Agentic AI
– the new frontier in GenAI

An executive playbook

Harnessing AI isn't just about technology— it's about unleashing unprecedented potential.

In an era where speed, efficiency, and customer centricity dictate market leadership, organisations need to harness every tool at their disposal. Over the past couple of years, artificial intelligence (AI) has exploded onto the world stage, with companies and individuals across the globe rapidly adopting the technology. The GCC is playing a lead role in the space, with business leaders in the region exploring ways of integrating this rapidly developing technology into their operations.

Generative AI (GenAI) is being recognised as a game-changer for innovation in the region, empowering enterprises by automating routine tasks, enhancing customer experiences and assisting in critical decision-making processes. Insights from our 27th Annual CEO Survey: Middle East findings have shown that 73% of CEOs in the Middle East believe GenAI will significantly change the way their company creates, delivers and captures value over the next three years[1]. GenAI is poised to make a significant economic impact, with estimates indicating that it could contribute between $2.6 trillion and $4.4 trillion annually to global GDP across various industries by 2030. In specific sectors, such as energy, investments in GenAI are expected to triple, from $40 billion in 2023 to over $140 billion by the end of the decade. This surge in investment reflects the transformative potential of GenAI, particularly in enhancing productivity, streamlining business processes, and reshaping value chains across industries[2].

Against this backdrop, multimodal GenAI agentic frameworks has emerged as transformative catalysts, enabling businesses to accelerate process automation at an unprecedented scale. This technology involves multiple AI agents working together, each specialising in different tasks or data types, to solve complex problems and automate processes. By collaborating and constantly learning, these agents enhance decision-making, optimise processes, and drive innovation. It combines range of advanced AI techniques to process diverse data types and automate complex tasks.

The central question isn't whether to adopt this technology, but how swiftly organisations can integrate it to stay ahead of the competition. This executive playbook explores how organisations can leverage this technology to boost operational efficiency, enhance customer experience, and drive revenue growth. It provides real-world success stories spanning industry sectors and organisational functions, strategic insights, tactical blueprints, and best practices to guide your journey into this revolutionary landscape.

Key insights

- Agentic AI, differentiated by its advanced human-like reasoning and interaction capabilities, is transforming the manufacturing, healthcare, finance, retail, transportation, and energy sectors, among others.
- Organisations' AI strategies should leverage multimodal GenAI capabilities while ensuring ethical AI safeguards to drive autonomous process re-engineering and enhanced decision-making across all lines of business.
- Integrated effectively, agentic AI can enhance efficiency, lower costs, improve customer experience, and drive revenue growth.
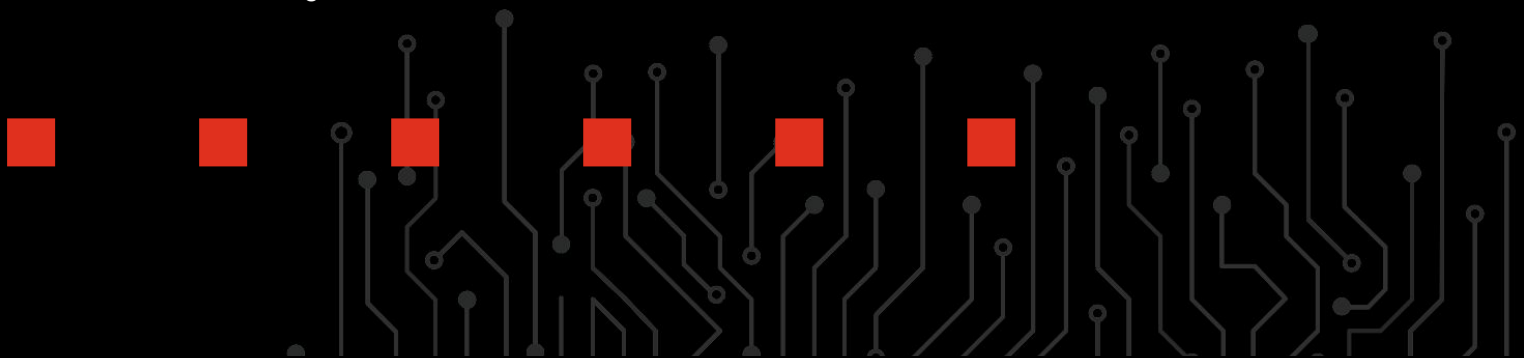
What is agentic AI?

Agentic AI generally refers to AI systems that possess the capacity to make autonomous decisions and take actions to achieve specific goals with limited or no direct human intervention[3].
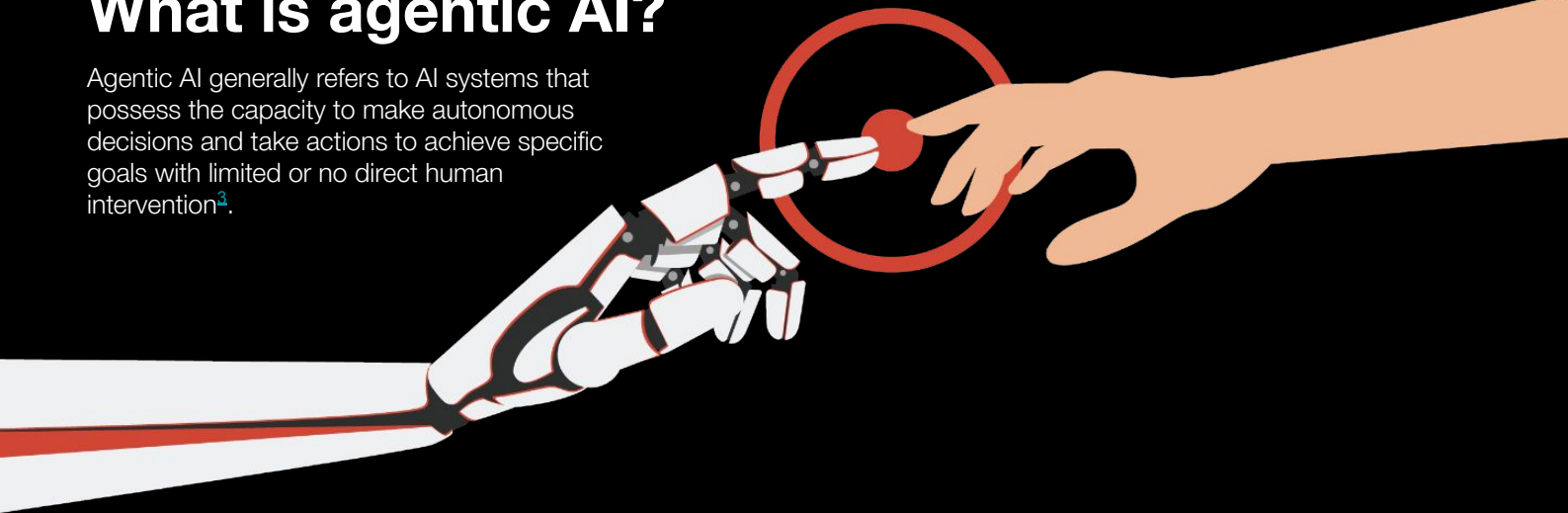
Key aspects of agentic AI

