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Reimagine Growth With A Platform-Centric Digital Strategy: A Spotlight On Manufacturing And Materials Industry

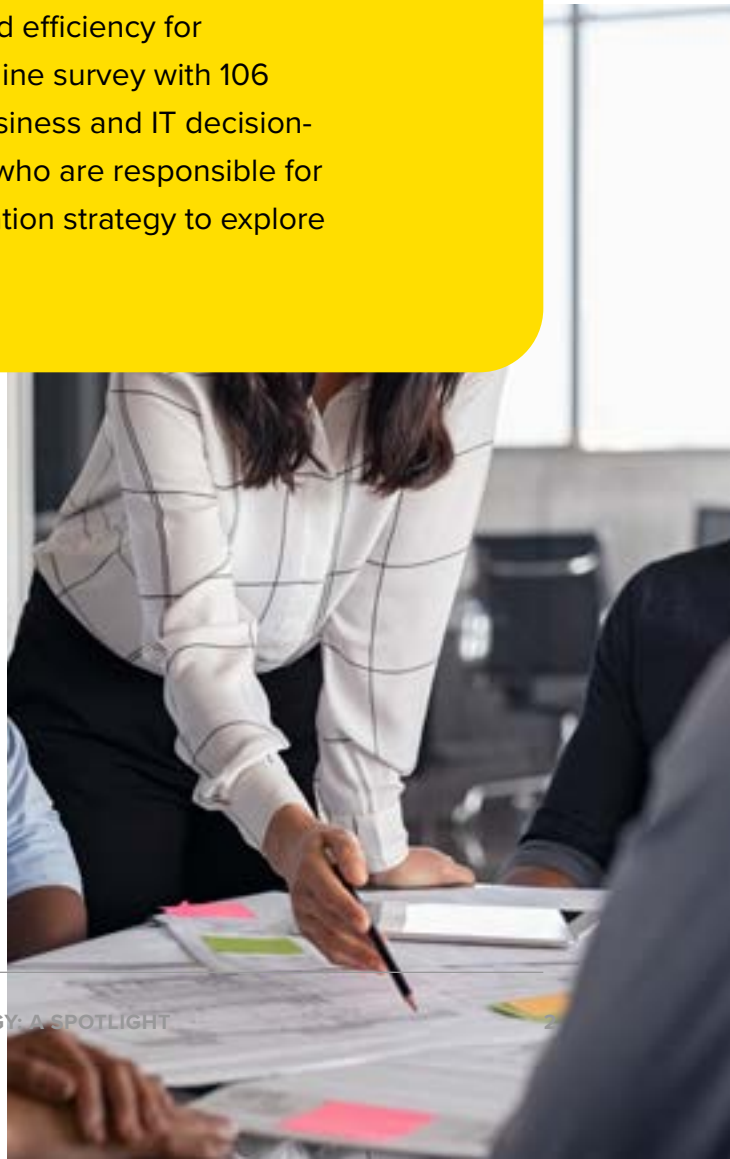
Manufacturing And Materials Results From The February 2024 Thought Leadership Paper, “Reimagine Growth With A Platform-Centric Digital Strategy”

A FORRESTER CONSULTING THOUGHT LEADERSHIP PAPER COMMISSIONED BY EDGEVERVE, FEBRUARY 2024

Executive Summary

As manufacturers adapt to the advent of new-age automation and Industry 4.0, the effectiveness and impact of their digital transformation initiatives are imperative to safeguard growth, relevance, and innovation. To achieve operational resilience and meet business requirements, organizations must adopt new capabilities in AI, automation, and digital operating models. Despite their strong focus and informed intentions, many manufacturers struggle to effectively drive strategic change through their digital transformation initiatives. However, a platform-centric digital strategy that promotes connectivity and visibility across both business and IT ecosystems offers immense potential to enhance efficiency and unleash the full potential of an organization's human workforce.

In August 2023, EdgeVerve commissioned Forrester Consulting to conduct a custom study to understand the effectiveness of digital transformation initiatives today, and the extent to which firms have embraced a platform-based strategy to drive the needed connectivity and efficiency for profitability and growth. Forrester conducted an online survey with 106 respondents and two qualitative interviews with business and IT decision-makers from manufacturing and materials industry who are responsible for their business, IT, supply chain and process automation strategy to explore this topic.

