

A person in a dark coat is walking away from the camera down a long, curved, futuristic tunnel. The tunnel is illuminated with a deep blue light, and the walls are composed of vertical panels that create a strong sense of perspective and depth. The ceiling has recessed lighting. The overall atmosphere is high-tech and modern.

AGENTIC AI MEETS AUTOMATION THE PATH TO INTELLIGENT ORCHESTRATION

ROBOYO NEXT
LEVEL
NOW

In the rapidly evolving landscape of automation, one technology is set to redefine how businesses operate: **Agentic AI**.

As organizations seek to push the boundaries of automation and artificial intelligence (AI), understanding how Agentic AI integrates with existing systems—and how it compares to traditional automation models—is crucial.

But what exactly is Agentic AI, how can it transform your business? And most importantly, where should you start?

**THIS
WHITEPAPER
EXPLORES:**

The difference between **Agentic AI** and traditional retrieval-augmented generation (RAG) bots.

Key players in the Agentic AI market.

Real-world use cases in sectors like healthcare and financial services.

Insights into how **Roboyo**, as a leader in the automation space, is positioned within this emerging phase of hyperautomation—and **how your organization can benefit**.





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Sai Vijayendra Madiga is a globally recognized leader in AI, renowned for his expertise in cutting-edge AI technologies and insights. As the head of Roboyo's AI practice, he spearheads the company's strategic AI initiatives. With a master's degree from IIT Madras and a national-level Math Olympiad award, Sai blends advanced technical knowledge with a strong passion for innovation, driving progress in the AI field.

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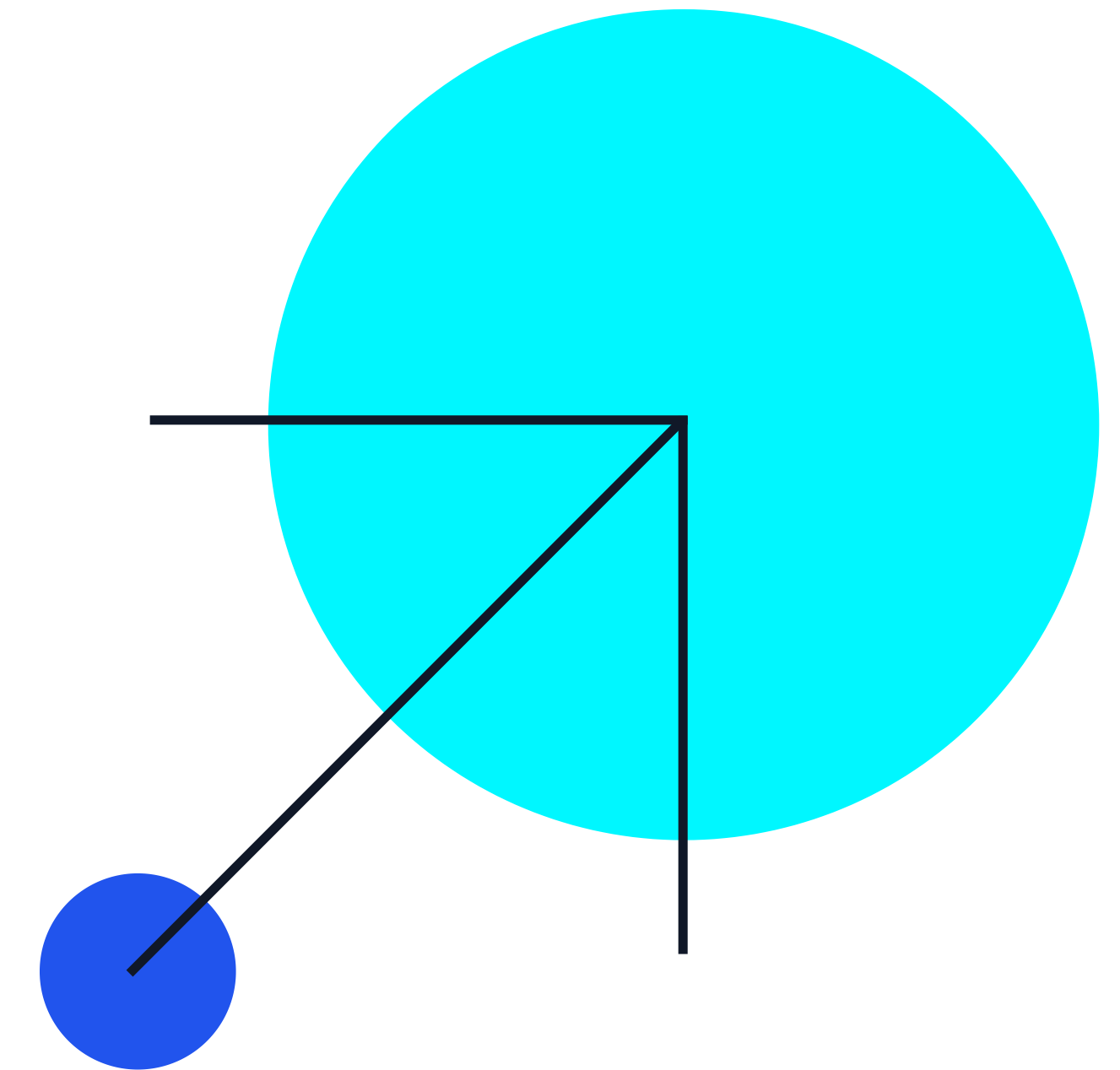
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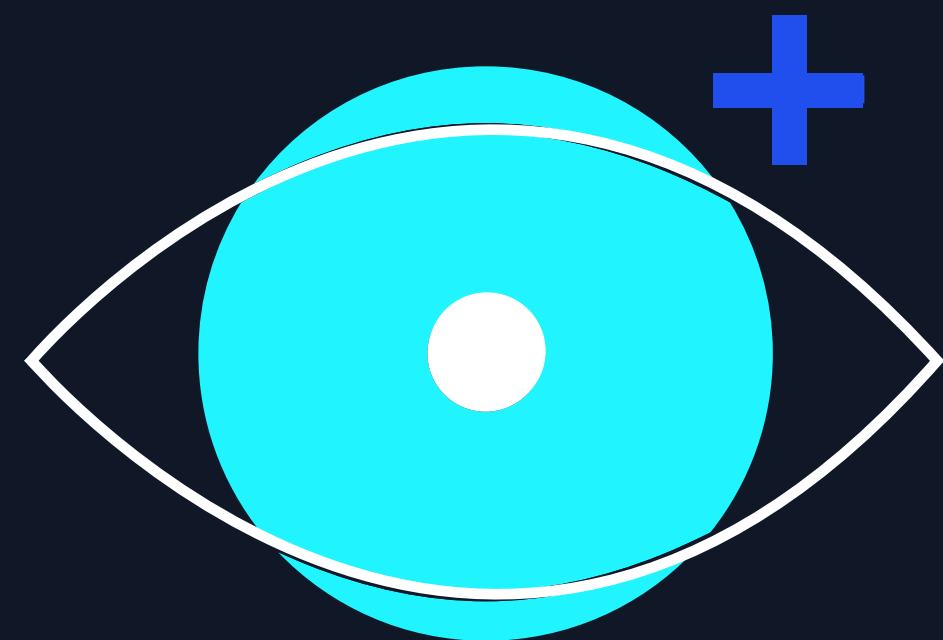
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01

