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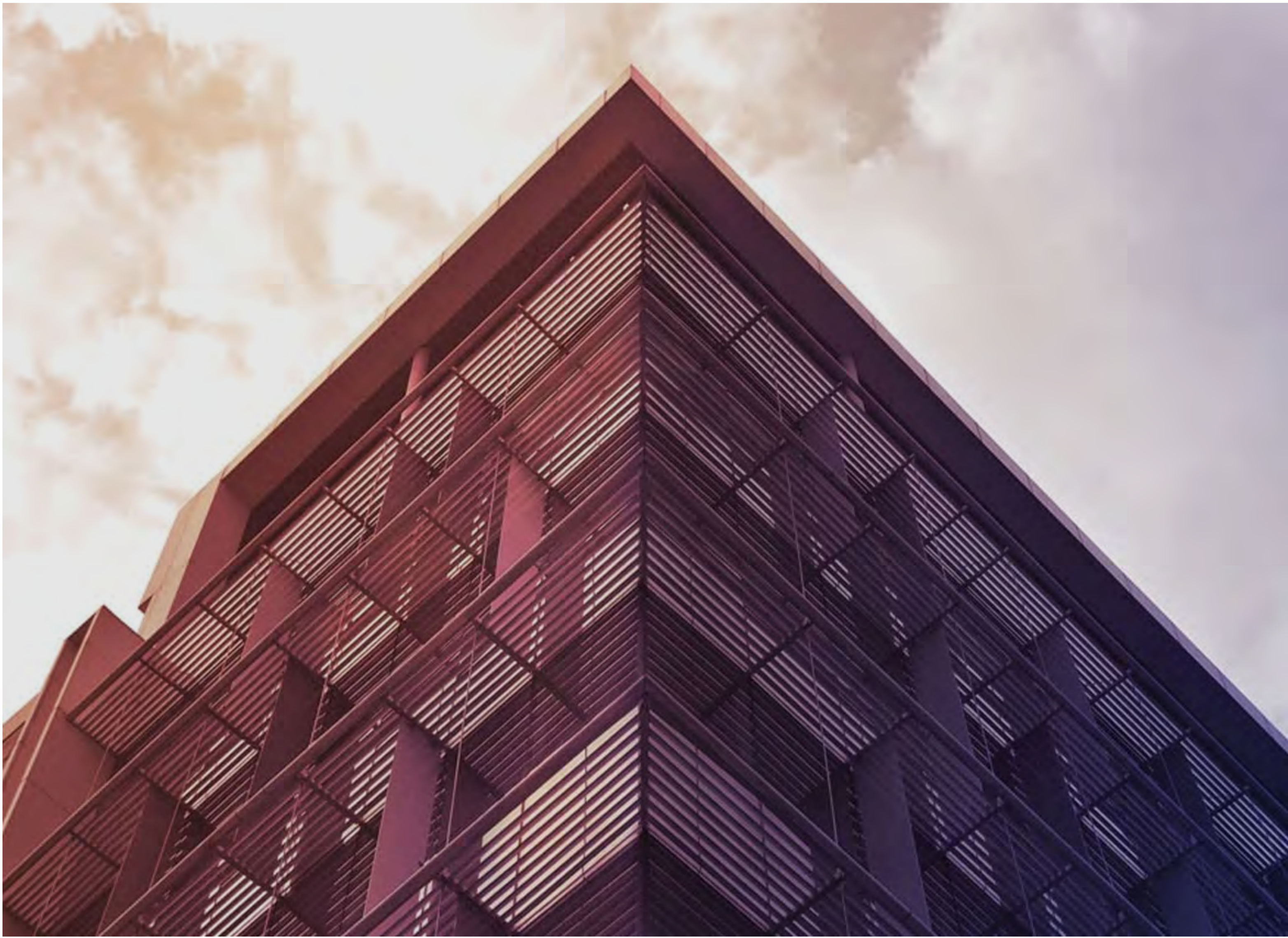
PRACTICAL THOUGHT LEADERSHIP ON AI, AUTOMATION AND ANALYTICS



# GENERATIVE AI

THE FUTURE OF WORK





EdgeVerve Headquarters, Bengaluru, India

## About EdgeVerve

**EdgeVerve Systems Limited**, a wholly-owned subsidiary of Infosys, is a global leader in developing digital platforms, assisting clients to unlock unlimited possibilities in their digital transformation journey. Our purpose is to inspire enterprises with the power of digital platforms, thereby enabling our clients to innovate on business models, drive game-changing efficiency and amplify human potential. Our platforms portfolio across Automation (AssistEdge), Document AI (XtractEdge), and Supply Chain (TradeEdge) helps inspire global enterprises to discover & automate processes, digitize & structure unstructured data and unlock the power of the network by integrating value chain partners. EdgeVerve, with a deep-rooted entrepreneurial culture, our innovations are helping global corporations across financial services, insurance, retail, consumer & packaged goods, life sciences, manufacturing telecom and utilities, and more.

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# Generative AI

## The Future Of Work

Volume 14, March 2024

Gen AI, the next generation of artificial intelligence, is poised to revolutionize the future of work. With advanced capabilities in machine learning and adaptability, we are aware that Gen AI can enhance productivity and automate routine tasks; however, its broader potential lies in reinventing processes across the entire value chain. Gen AI is democratizing business process redesign, giving everyone—from assembly workers to customer service agents to lab scientists—the power to reshape their own workflows. As Gen AI matures, it will make our current levels of productivity seem quaint while changing—at the deepest level—the way businesses innovate, make decisions, and organize themselves. Preparing for this shift involves cultivating a workforce adept at AI technologies and fostering a balance between human creativity and machine efficiency. Leaders who understand the scale of the opportunity Gen AI presents and begin deploying Gen AI safely today stand to gain more than the usual “first-mover advantage.”

In this edition of our magazine, we uncover invaluable insights around how Generative AI can change the game while reinventing business processes across value chain, and how we can all come out ahead – as businesses, as leaders and as people.

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# Antifragile Supply Chains

## Rethinking Our Relationship With Uncertainty



Sateesh Seetharamiah  
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### Summary

What if supply chains could embrace uncertainty instead of bracing for impact? Or better yet, look forward to them? Sounds extreme. Yet, **9% of enterprises** are already living this reality, turning the concept of 'anti-fragility' into an actionable strategy. Unlike fragile systems that crumble under pressure or resilient ones that merely withstand, anti-fragile systems gain from disorder. They evolve and improve with every challenge.

How does a supply chain transform into an anti-fragile powerhouse? Is it even feasible with our current setup, or are we too entangled in outdated methods? The journey from fragile or resilient to anti-fragile is ambitious but not unreachable. The solution is multi-faceted but begins with technology and data – the building blocks of a strategy that welcomes uncertainty.



### 1. From tech debt and patchwork to a connected enterprise

Even as companies strive to modernize, **technical debt** stands as an obstacle, entangling supply chains in a web of outdated tools and disjointed processes. Quick fixes have turned into long-term headaches, and the once solid foundations now resemble a patchwork struggling under its own weight. Crisis moments—like getting an end-of-life alert or grappling with obsolete code—often spotlight these issues, revealing the fragility of our systems.

Generative AI brings the power to screen and rejuvenate aging code and transform technical liabilities into assets. This is nothing like the patchwork that has been going on for decades. GenAI can reengineer the very DNA of our supply chain solutions and platforms.

### 2. From disparate data to a harmonized single source of truth

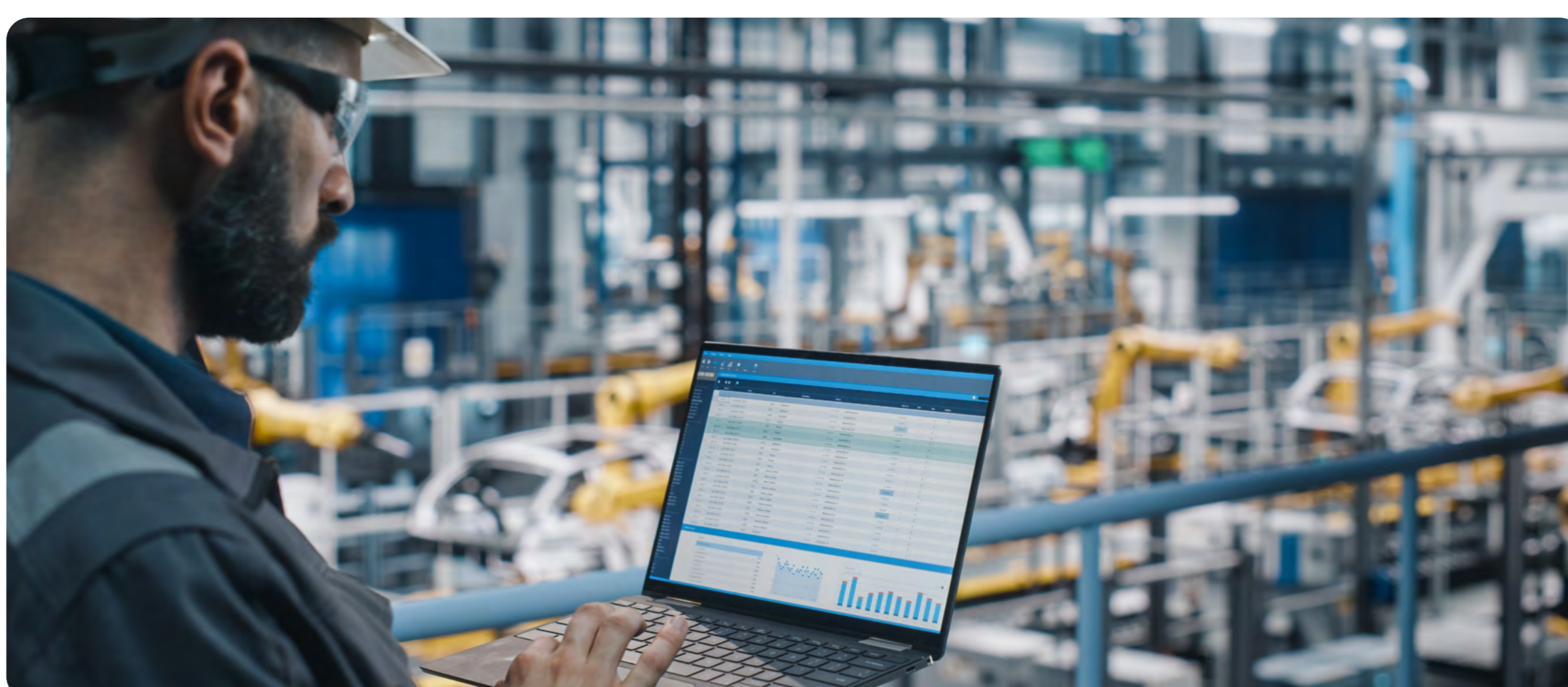
Supply chains are complex. They are not complicated like rocket science but are extremely complex because of their expanse, interdependencies, a sea of data, products, and partnerships. The industry also features high-volume sales and rapid product cycles that demand unmatched adaptability and speed. However, data disparity complicates the landscape. Take SKUs, for example. These product identifiers transform as they move from shop floor to logistics to retailers. They leave behind them a trail of disparate data with no reliable source of truth. This is just one use case to underscore the complexity of data processing.

Fortunately, GenAI and AI/ML platforms are making it possible to streamline data, constructing a solid foundation of **cohesive data estate** for sharper insights and clearer visibility.

### 3. From information to insights and visibility

Enterprises face challenges that vary in frequency and impact, from common yet manageable to rare but severe. Leaders need a deep understanding of these events' implications before deciding. Consider a routine dilemma for supply chain managers: a material delay. They have plenty of options to choose from—prioritize a major client over a smaller, more flexible one, opt for costlier alternative materials, or switch suppliers. Extrapolate this dilemma to many more complex situations in the entire value chain. Figuring out the best option from all possible scenarios is a humanly difficult task, no matter how many people are deployed. But what if we could achieve this?

**GenAI** can go over the entire volume of internal data effortlessly and extend the analysis by incorporating factors like weather forecasts, traffic conditions, supplier reliability, sustainability, and even the financial and reputational effects of delivery delays. It then offers leaders the best possible decision paths to choose from. That is the role and power of insights and end-to-end visibility in facing uncertainties.



### Priming the organization for successful GenAI implementation

GenAI is set to tackle the big obstacles and pileups in our digital ventures. While there's plenty of talk about its potential, we're also acutely aware that a majority of digital transformations fail—**70% to be exact**. Success hinges not just on the tech we adopt, like GenAI, but also on lessons learned from both wins and missteps. Drawing on years of experience, here's the fundamental insight into what consistently achieves success:

#### ▪ Unify stakeholders around the goal

Technology deployments often miss their mark when stakeholders aren't on the same page. Tools are introduced, but the anticipated results don't appear. **This scenario is all too common**, underscoring the importance of alignment internally and with external partners across IT, marketing, risk management, logistics, and beyond. The key lies in crafting a clear business case, pinpointing the source of impact, and acknowledging the essential non-technical elements needed for success.

#### ▪ Map out full-scale skilling approaches

The consensus among leaders is that building expertise over AI tools is a top priority, and so is ramping up the reskilling engine. GenAI is creating new positions, and they anticipate that nearly half of their workforce's skill set will need a GenAI upgrade **within three years**. We should also put processes in place to answer questions: How do we equip our team to use these tools effectively? What metrics and performance management systems are necessary to track compliance and outcomes?

#### ▪ Crystalize cost, impact, and ROI insights.

Gartner forecasts that **slowing down in 90% of GenAI** enterprise projects by 2025, as the balance tips with costs outweighing benefits. Over half of the enterprises embarking on building their own expansive models might hit a dead end due to the financial strain, complexity, and accruing technical debt.

Cost, time, and effort influence our choices. Should we opt for readily available GenAI solutions, with potential risks around data security, misinformation, or should we invest in developing, deploying, and fixing in-house models? Fortunately, experimentation is still in progress. **FrugalGPT**, a new experiment, demonstrates that it's possible to match top-tier LLM performance like GPT-4 at a staggering 98% cost reduction or even surpass its accuracy by 4% for the same investment.

The takeaway is clear: without strategic foresight, the GenAI leap could quickly morph from a strategic edge to a financial sinkhole.

### A new outlook on uncertainty

Thinking antifragility is just about tech is a sure path to disappointment. Tech kicks things off, but real success is a much bigger act between tech, people, and processes. More than anything, antifragility is a mindset. We cannot solve a problem with the same thinking that created it. Familiar ways of thinking and acting quickly might be what has created the patchwork of systems. So, we need to first innovate our mental models and change our relationship with uncertainty. Those who master this will discover disruptions can be the doorway to breakthroughs, not breakdowns.

Disclaimer Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the respective institutions or funding agencies

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# Generative AI and The Capital Markets

## Capital Markets Operations Reimagined With Gen AI

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### Summary

Generative AI is gaining traction in disrupting every industry, and Capital Markets are no exception. In a sector burdened with regulatory norms, arduous compliance mandates, market manipulation, and insider trading, GenAI has a wide array of solutions that promise to revitalize industry dynamics.

