Intelligent automation

Scaling the digital enterprise

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38%
Of mature enterprises generated > $50 million in savings

>50%
Of mature enterprises have invested in process mining technology

44%
Of mature enterprises leverage consciously built, integrated external and internal training programs which are continuously reviewed and optimized for relevant RPA and AI skills

Top three challenges typical companies face in scaling automation:

68% Removing roadblocks from compliance and security functions

65% Accessing experienced resources

62% Implementing the right change management strategy

Across industries, business and IT executives have prioritized and accelerated their digital agendas to stay attuned to changing customer needs and shifts in market landscapes. Process automation has emerged as a top priority for executives looking to transform their organizations into mature digital-first enterprises.

While automation isn't new, the need to augment workforces with technology, create synergies across systems and transform the way we work has entered hyperdrive. Organizations are looking to automation to improve productivity in deeper and more transformative ways, which includes reimagining processes and creating new experiences for employees and customers.

Technologies such as robotic process automation barreled onto the scene bringing enthusiasm from business leaders looking to achieve exponential results. Yet many executives struggled to realize its full potential. Accentuated by an increasing array of new technologies such as artificial intelligence, focus shifted to intelligent automation. Successful pilots are aplenty, but many organizations found that attaining enterprise-wide adoption proved more challenging than expected.

Organizations that instated intelligent automation – not only into their strategies but also into their plans for how employees work – have experienced superior business outcomes. Results include delivering new levels of service, capturing new business opportunities and improving operational resiliency – all with employees who not only adopt, but embrace, automation.

What are these leaders doing right to attain these results and scale? How did they transition from a single pilot to a shared mindset around the need for enterprise-wide automation? How are they turning their digital dreams into reality?

To peer into the practices of these intelligent-automation leaders, Cognizant tapped into Everest Group's expertise for a research study, "Scaling Up Intelligent Automation." The research firm surveyed executives from 50 global companies across a broad

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range of industries and with more than two years of experience implementing automation. The survey findings and in-depth interviews reveal what executives at mature enterprises are doing differently than typical organizations, how they overcame barriers and what is at the top of their transformation agendas.

From our perspective, by combining the right implementation levers with change management practices to support the organizational shift, intelligent automation yields the power to improve top and bottom lines, enrich the experiences of both employees and customers and drive growth. For CXOs, the opportunity is clear: intelligent automation at scale delivers superior business results. The key is to accelerate the pace and investment focus to create a true digital enterprise. We believe this report and its takeaways will help inform automation playbooks for any executive.

Everest Group®

Scaling Up Intelligent Automation

What Can We Learn from the Best?

Cognizant

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Introduction

Enterprises' adoption of automation technologies has been accelerating over the past few years. With the COVID-19 pandemic throwing the world into an unprecedented crisis and stress-testing organizations' business continuity plans, enterprises were forced to rethink their strategic priorities. Traditional/legacy operations and business models faced an existential threat, while organizations whose digital transformation journeys were more advanced emerged better positioned to respond to disruptions. The crisis brought home the importance of digital transformation, with automation emerging as a vital lever to ensure business resilience, agility, and growth.

Consequently, enterprises across industries realized the need both to accelerate their automation efforts and consider automation from a strategic – versus tactical – perspective. While the opportunity to adopt Robotic Process Automation (RPA) has captured the attention of many organizations as they compete in the digital-first world, there is a distinct shift among forward-looking enterprises toward Intelligent Automation[1] (IA) to expand the scope and scale of automation initiatives.

Although successful adoption of IA technologies has the potential to help enterprises achieve superior business outcomes, the road to scaling up automation programs is not without challenges. Some forward-looking enterprises, however, have successfully overcome these barriers, achieving scaled-up automation programs, resulting in significantly greater business impact and enhanced experiences for their employees and customers.

To capture the most recent dynamics in enterprise automation and identify key success factors for scaling up automation initiatives, Everest Group surveyed 50 executives from enterprises ranging across different organizational sizes, all of which embarked on their IA journeys more than two years ago.

This paper combines the findings from the survey and select in-depth interviews, as well as Everest Group's ongoing research and IP on IA, to provide insights around the following:

- The evolution of the enterprise automation journey
- Benefits achieved through successfully scaled automation initiatives
- Key barriers to scaling up automation programs
- Best practices and key success factors for those ahead of the pack in successfully driving and managing enterprise-wide automation initiatives

The research maps the IA journey from an enterprise practitioners' perspective and identifies mature enterprises that have been able to successfully scale up their IA initiatives and achieve superior business outcomes because of their advanced capabilities and investments. We contrast the journeys of these mature enterprises with typical enterprises to provide insights into the key enablers needed to achieve desired outcomes and point to the investments required for the greatest impact.