THE AI AGENT AT A GLANCE



DANIEL DINES, CEO of UiPath, describes Agentic AI as a

“fusion of AI, automation, and orchestration; a set of technologies that help us deliver AI autonomously.”

But what does this really mean for organizations looking to optimize their processes?

33%

By 2028, 33% of enterprise software applications will include agentic AI.

GARTNER, 2024

AGENTIC AI: A LAYMAN'S DEFINITION

Agentic AI refers to advanced AI systems that act autonomously to achieve specific goals, much like a skilled human assistant. Unlike traditional AI, which follows pre-programmed rules or responds to direct commands, Agentic AI can think ahead, adapt to changes, and collaborate with other systems or humans to solve complex problems. Imagine a team of digital experts working behind the scenes—tracking data, making decisions, and coordinating tasks without constant oversight.

Agentic AI offers three critical capabilities:

AUTONOMY

These systems can perform tasks without constant human intervention.

ADAPTABILITY

They can adjust their actions based on real-time feedback.

REAL-TIME DECISION-MAKING

They process information quickly, enabling timely responses in dynamic environments.

This combination makes Agentic AI ideal for managing complex, multi-step workflows that require fast, adaptive decision-making. In essence, it is “fully automated automation.” These AI agents can perceive, reason, act, and adapt, making them indispensable for optimizing processes, especially in dynamic settings where change is a constant risk.

02 THE POWER OF FEEDBACK LOOPS

A key feature of Agentic AI is its use of feedback loops, which allow the system to continuously refine itself, leading to faster decision-making, better outcomes, and increased operational efficiency. As these loops work in real-time, AI agents become more effective at navigating complexities and optimizing workflows over time.