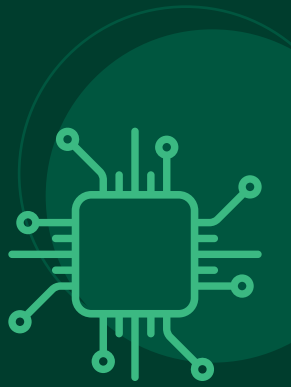


Key Findings

Despite heavy investments in digital transformation, efforts have largely been ineffective in driving business outcomes. Majority of manufacturers surveyed invest over US$100 million annually, but only 20% strongly believe they have achieved success. Various challenges such as a lack of strategy, open-minded culture, and technological capability, lead to operational inefficiencies and process limitations.

Manufacturers are increasingly prioritizing AI-driven digital transformation. While the connectivity maturity level in the manufacturing industry is intermediate, there is a growing recognition amongst 74% of manufacturers regarding the importance of connecting the human and AI capability. Manufacturers are expanding on efforts to improve operational visibility and drive straight-through processing aimed to enhance customer experience (CX), operational efficiency, cost reduction, and risk mitigation. By harnessing the power of AI, manufacturers are ready to unlock new levels of operational excellence and competitiveness.

Manufacturers believe that a platform-based strategy is crucial for digital transformation success. A significant 71% of decision-makers in manufacturing firms advocate for a unified platform that effectively orchestrates business and tech. They seek to harness the power of a connected ecosystem to enhance collaboration, streamline processes, improve customer satisfaction, and unlock the full potential of digital transformation efforts.



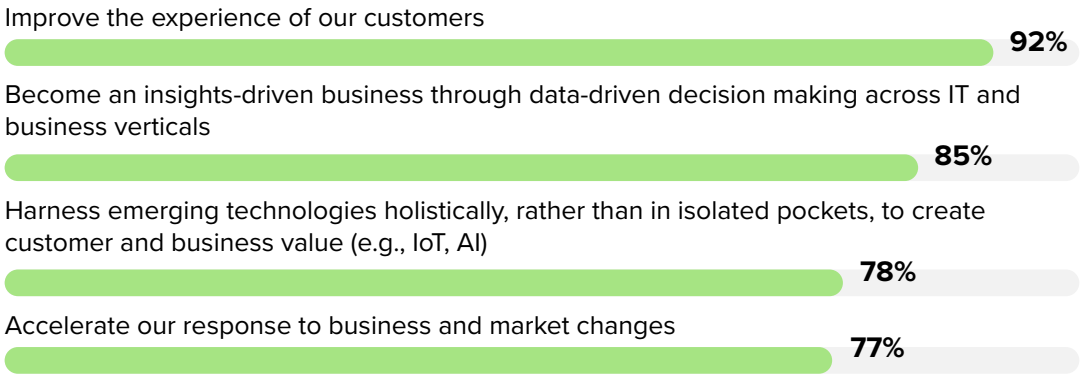
Digital Transformation Drivers Center Around Efficiency And Enterprise Connectivity

Managing and accelerating responses to business, tech landscape, and market changes is a common focus for manufacturers that encompasses business stakeholders and technology leaders. Evolving customer expectations have decision-makers exploring new technology operating models that prioritize speed and responsiveness. Divergent priorities exist between business and IT stakeholders, with IT emphasizing operational resilience while the business prioritizes customer-centric digitization. Bridging these gaps and fostering connectivity between business and IT is crucial for today's transformation agenda:

Manufacturers' priorities emphasize customer-centricity, reliability and resilience. Driving transformation in a way that improves CX is a key motivation for 92% of surveyed decision-makers in the manufacturing and materials industry. They aim to build this experience through operational strengths with an emphasis on better IT security and privacy (79%), as 78% of respondents noted that their firms were focused on improving IT reliability and resilience, and 74% of them prioritized increasing IT operating model performance (see Figure 1 and 2).

