IDC FutureScape

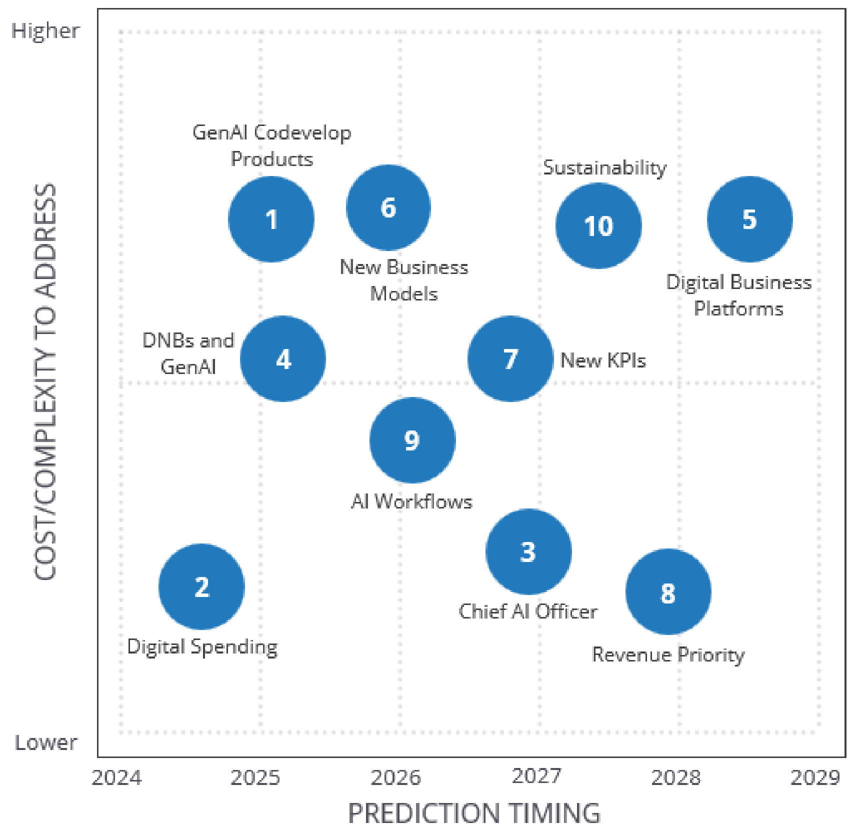
IDC FutureScape: Worldwide Digital Business Strategies 2024 Predictions

Tony Olvet
Linus Lai
Philip Carter
Martina Longo
Takuya Uemura
Craig Powers
Megha Kumar
Pietro Delai
Ranjit Rajan
Lianfeng Wu
Teodora Siman
Simone De Bruin
Craig Simpson
Sharath Srinivasamurthy
Supriya Deka
Giulia Carosella
Erin Hichman
Lawrence Cheok
Steffi Han
Lapo Fioretti

IDC FUTURESCAPE FIGURE

FIGURE 1

IDC FutureScape: Worldwide Digital Business Strategies 2024 Top 10 Predictions



Note: Marker number refers only to the order the prediction appears in the document and does not indicate rank or importance, unless otherwise noted in the Executive Summary.

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EXECUTIVE SUMMARY

The digital business (DB) era has arrived. Spending on digital technologies is growing while traditional, nondigital spending is stagnating or even slightly dropping. The demand for digital experiences from customers, employees, partners, and suppliers has shifted to an expectation. Companies looking to sustain and grow are seeking digital revenue streams while looking to digitize operations to reduce costs and increase efficiency.

This IDC FutureScape provides 10 predictions ranging from 2024 to 2028 on important topics that characterize the digital business era, including the use of generative AI (GenAI) impacting many business units, new C-suite roles that will lead digital initiatives, digital businesses capturing greater market shares, the impact on ecosystem engagement, and how digital-native businesses (DNBs) will lead in GenAI adoption.

GenAI is bringing a generational impact to enterprises, and our predictions reflect that: 6 out of the 10 discuss artificial intelligence (AI) in some way, citing the external driver of "AI everywhere — Generative AI takes the spotlight."

IDC FutureScapes present information — about technologies, markets, and ecosystems — that helps technology buyers better understand future trends and their impacts on the enterprise. They present guidance on complex, fast-moving environments and offer prescriptive, actionable recommendations. Every year, IDC identifies the key external drivers that will influence businesses in the coming years. An IDC FutureScape establishes 10 predictions derived from these drivers, analyzes the impacts on the IT organization, and proposes recommendations for the next five years. The 2024 digital business predictions are:

- **Prediction 1:** By 2025, 35% of enterprises will have mastered the use of GenAI to codevelop digital products and services leading to double the revenue growth compared with their competitors.
- **Prediction 2:** Spending on digital technology by organizations will grow at 7x the economy in 2024, as companies are compelled by market demands to grow digital business models and strengthen digital capabilities.
- **Prediction 3:** By 2026, the proliferation of data from GenAI and other key digital initiatives will result in 25% of the G2000 organizations introducing or elevating the role of chief AI officer to the C-suite.
- **Prediction 4:** By 2025, digital-native businesses will be at the forefront of GenAI adoption, investing in GenAI at 5x the rate of non-DNBs to accelerate their competitive edge.
- **Prediction 5:** In 2028, organizations with established digital business platforms will have 50% higher digital market share with greater abilities to track ROI and execute digital revenue initiatives.
- **Prediction 6:** By 2025, 40% of organizations will be selling to, engaging with, or provisioning on-demand services through digital ecosystems to enable new business models powered by AI everywhere capabilities.
- **Prediction 7:** By 2026, 40% of enterprises will develop new KPIs that are directly tied to digital business outcomes through the application of advanced analytics and AI.