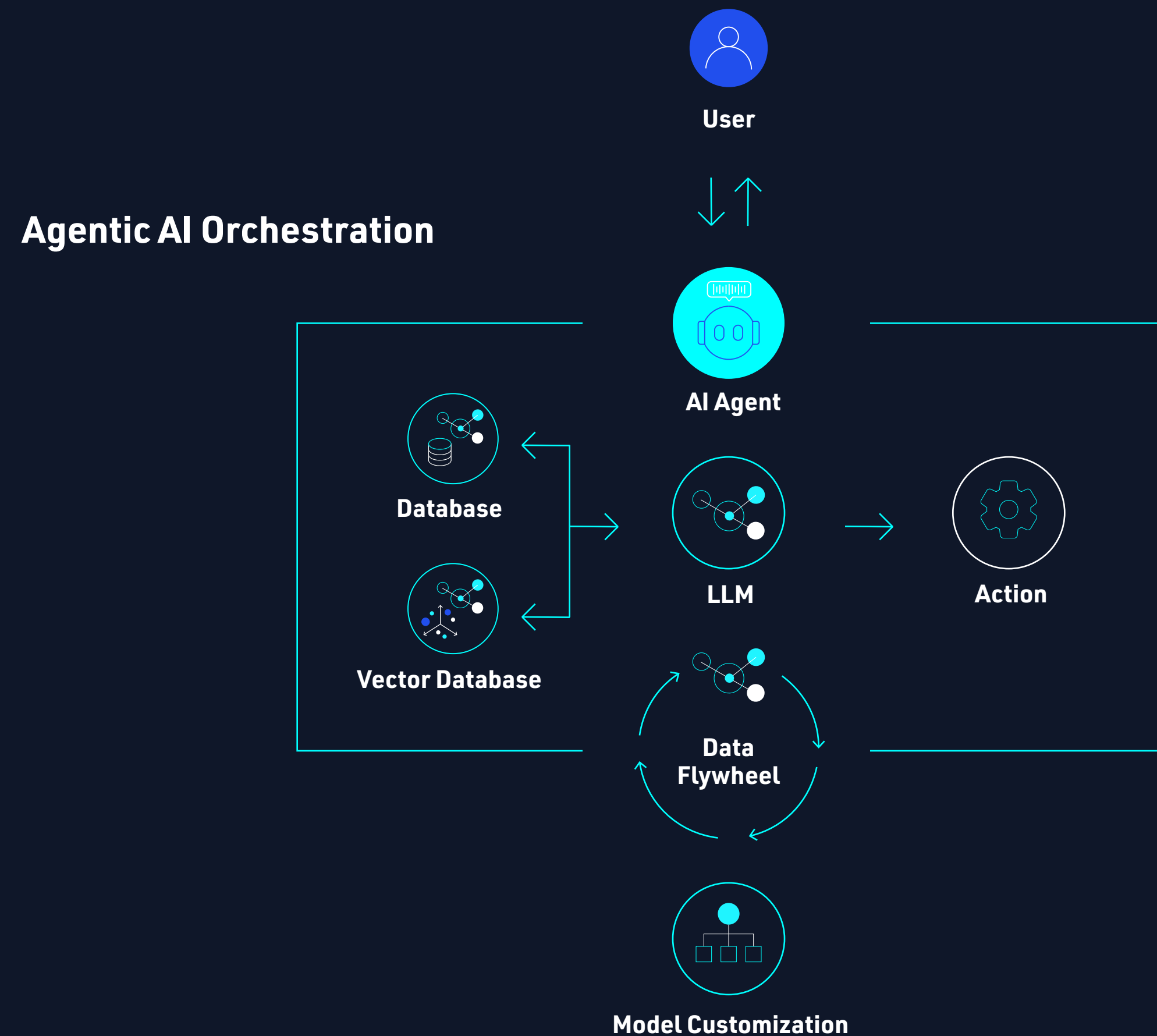


Figure 1: How AI agents autonomously trigger and action workflows, complementing other RAG assistant capabilities.

03

WHAT IS A RAG ASSISTANT?

Retrieval-augmented generation (RAG) assistants and Agentic AI serve distinct purposes, and both play important roles in automation. RAG assistants excel at retrieving context-specific information, especially in conversational settings, but they lack the autonomy to make decisions or take actions beyond fetching data.

While they are highly effective for providing targeted knowledge and insights from specific datasets, they don't have the ability to adapt or function across multiple domains. In contrast, Agentic AI offers the flexibility to operate across diverse, complex environments, making them essential for high-stakes applications where real-time decision-making and cross-functional adaptability are crucial. This ability to act autonomously in dynamic scenarios is what sets Agentic AI apart from traditional RAG bots.

USE CASES

RAG Assistants

Best suited for fetching information and delivering accurate responses, such as assisting customer service agents with relevant data.

AI Agents

Beyond merely providing information, AI agents can analyze a situation, make decisions, and autonomously perform tasks—whether it’s processing claims or escalating issues to human agents when needed.