Autonomy: Agentic AI systems can operate independently, making decisions based on their programming, learning, and environmental inputs.
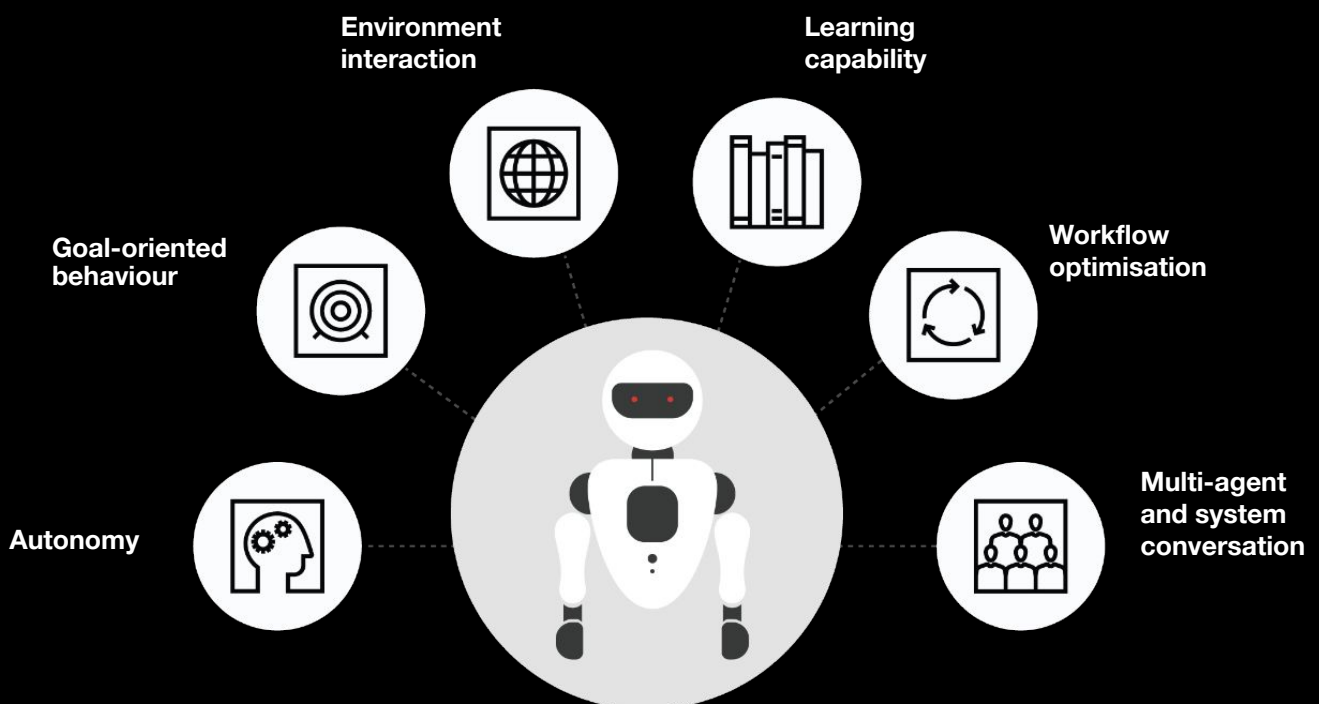
Goal-oriented behaviour: These AI agents are designed to pursue specific objectives, optimising their actions to achieve the desired outcomes.

Environment interaction: An agentic AI interacts with its surroundings, perceiving changes and adapting its strategies accordingly.

Learning capability: Many agentic AI systems employ machine learning or reinforcement learning techniques to improve their performance over time.

Workflow optimisation: Agentic AI agents enhance workflows and business processes by integrating language understanding with reasoning, planning, and decision-making. This involves optimising resource allocation, improving communication and collaboration, and identifying automation opportunities.

Multi-agent and system conversation: Agentic AI facilitates communication between different agents to construct complex workflows. It can also integrate with other systems or tools, such as email, code executors, or search engines, to perform a variety of tasks.

Environment interaction

Learning capability

Goal-oriented behaviour

Workflow optimisation

Autonomy

Multi-agent and system conversation

Evolution to multimodal GenAI agents

In AI, the only constant is change—embrace a culture of perpetual innovation.

The journey of agentic frameworks began as simple, rule-based systems designed to perform specific tasks. Over time, these systems have evolved into sophisticated, multimodal agents capable of processing and integrating information from various sources, such as text, images, and audio. Multimodality capabilities allow AI agents to understand, employ reasoning, and interact like humans, enhancing their effectiveness and versatility to solve a wide range of business problems[4].

The evolution can be broken down into three key phases:

(2000s)   **Integration of Machine Learning (ML)**
- **Learning from data:** The integration of ML allowed agents to learn from large datasets, improving their ability to make decisions and perform tasks. This was a significant step forward from rule-based systems, as agents could now adapt to new information and improve over time.
- **Natural Language Processing (NLP) enabled user interactions:** Advances in NLP enabled agents to understand and generate human language more effectively, making interactions more natural and intuitive.
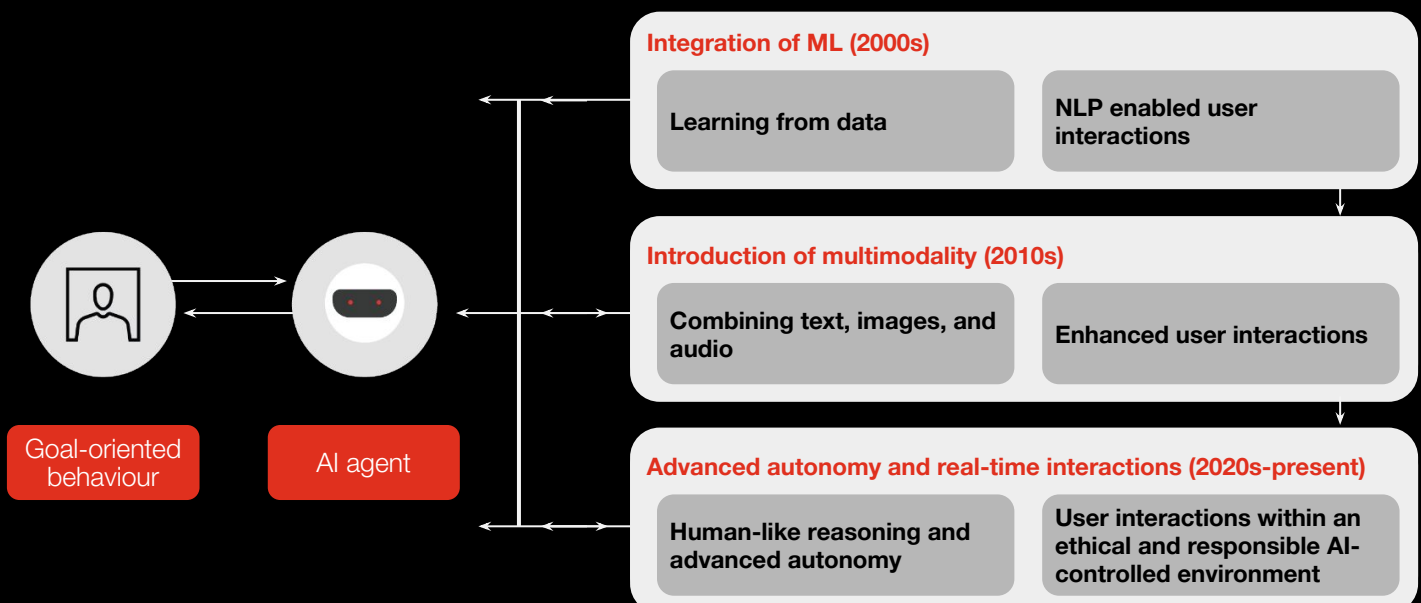
(2010s)   **Introduction of multimodality**
- **Combining text, images, and audio:** Multimodal agents emerged, capable of processing and integrating information from various sources. For instance, an agent could analyse a text description, recognise objects in an image, and understand spoken commands. This multimodality made agents more versatile and capable of handling complex tasks.
- **Enhanced user interactions:** Multimodal agents could interact with users in more dynamic ways, such as providing visual aids in response to text queries or understanding context from a combination of spoken and visual inputs.

