3 steps to creating enterprise value with generative AI

Discover how your organization can deliver trusted AI innovation at scale

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Introduction

Generative artificial intelligence (AI) represents a game-changing opportunity for businesses: It could add more than $4 trillion to the global economy—or even double that amount, if the impact of embedding generative AI into software is included.[1]

Businesses can harness this opportunity by moving AI initiatives from proofs of concept (POCs) to production faster and more cost-effectively. To accomplish this, they must integrate generative AI into decision-making processes and establish a trusted AI ecosystem. As a result, business insights become accurate and actionable, and the process of developing those insights can deliver value right now—and in the future.

In this ebook, you'll discover three critical steps for creating value with generative AI.

3 steps to create generative AI value:

1. Understand high-value AI use cases
2. Identify solutions to activate AI at scale
3. Build governance for trusted AI

Understand high-value AI use cases

With the rise of generative AI, businesses must be ready for a new AI-driven decade. Enterprises will uncover wholly new frontiers of creativity, productivity, and innovation. While generative AI will create many opportunities, there are three emerging high-value use cases business leaders are seeing right now.

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3 use cases driving enterprise AI value

Faster product innovation
Technology teams can use generative AI to automatically create code to augment development efforts. With these productivity gains, businesses could see reductions in operational expenses of up to 45%.[1] Even more, they could deliver innovative software, data products, and other offerings that drive business value faster.

It's estimated that 40% of the workday across all industries can be impacted by large language models (LLMs), with varying impacts from 9% to 63% on the major job categories.[2] With so many potential use cases of generative AI, it will be critical to prioritize them based on bottom-line business impact, including investment resources (cost, time, technology) and the return on investment (financial benefit, sustainability, adaptability, compliance, governance).

Improved business performance through democratized insights
Knowledge workers spend 20% of their time searching for and gathering information.[1] With generative AI, they can instantly sift through mountains of data and draw insights to make better decisions by asking questions in plain human language without the need to code.

Hyper-contextualized customer experiences
Generative AI revolutionizes enterprise and Customer 360 analytics, as well as recommendation engines. By deepening the understanding of customer needs and expectations, businesses can respond with more authentic and relevant interactions to vastly improve customer engagement and loyalty.

40%

of the workday across all industries can be impacted by LLMs[2]

Identify solutions to maximize AI at scale

Generative AI use cases will add trillions to the global economy. But there could also be hundreds of millions—if not billions—of investment dollars wasted if key challenges aren't addressed. To unlock this value and minimize risk, businesses must first become more effective at moving AI initiatives from POCs into production.

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80% of all project time is spent on preparing data, instead of creating value

To position themselves to realize massive enterprise value from generative AI use cases, businesses should work with a cloud analytics and data platform that offers a flexible, open, and connected architecture; scalability and trusted governance; and a track record of success.

With the right platform and AI solutions in place, companies can overcome the challenges of activating AI at scale and accelerate AI value.

Consider focusing solutions efforts on these key areas of opportunity.

Manage uncontrolled data growth and modernize the technology environment

AI requires high-quality data, and lots of it. But as enterprises continually layer their tech stacks, they accumulate massive tech debt and unmanaged and uncontrolled data growth. Enterprises now spend millions of dollars to move and replicate data across numerous pipelines and silos on legacy systems.

The result? 80% of all project time is spent on preparing data, instead of creating value from AI projects.

Therefore, choosing the right cloud analytics and data platform for AI will help enterprises integrate and harmonize data at every level of the organization.

Such platforms of choice must provide enterprises with:

- Unsurpassed workload efficiency with the best cloud-native capabilities at the lowest total cost of ownership (TCO)
- Faster data preparation and seamless access to distributed data

Deliver flexibility with an open and connected ecosystem

Generative AI for humanlike language interaction is trained on LLMs with growing parameters requiring expensive graphics processing unit (GPU) resources. For example, estimates put Chat GPT-4 at a trillion parameters, which cost $100 million to develop.