RAG ASSISTANT CAPABILITIES

Retrieval Augmented Generation (RAG) for AI Applications

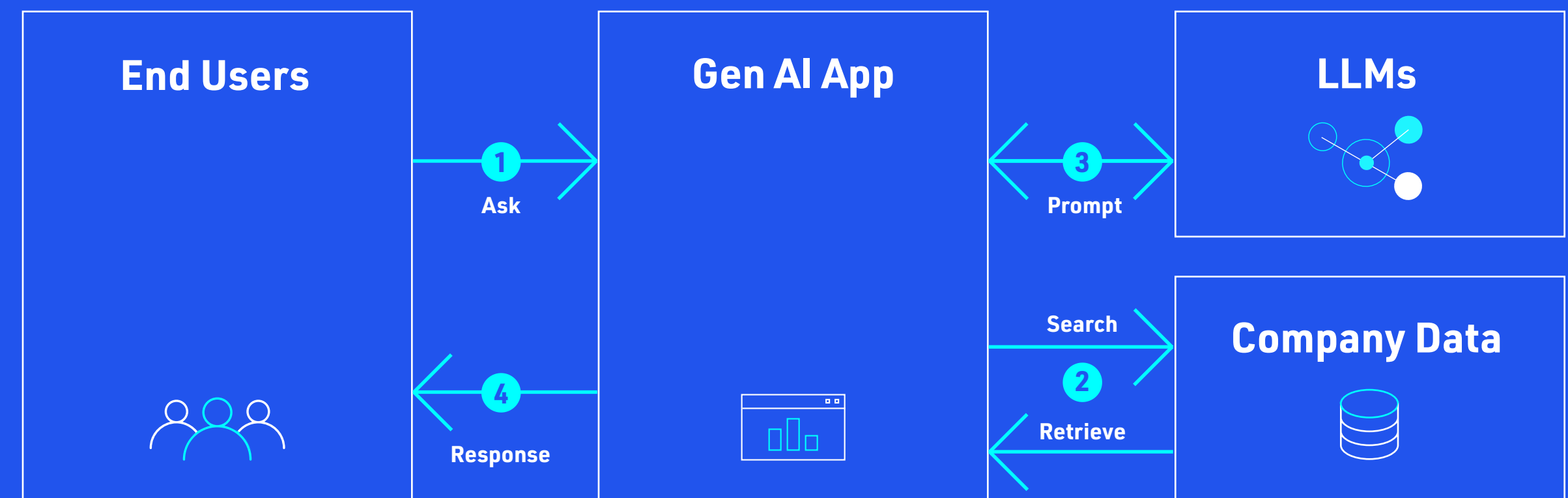


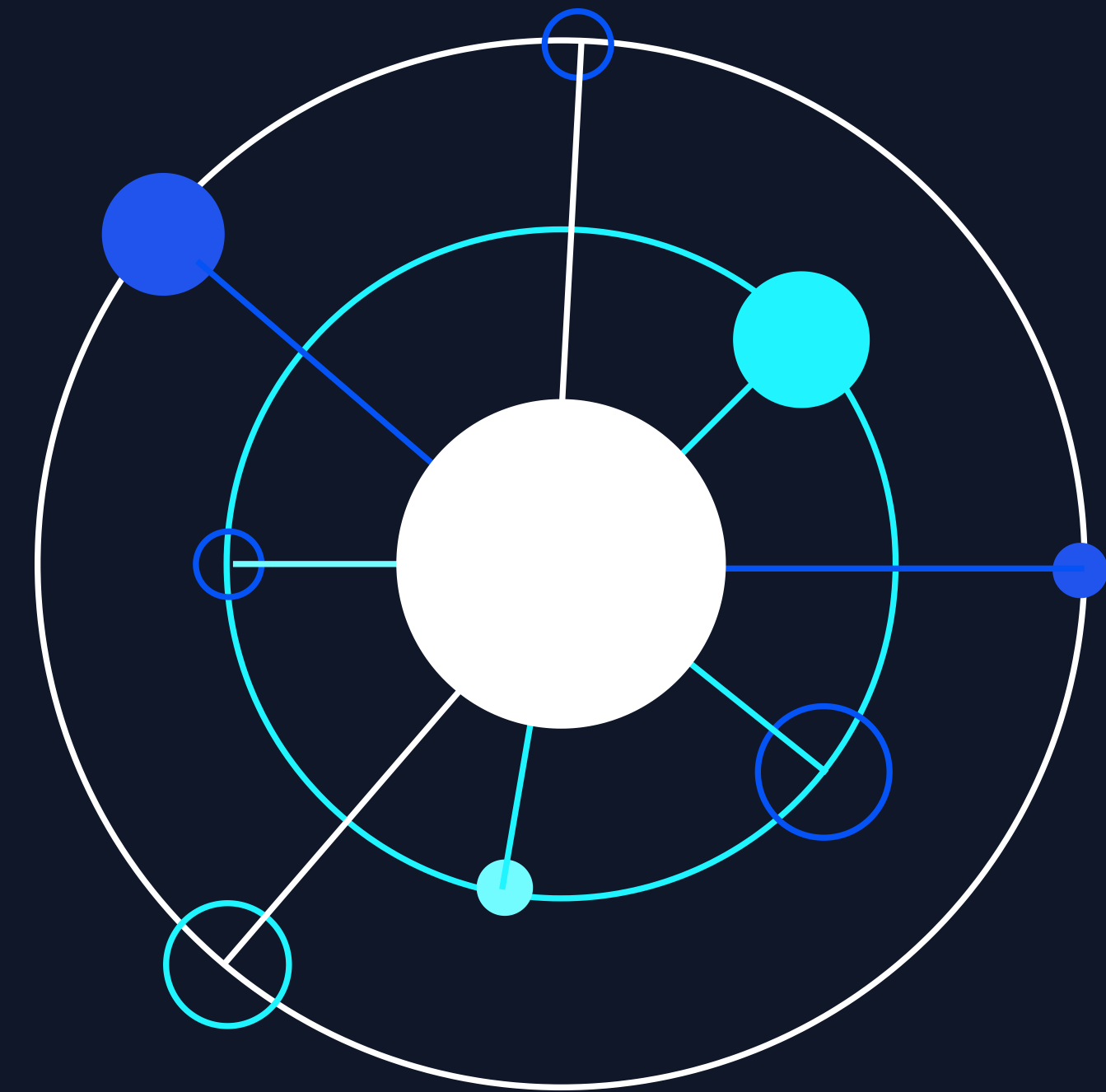
Figure 2

How RAG assistants operate within specific constraints, focusing on information retrieval without further decision-making abilities.