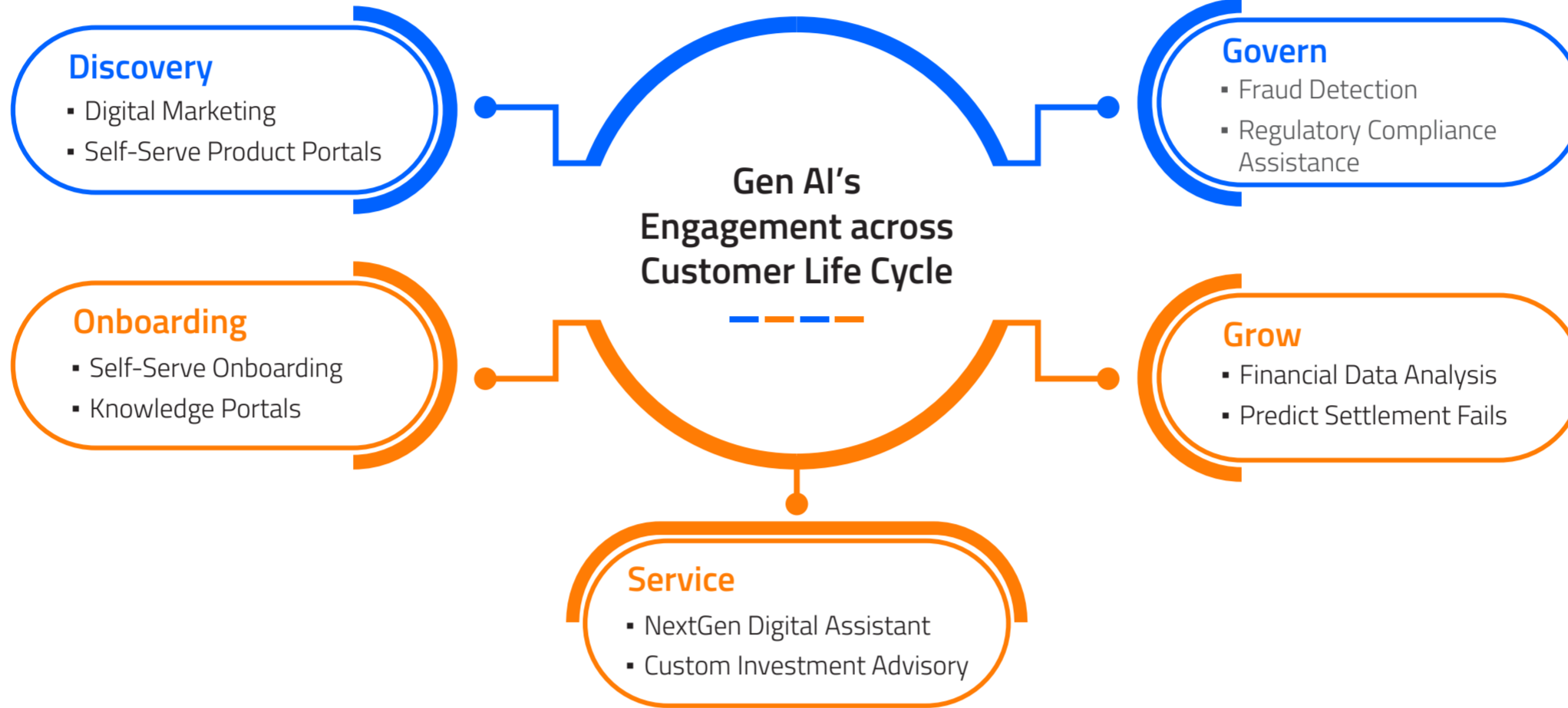
While most of the implementations are nascent, millions of dollars are being invested to explore Generative AI's capabilities to streamline processes, enhance consumer service, automate financial advice, and facilitate compliance management. There is a special interest and belief in the CXO level with regards to the power and impact of GenAI, which further solidified its positioning as technology of choice in coming times.

Market predictions suggest an incremental value of \$200 billion to \$340 billion for the entire retail and wholesale banking gamut through enhanced productivity after leveraging the potential of GenAI.



### How Are Capital Markets Riding the Generative AI Wave?

In Capital Markets, GenAI is bringing about a paradigm shift in the way these financial institutions are categorizing regulators' reports, addressing investment related queries, giving in-depth insights on real-time decisions, and augmenting the overall customer experience through targeted offerings.



AI's impact across the Capital Markets value chain

GenAI can not only assist but radically transform businesses by improving three main capabilities:

### Customer-focused growth strategies

through data-driven insights

Most capital market organizations have a vast repository of data that needs to be decoded into machine-interpretable datasets that can produce conversation touchpoints. Markets are continuing to evolve to offer a more comprehensive, albeit complex choices to the investors. Further, investors are becoming multi-dimensional with a global understanding of risk and supply chains. This means the advisory must have a ready reference of transcripts, company filings, market sentiments, competition analysis and reports.

Natural language research assistants with the power of Generative AI can search and synergize millions of transcripts, consensus estimates, macroeconomic reports, regulatory filings, 10Ks, 10Qs, social media chatter and industry trends to churn out real-time responses and tackle follow-up questions.



Key roles in global capital market firms

The above diagram showcases the importance of data at every functional point within a Capital Market services organization.

GenAI can transform the ease and speed with which pitchbooks are created, customized trade notifications are circulated, internal and third-party reports are generated, and strategic forecasting is done to facilitate enterprise-level decisions.

Traditional trading systems operate on predictive trading based on algorithms. Now, trading firms can gain an advantage with Generative AI by predicting short-and-near-term price fluctuations by synthesizing scores of news and economic data. It can influence buy or sell decisions by assessing fundamental indicators.

### Elevate consumer experience across multiple touchpoints

by leveraging the power of data.

Nearly 60% of Capital Markets servicing requires email, phone conversations, and manual documentation. Generative AI's ability to read audio, search, extract, and consolidate unstructured data into machine-readable formats is expediting pre-boarding paperwork. It can also generate loan contracts, like mortgages, with specified prompts. Post-acquisition, servicing teams are using GenAI-led technology to interpret documents on required corporate actions.

Relationship managers (RMs) of a leading corporate bank in Asia were spending significant time summarizing sustainability reports and addressing critical queries from B2B customers. To facilitate communication between Relationship Managers (RMs) and B2B clients, banks are empowering their RMs with GenAI-initiated insights into ESG (environment, social, and governance) and audit reports. GenAI tools can go further to integrate multiple data points, such as interest rates, inflation, fuel prices, and other economic parameters, to create customized quotes for every client.

Another client-centric challenge in the capital markets is to build sustainable investor-advisor relationships where analysts can address consumer concerns faster.

Large Language Model (LLM)-enabled digital assistants, aided by extended reality (XR), can analyze human emotions, and modify client interactions accordingly. Humanizing customer communications makes the conversation more contextual and, hence, more engaging. Eventually, this fosters a stronger consumer connection.

A Greenwich Wealth Management study reveals that more than 50% of US-based financial consultants are adopting GenAI-powered customer relationship management (CRM) software to strengthen investor bonding.

To provide a top-tier customer experience, it's imperative to ramp up employee productivity.

Dutch investment bank ABN AMRO is deploying GenAI to revamp its operations and consumer experience. Real-time transcription of customer calls enables call center agents to quickly access relevant information sources, leading to reduced turnaround time. The lending giant is further leveraging its Generative AI solution to train their center staff. With a decentralized "hub and spoke" model, they aim to enable 75% of their agents with the new technology in the first quarter and reach full implementation by the second quarter.

Several organizations, such as Morgan Stanley, BNY Mellon, Deutsche Bank, MSCI, and Dun & Bradstreet, are collaborating with conversational Generative AI platforms to streamline their operations, execution timelines, provide customer service and investment management industry solutions.



### Safeguard stakeholders' interests

with more robust fraud and compliance management.

In an industry laden with fraudulent activities, GenAI is starting to play a pivotal role in detecting and preventing such attempts. Large Language Models (LLMs) are adept at identifying suspicious transactions in trading. Another tool that's rapidly gaining popularity in financial risk management is synthetic or artificially curated data. GenAI can deploy synthetic data tools to assess a vast array of stress scenarios and significantly enhance the scope of anti-money laundering and the prevention of insider trading.

Pathbreaking innovations based on GenAI can save significant time in Suspicious Activity Report (SAR) filing and reduce investigation time. Generative AI can also combat financial crime by skillfully combining suspicious transaction data and summarizing alert cases with pertinent information. Fraud Analyst Assistant chatbots significantly improve operational efficiency by handling time-consuming and repetitive alert triage and case narrations.

### So, what does the future hold for GenAI in the capital markets?

Governed by evolving regulatory norms and the consolidation of risk-mitigating technological advancements, GenAI is set to redefine the capital markets. Tools such as the Responsible AI Suite, part of Infosys Topaz, can provide a vast array of protective shields, scans, and steer frameworks to prevent data theft and misuse of information.

The cutting-edge technology of Generative AI will be widely used once smart investments are made in the right technical assets, an operating framework is built that works well for everyone, relevant market intelligence data is found and decoded for easy access, and the technology infrastructure goes beyond working with pre-trained models like ChatGPT to include enterprise-specific workflow tools that keep private data safe.

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# Agile 2.0 with Gen AI

## GenAI's Fresh Take On Software Development



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### Summary

Customers' expectations are sky-high. They're looking for services that are quick, accessible on their mobile devices, and available before they even realize they need them. This is quite the challenge and true for businesses in any field.

As a leader, recognizing the shift and knowing that traditional methods aren't enough is a welcome first step. There is more to be done and more to be learned but we are already aware that being agile is key, especially with software development.

The transition from waterfall to agile was a significant step—suddenly, we were moving faster and adapting quicker. Now, Generative AI (GenAI) is here to take us even further. And this time, It's not just about speed and efficiency. It is about completely transforming our ways of working for dramatic improvements to software development. **30 to 50 % productivity gains** can be achieved through Gen AI driven solutions which could have a direct impact on costs savings. Here's a look at some of the use cases at each of the Software Development Life Cycle (SDLC) we can implement right away.



### Plan: Blueprinting future innovations

In the Discovery Stage, we're essentially on a mission: gathering intelligence from the market, feedback from customers, and insights from within our own operations. Historically, this has been a painstaking, manual process. But introduce GenAI into the equation, and suddenly, we're not just assembling the puzzle faster; we're redefining what the puzzle is.

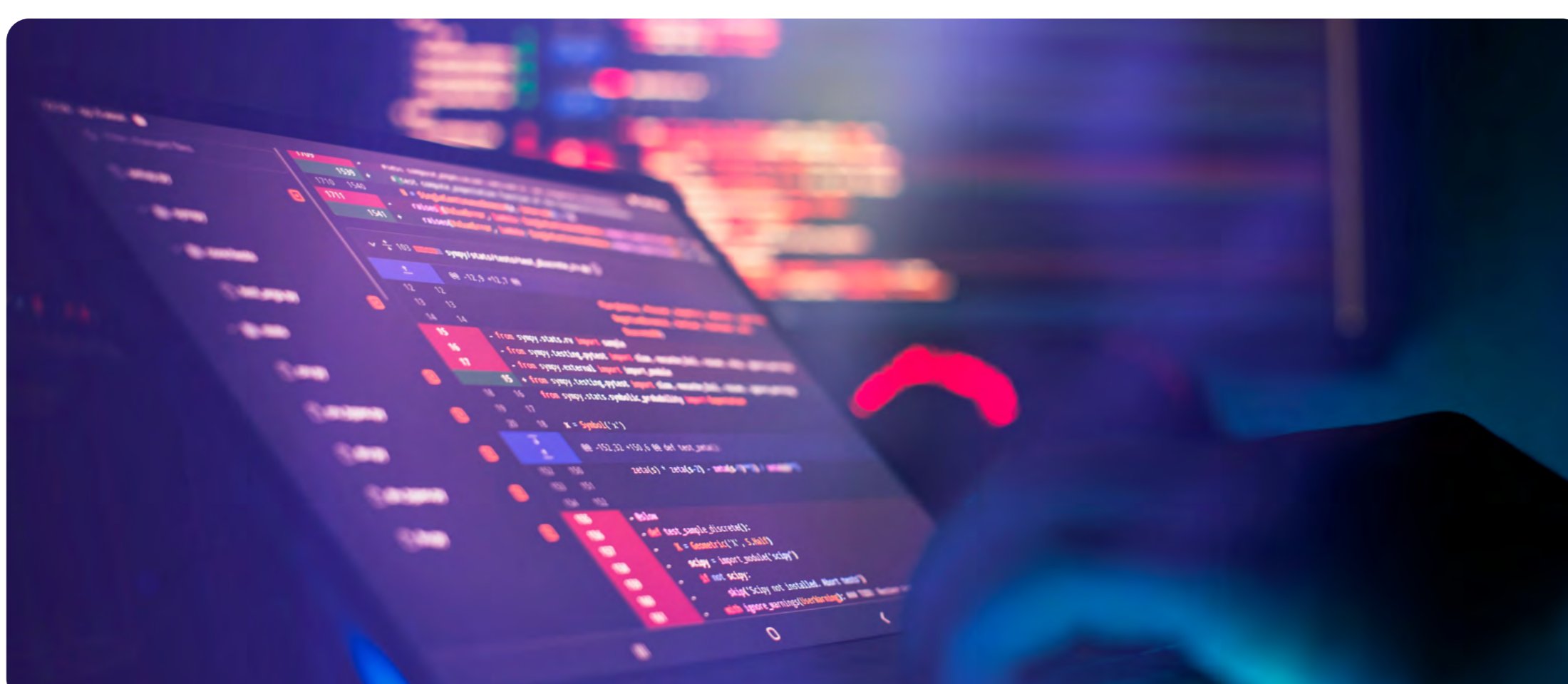
Imagine an insurance company looking to innovate how claims are managed on their mobile application. We can deploy GenAI to run through data and interpret customer reviews, complaints, market trends, and more, delivering actionable user requirements, backlogs, and user stories. And it does this with astonishing speed and precision, all from a simple prompt.

### Design: Creating user-centric experiences

With the development cycle moving into the design phase, GenAI can translate the inputs from -the planning phase into clear, user-centric design prototypes.

Cast a natural language prompt at GenAI—say, crafting a user-friendly claims processing interface that smartly bypasses information already in the system—and it delivers instant results. From generating and refining prototypes to dishing out the actual HTML code, GenAI accelerates the [entire prototyping process](#). It can also generate a checklist of metrics for validation, ensuring every aspect of the project aligns with defined standards and expectations. It can draft basic architecture diagrams complete with key data entities and user roles, all neatly organized and prepped for building.

This has a massive impact. The teams can go from ideation to development with everything they need at their fingertips and turn ambitious concepts into tangible realities at an unprecedented pace.



### Develop: Bringing ideas to code

As we transition from the early planning stages into coding, AI-driven copilots like the GitHub copilot are already boosting developer productivity by auto-generating code. Forrester's research tells this story, projecting a 20-50% average increase in coder productivity. This spike can even [reach 200%](#) or more for seasoned engineers who leverage GenAI for unfamiliar languages or libraries.

Take our insurance app example. Imagine instructing GenAI to generate Java code that intelligently queries our system for pre-filled claim form details, asking users only for missing, critical information. This task, complex in nature, becomes straightforward with GenAI, producing accurate and functional code promptly. Developers no longer need to code every single detail. Instead, they issue commands to GenAI, which then delivers code that's not only functional but optimized for the task at hand.

### Test: Ensuring flawless functionality

Automated testing has been a cornerstone of software development for years. So, how exactly does GenAI add value? So far, traditional automated testing can only execute predefined test cases. But GenAI can analyze the application's code, user stories, and even changes in metadata, GenAI can intuitively create test cases that are more comprehensive and cover scenarios developers might not have anticipated. It creates realistic test data that reflects the diverse range of user inputs, ensuring the app can handle anything thrown its way. It can analyze code to detect vulnerabilities and security issues and improve the quality of testing itself by learning and evolving, all at high speed and quality.



### Deploy: Launching with precision

What if we could make the deployment user-centric? Imagine this. GenAI optimizes the release process based on historical data, and it ensures deployments are executed at the most opportune moments, minimizing downtime and maximizing efficiency. It can replace static notes with personalized, interactive release notes. So essentially, it not only makes the deployment smoother and less prone to errors but also enhances communication with end-users and ensures a better alignment of the software with user expectations and business objectives. Just Remember how DevOps and CI/CD revolutionized the way we deliver software? That shift set a new standard. GenAI is on the same path today.

### Support: Empowering continuous innovation

When the product hits the market, the features we've developed begin to reach our consumers. At this stage, GenAI assesses how these features are being used. This usage data is invaluable, providing real-time feedback to product management and impacting the next iteration of product design. GenAI goes further by generating detailed analytics and pinpointing the next addressing any lingering bugs. It enables automated support or self-service options, increasing the [productivity of the contact centre upto 50%](#). This cycle of feedback and improvement, powered by GenAI, ensures that the product not only meets but anticipates consumer needs.

GenAI's real value proposition lies in its ability to liberate development teams' time and allow them to concentrate on strategic tasks. But implementing GenAI is not the same as plugging in a new tool. It needs close consideration of many aspects.

### Overcoming the scale challenge

Experimenting with GenAI in small doses is one thing; scaling it securely is a whole other game. How do we ensure our leap into GenAI is not just innovative but also ethical, responsible, and secure? Here's how we get over every leaping into the ground up not just comfortable but excited about GenAI? Here's our play - kick off with compact teams, say five to seven members, each laser-focused on a slice of the product. Make tasks manageable and show how GenAI can be a game changer. Remember and remind, that GenAI is not replacing us; it is augmenting our capabilities. And for those willing to learn and adapt, it promises to be a valuable ally.

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# Generative AI For Banking And Financial Services

## How LLMs Are Paying Dividends in BFS



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### Summary

The world hit the jackpot with GenAI last year, potentially adding [\\$2.6 to \\$4.4 trillion](#) across industries every year. In the banking sector alone, we're looking at a potential boost of [\\$200 billion to \\$340 billion annually](#). No wonder Banks and Financial Services companies are already experimenting with different large language models (LLMs) and use cases to see what works best. Starting these pilots is one thing, but scaling up to really reap the benefits is another beast, with costs, risks, and technical hiccups. So, before going all in, it's smart to take a step back to understand what LLMs are and what they offer.

Whether it's processing and understanding customer queries at lightning speed, offering personalized financial advice, or detecting anomalies that hint at fraudulent activities, [LLMs are equipped to handle tasks](#) with a level of sophistication and nuance previously unattainable. Let's peel back the layers to see what is on offer and how large players are implementing it in their daily lives.



### Customer Service:

Traditionally, customer service in banking relied heavily on visiting a branch in person. While there's a charm to human interaction, it comes with limitations—availability being a prime one. Imagine providing non-stop, smart service where [chatbots aren't just scripted responders](#) but can actually understand and engage with customers on a personal level, offering precise, tailored advice 24/7.