- **Prediction 8:** By 2027, 80% of CEOs will assert that their C-suite technology leader's primary function should be to invest in digital-first initiatives to deliver on digital revenue targets.
- **Prediction 9:** By 2026, 90% of knowledge workers will see AI augmenting a portion of their workflow, resulting in the need for organizations to reskill all employees for the next age of digital business.
- **Prediction 10:** By 2027, to meet their sustainability ambitions, G2000 organizations' business and IT leaders will dedicate at least 20% of their digital tech spending toward sustainability initiatives.

This IDC study provides 2024 top 10 predictions for digital business strategies. These predictions provide guidance for organizations to mature as digital businesses in the next five years. They also lay out IDC's vision for the 10 most important shifts that will occur within the digital business landscape in that time frame and will help C-suite leaders drive digital maturity.

"Investment in digital business, augmented by GenAI, will continue to drive new models and positive outcomes going forward. Those organizations that have already begun their digital business journeys have seen the value and continue to invest and innovate — those that have delayed are at risk of losing significant market share over the next five years," says Craig Powers, research director, IDC's Worldwide Digital Business Strategies program.

IDC FUTURESCAPE PREDICTIONS

Summary of External Drivers

- **AI everywhere —** Generative AI takes the spotlight
- **The digital business imperative —** Competitiveness and outcome
- **The drive to automate —** Maximizing efficiency and new opportunities
- **Economic uncertainty —** IT malaise and market volatility
- **Dynamic work and skills requirements —** New work mode era
- **Everything as a service intensifies —** Transforming models to drive change
- **Operationalization of ESG —** Measuring and implementing sustainability

Predictions: Impact on Technology Buyers

Prediction 1: By 2025, 35% of Enterprises Will Have Mastered the Use of GenAI to Codevelop Digital Products and Services Leading to Double the Revenue Growth Compared with Their Competitors

While many GenAI use cases currently are focused on improving internal processes, in the longer term, 58% of C-suite executives in IDC's 2023 *Worldwide C-Suite Survey* cited revenue growth as the most important business outcome they are trying to achieve with GenAI. Organizations in the digital business era will be looking to identify new revenue sources. Generative AI is already solving problems including accelerating drug discovery, creating product design specifications, and writing software.

GenAI will help codevelop digital products and services, helping pinpoint market opportunities and allocate company resources. Those companies that choose to utilize GenAI in this way will more efficiently and effectively roll out new revenue-generating endeavors. This will lead to faster-paced growth that their competitors not using GenAI will struggle to match.

Currently, Mattel designers are using GenAI, specifically DALL-E 2, to deliver on demands for new toy car models. As another example of GenAI-supported product development, a creative agency delivered digital and print ad products for Heinz produced with images from DALL-E 2 prompts from ketchup. The GenAI images appeared similar to Heinz ketchup, leading to the "This is what ketchup looks like to AI" campaign tagline. These are examples of how companies can quickly apply GenAI to codevelop products and services.

GenAI for digital product development is exemplified in an extreme way by the Portuguese start-up AIsthetic Apparel, which made ChatGPT its CEO. The company asked ChatGPT to create a business plan with its existing resources. The GenAI tool recommended three different business models, each with plans on fundraising, pricing, resource allocation, product names, and more. AIsthetic Apparel was born after going with an on-demand T-shirts model, and the brand has been able to turn a profit.

While large enterprises aren't going to install ChatGPT as CEO, GenAI can be used to codevelop products. Borrowing from the AIsthetic Apparel example, organizations can enter their business parameters and GenAI can offer up detailed suggestions. Enterprises can select the models that work best for them and use the GenAI business plans as a guide. GenAI can then help augment the product development process, such as helping create code to develop digital products or services. Deploying this method can reduce the time to ideate and deliver products and uncover digital revenue sources that companies may have otherwise overlooked.

Associated Drivers

- **AI everywhere —** Generative AI takes the spotlight
- **The digital business imperative —** Competitiveness and outcome
- **The drive to automate —** Maximizing efficiency and new opportunities

IT Impact

- IT must prioritize data management and integrity to ensure quality of generative AI outputs.
- Close collaboration with the business, including education on generative AI, will be necessary, in the codevelopment processes.
- Specific security measures will be necessary to protect company data used to develop IP.

Business Impact

- Stakeholders across lines of business where digital product and service revenue generation is a goal will need to align on GenAI codevelopment use cases.
- New risks will emerge from GenAI that will require education across teams involved in GenAI codevelopment and guardrails to be put in place.

Guidance

- Ensure business leaders and subject matter experts supplement and augment generative AI outputs and suggestions.
- Require training of key stakeholders on generative AI.
- Take an agile approach to product and services development but ensure generative AI outputs align with company values and are attainable.