2020s-present   **Advanced autonomy and real-time interactions**
- **Advanced autonomy:** Agents can operate independently, rationalise and set their own goals, develop path(s) to attain these goals, and make independent decisions without constant human intervention, leveraging data from multiple sources or synthetic datasets. In a multi-agentic orchestration system, the first set of agents focus on mimicking human behaviour (e.g. ChatGPT-4o), that is, thinking fast to come up with solution approach, while the second set of agents focus on slow reasoning (e.g. ChatGPT-1o) to come up with a vetted solution[5]. Combining thinking fast and slow reasoning, agents can process information and make optimal decisions in real-time – crucial for applications like autonomous vehicles, real-time customer service, and various mission-critical business processes. This autonomy makes agentic AI particularly powerful in dynamic and complex real-world environments.
- **User interactions within an ethical and responsible AI-controlled environment:** With increased capabilities, there has also been a focus on ensuring that agentic systems operate ethically and responsibly, considering factors such as bias, transparency, and accountability.

Goal-oriented behaviour

AI agent

Integration of ML (2000s)

Learning from data

NLP enabled user interactions

Introduction of multimodality (2010s)

Combining text, images, and audio

Enhanced user interactions

Advanced autonomy and real-time interactions (2020s-present)

Human-like reasoning and advanced autonomy

User interactions within an ethical and responsible AI-controlled environment

Why organisations should pay attention

In the fast lane of technological evolution, missing the AI turn today means being outpaced tomorrow.

Agentic AI offers significant advantages in efficiency, decision-making, and customer interaction. By automating routine tasks and providing intelligent insights, agentic AI can help organisations save time, reduce cost, and improve overall productivity. Moreover, organisations who adopt an agentic AI system can gain a competitive advantage by leveraging its capabilities to innovate and enhance their business operations. Lower cost to entry and economies of scale makes it favourable for organisations to fully harness the capabilities it offers compared to its predecessors like traditional ML and Robotic Process Automation (RPA)-driven automations.

Agentic AI systems can significantly enhance an organisation's competitive edge by automating complex workflows, reducing operational costs, and improving decision-making processes. These systems are designed to adapt to changing business environments, driving higher productivity and enabling organisations to stay competitive. For example, agentic AI can predict market trends and customer preferences, allowing businesses to tailor their strategies proactively. This adaptability not only improves efficiency but also fosters innovation, giving companies a significant edge over competitors[6].

Moreover, agentic AI systems can handle large volumes of data and extract actionable insights, which can be used to optimise operations and enhance customer experiences. By automating routine tasks, these systems free up human resources to focus on more strategic initiatives, thereby increasing overall organisational agility and responsiveness[7].

Enhanced decision-making

Agentic AI systems can analyse vast amounts of data quickly and accurately, providing valuable insights to inform better decision-making. Businesses can leverage these insights to optimise revenue and operations, identify market trends, and make data-driven decisions. For instance, in the financial sector, AI can analyse market data to predict trends, inform investment strategies, and boost investment ROI. In retail, it can streamline inventory management by predicting demand and optimising stock levels.

Boosted efficiency and productivity

Agentic AI can significantly enhance business efficiency and productivity by automating routine tasks and processes. This allows employees to focus on more strategic and creative activities. For example, in customer service, agentic AI can handle common inquiries, freeing up human agents to tackle more complex issues. In manufacturing, AI-driven robots can manage repetitive tasks with precision and consistency, reducing errors and increasing output.

Improved customer experience

By integrating agentic AI, businesses can offer personalised and responsive customer experiences. AI-driven chatbots and virtual assistants can provide instant support, answer queries, and even recommend products based on customer preferences and dynamic interactions. This improves customer satisfaction, builds loyalty, and drives sales. For example, e-commerce platforms use AI to recommend products based on browsing history and purchase behaviour.
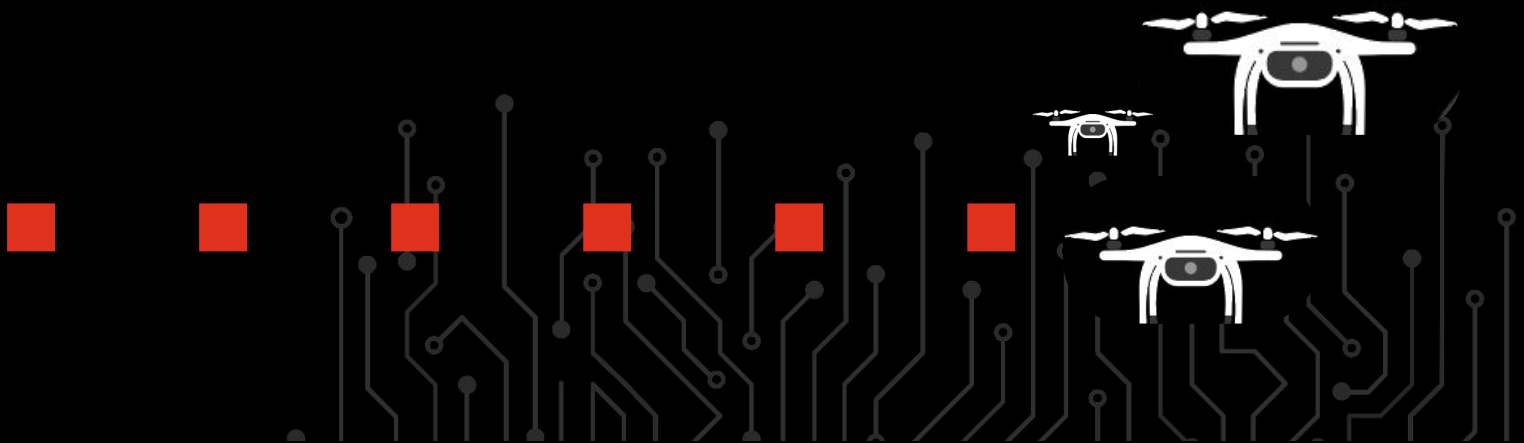
How to conceptualise agentic AI solutions for future business operations

Agentic AI systems are redefining customer service centres and are gaining popularity as a game-changing capability for both government entities and private sector organisations. While traditional rule-based chatbots (software-as-a-service) provided basic 24/7 support, and Retrieval Augmented Generated (RAG)-based chatbots enhanced human-like interactions (enhanced software-as-a-service), agentic AI surpasses both in terms of accuracy, contextual coherence, and problem-solving ability.