FIGURE 1

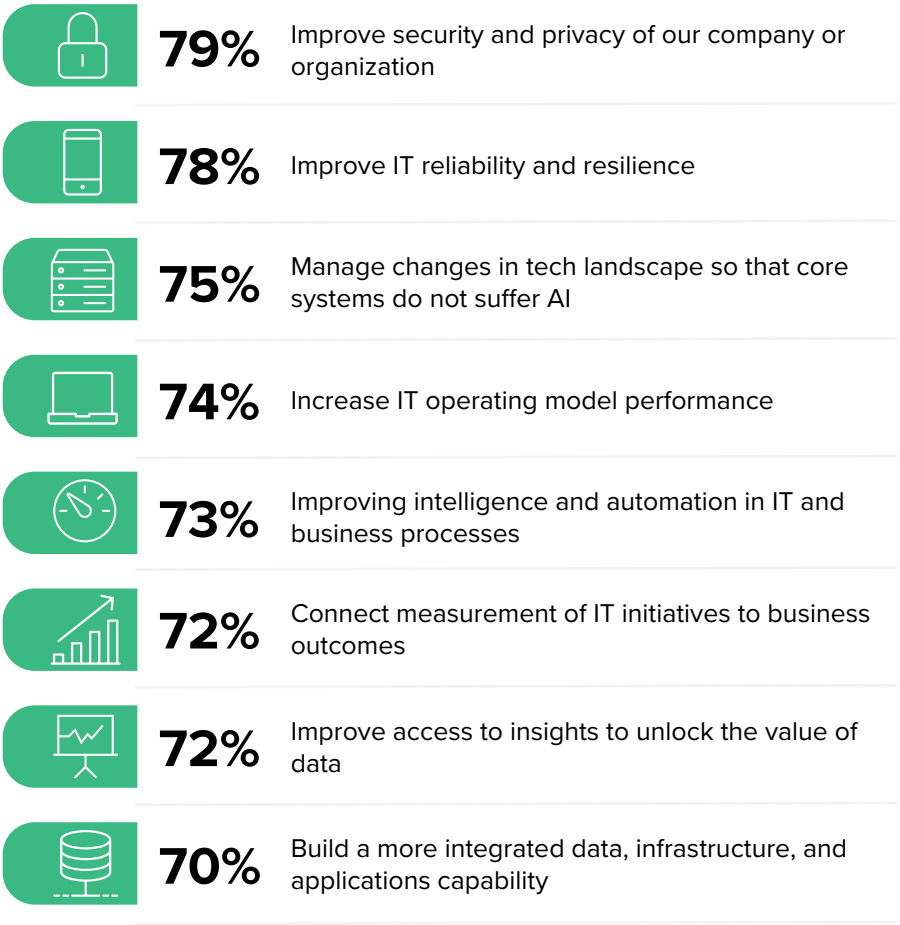
Top Organizational Priorities Over The Next 12 Months



Base: 106 business and IT decision-makers responsible for business, IT, supply chain, and process automation strategy in the manufacturing and materials industries
Source: A commissioned study conducted by Forrester Consulting on behalf of EdgeVerve, August 2023

FIGURE 2

Top 8 Organizational IT/Digital Transformation Priorities Over The Next 12 Months



Base: 106 business and IT decision-makers responsible for business, IT, supply chain, and process automation strategy in the manufacturing and materials industries
Source: A commissioned study conducted by Forrester Consulting on behalf of EdgeVerve, August 2023

Embracing emerging technologies and data to drive the transformation agenda is a key focus. Eighty-five percent of respondents highlighted that it was a priority for their organization to become an insights-driven business through decision-making based on data. A majority of the manufacturers want to focus more on improving their access to insights to unlock the value of data (72%) and therefore improve on overall intelligence to automate processes (73%).

Connectivity, both internally and externally, is a top priority for manufacturers in driving digital transformation success. The majority of the respondents consider connectivity the key to success for all of their digital transformation initiatives (78%). The manufacturing industry is largely in the intermediate stages of bringing connectivity to its digital transformation agenda. Organizations have had marginally more focus on driving end-to-end process improvements, however, they could do more to connect such processes to their technology investments, as only 36% of surveyed manufacturers believe they have a well-understood way of prioritizing their technology investments to optimize processes.