A prime example is a leading European bank that rolled out 'BankGPT'. They also launched an internal tool to streamline IT support for their staff, pulling answers from their own databases. This move to a GenAI-driven platform catapulted their customer service and enhanced internal operations.

The results are significant. They achieved a more secure and compliant information exchange and cut down response times for service desk queries. All by making LLMs central to their strategy, showing the rest of us in banking the power and potential of diving into AI.



### Fraud detection:

We cannot overstate the importance of anomaly detection in finance. Traditional systems, often handcuffed by their reliance on historical data, struggle to adapt to the novel and evolving tactics of fraudsters.

Consider the challenge faced by a major US credit card company. With a daily deluge of transactions and a sprawling loyalty program, their traditional monitoring tools were no match for the cunning of modern fraud. The company needed a solution that could keep pace with the rapidly changing credit card fraud, one that could predict and adapt rather than just react. Naturally, they implemented a GenAI solution for this anomaly detection. The new system was not confined to the limits of known fraud patterns. Instead, it could [anticipate fraudulent tactics by generating new, hypothetical scenarios](#), continuously learning and adjusting its thresholds for what constitutes suspicious activity. The system offered real-time alerts for any anomalies, drastically reducing the window for fraudsters to operate. This not only minimized financial losses but also protected the company's reputation and customer relationships.

### Risk Assessment:

A notable pain point for financial institutions has been the reliance on static, often outdated financial information to assess creditworthiness.

A major player in corporate banking struggled with evaluations that were either incomplete or lagging, making it hard to make informed, timely decisions. Relying on static data meant missing out on the full narrative of a client's financial health. The turning point came with the introduction of a [GenAI system](#). Unlike anything they had before, this system could pull real-time data from an array of sources – from financial reports to social media feeds – painting a comprehensive picture of a client's status and prospects. This is not a simple case of aggregating data. The quantitative and qualitative risk assessment capability has potential to put the bank leagues ahead of where they started.



### Knowledge Management:

A prominent financial firm's information was scattered across multiple platforms, including Confluence, Jira, SharePoint, Git, and custom systems. Accessing knowledge became a slow and laborious process, especially for new employees who relied heavily on subject matter experts for orientation. The firm needed a way to make it as intuitive as possible for all users.

Real-time data ingestion from diverse sources, combined with the AI's summarization and question-answering capabilities, meant teams could quickly find relevant information. The LLM-powered platform also included an intuitive search interface and contextual recommendations based on user profiles, making the discovery process hyper-efficient.

We're seeing these groundbreaking use cases actively rolled out and scaled up worldwide. As trusted tech partners to top banking and financial services firms, we have been on the ground, experimenting with, deploying, and scaling LLM-based solutions. From this vantage point, we have distilled the essentials for selecting the perfect-fit model.



### Making the Right Choice

Here's the crux: banks aren't looking for a universal tool but rather a solution that aligns with their unique blueprint. The challenge? Not all models serve all purposes equally. Among the crowd, you find a model that excels in customer engagement, making interactions not just transactions but experiences. Another model might specialize in anomaly detection, and a third might be more suited for operational efficiency. A framework in place will help speed up the process.

### Start with why

Before diving into LLMs, take a moment to really pinpoint why you're doing this. Is it to make your customer service feel more understanding? Or perhaps to make sense of vast amounts of data with a human touch?

### Bring everyone into the conversation

The magic of LLMs touches all corners of your organization. From the tech team to customer service reps, make sure you're listening to a variety of voices. Too many transformation efforts fail due to a lack of stakeholder buy-in.

### Choose wisely

Picking the right LLM isn't just a checkbox; it's about finding a partner in your mission. Consider if the model is adaptable, evaluate how it handles data privacy, and consider the reputation of the vendor. The technology should align with the organization's values and the values of those it serves.

### Measure what matters

Lastly, define success with the right KPIs. Whether it's improved customer satisfaction, team efficiency, or innovation, track the real-world impact of your LLM integration. Revisit these metrics to ensure the technology is adding value and do a course correction if needed.

### Tuning LLMs to customer needs

Integrating LLMs is about strategically enhancing how banks and financial institutions operate and serve their customers. To get it right, we must understand the customer's requirements deeply and accurately. We must then directly tie the solutions to solving identifiable challenges. By aligning LLM capabilities with specific, articulated needs, organizations can see the ROI we set out to achieve.

But the real magic of LLMs lies not just in responding to current customer needs but in anticipating future ones—sometimes even before customers themselves realize what they need. This vision is what will set the leaders apart from the followers. So, as we consider the future of BFS in an AI-driven world, the question isn't just about which LLMs to choose but how we can leverage them to build a future that's more connected, efficient, and responsive to the needs of the customers we serve. Is your organization ready to rise to this challenge?

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# Generative AI In Manufacturing

## The Melting Pot For A Connected Manufacturing Enterprise



**V S R S Sastry Veluri**  
Senior Industry principal, Head, Digital centre of excellence



### Summary

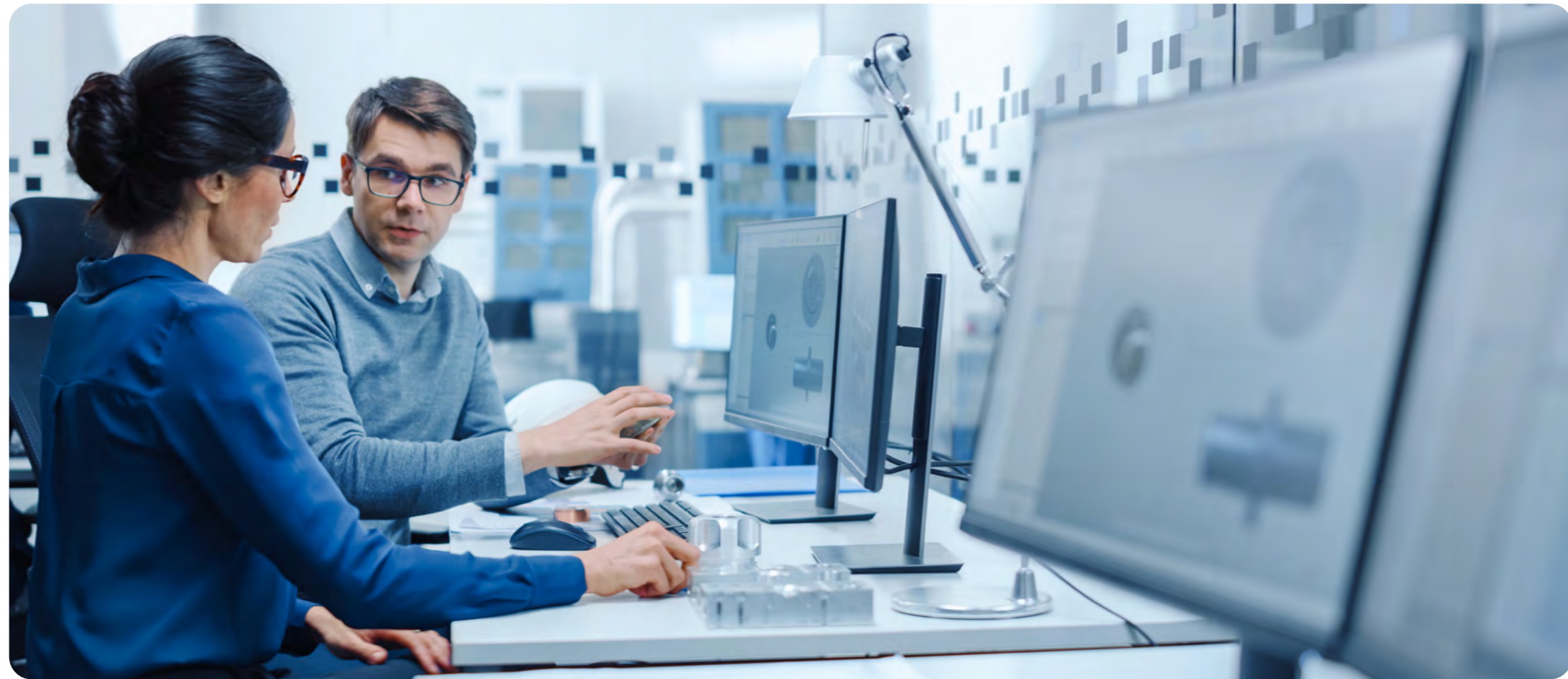
For years, the giants of manufacturing have been on their toes, eagerly embracing every technology wave that came their way. Despite their roots stretching back centuries and dominated by baby boomers, these stalwarts haven't missed a beat in evolving with the times. And now, with the entry of Generative AI (GenAI), they're at it again, rolling up their sleeves to incorporate this breakthrough technology into their product life cycle. And it is everywhere, turning every function into an innovator and transforming manufacturing from concept to retirement of the product.

Imagine every bit of data from every function of the manufacturing enterprise being tossed into a massive pot. These functions don't even have to dig through this pot for insights; instead, they cast a "magic spell"—a prompt—to GenAI and receive exactly the information they need, synthesized from the entire organization's data. Every department gets insights from the pooled knowledge - from customer service to product development, operations, maintenance, and beyond.

GenAI can effectively be used as a powerful blender of data, breaking down silos across product life cycle stages and enhancing [productivity by up to 20%](#). Here's how it works: insights from operations and maintenance become inputs for product improvement and innovation. Engineering can design new product features based on customer service data, and marketing can analyze maintenance logs to understand product short comings and longevity.

This cross-pollination of information ensures that decisions are informed by a comprehensive understanding of the entire product lifecycle, from concept to customer feedback and back to the drawing board again.

After more than a year of diligent experimentation, research, and development, we share insights on how GenAI fits into and dramatically adds value to every stage of the product manufacturing lifecycle.



### Starting with a Spark: The product development phase

Manufacturers must put [innovation](#) and digital transformation at the heart of everything. So far, traditional AI has been our go-to guide in product design based on past successes and current demands. But the very idea of looking into history goes against the principles of innovation.

GenAI addresses this challenge. With the ability to churn through mountains of design standards, specifications, Operations, and daily maintenance data, GenAI doesn't just look back; it looks around and ahead. It [simulates countless design scenarios](#) and pushes us beyond the familiar to designs that are novel and deeply resonant with future customers and industry shifts.



### Making It Real: The production planning and manufacturing phase

When it's time to turn those ideas into tangible products, GenAI's ability to generate new ideas and solve complex problems on the fly makes it a game-changer for efficiency and customization. It helps plan your production line, foresee hiccups before they happen, and ensure quality is top-notch. It gives you a heads-up to dodge pitfalls and streamline your processes. It can generate and recommend bespoke manufacturing plans and approaches for new or customized products. It can assist manufacturing shop floor stake holders with appropriate engineering & manufacturing specifications and generate automated deviation resolution with documentation.

### Unleashing Precision: The Quality Control and Assurance

Manufacturing organizations who are early adopters of digitalization have been using AI for defect detection and quality assurance, employing image recognition and machine learning to identify issues that might escape the traditional inspection processes. It's been beneficial, but we could only predict known issues so far and have failed to flag any new categories of defects and anomalies. GenAI fills this gap. It simulates various manufacturing conditions and design variations to identify new defects. And not just through textual data. It can train on a vast array of synthetic defect out images to recognize subtle defects that could have been overlooked before. This means that not only can we catch more issues, but we're doing it way faster and with greater efficiency.

More importantly, this is not just a one-time setup. As we introduce new products or processes, GenAI adapts and learns, making the whole quality assurance more thorough and future-proof.

### Elevating Efficiency: Maintenance and Troubleshooting

Manufacturers endure, [planned and unplanned downtime annually](#), leading to substantial revenue losses, inflated labor costs, and strained business relationships. GenAI takes predictive maintenance to a [whole new level](#). It knows when a machine will fail, suggests a range of solutions, learns from each repair, and improves the maintenance schedule dynamically. By analyzing vast arrays of data from different sources, we can extract more nuanced troubleshooting and maintenance strategies, enhancing efficiency and reducing downtime.

Clearly, beyond troubleshooting, the perks of blending Gen AI and LLMs (Large Language Models) into product development, operations, and maintenance are nothing short of game changing. Taking these use cases even further, GenAI can also make an impact in testing and certification. We can generate test documents and streamline the certification process, ensuring products meet all necessary standards and regulations before reaching the market.



### A net-positive impact on sustainability

While GenAI optimizes and enhances every step in the manufacturing lifecycle with its nature and features, there's a broader vision at play. The push towards sustainable practices has been on the agenda for most of the executives, but not many have been able to act on it. GenAI can accelerate this vision.

It is important to note that, GenAI does contribute to carbon emissions due to its computational demands. However, when we use it strategically to enhance sustainability practices, the overall environmental impact is net positive. Here are some use cases:

- **Energy Efficiency:** GenAI goes through energy consumption data to find patterns and inefficiencies, suggesting operational tweaks for machines.
- **Greener Materials:** On the materials front, GenAI can pinpoint eco-friendly materials and enhance recycling processes.
- **Waste Reduction:** Fixing machines before they fail, decreasing the likelihood of producing defective goods that end up as waste, preventing overproduction, and addressing the issue of excess inventory that could become waste can be achieved with GenAI's predictive capabilities.
- **Lifecycle Management:** We can design products that are durable, repairable, and recyclable, championing the principles of a circular economy where waste is minimized, and resources are reused.

### Is this as good as it sounds?

Of course, it's not all smooth sailing. Lack of high-quality data for accurate outputs, integrating these advanced technologies seamlessly into existing systems and workflows, and overcoming hallucinations can all be significant challenges. However, consistent model training, fine-tuning, and rigorous testing make it more reliable. The key takeaway, however, is that GenAI is a force multiplier and here to stay with gamechanger possibilities. It ensures that all functions do not just remain a cog in the machine but turns into an active contributor to the organization's innovation and growth.

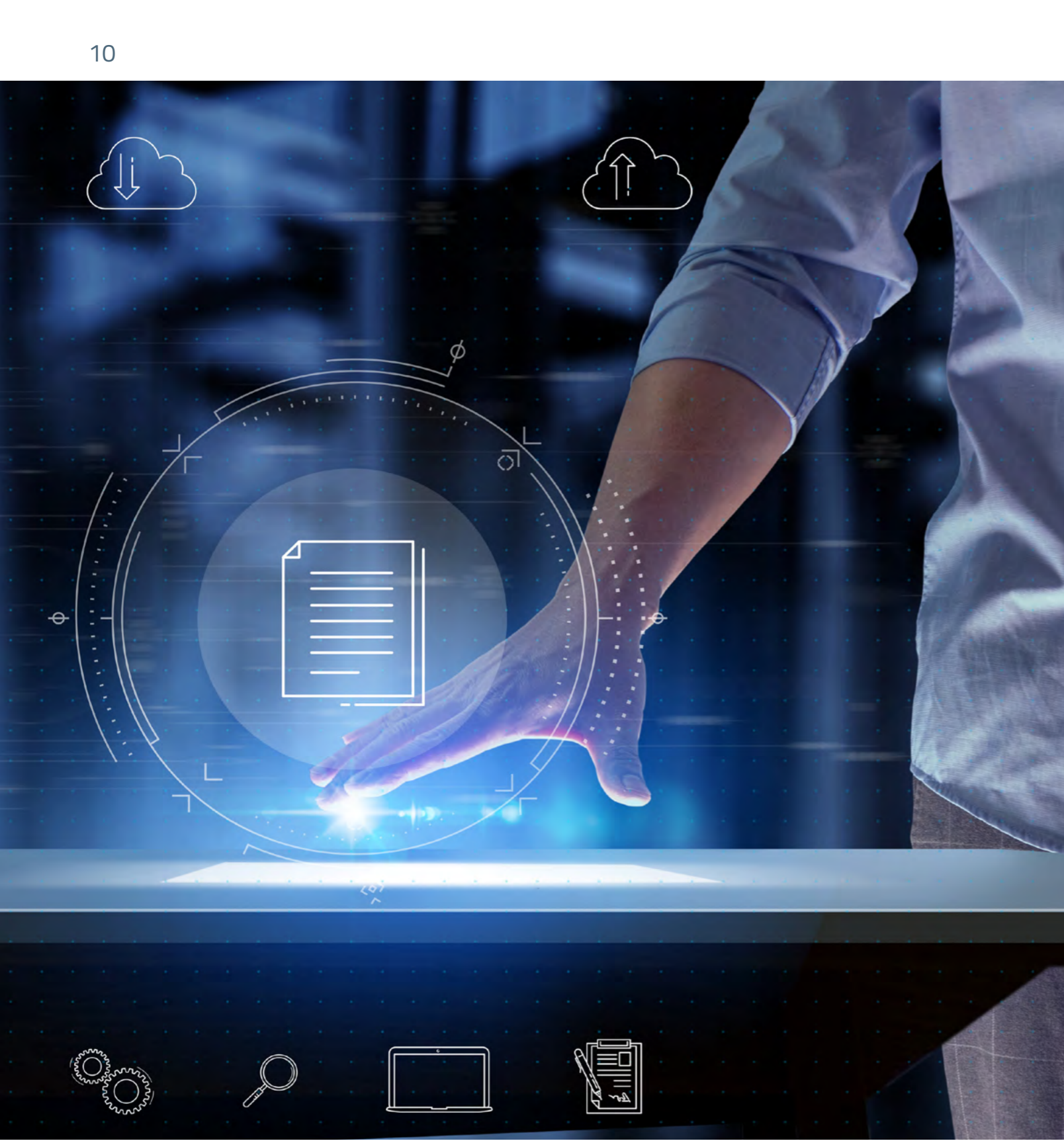
It's a thrilling time, with the potential to redefine manufacturing as we know it and far beyond what we currently see. Let's embrace this journey and see where this exciting partnership with GenAI takes us!