In terms of accuracy, rule-based chatbots are limited to programmed responses, causing inaccuracies when queries fall outside of predefined rules. RAG-based chatbots depend on retrieved data that may not match user intent. In contrast, the novel approach of agentic AI allows it to understand nuances in language, generating accurate responses even to complex or unseen queries. Its ability to learn from vast datasets enhances precision and adaptability, making it superior for customer interactions.

One of the biggest limitations of chatbots has been contextual coherence. Rule-based chatbots struggle to maintain context in extended interactions due to linear scripting, leading to disjointed responses that harm customer experience. RAG-based chatbots may produce inconsistent replies if retrieval mechanisms don't consider previous interactions. Whereas agentic AI's orchestration capability helps it excel at tracking conversation history, understanding dialogue flow, ensuring responses remain contextually appropriate and coherent, significantly boosting customer engagement.

Thus far, both rule-based and RAG-based chatbots have limited autonomous problem-solving ability. The former can't handle problems outside their scripts while the latter provide information but can't synthesise data and prepare the human-live problem-solving logic to solve complex issues across integrated sources such as CRMs, ERP, or IVR systems. The agentic AI performs dynamic reasoning and decision-making, leveraging a series of autonomous agents, analysing customer issues, considering multiple factors, and applying learned knowledge to resolve problems more efficiently. The outcome is quicker, solution-oriented, and fluid conversations that enhance customer experience and set new standards for efficiency and responsiveness in automated customer service.
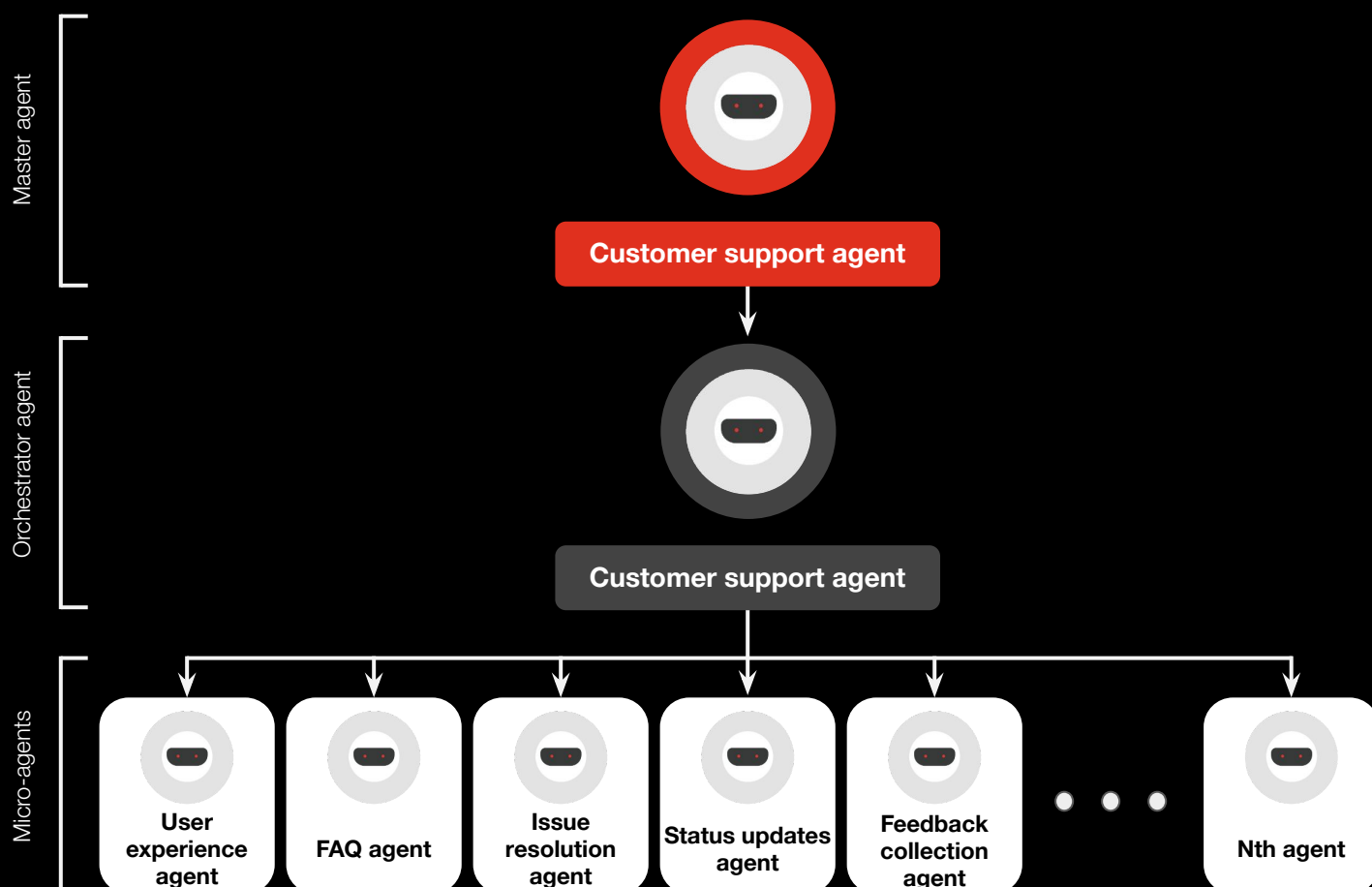
Agentic AI business imperatives

Organisations managing day-to-day operations stand to gain significantly from agentic AI systems, embracing the emerging "service-as-a-software" model. This innovative approach transforms manual labour into automated, AI-driven services. Rather than purchasing traditional software licences or subscribing to cloud-based software-as-a-service (SaaS), businesses can now pay for specific outcomes delivered by AI agents. For example, a company might employ AI customer support agents like Sierra to resolve issues on their websites, paying per resolution rather than maintaining a costly human support team. This model allows organisations to access a wider range of services – whether it's legal support from AI-powered lawyers, continuous cybersecurity testing by AI penetration testers, or automated CRM management – at a fraction of the cost. This not only drives efficiency but also significantly reduces operational overheads.

By leveraging the service-as-a-software model, businesses can automate both routine and highly specialised tasks that were once time-consuming, required skilled professionals, and typically involved expensive software licences or cloud solutions. AI applications with advanced reasoning capabilities can now handle complex tasks, from software engineering to running customer care centres, enabling companies to scale their operations without a proportional increase in cost. This transition expands the services available to organisations of all sizes, freeing them to focus on strategic priorities while AI systems manage the operational burden. Adopting these AI-driven services positions businesses to stay competitive in an ever-evolving marketplace[8].

Transitioning from copilot to autopilot models

Service-as-a-software represents an outcome-focused, strategic shift, enabling organisations to transition from their current state to operating in "copilot" and ultimately "autopilot" modes. Sierra, for instance, offers a safety net by escalating complex customer issues to human agents when necessary, ensuring a seamless customer experience. While not all AI solutions offer this built-in fallback, a common strategy is to initially deploy AI in a "copilot" role alongside human workers. This human-in-the-loop approach helps organisations build trust in AI capabilities over time. As AI systems demonstrate their reliability, businesses can confidently transition to an "autopilot" mode, where AI operates autonomously, enhancing efficiency and reducing the need for human oversight. GitHub Copilot is a prime example of this, assisting developers and potentially automating more tasks as it evolves.