1 The Intelligent Automation (IA) ecosystem comprises technologies such as RPA, AI-based solutions (e.g., IDP, IVA), process mining, process orchestration, and analytics

Highlights from the study

Key success factors for scaling up automation initiatives

Executive sponsorship and funding

- Securing sponsorship from executive leadership in the early stages of automation sets the essential groundwork for a successful program
- Among mature adopters, as the program scales up, the funding transitions from centrally funded to a mix of central and project-based funding, in which the contribution from individual business units increases
- When the individual business leaders have skin in the game, they are both financially and emotionally invested in the success of automation projects, leading to better outcomes

Strategic demand generation

- Mature adopters focus on selecting the right projects for Proofs-of-Concept (POCs) as those early projects demonstrate the enterprise vision and act as litmus tests to assess the technology's potential
- When projects start generating tangible value to the business, they are aggressively marketed across the organization, leading to greater interest and demand from individual business units

Citizen-led discovery

While the traditional top-down approach of idea generation / use case discovery is common among typical enterprises, crowdsourcing is more prevalent among mature enterprises

Centre of Excellence (CoE) and operating model

- Formulating and empowering the CoE early in the automation journey is a success factor commonly endorsed among mature enterprises
- As there is greater demand among business units, the automation CoE must also transform from a centralized CoE model to a hub-and-spoke model to better understand and solve for varying business needs

Talent and change management

- Effectively positioning automation within the organization is critical to ensuring that employees consider it a means to reduce tedious and repetitive work and an opportunity to focus on higher value work
- Mature enterprises emphasize the importance of charting a plan to address impacted resources, providing guidance around alternate career paths, and creating new automation-focused roles
- Mature enterprises use a well-structured and systematic approach through multiple training avenues to spread awareness, train functional leaders, and upskill business resources

Automation performance monitoring

Mature enterprises leverage more holistic metrics to measure program performance and revise these metrics and internal benchmarks regularly to improve operational decision-making

Third-party service provider leverage

Mature enterprises partner with third-party service providers throughout the automation initiative, such as in creating awareness, setting up the automation CoE, and technical guidance

Research methodology

All the enterprises included in this study have global operations (meaning all operate in at least two continents), with overall annual revenues of more than US$1 billion, and have deployed IA technologies in at least two functional areas. The executives whom we interviewed as a part of this study lead some aspect of the enterprise automation ecosystem and hold roles such as head of the automation CoE, head of digital transformation, head of GBS automation, and Director IT – Intelligent Automation.

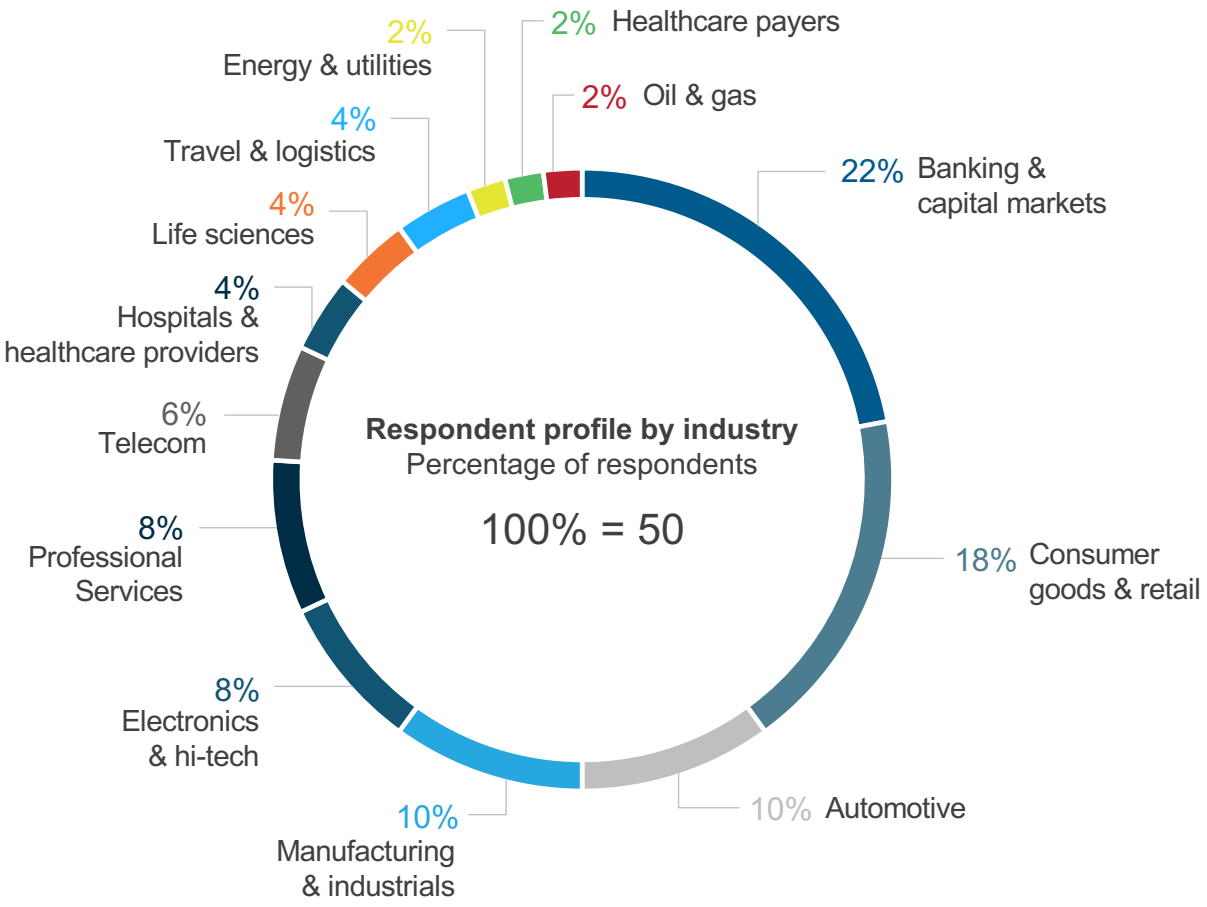
Out of the 50 enterprise participants, Everest Group identified the top 30th percentile of enterprises as "mature adopters" – those who have successfully scaled up their IA initiatives and have achieved superior outcomes and business impact when compared to the typical enterprises.

