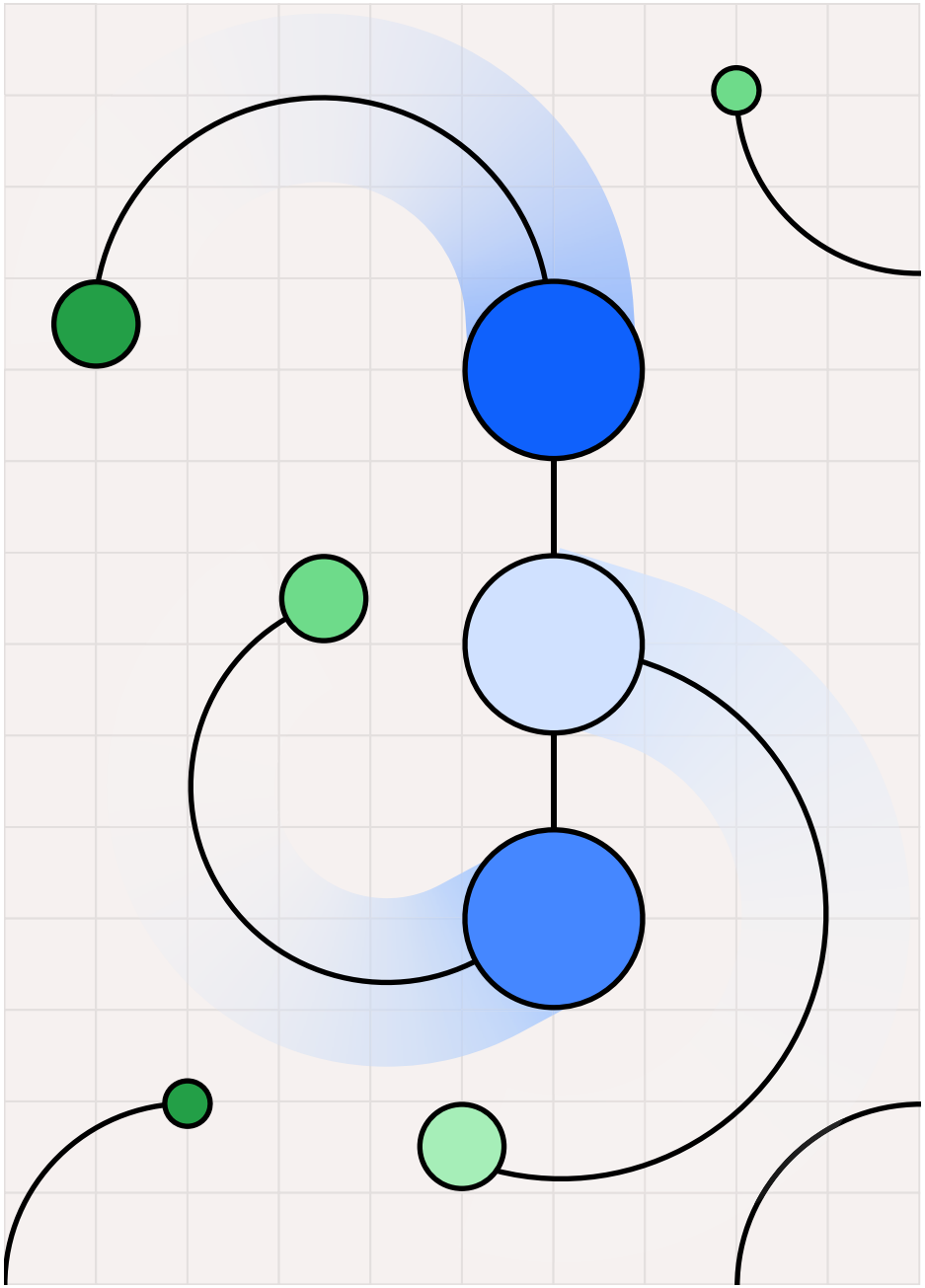
Industries in the AI era

How 10 industries are harnessing AI to supercharge business opportunities



IBM

How IBM can help

IBM has been providing expertise to help organizations win in the marketplace for more than a century. Clients can realize the potential of AI, analytics, and data using IBM's deep industry, functional, and technical expertise; enterprise-grade technology solutions; and science-based research innovations.

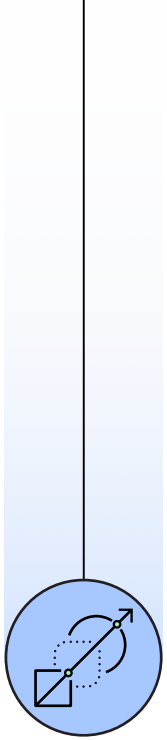
For more information about AI services from IBM Consulting, visit ibm.com/services/artificial-intelligence

For more information about AI solutions from IBM Software, visit ibm.com/watson

For more information about AI innovations from IBM Research, visit research ibm.com/artificial-intelligence

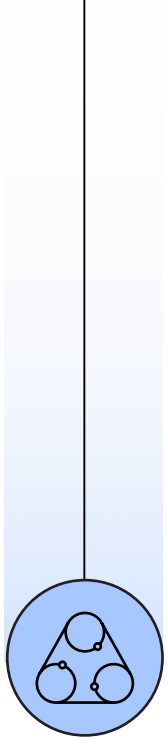
Key takeaways

On the AI journey, efficiency is an important milestone, but growth and innovation are the destinations.



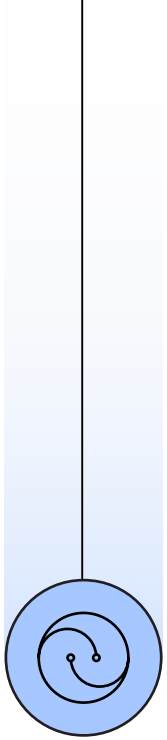
Productivity is not the AI endgame.

Organizations focusing only on efficiency will miss out on greater opportunities from AI for innovation. 85% of executives say AI will enable business model innovation and 89% say it will drive product and service innovation.[1]



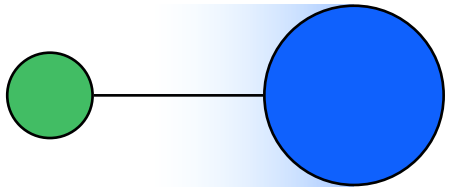
As AI becomes more transformational, it also becomes more industry and enterprise specific.

Enterprises winning with AI are reimagining businesses, transforming operating models, and charting new industry paths. 62% of CEOs say they have to rewrite organizational playbooks.[2]



Channeling AI disruption into industry leadership requires an AI-powered operating model.

79% of executives expect gen AI to have a major impact on core elements of their operating model.[3]



Rise to the AI moment

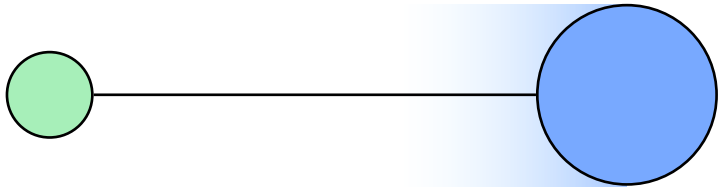
Moving past operational improvements for competitive advantage

Successfully harnessing AI will determine the rise—or fall—of businesses across virtually all industries. Most CEOs acknowledge that enterprises with the most advanced generative AI capabilities will capture greater competitive advantage.[4]

That's why enterprise spend on AI has grown dramatically in the past few years. Organizations are racing full speed ahead to take the AI high ground, with enterprise spend on AI surging 78% between December 2022 and March 2024.[5]

But investing in AI is not the same thing as realizing business value from AI. Many AI use cases initially focus on improving productivity and operational efficiency by incorporating AI tools into existing processes and work methods. That's logical: automating or improving repetitive tasks can yield quick wins.

Now we're at the cusp of a new AI moment as the technology evolves from AI assistants to agentic AI, where AI can autonomously perform tasks for a user or another system by designing workflows and unlocking opportunities. Capturing this potential requires thinking beyond individual tasks and reimagining processes and workflows through an AI lens—a redesign that fully leverages AI advantages to realize dramatic productivity gains. But this is not the endgame: those who focus only on efficiency will fall behind and miss out on greater opportunities.



Companies that linger in the AI productivity phase will fail to benefit from the ultimate potential of AI for innovation—its ability to generate new ideas, disrupt markets, inspire new products, and create new services and revenue streams. Innovation beyond productivity is the differentiator in today's competitive landscape and the lever for uncovering the full value potential of AI.

Innovation-focused AI requires a shift from a tactical POV—how work is done—to a larger, more strategic perspective on what an enterprise could be doing. And as these efforts become more transformational, they also become more industry and enterprise specific (see Figure 1).

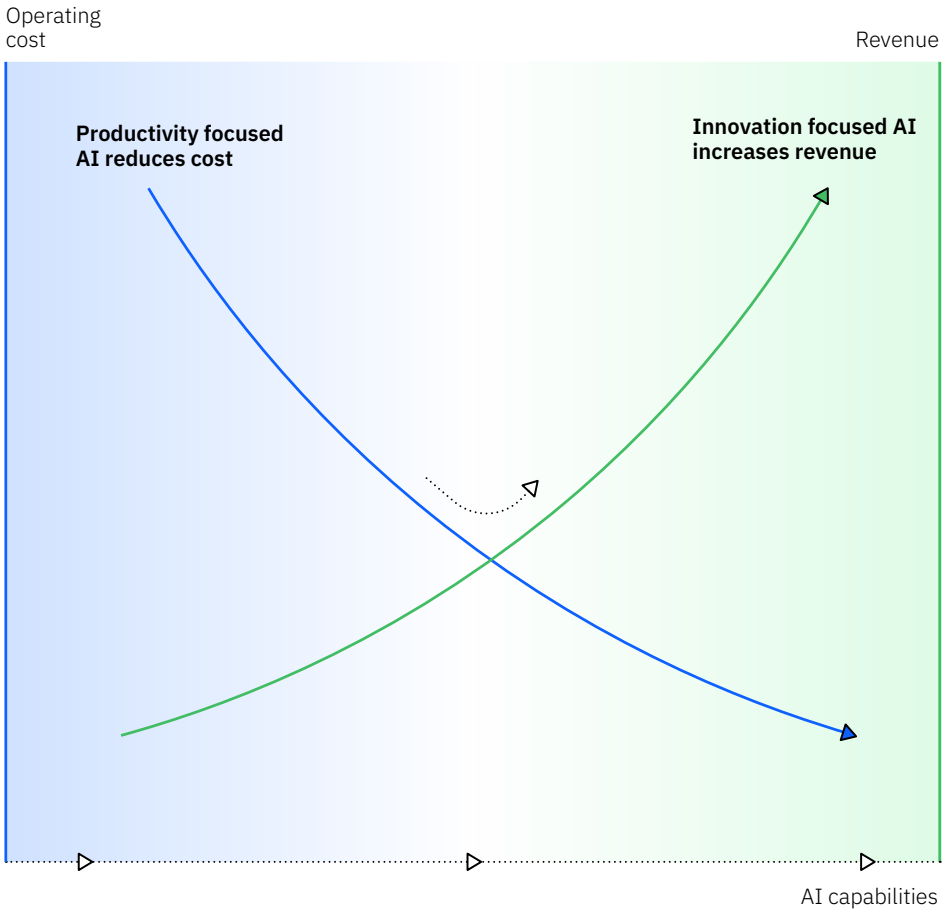
Executives winning with AI are reinventing businesses, transforming operating models, and charting new industry paths. Among CEOs globally, product and service innovation now rank as the top priority, with business model innovation the leading challenge.[6]