Connectivity needs to drive technical and strategic alignment for manufacturers. One of the core desired outcomes of manufacturers' digital transformation efforts is better IT-business connectivity (78%). Manufacturers also place importance on improving connectivity with their network and data silos, as 69% of those surveyed acknowledge the impact of these silos on digital transformation effectiveness. They aim to leverage emerging technologies like IoT and AI to create customer and business value rather than using them in isolation. Looking ahead, improving connectivity across data and network silos and building a more integrated data, infrastructure, and application capability are key IT priorities for the next year, as indicated by 70% of respondents.

Manufacturers are increasingly adopting an AI-driven approach to their digital transformation efforts, with a focus on enhancing customer experience and automating processes and services. Seventy-five percent of surveyed decision-makers considered connecting human and AI capabilities a core part of their digital initiatives, while more than half believe improving customer experience (56%) and improving operational workflows (52%) with AI-powered applications are the top outcomes they want to realize. More than one-third of the manufacturers strongly believe AI can improve CX (32%) and automate internal processes (37%) and client-facing services (41%).

In the next 12 months, more than half of the manufacturers plan to expend digital transformation to improve operational visibility across all integrated

systems (53%) and drive seamless operations through straight-through processing in particular (52%) to minimize delays in the order-to-cash (O2C) cycle. This is by streamlining dealer operations including onboarding to order placement, payments, claims management, and contract renewals.

> “We really want to be able to innovate quickly. … We need a new mindset from our management teams, but the problem we are having is at connecting things. When we transition from the IT innovation team to the solution set, it takes a lot longer than anticipated."
>
> **DIRECTOR OF IT, MANUFACTURING, US**

Internal And External Challenges Hinder Digital Transformation To Effectively Deliver Business Value

Manufacturers recognize the importance of technology-driven solutions for enhancing operational efficiency and customer experiences, but they face numerous challenges internally and externally that span business strategies and cultures. Despite their best intentions, many of their digital transformation efforts have not achieved the desired business impact and outcomes. Few respondents can attribute their organizations' transformation initiatives to any business value, resulting in reduced productivity, efficiency, and customer outcomes. These initiatives often involve complex, long-term projects with a high risk of failure, particularly in today's volatile market.

Manufacturers struggle to deliver business value despite heavy investment in digital transformation. Two in three surveyed manufacturing organizations (67%) have invested at least $100 million in digital initiatives, however, 68% of the larger manufacturers (with annual revenue of at least $5 billion) declared that less than half of these investments have been effectively translated into business outcomes. Only 20% of manufacturer respondents strongly believe that their transformation efforts have been successful in achieving these outcomes. A majority (75%) recognize that their transformation journey is still making the pivot. This is especially true with AI, where they expect to see these outcomes come to life.

Internal and external process challenges continue to hamper digital transformation. Besides the biggest challenge of enabling positive ROI with high investment, more than half of the surveyed manufacturers face multiple organizational challenges such as the lack of collaboration and conflicting priorities (56%), the absence of a suitable strategy (54%), and the lack of an open-minded culture to adopt digitalization (54%), which made implementation of new processes and capabilities become one of their top challenges (54%).

Although building data or insights is most manufacturers' priority, data security and quality issues are top technology challenges that they must handle. The highest proportion of surveyed manufacturers believe that

data quality problems and integration issues are the biggest hinderance to the expansion of digital initiatives (16%). Besides the immaturity of the technology (44%), employees were often worried about the security threats that came with using AI (43%), and they did not trust an AI-based system (40%). IT departments face the lack of specific skills or knowledge outside of technology (41%) to effectively collaborate with business teams to realize more business values (see Figure 3).