Exhibit 1 shows the distribution of participants across industries for both mature adopters and typical enterprises. It is important to note that the respondents' collective profile does not necessarily represent the global landscape of IA buyers, but represents the sample considered for this study.

EXHIBIT 1

Distribution of respondent's profile

Source: Everest Group (2021)



The evolution of the enterprise automation journey

For most organizations, at the start, automation is about performing an activity or a process with minimum time, effort, and cost. Thus, enterprises typically embark on their automation journeys with task automation, which involves automating rules-based activities to reduce manual effort. As enterprises mature in their automation approach and outlook, they look at bigger and more complex business challenges, including judgment-oriented tasks. This move drives them along the automation technologies continuum, mapping a clear shift from adopting pure RPA technology to augmenting RPA with AI-based solutions in an effort to improve business efficiency and drive higher impact. Today, most organizations fall into these two categories.

However, the enterprises that have truly experienced the power and benefits of automation are those that have progressed from a process automation approach to intelligent automation at scale. They internalize automation and AI in the way they run their businesses, and they have made rapid progress toward large-scale adoption and more complex business use cases.

While every organization has a unique automation journey based on its strategic priorities, existing capabilities, and the end state it wants to achieve, the journey can be broadly divided into three stages:

- **Task automation** – Task automation focuses on automating transactional and repetitive activities/tasks to reduce manual effort, improve worker productivity, and allow employees to focus on more judgment-intensive activities. Automating simple and rules-based tasks using technologies such as RPA reduces human involvement, thereby speeding processing, reducing errors, and lowering the cost of operations. Task-level automation targets low-hanging fruits such as data entry to achieve quick wins; it does not have a significant impact at the organizational level
- **Process automation** – As organizations move along the automation adoption curve, they realize that they need to automate end-to-end processes to truly drive operational efficiencies. To achieve this, it is imperative to move beyond rules-based tasks and automate more judgment-intensive processes, which, by their nature, require a higher leverage of AI in conjunction with RPA. This is where RPA intersects and interoperates with AI-based automation solutions such as Intelligent Document processing (IDP) and Intelligent Virtual Agents (IVA) to automate parts of processes that are content-intensive and involve unstructured data sources and/or customer interactions.
  While process automation expands the scope to end-to-end processes, it is still carried out in siloes across different functions and business units with minimum cross-business benefits. It certainly helps improve the quality and efficiency of operations; however, these benefits are restricted to individual business units due to the absence of an enterprise-wide automation strategy
- **Intelligent Automation at scale** – IA at scale embeds automation in the organization's DNA. It transforms the way enterprises think about their operations and creates the opportunity to reimagine their business by seamlessly integrating technology, processes, and people, to achieve tangible business outcomes beyond cost and operational improvements. Intelligent automation employs an organization-wide automation strategy and drives these initiatives at scale to ensure that the enterprise realizes the impact and benefits across all business units and functions

Intelligent automation blends RPA with Artificial Intelligence (AI)-based technologies such as IDP and IVA and other ancillary technologies such as process mining, process orchestration, and analytics. IA at scale may also include bespoke AI solutions leveraging ML, NLP, computer vision, and deep learning to enable human-like decision-making capabilities. IA at scale enables a digital-first business by adopting these technologies within a broader business context and enabling efficient orchestration of work among human agents, digital workers, and enterprise systems

EXHIBIT 2

Stages of automation

Source: Everest Group (2021)



	Task automation	Process automation	Intelligent automation at scale
Scope and approach	• Limited to automating transactional and repetitive tasks • Focus on low-hanging fruit to achieve quick wins	• Automating end-to-end processes, including judgement-intensive tasks • Executed in siloes across different functions and business units	• Focus on transforming operations leveraging an organization-wide automation strategy • Driving automation initiatives at scale by automating processes that span multiple business units and functions
Technologies leveraged	Standalone RPA	RPA + AI-based point solutions such as IDP and IVA	Holistic adoption of RPA and AI-based solutions (e.g., IDP and IVA), process mining, process orchestration, and analytics
Expected benefits	Reduced manual effort, faster processing, and fewer errors	• Improved quality and efficiency of operations • Enhanced employee productivity	• Digital-first business with reimagined processes • Enhanced customer and employee experience

A fragmented process automation approach can help make some processes across various business units/functions more efficient and drive quick cost savings; however, it typically fails to deliver transformational benefits. The inability to manage a hybrid workforce and successfully orchestrate work between human and digital workers leads to inefficient utilization of the deployed automation solutions, resulting in sub-optimal returns.