Prediction 2: Spending on Digital Technology by Organizations Will Grow at 7x the Economy in 2024, as Companies Are Compelled by Market Demands to Grow Digital Business Models and Strengthen Digital Capabilities

Throughout the tumultuous journey of the past three years, enterprises have seen the value of digital in building sustainable and growing businesses. The market overall is demanding digital experiences in the products and services they consume, putting an emphasis on building out digital capabilities.

Organizations that have invested in digital technology will continue to do so, even in the face of budget impacts such as inflation. Companies that have fallen behind will spend on digital technology to catch up to their competitors. To build out their digital businesses, companies have invested well beyond the pace of GDP growth in recent years, and that will continue in 2024.

Associated Drivers

- **The digital business imperative —** Competitiveness and outcomes
- **Economic uncertainty —** IT malaise and market volatility

IT Impact

- Digital IT skills and knowledge, including comfort with digital systems and business processes, are required.
- Identifying areas of business, whether operational, revenue driving, or experiences, most in need of digitization is essential.
- Adopting agile and DevOps methodologies will be necessary to keep up with digital innovation cycles.

Business Impact

- Scrutiny on tech spending will continue as the C-suite, boards, and investors all seek clear business outcomes from digital investments.
- Tech budgets may become less predictable as economic volatility and uncertainty continues across different markets.

Guidance

- Solicit and incorporate feedback from business users, customers, and partners to ensure digital investments meet expectations.
- Prioritize internal experiences that will attract digital talent.
- Identify areas of quick wins to prove value of digital technology investment in order to build greater support for digital initiatives.

Prediction 3: By 2026, the Proliferation of Data from GenAI and Other Key Digital Initiatives Will Result in 25% of the G2000 Organizations Introducing or Elevating the Role of Chief AI Officer to the C-Suite

The virality of generative AI has reinvigorated the focus on artificial intelligence across the business and brought it to the forefront of conversations in the boardroom. With many organizations developing their AI strategy and road map, it is becoming apparent that a leader must be appointed to sponsor and drive AI initiatives. There will likely be organizations that will absorb this responsibility under the umbrella of the CIO or chief technology officer (CTO). However, for those that are looking to create a competitive advantage in the market and drive revenue using AI, it is important to consider a new role like the chief AI officer and elevating that role to the C-suite so that they have both the directive and authority to drive real change. IDC's *Executive CIO Quick Poll* conducted in September 2023 (n = 97) indicates that just over half of CIOs say their organization has or plans to have an individual leader responsible for AI; approximately half of those CIOs believe the leader will be part of the C-suite executive team.

The proliferation of technology roles has been a key trend in the C-suite over the past couple of years. Beyond the role of the CIO, on a worldwide scale, 59% of CEOs said their organizations have a Chief Technology officer, 46% said that they have a chief digital officer, and 38% said that they have a chief data officer (source: IDC's *CEO Study,* 2023). Organizations that are further along their digital journey were also more likely to report that the CIO reports directly to the CEO. By similar logic, those organizations further along their AI journey will likely elevate the chief AI officer to the C-suite.

Associated Drivers

- **The digital business imperative —** Competitiveness and outcomes
- **AI everywhere —** Generative AI takes the spotlight
- **Dynamic work and skills requirements —** New work mode era

IT Impact

- Companies wishing to be leaders in generative AI must focus on the four pillars of enterprise intelligence (info synthesis, insights delivery, collective learning, and data culture).
- The top objective of the chief AI officer will be to create an AI strategy and road map.
- The chief AI officer may be a net-new role, or it has the potential to evolve from the role of chief data officer.

Business Impact

- Assigning an accountable C-suite executive to oversee AI initiatives across the organization will be necessary to orchestrate a cohesive AI strategy.
- The chief AI officer must be seen as collaborative across business units, ensuring that alignment on strategic priorities exists and that the voices of AI users across the organization are heard.

Guidance

- Be clear about where each tech leaders' responsibilities begin and end. While there needs to be an understanding of the overall strategy and objectives, confusion and overlap in responsibilities will create challenges for the C-suite.
- Work beyond organization silos to scale enterprise intelligence initiatives and uncover data hidden and disjointed across different business units.
- In organizations where the leader of AI is not yet at the level of the C-suite, ensure that they have a prominent strategic role with executive exposure.

Prediction 4: By 2025, Digital-Native Businesses Will Be at the Forefront of GenAI Adoption, Investing in GenAI at 5x the Rate of Non-DNBs to Accelerate Their Competitive Edge

DNBs rely on technology to support their disruptive business models and to create their competitive edge. They use technology to drive innovation, optimize logistics, improve products or services, enhance design, or enhance customer experiences. This is why DNBs are early adopters of emerging and innovative technologies, like GenAI. Already, DNBs are at the forefront of GenAI adoption, with over 50% investing significantly into GenAI in 2023. As DNBs will drive large digital revenue fueled by generative AI, they trigger traditional businesses to invest in generative AI to keep up with innovation, increase their digital revenue streams, and stay competitive.