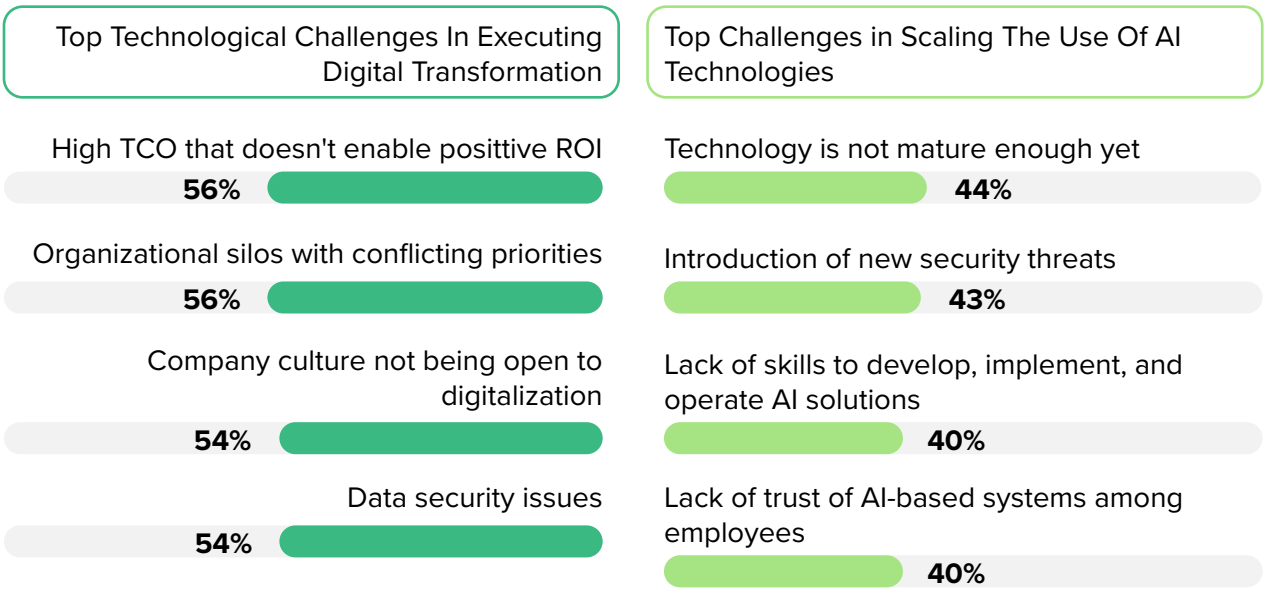
> "One of the biggest challenges — in fact 50% of [digital transformation] success enablement — is based on organizational change management. The other 50% is going to be processes and technologies. A lot of our resources are Baby Boomers. They've got 20 to 30 years of work experience. They do use some technology, but they're not. overly acceptive or skilled in using advanced analytics. For them to go out there and use different technologies — like power BI to do data mining or like automation on the assembly or the plant floors — that's a stretch."
>
> **DIRECTOR OF IT AND DIGITALIZATION, MANUFACTURING, US**

Manufacturers have some ideas in connectivity strategy and priorities, but face bottlenecks in deploying the plans. The majority of manufacturers (84%) noted their organization is currently in the beginner or intermediate stage of connectivity. Out of the 84%, more than half said their organization is only at the beginner level. Optimistically, over two-thirds of the total respondents (78%) believed their executive leaders prioritize connectivity to achieve customer and business outcomes. More than half of the

manufacturers believed their organization has a strong connectivity strategy (56%), has insight to how the processes work and what outcomes can be improved through better connectivity (55%), and have a well-understood way to prioritize technology investments to optimize processes (51%). However, when it comes to execution, only 27% agree that their organization has a clearly set up working group across business, operations, and technology teams to improve end-to-end processes.

FIGURE 3

A Lack Of Strong Governance, Quality, And Strategic Perspective On Data Hinders The Use Of AI



Base: 106 business and IT decision-makers responsible for business, IT, supply chain, and process automation strategy in the manufacturing and materials industries
Note: Showing sum of responses ranked by respondents as top 5
Source: A commissioned study conducted by Forrester Consulting on behalf of EdgeVerve, August 2023

Manufacturers Want A Platform-Based Approach To Drive Digital Effectiveness

To overcome these challenges, manufacturers are actively seeking support from third-party providers and allocating additional resources to fully realize the advantages of digital transformation. Effective implementation of platform ecosystems is crucial in addressing modernization and efficiency challenges. This shift in development decisions from traditional build approaches to buy-to-customize or compose models is significant. It enables organizations to minimize technical debt by easily replacing underutilized or expensive modular components.