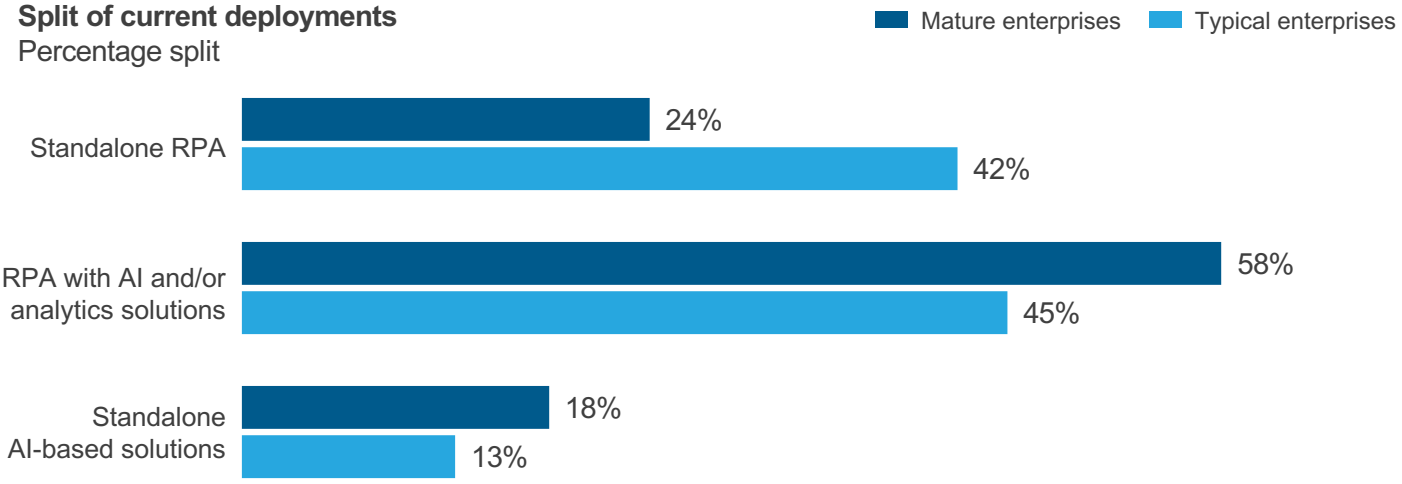
While many enterprises have successfully piloted process automation initiatives for low-complexity use cases, they struggle with scaling these projects to enterprise-wide programs. Consequently, the value realized from these initiatives remains much lower than the overall potential of constituent technologies. Scalability issues primarily arise because of the absence of a unified view across business operations, fragmented processes, and limited process visibility, which results in siloed automation deployments. With the onslaught on traditional operating models by the COVID-19 pandemic and the urgency created to transform businesses, some enterprises are aiming to skip these traditional stages to accelerate the shift to IA at scale by creating an enterprise-wide IA strategy and/or embedding IA into the broader digital transformation initiative.

Currently, most mature adopters are between the process automation and IA at scale stages as they continue to expand the scope of the technologies adopted and scale automation to every part of the organization. Mature enterprises are also deploying a higher share of standalone AI-based, or a combination of AI, RPA, and analytics solutions, as compared to typical enterprises, as illustrated in Exhibit 3.

EXHIBIT 3

Scope of automation technologies adopted by mature enterprises vs. typical enterprises

Source: Everest Group (2021)



80% of both mature and typical enterprises have invested in AI-based solutions such as IDP and IVA as part of the IA program

IDP and IVA technologies account for **30-35%** of the total IA-related investments

Share of investment in process orchestrator / BPM solutions is **~22%** for mature enterprises while it is **~16%** for typical enterprises

Though a higher number of mature enterprises have deployed process mining solutions compared to typical enterprises, it only accounts for **4-7%** of the total current investment

The primary goal of adopting IA at scale is to enable a digital-first business with lean, resilient, and agile business operations. Scaled adoption of IA technologies is opening new vistas to attain next-generation efficiency, accuracy, scalability, compliance, and employee and customer experience benefits, as well as cost reduction, as described in the next section.

Benefits achieved through successfully scaled automation initiatives

The journey to becoming a mature adopter from typical enterprise involves a mindset change and shift to focusing on outcomes beyond efficiency to include enhancing customer/employee experience, increasing top-line growth (such as identifying cross-/up-sell opportunities and reducing time-to-market), and redefining the business models, among others.

Mature enterprises have made considerable progress in scaling up automation initiatives, leading to significantly superior business benefits including:

- **Strategic benefits –** revenue growth, Return on Investment (ROI), business continuity, higher customer satisfaction, better employee experience
- **Cost impact –** cost savings, FTE capacity created, increased number of automated hours
- **Operational impact –** higher employee productivity, operational efficiency and quality, shorter turnaround time, better governance/compliance

Exhibit 4 shows how mature enterprises tend to achieve far better outcomes than typical enterprises.