Outsourcing work through AI services

For organisations with high operational costs, outsourcing specific tasks to AI services that guarantee concrete outcomes is an increasingly attractive option. Take Sierra, for example: businesses integrate Sierra into their customer support systems to efficiently manage customer queries. Instead of paying for software licences or cloud-based services, they pay Sierra based on the number of successful resolutions. This outcome-based model aligns costs directly with the results delivered, allowing organisations to harness AI for specific tasks and pay solely for the outcomes achieved.

This shift from traditional software licences or cloud SaaS to service-as-a-software is transformative in several ways:

Targeting service profits: Traditional SaaS focused on selling user seats, whereas service-as-a-software taps into service profit pools, delivering solutions that focus on specific business outcomes.

Outcome-based pricing: Instead of charging per user or seat, service-as-a-software adopts a pricing model based on the actual outcomes achieved, directly aligning costs with results.

High-touch delivery models: Service-as-a-software offers a top-down, highly personalised approach, providing trusted, tailored solutions that meet the specific operational needs of businesses.

Why should organisations consider early adoption and avoid being late movers?

	Early adopters	Late movers
Market position	Set industry benchmarks and gain first-mover market advantage.	Struggle to catch up and miss out on creating competitive advantage.
Innovation	Leverage AI to innovate business processes, deploy the AI solutions effectively and create differentiation.	Slow to innovate business processes and take full advantage of AI solutions to create differentiation.
Customer relationships	Build deeper customer relationships through personalised and newer experiences.	Play catch-up to match the personalised services of early adopters.
Operational efficiency	Streamline operations and reduce operational cost early on.	Higher lost opportunity cost due to late entry and adoptions.
Learning curve	Benefit from the initial learning curve and shape industry standards.	Miss out on early learning opportunities and industry influence.
Market share	Increase market share and profitability through early adoption.	Struggle to achieve similar market share.
Barriers to entry	Create barriers for competitors through deep AI integration.	Face higher barriers to entry due to established competitors.
Cost to entry	Pay relatively higher cost of entry and iterative test-and-learn due to new AI solutions.	Pay relatively lower cost of entry and lower learning and experiments.

Real-world success stories
Catalysing change across all industries

Manufacturing: Siemens AG

Siemens transformed its maintenance operations by deploying AI models that analyse sensor data from machinery. The system predicts equipment failures before they occur, scheduling maintenance proactively. The multimodal framework processes data from various sources – vibration, temperature, and acoustic signals – providing a holistic view of equipment health and proactive maintenance orchestrated by the agentic AI models.

Technology stack:

- AI models: Regression and deep learning models
- Platforms: Siemens MindSphere[9]
- Tools: Scikit-learn, TensorFlow, Keras, IoT sensors

Financial impact:

- Savings: Reduced maintenance costs by 20%
- Revenue growth: Increased production uptime by 15%

Non-financial benefits:

- Enhanced equipment reliability
- Improved worker safety

Healthcare: Mayo Clinic

By integrating AI into its radiology workflows, Mayo Clinic allows for quicker and more accurate diagnoses. The multimodal AI processes imaging data alongside patient history and lab results, offering comprehensive insights that aid radiologists in decision-making, automating documentation and process automation across the radiology value chain.

Technology stack:

- AI Models: Regression and Convolutional Neural Networks (CNNs) models
- Frameworks: NVIDIA Clara platform[10]
- Tools: Scikit-learn, PyTorch, Medical Imaging Data

Financial impact:

- Efficiency gains: Reduced diagnostic times by 30%
- Cost reduction: Lowered unnecessary procedures by 15%

Non-financial benefits:

- Improved diagnostic accuracy
- Enhanced patient outcomes

Finance: JPMorgan Chase

JPMorgan's Contract Intelligence (COiN) platform uses AI to analyse legal documents, extracting key data points in seconds. The multimodal framework interprets complex legal language, images, and tables, streamlining a process that once took thousands of human hours.

Technology stack:

- AI models: NLP with Generative Pre-trained Transformers (GPT)
- Frameworks: COiN platform[11]
- Tools: Python, Hadoop

Financial impact:

- Savings: Saved 360,000 hours of manual review annually
- Risk mitigation: Significantly reduced compliance risk

Non-financial benefits:

- Enhanced accuracy in document analysis
- Improved employee productivity

Retail: Amazon

Amazon leverages AI to analyse browsing behaviour, purchase history, and even visual preferences. Multimodal AI models generate personalised recommendations, orchestrate tasks across order fulfilment value chains, and enhance the shopping experience to drive sales.

Technology stack:

- AI models: Regression and deep learning Models
- Frameworks: Amazon Personalise[12] and Amazon Order Fulfilment
- Tools: AWS SageMaker

Financial impact:

- Revenue boost: Increased sales by 35% through personalised recommendations and one-click order fulfilment
- Customer retention: Improved loyalty rates by 20%

Non-financial benefits:

- Enhanced customer satisfaction
- Increased engagement time on the platform

Transportation and logistics: DHL

DHL utilises AI models to predict and orchestrate shipping demands, optimise routes, and manage warehouse operations. The system processes data from various sources, including traffic patterns, weather conditions, and order volumes.

Technology stack:

- AI models: ML models and route optimisation algorithms
- Frameworks: DHL Resilient supply chain platform[13]
- Tools: IoT devices, ML models

Financial impact:

- Cost savings: Reduced operational costs by 15%
- Efficiency gains: Improved delivery times by 20%

Non-financial benefits:

- Enhanced customer satisfaction
- Reduced carbon footprint

Energy: BP (British Petroleum)

BP uses AI to analyse seismic data, generating 3D models of subterranean structures. The multimodal approach combines geological, geophysical, and historical data to identify favourable drilling sites and orchestrate drilling equipment settings for optimal outcomes.

Technology stack:

- AI models: Regression and GenAI models
- Frameworks: Azure cloud services[14]
- Tools: Microsoft AI

Financial impact:

- Savings: Reduced exploration costs by 20%
- Revenue growth: Increased successful drilling operations by 15%

Non-financial benefits:

- Reduced environmental impact
- Improved safety measures

Education: Pearson

Pearson's AI models tailor educational content to individual learner needs, adjusting difficulty levels and content types based on performance and engagement data.

Technology stack:

- AI models: Adaptive learning algorithms
- Frameworks: Multimodal content delivery systems[15]
- Tools: Python, TensorFlow

Financial impact:

- Revenue increase: Boosted course enrollment by 25%
- Cost reduction: Lowered content development costs by 15%

Non-financial benefits:

- Improved student outcomes
- Enhanced user engagement

Media and entertainment: Netflix

Netflix uses AI models to recommend and orchestrate content by analysing viewing habits, ratings, and even visual content features. The multi-modal AI ensures that users find content that resonates with their preferences, keeping them engaged.

Technology stack:

- AI models: ML and GenAI models
- Frameworks: Netflix multimodal user interaction analysis[16]
- Tools: AWS, Apache Spark

Financial impact:

- Subscriber growth: Increased retention rates by 10%
- Revenue boost: Enhanced engagement leading to higher subscription renewals

Non-financial benefits:

- Personalised user experiences
- Improved content strategy

Telecommunications: AT&T

AT&T's AI models analyse and orchestrate network performance data and customer interactions to optimise network operations and personalise customer service through chatbots.