When people, platforms, processes, and partners operate in a mutually supporting feedback loop, it creates a flywheel effect that spins off innovation and value creation. Efficiency gains, augmentation, workflow transformation, and new revenue streams propel a continuous cycle of innovation, change, and value creation. As this dynamic builds momentum, AI will increasingly shift to a self-funding model, enabling further investments into new projects with greater potential for breakthroughs. In fact, 95% of executives say gen AI will be at least partially self-funded by 2026.[7] Organizations that start and keep spinning an AI innovation flywheel will gain more value beyond step change improvements to existing ways of working.

What does success look like in each industry setting? This report provides targeted insights across 10 different industries, along with a real-world case study for each industry and an industry-specific action guide. To begin, we provide a summary of each industry, followed by an outline of four key areas that impact all industries, and an overarching cross-industry action guide. Then we dig deep into each industry.

Figure 1

Transformational impact of AI on industries



Industry summary

Banking and finance: Delivering more and better services

AI gives banks new opportunities to reimagine how they create value for customers. 67% of banking CEOs say they must accept significant risk to harness automation advantages and enhance competitiveness while 64% say they must rewrite their organizational playbook to win in the future. With AI, banks learn more from each client interaction, refine actions to improve the customer experience, higher-value services, such as embedded finance and wealth management. Banks are also tapping AI to reimagine core operations for greater efficiency, better risk management, and modernized technology.

Telecommunications: AI reshapes the digital world

More than 80% of telecom executives say gen AI will change the role of their organization within their industry during the next three years. AI is moving beyond basic automation to decision-making, network optimization, sustainability, and proactive customer care. As people and business connectors, communications service providers (CSPs) have a unique opportunity to position themselves as catalysts for AI-driven innovation across industries. More than three out of four telecom CEOs (79%) say gen AI will create opportunities for their organization outside the telecom industry.

Public service: Future-ready governments lean into AI

AI offers governments an unprecedented opportunity to reinvent how they deliver services, with the potential to set the global standard for innovation and resilience. 60% of government CEOs prioritize accelerating transformation, and 69% recognize the need to rewrite organizational playbooks to be future-ready. In an era defined by volatility, AI enables governments to scale capabilities, empower public servants, reduce administrative burdens, and respond with agility to crises and shock events such as geopolitical conflicts, climate-related disasters, pandemics, and economic upheavals.

Retail and consumer products: Pivoting to AI-led brands

More than 80% of retail and consumer products organizations report AI deployment in demand forecasting, IT support, HR help desks, trade promotions, and inventory management. The challenge is to extend these early advances into more sophisticated, value-creating activities—and take the bold steps needed to become AI-led brands. Industry executives project that AI's contribution to revenue growth will increase by 133% from 2023 to 2027, with significant impacts on customer experience, product design, and new business models. For example, AI can enable hyper-personalization and tailor omnichannel engagement.

Automotive: Driving mobility to new destinations

The automotive industry has been at the forefront of AI deployment, from autonomous driving technology to electric vehicles. Cars have become increasingly software intensive and 74% of industry executives predict cars will be software defined and AI powered in the next decade. The auto industry business model is shifting from selling vehicles and aftermarket parts to generating more recurring digital revenue. A software-enabled customer experience can be a key automotive brand differentiator as digital- and software-related revenue is expected to be 51% of total industry revenue by 2035.

Oil and gas: Enabling a more profitable low-carbon future

AI is emerging as a catalyst for every aspect of the oil and gas value chain—from exploration to production to distribution—unlocking new levels of operational efficiency, safety, and sustainability. Whether it's discovering untapped reserves, enhancing predictive maintenance to help prevent failures before they happen, or driving more efficient production processes, AI is the engine that can propel the industry forward. It can also help the industry pivot to sustainable energy solutions by optimizing renewable energy generation and streamlining grid integration.

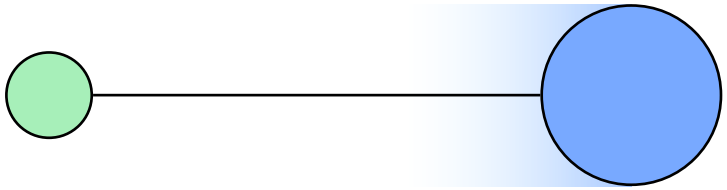
Industry summary (continued)

Utilities: How to supercharge power grid reliability

Embracing AI enables utilities to navigate the complexities of the ongoing energy transition. As the sector grapples with aging infrastructure, rising operational costs, and pressure to transition to cleaner energy sources, AI can help improve power grid resilience. From smart grids to energy forecasting to integrating renewable energy, AI plays a critical role in transforming the utility industry. For example, it can help smooth out fluctuations in renewable energy generation and optimize energy storage systems.

Healthcare: Delivering measurable improvements with AI—now

AI has already demonstrated the potential to revolutionize healthcare without disrupting patient care when applied to back-office operations and nonfrontline clinical decisions. For example, AI-driven automation has reduced processing time of discharge letters from 10 minutes to only four seconds per patient. Looking ahead, AI is poised to make an impact in digital scribing by enabling automated notetaking and summarization. With AI-supported treatment advances on the horizon, AI can already deliver measurable improvements in patient flow by reducing missed appointments, unnecessary follow-ups, and delayed discharges.



Insurance: Bridging the AI trust gap

In an industry defined by prudence and risk mitigation, seizing the opportunities created by AI can feel like a balancing act. While 77% of industry executives say they need to adopt gen AI quickly to keep up with rivals, only half say it is more of an opportunity than a risk. Insurers can differentiate by using AI to support new types of tailored products and bring them to market faster with a more targeted approach. This means delivering not just personalization, but actual matches between customers, their risks, and the insurer's product portfolio. Trust and quality need to be ironclad, given an insurer's investment in a brand and its regulatory constraints.

Life sciences: From drug discovery to agentic AI

AI-enabled drug discovery and development is a hot topic in the life sciences industry. A variety of biomedical foundation models are available to support drug design, including open-source models that use AI to generate molecular designs. As AI progresses from individual task-based tools to AI agents, the possibilities get even richer. Life sciences organizations can optimize and automate complex, multistep workflows from genomic analysis to hypothesis synthesis to visual data interpretation.

Essential capabilities of AI-centric operating models

AI is disrupting industries

Channeling that disruption into market leadership requires an AI-powered operating model centered on people, supported by processes, enabled by tech and data platforms, and reinforced by energized partners (see Figure 2).

Elevating your people. In traditional organizations, people—no matter their role—spend a lot of time manually sifting through paperwork, collecting data, and monitoring systems. AI assistants and agents can handle these tasks effortlessly, liberating professionals from tedious duties, freeing time for deeper dives into higher value activities, and enabling more creative problem-solving. People across industries will have to make this game changing shift, with 64% of CEOs saying that success with AI depends more on people's adoption than the technology itself.[8] Organizations making this transition will be poised to address skills shortages, manage resources with greater flexibility, and harness collective workforce intelligence.

Continuously improving processes. AI can sweep away functional silos and fundamentally transform work methods, removing redundancy, improving insights, and fueling enterprise agility. Agentic AI enables iterative and collaborative workflows and ongoing process improvements. It can identify, source, and incorporate data from across systems and tools to generate outcomes in new ways, and embed and codify enhancements at unprecedented scale and speed. In fact, 92% of C-suite executives expect to digitize their organization's workflows and leverage AI-powered automation by 2026.[9]

Getting more from data and AI through flexible IT architectures and platforms. As AI technology evolves, working with a single large model for all purposes is not necessarily the right way forward. Different capabilities are offered by different models, with some models tailored to the needs of a specific industry. Organizations with an AI platform for multiple models and assets—underpinned by flexible technology architectures—will be able to leverage the right model for each use case.

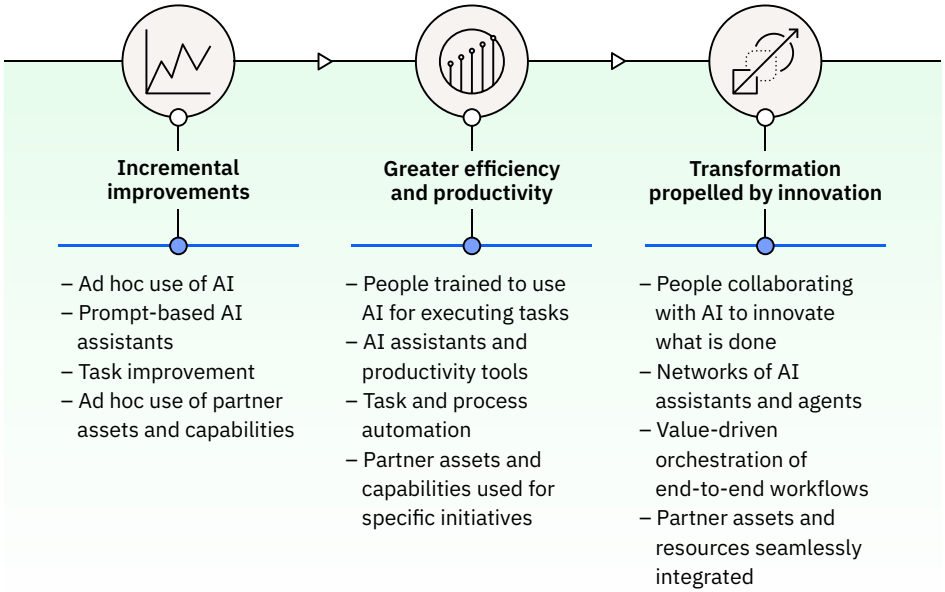
That means avoiding technology lock-in, embracing hybrid by design, and enabling interoperability and scalability across different environments and systems. This will enable data to flow across the enterprise to where it can generate the most value and turn AI into a competitive advantage by tapping your enterprise and industry specific data. For many organizations, this will require a tech reset, with 74% of organizations struggling with technical debt and only 25% of executives strongly agreeing that their organization's IT infrastructure can support scaling AI across the enterprise.[10]

Turning AI into a team sport with the right partners. The ability to integrate ecosystem partner capabilities will be essential to build and maintain a competitive edge with AI. IBM Institute for Business Value (IBM IBV) research has found that organizations investing in ecosystems enjoy a revenue growth premium of 40%;[11] such efforts can become even more lucrative in the age of AI. But to succeed, organizations must get better at selecting the right partners for the right purpose—and not hang on to partnerships that no longer fit. In fact, 55% of business leaders say that changing strategic priorities mean reconfiguring core partnerships.[12]

Ecosystem partnerships need to evolve, matching the right AI expertise and resources to the changing business needs of each industry.