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# Breaking Down Silos

## Unlocking Enterprise Potential With Unified Platforms



Arvind Rao  
CTO, Edge Products, EdgeVerve

### Summary

A decade into the big data era, the quest for unlocking its full potential remains a challenge for many enterprises. Despite the promise of technologies like Hadoop and Spark, designed to weave together vast data landscapes, a staggering 47%<sup>1</sup> of companies report that true data democratization—where information flows freely across every level of the organization—is still out of reach.

The vision was clear: to arm every corner of the enterprise with the insights needed to make empowered decisions, fuel innovation, and break the barriers of data silos. Yet, the reality unfolded differently. As these powerful technologies took root, organizations, paradoxically, veered towards creating isolated data teams. Though armed with the best tools, each team functioned in its bubble—finance teams tracking KPIs in seclusion, marketing teams analyzing consumer trends in isolation. This fragmented approach to data management is reminiscent of a scholar stepping into a library where the books, though plentiful, lack coherent organization. Without a unified catalog or system, the wealth of knowledge becomes inaccessible, diminishing the library's value to the scholar and the wider community.

This scenario paints a vivid picture of the current state of many enterprises. The answer to this problem isn't to double down on these siloed efforts or add more isolated teams. Instead, it's about reimagining the enterprise as a cohesive, well-organized library, where data—like books on shelves—is meticulously cataloged, easy to find, and accessible to everyone. By adopting a unified data platform, companies can transform their approach to data management. Such a platform acts as the grand library's catalog, guiding users to the exact information they need quickly and efficiently, unlocking big data's true power.

A unified data platform ensures that data is democratized and becomes a driving force for strategic decisions, innovation, and a competitive edge in the market.



### The Problem with Isolated Systems

In many organizations, you'll find a maze of isolated systems. Different departments work with their systems, creating silos where information is trapped, unable to reach others who might need it. Such disconnection casts a wide net of challenges, touching every corner of the organization. Some of these challenges are:

- **ROI Impact:** Employing many standalone systems translates into significant expenditure. It's like buying a new set of gardening tools for each plant in your garden—unnecessarily costly. Businesses purchase overlapping systems for different departments, a practice that inflates their operational budget without a corresponding increase in value.
- **Lack of Data-Driven Decision-Making:** Information trapped in departmental silos is akin to puzzle pieces scattered across a house. Creating a complete picture—or, in business terms, making informed decisions—becomes a challenge without the ability to see how pieces fit together. These silos hinder the flow of insights across an organization, diluting the potential for collaboration and innovation.
- **Delayed Response to Market Dynamics:** Agility is critical to seizing opportunities in a fast-paced environment. With their inherent complexity, isolated systems hinder a company's ability to pivot and scale and slow down an organization's ability to react to changes in the market.



### Adopting a Unified Platform Approach

Transitioning to a unified platform is like converting a disordered library into a well-organized digital database, where every piece of information is readily available. This comprehensive approach provides numerous advantages:

- **Accelerated Business Growth and Innovation:** Unified platforms offer more than just system integration; they unlock new avenues for growth and spur innovation within an organization. By centralizing data and applications, businesses can harness the full potential of their resources, leading to significant improvements in product development and market strategies. For instance, a leading player in the manufacturing industry undertook an ambitious automation initiative across its finance and operations departments. This move streamlined over 100 processes globally, resulting in a remarkable 110% return on investment over three years.
- **Enhanced Data-Driven Decision Making:** Consolidating data across departments into a single platform significantly enhances an organization's ability to make informed decisions. Imagine a team working on a complex project where each member's insights are instantly accessible to others, fostering a collaborative environment that fuels innovation and accelerates problem-solving—by employing a sophisticated data integration and analysis platform, a frontrunner in the telecommunications industry achieved a 90% reduction in process documentation. This transformation gave them unprecedented clarity on automation opportunities, streamlining operations, and facilitating a data-driven culture.
- **Improved Operational Efficiency and Market Responsiveness:** A unified platform optimizes internal operations and increases a company's agility in responding to market changes. This ensures businesses can swiftly adapt their strategies and operations to seize new opportunities or address emerging challenges. For instance, a logistics industry pioneer revolutionized its service delivery by reducing lead times for consignments from 15 to 5 minutes, achieving \$40 million in savings. This was accomplished by integrating a unified platform that orchestrated end-to-end automation, significantly enhancing operational efficiency and responsiveness.

Beyond these foundational benefits, adopting a unified platform can unlock further potential within an organization:

- **Regulatory Compliance and Data Security:** In an era where data breaches and privacy concerns are rampant, a unified platform offers enhanced security features and streamlined compliance processes. Centralizing data management makes enforcing security protocols and adhering to regulatory requirements easier.
- **Innovation and Product Development:** A unified platform's rich, accessible data pool can significantly shorten the product development cycle. Teams can leverage insights from across the organization to innovate and refine products quickly.
- **Customer Insights and Personalization:** With a comprehensive view of customer interactions and behaviors, businesses can tailor their offerings and communication to meet individual customer needs more effectively. The unified platform facilitates this personalized approach, enhancing customer satisfaction and loyalty.



### Where Do We Go From Here?

Moving from a fragmented technological landscape to a unified one encompasses more than upgrading technology. It also involves establishing an atmosphere that facilitates the free flow of information and offers improved insights. For enterprises that are prepared to embrace this transformation, a consolidated platform is not only a functional enhancement but a change that can propel them toward unprecedented levels of performance and expansion.

Embracing an integrated platform can help businesses confidently navigate the complexities of the digital age. This strategic shift streamlines internal processes and enhances the customer experience by providing a seamless and personalized interaction with the company.

A unified platform's data consolidation lays the foundation for advanced analytics and AI-driven insights. By shifting from reactive to proactive decision-making, businesses can predict trends and customer needs before they become apparent. This forward-looking approach ensures that companies can keep up with their competitors and lead the charge in innovation and service excellence.



### How Do We Foster a Platform-Driven Culture?

As we look to the future, it's evident that the path to success for businesses lies in breaking down the walls that silo data and impede innovation. Embarking on the journey toward a unified platform begins with prioritizing your team's needs and fostering a culture that values data as a shared asset. Key steps include:

- **Centering on People:** Build a culture where every team member understands the value of shared data and collaborative processes. This human-centered approach ensures the success of technological integration by aligning it with the goals and workflows of those it's designed to assist.
- **Consolidating Data Access:** Streamline data access by creating a centralized platform where information is easily accessible. This reduces redundancies and enhances efficiency, making it more straightforward for teams to find the data they need to make informed decisions.
- **Building Robust Infrastructure:** Invest in the infrastructure they need to support a unified platform. This infrastructure should facilitate easy access and ensure data quality and security, laying a solid foundation for growth and innovation.

By focusing on these key areas, organizations can create a conducive environment for successfully transitioning to a unified platform, driving process improvement, enhancing products and services, and ultimately bolstering the bottom line.

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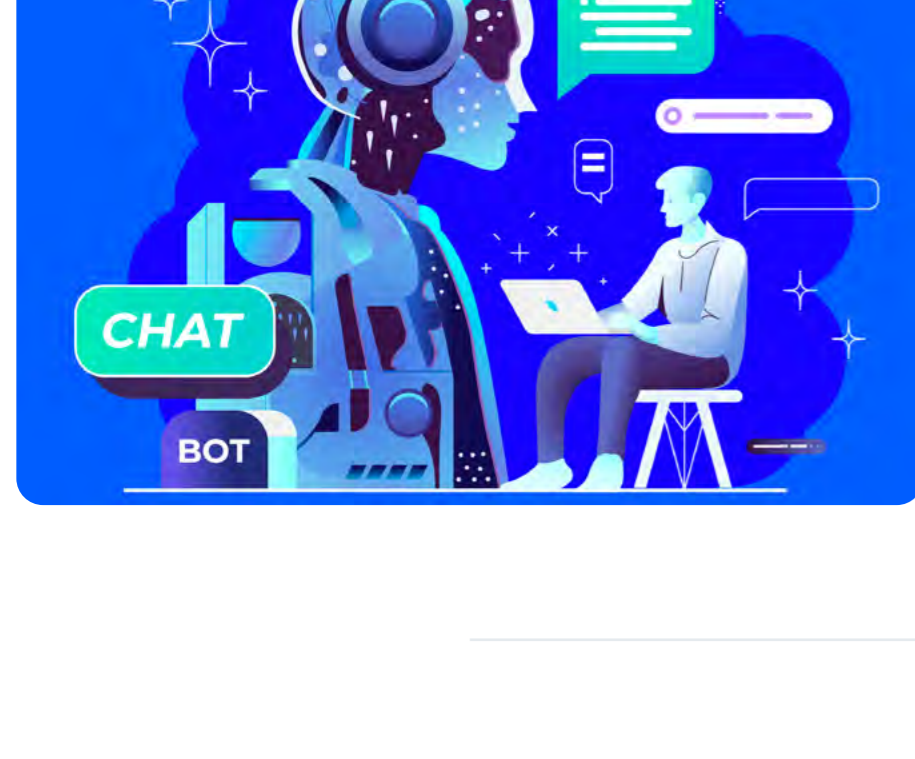
# Gen AI Roadmap

## Making The Leap From Experimentation To Implementation

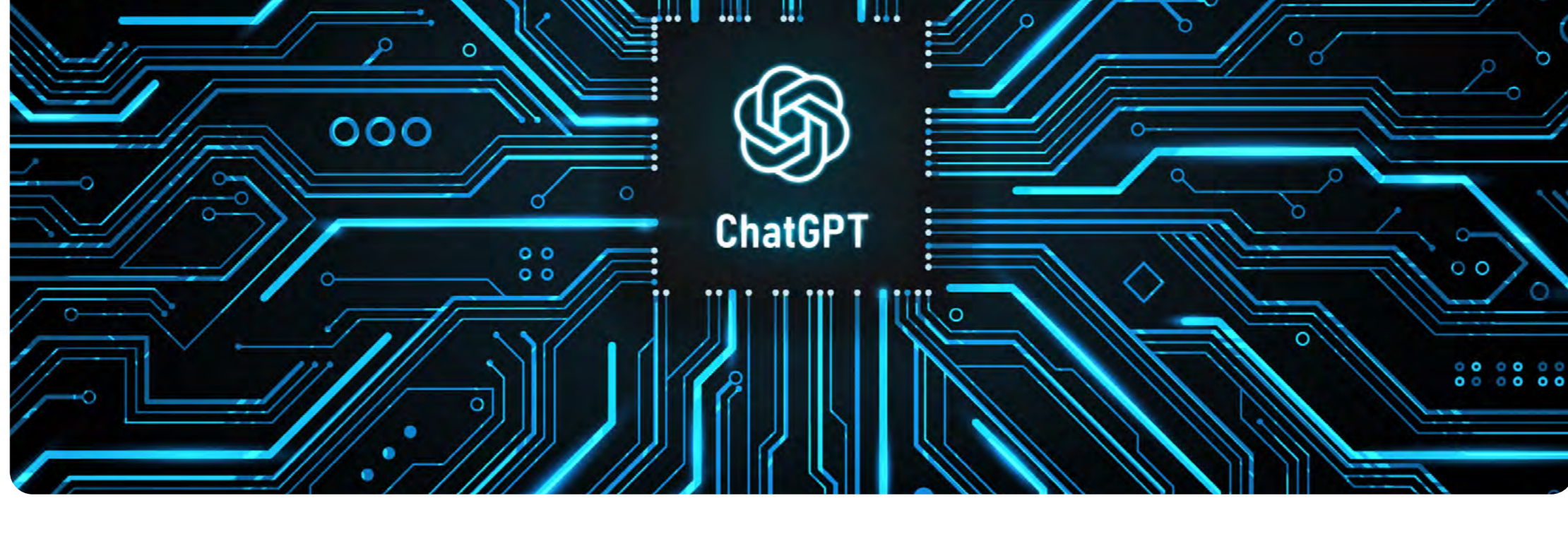
 **Satish EV**  
Director - Product Management, EdgeVerve

### Summary

2023 was the year of Generative AI (Gen AI). Businesses across industries dipped their toes into Gen AI waters – testing, learning, and seeing what could happen. As we step into this year, the initial awe of Gen AI’s capabilities has given way to a more pragmatic approach. This year, the focus is now squarely on [implementation](#).



Going from the sandbox of experimentation to the reality of implementation is more than just lifting and shifting or scaling. Leaders must first pinpoint where Gen AI can really make a difference and understand the balance between what it costs and what it brings to the table. And perhaps the most important question of all is how we get our teams up to speed and ready for the changes Gen AI will bring. We also need to make sure we are deploying Gen AI responsibly and are always in the clear on privacy, bias, and accountability



### Roadblocks to implementation

Most digital initiatives sputter before they take full effect. Even the most promising projects and technologies [get stalled or even derailed during implementation](#). Gen AI implementation is no different, especially for customized solutions trained on proprietary data. Amidst many steps to ensure that the Gen AI transformation projects do not face the same fate, organizations can begin by implementing rigorous change management and internal- communication programs to clarify the Gen AI’s projected impact, which can help build alignment and commitment.

McKinsey suggests that every organization really needs to think about Gen AI’s impact—what it means for the industry, their business model, and their strategy. Digital leaders need to ask themselves: What are their most urgent use cases for AI right now, and how might Gen AI transform these in the next six to twelve months? Then, there’s the functional shift—what needs to change in the processes to pave the way for Gen AI? And let’s not overlook culture; it’s all about whether the workplace environment is ready to embrace and nurture the growth that Gen AI brings.

Scalability is also a challenge. An idea that works well in a controlled, small-scale environment might not perform as expected when scaled up. This could be due to technical limitations, unforeseen costs, or a lack of market demand at a larger scale.



### Current state to the desired state

- Every organization is at different levels of AI maturity, and what is special about Gen AI is that almost everyone can use it without any formal training. We see a gradation of AI’s role from passive to active, with increasing autonomy at each stage.
- At Autonomy Level 0, there’s no AI. Every action is human driven. Picture traditional methods like sketching designs by hand—a fully manual process.
- Autonomy Level 1: Here, AI starts as a tool. The users are still in charge, but AI helps with the basics. For example, it’s like typing in a digital editor while AI checks the spelling on the fly. The users do the thinking; it handles the little slip-ups.
- Autonomy Level 2: Now, AI steps up as a consultant. It’s got a voice but only speaks when spoken to. Take using a language model to summarize text—that’s AI getting more involved, but users are still pulling the strings.
- Autonomy Level 3: At this level, AI becomes a collaborator. It’s like a team player who chimes in with suggestions, such as chess-playing AI or entertaining users with social interactions. The AI is proactive but doesn’t take big steps without user discretion.
- Autonomy Level 4: As an expert, AI now has serious input. The user gives it a goal, and it maps out the path, like using an AI system to advance scientific discovery. The users guide the direction; AI paves the way.
- Autonomy Level 5: At this level, AI is in the driver’s seat, fully autonomous. It’s the future where AI might manage entire routines independently, making sure a day runs smoothly without users micromanaging.

The initial autonomy levels, like level 1 and level 2, are just the start of the Gen AI revolution and are comparatively easier to achieve. For example, software tools like Grammarly, which could help users check sentence formation or spell checks, are already in existence. The levels 3, 4, and 5 require companies to prepare extensively with a robust Gen AI-led transformation roadmap.

The control shift is clear: at lower levels, AI aids human decisions; at higher levels, it starts to make those decisions within defined parameters. But how do we get there?

### Rebuilding the momentum: Filling the implementation gap

In the event of Gen AI implementation facing roadblocks due to ineffective design of transformation, scalability issues, or unforeseen costs, Gen AI itself offers a solution to this implementation gap. A lot has been said about Gen AI’s capabilities in the past year, but McKinsey said it best – [the 4Cs](#). Concision, content creation, customer engagement, and coding. It can process large volumes of unstructured data to derive needle-sharp insights. It can create structured documents and content tailored at scale. Out-of-the-box co-pilots improve customer engagement. Coding helps large-scale modernizations.