04 MAPPING YOUR PATH TO SUCCESS

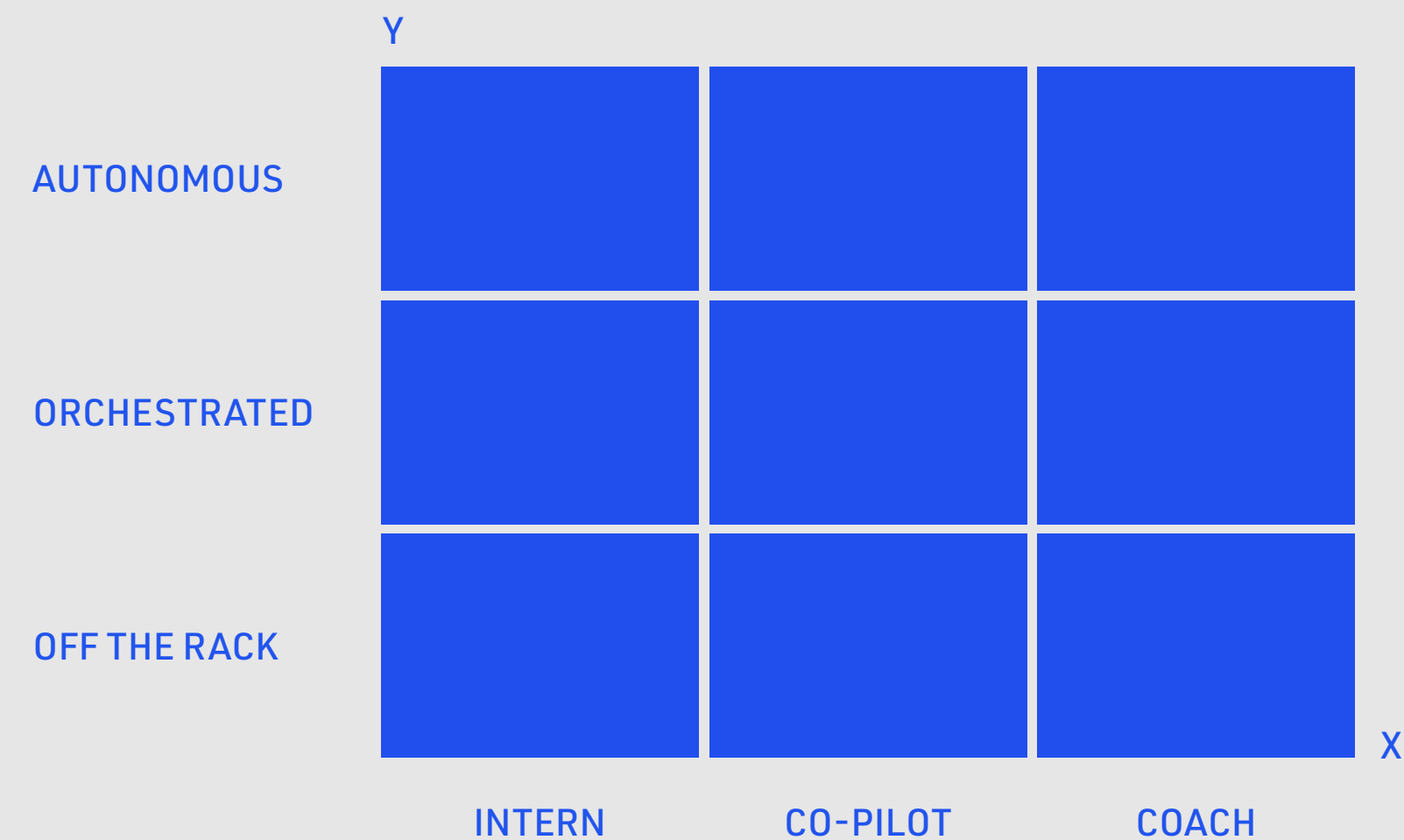
Navigating your journey into AI might seem daunting, but it doesn't have to be. To help you get started, we suggest using a matrix that maps out how organizations can scale their AI initiatives, from basic implementations to advanced, fully autonomous systems.