Whether enterprises use public or custom LLMs, they need flexibility to use preferred model training tools and technologies. With a powerful AI engine and open, connected ecosystem, enterprises can:

- Train models using best-in-class services, including GPU-based model training, from industry-proven leaders, such as Amazon SageMaker, Azure Machine Learning, and Google Vertex AI
- Securely bring their data and own models into the cloud analytics and data platform for AI with no intellectual property (IP) leakage
- Choose from a variety of open-source or partner AI/ML tools

Scaling AI innovation across the enterprise

Integrate AI into processes throughout the enterprise to maximize business value. Consider these details as you prepare.

Build bench strength

Many AI projects never make it into production, and the ones that do require extensive time and resources. Businesses are challenged to make sure they have the right technology and resources to both operationalize AI and cost-effectively scale.

Practice vigilance

As AI is deployed across the enterprise, there is greater risk of losing control and oversight of IP. Enterprises need to ensure that they deliver accountability, security, and trust.

Employ tools with key capabilities

Scalability to run millions of models with massive parallel processing (MPP) architecture and related queries at minimal cost

- Reusable enterprise feature store
- Robust governance features that deliver transparency, traceability, and compliance
- The ability to operationalize AI at scale

Build governance for trusted AI

Operationalizing AI, especially emerging generative AI and LLMs, has an added complication: ensuring one can trust the analytics and AI to deliver ethical outcomes and stay compliant with strong model governance over time. This is a high but required bar for putting any AI model into production, and it can be referred to as trusted AI.

Trusted AI is a comprehensive approach to practicing ethical AI while striving for accountability, compliance, and good stewardship to positively impact customers and empower organizations.

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Practicing ethical AI

People must be committed to using AI ethically—from actively avoiding or removing bias to being transparent about how AI makes decisions. In this context, the AI-driven enterprise is actually the "human-driven enterprise" because no matter how advanced the technology is, if it is not focused on improving people's experiences and quality of life, it will not perform as needed, be ethical, or be trusted.

Adding generative AI into the conversation about using AI responsibly uncovers some process and technology considerations. One of the most interesting is IP in the age of generative AI.

While it would be an obvious mistake to train a public model with confidential information, there are other aspects of IP to keep in mind as well. For instance, any prompt a user writes to a generative AI model, as well as the predictive model a company uses or the data running against it, could pose an IP risk to enterprises.

IP considerations drive the demand for customized LLMs, as using a public or shared model comes with risk.

Trusted AI, as a technology, is only as trusted as the people using it and the processes in place before, during, and after deploying AI in production.

Accelerating value in the new AI-driven era

As generative AI continues to permeate society, the way that people create and consume information will be transformed. Businesses can capitalize on new opportunities to democratize insights, hyper-contextualize customer experiences, and drive faster product innovation in order to generate more value.

Empower your enterprise to make generative AI breakthroughs—to unlock massive value and redefine how people create, innovate, and thrive.

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About Teradata

At Teradata, we believe that people thrive when empowered with better information. That's why we built the most complete cloud analytics and data platform for AI.

By delivering harmonized data, trusted AI, and faster innovation, we uplift and empower our customers—and our customers' customers—to make better, more confident decisions. The world's top companies across every major industry trust Teradata to improve business performance, enrich customer experiences, and fully integrate data across the enterprise.

We drive positive impact for hundreds of millions of people every day around the world with faster, flexible data integration and trusted, cost-effective AI innovation.