Associated Drivers

- **AI everywhere —** Generative AI takes the spotlight
- **The digital business imperative —** Competitiveness and outcomes

IT Impact

- IT will need to team up with line-of-business leaders to identify the most strategic and effective GenAI use cases.
- IT will need clear guidelines and processes to optimize data management, data ethics, and data sovereignty processes to effectively and ethically justify the use of generative AI.
- IT needs to cooperate within industry ecosystems, as GenAI solutions will demand different partners to cooperate on industrywide solutions.

Business Impact

- DNBs become both users and vendors of GenAI solutions, driving new digital business models both inside and outside the organization.
- Trust in GenAI will be crucial for DNBs as their rapid adoption of and reliance on GenAI for growth will broaden their exposure.

Guidance

- Prioritize strategic use cases of generative AI to enhance competitiveness and cost-effectiveness.
- Focus on the quality of the underlying data necessary to build ethically responsible generative AI solutions.
- Partner with leading DNBs that have already been through this process and learn from their journey.

Prediction 5: In 2028, Organizations with Established Digital Business Platforms Will Have 50% Higher Digital Market Share with Greater Abilities to Track ROI and Execute Digital Revenue Initiatives

The technology within a digital business platform is essential for driving the innovation and new revenue streams that companies are looking for in the digital business era. IDC defines the digital business platform as follows: "The digital business engine, a multilayered enterprise-wide technology architecture, integrating different systems and applications (from different vendors) to enable use cases that ensure business competitiveness and innovation."

Digital business platforms enable greater visibility into a company's operations, allowing for greater insight into the impacts of their investments. As businesses mature digitally, they find measuring ROI to be more straightforward and they are more likely to build leading-edge capabilities that can drive digital revenue initiatives (source: IDC's *Digital Executive Sentiment Survey,* October 2022).

Organizations that can make smarter investments and better execute on their strategies because of their digital business platforms will find themselves with a major competitive advantage over the next five years, leading them to capture significant portions of the digital market share.

Associated Drivers

- **The digital business imperative** — Competitiveness and outcomes
- **Everything as a service intensifies** — Transforming models to drive change
- **The drive to automate** — Maximizing efficiency and new opportunities

IT Impact

- IT leadership will have a broader mandate to establish the elements of the digital business platform, including key design principles, infrastructure components, application development, and orchestration and governance.
- Enterprise technology leaders will need to consider all aspects of the make or buy trade-off, evaluating beyond costs and risks. For many, partnerships will be instrumental in developing new digital offerings quickly.
- Digitally mature organizations expect to spend more on technology in the years to come; they also show a greater ability to assess and generate ROI from their investment.

Business Impact

- More digitally mature organizations with established digital business platforms are better able to compete in an increasingly digital world.
- Investment in digital technology is no longer discretionary; placing the right bets becomes a differentiator across all functional areas.

Guidance

- Develop a road map by use cases with clear metrics attached.
- Modernize tech infrastructure, developing multilayered enterprise-wide digital business platform that can enable digital use cases.
- Design your architecture so to be experience led, modular, intelligent, clou -native, agile developed, and trusted.

Prediction 6: By 2025, 40% of Organizations Will Be Selling to, Engaging with, or Provisioning On-Demand Services Through Digital Ecosystems to Enable New Business Models Powered by AI Everywhere Capabilities

Enterprises seeking to operate at scale with new digital business models have indicated that ecosystem business models will play a predominant role (source: IDC's *Digital Executive Sentiment Survey,* 2022). The same IDC research shows that the most critical data sources to delivering on digital business outcomes are from ecosystem partners in the form of supply, demand, inventory, financial, logistics, resource, or service telemetry. Already in 2022, IDC had predicted that organizations with highly developed industry value chains on an ecosystem control plane will innovate at a rate that is 25% faster than other businesses. As the real-time sharing of data, applications and processes among an enterprise ecosystem becomes a critical source of new digital business models, we expect that this will be supercharged with AI everywhere capabilities. GenAI will be increasingly used for testing and development for improvements in customer experiences and product/service design and engineering. IDC expects that the combination of predictive AI, machine vision and GenAI capabilities, and the provisioning of on-demand services through digital ecosystems will take on a new dimension. This will open up opportunities for new products and services for customer segments that will appreciate the appeal of these capabilities.

Associated Drivers

- **Everything as a service intensifies —** Transforming models to drive change
- **The digital business imperative —** Competitiveness and outcomes

IT Impact

- Connected and real-time data sharing across ecosystem partners and employees becomes mission critical in the provisioning of digital products, services, and experiences.
- Digital trust elements such as privacy, compliance, and data security must be extended to ecosystem governance and/or participation.
- Establishment of ecosystem control plane is essential to orchestrate multiparty activities needed for seamless experiences.

Business Impact

- The rush to exploit AI capabilities will result in a flurry of activity in business units seeking to expand business through digital ecosystems; having criteria for investment prioritization will be key.
- C-suite executives outside of the technology domain will need to build teams with digital know-how and data skills that can connect business outcomes to IT requirements.

Guidance

- Ensure a data foundation that supports real-time connectivity and data sharing, externally with ecosystem partners and internally by employees (e.g., APIs and microservices).
- Extend data engineering practices that promote data security, authentication, data verification, and lineage to real-time streams from external ecosystem partners.
- Leverage AI/ML and automation to orchestrate both internal and external processes underlying each customer journey.