At Roboyo, we use this matrix to identify gaps in AI capabilities and align them with business goals. It provides a structured approach, making it easier to understand where you are today and where you could go tomorrow.



THE 3X3 AGENTIC MATRIX

This matrix helps break down the integration of Generative AI (GenAI) into three roles and three modes of deployment:



On the x-axis

You'll find three roles, each demonstrating how Generative AI can enhance and support human tasks:

INTERN

Handles simple delegation tasks, such as summarizing documents for employees to review.

COPILOT

Collaborates interactively with users, helping with decision-making and iterative feedback.

COACH

Provides expert-level guidance, making high-context recommendations and analyses.

On the y-axis

You'll find three modes, each representing the varying levels of Generative AI integration and complexity that your organization can implement.

OFF-THE-RACK

Ready-made tools for basic tasks. No custom development is needed.

ORCHESTRATED

Multiple agents are integrated with enterprise systems to execute complex workflows.

AUTONOMOUS

AI agents independently perform tasks and make decisions, acting as dynamic team members.

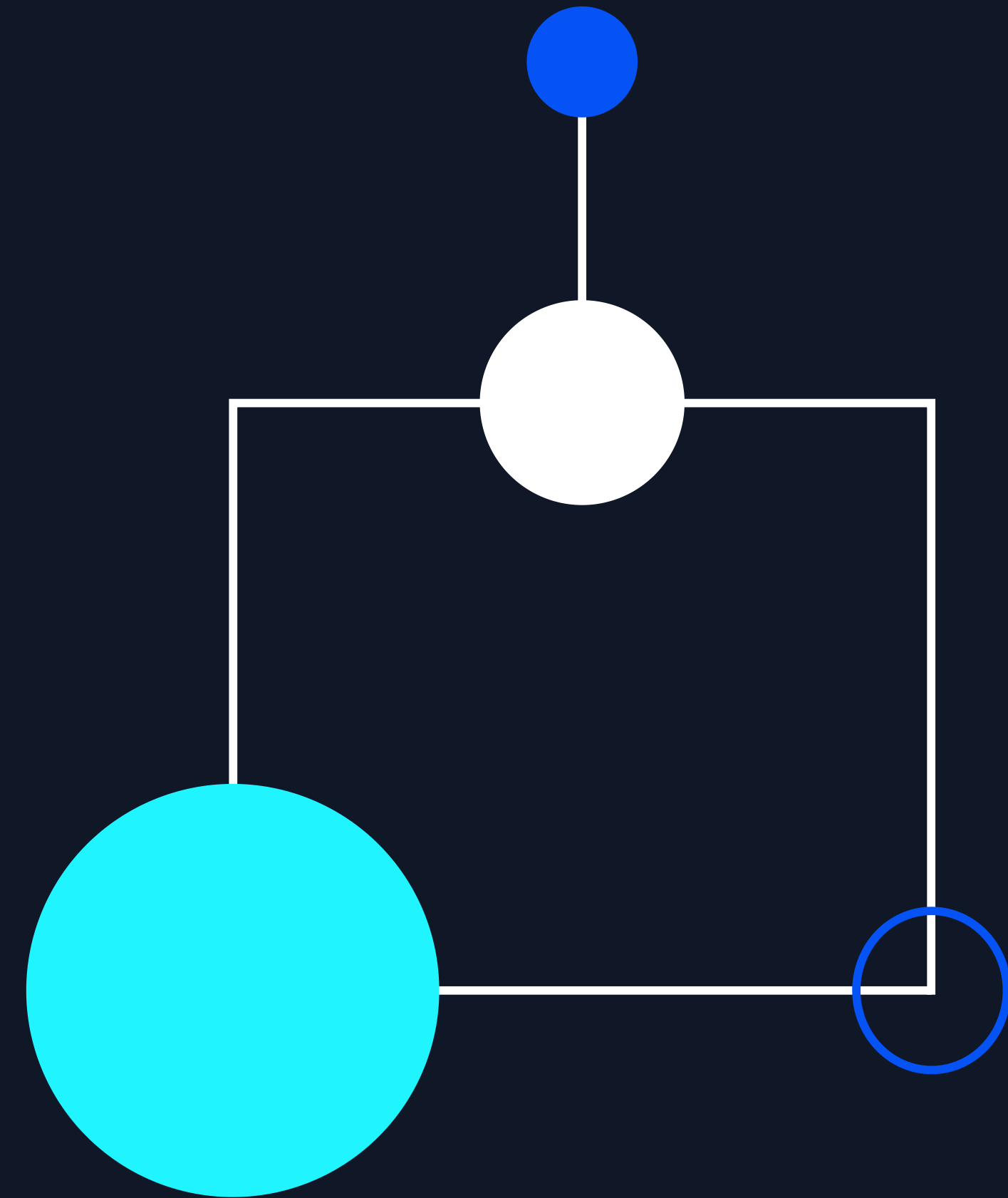
Figure 3
Structures how organizations can approach GenAI adoption from simple tasks to more complex integrations over time.