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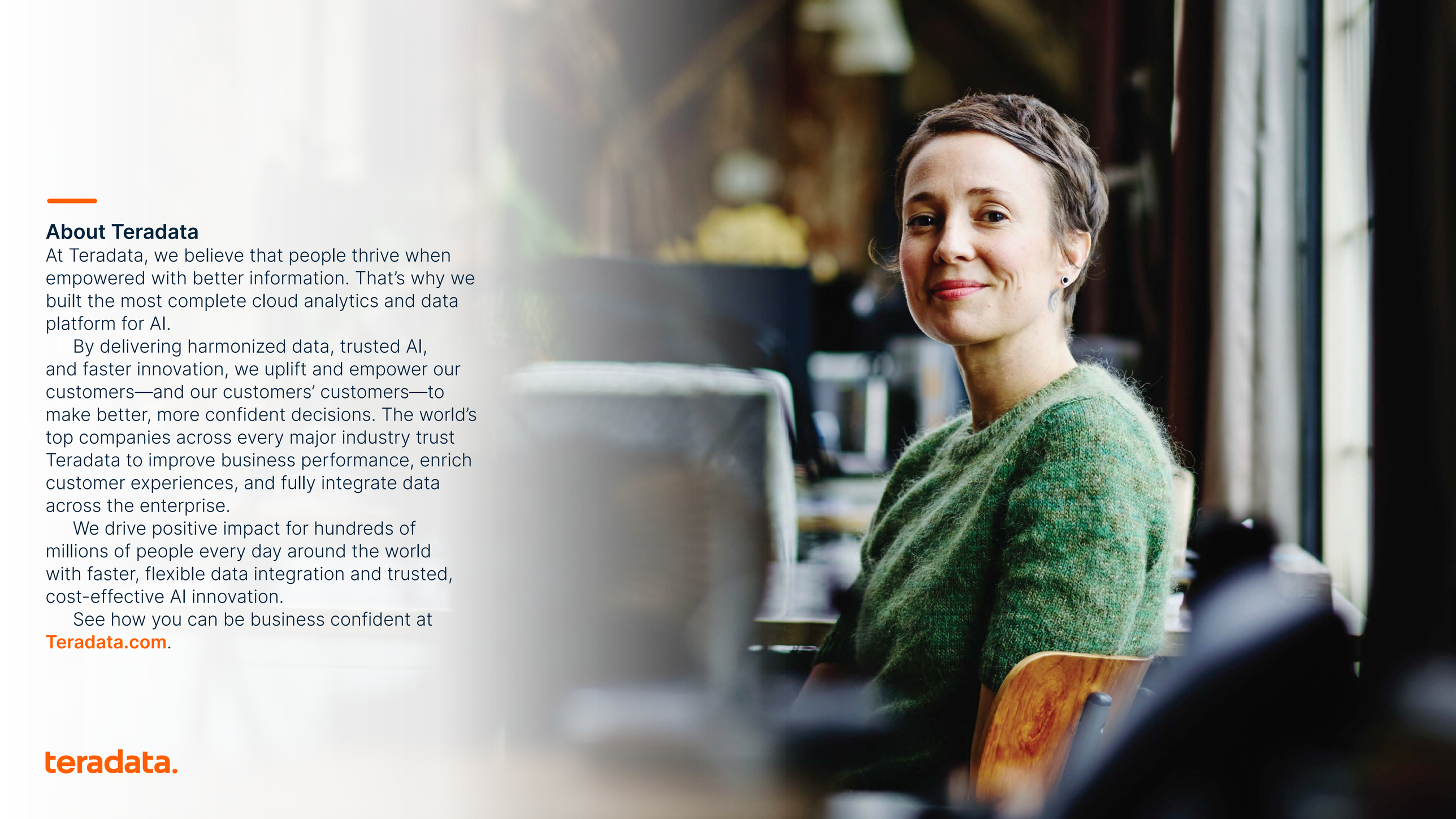

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About the Author

Vedat Akgun, Ph.D., serves as the VP of Data Science & AI in the marketing organization at Teradata. In his role, he uses his depth and breadth of experience in AI to plan, implement, and manage Teradata's overall artificial intelligence marketing strategy in collaboration with other marketing functions and verticals across the company.

Akgun has more than two decades of hands-on practitioner experience in AI, delivering actionable, intuitive, and impactful advanced analytical capabilities in major industries, including finance, telecommunications, supply chain, pricing and revenue management, retail, and transportation and logistics.

Akgun's contributions in AI have been recognized and awarded by the Institute for Operations Research and Management Sciences (INFORMS). Akgun has also taught master-level courses as an adjunct faculty member at Northern Illinois University. He holds a Ph.D. in industrial engineering with a specialization in operations research from the University at Buffalo.

