

CIO100
Symposium & Awards

Generative AI: Preparing for the Long-Term Impact

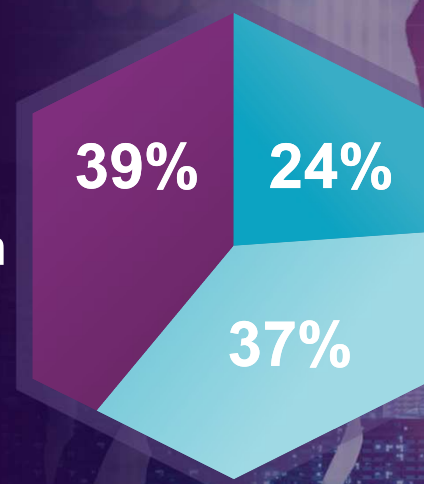
Ritu Jyoti

GVP, AI and Automation Market Research and Advisory
Services, Global AI Research Lead, IDC

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Generative AI is Gaining a Lot of Attention

March



- Significant investment
- Early Exploration
- Doing nothing



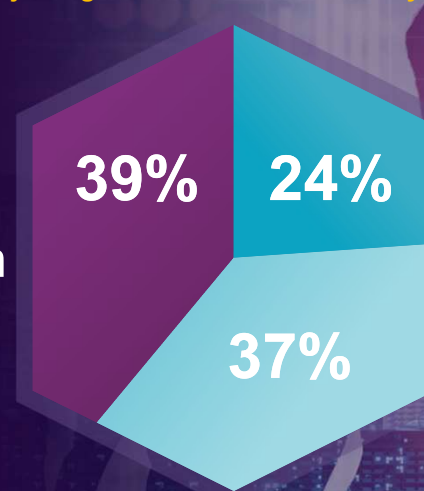
Source: Future Enterprise Resiliency & Spending Survey Wave 5, IDC, July 2023, N=856 and Future Enterprise Resiliency & Spending Survey Wave 2, N=952, IDC, March 2023

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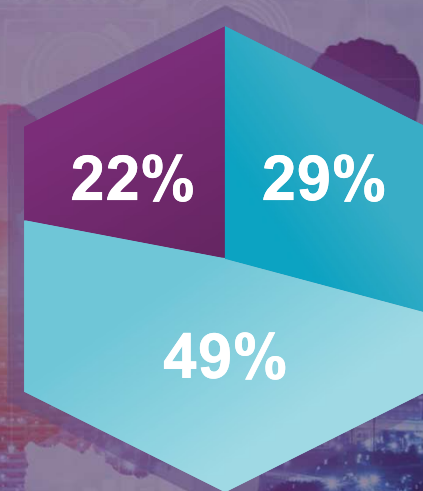
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July



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IDC is projecting that GenAI will add nearly \$10 trillion to Global GDP over the next Ten Years



\$23M

average planned
investment in GenAI
by large enterprises
(>10,000 employees)
over the next year

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Business Transformation

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Generative AI: Top Business Benefits



Expanding Labor Productivity

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Generative AI: Top Business Benefits



Personalizing Customer Experience

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Generative AI: Top Business Benefits



Accelerating R&D

Personalizing Customer
Experience

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Generative AI: Top Business Benefits



Emerging New Business Models

Personalizing Customer Experience

Accelerating R&D

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Generative AI: Top Business Benefits



DO
MORE.

Expanding Labor
Productivity



PERSONALIZATION

SALE

Personalizing Customer
Experience



Accelerating R&D



Emerging New Business
Models

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Case Studies



CarMax drives business value with GPT-3.5 to help make buying a used car “effortless.”

CARmax

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Case Studies



General Motors uses generative AI technology for product development, dev tool chain optimization and driver experience.



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Case Studies



Answering Financial Advisor Questions with the “push” approach of Next Best Action might pair well with the “pull” approach of GPT-based answers to prompts.

Morgan Stanley


Case Studies

Request for Proposals Answer Generator

This application utilizes Generative AI to significantly streamline the manual task of drafting RFP responses by providing an automated first draft for each question. The quality of each response is evaluated using a Predictive AI model, which prioritizes responses requiring additional manual review.

Ask a question [Upload a File](#)

Upload a file

 aud_rfp.csv 114.1KB [Browse Files](#)

*The file must contain a column titled 'Question'; all other columns will be ignored.