Platform solutions are the top technology investments manufacturers are spending on to improve their integration, automation, and intelligence processes. Close to 60% of respondents will increase their organizations' investment in technologies such as digital platform (59%), process mining (58%), and machine learning (58%). Industry-focused process automation solutions and digital decisioning platforms are the top areas that more than 90% of the surveyed manufacturers are looking to increase their budget in. Moreover, 16% of the manufacturers are looking to increase the budget for workforce optimization by more than 10%.

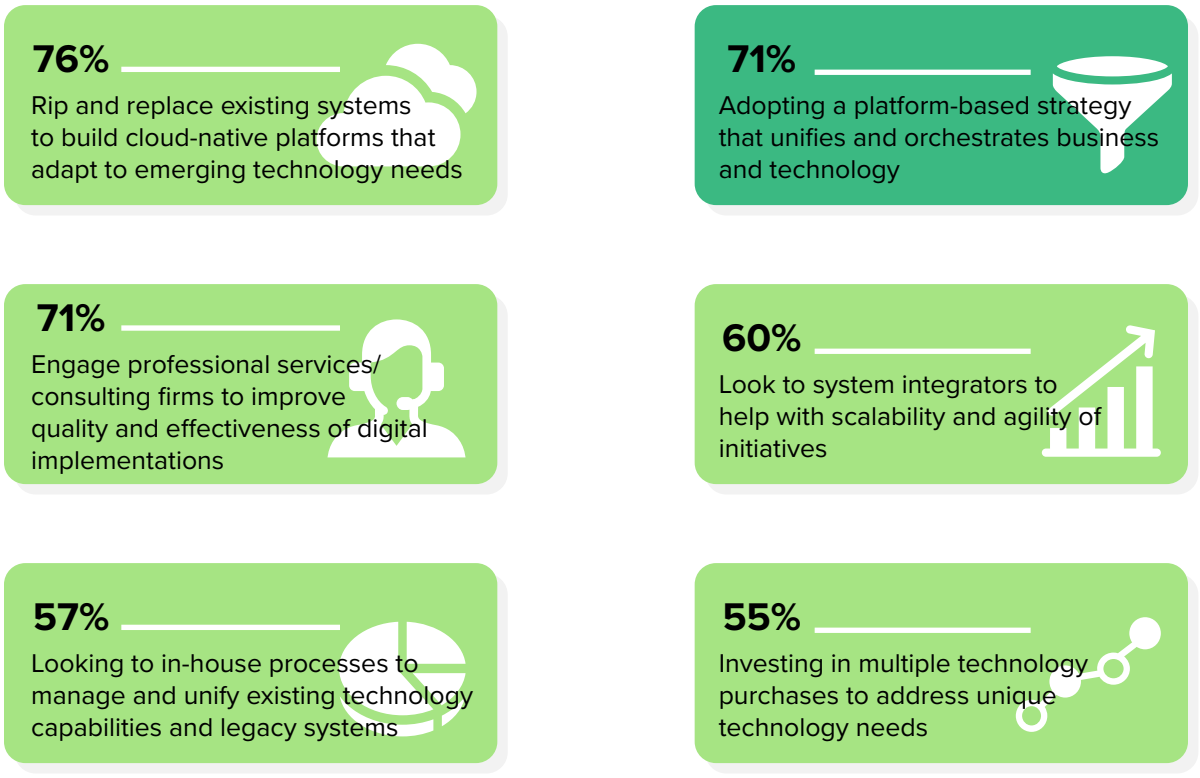
To drive a better digital transformation, a majority of the respondents also believe that they would rip out and replace existing systems at their manufacturers to build cloud-native platforms that adapt to emerging technology needs (76%) while at the same time adopting a platform-based strategy that unifies and orchestrates business and technology (71%) (see Figure 4).