EXHIBIT 4

Outcomes achieved by mature enterprises vs. typical enterprises

Source: Everest Group (2021)

	Mature enterprises	Typical enterprises
Return on Investment	70% achieved > 50% ROI 25% achieved > 100% ROI	24% achieved > 50% ROI 41% achieved 26-50% ROI
Cost savings	50% generated US$10-50 million savings 38% generated > US$50 million savings	24% generated US$10-50 million savings 68% generated < US$10 million savings
FTE capacity created	82% created capacity worth 500-2,000 FTEs	71% created capacity of < 500 FTEs
	Total hours saved through automation: **3.5x** for mature as compared to typical enterprises	
Key areas with maximum improvement over pre-automation scenario	In addition to operational impact, mature enterprises experienced improvement in • Business continuity planning • Employee experience	Typical enterprises saw improvement primarily on the operational metrics such as • Efficiency and turnaround time • Employee productivity

Percentages indicates respondents in each category that selected that option

Barriers to scaling up automation programs

While the impact mature enterprises have achieved across the various outcome metrics is quite encouraging, it is important to understand the key factors/challenges that inhibit typical enterprises from realizing these same benefits. With increasing knowledge and understanding of automation technologies, enterprises have made significant progress in transitioning from task automation to process automation. However, a majority of enterprises continue to face barriers to successful IA adoption and scaling. The top challenges faced by enterprises as they navigate the journey coalesce around the five key themes depicted in Exhibit 5 and described below.

EXHIBIT 5

Barriers to scaling automation programs

Source: Everest Group (2021)

Top challenges typical enterprises face in scaling automation	% of typical enterprises indicating as key barrier
Removing roadblocks from compliance and security functions	68%
Accessing experienced resources	65%
Implementing the right change management strategy	62%
Creating a robust automation strategy and roadmap	56%
Maintaining a healthy pipeline of opportunities	44%

Mature enterprises consider implementing the right change management strategy to be the key barrier to unlocking the next phase of growth.

- **Removing roadblocks from compliance and security functions –** Automating end-to-end processes that span multiple enterprise systems requires organizations to provide access to business and customer data. Obtaining buy-in from compliance and IT security functions is critical to allow robots / digital workers to access sensitive data such as Personal Identifiable Information (PII) to execute enterprise-wide automation projects. Engaging internal audit teams to scope and test automation solutions in the design phase can help surface risks and ensure proper governance and controls from the outset, helping to avoid unintended compliance consequences. In addition to setting up and scaling the infrastructure for hosting/deploying IA technologies, involving enterprise IT sooner than later can help remove roadblocks from a compliance standpoint and address concerns around data protection

- **Accessing experienced resources –** IA solutions' potential can be realized only when enterprises acquire or develop relevant talent. Enterprises need employees with the knowledge to understand IA solution capabilities and the skills – such as programming knowledge, data transformation, and building AI models – to implement them and scale adoption. Shortages of skills and practical knowledge to develop, manage, and implement automation solutions impede progress. Difficulty in acquiring and retaining automation-skilled talent and high training costs to develop in-house skills further limit talent accessibility and pose a significant threat to project success
- **Implementing the right change management strategy –** Automation initiatives often face resistance from various teams within an organization. Apprehensions around job security and skepticism about the changes IA can bring in could create a negative sentiment and slow or derail IA projects. A lack of change management and governance results in enterprises' inability to build an inclusive culture that incentivizes people to adopt new technologies and ways of working in hybrid workforce environments
- **Creating a robust automation strategy and roadmap –** The lack of a robust automation strategy is one of the key inhibitors to scaling up automation. Building an automation strategy involves defining a forward-looking vision, developing a detailed technology roadmap, identifying the right stakeholders, and constituting the appropriate operating model and governance structure. Lack of executive sponsorship and C-suite buy-in leads to gaps in vision / strategic planning to move away from a siloed process automation approach
- **Maintaining a healthy pipeline of opportunities –** Another major challenge that organizations face is the inability to maintain a healthy pipeline of processes to automate when scaling up. Organizations embark on their journeys by targeting obvious automation opportunities. After the initial wave of benefits from low-hanging fruits dries up, they often find it difficult to identify additional opportunities and find ways to connect opportunities across different technology solutions for achieving outcomes at scale, resulting in considerably slower progress

Key success factors for scaling up automation initiatives

Mature enterprises have leveraged a variety of levers to overcome barriers to scaling IA initiatives. Many of these levers overlap and intersect, so using them in combination results in the greatest benefit. The most prominent concepts are described below.

Executive sponsorship and funding

Strategic focus and executive backing provide direction to an enterprise's IA initiatives and help tie them back to the organization's overall strategic objectives. Gaining timely executive support and dedicated funding is critical to ensuring a detailed roadmap and successful implementation.

> Mature adopters say that successfully securing sponsorship from executive leadership at the nascent stages of the automation initiative laid the essential groundwork of the automation program.