Figure 2

The continuum of AI transformation for industries



Action guide
for all industries

Here are four to-dos for all industry leaders to build momentum and seize AI opportunities for innovation and growth:

1

Don’t just augment jobs with AI, reinvent them.

Integrate AI tools across the enterprise and train employees to use the right AI model, assistant, or agent. Elevate current roles, invent new ones, encourage and reward innovation, and make change management core to AI transformation.

2

Revamp operations to be AI-first.

Prioritize processes and workflows for AI-led redesign and embed AI so it becomes second nature. Seek meaningful change in core workflows that cut across traditional functional and process silos to reduce complexity and hand-offs. Don’t be limited to tweaks at the edges.

3

Make your technology estate AI-ready.

Take a purposeful approach to cloud, infrastructure, data, and security. Codify and enforce consistent architectural principles and tap AI assistants to continuously improve architectural decisions.

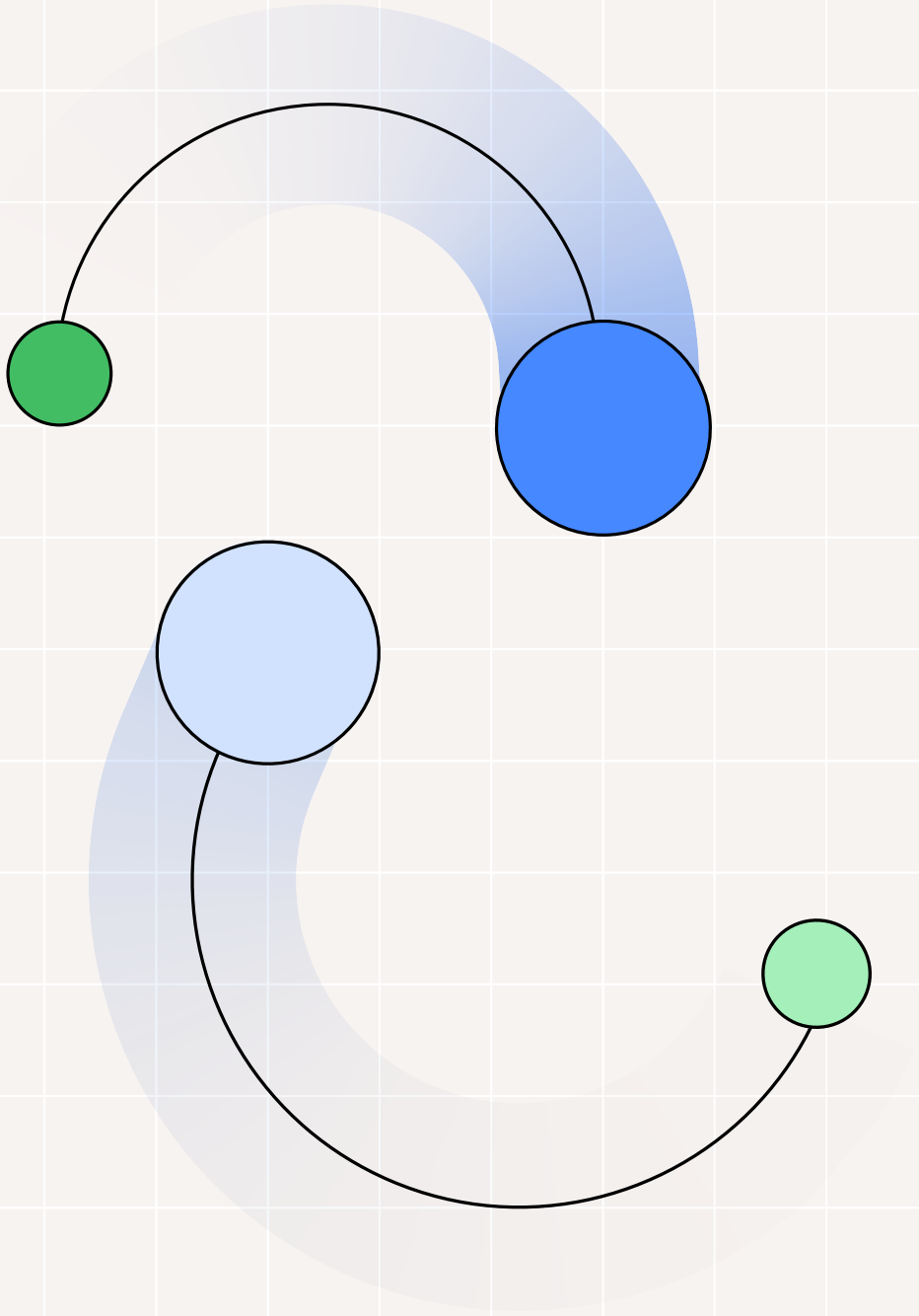
4

Add partnerships that bolster your mission—and trim those that don’t.

Make hard decisions about where to double down and where to reconfigure your current ecosystem. Clarify where your organization is unique, what needs to be proprietary, and how partners will complement what you already do.

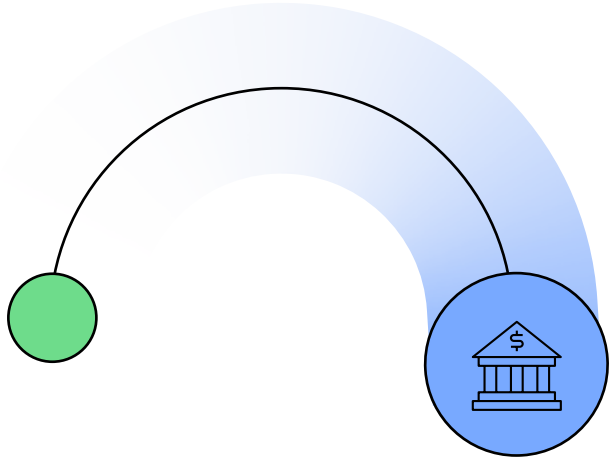
Ten industries reimagined in the era of AI

Impacts and implications of AI on industry growth, innovation, ecosystems, and competitiveness



Banking and finance

Delivering more and better services



AI gives banks new opportunities to reimagine how they create value for customers. 67% of banking CEOs say they must accept significant risk to harness automation advantages and enhance competitiveness[13], while 64% say they must rewrite their organizational playbook.[14]

AI-powered service customization and product differentiation will help banks and other financial institutions develop new sources of revenue and compete more effectively with fintechs and neobanks.

Technology and innovation have driven dramatic changes to banking over the last few decades. From internet banking to chatbots, customers now enjoy rapid access to services. Customers benefit, but so do bank employees, who can spend more time on higher value activities, such as counseling clients on wealth management and developing new business.

Today, AI takes everything a step further (see Figure 3). Banks learn more from each client interaction and can refine actions to improve the customer experience. Customer service chatbots become more sophisticated as gen AI handles digital conversations that facilitate value-added relationships, improving first point of contact resolutions (FPOC) and reducing the cost to serve. By combining insights from mobile apps, online experiences, and client details gathered by branch managers, AI surfaces insights into client preferences and uncovers ways to improve banking services.

As customers become more comfortable with branchless, fully digital banks as their primary banking relationship, competition is shifting from mass market digital offerings to higher-value services, including embedded finance and advisory services. For example, leading banks are enhancing wealth management with AI to empower traders and investors with deep insights and identification of trends from large data sets to adapt strategies, enhance profitability, and reduce risk.

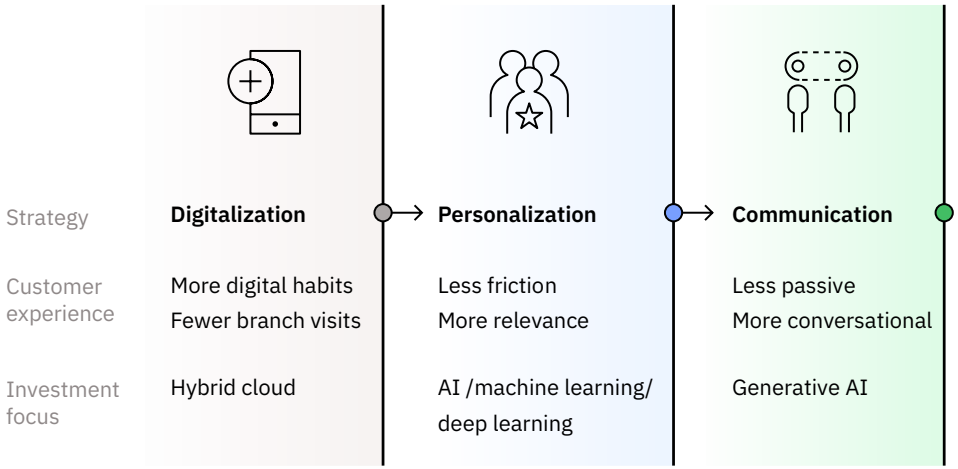
Banks are also tapping AI to reimagine core operations for greater efficiency, better risk management and technology modernization. For example, AI can transform lending operations with automated underwriting and credit decisioning. It can also improve the accuracy and effectiveness of fraud, KYC (know your customer) and AML (anti-money laundering) detection models. These tools use suspicious pattern recognition to detect patterns in transactions and reduce the number of false positives seen by analysts for validation and escalation.

AI-powered assets digitize, or codify, aspects of knowledge, skills and task execution that have traditionally been performed by individuals. This allows for greater consistency at scale as human expertise gets embedded into AI-powered tools. By shifting focus from individual use cases to enterprise-wide transformation, banks can use AI to target labor and cost-intensive operations, processes involving frequent document handling, and workflows susceptible to delays due to outdated methods or complex interdependencies.