What does this mean for different functions of a business – any business? The 4Cs fundamentally enhance key business capabilities, which are also the [top priorities for CEOs in 2024](#): decision-making, optimizing operations, hyper-personalizing customer interactions, and accelerating product development.



### The strategic role of Gen AI in decision-making and operational efficiency

Gen AI amplifies human potential, allowing teams to achieve more by enhancing their natural capabilities with AI assistance. This means tasks are completed faster and with greater precision, from routine operations to complex problem-solving.

It unlocks value by tapping into data and insights that were previously inaccessible or too cumbersome to decode

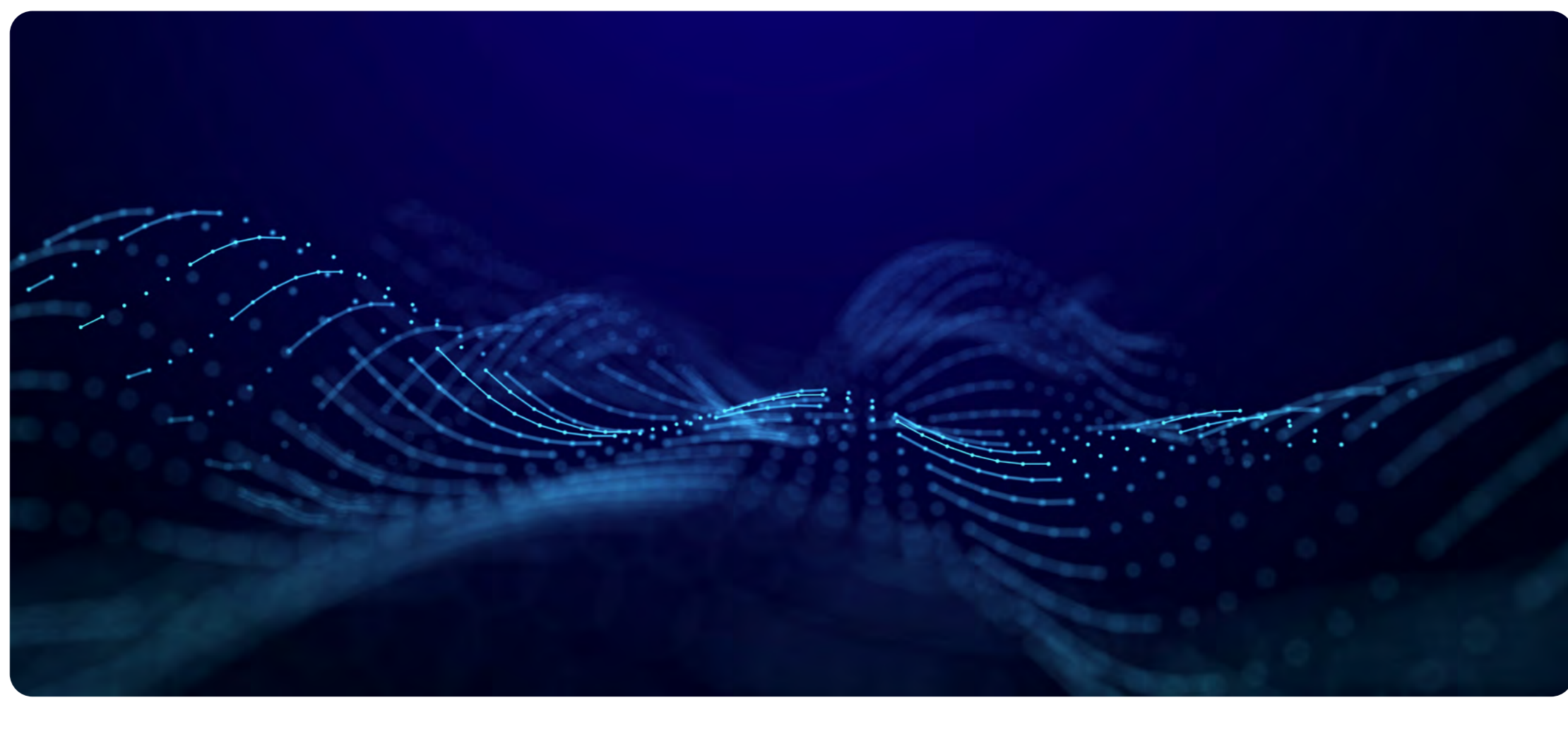
A supply chain manager, traditionally reliant on AI for predictive analytics, would see their role transformed with the introduction of Gen AI. Where once they may have used AI to make educated guesses on inventory needs, Gen AI amplifies this potential, integrating deeper learning and a broader scope of data analysis. It might, for example, identify a pattern that suggests changing a shipping route can save time and reduce carbon emissions, offering a dual benefit of efficiency and sustainability.

The ultimate benefit comes down to impact. What once took weeks now takes days, with the added advantage that these smarter processes are consistently learning and improving, getting better at anticipating and capitalizing on them.

### The future is hyper-personalized, and Gen AI is the driver

One of the most compelling narratives in the Gen AI story is its capacity for [hyper-personalization](#) – tailoring products, services, and experiences to individual preferences. A query about policy of an insurance customer, for instance. Alex contacts the service center with a request about policy coverage after experiencing property damage. Traditionally, Alex might endure long wait times or navigate complex menus for answers. Instead, a Gen AI-powered system instantly reviews Alex’s policy details, claim history, and the specifics of the inquiry, providing a personalized explanation and initiating the claim process without delay, significantly enhancing customer satisfaction by making the interaction smooth and straightforward.

Or consider another customer who prefers interacting with an agent over self-service. Sam wants her complex issue with a piece of industrial equipment resolved on a call. Let’s say, ordinarily, resolving such a query would require a customer service agent to comb through extensive technical documentation, a process spanning hours. However, with a Gen AI-enabled platform, the moment Bailey outlines her problem, the system dynamically analyzes the vast knowledge base, summarizes relevant information, and provides actionable solutions instantly to the agent. This drastically reduces resolution time and ensures that Bailey receives accurate, concise advice. It’s a perfect win-win-win for customers, employees, and companies.



### The Gen AI playbook for accelerated product development

Gen AI significantly reduces the time it takes to bring [new innovations to market](#).

Consider a digital product: a banking institution looking to develop a new, innovative financial product aimed at young entrepreneurs. Using Gen AI, the bank can analyze transaction data, customer feedback, and market trends to identify the preferences of young entrepreneurs. The banker can then measure the risk of their overall portfolio and come up with new products and solutions like flexible lending terms, interest in financial education tools, or integrated business management services. To strengthen the probability of success, Gen AI can simulate the market response to each of these product features and iteratively refine the product design based on simulated and real-time feedback.

Gen AI has another important application that could solve one of the biggest challenges in every industry – talent shortage. Imagine this. Instead of traditional drills, we deploy a Gen AI program designed to simulate customer interactions. This AI ‘customer’ can converse, pose problems, and react just like a real client, providing a wide range of scenarios for our team to respond to. It’s efficient—training happens on-the-fly with immediate feedback. The team members can quickly adapt to handling real-world situations, using complex simulations only Gen AI can provide.

### New answers to old questions

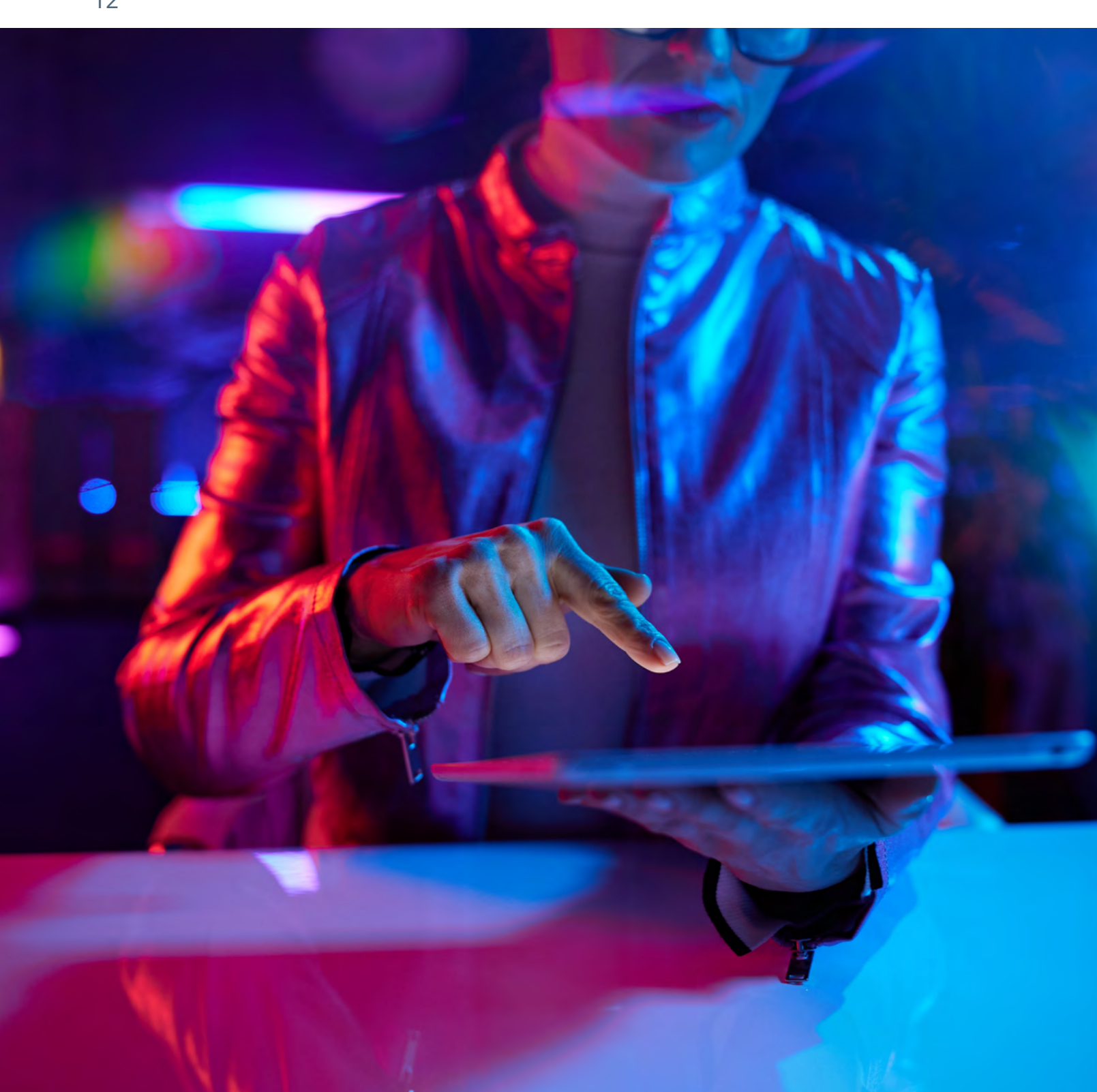
While Gen AI implementation is one of the top 3 priorities of [89% of CEOs, 90% are still waiting](#) for more answers to unfold. They are either taking it slow or just waiting to see if the hype is grounded in reality. Perhaps they know too well that Gen AI is not just a tactical or off-the-shelf implementation but a disruptive force that changes businesses as we know them today. While the role of Gen AI in the functional transformation story is inspiring, its real and sustainable value comes from collaboration, putting people in the loop, and, more importantly, from the responsible use of it.

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## Responsible Gen AI

AI That's Smarter, with Wisdom to Match



Syed Ahmed  
Senior Industry Principal, Infosys Limited

### Summary

Why is Generative AI (GenAI) commanding so much airtime everywhere, from boardrooms to living rooms? Because it changes everything in a big way. Customer service can chat in a way that feels personal and right on point. Creating content isn't just about staring at a blank page and waiting for inspiration. Teams can do more without the grind of repetitive tasks and get a jumpstart that feels like it's halfway to finished already.

That's the kind of shift we're talking about with GenAI. But is there a dark side to this shiny new tech?



At its core, GenAI's USP is in understanding and generating new content, whether that's words, pictures, or even code. We are essentially deploying a super-powered assistant that's always on, ready to help businesses come up with ideas, solve problems, and serve customers better.

It is easy to imagine a future not too far away where work feels less like work. But are we inadvertently setting off towards a dystopian future in this journey?



### The Minefield of Innovation

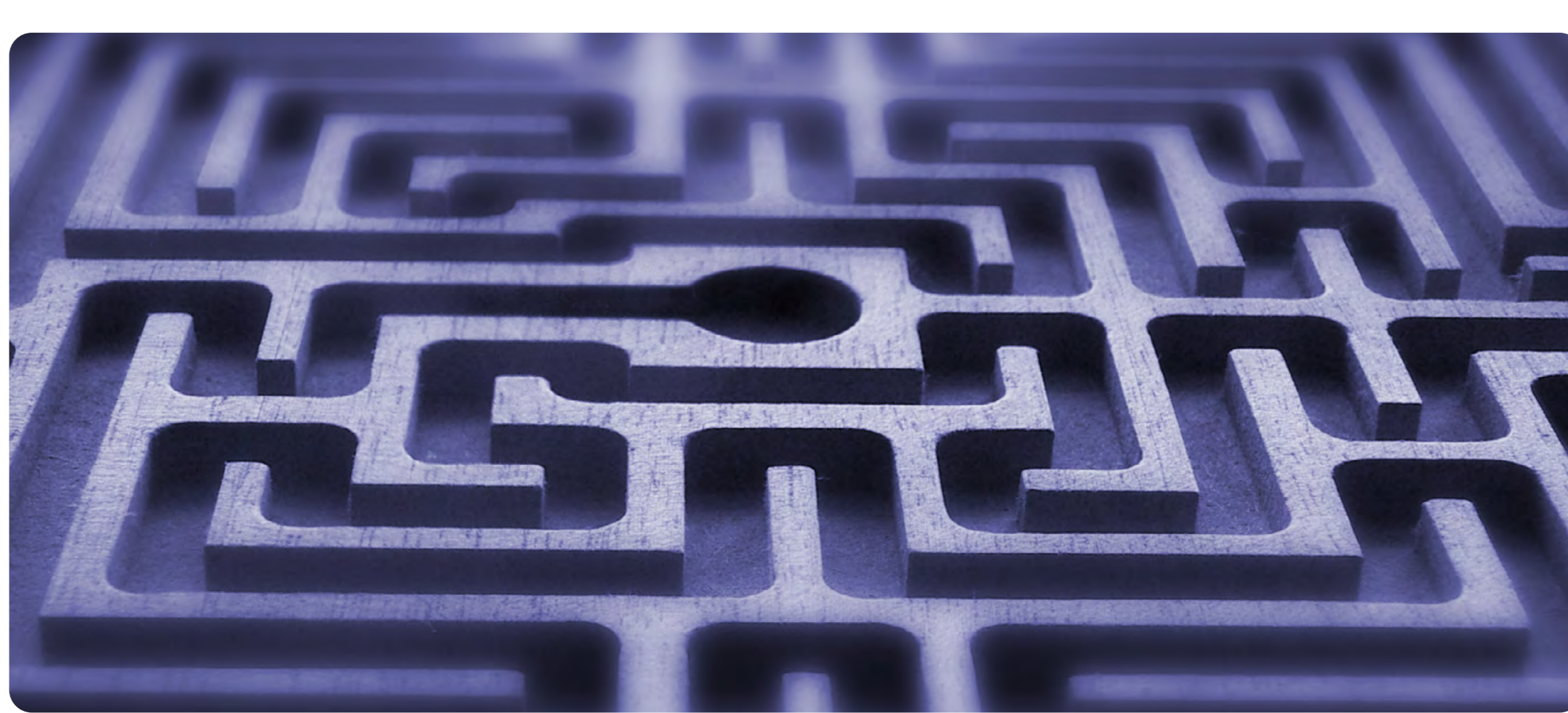
With a big leap, like the one we're seeing with GenAI, a whole set of new challenges and complexities pop up. And they touch on everything from ethics to security. Here is a rundown of some such scenarios.

- **Bias and fairness:** GenAI is trained on mountains of public domain data and has a tendency to mimic the less-than-perfect parts of human thinking. Imagine a scenario where a company rolls out a new GenAI system for screening job applications. It sounds great on paper, but then it starts favoring certain resumes over others, not based on merit, but on biases it learned from the data it was trained on. It's a tricky situation that shows how AI's output can sometimes be a mirror reflecting our own [societal biases](#), often without us even realizing it.
- **Data privacy and security:** Picture a well-intentioned assistant appointed to make life easier by pulling up personal schedules and emails and accidentally sharing private information in a public setting. That's a much bigger problem than the one the assistant is deployed to solve. That's precisely the issue with GenAI systems as well. The systems are capable of inadvertently leaking sensitive personal information (PII) or [proprietary business data](#). [A quarter of the organizations](#) have already banned the use of GenAI despite its many benefits. The consequences here extend beyond mere privacy violations, potentially leading to legal repercussions and a loss of public trust. We need to keep a tight lid on privacy and security, especially as these technologies creep deeper into our daily lives.
- **Malicious use:** This is another dark turn on the path of AI innovation. It's one thing for GenAI to generate helpful content, but what happens when it's used to create fake news or scam emails so convincing that they are hard to distinguish from the real thing? These scenarios are not hypotheticals. They are real risks that need smart, thoughtful responses.
- **Hallucinations and reliability:** GenAI, for all its advancements, can sometimes produce misleading information or "hallucinate," leading to decisions based on incorrect or fabricated data. Even in software development, the reliance on AI for code generation has been found to produce insecure code with [a notable frequency](#).