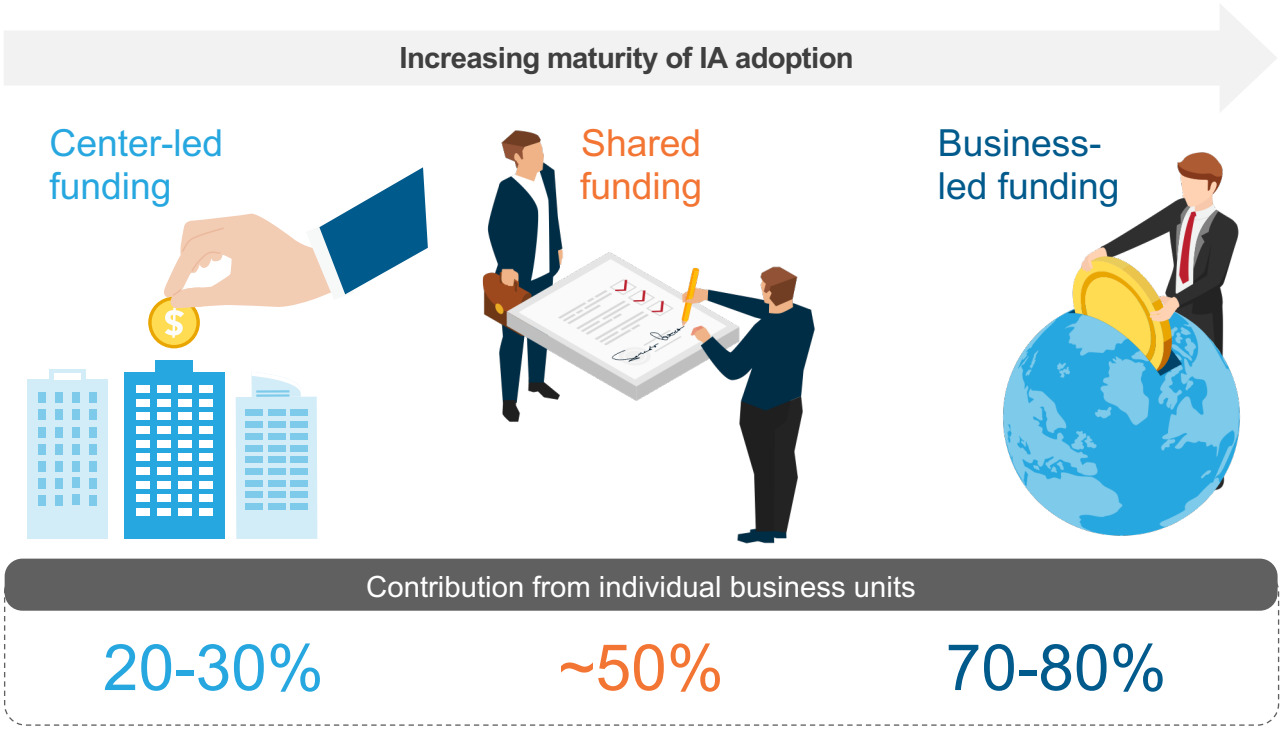
Gaining executive support played a pivotal role in the initial phases, which included setting up the automation CoE, establishing the governance structure, identifying the right technology and use cases to start with, identifying suitable vendors and service partners, conducting POCs, acquiring the right talent, and laying the foundation to build internal capabilities.

Mature adopters focus on selecting the right projects for POCs as they demonstrate the enterprise vision and act as litmus tests to assess the technology's potential. When projects start generating tangible benefits to the business, they are aggressively marketed across the organization; when business units see the value, they show greater interest in, and demand for, automation projects within their own business units and functions. As these automation programs scale up, funding for the programs also transitions from primarily centrally funded to a mix of central and project-based funding, wherein the contribution from individual business units and functions increases.

EXHIBIT 6

Evolution of funding for IA initiatives

Source: Everest Group (2021), Based on inputs from market players, practitioners, data collection exercise, and Everest Group's ongoing interactions with enterprises



This change goes well beyond simply the funding source – it also demonstrates a crucial shift in mindset. When the individual business leaders have skin in the game, they are both financially and emotionally invested in the success of these projects. It not only helps instill a greater sense of ownership in the functional and local business leaders but also accelerates adoption as they hold greater responsibility for generating demand and identifying new use cases to maintain a healthy automation pipeline.

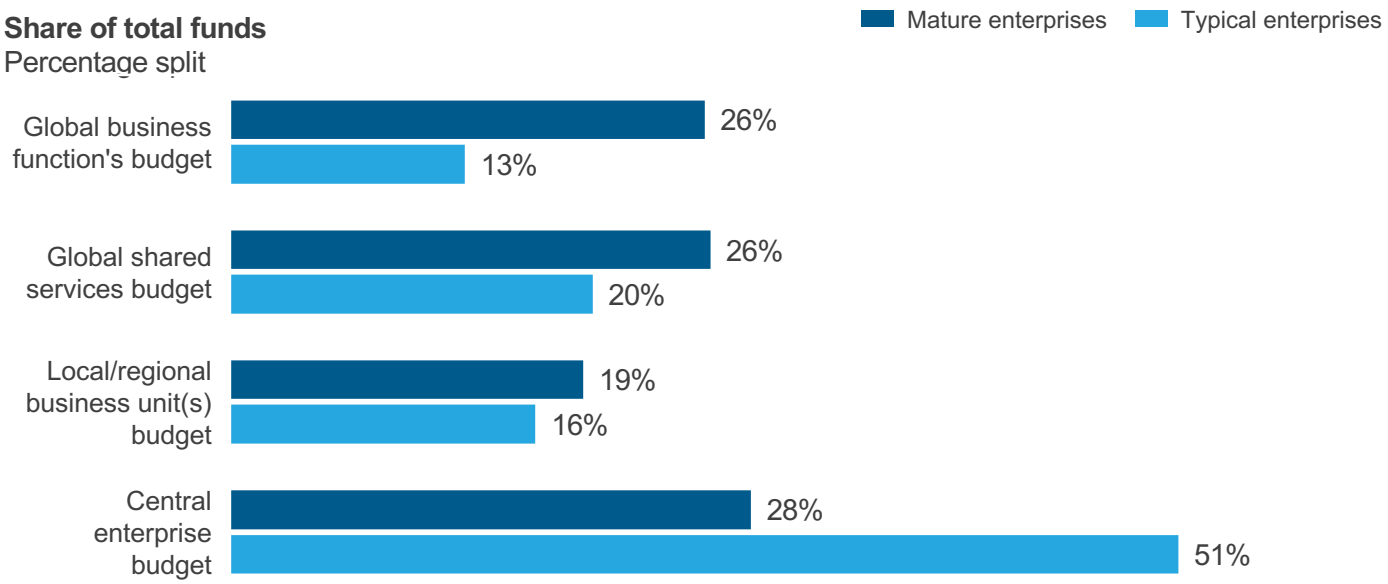
According to executives in mature enterprises, 70-80% of their automation sponsorship comes from global business functions, local/regional business units, and global shared services units, while the remaining 20-30% coms from the central enterprise / IT budget to cover shared expenses and CoE-related investments.