☐ Audit answers with DataRobot Documentation

☐ Retry based on audit

☐ Run with boosted retrieval (longer wait time)

[Generate Answers](#)

Successful AI Answers Scored

Sort

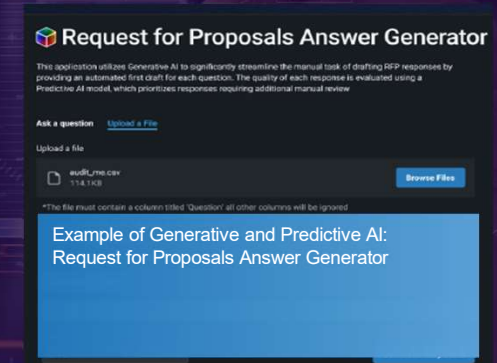
Order [Download Responses](#)

Example of Generative and Predictive AI: Request for Proposals Answer Generator

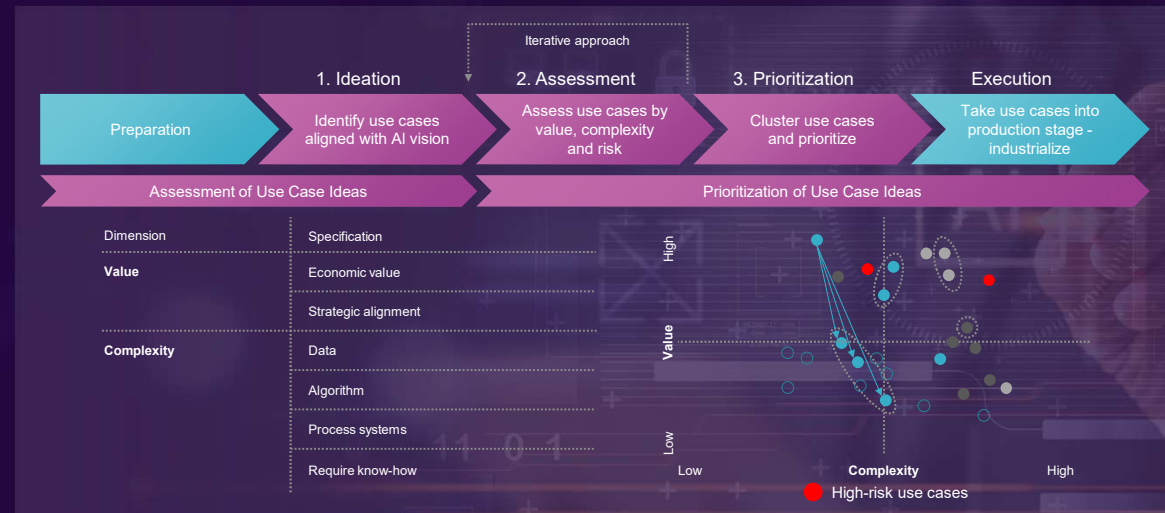
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Case Studies



Process for Defining, Prioritization and Execution of AI Use Cases



**Assemble a Generative AI
Steering Committee for well-
rounded business decisions.**

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2

Organizational Transformation

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Proactive Change Management



01 Centralized cross-functional (LOB and IT) generative AI platform team

- Develop and maintain a **platform service** where approved generative **AI models are provisioned on demand**
- Define **protocols** for generative AI models **integration** and implement standardized approaches to **manage risk**



02 Roles – staff with the right skills

- **Senior technical leader as GM**
- **Technical Team:** Software engineers, Data engineers, Data scientists/ML engineers, Prompt engineers, MLOps engineers
- **Business Team:** AI ethicists, AI risk experts, LoB personas, AI champions



03 Hiring/upskilling for culture of Innovation

- **Adapt academy models** to provide **personalized upskilling**
- Provide **training and corresponding certifications** to technical and non-technical talent
- Ensure every knowledge worker has **AI basic skills**

Responsible AI Governance Committee

The C-suite has critical roles and responsibilities.



Chief Financial Officer

AI cost and financial risk

Chief Marketing Officer

AI for customer and brand charters

Chief Data Officer

The evolution of AI governance charter and data governance

Chief Legal and Compliance/Risk Officer

AI legal and risk factors for the organization

Chief Executive Officer

The AI governance charter and organizational accountability

Chief Human Resources Officer

The creation of AI employee policy and charter

Chief Information Officer/Chief Technology Officer

The evolution of adversarial robustness

Poor AI governance increases the risk of unintended negative consequences but is complicated by endlessly changing regulations.

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CIO/CTO Leadership Priorities



Partners

To mitigate risk to intellectual property, insist that **providers of foundation models maintain transparency.**

Internal Policies and Risk Management

- Proactive mitigation of risks for the **end-to-end software development process.**
- Establish proven **risk-mitigation actions for hallucinations.**
- Set up **data access controls and policy management layer.**
- Establish **rigor for evaluation metrics.**