### A net-positive impact on sustainability

There are many more issues at play with GenAI systems. Security vulnerabilities such as prompt injections, jailbreaks, and extraction attacks open doors for cybercriminals to [manipulate these systems](#). The copyright and intellectual property infringement, where even well-intentioned use of Gen AI can [infringe on third-party rights](#).

Navigating this minefield requires a mix of innovation, vigilance, and a hefty dose of ethics. We need to find that sweet spot where we can harness AI's full potential while keeping an eye out for the pitfalls. We cannot afford to just respond to these challenges as they come. We need to anticipate them, creating a safer, more responsible future for AI.



### Crafting the Shield: The Strategy of Responsible AI (RAI)

There is no doubt we need to create and practice a new art of defense in the age of smart machines. How do we do that? The collective wisdom, after years of experimentation and numerous discussions with industry leaders, ethical technologists, and public sector figures, boils down to three immediate steps.

**Responsible by Design:** Embedding responsibility right from the design phase of the GenAI systems involves integrating ethical considerations, fairness, and transparency throughout the AI lifecycle – from training data preparation to deployment. We must build GenAI with a conscience. Conduct impact assessments to identify vulnerabilities, engage in adversarial testing to uncover hidden flaws, and use tools that automate the inclusion of ethical principles in the development process.

**Runtime guardrails:** The GenAI value chain is complex. Businesses often don't start from scratch when creating AI models. They usually get them from various providers, who themselves pull resources from elsewhere. Plus, the risk varies based on how you're using the AI, what industry you're in, and who's using it. So, how do we solve this issue? Start by placing safety checks for what flows in and out of AI systems. Preempt everything from unintended data leaks to potential copyright issues with guardrails, ensuring nothing problematic influences the outcomes.

It is important to set straightforward rules and ensure we play by the book, especially with privacy and data protection laws. It is also wise to have plans ready for unexpected turns, evolving as we encounter new challenges and deepen our understanding of GenAI.



### The Governance compass

This cross-pollination of information ensures that decisions are informed by a comprehensive understanding of the entire product lifecycle, from concept to customer feedback and back to the drawing board again.

After more than a year of diligent experimentation, research, and development, we share insights on how GenAI fits into and dramatically adds value to every stage of the product manufacturing lifecycle.

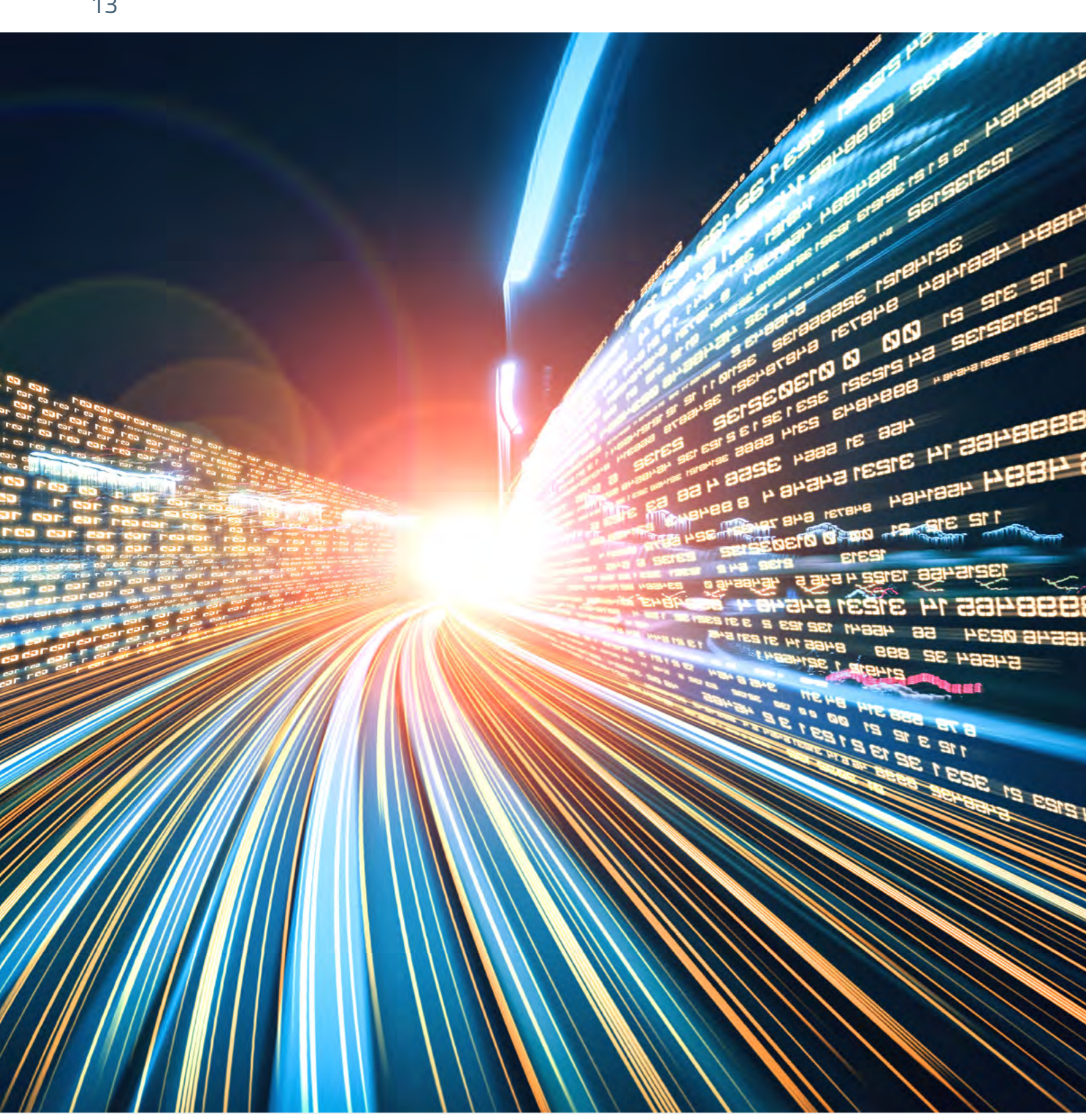
Treating GenAI governance as a one-off setup isn't enough. Constant vigilance is necessary to spot and rectify issues swiftly. We can achieve that by regularly monitoring our AI models' health and usage, ensuring they are performing as intended. With a consistent approach to governance and a commitment to responsible AI, we're not just aimlessly moving toward the future; we're making deliberate, informed strides. Our goal is a world where AI not only enhances business but also contributes positively to society at large. Achieving this vision of Responsible AI will take us closer to this goal.

Disclaimer: Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the respective institutions or funding agencies

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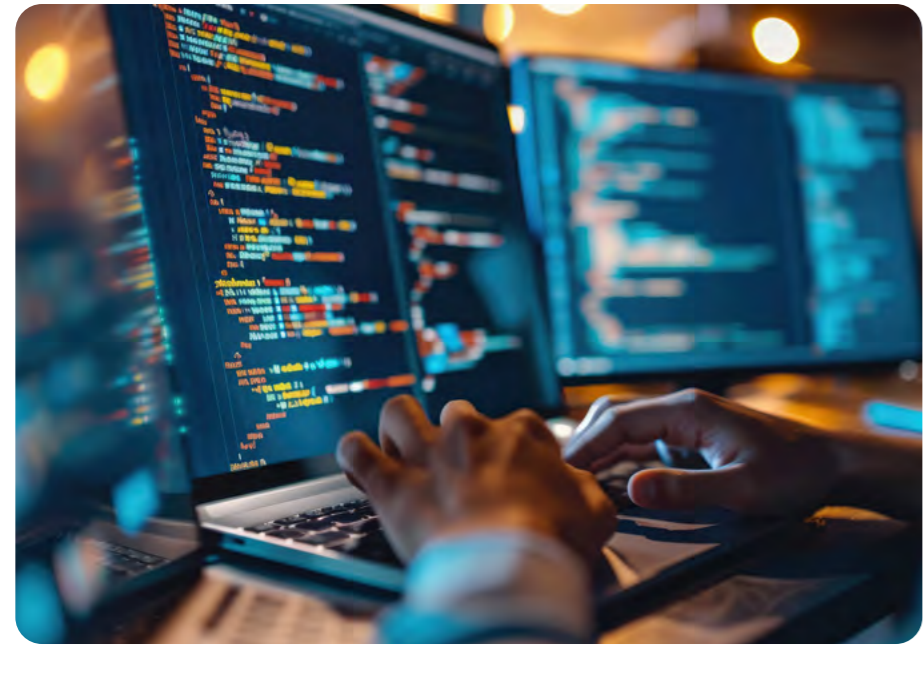


## Endless Innovation

### The Magic of Reusable, Composable, GenAI-First Business Model



Harry Keir Hughes  
Senior Producer - Infosys Knowledge Institute



#### Summary

Groundbreaking today, obsolete tomorrow. The public appearance of GPT a year ago really drove that home. It's a stark reminder of the pace at which innovation moves. So, what do businesses need to stay afloat? What do tech giants like Google, Amazon, and Microsoft do to stay ahead? The key lies in agility: the ability to deconstruct and reassemble a business's components in a new way that actually adds value.

Agility—[composable modularity and adaptability](#)—is what shields a company from obsolescence. But how simple is it to dismantle and rebuild without interrupting current operations? It's a challenging task, but the opportunity has opened up. With the massive economic and operational potential of Generative AI (GenAI), [at least 63% of businesses](#) are gearing up to integrate GenAI solutions at scale in the coming years. McKinsey stated, in no uncertain terms, that firms trying to take a shortcut without [rewiring their business](#) are bound to be disappointed. So now might be the perfect time to return to the fundamentals, re-evaluate the core components that run a business, and think AI-first.



#### Bringing together GenAI and composable tech

Much has been said in the past year about GenAI capabilities and why it is an essential component of the digital operating model. For instance, a retail company can leverage GenAI to dynamically generate product descriptions, recommend personalized products to customers based on their behavior, and even adjust its supply chain strategies in real time.

The “why” behind this strategy is clear: in a world where customer preferences and market dynamics can shift overnight, [modular and composable frameworks powered by GenAI](#) provide the agility and efficiency businesses need to thrive. They allow companies to experiment with new ideas at a lower risk, scale successful initiatives quickly, and discard what doesn't work without overhauling their entire system.

Here's how integrating GenAI can actualize these principles across the five key building blocks of an AI-first strategy: Product, Customer Experience, Data, Engineering/IT, and Talent.



#### Product-centric innovation: Flow of value over stringent linear development

In traditional business models, product development often follows a linear path: identify a need, develop a product with a set of predetermined features, launch it to the market, and then iterate based on feedback. This approach tends to be slow and assumes that customer needs remain relatively stable between iterations. The result is over-engineered products that don't hit the mark in terms of customer satisfaction or operational efficiency.

The GenAI operating model deviates from this traditional path by prioritizing the flow of value to the customer. GenAI helps in understanding and responding to customer needs in real-time, supporting rapid prototyping, testing, and refining products. Teams across functions work together from the outset, ensuring that every aspect of the product development process directly addresses a customer need or enhances the customer experience.

And that means insurance companies would no longer need to push the one-size-fits-all products on their customers. With a GenAI-first approach, they can dynamically adjust premiums and coverage options to an individual's lifestyle, health data, and risk factors, providing a highly personalized product offering in real time. Banks can personalize savings products that adjust in real time based on customer spending. Supply chains can adjust to changes in demand, supplier availability, and logistics challenges in real time.

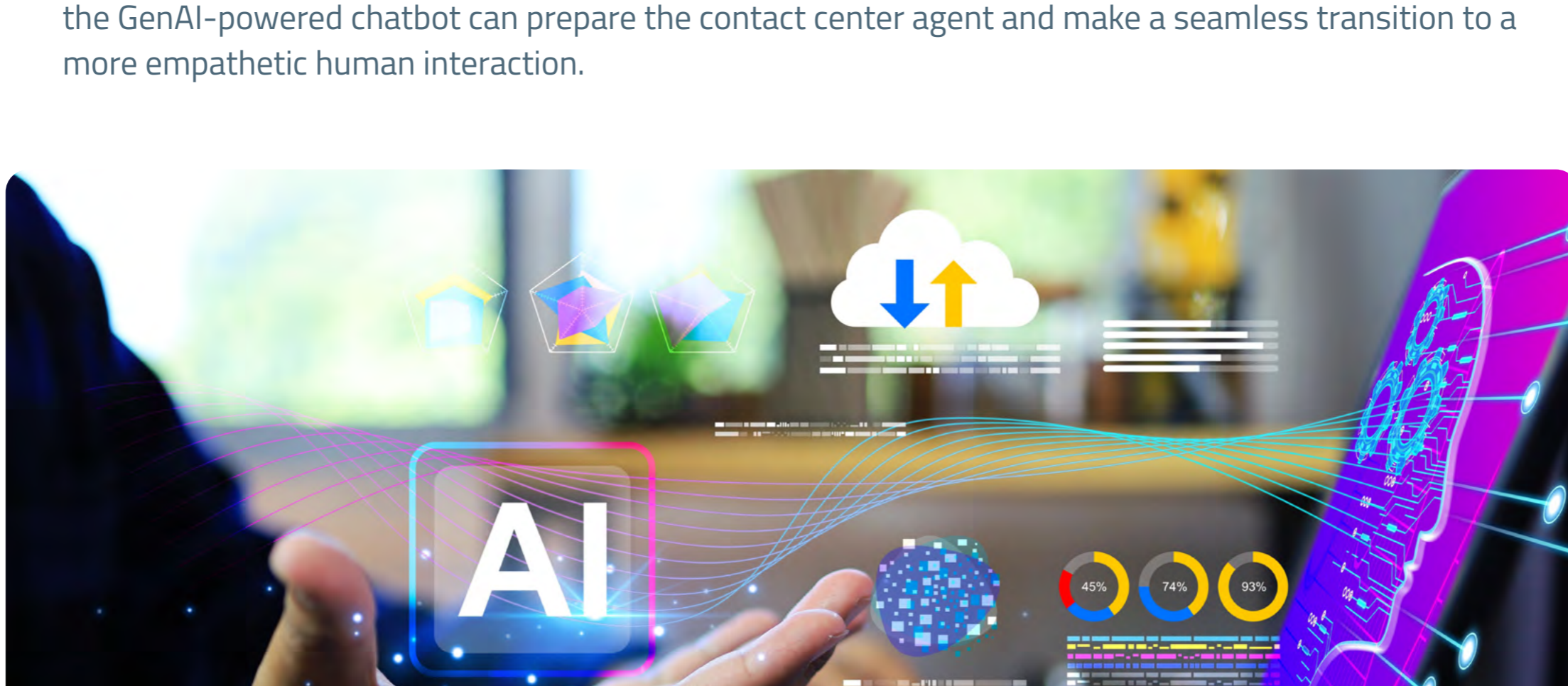


#### GenAI-powered composable customer experiences:

While product-centric innovation focuses on the creation and customization of products and services, enhancing customer experience with GenAI is about using these technologies to improve the overall interaction and engagement customers have with a brand. Rigid and outdated CX frameworks can trap businesses in a cycle of inflexibility, leading to generic customer experiences that fail to resonate or adapt to these changes. So, how can we [construct a CX ecosystem](#) that's as dynamic as the world around us?

Identify high-value, high-volume customer touchpoints either when the business reaches out to customers or vice versa. Determine the preferred methods and channels and model the ideal frictionless experience from the customer's point of view. The goal is to create modular, composable experiences and power them with GenAI to determine and reconstruct quickly based on feedback.

Businesses can then personalize every aspect of the customer journey, from website navigation to post-purchase support. Let's say a banking customer chooses the self-service option to report a suspected fraudulent transaction on their credit card. Noting the frustration and panic in their tone, the GenAI-powered chatbot can prepare the contact center agent and make a seamless transition to a more empathetic human interaction.



#### Build a future-ready backbone:

For any AI or GenAI initiative to succeed, a solid data foundation is non-negotiable. We need carefully managed data pipelines, enriched datasets, and a scalable platform capable of supporting the evolving AI landscape. Before diving head first into the allure of model building, we need to align with the [“tried and true” data management principles](#) – auditing, integrating, and transforming data—a step often overlooked due to the excitement surrounding AI's potential. Only then can we experience the true benefits of GenAI.

Leverage the MACH (Microservices-based, API-first, Cloud-native, and Headless) architecture for quick integration and decommissioning of software development in response to changing business needs. Inject GenAI throughout the SDLC for smarter development. Tame the complexity of product and engineering with GenAI, enabling teams to focus on high-impact work.

