelligence marches on. Data fabrics are one emerging strategy to support the compound requirements of enterprise AI. The journey for AI data starts at data collection and a retention plan spanning a period of years. Whether the source of data is an IOT device or an IBM mainframe, once collected the data must first be classified, and then featurized or otherwise prepared for use before it can be pipelined to a downstream data warehouse or AI application. Datasets often undergo multi-modal transformations possibly from files and tables in one format to index vectors in another as they transit complex data fabrics, but still data governance and compliance controls must be maintained end-to-end throughout the data lifecycle.

Enterprise architects are looking to common data platforms as the infrastructure foundation for enterprise AI data fabrics. Common data platforms are cloud native software architectures that support best-of-breed, open source components based on [W3C](#) standards. This open systems approach enables broad integration without vendor lock-in. Common data platforms are the backbone of AI data fabrics, and they deliver the essential services for data collection, metadata management, data governance and data discovery.

Cloud data management applications organize historical data into archives and current data into data lakes not only to optimize infrastructure, but also to properly stage the data for enterprise

AI. Using third generation data platforms supporting Parquet files, ACID transactions and open table formats such as Hudi, Delta and Iceberg, organizations are now able to leverage rich metadata and deploy strong data governance controls.



High performance data pipelines which prepare data for use with generative AI must not only ingest, classify and prepare data at scale, real-time incremental updates are needed to ensure data is fresh, updated and the highest quality. Powerful in-memory processing solutions like Apache Spark are critical to support the data preparation, data transformation and featurization processes that make enterprise data fit-for-use by AI applications.

Clearly, generative AI is here to stay, but enterprise data infrastructures have a lot of catching up to do before enterprise AI becomes ubiquitous. Without a robust data fabric, third generation data platforms, powerful data pipelines and advanced data governance frameworks, high project failure rates may indeed be likely. The rise of enterprise intelligence requires cloud data management, and

new infrastructure solutions that deliver AI safety and security. Not surprisingly, Gartner more recently issued a new research paper which ranked "Technology platforms for governing AI" as #2 on their list of Top 10 Strategic Technology Trends For 2025.

**Footnotes:**

1. AI at Goldman Sachs and the Enterprise,  
<https://youtu.be/fGQv9yFd6JQ?si=gnWZwj2IK6I5tGcX>
2. Gartner Warns 30% of GenAI Initiatives Will Be Abandoned ...  
<https://www.datanami.com/2024/08/05/gartner-warns-30-of-genai-initiatives-may-be-abandoned-by-2025/>
3. The state of AI in early 2024,  
<https://www.mckinsey.com/capabilities/quantumblack/our-insights/the-state-of-ai>
4. Gartner Top Ten Strategic Technology Trends for 2025  
<https://www.techrepublic.com/article/gartner-10-tech-trends-2024/>

**Solix Technologies, Inc.**

4701 Patrick Henry Dr, Bldg 20  
Santa Clara, CA 95054

Toll Free: +1.888.GO.SOLIX (+1.888.467.6549)  
Telephone: +1.408.654.6400  
Fax: +1.408.562.0048  
URL: <http://www.solix.com>

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