Banks are already using AI to analyze transaction data in near real time, and LLMs can make data processing even faster.

Figure 3

Evolving banking with exponential technology



Case study

NatWest delivers the personal touch, enabled by AI [15]

NatWest is one of the first UK banks to leverage generative AI, creating a competitive advantage by offering more personalized and responsive support to customers.

Headquartered in Edinburgh, Scotland, NatWest offers banking services to more than 19 million people, families, and businesses in the UK and Ireland. Since the launch of its Cora digital assistant in 2017, AI has been a cornerstone of NatWest's customer engagement, addressing nearly 11 million inquiries annually.

NatWest worked with IBM to create an upgraded version of Cora in 2024, incorporating gen AI to deliver more nuanced answers and better anticipate customer needs. Cora+ is a multichannel interaction platform across website, mobile app and social media, delivering human-like interactions. While original Cora would direct users to existing sites or content to answer questions, Cora+ uses retrieval-augmented generation (RAG) technology to handle natural language questions and deliver answers via chat.

The bank has seen up to 150% improvement in customer satisfaction and now 94% of NatWest customers use digital banking.

"It's really important for our customers to feel understood when they're talking about something as sensitive and personal as money. Whether we do that as human being to human being, or whether we do it as digital being to human being, we have the same considerations—that the customer has to feel cared for and understood."

Wendy Redshaw, Chief Digital Information Officer, NatWest retail division

Action guide
for banking executives

1

Tap AI for embedded finance, allowing customers to bank anywhere, anytime.

Enhance advisory propositions with AI to capture new service fees for consumers and businesses. Reconsider payment initiatives as the backbone for new data to fortify AI-powered risk management across ecosystems.

2

Make every banker an AI risk manager.

Enterprise-wide AI will redefine a bank's operational risk profile and demands a renewed risk management culture. Consider the potential value of AI implementations as you assess risk and complexity. Successfully managing risks is critical to maintaining customer trust, regulatory adherence, and responsible use of AI.

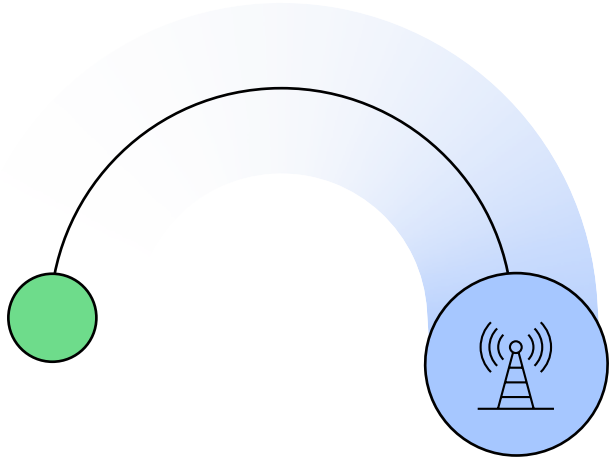
3

Focus AI on high-impact workloads in core banking operations to enhance offerings and profitability.

Embrace AI to reimagine processes end-to-end and drive efficiency and innovation. For example, investing in AI-enabled personalization supports customer growth, improves activation rates for cards and services, and helps lower costs to acquire new customers.

Telecommunications

AI reshapes the digital world



For years, the telecom industry has benefited from traditional analytics and AI technology and is now exploring the transformational opportunities offered by gen AI and agentic AI.

More than 80% of telecom executives say gen AI will change the role of their organization within their industry during the next three years.[16]

AI assistants are already making employees more productive, with proprietary AI models automating everyday tasks for leading adopters. AI can move beyond basic automation to decision-making, network optimization, sustainability, and data analytics. Digital twin capabilities combined with AI models, assistants, and agents are enabling communications service providers (CSPs) to simulate physical and digital infrastructure and execute scenario analysis to anticipate challenges, plan network expansions, and optimize bandwidth in real time—predicting potential bottlenecks, as well as anticipating and responding in real time to network anomalies.

Looking ahead, agentic AI systems can not only track and monitor usage trends, but interface with partner carriers to negotiate bandwidth and dynamically provision resources. Agentic AI can also enable more targeted marketing campaigns, personalized bundling of services, and proactive customer care.

To benefit from capabilities beyond telecom industry boundaries, 61% of telecom CEOs say they need to reconfigure core business partnerships.

These opportunities will require tapping capabilities beyond industry and enterprise boundaries—61% of telecom CEOs say they need to reconfigure core business partnerships.[17] Cross-industry collaboration can also open new revenue streams, from smart city partnerships to interactive media platforms. As people and business connectors, CSPs have a unique opportunity to position themselves as the catalysts for AI-driven innovation across industries. More than three out of four telecom CEOs (79%) say gen AI will create opportunities for their organization outside their own industry.[18]

Case study

Bharti Airtel calls everyone to the AI table [19]

Bharti Airtel uses AI across its operations and products to further enhance its digital capabilities and customer experience.

The company has launched innovative AI solutions to solidify its position as India's largest integrated communications solutions provider, serving over 550 million customers in 17 countries.

Airtel's industry-first anti-SPAM network has brought relief to millions of customers. Since its launch, the solution has flagged over eight billion spam calls and one billion spam SMS messages, identifying nearly one million spammers daily. The AI-powered network leverages advanced algorithms to provide real-time spam protection at no cost to customers.

The company has also launched an AI powered radio access network (RAN) energy management solution, focused on reducing energy consumption throughout Airtel's network infrastructure. This vendor-agnostic solution works across 4G and 5G technology. Based on initial trials, Airtel is expected to save approximately $12 million (100Cr) annually and reduce its carbon footprint.

Furthermore, Airtel has identified and started to deploy AI to key strategic areas with several AI led use cases already in production, spanning across customer experience, human resources, and marketing. Airtel is now actively working on implementing agentic AI solutions to drive innovation and growth.

"At Airtel, we believe in the transformative power of AI and gen AI. Like with any new technology, there is a cycle of awareness, evangelizing, and training that must be followed."

Pradipt Kapoor, Chief Information Officer, Bharti Airtel

Action guide
for telecommunications executives

1

Invest in tailored telecommunications AI portfolios.

Standard LLMs are seldom trained on highly specialized technical data of telecom networks. Tailor existing models to niche industry context, tackling data specificity and system integration challenges. Meanwhile, domains such as the network (RAN, core) can benefit from the use of small language models, helping ensure higher accuracy and optimization. For more complex tasks, use RAG to improve the quality of responses by supplementing models with external industry-specific knowledge.

2

Transform the telecommunications value chain from networks to customers.

Embed AI-driven insights from design to customer engagement and embrace open standards and interfaces for flexibility and interoperability. Autonomous self-healing networks, powered by agentic AI, can adjust to real-time traffic patterns, manage bandwidth across platforms, and recommend new monetization opportunities through better customer experience and product enhancements.

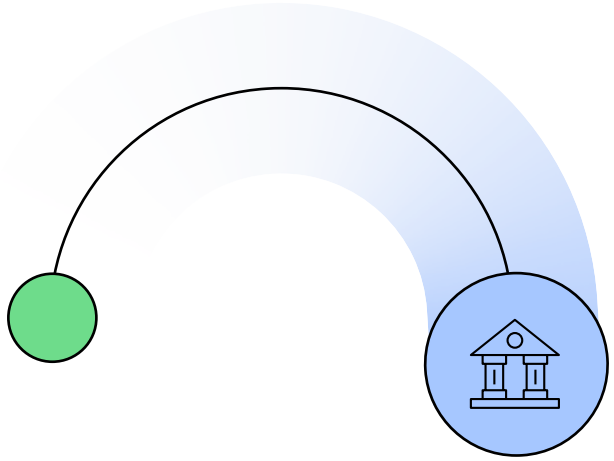
3

Focus on cross-industry partnerships.

Engage with partners in adjacent sectors to leverage AI-driven synergies and co-develop solutions supporting areas such as smart energy, mobility, and healthcare. Provide developer environments, network testing sandboxes, and partnership opportunities to foster AI innovation.

Public service

Future-ready governments lean into AI



AI offers governments an unprecedented opportunity to reinvent how they deliver services, with the potential to set the global standard for innovation and resilience.

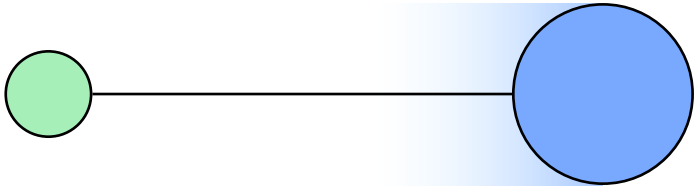
60% of government CEOs prioritize accelerating transformation, and 69% recognize the need to rewrite organizational playbooks to be future-ready.[20]

AI is a force multiplier for human potential and governance at scale. In an era defined by volatility, AI enables governments to scale capabilities, empower public servants, and respond with agility to crises and shock events such as geopolitical conflicts, climate-related disasters, pandemics, and economic upheavals.

By automating routine tasks, governments can reallocate human resources toward high-impact, people-centered activities such as policymaking, community engagement, and crisis management. Gen AI can improve productivity and enhance citizen services through personalized experiences.

For example, generative AI is enabling public agencies to reduce administrative burdens, automate case processing, and streamline document-intensive workflows—freeing employees to address more complex citizen needs. In some countries, chatbots and virtual assistants powered by generative AI already provide citizens with personalized information and services and assist with benefits, permits, and licenses.

In a public service context, AI is a force multiplier for human potential and governance at scale.



AI can help governments prepare for, respond to, and recover from shock events more quickly, while building resilience for the future.

Other potential applications in social services and healthcare can help identify high-risk populations, optimize response protocols, and streamline workflows to improve social and health outcomes.

AI can also support greater citizen involvement in shaping government services, making them more responsive to changing needs and requirements, such as analyzing citizen feedback and sentiment and identifying improvement needs of constituents. Going forward, AI can play an instrumental role in reimagining the citizen-government relationship, transforming service delivery, and improving communications.

Leading government agencies are using generative AI to unlock data-driven insights that strengthen emergency response and climate resilience. In collaboration with IBM, NASA is developing AI geospatial foundation models to analyze petabytes of satellite imagery, mapping flooding events and other environmental changes in near real-time (See case study). These models can help local governments anticipate disaster impacts, optimize evacuation planning, and safeguard critical infrastructure. The same AI capabilities can support climate adaptation efforts by evaluating risks to crops, buildings, and ecosystems.