To harness the power of a connected ecosystem and enhance customer satisfaction, manufacturers have various immediate and near-term priorities lined up. Urgent priorities for surveyed manufacturers in the next three to six months include investing in intelligent automation that leverages a combination of GenAI, natural language processing (NLP), and robotic process automation (RPA) to increase efficiencies (57%) and an end-to-end delivery from discovery to managed services (55%). Over the

next 12 months, manufacturers are prioritizing the development of using generative AI capabilities to help contextualize and summarize data for different stakeholders (81%) and building a commercial model that promotes interoperability and breaks down silos (80%) (see Figure 5).

FIGURE 4

Technology Approaches That Firms Believe Will Drive Digital Transformation Initiatives



Base: 106 business and IT decision-makers responsible for business, IT, supply chain, and process automation strategy in the manufacturing and materials industries
Note: Showing sum of responses for "Believe" and "Strongly believe"
Source: A commissioned study conducted by Forrester Consulting on behalf of EdgeVerve, August 2023

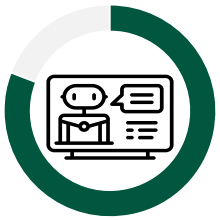
FIGURE 5

Platform-Based Capabilities' Features That Drive Investment

Top 3 Prioritized Features/Functionalities In Platform-Based Capabilities To Invest In 3 to 6 Months

- **57%** Intelligent automation that leverages GenAI, NLP, and RPA to increase efficiencies
- **55%** An end-to-end delivery from discovery to managed services
- **51%** Built-in capabilities that ensure connectivity between systems and apps

Top Prioritized Features/Functionalities In Platform-Based Capabilities to Invest In 12 Months*



81%

Generative AI capabilities to help contextualize and summarize data for different stakeholders

80%

A commercial model that promotes interoperability and breaks down silos

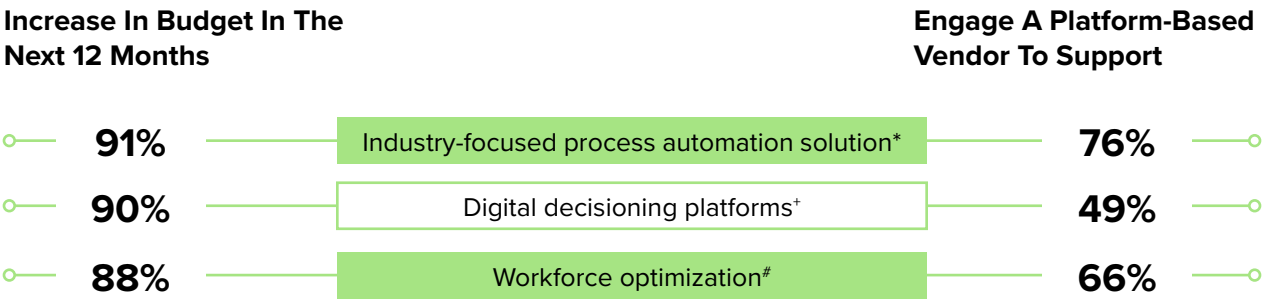
Base: 75 business and IT decision-makers responsible for business, IT, supply chain, and process automation strategy in the manufacturing and materials industries who believe that adopting a platform-based strategy and unifying business and technology will drive DX initiatives
*Note: Showing sum of responses 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 significant number of respondents in manufacturing believe that engaging professional services is crucial for improving the quality and effectiveness of digital implementations. Among organizations that have plans to implement or expand automation technologies, industry-focused process automation solutions (76%) and workforce optimization (66%) were the top areas respondents that their manufacturers would need support in from professional service providers.

Manufacturers expect that professional services or consulting firms could help them define a clear strategy for their cloud adoption and migration efforts (53%) and take advantage of third-party prebuilt software, applications, or project accelerators (51%) (see Figure 6).