Prediction 7: By 2026, 40% of Enterprises Will Develop New KPIs That Are Directly Tied to Digital Business Outcomes Through the Application of Advanced Analytics and AI

As enterprises look for new sources of growth in the digital business era, they need to develop new ways of measuring success. Key performance indicators (KPIs) are necessary metrics to track progress to specific goals. Tracking what is truly relevant to the business is critical for strategic decision making. We expect to see KPIs implemented that reflect a shift toward the creation and delivery of digital products, services, and experiences, which are the defining attributes of a digital business. IDC's 2022 *Digital Executive Sentiment Survey* revealed that operational indicators related to productivity and innovation cycle times were the two most important to enterprises. These KPIs will differ based on industry and function. For example, in manufacturing, operational managers will care about KPIs such as cycle time and demand forecasting. Bringing together factory floor data with analytics from modern ERP systems will be key to success. In contrast, brands with subscription services will care about activation rates, average revenue per user (ARPU), or number of new sign-ups by acquisition channel. Tracking those metrics over time and having a robust analytics platform will be critical to success.

Associated Drivers

- **The digital business imperative —** Competitiveness and outcomes
- **The drive to automate —** Maximizing efficiency and new opportunities

IT Impact

- Without the right data, digital business KPIs cannot be created. IT will need to be a stakeholder in setting the right indicators and disseminating accurate data.
- Enthusiasm for incorporating AI into all metrics may cloud the practical application of KPIs in the business. Set realistic expectations for business stakeholders.
- Application of advanced analytics and AI will only be practical with a large volume of quality data.

Business Impact

- Capturing the right KPIs will become a competitive differentiator for businesses; modernizing the tools to ensure data collection, reporting, and decision making will be fundamental to success.
- Business leaders may fall into the trap of trying to create too many KPIs, generating too much data that will obscure the metrics that matter most to the organization.

Guidance

- Encourage business unit leaders and CIOs need to collaborate to set goals and the associated data required to measure success, then jointly develop KPIs that link to business outcomes.
- Consult with SaaS vendors that can provide modern prebuilt templates for KPIs, dashboards, and reporting. Ensure KPIs are not superficial "vanity metrics" such as likes and page views.
- Ensure that the business has the foundational data to formulate new KPIs then explore AI-designed KPIs that can make performance more predictable.

Prediction 8: By 2027, 80% of CEOs Will Assert That Their C-Suite Technology Leader's Primary Function Should Be to Invest in Digital-First Initiatives to Deliver on Digital Revenue Targets

Businesses increasingly need a strategy to help them compete in a digital world. While digital maturity varies across regions and industries, the overarching theme is that more business revenue is being driven through digital channels or enhanced through new technologies. It shouldn't be surprising then that we see business leaders and particularly the CEO expecting their organization's technology leader to be focused on delivering better business outcomes, increasing business agility, and bringing in new revenue through digital products, services, and experiences.

There is a clear downward trend of CEOs asserting that their CIO's primary focus should be cost and risk management. Today, only 12% of CEOs expect their CIO's primary focus to be on cost optimization (source: IDC's *CEO Study,* 2023). Meanwhile, 64% of CEOs indicated that their CIOs primary role was focused on business agility, business outcomes, and driving new revenue streams (source: IDC's *CEO Study,* 2023).

Associated Drivers

- **The digital business imperative —** Competitiveness and outcomes
- **Dynamic work and skills requirements —** New work mode era

IT Impact

- Cost optimization and risk management will be delegated further down the chain of command to finance and operations specialists that bridge finance and tech functional silos to create a robust FinOps capability.

- The CIO will be a collaborator on business strategies and will need to enhance their business acumen in order to fulfill the requirements of the C-suite.
- The CIO will need to lead multiple tech leadership roles in the organization as the reliance on tech to compete intensifies. Other tech leadership roles will take more responsibility over enhancing business agility and new revenue streams from digital.

Business Impact

- CEOs will need to clearly communicate the rationale for digital revenue expansion and set realistic growth targets.
- Collaboration across the C-suite becomes more important now than ever before as the CIO, CEO, and other business executives shift focus and resources toward digital products, services, and experiences.

Guidance

- Start to explore digital business models that would be a good fit for your business and prioritize POCs to further demonstrate or rule out their value.
- Assess the digital skills gap and plan for how non-IT staff will work with new digital business models.
- Consider the cost savings that can be realized through successful digital business initiatives and use those savings to invest further into technology and keep the tech function self-sufficient.

Prediction 9: By 2026, 90% of Knowledge Workers Will See AI Augmenting a Portion of Their Workflow, Resulting in the Need for Organizations to Reskill All Employees for the Next Age of Digital Business

The majority of executives (77%) say they are exploring or significantly investing in GenAI technology (source: IDC's *FERS Survey, Wave 5,* June 2023). Knowledge management is viewed as the most significant use case promise (source: IDC's *FERS Survey, Wave 2,* March 2023), with the ability to utilize GenAI tools to develop and update training content quickly for line-of-business employees as a key benefit. As part of IDC's 2023 *Worldwide C-Suite Survey,* we asked executives about their most important short-term (18 months) business outcomes for generative AI. The most popular answer was to *increase operational efficiency and employee productivity.*

In addition, GenAI can be used to augment workflows to give them more specificity. These knowledge management impacts will be utilized by nearly every organization. However, that wholesale adoption will bring challenges for employees who see their overall workflow and learning process impacted. To mitigate negative impact and drive adoption, employees will need to be reskilled to work alongside GenAI.