Technology stack:

- AI models: ML for network analytics
- Frameworks: Edge computing with multimodal data inputs[17]
- Tools: AI chatbots, data analytics platforms

Financial impact:

- Cost savings: Reduced operational expenses by 15%
- Revenue growth: Improved upselling through personalised offers

Non-financial benefits:

- Enhanced network reliability
- Improved customer satisfaction

Government and public sector: Singapore Government

Singapore utilises AI models to orchestrate and manage traffic flow, energy consumption, and public safety. The multi-modal system processes data from various sensors and citizen feedback mechanisms to make real-time decisions.
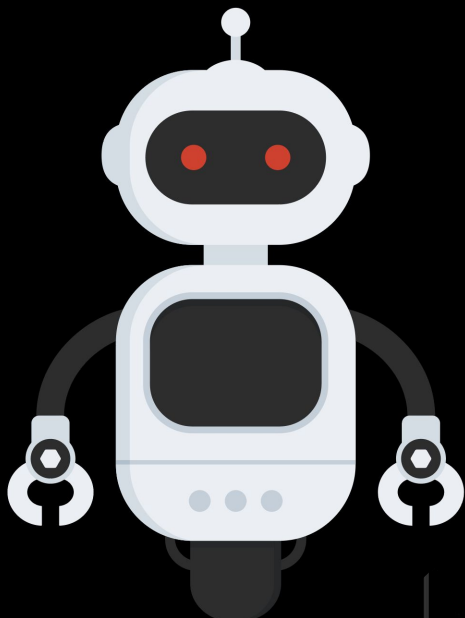
Technology stack:

- AI models: ML and GenAI models
- Frameworks: Smart Nation platform[18]
- Tools: IoT sensors, cloud computing

Financial impact:

- Efficiency gains: Reduced administrative costs by 25%
- Economic growth: Attracted US$12 billion in foreign investment

Non-financial benefits:

- Improved public services
- Enhanced quality of life for citizens

Real-world success stories
Innovation within business functions

Human resources: Unilever

Unilever uses AI to screen candidates by analysing video interviews and responses, allowing recruiters to focus on the most promising applicants.

Technology stack:

- AI models: NLP and facial recognition algorithms
- Frameworks: Multimodal candidate assessment platforms[19]
- Tools: HireVue AI platform

Financial impact:

- Cost reduction: Saved over US$1 million annually in recruitment costs
- Efficiency gains: Reduced hiring time by 75%

Non-financial benefits:

- Enhanced diversity in hiring
- Improved candidate experience

Customer service: Bank of America

Erica, an AI virtual agent, handles over a million customer queries daily – including snapshots of month-to-date spending and flagging recurring charges – providing instant assistance and freeing human agents to tackle more complex issues.

Technology stack:

- AI models: GenAI for conversational interfaces
- Frameworks: Multimodal customer interaction platforms[20]
- Tools: Erica, the virtual assistant

Financial impact:

- Cost savings: Reduced customer service costs by 10%
- Revenue growth: Increased product cross-selling by 5%

Non-financial benefits:

- Improved customer satisfaction
- 24/7 customer support availability

Marketing: Coca-Cola

Coca-Cola uses AI to generate marketing content, analyse consumer trends, and personalise advertising, resulting in more effective campaigns.

Technology stack:

- AI models: Generative Adversarial Networks (GANs)
- Frameworks: Multimodal data analysis for consumer insights[21]
- Tools: Custom AI platforms

Financial impact:

- Efficiency gains: Reduced content creation time by 50%
- Revenue increase: Boosted campaign ROI by 20%

Non-financial benefits:

- Innovative marketing strategies
- Enhanced customer engagement

Supply chain management: Walmart

Walmart employs AI to predict product demand, optimise stock levels, and streamline logistics, ensuring products are available when and where customers need them.

Technology stack:

- AI Models: Predictive analytics for demand forecasting
- Frameworks: Multi-modal data integration from sales, weather, and events[22]
- Tools: Data lakes, Machine Learning models

Financial impact:

- Cost Reduction: Decreased inventory costs by 15%
- Revenue Growth: Improved product availability leading to higher sales

Non-financial benefits:

- Reduced waste
- Enhanced supplier relationships

Research and development: Insilico Medicine

Insilico Medicine, a biotechnology company focused on longevity, has developed inClinico, an AI platform that predicts phase II clinical trial outcomes to enhance drug discovery and development.

Technology stack:

- AI Models: In-house-developed multimodal foundation model
- Platforms: Multi-modal integration of omics, text, clinical trials, small molecule properties, and disease targets[23]
- Tools: Transformer-based, in-house-trained AI model and platform

Financial impact:

- Cost Reduction: 35% nine-month ROI in an investment application
- Time Efficiency: Reduced drug development time

Non-financial benefits:

- Accelerated drug discovery and clinical trials process
- 79% accuracy for clinical trials

Legal: Hogan Lovells

The AI platform analyses large sets of contracts and legal documents, extracting critical information, and identifying risks.

Technology stack:

- AI models: NLP and ML
- Frameworks: Kira Systems platform with multimodal data processing[24]
- Tools: Kira AI

Financial impact:

- Efficiency gains: Increased review speed by 40%
- Cost savings: Reduced billable hours for clients

Non-financial benefits:

- Improved accuracy
- Enhanced client satisfaction

Procurement: Coupa

Coupa's AI-driven spend management platform optimises supplier selection, contract management, and spend analytics, transforming procurement processes into a strategic function.

Technology stack:

- AI models: Predictive analytics, machine learning, and spend forecasting.
- Frameworks: Coupa Source-to-Pay, Coupa Business Spend Management (BSM).[25]
- Tools: Cloud computing, advanced sourcing optimisation, real-time spend visibility.

Financial impact:

- ROI: Achieved an impressive 276% return on investment (ROI).
- Efficiency gains: Reduced procurement cycle and significantly enhancing process speed.

Non-financial benefits:

- Increased compliance and risk management.
- Improved supplier performance and relationships

IT Operations: Microsoft

Microsoft uses AI to monitor IT systems, predict failures, and automate support tickets, ensuring seamless operations.
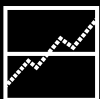
Technology stack:

- AI Models: Anomaly detection and predictive maintenance algorithms
- Frameworks: Azure AI with multi-modal data inputs[26]
- Tools: AI chatbots, Monitoring tools

Financial impact:

- Cost Savings: Reduced IT support costs by 20%
- Efficiency Gains: Improved system uptime by 15%

Non-financial benefits:

- Enhanced employee productivity
- Proactive issue resolution

Sales: Salesforce

Salesforce's AI analyses customer interactions, market trends, and sales data to provide actionable insights for sales teams.