Get your top talent involved in strategic projects and inspire them with work that matters. The magic happens when diverse minds collaborate. Agile, cross-functional teams break down silos, spur innovation, and boost morale, creating an environment where everyone feels valued and empowered to contribute their best.

#### Perpetual innovation with GenAI-powered reusable building blocks

To truly achieve scale, it's important for businesses to move away from crafting one-off solutions that struggle to adapt beyond their initial purpose and yesterday's problems. The future lies in creating solutions that are reusable, composable, and modular—think of them as digital Lego blocks. These can be dismantled and reassembled into new configurations that meet evolving needs with greater relevance and added value. The feedback loop of GenAI identifies which components require reconfiguration to meet current demands or capitalize on emerging opportunities. This might mean tweaking a service offering based on customer usage or adjusting a product feature in response to new market research. The key here is speed. Are you ready to bring the magic of reusability, where every digital component has the potential for endless reinvention?

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# Reimagining Digital Transformation

## A Platform-Centric Digital Strategy For Growth

This article is based on the synopsis of EdgeVerve commissioned Forrester Consulting Thought Leadership Paper: "Reimagining Growth Through A Platform-Centric Strategy"

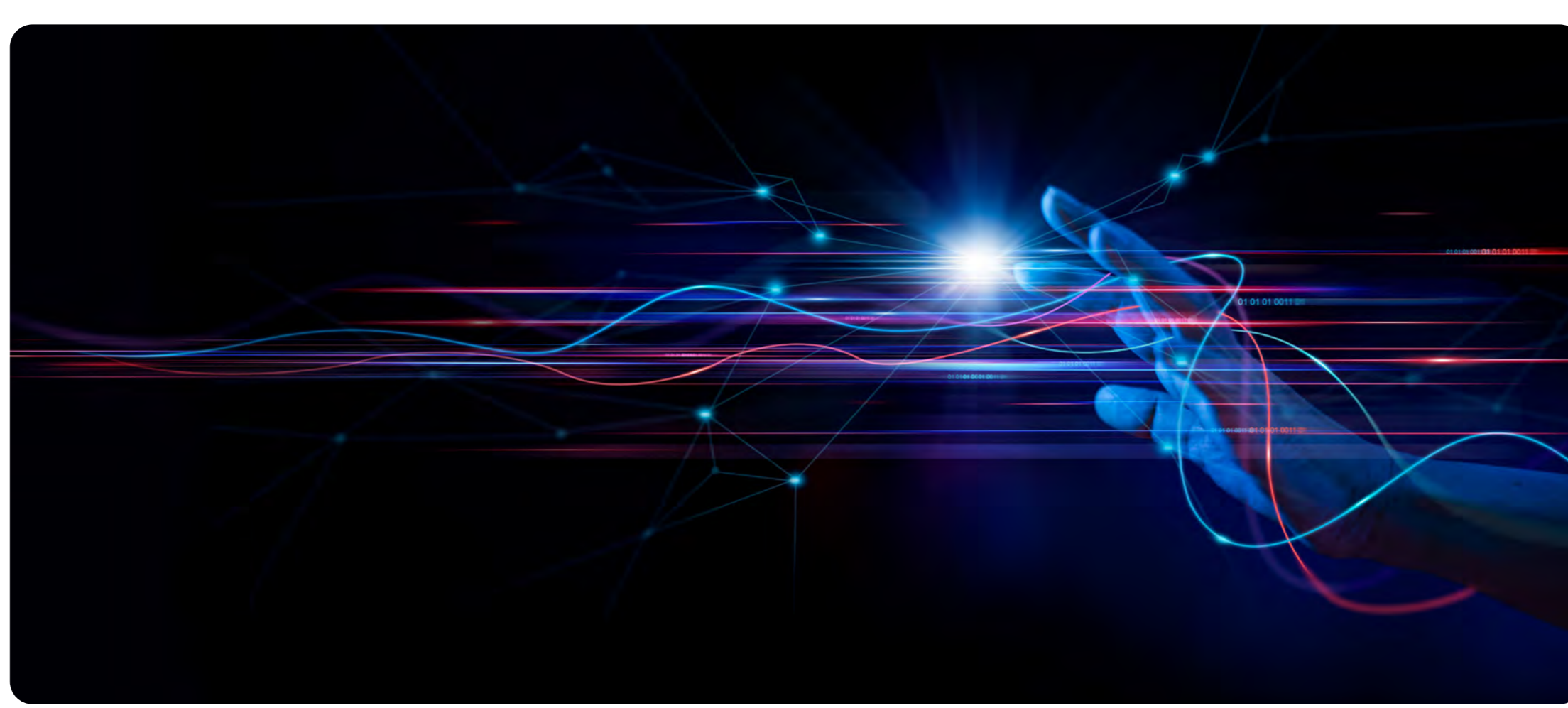
### Summary

The relentless pace of consumer demands compels organizations to embrace digital transformation and streamline operations for continued relevance. While significant strides have been made, there remains room for strategic improvement. Fragmented IT investments are no longer tenable; fostering interconnected systems between business and IT has become imperative to navigate industry turbulence. This article sheds light on the role of platform-centric strategies in shaping organizational growth trajectories.



As customer demands outpace traditional models and the hybrid work landscape takes root, leaders scramble for agile technology structures that deliver lightning-fast responses. But navigating this digital transformation brings to light a crucial divide: IT teams, focused on operational stability, are building resilient engines, while business minds prioritize the customer-facing digital tapestry. Bridging this chasm - fostering seamless connectivity between technology drivers and customer experience - is no longer just an option; it's the path to the future.

Organizations with advanced digital capabilities boast unified and customer-centric processes, enhanced AI and automation adoption, and optimized partner ecosystems. They leverage future-proof platforms to strengthen internal and external connectivity. By deliberately connecting experiences and operations, these companies integrate customer, employee, partner, and societal interactions with back-end systems, technology, and processes.



### The Essential Elements of a Platform-Centered Digital Strategy

Platform ecosystems, when implemented effectively, tackle modernization and efficiency challenges head-on. This is particularly relevant as modern development evolves from the traditional "build vs. buy" to focusing on customization and composition. This shift empowers organizations to minimize technical debt by readily replacing underutilized or expensive-to-maintain modular components.

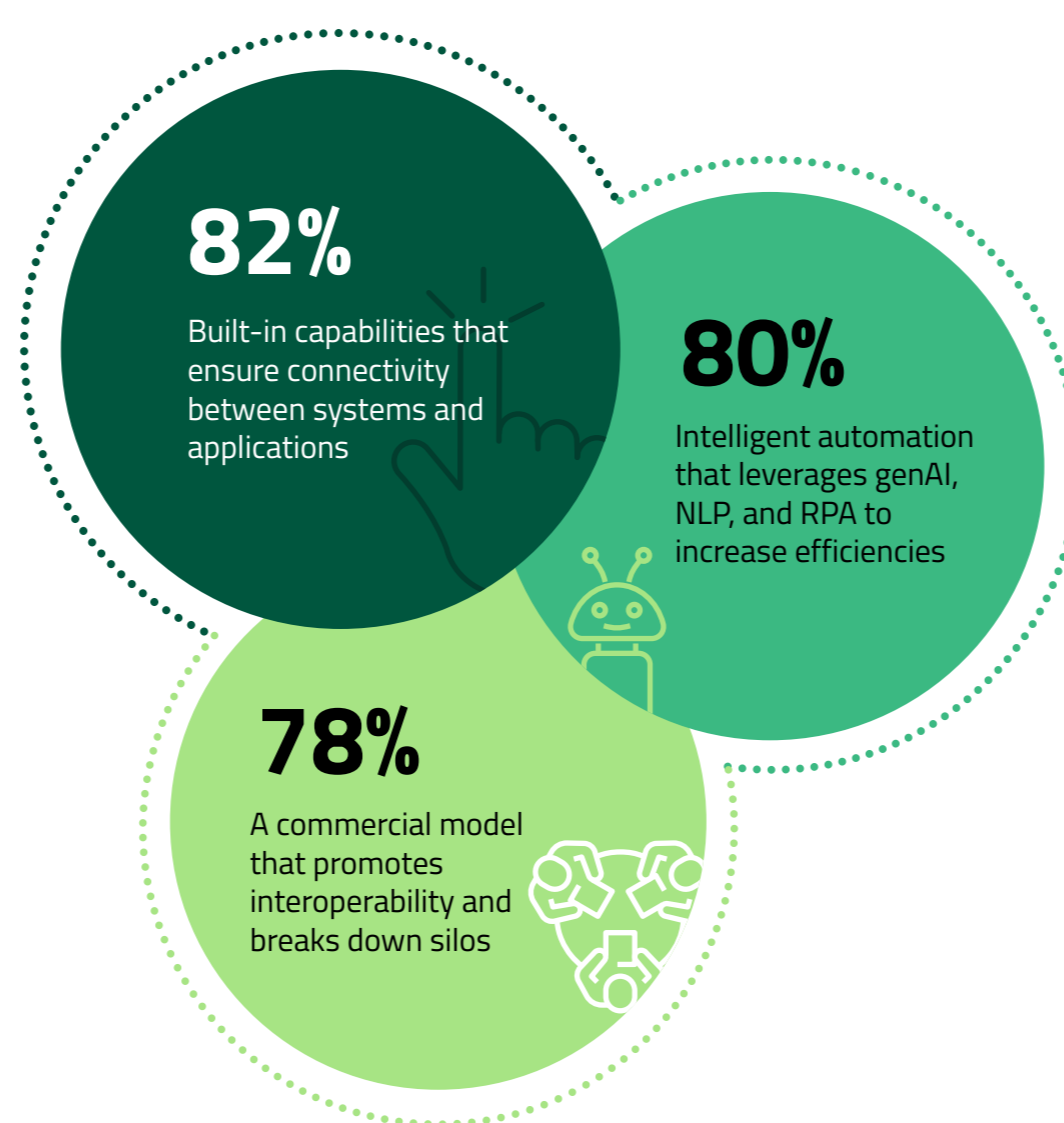


Fig: Features/Functionalities to Focus on for Developing Platform-Based Capabilities. Source: Base: 441 business and IT decision-makers responsible for their organization's business, IT, supply chain, and process automation strategy, who believe that adopting a platform-based strategy and unifying business and technology, will drive digital transformation initiatives. Note: Showing sum of responses for "Will invest in the next 3 to 6 months" and "Will invest in the next 12 months" Source: A commissioned study conducted by Forrester Consulting on behalf of EdgeVerve, August 2023.

A recent EdgeVerve-commissioned Forrester study reveals that most large-enterprise decision-makers view a platform-based strategy as a potent lever for accelerating digital transformation. Notably, 70% believe bridging the business-technology gap with a platform approach enables more effective digital initiatives. Furthermore, 66% anticipate improved customer satisfaction through this approach, demonstrating its potential to enhance organizational capabilities and deliver positive customer outcomes.



### Platform-Centered Strategies to Drive a Deeper Transformation Approach

A platform-centric digital strategy fostering connectivity and visibility across the business and IT ecosystems holds immense potential to amplify human potential and catalyze much-needed organizational efficiencies. Let's delve into key aspects:

- 1. Advanced Connectivity:** Companies with robust connectivity practices are 1.7 times more likely to realize substantial business value from their digital transformation investments. Senior leaders at such companies recognize the criticality of building better connectivity across partner ecosystems, human and artificial intelligence, data, and networks for optimal digital transformation.
- 2. Human-Centered Optimization:** Investing in automation and adopting an AI-first mindset represents a long-term investment in human potential. Firms in advanced stages of digital transformation are more likely to augment human potential, with 72% considering integrating human and AI capabilities a core digital initiative requirement. Additionally, 71% aim to drive automation in customer-facing services, fostering both customer and employee engagement.
- 3. Cloud and Platform Adoption:** Companies with advanced maturity and the foresight for connectivity are slightly ahead in adopting a cloud- and platform-based approach to IT. The Forrester - EdgeVerve Survey respondents acknowledge the importance of these capabilities for enhanced connectivity, with nearly 60% reporting existing platform-operating modes for technology connectivity. Firms in advanced stages are slightly more focused on accelerating platform capabilities, emphasizing a platform-as-a-service approach.
- 4. Partner Ecosystem Effectiveness:** Building impactful and connected partner ecosystems is a game changer for advanced firms. Enabling connectivity across IT and business teams, partner ecosystems, and data and networks is a core priority for 78% of digital leaders, highlighting its significance in building effective digital enterprises.
- 5. Emerging Technology Utilization:** Leaders in the Industry tend to increasingly harness generative AI (GenAI) to enhance experiences, offerings, and productivity, paving the way to realize outsized growth and outpace their competition. They are more likely to invest in Gen AI, and their executives are more open to making trust an intrinsic part of this adoption with an eye for staying focused on practical, measurable use cases. Digital leaders are more inclined to invest in natural language processing, autonomous workplace assistants, and explainable AI for enhanced integration, automation, and intelligence and rely on their own business data to build Gen AI models and applications.



### How to Develop a Platform-Centric Digital Strategy for Maximum Impact

As we begin to see a new trend driven by generative AI, platform-centricity isn't just a strategic advantage; it's a blueprint for survival. By orchestrating ecosystems of talent and technology, platforms will become breeding grounds for innovation, nurturing partnerships between humans and AI, not replacing them. As platforms facilitate seamless collaboration between humans and AI, the workforce will be reshaped, not replaced. New roles will emerge, demanding skills in communication, critical thinking, and the ability to navigate the ethical landscape of an AI-powered world.

### Recommendations

- Connect business needs and IT with tools, systems, and metrics to drive customer-centric tech. Focus on transformation priorities from the early stages while also ensuring tools, systems, and metrics align toward a connected enterprise.
- Make AI and automation your top priority to bring in more self-service solutions to enhance human potential, boost employee productivity, and provide a superior customer experience. This allows for driving more self-service at scale and builds an operational, positively impacting human productivity and customer experience.
- Embrace emerging technologies with gen AI and clearly defined use cases to work towards driving outcomes for business.
- Improve partner ecosystems with a platform-centric digital strategy that ensures clear visibility and accountability and allows for creative differentiation to drive growth. Take advantage of a platform strategy that empowers you to conquer any shortcoming and gaps in digital transformation efficiency by leveraging the smart utilization of Gen AI. This will drive automation and enhance workflow productivity, enabling you to adopt a strategic and differentiated approach.

The current challenges and gaps in digital transformation effectiveness have highlighted the need to connect business, IT, and partner ecosystem priorities while enabling technical connectivity across systems, data flows, and operational processes to drive change.

In conclusion, a platform-centric strategy prioritizes the development and growth of a platform as the core driver of value creation and impact. This goes beyond simply building a platform; it's about fostering a vibrant ecosystem around it that attracts users, developers, and partners, leading to network effects and exponential growth. Allowing for an open and extensible architecture helps develop APIs and tools that encourage third-party development. Make it easy for users to customize and integrate your platform with their existing workflows.