Associated Drivers

- **Dynamic work and skills requirements —** New work mode era
- **AI everywhere —** Generative AI takes the spotlight

IT Impact

- IT staff must be equipped with the skills to determine how to evolve the technology stack to optimize and support the use of GenAI.
- With AI being embedded across the business, security, risk, and compliance will become increasingly important, meaning security professionals will be in higher demand than ever.

- IT training must be considered mandatory to ensure technical staff have the right skills to enable processes across the entire organization.

Business Impact

- Business and HR leaders should expect probing questions from knowledge workers who see both the benefit and threat of using AI to augment their tasks.
- Clearing articulating the need for practical AI use cases will become paramount as AI market hype will distract employees and consume time and resources.

Guidance

- Workers must be educated about responsible AI and understand their organization's AI policy.
- Considering the implementation of a digital adoption platform (DAP) will help onboard new employees and upskill existing employees on new AI technologies.
- To help attract and retain the best talent, flexible work schedules and other measures must be considered to close the talent gap.

Prediction 10: By 2027, to Meet Their Sustainability Ambitions, G2000 Organizations' Business and IT Leaders Will Dedicate at Least 20% of Their Digital Tech Spending Toward Sustainability Initiatives

Sustainability is increasingly linked to digital business, with the C-suite highlighting the need to invest in digital technologies to meet their sustainability goals. Digital technology spending can be both directly and indirectly dedicated to sustainability initiatives, either by specifically addressing corporate-sponsored endeavors or by establishing the platform necessary to eventually carry out sustainability goals.

Companies are already driving significant spending toward sustainability through digital technology. For example, Nestle has committed to eliminating deforestation in its supply chain as part of its larger data-driven digitalization effort. This has led to investment in satellite imagery to track palm oil suppliers as well as partnering with start-ups to track coffee supply chains from producer to consumer.

To achieve their sustainability ambitions, organizations will require both business and IT leaders to pursue digital technology investments that are twofold: meeting their digital goals while taking sustainability into account. These types of sustainability initiatives will increase in the next five years as significant parts of digital technology investment strategies.

Associated Drivers

- **Operationalization of ESG —** Measuring and implementing sustainability
- **The digital business imperative —** Competitiveness and outcome

IT Impact

- Organizations will double down on ensuring that they refine their processes and operations to be more sustainable. IT and LOBs will need to work collaboratively to ensure sustainability is being addressed either while shortlisting vendors or when supporting LOBs on department specific projects.
- In some cases, IT and LOB will need to cofund these sustainability projects so that it helps meet department-level commitments.
- The CIO's role will be critical in helping reduce the technology acquisition and life-cycle element of the sustainability equation, including reducing datacenter energy consumption and establishing green cloud initiatives.

Business Impact

- C-suite executives will feel pressure to balance near-term business objectives with longer-term sustainability goals.
- Optimism about digital tech as part of the solution to sustainability challenges must be followed through with a strong vision, long-term commitment, and meaningful action to resonate with employees, customers, and society at large.

Guidance

- It will be critical to establish and communicate centralized sustainability ambitions and ensure that different departments are able to address sustainability while executing projects.
- Sustainability initiatives that allow for circularity will enable organizations to optimize their sustainability budgets, which in turn will allow departments to do more with their existing budgets.
- Organizations will have to establish standards around metrics and reporting in order to measure the progress they are making across their sustainability goals.

ADVICE FOR TECHNOLOGY BUYERS

- Identify areas where GenAI can improve or transform your processes — press your tech and services suppliers to demonstrate how GenAI can help you achieve your digital business goals, both internal and external. Initial focus from many vendors with GenAI is on augmenting employee experience and productivity, and that's an important application. However, also examine how GenAI can help you identify new business models.
- Build out your digital business platform capabilities to enable your ability to provide improved experiences for your customers, employees, partners, and providers. Those organizations that have established technology backbones will be better prepared to adopt the digital initiatives that will lead to competitive advantages, new KPIs, business models, employee engagement and talent acquisition, automation, and AI and data capabilities. Leading organizations are investing in digital technologies that will set them up for success and increase their market share.
- Appoint leadership that understands emerging technologies and their application to digital business. It's imperative that you have internal guidance on strategy and investment that understands the impact of GenAI and its potential. These leadership roles should be in the C-suite and have an influence on technology budgets.