Governments play a critical role in helping ensure the safe and ethical integration of AI into our societies and the global economy. By modeling best practices, governments can spark resilience and innovation around the world. Leading agencies are establishing AI Centers of Excellence to serve as governance hubs—setting global standards for transparency, bias mitigation, and equitable AI implementation. These hubs foster cross-departmental collaboration and ensure that public-sector AI adoption advances the interests of all citizens.

Case study

NASA, IBM collaboration maps a safer world with open innovation and open science. [21]

> "We hope that this spirit of open collaboration can be a model for developing other tools aimed at unlocking very large datasets."
>
> Juan Bernabé-Moreno, Director,
> IBM Research Europe (UK and Ireland)

Nearly a quarter of the earth's population now lives in a flood zone, where rising seas and more severe storms put ever more people at risk. Deploying AI to accurately map flooding events can save lives and property.

Together, NASA and IBM are creating AI geospatial foundation models to analyze petabytes of satellite images to create customized maps of natural disasters and other environmental changes. The goal: provide an easier way for researchers to analyze and draw insights from large NASA datasets related to natural processes.

Potential applications for this first-of-its-kind AI model extend beyond flood mapping to estimating climate-related risks to crops, buildings, and other infrastructure, evaluating and monitoring forests for carbon-offset programs, and developing predictive models that help enterprises mitigate and adapt to climate change.

The family of models was expanded in 2024, developing a foundation model for weather and climate data. The model was customized for more specific tasks, such as creating highly localized wind forecasts for renewable energy planning and increasing the resolution for climate simulations to better understand and plan for the local effects of climate change.

Action guide
for government leaders

1

Weave AI literacy into the fabric of public service.

Upskill public servants in AI tools and workflows and empower them to focus on solving complex societal challenges. Foster collaboration through AI “sandbox” environments where departments can experiment, innovate, and refine AI-enabled solutions.

2

Establish AI governance hubs.

Build AI Centers of Excellence (COE) that set the global gold standard for ethical AI use in government, with robust frameworks for transparency, risk mitigation, and equitable outcomes. Integrate governance into every stage of AI implementation, and hold leaders across IT, HR, and policy jointly responsible for AI outcomes.

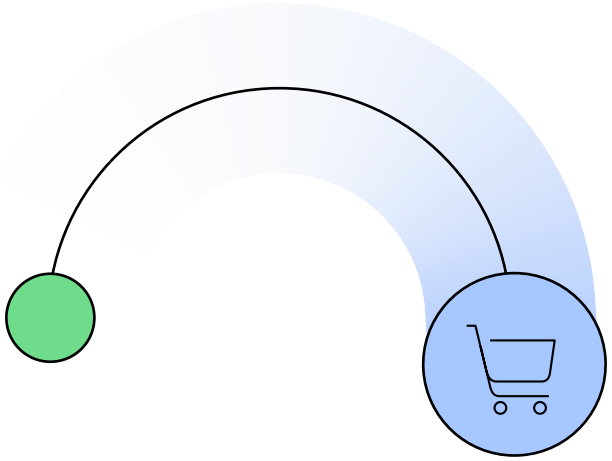
3

Deploy AI to improve emergency response.

Simulate disaster scenarios, optimize emergency logistics, and protect critical infrastructure against climate, geopolitical, and technological threats. Leverage gen AI for real-time crisis decision-making and resource optimization. Pair these capabilities with hybrid cloud platforms for scalability, data security, and seamless interagency collaboration.

Retail and consumer products

Pivoting to AI-led brands



Retail and consumer products organizations have jumped into AI usage: more than 80% report AI deployment in demand forecasting, IT support, HR help desks, trade promotions, and inventory management.[22]

The challenge is to extend these early advances into more sophisticated, value-creating activities—from internal departmental use cases to multifaceted ones that require external collaboration, more complex system integrations, and greater human intervention and oversight.

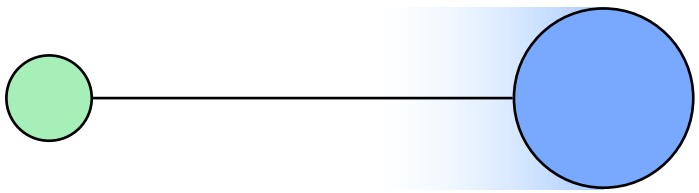
Are retail and consumer organizations prepared to take the bold steps needed to become AI-led brands? Industry executives project that AI's contribution to revenue growth will increase by 133% from 2023 to 2027, with significant impacts on customer experience, product design, and new business models.[23] Already, AI-powered virtual assistants can provide personalized recommendations and contextual support to customers, while AI-powered tools can create new engaging digital content and provide more insights into customer personas and preferences. For example, gen AI can enable hyper-personalization, tailor omnichannel engagement, and enhance customer support, sentiment analysis and segmentation for better loyalty programs.

Are retail and consumer organizations prepared to take the bold steps required to become AI-led brands?

AI can also optimize operations by streamlining inventory management and supply chain operations, improving demand forecast accuracy, and automating pricing and merchandising strategies. Within finance, AI can automate key source-to-pay and compliance processes, while reducing cost and improving performance.

While recognizing the power of AI, industry leaders know the importance of using it to complement human intuition, creativity, and expertise. Ultimately, brands and retailers need to identify the sweet spot for AI and human agency for peak performance.

To achieve these larger goals, retailers must tap the value of partnership. Retail and consumer products organizations are increasingly turning to ecosystem platforms to enable innovation, improve products and services, and ensure supplier compliance. For example, the product compliance ecosystem can provide accelerated product lifecycle management with advanced business rules engines and touchless bill-of-materials generation. Integrating end-to-end AI-driven compliance can help ensure that product lifecycles align with evolving regulatory requirements, consumer safety, and sustainability expectations.



While recognizing the power of AI, industry leaders know the importance of using it to complement human intuition, creativity, and expertise.

Case study

Goodiebox: Delivering beautiful results through human agency and AI [24]

Subscribers to Goodiebox look forward to discovering the latest beauty products, delivered to the door in a stylish box every month.

To surprise and delight recipients, the Goodiebox team selects a mix of products and brands for inclusion, based on fashion and seasonal trends.

With multiple brands and categories competing for inclusion in each pack, the team worked from shared spreadsheets to map out the best possible combinations. In addition, spreadsheets were used to manually track stock levels, new product arrival times, and expiration dates. But as Goodiebox grew, it became clear that working with spreadsheets would not scale, with too many factors impacting creative decisions.

To address immediate challenges and support future growth, Goodiebox has embedded a strategic solution that automates product recommendations, optimizes current inventory, and optimizes parameters to maximize customer satisfaction, streamline operational efficiency and improve planning. Using stock data and expiration dates, the system suggests possible product mixes for the boxes, enabling Goodiebox to edit selections, assess impacts on inventory, and reserve items for current or future boxes. With the solution in place, Goodiebox has transformed operational efficiency and reported improvements in sourcing and designing monthly boxes.

Streamlined planning provides the Goodiebox team with more time for the essential creative process of designing attractive beauty packages for each box, tailored to appeal to different audiences. Powerful data analysis enables Goodiebox to understand which products are popular by country and market segment, and which products lead to subsequent online purchases.

The solution has enabled Goodiebox to cut costs, improve productivity, and—most importantly for commercial success—enhance the customer experience.

> "The process is now less manual, and it is around five times faster to plan our boxes every month."
>
> Juliette Giraud, Senior Partnerships Manager (Global Planning), Goodiebox

Action guide
for retail executives

1

Tailor AI to your brand priorities.

To move beyond AI-driven productivity gains, focus on where AI can help you distinguish yourself from competitors, whether that's personalized customer experience, optimized in-store experiences, or faster product ideation and design. Concentrate on what's most important—not on everything that's possible.

2

Enable AI-ready technology for greater consumer impact.

To be an AI-first brand requires tearing down silos between finance, technology, and business leaders and purposefully aligning IT with long-term business goals, not just trendy tech. Put different parts of your organization around the same table and build solid business cases for where AI can deliver a long-term competitive edge. Use technology platforms to enable federation and orchestration of AI across functions and facilitate cross-functional learning to maximize the brand impact of AI.

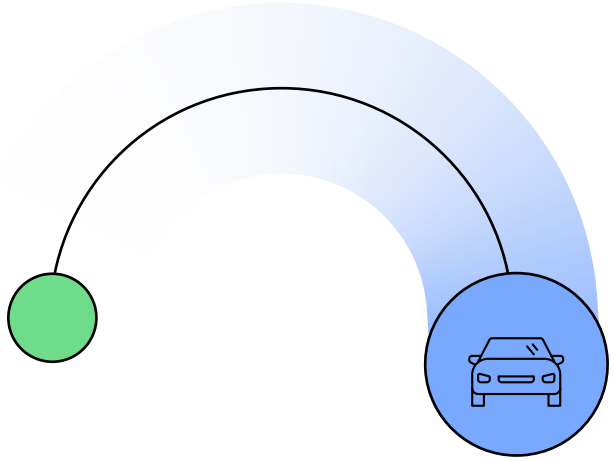
3

Make friends with AI players.

Traditional strategic partnerships, focused on physical distribution of supplies and products, are no longer enough in the age of AI. Tech companies, startups, and other nontraditional partners are needed for AI model development, platforms, and tools. For example, IBM IBV research found that 65% of retail organizations are already working with or planning to work with a strategic partner to build LLMs for generative AI initiatives.[25] Prioritize partners who understand your goals, share your vision, and have a proven record for integration.

Automotive

Driving mobility to new destinations



In many ways, the automotive industry has been at the forefront of AI deployment, from autonomous driving technology to electric vehicles.

By 2035, revenue related to digital and software products is expected to comprise 51% of total auto industry revenue, up from 15% today.

Cars have become increasingly software intensive. Recent IBM IBV research found that 74% of industry executives predict cars will be software defined and AI powered in the next decade.[26]

At the same time, the auto industry business model is shifting from selling vehicles and aftermarket parts to generating more recurring digital revenue. A software-enabled customer experience can be the key automotive brand differentiator. Digital- and software-related revenue is expected to be 51% of total industry revenue by 2035, up from 15% today.[27] 74% of auto executives agree that this transition won't be easy.[28] Yet with a boost from AI, some automakers will move ahead faster than competitors.

Executives are looking to AI to increase the perceived value of products by 22% and the value of digital services by 37% over the next three years.[29] Auto companies expect AI to reduce time-to-market for digital services by 21%.[30]

Autonomous driving may be the most prominent use case of an AI-enabled driving experience, with 64% of industry executives saying it will be one of the top customer expectations by 2035.[31] Making autonomous systems safe, reliable, and secure will require massive testing and simulation workloads—with AI predicted to be a key enabler. Overall, generative AI is expected to reduce software-defined-vehicle workloads by nearly 40% in three years.[32]

Case study

Honda streamlines knowledge transfer with AI to accelerate innovation [33]

Honda, headquartered in Japan, is the world's eighth largest automaker.