SOURCE: DATASTAX

The goal is to transition to Autonomous AI, where agents operate independently, and this represents a significant shift in the AI and automation landscape. This transition involves the development of AI systems capable of making decisions, learning from experiences, and adapting to changing environments without human intervention. Such a shift has the potential to drastically improve operational efficiency and flexibility across various industries.

05 THE AGENTIC AI MARKET LANDSCAPE

At Roboyo, we pride ourselves on being a **tech-agnostic company**, which means we partner with organizations across the world to select the best solutions for their needs—without bias toward any specific provider. Here’s our overview of some key players in the Agentic AI market:





UiPath Agent Builder

Redefines intelligent automation by incorporating autonomous decision-making and adaptive workflows. Moving beyond traditional RPA, it delivers responsive, scalable solutions that enhance operational efficiency—whether modernizing existing systems or building new ones.

WHY WE RECOMMEND IT

Ideal for organizations looking to drive **efficiency and adaptability** across their operations.



Microsoft Copilot Agents

Embedded within Microsoft 365, Microsoft Copilot Agents empower organizations to build adaptive virtual agents that integrate effortlessly with existing workflows. By leveraging Copilot tools and low-code capabilities, they streamline process automation and enhance productivity.

WHY WE RECOMMEND IT

A perfect choice for organizations deeply embedded in the **Microsoft ecosystem**, enabling seamless integration and enhanced business performance.



Google's Vertex AI Agents

These integrate seamlessly with Google Search and Gemini models, boosting Retrieval-Augmented Generation (RAG) capabilities to deliver highly accurate responses. Coupled with enterprise-grade security and support for tools like LangChain and LlamaIndex, it offers a low barrier to entry and rapid prototyping through pre-built templates.

WHY WE RECOMMEND IT

Ideal for enterprises on **Google Cloud**, whether you're a no-code user or pursuing advanced, code-first development.



AWS Bedrock Agents

Offer fully managed AI solutions within AWS environments, powered by state-of-the-art foundation models for natural language processing and decision-making. With prebuilt agents tailored for tasks such as inventory management and customer insights, they leverage AWS's robust scalability and security.

WHY WE RECOMMEND IT

Optimal for enterprises committed to **AWS infrastructure** and needing scalable, secure AI solutions.



DRUID AI agents

Powered by the DRUID Conductor platform, DRUID AI Agents provide innovative, enterprise-ready solutions that automate and streamline business processes. They unlock actionable insights from enterprise data, boosting efficiency, reducing costs, and accelerating digital transformation across sectors like customer support, HR, banking, and healthcare.

WHY WE RECOMMEND IT

Their **flexibility and seamless system integration** make them an excellent choice for comprehensive business process automation.



Rainbird

Rainbird’s Decision Intelligence Platform functions as an intelligent agent that integrates within multi-agent systems or complex workflow orchestrations. It excels in high-stakes scenarios by delivering precise, deterministic, and explainable decisions that are both transparent and auditable.

WHY WE RECOMMEND IT

A top choice for scenarios demanding transparent, auditable decision-making in **high-stake use cases**.



Crew AI Agents

Leverage the open-source Crew AI framework to facilitate seamless multi-agent collaboration. They enable developers to create specialized agents that work together to tackle complex tasks efficiently.

WHY WE RECOMMEND IT

A highly flexible and lightweight solution for teams requiring **customizable agent networks**.



LangGraph Multi-Agents

Enhance LangChain by enabling cyclic, stateful workflows, allowing for the creation of highly customizable AI agents. They excel at managing complex agent interactions, including loops and conditional logic, making them ideal for dynamic chatbots and workflow automation.