EXTERNAL DRIVERS: DETAIL

AI Everywhere — Generative AI Takes the Spotlight

- **Description:** With intelligence becoming the primary source of value creation, we are on the verge of the "Intelligence Revolution," in which artificial intelligence and automation-oriented technology will be the main accelerators of business change. In the realm of "AI everywhere," generative AI emerges as a transformative force, potentially revolutionizing the future. This branch of artificial intelligence enables a machine-driven autonomous creation of new content, from images to music to even written text, with remarkable accuracy. Early applications of GenAI have showcased its potential in fields such as creative arts, content and code generation, and personalized recommendations. However, it also raises concerns regarding bias and privacy: AI algorithms can inadvertently perpetuate biases and pose threats to personal data. As a result, regulation becomes crucial to ensure responsible and ethical use of GenAI. Despite these challenges, the possibilities are vast, ranging from improved customer experiences to innovative problem solving. Harnessing the power of GenAI and navigating its associated complexities have the potential to shape the future of industries and drive advancements in the AI-driven world.

- **Context:** Businesses are already jumping to get a piece of the AI pie, afraid to miss out on the opportunities it presents. Although we are in the early days, monetization and scale of AI solutions are expected to evolve rapidly. However, this comes during a time of relative economic uncertainty and increasingly constrained IT budgets. Furthermore, AI is not without risks, especially when it comes to ethical AI and data privacy, and companies need to carefully consider the best use cases in order to implement AI effectively.

The Drive to Automate — Maximizing Efficiency and New Opportunities

- **Description:** Broader automation use cases — beyond just generative AI — are now ubiquitous. Now that data is embedded in the core of strategic capability for every organization, automation is critical to scaling a digital business and is evident in three domains: IT automation, process automation, and value stream automation — leading to autonomous operations, digital value engineering, and innovation velocity. Industrial organizations have spent the past few years evolving toward the Fourth Industrial Revolution (Industry 4.0) through the use of industrial automation and intelligence. Thoughtful implementation is more important than ever as data becomes embedded in the strategic core of every organization. Automation technologies such as robots and drones are being used increasingly in the military and healthcare sectors. Given this boost in automation, data is increasingly precious, and privacy must be prioritized and security enhanced. In some cases, automation has also led to concerns over the future of work — whether it will enhance or take away.
- **Context:** Businesses are rethinking how to employ automation to maximize operational efficiency — from automating assembly in manufacturing to identifying opportunities for food waste reduction in hospitality to improving customer experience (CX) in digital banking. IT will need to continue to assess new technologies and approach automation investments strategically, both within the walls of the organization and in the field. Among industrial organizations, IT/OT convergence will necessitate shared responsibility across teams for automation priorities and implementations.

Economic Uncertainty — IT Malaise and Market Volatility

- **Description:** The global markets have been thrown into a state of prolonged uncertainty. The era of low interest rates and easily accessible corporate debt has abruptly transitioned into an economic slowdown, accompanied by a surge in interest rates. Despite monetary policy interventions, inflation persists due to the compounding effects of global conflicts and supply chain constraints. As a result, economic growth is stifled, hindered by soaring commodity prices and mounting sovereign debt. In certain cases, this instability has even escalated into recessions. These conditions have created a situation of IT malaise, especially in the United States and Europe in early 2023, as uncertainty makes budget planning and forecasting challenging for executives. Many IT leaders are now bracing for an onslaught of AI-driven technology while battling uncertainty about which current expenditures and assets they should keep or discard. While technological innovation may be a rejuvenator, it further contributes to disruption and uncertainty in today's already-volatile economic environment.
- **Context:** Given uncertainty around inflation and interest rates, C-suite executives need to strategically plan IT spend. Most executives view IT as a deflationary measure but striking this balance between digital investments and cost management becomes increasingly challenging

given volatile conditions. With generative AI, IT executives further find themselves caught up in questions of strategic spending. While many IT organizations initially focused on constraining new expenditures and optimizing the use of existing assets, they now find themselves grappling with how to invest in AI and other drivers of innovation while reining in costs.

The Digital Business Imperative — Competitiveness and Outcomes

- **Description:** A digital business sees value creation based on the use of digital technologies for both internal and external processes, including customer engagement, employee experience, and product and services development. Building and leading a digital business is imperative for organizations to be competitive. While certain operational aspects may always have a nondigital component, digital businesses prioritize a digital-first strategy that aligns all parts of the business and IT landscape with digital workflows to drive value and growth. The development strategies for both digital and nondigital assets now require leveraging multiple channels for the digital business to obtain support or funding. This places a strong emphasis on providing digital experiences for customers and citizens, employees, and partners and necessitates a shift toward fully digital operating models and resilient supply structures enabled by digital technology. The focus of a digital business is increasingly on delivering measurable outcomes. Businesses that have recognized the value of digital anticipate maintaining or even increasing their investment in technology, even in times of economic uncertainty.
- **Context:** As more and more enterprises embrace digital strategies and technology, they prioritize technology investments that drive innovation or allow for competitive differentiation. Technology is no longer viewed as a tool to keep the business running, but it is the foundation for building new revenue-generating experiences and products. Laggards will need to adapt quickly and develop their digital road maps and embrace a digital business platform. Identifying top digital revenue opportunities that deliver value will be crucial for overall business success and implementation of organizational digital-first strategies.