As the auto industry shifts gears towards a future powered by electrification and intelligence, Honda is navigating this change by transforming complex data into actionable insights, paving the way to greater efficiency and performance.

A key initiative involved implementing an Advanced Expert System (A-ES) to transfer skilled engineers' knowledge to younger ones. The sheer amount of time to create knowledge models posed a challenge for wider business development, so Honda used generative AI to extract database knowledge from technical documents. An IBM pilot validated the feasibility of this approach using a large multi-model model (LLM) to convert graph and diagram content into text to improve the re-use of valuable knowledge.

With a conventional A-ES approach, an experienced engineer would take three years to create a handbook and one year to create a model from the handbook. The time savings achieved through A-ES were 30% for development and 50% for planning and management. Using gen AI, Honda's technical documentation can now be modeled as sentences, reducing modeling time from three years to one. This approach expands document utilization areas, boosts business efficiency, and opens up many more opportunities for AI-fueled innovation in the future.

"The platform securely leverages our vast amount of development information and contributes to our dream of delivering more value to our customers."

Shigeto Yasuhara, General Manager, Senior Chief Engineer, BEV Development Division-I, BEV Automotive Development Unit, Electrification Business Development Operations, BEV Development Center

Action guide
for automotive executives

1

Use AI to redefine mobility experiences.

Safety, reliability, security, and privacy are key competitive advantages in the auto industry and can enable differentiated experiences. Use AI to enhance foundational capabilities, and develop personalized, unique brand experiences, such as smart charging capabilities for electric vehicles.

2

Boost complex software development in product development with AI tools.

Managing product lifecycles and technical complexity are top software development challenges. Infusing AI into model-based systems engineering and other applications can make these tools more efficient and productive.

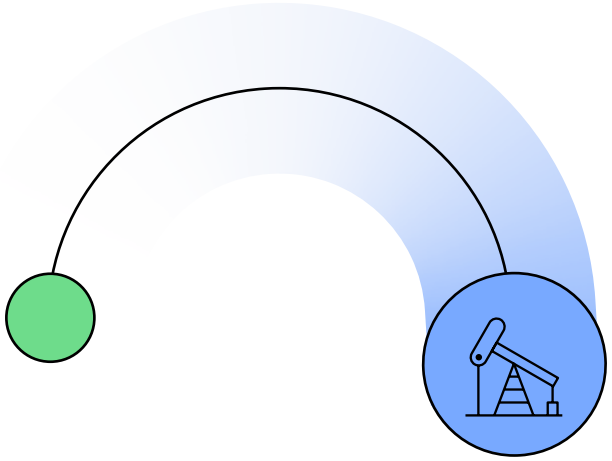
3

Accelerate automotive operating model transformation.

Apply AI, automation, and agentic AI to improve productivity and support an organizational culture of continuous learning. Augment skilled auto manufacturing workers with AI and digital tech for more productive plant operations. Look beyond your traditional ecosystem for tech startups, educational research programs, and telecommunications and media and entertainment companies to create seamless customer experiences that connect people's lives and mobility.

Oil and gas

Enabling a more profitable low-carbon future



As oil and gas companies strive to get the most from existing operations while also charting a course toward a low-carbon future, AI is emerging as a catalyst for every aspect of the value chain—from exploration to production to distribution—unlocking new levels of operational efficiency, safety, and sustainability.

AI is the engine that can propel the oil and gas industry forward.

Whether it's discovering untapped reserves, enhancing predictive maintenance to help prevent failures before they happen, or driving more efficient production processes, AI is the engine that can propel the industry forward.

For example, AI can reshape how the industry tackles carbon emissions and the climate crisis. Through smarter carbon capture, utilization, and storage (CCUS) technologies, AI not only improves CO2 capture efficiency but also helps ensure the long-term sequestration of carbon in underground storage, prevent leaks, and create scalable solutions to mitigate emissions.

Pivoting to more sustainable energy solutions need not be a burden but an opportunity, as AI can optimize renewable energy generation and streamline grid integration. It can help oil and gas companies reduce emissions and reimagine business models for a decarbonized and more resilient energy ecosystem.

Case study

Wintershall Dea thinks big and small with AI@Scale [34]

Wintershall Dea is positioning itself as an industry leader by leveraging AI for operational improvements and innovation.

A leading European oil and gas company, Wintershall Dea has trained more than 100 employees in AI and data science and established a Center of Competence (CoC) through an initiative called AI@Scale.

Two types of AI projects have been prioritized: smaller "fireflies"—quick, scalable solutions to simple problems such as automating data extraction from PDF documents—and large-scale projects, including an AI application for well integrity monitoring for better leak detection.

So far, more than 80 AI use cases have been identified, with 20 actively pursued, and the well integrity project already in production.

"You must have a business problem. And you need to understand the challenges in your area and make sure you have access to high-quality, relevant data and then prepare the data so you can actually do something with it."

Ulrich Lorang, Vice President of Data Science, Data Governance, and Data Hub, Wintershall Dea

Action guide
for oil and gas executives

1

Broaden your tech expertise.

Create roles for AI data scientists, machine learning engineers, and digital twin specialists, which are crucial for analyzing complex datasets from drilling, exploration, and production activities.

2

Apply AI across exploration, drilling, production, and distribution.

Develop AI-powered digital twins of infrastructure such as drilling rigs, pipelines, and refineries to simulate real-world conditions and predict system behavior under various scenarios.

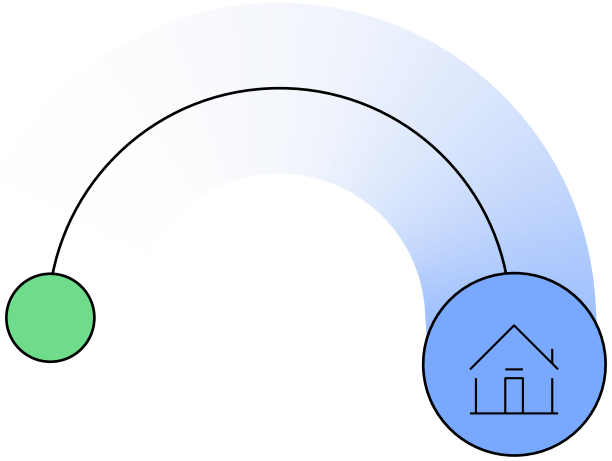
3

Turn big numbers into big assets with a modern technology estate.

Invest in scalable data infrastructure and cloud computing capabilities to handle, store, and process vast amounts of data from sensors, drilling equipment, and production sites.

Utilities

How to supercharge power grid reliability



The utility industry is grappling with aging infrastructure, rising operational costs, and pressure to transition to cleaner energy sources.

To help meet these challenges, AI capabilities are coming online to optimize energy storage and improve power grid resilience. Embracing AI enables utilities to navigate the complexities of the ongoing energy transition.

Smart grid management is the first step. Imagine a power grid that “thinks” and adapts in real time. AI makes this possible by predicting energy demand, balancing supply and demand instantaneously, and optimizing grid operations.

The next step is forecasting energy consumption. AI isn’t just reactive, it’s predictive. By analyzing historical usage data, weather patterns, and other external factors, AI models can better forecast energy demand, enable utilities to fine-tune energy generation and distribution, and help prevent outages.

The third step is renewable energy integration. Intermittent renewable energy poses a challenge to grid stability, but AI offers a solution. By analyzing the likely output of solar, wind, and hydroelectric sources, AI can smooth out fluctuations. The technology also optimizes energy storage systems, helping ensure that excess energy generated during peak production periods is available when demand peaks.

For the utility industry, AI isn’t just reactive, it’s predictive.

Case study

GridFM consortium uses AI to improve power grid operations [35]

Today, the electric power grid is strained by extreme weather, aging infrastructure, and cybersecurity threats.

Further complexity is added to the grid by the rise of electric vehicles, AI modeling, and cryptocurrency workloads. As renewable energy sources become more prevalent, the grid must adapt to their variability and fluctuations.

In response, IBM, along with the Linux Foundation for Energy, Hydro-Québec, ETH Zurich, Argonne National Laboratory, SSEN Transmission, and a Swiss electricity system operator, are developing GridFMs—AI foundation models specifically designed for power grids—to address the challenges of the low-carbon energy era.

These models aim to improve grid operations, planning, and control by leveraging pre-trained data on optimal power flow problems. GridFMs are targeted to tasks such as contingency analysis, outage prediction, load forecasting, renewable forecasting, and dynamic optimal power flow.

By analyzing vast amounts of data, Grid FMs promise orders-of-magnitude increases in simulation fidelity and support of ‘n-x’ contingency planning.

> “Foundation model technologies are a great fit for tackling the underlying complexity of the power systems. GridFMs can capture the dependencies across all the data we find in modern grids in an AI representation and offer new possibilities.”
>
> Ulrich Lorang, Vice President of Data Science, Data Governance, and Data Hub, Wintershall Dea

Action guide
for utilities executives

1

Energize your workforce.

Identify and hire AI specialists focused on optimizing grid operations and data scientists dedicated to predictive maintenance, plus AI-ready field engineers, operations managers, and customer service teams.

2

Get the max from the grid.

Real-time monitoring and predictive AI analytics can optimize energy distribution and efficiency. Use AI to redesign maintenance workflows, from power plants to substations to transmission lines.

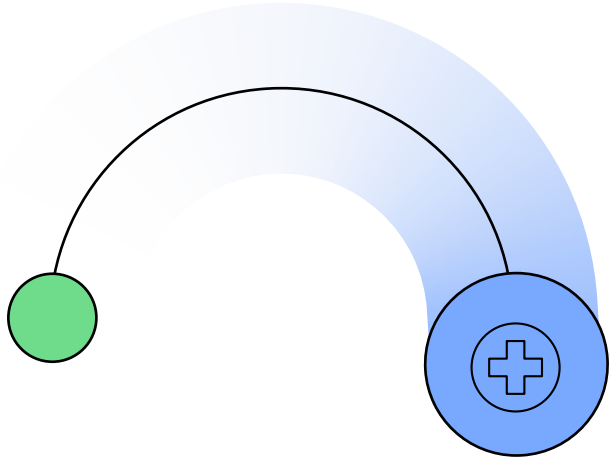
3

Look to strategic partnerships.

Partner with AI solution providers, tech startups, or universities specializing in energy innovation to co-develop cutting-edge solutions for smart grid management, energy storage, and consumption optimization.