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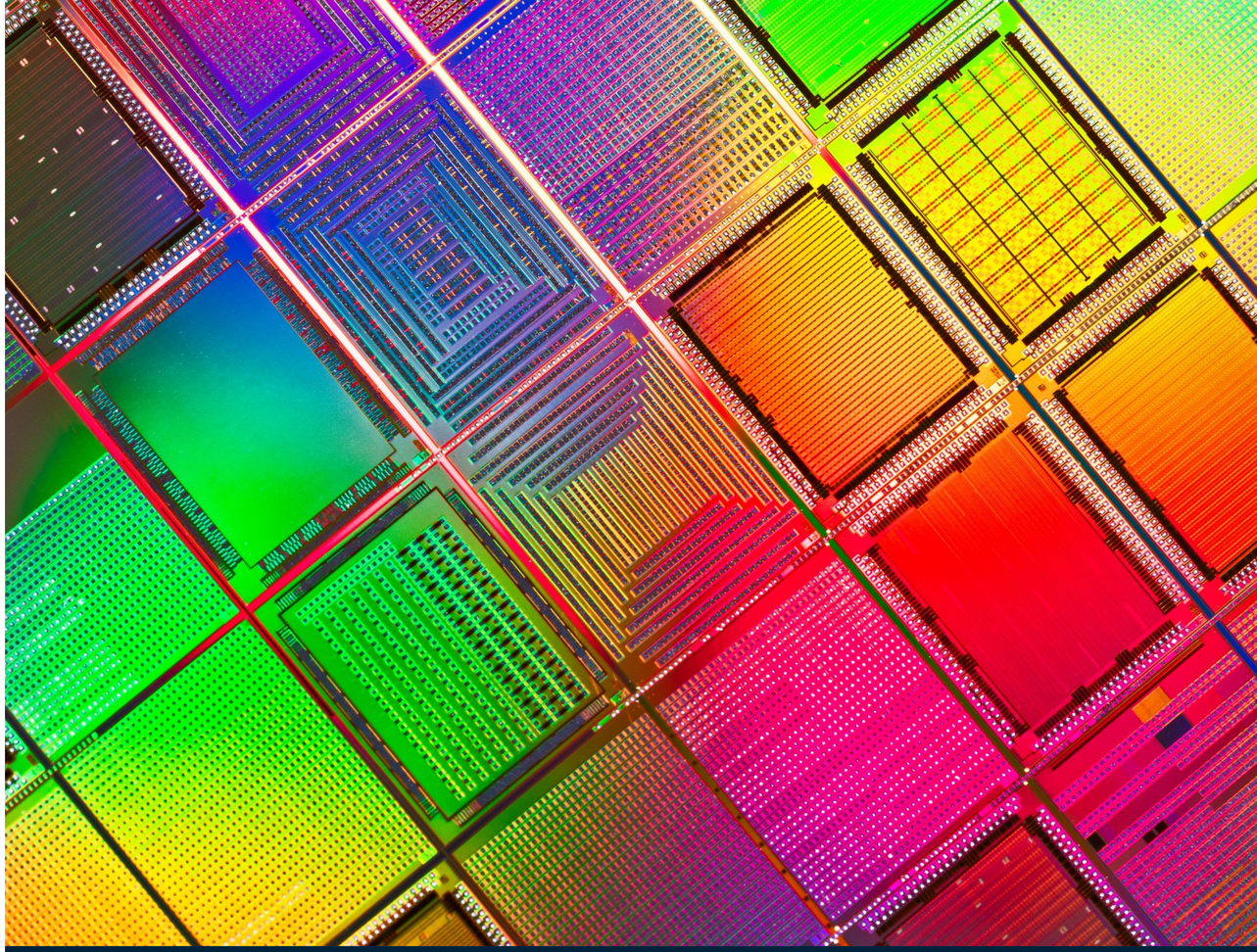

Sources:

1. "The economic potential of generative AI," McKinsey & Company, June 2023.
2. "A new era of generative AI for everyone," Accenture, May 2023.
3. As measured by total revenue or market capitalization at companiesmarketcap.com, July 2023.

Learn more

Find out how you can discover, accelerate, and innovate AI solutions in your enterprise today at **Teradata.com/AI**.

For a free hands-on demo with real-world generative AI use cases, explore the **ClearScape Analytics™ Experience**.

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