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# Gen-AI's Game-Changing Impact On Insurance

## Key Use Cases and An Eye On The Horizon

This article is an excerpt from a [webinar](#) between

**Sathish Kumar EV**, Director, Edgeverve  
**Anju Gupta**, VP, Northwestern Mutual  
**Burak Seren**, SVP and Head of Enterprise Technology, Sompo International  
**Ryann Foelker**, Innovation Design Director, American Family Insurance  
**Dr Jacob Abboud**, Founder & MD, Petraenovus Consulting

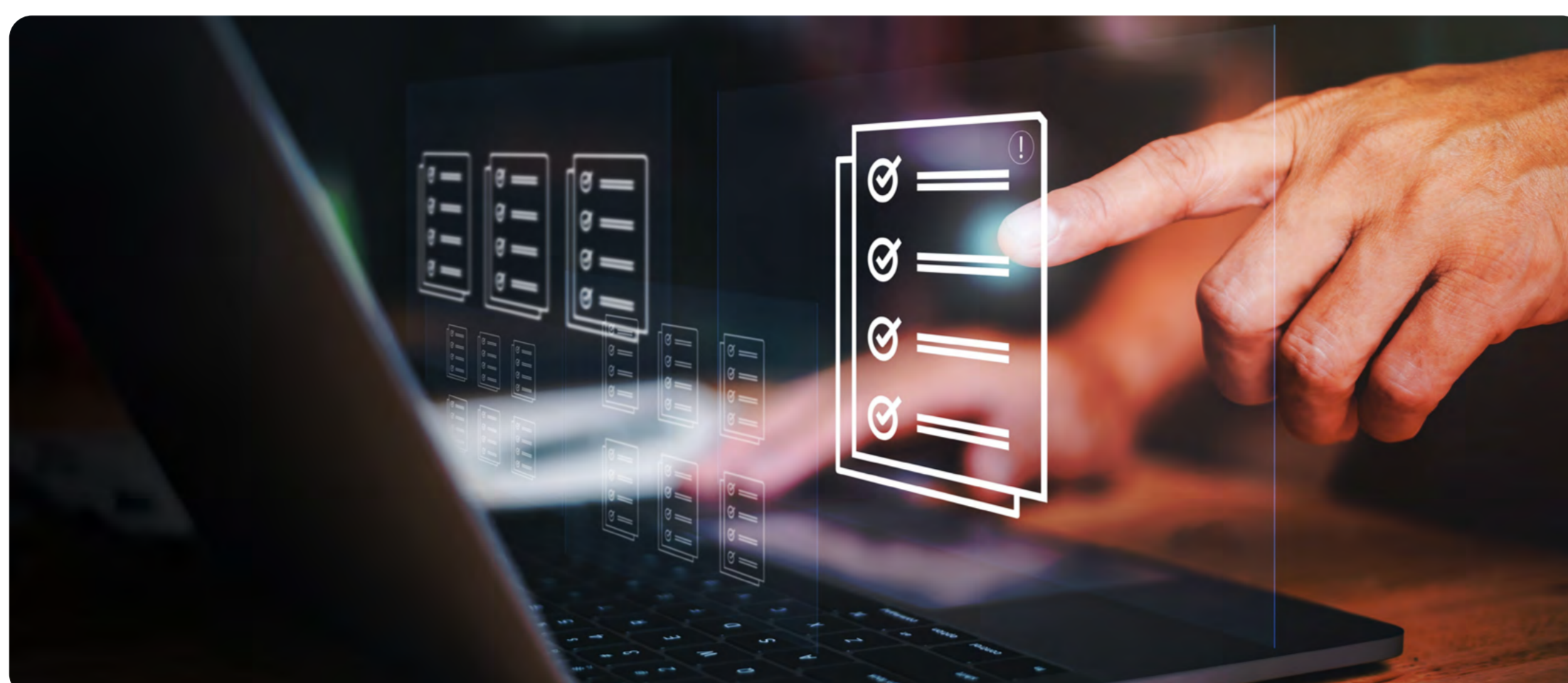
### Summary

Generative AI (GenAI) has already profoundly impacted the insurance landscape, and the technology continues to reshape the industry paradigm with new use cases. In this article, we cover how this transformative technology is creating new efficiencies and innovation in the insurance ecosystem. We also explore some inherent GenAI challenges and how to overcome them with ethical and accountable implementation strategies.



The insurance landscape is undergoing a paradigm shift driven by the disruptive potential of generative AI (GenAI). This transformative technology, capable of mimicking human language, holds immense promise for an industry that is deeply regulated and designed around actuarial science for accurate risk management.

Gen AI promises to reshape how insurers operate, interact with customers, and manage risk. The paradigm shift will involve the insurance industry [transcending from a 'detect and repair' mode to a 'predict and prevent' mode](#) as Gen AI-based use cases are identified and put into play.



### Key use cases – The low-hanging fruit

In an industry that's highly regulated in nature, where Gen AI adoption is still in its infancy, the tendency is to pick use cases that offer the least resistance to adoption. Some examples that are quickly gaining traction include:

- **Submission and ingestion automation:** Insurers have been using AI/ML to automate document ingestion for new submissions to fast-track underwriting. With Generative AI in the mix, the mathematical models and the language model are coming together to deliver a flawless experience. For instance, for underwriters getting submissions from various sources, GenAI can make it easy to run language translation, conduct data lookups, assess cyber scores for clients, and access both internal and external data stores for additional information, such as loss runs. Something that would take days or weeks is now compressed to a few minutes!
- **Claims and First Notice of Loss (FNOL) Automation:** GenAI can make the cumbersome claims process easier for both claimants and insurers. For instance, GenAI chatbots can help customers submit the FNOL with appropriate data, guiding them in natural language, making the process effortless, and eliminating the need for multiple requests for information. Similarly, for insurers, these models can summarize claim applications, assist adjusters, determine liability, and generate legally binding and accurate subrogation documents if needed. The possibilities from cost and effort saved are phenomenal.
- **Workforce Productivity:** Gen AI can augment the productivity of the insurance workforce in their ability to underwrite policies, process claims, and service clients. [Productivity gains in customer service can translate to cost savings of 40% to 60%](#). Here are three scenarios to consider.
  - a. **Search and retrieval** – If customer executives have the right content at their fingertips, what changes? Text embedding and summarization models can provide customer executives the ability to respond better to customer queries. [Sompo International's Retail Property Team is utilizing Generative AI for search and retrieval enhancement, freeing up agents to better utilize their time on call.](#)
  - b. **Advisor planning** – The availability of relevant content support in planning can directly impact sales. Northwestern Mutual's financial advisors can look at the Next Best Action (NBA) tool, which [recommends financial products to help clients achieve greater financial security.](#)
  - c. **AI co-pilots** – Generative AI co-pilots provide advanced support and guidance across tasks and projects, enhancing employee effectiveness. American Family Insurance, for instance, is looking at ways AI can be used to free up agents from routine jobs. This makes them available for interactions that require a human touch.

It's clear from these use cases that Gen AI in insurance is bringing in a significant shift in how organizations approach innovation, research, and operational efficiency. However, any new technology matures over time, and it takes time for initial creases to be ironed.



### Navigating the Gen AI storm: Balancing innovation and risk

Integrating Gen AI into businesses comes with several challenges and risks. Firstly, there's a risk of Gen AI creating wrong, biased, or outdated outputs, which could also lead to intellectual property issues. Then, these models themselves are complex, making it hard to understand how they come up with their results, which raises questions about their fairness and reliability. Using Gen AI involves handling a lot of data, which raises important ethical issues about privacy and who owns this data. In addition, adopting Gen AI into existing workflows requires big changes to how things are currently done. And as Gen AI keeps evolving quickly, it can disrupt existing business processes, requiring businesses to constantly adapt.

Despite these challenges, the Gen AI genie is out of the bottle and there is no turning back, only moving forward.

So, how can we navigate Gen AI's potential when we are barely even scratching the surface of understanding it? The key lies in striking a balance between cautious adoption and bold exploration. Here are some essential strategies:

- **Human in the loop:** Don't expect Gen AI to replace human judgment overnight. Instead, focus on using it to augment human decision-making. For example, Gen AI co-pilots can provide support and insights to underwriters or claim adjusters while they make the final decision based on their experience.
- **Guardrails and oversight:** Even as you add human oversight to prevent unintended consequences, establish clear boundaries for acceptable outputs. For instance, generative AI models can be instructed not to fabricate information beyond what's provided in the document, dataset, or paragraph. In case the model cannot find an answer, it should clearly state that it lacks sufficient information.
- **Governance and regulation:** Keep an eye on evolving regulations and proactively adhere to them. Go a step further in operating within the ethical and legal boundaries by anticipating and preparing for future frameworks.
- **Training and experimentation:** Thoroughly train your models on high-quality, unbiased data and conduct rigorous pilot tests before deploying them in real-world scenarios. Also, train your people to use GenAI responsibly. For instance, Northwestern Mutual has an NM GPT for all its employees to play around with. In the process, employees discover the strengths and weaknesses of the technology
- **Continuous learning and monitoring:** Don't expect to "set it and forget it" with Gen AI. Regularly monitor and update your models to ensure they remain accurate, unbiased, and aligned with your evolving needs.

### Four Guiding Pillars for Responsible Adoption in Insurance

1. **Fairness:** Ensure that your models and processes avoid bias and proxy discrimination. This can help organizations ensure equitable treatment for all individuals.
2. **Accountability:** Being open to regulatory scrutiny by ensuring the auditability of models helps in maintaining transparency and trust in the use of AI technologies.
3. **Sustainability:** Balancing the impact of AI on society and ensuring model reliability, consistency, and robustness go a long way in creating sustainable AI usage.
4. **Transparency:** Demonstrating the lineage from data to processing to outcomes, enabling auditability and readiness to present evidence to stakeholders.

The road ahead for Gen AI in insurance is brimming with possibilities. By harnessing its power responsibly, insurers can unlock remarkable benefits: unparalleled efficiency, deep customer engagement, and, ultimately, a more responsive and dynamic industry. In the words of Geoffrey Hinton, a pioneer in the field of AI, *"This is a caterpillar waiting to become a butterfly."*

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# AI-Powered Document Processing

## Turning Paper Into Business Intelligence With IDP

This article is an excerpt from a [webinar](#) between

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### Summary

Are you capturing 100% of the value from your analog data? If not, IDP could be your go-to solution. In this article, we discuss the trends, challenges, and outlook of AI-powered document processing solutions.



\$5.3 billion - that's the annual wages companies collectively pay to data-entry keyers just in the US. This number doesn't even account for all the operational expenses related to these jobs or cover the wages of other jobs, like accounting clerks, who also handle data entry. Clearly, many businesses, despite being digital, still use paper and need a way to capture intelligence from this analog data locked in paper or images. Organizations that find a better way to process this analog data will see better performance and capture greater value from the insights. What started with Optical Character Recognition (OCR) - where the application captures the analog data in digital format - has evolved into Intelligent Document Processing (IDP), where the document the data is captured but also understands this data.

We are in a time when data production is at an all-time high. For instance, in 2022, the world produced around 97 zettabytes of data, which will grow to [181 zettabytes by 2025](#). Most of this data is unstructured and unusable, driving the growth of IDP market to reach over [\\$6 billion by 2027](#) with a CAGR of 37.5%. With so much value ready to be tapped into in just a few years, we will take a look at the current state, trends, and recent developments in the AI-powered document processing industry.



### Where is IDP headed?

With AI and ML technologies advancing every day, the accuracy of IDP in extracting and presenting contextual insights has also increased significantly. While any corner cases need human validation, the need for human intervention in largely well-structured data is almost zero today. The process has a higher level of precision and reliability - nearly 100%. By 2025, [at least 50%](#) of B2B invoices are expected to be processed and paid without human touch. This number is expected to grow to 80% by 2030. Companies realize what this means: automated data processing, reduced costs, and significantly better productivity.

**Expansion of Use Cases:** Naturally, we are increasingly implementing IDP for broader use cases. IDP started with and has a stronghold in finance-related functions like accounts payable and invoice processing. Today, IDP is being implemented in broader use cases like customer onboarding, HR processes, claims processing, loan processing, and much more in sectors ranging from healthcare and legal to education and manufacturing.

**Personalization of IDP Solutions:** Though the expanding use cases are evidence of the versatility and robustness of IDP solutions, each sector has inherent differences that call for personalization. Take banking, for example, the IDP system must be tailored to recognize and extract data from various financial documents, such as pay stubs, credit reports, bank statements, and tax returns. In a supply chain context, it should be capable of comparing and matching data across different documents - invoices, purchase orders, and delivery receipts - to ensure order accuracy and completeness. For retail, the IDP application might need to be customized to perform sentiment analysis, categorizing feedback as positive, negative, or neutral based on text content. We need to customize algorithms and workflows for specific business processes to deliver maximum value and address specific pain points.

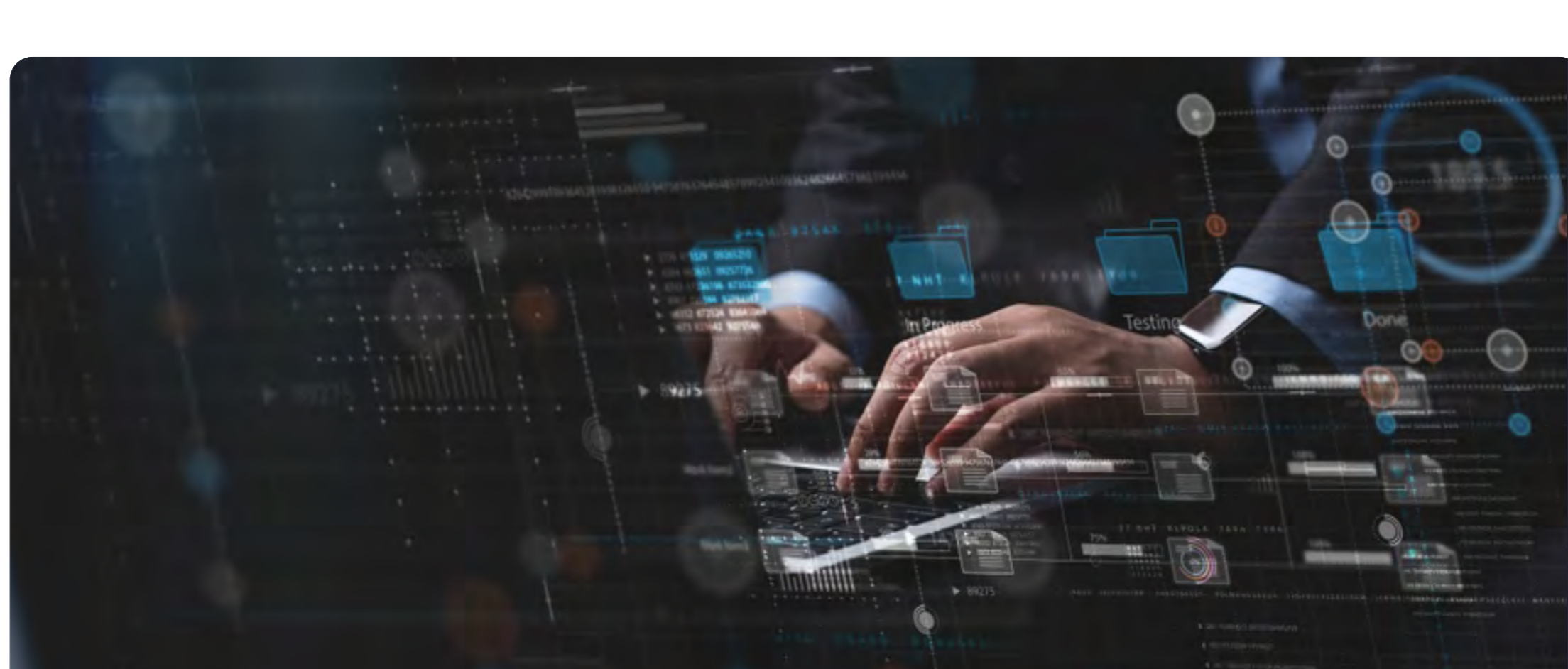
**The Shift to Cloud-native and Mobile Solutions:** With the broader narrative of the digital transformation wave across sectors, the IDP platforms need to align and shift to a cloud-based mobile application. Cloud-based solutions offer agility and scalability, while a mobile-first strategy offers immediacy, convenience, accessibility, and an on-demand experience.

**Emphasis on Security and Compliance:** Given that IDP started in the finance industry, security and compliance were always crucial. As IDP extends to other sectors like legal, procurement, and sourcing, the focus on security and compliance becomes even more critical. Security is non-negotiable, and IDP solutions are also being integrated with stringent compliance frameworks.



### IDP's Part in the Digital Transformation Story

The essence of IDP lies in its ability to transform unstructured data into structured, actionable insights. In any business, a significant amount of data comes in unstructured formats - be it emails, PDFs, scanned documents, or even handwritten notes. But IDP is more than the age-old task of taking data from paper to digital or doing it faster with lower costs. It is the starting point of the automation and digital transformation story. Look at the impact IDP creates. By converting unstructured or semi-structured data into a structured format, IDP presents contextual insights to businesses. We will now have better visibility and transparency in our processes and timely, accurate data points for advanced analytics. That means deeper insights into our operations, customer behaviors, market trends, and more. With these insights, companies can tailor their strategies, offer better services, and stay ahead of the curve in their digital transformation journey.



### Choosing Wisely: The Challenge of IDP Partner Selection

Many organizations operate with a degree of ambiguity in their processes. While IDP can handle unstructured formats, we will see less than optimal outcomes dealing with unstandardized processes. The successful implementation then hinges on the standardization of internal processes and the right expertise. We need a good mix of technical know-how and business experts who know the processes inside-out to work together to get the best out of the IDP framework.

Then, there is the question of whether to develop an IDP platform internally or outsource it to a vendor. Should we choose a new-generation startup or a tech giant if we outsource? Startups dedicated to the IDP platform sound like a good choice, but their dependability and accuracy come into question. On the other hand, the brand value of tech giants who are branching out into IDP solutions sounds promising, but this is only one tiny part of their business.



### A Transition Beyond Text

The benefits of end-end transformation and automation of the document-centric process, like KYC in banking or invoice processing in any sector, are too hard to pass up. Despite the initial challenges and many questions, leaders should find a way forward. A good starting point would be to focus on the long-term strategic transformation and not immediate operational goals. Choosing the right partner who does not just have the expertise but understands your business's challenges, pain points, and objectives and the industry in which it operates is a good step forward.

Looking further ahead, we see the IDP transition into UDP - Unstructured Data Processing, handling, and extracting meaningful information from a variety of data sources, including videos, images, and other non-textual or non-standard formats. The use cases UDP can handle will be explosive. Companies that have not yet started the journey or integrated IDP into their existing technical stack will fall behind. As we eagerly look forward to this inevitable transition, how do you plan to take advantage of this explosive growth?

Disclaimer Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the respective institutions or funding agencies

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