Technology stack:

- AI models: Predictive analytics with ML
- Frameworks: Salesforce Einstein with multimodal data processing[27]
- Tools: CRM systems

Financial impact:

- Revenue growth: Increased sales by 15%
- Efficiency gains: Reduced sales cycle times by 25%

Non-financial benefits:

- Improved customer relationships
- Enhanced decision-making

Key GenAI agentic tools and their differentiation

Commercial solutions

Open-source solutions

LangGraph[28]

- **Target audience:** Startups and established enterprises
- **Support:** Offers robust customer support and professional services
- **Integration:** Seamlessly integrates with existing enterprise systems
- **Customisation:** High level of customisation and control over workflows
- **Features:** Advanced features like statefulness (having a perfect memory or knowledge of previous calls or requests), streaming support, and moderation loops

AutoGen[29]

- **Target audience:** Developers and researchers
- **Open-source framework:** Facilitates cooperation among multiple AI agents
- **Simplification:** Orchestrates, automates, and optimises complex LLM workflows
- **Human-in-the-loop:** Supports human-in-the-loop workflows for enhanced performance
- **Community-driven:** Encourages innovation and collaboration within the community

CrewAI[30]

- **Target audience:** Fortune 500 companies and large enterprises
- **Ease of use:** Provides no-code tools and templates for quick deployment
- **Deployment options:** Supports both self-hosted and cloud deployments
- **Support:** Comprehensive support and maintenance services
- **Efficiency:** Designed for handling complex, multi-agent tasks efficiently

AutoGPT[31]

- **Target audience:** AI enthusiasts and developers
- **Autonomous AI agent:** Executes tasks independently using GPT-4 architecture
- **Task management:** Breaks down complex goals into manageable sub-tasks
- **Capabilities:** Utilises internet access and code execution for task completion
- **Versatility:** Applied in various domains like content creation and customer service
- **Popularity:** Rapidly growing open-source project with a strong community

When deciding between commercial vs open-source agentic AI tools, consider your organisation's needs, upstream/downstream integration capabilities, and accessibility to resources to build, deploy, and manage these solutions.

Commercial solutions such as LangGraph and CrewAI offer robust support, seamless integration, and advanced features, making them suitable for complex, large-scale deployments. Conversely, open-source solutions like AutoGen and AutoGPT are excellent choices for rapid prototyping and proof-of-concept development, providing flexibility, community-driven innovation, and low cost of entry for technology decision makers and developers.

The agentic AI tools ecosystem is expected to witness a rapid surge over the next few quarters. Commercial solutions will likely continue to enhance their enterprise capabilities, focusing on a wide range of integration options, security, and developer-friendly features. Meanwhile, open-source tools will see increased community contributions, leading to rapid innovation in depth and coverage of agentic AI features and increased adoption. As commercial and open-source AI solutions evolve, organisations should stay agile, leveraging the strengths of both types to remain competitive and innovative.

Formulating your GenAI strategy and crafting the AI capability roadmap that works for your business

A vision without execution is hallucination—align your GenAI strategy with actionable plans and meticulous execution.

Let's explore how to effectively integrate these principles into your AI roadmap:

Step 1
Vision alignment

Step 2
Assess capabilities

Step 3
Assess Meticulous execution

Step 4
Scale up

Step 5
Risk management

Step 6
Organisational change

Vision alignment

- **Define clear objectives:** What do you aim to achieve – cost reduction, revenue growth, customer satisfaction, or building an economic moat?
- **Align AI initiatives with business goals:** Ensure that AI projects are underpinned by your company's strategic objectives. Whether it's cost reduction, increasing revenue, customer satisfaction, or creating a competitive advantage, aligning AI efforts with business goals ensures relevance and maximises impact.
- **Secure executive sponsorship:** Having support from top management is crucial for securing resources and driving organisational change. Executive sponsorship can also help align AI initiatives with broader business strategies.
- **Stakeholders buy-in:** Ensure executive and departmental alignment.
- **Start with high-impact use cases:** Identify areas where AI can deliver significant value quickly. Prioritise projects that address pressing challenges or offer substantial benefits, such as cost reduction or revenue growth, to demonstrate AI ROI early on.
- **Seek expert advice:** Consult with AI experts or hire consultants to formulate your AI strategy and help you in making informed decisions.

Assess capabilities

- **Technology infrastructure:** Is your IT environment ready for AI integration?
- **Platform options:** Weigh-in commercial and open-source AI solutions and make build-vs-buy decisions based on your organisation's requirements, budget, and technical expertise.
- **Consider integration:** Ensure the chosen platform can integrate seamlessly with your existing systems and workflows, both upstream and downstream.
- **Data readiness:** Do you have access to quality, multimodal data?
- **Talent pool:** Do you have the skills in-house, or will you need external expertise?

Meticulous execution

- **Start small:** Begin with small pilot projects to test the effectiveness of agentic AI in your business environment.
- **Measure success:** Define clear metrics for success and monitor the performance of the pilot projects. Gather feedback from stakeholders and make necessary adjustments.
- **Agile methodology:** Be flexible, nimble and adaptive in your implementations.
- **Iterate and improve:** Use the insights gained from pilot projects to refine your approach and address any challenges.

Scale up

- **Gradual expansion:** Once the pilot projects are successful, gradually scale up the implementation of agentic AI across more areas of your operations.
- **Ensure support:** Provide adequate training and support to your team to ensure a smooth transition and adoption of the new technology.
- **Monitor and optimise:** Continuously monitor the performance of agentic AI systems and optimise them for better results.

Risk management

- **Ethical considerations:** Address potential biases and compliance issues.
- **Security protocols:** Protect sensitive data and align AI governance with national and global standards.

Organisational change

- **Educate and upskill:** Begin by familiarising your workforce with the core concepts of data and AI. Understand what it is, how it works, and its potential applications in your organisation, business function and/or industry[32].
- **Foster innovation:** Encourage a culture of innovation within your organisation by promoting experimentation and collaboration.
- **Adapt and evolve:** Be prepared to adapt your strategies and processes as the technology evolves and new opportunities arise.
- **Stay informed:** Keep up with the latest developments and trends in AI by reading industry reports, inviting experts to all-hands sessions, attending conferences, and participating in webinars.
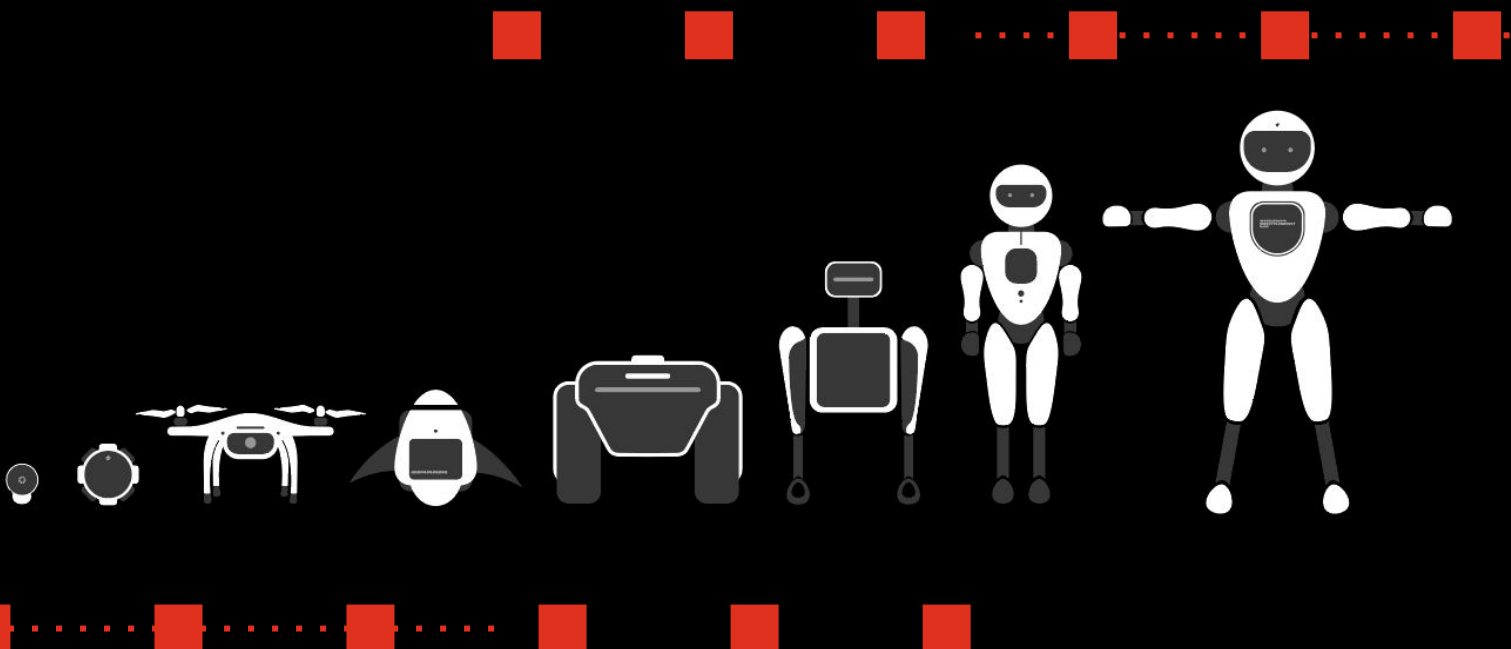
Top 10 do's and don'ts for maximising ROI from AI investments