**Create a conducive
environment for employees
to thrive in an AI era.**

IDC

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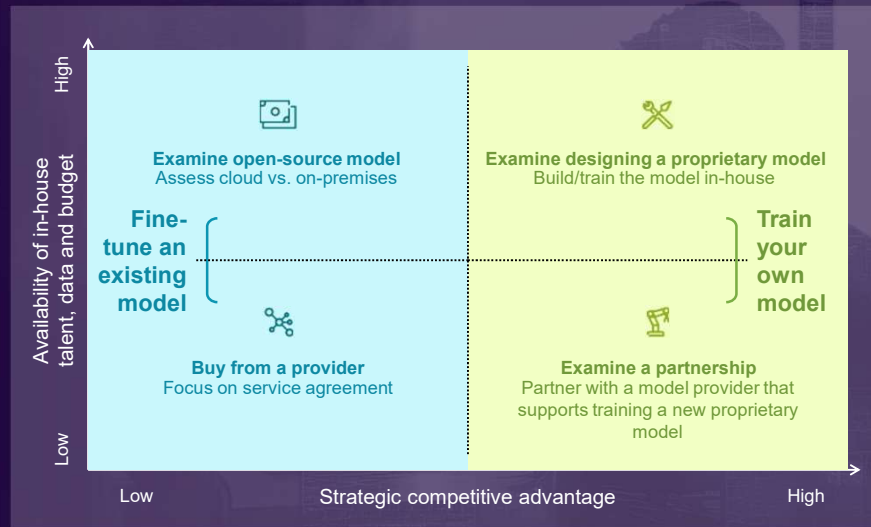
Technology Architecture Transformation



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Build or Buy – Train or Tune Foundation Models Decision for a Use Case



Generative AI: Placing Bets on Competing, Overlapping Providers

Software

Hardware

Professional Services

- **Developer training and assistance**
- Pre-built **industry and use case models** and APIs
- Robust **data security**
- Pre-built **data connectors** **data management** capabilities
- **Customization/** development tools
- Availability of **per user/credits consumption-based pricing**

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Hardware



- AI workload **performance optimized** infrastructure
- Ability to support **hybrid cloud infrastructure**
- **Full AI stack** included (libraries, SDKs, orchestration, AI tools)
- Tight integration with **cloud cost/FinOps** systems
- Availability of **flexible consumption-based pricing** options

Professional Services



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Professional Services



- **ROI models/cost-benefit analysis** to support business case
- Showcase/**Co-develop relevant use cases** for AI
- **Industry insights** and competency
- **Knowledge transfer/training** for our internal team
- Existing **relationship / understanding** of your business

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Generative AI: Reimagine Technology Function



Software
Development

35-45%
faster development
of code

Refactor code,
Code
documentation,
Code
translation,
Testing

Technical
Debt

20-40%
of budget

Determine how
generative AI
capabilities
accelerate
reduction of debt

IT
Operations

25-35%
more productive

Improve
observability
and resolutions

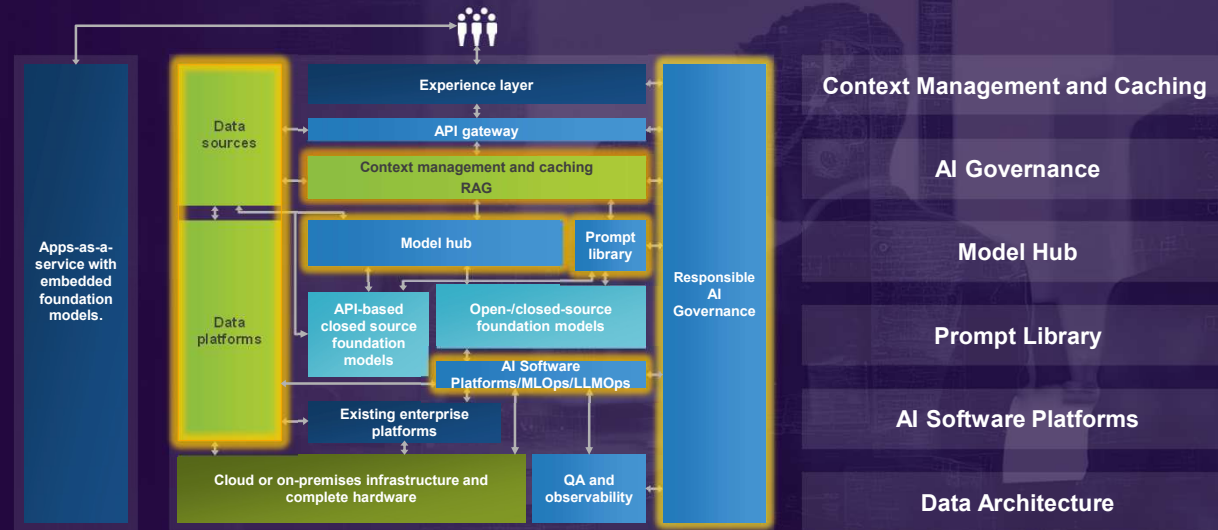
Source: IDC Customer Interviews/Inquiries

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Generative AI: Upgrade Technology Architecture

■ Apps ■ Models ■ Data
■ Tooling ■ Infrastructure



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Reimagine technology
functions and establish
composable architecture.



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Preparing for the Long-Term Impact of Generative AI



1

Business Transformation

Assemble a **Generative AI Steering Committee** for well-rounded business decisions.

2

Organizational Transformation

Create a **conductive environment for employees** to thrive in an AI era.

3

Technology Architecture Transformation

Reimagine technology functions and establish composable architecture.

Start harnessing the power of Generative AI at scale — responsibly and effectively — now.

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**For additional
information**

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