Everything as a Service Intensifies — Transforming Models to Drive Change

- **Description:** The concept of “everything as a service” (“XaaS”) is driving change across all sectors and ecosystems, affecting both the supply side and the demand side of businesses. Organizations are adopting as-a-service models at different speeds out of necessity, but the complex delivery strategies make requirements more complicated and the impacts less predictable. The shorter decision cycles enabled by on-demand services allow industry leaders to approach things differently, but the commitment models are fundamentally changing. On the supply side, there is a rising demand and higher customer expectations. As a result, suppliers are compelled to convert and enable their offerings more quickly using a secure services-based model. Buyers are now making decisions based on commitments to measured outcomes in terms of optimization, reliance, and financial models. Architecture and solution strategies are now critical to the service provider, where proprietary systems that are being maintained or migrated can materially impact the efficacy of the as-a-service solution. Leaders face the challenge of finding new financial, operational, and governance models that support a successful transition to an as-a-service approach. Critical factors for organizations to thrive through the as-a-service change landscape include solution control, contractual clarity on roles and responsibility, and accountability alignment including geoeconomic assurance and data.
- **Context:** To deliver optimally, companies are looking to better manage their as-a-service offerings. They’re changing product design, delivery, and pricing alongside adjusting

management and operations to best optimize as-a-service technology. This is the new model for the tech industry, and suppliers and buyers will need to adapt accordingly. This includes developing cloud-based control to manage provisioning, continuous usage tracking, and architectural efficiency.

Dynamic Work and Skills Requirements — New Work Mode Era

- **Description:** In the wake of COVID-19 pandemic-driven accelerated work transformation, enterprises continue to face dynamic work conditions. These range from lack of skilled employees to codifying more flexible ways of working that rely on a broad range of technologies and services. In some regions, most notably in Asia/Pacific, organizations are focused on building more secure and technically sophisticated office environments. In North America, remote and more flexible work models are driving investments in technologies that support collaboration across and within disparate work environments. Across this spectrum of work models, organizations are investing in infrastructure, hardware, software, and services to enable and manage increasingly automated ways of working. These include automated remote onboarding, learning in the flow of work, and use of AI and generative AI to facilitate basic tasks and workflows. While the pandemic drew much needed attention to the employee experience, enterprises have shifted to aligning employee requirements more plainly to strategic business goals. The key challenge around the globe has been to find or upskill/cross-skill employees to scale and meet the demands of complex, automated work processes. Flexible work models continue to change to become even more agile, with digital workspaces highlighting skills, workforce management, automation, changing demographics, and as-a-service talent resourcing.
- **Context:** New modes of working are now intrinsic to leadership and organizational resilience and go well beyond traditional staff planning methods. They are also having an impact on frontline workers who have historically been neglected in favor of higher-paid front- and back-office peers. New work models require agile cross-functional teams – including HR, IT, LOB, finance, facilities management, and operations – to engage top talent and meet client brand expectations. While headlines debate the fate of environmental, social, and corporate governance (ESG) initiatives, it's clear that environmental concerns will be an embedded element of workplace design and implementation of flexible work models. C-suite leaders and their teams must collaborate to recalibrate work culture, augmentation, and space/place planning to enable more secure, dynamic, and refined work models of the future.

Operationalization of ESG — Measuring and Implementing Sustainability

- **Description:** Environmental, social, and governance (ESG), a globally adopted framework supporting actions to achieve sustainability and a better future for all, is gaining more traction than ever. ESG laws are increasing: the EU launched the Corporate Sustainability Reporting Directive (CSRD) requiring companies to disclose and assure ESG metrics, the SEC's climate disclosure requirement is forthcoming, and Japan's GX Basic Policy implements an emissions trading scheme and carbon tax. There are also new International Financial Reporting Standards. Given this, many companies are actively operationalizing ESG with AI-informed carbon accounting software, carbon budgets, and sustainability requirements into requests for proposals (RFPs) they send to tech suppliers. Many companies now have positions such as chief sustainability officer or are integrating sustainability into the responsibilities of the C-suite. And many enterprises are replacing redundant faulty and energy-heavy tech with newer, more efficient energy-saving counterparts. Businesses recognize that diversity, equity, and inclusion are positively affecting profits and are therefore implementing DEI initiatives to include more women and minorities. In addition, ESG compliance is a form of long-term strategic business risk reduction. Given climate change and instable energy prices, among other risks, ESG helps curb costs and hedge against risks caused by natural disasters and other shocks.

- **Context:** ESG is more than just a measure; it is foundational to business purpose and value. Businesses are increasingly beholden to ESG. More and more customers care about whether the companies they deal with behave sustainably and deliver sustainable products and services. ESG can also be a cost-saving measure and hedge against risks. Yet, despite much progress, there is still work to be done, especially in complying with carbon footprint measuring and achieving high-quality data. As laws and regulations – as well as investment opportunities – amp up around ESG, the IT industry will increasingly require green talent and skills and better data modeling of ESG metrics to achieve maximum benefit.

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- *Critical External Drivers Shaping Global IT and Business Planning, 2024* (IDC #US51057623, September 2023)
- *GenAI and Digital Business in 2023* (IDC #US51201423, September 2023)
- *IDC's Global CIO Advisory Board: Digital Business Strategies* (IDC #US51037823, August 2023)
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Global Headquarters

140 Kendrick Street
Building B
Needham, MA 02494
USA
508.872.8200
Twitter: @IDC
blogs.idc.com
www.idc.com