FIGURE 6

Top Initiatives That Organizations Are Likely To Fund And Engage A Platform-Based Vendor To Support



*Base: 80 business and IT decision-makers responsible for business, IT, supply chain, and process automation strategy in the manufacturing and materials industries who plan to implement or expand industry focused process automation solution.
+Base: 76 business and IT decision-makers responsible for business, IT, supply chain, and process automation strategy in the manufacturing and materials industries who plan to implement or expand digital decisioning platforms.
#Base: 74 business and IT decision-makers responsible for business, IT, supply chain, and process automation strategy in the manufacturing and materials industries who plan to implement or expand workforce optimization.
Source: A commissioned study conducted by Forrester Consulting on behalf of EdgeVerve, August 2023

> "From our learning and development perspective, platform vendors have been crucial. They've been very influential in training; we actually have a monthly workshop that lasts for about 2 hours where we walk them through specific scenarios and problems to them, and they come back with a solution. We'll give them a prototyping lab environment, and then we'll do the workshops and transpose whatever assets are built in the lab environment. This [builds our relationship with] active collaborations, support, and ongoing engagement across the lifecycle."
>
> DIRECTOR OF IT, MANUFACTURING, US

Key Recommendations

Forrester's in-depth survey of business and IT decision-makers yielded several important recommendations on how Manufacturers can optimize their digital processes toward effective outcomes:

Build connectivity that drives a customer-centric tech strategy.

Digital leaders who have ensured synergy between business needs and IT priorities have been more effective in driving effective change. This involves a strategic focus on aligning business and IT stakeholders on transformation priorities from the early stages, while also ensuring tools, systems, and metrics build toward building a connected enterprise.

Prioritize AI and automation capabilities that remain accountable to employee outcomes.

Digital leaders have advanced their focus on AI and optimized their automation tools and processes to drive more self-service at scale. This focus augments human potential, impacts employee productivity, and ultimately, CX.

Embrace emerging technologies with clearly-defined use cases.

With the advent of new technologies in genAI and the like, decision-makers are keen to understand how to leverage emerging tech to differentiate their firms. However, without a defined set of use cases and outcomes in how such capabilities need to drive outcomes in the business, firms will be stuck without a clear strategy to prioritize the right emerging tech capabilities for business success.

Optimizing partner ecosystems to drive accountability and efficiency while cocreating new approaches.

Especially among large enterprises, the complexity of partner ecosystems can be difficult to navigate in a way that primes them for effective scale, without hindering success. Catering to the partner ecosystem with platforms that

enable visibility and accountability can encourage partner ecosystems to be strategic differentiators.

Leverage a platform strategy that enables you to capture value through efficiencies, insights, and growth.

The current shortfalls and gaps in digital transformation effectiveness have highlighted the need to strategically connect business, IT, and partner ecosystem priorities, while enabling technical connectivity across systems, data flows, and operational processes to drive change. Adopting a platform-based approach that focus on building the visibility required across internal and external ecosystems, driving the automation agenda to build efficiency, and providing the insights for accountable decision-making can drive digital transformation initiatives toward the strategic differentiators they intend to be.

Appendix A: Methodology

In this study, Forrester conducted an online survey of 106 decision-makers and in-depth interviews with two senior decision-makers from manufacturing and materials industry in North America (US), Europe (UK, Germany, and France), and APAC (Australia, New Zealand, Philippines, Singapore, and Vietnam) to evaluate digital transformation objectives and effectiveness. The study began in August 2023 and was completed in September 2023.

To read the full results of this study, please refer to the Thought Leadership Paper commissioned by EdgeVerve titled, "Reimagine Growth With A Platform-Centric Digital Strategy."

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Contributing Research:
Forrester's Technology & Architecture research group

Appendix B: Demographics

REGION	
United States	**52%**
United Kingdom	**12%**
New Zealand	**8%**
Singapore	**8%**
The Philippines	**6%**
France	**5%**
Germany	**3%**
Australia	**3%**
Vietnam	**3%**

ANNUAL REVENUE	
$1 billion to less than $3 billion	**23%**
$3 billion to less than $5 billion	**32%**
$5 billion and above	**45%**

INDUSTRY	
Manufacturing and materials	**100%**

FUNCTION	
IT	**58%**
Business	**42%**

Note: Percentages may not total 100 due to rounding.

Appendix B: Demographics (Continued)

POSITION	
C-level executive	**25%**
Senior vice president/vice president	**33%**
Director	**42%**

RESPONSIBILITY FOR STRATEGY	
IT	**63%**
Business	**58%**
Process automation	**35%**
Supply chain	**13%**

Note: Percentages may not total 100 due to rounding.