Healthcare

Delivering measurable improvements with AI—now



Healthcare lags other industries in adopting technology due to regulatory complexity and concerns about patient safety and data security.

AI-driven automation has reduced processing time of discharge letters from 10 minutes to only four seconds per patient.

Many AI-based clinical decision-support tools have been developed, but adoption remains low. To accelerate change, it is essential to develop explainable, transparent, and accountable AI. Keeping humans in the loop is essential for fostering trust and confidence in AI, helping ensure accurate decisions with a focus on patient care.

AI has already demonstrated the potential to revolutionize healthcare without disrupting patient care when applied to back-office operations and nonfrontline clinical decisions. The UK National Health Service has used gen AI to automate clinical coding and processes 500,000 patient episodes in 24 hours. Similarly, AI-driven automation has reduced processing time of discharge letters from 10 minutes to only four seconds per patient. Human reviewers continue to oversee the process, helping to ensure accuracy and patient safety.

AI-powered chatbots are also transforming information retrieval and summarization with US health insurers reporting a tenfold increase in claims processing efficiency. Looking ahead, AI is poised to make an impact in digital scribing, enabling automated notetaking and summarization. With AI-supported treatment advances on the horizon, AI can already deliver measurable improvements in patient flow, reduce missed appointments, unnecessary follow-ups, and delayed discharges.

Case study

The UK NHS targets AI innovation to deliver more efficient, patient-centric care [36]

The UK National Health Service (NHS) is facing unprecedented demand. Despite its best efforts, waiting lists for elective care are growing.

To serve citizens with the world-class healthcare they expect. University Hospitals Coventry and Warwickshire (UHCW) NHS Trust applies a pioneering mindset and innovative approach to patient-centric care. In collaboration with IBM, the trust piloted AI and other analytics to identify areas where productivity could be bolstered.

"You're talking potentially reducing the waiting lists by 10%. With 7.7 million currently on a waiting list, a large number of these will be patients waiting for their first outpatient appointment—that's huge. And it is absolutely scalable because I've seen the results from other hospitals where it's being further trialed."

Professor Andy Hardy, Chief Executive Officer, University Hospitals Coventry and Warwickshire NHS Trust

As process improvements were deployed, UHCW NHS Trust began to realize results. For example, adjustments to SMS reminders reduced no-show rates from 10% to 4% among patients who received two SMS reminders. With patients cancelling or rescheduling appointments earlier, the trust can now re-purpose these slots to boost clinic activity by up to 6%. This efficiency, in turn, helped UHCW NHS Trust to see around 700 extra patients each week without adding additional staff. Projections estimate that this could contribute to a 10%–15% patient backlog reduction.

In addition, the AI pilot has demonstrated greater accuracy and speed than human reviewers. The solution was able to review outpatient clinic letters in just 18 hours, compared to the four years required for a human equivalent. This pilot offers scope for UHCW NHS Trust to further improve patient classification and shorten waiting lists.

Action guide
for healthcare executives

1

Start with immediate impact.

Don’t be distracted by clinical AI in the short term. Patient-facing tools may eventually transform the industry, but quick wins are already available by implementing gen AI in back and middle office operations.

2

Safeguard ethical AI and patient data privacy.

As gen AI and agentic AI are integrated into healthcare, it’s crucial to maintain transparency and ethical standards as well as protect patient data. Staff should be trained on responsible AI practices.

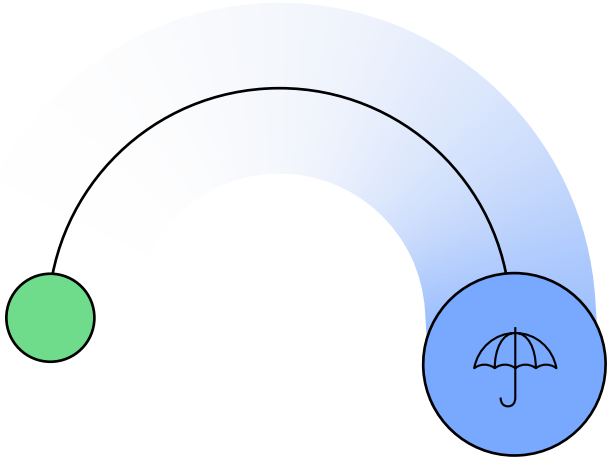
3

Keep humans in the loop.

Emphasize that AI augments but does not replace human capabilities. Have AI systems collaborate with healthcare workers to enhance decision making. Highlight success stories that demonstrate AI’s potential to upskill employees and improve overall job satisfaction within healthcare organizations.

Insurance

Bridging the AI trust gap



In an industry defined by prudence and risk mitigation, seizing the opportunities of AI can feel like a balancing act.

While 77% of industry executives say they need to adopt gen AI quickly to keep up with rivals, only half say it is more of an opportunity than a risk.[37]

The product insurers sell is a promise and executives are well aware that customer trust is key to long-term success. Everything providers do must serve that trust imperative—which includes overcoming customer apprehension about AI. In fact, only 26% of insurance customers trust the accuracy and reliability of advice from gen AI, and almost two-thirds want to know and be asked for consent when gen AI is used.[38]

Insurers can differentiate by using AI to support new types of tailored products and bring them to market faster with a more targeted approach. This means delivering not just personalization, but actual matches between customers, their risks, and the insurer's products. Trust and quality need to be ironclad, given an insurer's investment in a brand and its regulatory constraints.

AI can also help insurers expand product ranges: executives anticipate faster product creation in 2025, accelerating speed to market by 3.6 months and increasing the number of added products by 50%.[39]

Insurers can differentiate offerings by using AI to support new tailored products and bring them to market faster with a more targeted approach.

Perspective

Life insurance companies simplify complex claims

At larger life insurance companies, claims adjusters struggle to handle the sheer volume of information and touches required to manage large life benefits claims.

Nevertheless, effective claims handling is key to customer satisfaction and trust. And large claims can have significant business impact on any life insurer, from litigation cost to loss adjustment. Even small improvements in effective complex claims handling can generate outsized returns.

Several life insurers in North America turned to a range of different gen AI models to address claims challenges; classify claims by risk and peril; extract key data and other facts; analyze the case and summarize it for final resolution by a human claims adjuster. As a result, insurers cut transaction support time in half, reduced summarization costs by up to 90%, and significantly increased customer claims satisfaction.[40]

Even small improvements in complex claims handling can generate outsized returns.

Action guide
for insurance executives

1

Address the trust divide.

Shift AI thinking from “it should work” to “should it work?” Don’t force one AI model to fit all scenarios; plan for a future of many AI models. Actively govern model performance around fairness, transparency, and hallucination mitigation. Ensure all models have explainable results and understand the confidence level of decisions. Empower humans to make better decisions as opposed to a pure automation approach.

2

Match products intelligently to customers.

Leverage gen AI to connect products and services to customer needs more accurately. Deploy AI locally to provide seamless customer service and advice.

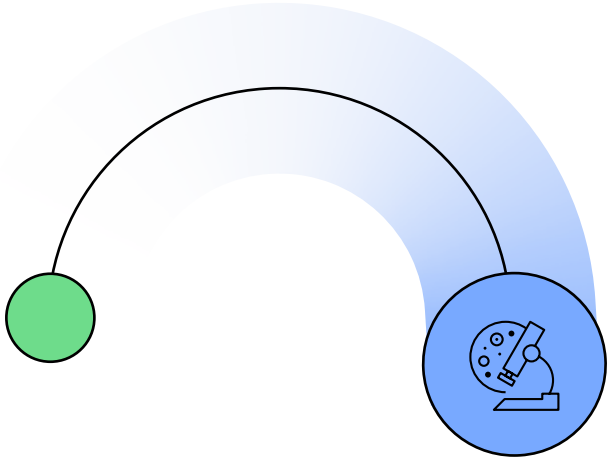
3

Focus on data accessibility.

Choose AI tools that can leverage near-edge data, such as telematics summarization at the point of data collection. Deploy data frameworks that federate meaningful customer interactions.

Life sciences

From drug discovery to agentic AI



AI-enabled drug discovery and development is a hot topic in the life sciences industry.

With AI, life sciences organizations can optimize and automate complex, multi-step workflows from genomic analysis to hypothesis synthesis to visual data interpretation.

A variety of biomedical foundation models are available to support drug design, including open-source models that use AI to generate molecular designs based on a set of constraints such as target binding, solubility, toxicity, and ease of synthesis.

As AI progresses from individual task-based tools to AI agents, the possibilities get even richer. Life sciences organizations can optimize and automate complex, multistep workflows from genomic analysis to hypothesis synthesis to visual data interpretation. These systems combine human creativity with AI's ability to navigate vast data landscapes, execute repetitive tasks, and dynamically refine strategies.

For example, in virtual labs, where human researchers are teamed with LLM agents, AI is reducing the cost and time to design high-potential molecules.[41] In wet lab experimental workflows, multiagent frameworks can design, build and iterate molecules, creating a fully automated "lab-in-the-loop" for R&D or manufacturing. For clinical content generation, multiagent frameworks can accelerate the writing of complex clinical trials submissions, pharmacovigilance documentation, and medical affairs education materials.

Operationalizing AI requires the responsible use of AI, and this is especially true in the highly regulated life sciences industry. In a recent survey, 43% of life sciences respondents stated that they had concerns about privacy and confidentiality of data and information, with 49% concerned about data accuracy or bias.[42] The challenge is to assure the trustworthiness and quality of AI outputs while scaling impact.

Case study

Informed Genomics helps save lives with AI-driven cancer detection

Colorectal cancer is the fourth most common cancer in the UK and is responsible for 700,000 deaths globally each year.[43] [44]

Fortunately, 54% of bowel cancer cases are preventable and early intervention is crucial to delivering positive outcomes for patients.[45]

While colonoscopies are traditionally the most accurate way of determining if a patient has colorectal cancer, AI holds the potential to make cancer diagnosis faster, cheaper and less invasive. UK-based genomics pioneer Informed Genomics is on a mission to harness innovations in science and technology to improve cancer diagnostics.

Building on its recent successful launch of an accurate, non-invasive bladder cancer test, Informed Genomics is now turning its attention to improving colorectal cancer diagnosis through a new partnership with CanSense. Spun out from a research project started at Swansea University, CanSense has combined the power of spectroscopy with AI to develop a quick, inexpensive, and non-invasive blood test for colorectal cancer.