WHY WE RECOMMEND IT

Ideal for **advanced orchestration with LangChain**, especially when paired with monitoring tools like LangSmith.

06 REAL-WORLD USE CASES

The potential applications for Agentic AI span numerous industries, with profound impacts on operational efficiency, customer experience, and decision-making. Two sectors that stand to benefit significantly from the transition to Autonomous AI are healthcare and financial services.



HEALTHCARE PRECISION AND PROACTIVITY

AUTOMATED PATIENT MONITORING

CHALLENGE

Clinicians face overwhelming workloads, balancing real-time patient data, diagnostics, and resource allocation, which can delay critical care.

AGENTIC AI IN ACTION

AI agents continuously monitor patient vitals (e.g., heart rate, oxygen levels) and flag anomalies to clinicians via automated alerts. By integrating with electronic health records (EHRs), these agents reduce administrative tasks, allowing doctors to prioritize urgent cases.

HOW AGENTS WORK

Sensors and EHRs communicate data to AI systems, which plan by triaging risks and coordinating notifications to the right care teams.

ACCELERATING DRUG DISCOVERY

CHALLENGE

Traditional drug development is slow, often taking years and billions of dollars.

AGENTIC AI IN ACTION

Agents analyze genomic, chemical, and clinical trial datasets to predict promising drug candidates. For example, AI models can simulate molecular interactions 10x faster than manual methods, slashing time-to-market.

HOW AGENTS WORK

Cross-referencing global research databases, agents plan experiments and coordinate with researchers to validate findings.

58%

of those who have implemented Gen AI solutions are either already seeing a positive ROI or expect to.

Source: Mckinsey us survey on generative ai in healthcare, 2024

BANKING, FINANCIAL SERVICES, AND INSURANCE (BFSI)

SMARTER RISK MANAGEMENT AND COMPLIANCE

DATA-DRIVEN FINANCIAL PLANNING

CHALLENGE

Manual analysis of markets and risk factors is error-prone and inefficient.

AGENTIC AI IN ACTION

Agents process real-time market data, news, and client profiles to generate personalized investment strategies. For instance, they might adjust portfolios based on predictive risk models, enhancing returns by 15–20%.

HOW AGENTS WORK

Aggregating data from diverse sources, agents plan optimal asset allocations and coordinate with advisors and clients.

AUTOMATED REGULATORY COMPLIANCE

CHALLENGE

Financial regulations evolve rapidly, increasing non-compliance risks.

AGENTIC AI IN ACTION

Agents scan global regulatory updates, interpret requirements, and recommend policy adjustments. This reduces compliance costs.

HOW AGENTS WORK

Monitoring regulatory databases, agents plan implementation steps and coordinate with legal and operational teams.

REAL-TIME FRAUD DETECTION

CHALLENGE

Fraudsters exploit gaps in traditional rule-based systems.

AGENTIC AI IN ACTION

Agents detect suspicious patterns (e.g., unusual transaction locations) and block fraud much faster than legacy systems.

HOW AGENTS WORK

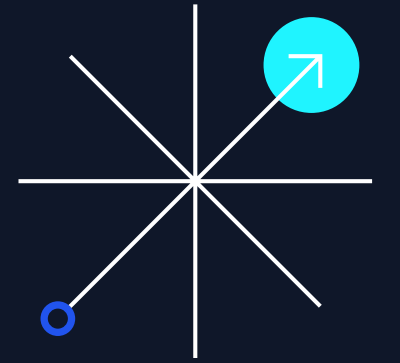
Analyzing transaction streams, agents plan risk scores and coordinate with security teams to resolve threats.

75%

of Financial Services firms are using AI. 10% more plan to in the next 3 years.

Source: financial conduct authority and bank of england 2024 artificial intelligence (ai) in uk financial services survey.

CONCLUSION



Agentic AI is revolutionizing the business landscape by offering **autonomy, adaptability, and real-time decision-making**. By moving beyond traditional automation models, particularly in sectors like healthcare and financial services, Agentic AI enables organizations to optimize processes, improve decision-making, and enhance compliance in dynamic environments.

As businesses evolve from basic automation to **fully autonomous systems**, the potential for increased productivity and agility is immense. At Roboyo, **we're committed to helping organizations leverage Agentic AI** to stay ahead in the age of hyperautomation, driving operational efficiency and innovation.

The future of automation is intelligent, and Agentic AI is leading the way, empowering businesses to orchestrate their operations with precision and agility.

AGENTIC AI MEETS AUTOMATION: THE PATH TO INTELLIGENT ORCHESTRATION

TALK TO US

If you're ready to unlock the potential of Agentic AI, schedule a call with our team to explore how we can help drive your next level of success.

[SCHEDULE A CALL](#)

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NEXT LEVEL NOW