In contrast, about 75% of typical enterprises that are in the earlier stages of automation say enterprise CXO leadership is the primary sponsor for their automation initiatives, with about 50% of the funds driven centrally.

EXHIBIT 7

Source of funding for IA initiatives

Source: Everest Group (2021)



Programmatic approach for use case identification

Top-down vs. crowd sourced approach to identifying use cases

While the traditional top-down approach of idea generation / use case discovery is common among typical enterprises, crowdsourcing is more prevalent among mature enterprises. The top-down approach may have a higher conversion rate from discovery to implementation, but it requires considerably higher change management effort during the execution phase due to high employee resistance. Also, a top-down approach often involves a longer time period between identification and development, decelerating momentum and altering/reducing benefits due to potential process changes by the time the automations are deployed.

To overcome this challenge and manage change better, mature enterprises are taking a bottom-up or crowd-sourcing approach to use case identification. These approaches have the added benefit of more ideas coming from process owners themselves. To drive citizen-led discovery, many mature enterprises have set up dedicated portals where business users can submit automation ideas. The automation CoE monitors and prioritizes this pipeline of ideas based on factors such as the scope of the automation, reusability potential, process criticality, potential cost savings / ROI, productivity gains, and impact on business continuity.

While idea generation among typical enterprises is primarily driven by the CoE or by leveraging third-party service provider support, there is evidence indicating that business unit employees start to contribute actively to idea generation / discovery in mature enterprises as the crowd-sourced model becomes prevalent.

For mature adopters, the number of non-CoE business employees contributing to idea generation is roughly **3x** that of CoE resources.

Some mature enterprises stand out as leaders in building and scaling their crowd-sourced discovery models. A common theme across these organizations is that they invest money and effort into driving awareness about the automation initiatives and the generated benefits across their enterprises. Mature enterprises share automation success stories through a variety of channels such as newsletters, demonstration videos, enterprise-wide briefing calls, awareness seminars, and training programs. The communication highlights the benefits to the organization and emphasizes the value to employees in terms of reduced time spent on manual, mundane, and repetitive tasks and freed up bandwidth for higher-value work. Most enterprises have also implemented monetary and non-monetary incentive programs, such as reward points and award titles to value active contributions to idea generation.

Technology-driven process discovery

Process mining technology has gained significant traction in the last couple of years. Process mining utilizes a data-based approach to process mapping wherein system event logs and/or desktop recordings of user activities are analyzed to recreate process maps. Along with the process maps, it provides detailed step-level information such as time, cost, volume, and frequency of each activity.

Some of the mature enterprises say that identifying the high potential use cases for automation early on could have helped them achieve faster and better outcomes. While automating simple activities might result in quick wins, it is crucial to understand the utility of such automations to the operational users. Automating tasks in which manual effort is high or users often make mistakes might result in greater impact than automating extremely transactional activities.

Over **50%** of mature enterprises have invested in process mining technology.

Mature enterprises are leveraging process mining primarily to develop a data-based understanding of complex processes that span multiple enterprise systems, are highly time-consuming, and involve multiple FTE handoffs. They are seeking to leverage process mining to identify potential tasks / use cases for automation and prioritize them based on their automation potential. For mature enterprises, opportunities identified using process mining accounts for 11-25% of the current automation pipeline, whereas for typical enterprises it accounts for less than 10%.

Operating model and IT alignment

CoE and governance structure

Pilots seldom fail, but programs are often difficult to scale – this is the harsh reality of IA initiatives. Several enterprises have been able to demonstrate successful pilots that give rise to a string of initiatives across business units. Many enterprises at this stage do not have a dedicated CoE for IA. Automation teams and Subject Matter Experts (SMEs) from individual business units collaborate to establish standards and drive automation initiatives – typically in a reactive fashion. However, within a few months, due to the lack of centralized governance, enterprises start to face challenges such as maintaining consistent automation quality, navigating compliance and security requirements, difficulty in identifying the right use cases, and an inability to optimally utilize the deployed automations.

Such fragmented initiatives are often difficult to scale as the myopic lens adopted for PoC projects may not resonate with the needs of the broader organization. Today, as automation is becoming part of the C-suite agenda, increasingly being tied to organizational strategic objectives, the operating model acts as a key to translate the strategic intent to operational capabilities.