Avoid the GenAI hype trap—focus on pragmatic steps that deliver real value.

Do's

- **Ensure a customer-centric approach:** Always prioritise the end-user experience, eventually it pays off in both financial and non-financial results.

- **Conduct thorough research:** Before implementing AI solutions, research the available technologies to find the best fit for your business needs. Understand the capabilities and limitations of agentic AI to set realistic expectations.

- **Start with small projects:** Begin with pilot programmes to test the effectiveness of AI solutions. Small-scale implementations allow you to measure impact and make adjustments before a full-scale rollout.

- **Monitor performance and iterate:** Regularly track the performance of your AI systems using key metrics aligned with your business goals. Use this data to refine models, adjust strategies, and make data-driven improvements over time.
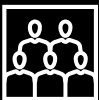
- **Build cross-functional teams:** Assemble teams that include members from various departments, such as IT, operations, finance, and marketing. Cross-functional collaboration ensures that AI initiatives are well-rounded and consider different perspectives and expertise.

- **Invest in employee training:** Equip your team with the necessary skills to work alongside AI systems. Training ensures smooth integration and helps employees leverage AI tools effectively.
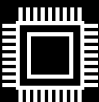
- **Invest in quality data:** High-quality data is the backbone of effective AI solutions. Invest in data cleaning, integration, and management processes to ensure your AI systems have accurate and reliable data to work with.

- **Prioritise data security and privacy:** Implement robust security measures to protect sensitive data. Ensure compliance with relevant regulations to maintain customer trust and avoid legal issues.

- **Invest in scalable AI platforms:** Choose AI platforms and tools that are scalable and can grow with your business needs. Scalable solutions allow you to expand AI capabilities without significant additional investments.

- **Invest in continuous learning:** Stay curious and updated with AI advancements and industry trends.

Top 10 do's and don'ts for maximising ROI from AI investments

Avoid the GenAI hype trap—focus on pragmatic steps that deliver real value.

Don'ts

- **Ignore customer feedback:** Pay attention to how your customers interact with AI solutions. Use their feedback to refine and enhance the user experience.

- **Underestimate complexity:** AI projects are not plug-and-play.

- **Rush implementation:** Avoid hastily integrating AI without a clear strategy. A rushed implementation can lead to wasted resources and suboptimal results.

- **Neglect human oversight:** While AI can automate many tasks, human oversight remains crucial. Maintain a balance between automation and human input to ensure quality and accountability.

- **Ignore user adoption:** Ensure that the AI solutions are user-friendly and meet the needs of those who will interact with them daily. High user adoption rates lead to better data input, more accurate outputs, and higher ROI.

- **Overlook ethical considerations:** Be mindful of the ethical implications of AI use. Ensure your AI systems are designed to prevent biases, respecting privacy laws, promote fairness and transparency. Adhere to ethical guidelines and legal regulations related to AI use.

- **Ignore change management:** Prepare your workforce for AI adoption through training and change management programmes. Educated employees are more likely to embrace AI tools, leading to better utilisation and ROI.

- **Underestimate costs:** Be realistic about the investment required for AI integration, including infrastructure, maintenance, and training costs. Plan your budget accordingly to avoid financial strain.

- **Ignore partnerships:** Collaborate with trusted technology providers, consultants, AI experts, and academic institutions. External expertise can accelerate implementation, provide valuable insights, and help avoid common pitfalls.

- **Overlook for long-term sustainability:** Develop a long-term AI strategy that considers future needs and technological advancements. Sustainable planning ensures that your AI investments continue to deliver value over time.

Looking ahead

By harnessing the unprecedented capabilities of agentic AI systems, both government entities and organisations can achieve significant efficiency gains, enhanced customer experiences, and superior business outcomes. While agentic AI will play a transformative role in both sectors, their specific objectives, contexts, and goals will shape the distinct applications and their benefits.

Government entities can prioritise large-scale initiatives such as policymaking, governance, public welfare, economic stability, and sustainability, leveraging agentic AI to orchestrate complex systems. In contrast, organisations aiming for profitability growth, cost optimisation, and competitive advantage can focus on developing agentic AI point solutions to address specific challenges within defined domains.

Most entities are expected to begin by experimenting with low hanging use cases. A smaller number will see the vast opportunity window with agentic AI solutions and adopt a strategic approach, recalibrating AI strategies to fully harness agentic AI solutions across a broader spectrum of business use cases and processes. Only a handful—like Amazon, Google, Meta etc.—will embrace an AI-first mindset, reimagining products, services, and processes to redefine value creation mechanisms. In this transformation, agentic AI systems will take the lead role with humans as co-pilots, optimising speed, accuracy, contextual coherence, and cost-efficiency. Human oversight will evolve, shifting focus toward more strategic planning and innovations rather than operational management.

The shift from human-driven, labour-intensive processes to AI-managed operations will see autonomous agents handling tasks with unprecedented speed, precision, and adaptability. This transformation will not only reduce costs but also unlock new revenue streams and growth opportunities, allowing businesses and governments to deliver services faster and at a much larger scale.

As agentic AI systems become more integrated, they will redefine how we work, pushing the boundaries of possibility and enabling a smarter, more agile world. The future of agentic AI is nearer than anticipated, propelled by rapid technological advancements. However, realising its full potential requires greater commitment and adoption across both government and industry.

Leaders at the forefront of AI adoption aren't just leveraging technology—they're redefining what's possible. Success in this arena won't be accidental; it demands strategic vision, meticulous planning, and relentless execution. For C-suite executives and senior leaders, embracing agentic AI is not just an option but a strategic imperative to stay ahead in an increasingly competitive and AI-driven world.

The future belongs to those who prepare for it today—make AI the cornerstone of your strategic arsenal.

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