With CanSense-CRC, colorectal cancer can be detected using a blood sample taken by a healthcare professional. The CanSense solution then runs spectral analysis of the blood sample and sends this data to a proprietary AI model. Trained extensively with real-world samples and data, the CanSense AI then detects whether evidence of colorectal cancer is present in the blood sample. The solution has a 90% sensitivity to help ensure accurate results.[46]

"To take CanSense out of the university lab and bring it to market, we looked for scalable technology that could support compute-intensive workloads and help us to ensure excellent governance of the AI powering our solution."

Adam Bryant, CEO, CanSense

Action guide
for life sciences executives

1

Get your biopharma data ready.

The life sciences are data-rich, but silos impede analyses and duplicate efforts. Building a strong data foundation combines data management plans and connects silos across business units to support effective AI programs. Continuous learning and adaptation mechanisms should be incorporated into AI models, so they stay current with evolving scientific knowledge and technological advancements.

2

Accelerate regulatory workflows to enable long-term opportunities.

Gen AI systems can help deliver products to market faster by speeding up regulatory submissions and drafting reimbursement dossiers faster. Such productivity gains can support more extended AI efforts to transform drug design and discovery.

3

Prescribe robust oversight and governance structures.

Strike a balance between leveraging AI's potential to accelerate R&D and putting in controls which allow monitoring and support consistency, transparency and explainability of models to build trust. This means creating regulatory frameworks that encourage AI innovation while helping to ensure compliance to high data standards.

Authors

Neil Dhar

Global Managing Partner
IBM Consulting

www.linkedin.com/in/neildhar/

neil.dhar@ibm.com

Salima Lin

Global Managing Partner
IBM Consulting

www.linkedin.com/in/salima-lin-b17bb71/

salima.lin@us.ibm.com

Matthew Candy

Global Managing Partner
IBM Consulting

www.linkedin.com/in/mattcandy

matthew.candy@uk.ibm.com

Luq Niazi

Global Managing Partner
IBM Consulting

www.linkedin.com/in/luq-niazi-58b0a13/

luq.niazi@uk.ibm.com

Jacob Dencik

Research Director
IBM Institute for Business Value

www.linkedin.com/in/jacob-dencik-126861/

jacob.dencik@be.ibm.com

IBM Institute for Business Value

For two decades, the IBM Institute for Business Value has served as the thought leadership think tank for IBM. What inspires us is producing research-backed, technology-informed strategic insights that help leaders make smarter business decisions. From our unique position at the intersection of business, technology, and society, we survey, interview, and engage with thousands of executives, consumers, and experts each year, synthesizing their perspectives into credible, inspiring, and actionable insights. To stay connected and informed, sign up to receive IBV's email newsletter at ibm.com/ibv. You can also find us on LinkedIn at ibm.co/ibv-linkedin.

The right partner for a changing world

At IBM, we collaborate with our clients, bringing together business insight, advanced research, and technology to give them a distinct advantage in today's rapidly changing environment.

Related reports

5 trends for 2025: Ignite innovation with people-powered AI

IBM Institute for Business Value. December 2024.

https://www.ibm.com/thought-leadership/institute-business-value/en-us/report/business-trends-2025

Consulting reimagined, powered by AI

IBM Institute for Business Value. October 2024.

https://www.ibm.com/thought-leadership/institute-business-value/en-us/report/consulting-ai

The CEO's guide to generative AI: Tailor-made gen AI delivers precision power

IBM Institute for Business Value. July 2024.

https://www.ibm.com/thought-leadership/institute-business-value/en-us/report/ceo-generative-ai

Notes and sources

1. *5 trends for 2025.* IBM Institute for Business Value. December 2024. https://www.ibm.com/thought-leadership/institute-business-value/en-us/report/business-trends-2025
2. *6 hard truths CEOs must face.* IBM Institute for Business Value. September 2024. https://www.ibm.com/thought-leadership/institute-business-value/en-us/c-suite-study/ceo
3. *The CEO's guide to generative AI: Enterprise Operating Model.* IBM IBV Institute for Business Value. September 2024. https://www.ibm.com/thought-leadership/institute-business-value/en-us/report/ceo-generative-ai/ceo-ai-enterprise-operating-model
4. Ibid.
5. Goehring, Brian, Manish Goyal, Ritika Gunnar, Anthony Marshall, and Aya Soffer. *The ingenuity of generative AI: Unlock productivity and innovation at scale.* IBM Institute for Business Value. June 2024. https://ibm.co/scale-generative-ai
6. *6 hard truths CEOs must face.* IBM Institute for Business Value. September 2024. https://www.ibm.com/thought-leadership/institute-business-value/en-us/c-suite-study/ceo
7. *5 trends for 2025.* IBM Institute for Business Value. December 2024. https://www.ibm.com/thought-leadership/institute-business-value/en-us/report/business-trends-2025
8. *6 hard truths CEOs must face.* IBM Institute for Business Value. September 2024. https://www.ibm.com/thought-leadership/institute-business-value/en-us/c-suite-study/ceo
9. Butner, Karen. *The power of AI & automation: Intelligent workflows.* IBM Institute for Business Value. July 2023. https://www.ibm.com/thought-leadership/institute-business-value/en-us/report/automation-intelligent-workflows
10. *5 trends for 2025.* IBM Institute for Business Value. December 2024. https://www.ibm.com/thought-leadership/institute-business-value/en-us/report/business-trends-2025
11. *The CEO's guide to generative AI: Open innovation & ecosystems.* IBM Institute for Business Value. 2023. https://www.ibm.com/thought-leadership/institute-business-value/en-us/report/ceo-generative-ai/ceo-ai-open-innovation
12. *6 hard truths CEOs must face.* IBM Institute for Business Value. September 2024. https://www.ibm.com/thought-leadership/institute-business-value/en-us/c-suite-study/ceo
13. Ramamurthy, Shanker, and Paolo Sironi. *2025 Global Outlook for Banking and Financial Markets.* IBM Institute for Business Value. January 2025. https://www.ibm.com/thought-leadership/institute-business-value/en-us/report/2025-banking-financial-markets-outlook
14. *6 hard truths CEOs must face-Banking and Financial Markets.* IBM Institute for Business Value. September 2024. https://www.ibm.com/thought-leadership/institute-business-value/en-us/c-suite-study/ceo
15. NatWest launches Cora+, the latest generative AI upgrade to the bank's digital assistant. NatWest Group. June 10, 2024. Link resides outside of ibm.com. https://www.natwestgroup.com/news-and-insights/news-room/press-releases/data-and-technology/2024/jun/natwest-launches-cora-plus-the-latest-generative-ai-upgrade-to-t.html
16. *6 hard truths CEOs must face*. IBM Institute for Business Value. September 2024. Unpublished data.
17. Ibid.
18. bid.
19. Unpublished IBM case study.
20. *6 hard truths CEOs must face-Government*. IBM Institute for Business Value. September 2024. Unpublished data.
21. "Photos: How IBM and NASA's new geospatial model is changing our view of the world." IBM Research blog. December 6, 2024. https://research.ibm.com/blog/prithvi2-geospatial

22. Wadell, Dee, Joe Dittmar, Karl Haller, Konstantinos Didaskalou, and Jane Cheung. *Embedding AI in your brand's DNA*. IBM Institute for Business Value. January 2025. https://www.ibm.com/thought-leadership/institute-business-value/en-us/report/ai-retail-cpg
23. Ibid.
24. "Goodiebox delivers beautiful results." IBM case study. 2024. https://www.ibm.com/case-studies/goodiebox
25. Wadell, Dee, Joe Dittmar, Karl Haller, Konstantinos Didaskalou, and Jane Cheung. *Embedding AI in your brand's DNA.* IBM Institute for Business Value. January 2025. https://www.ibm.com/thought-leadership/institute-business-value/en-us/report/ai-retail-cpg
26. Suzuki, Noriko, Daniel Knödler, Hilary M. Cain, and Stefano Marzani. *Automotive 2035.* IBM Institute for Business Value. December 2024. https://www.ibm.com/thought-leadership/institute-business-value/en-us/report/automotive-2035
27. Ibid.
28. Ibid.
29. Ibid.
30. Ibid.
31. Ibid.
32. Ibid.
33. "IBM helps boost Honda's efficiency with AI-driven knowledge extraction, expecting to slash documentation modeling time by 67%." IBM case study. 2024. https://www.ibm.com/case-studies/honda-watsonx
34. Drilling down into data to transform the oil and gas industry." IBM case study. March 2023. https://www.ibm.com/case-studies/wintershall-dea
35. Hess, Peter. "An IBM team is exploring how AI can prepare the electrical grid for the low-carbon era." IBM Research blog. December 4, 2024. https://research.ibm.com/blog/how-ai-can-prepare-the-electrical-grid-for-the-low-carbon-era
36. "Patient-centered care from AI-centered efficiencies." IBM case study. March 2024. https://www.ibm.com/case-studies/uhcw-nhs-trust
37. Goehring, Brian, Manish Goyal, Ritika Gunnar, Anthony Marshall, and Aya Soffer. *The ingenuity of generative AI: Unlock productivity and innovation at scale.* IBM Institute for Business Value. June 2024. Unpublished data for 124 global insurance leaders.
38. "You can't win if you don't play: The future of insurance with generative AI." IBM blog. November 14, 2024. https://www.ibm.com/thought-leadership/institute-business-value/blog/insurance-generative-ai
39. Ibid.
40. Unpublished client case studies
41. Swanson, Kyle, Wesley Wu, Nash L. Bulaong, John E. Pak, and James Zou. "The Virtual Lab: AI Agents Design New SARS-CoV-2 Nanobodies with Experimental Validation." bioRXiv.org. November 12, 2024. https://www.biorxiv.org/content/10.1101/2024.11.11.623004v1.full.pdf
42. Goehring, Brian, Manish Goyal, Ritika Gunnar, Anthony Marshall, and Aya Soffer. *The ingenuity of generative AI: Unlock productivity and innovation at scale*. IBM Institute for Business Value. June 2024. https://ibm.co/scale-generative-ai
43. Bowel cancer. Bowel Cancer UK. Link resides outside of ibm.com. https://www.bowelcanceruk.org.uk/about-bowel-cancer/bowel-cancer/
44. Facing the challenge together. CanSense. Link resides outside of ibm.com. https://cansenseltd.com
45. Bowel cancer statistics. Cancer Research UK. Link resides outside of ibm.com. https://www.cancerresearchuk.org/health-professional/cancer-statistics/statistics-by-cancer-type/bowel-cancer
46. Facing the challenge together. CanSense. Link resides outside of ibm.com. https://cansenseltd.com

ibm.com/industries-AI-era

IBM Corporation
New Orchard Road
Armonk, NY 10504

Produced in the United States of America | February 2025

1227a45bcb308725-USEN-01