Formulating and **empowering the CoE** early in the automation journey is one of the most common success factors most mature enterprises endorse.

A CoE provides a foundational structure and governance framework for successful automation execution, ensures strategic alignment among all the stakeholders involved, and equips the enterprise with a forum to share resources and discuss challenges and best practices. It also helps in value management, evangelizing the IA capabilities, and spreading awareness of the benefits.

During the initial adoption phase, a centralized CoE can play a critical role in identifying high-value opportunities that translate into success stories to help sustain automation program momentum. The CoE is also empowered to decide which capabilities to build internally versus with support from technology vendors and third-party service providers.

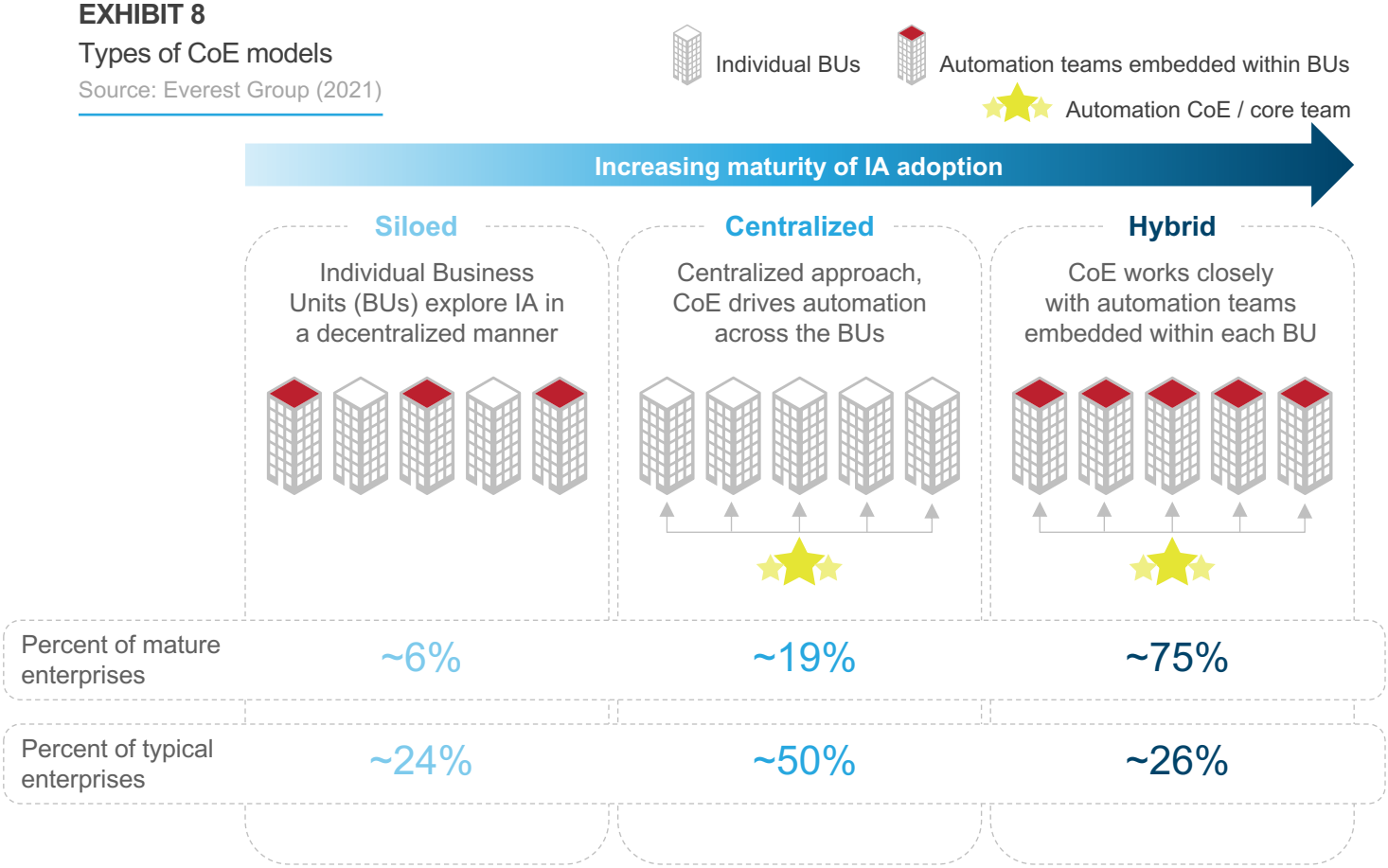
As the automation program matures and greater demand grows among business units/functions, a centralized CoE can often find itself devoid of resources and unable to understand and solve for different business needs. Mature enterprises say this is an inflection point at which the CoE must also undergo a structural change and transform from a centralized CoE model to a hub-and-spoke or hybrid model with better distribution of roles and responsibilities. In a hub-and-spoke CoE model, the central CoE hub works in close collaboration with business units to drive IA initiatives. While it holds primary ownership for setting governance standards, establishing risk control mechanisms, and measuring the effectiveness of the automation program, it directly manages only enterprise-wide automation projects. Decentralized automation teams within each business unit act as CoE spokes and are responsible for operationalizing the short- to mid-term automation strategies for the business unit in compliance with the governance framework put in place by the CoE hub.

About 75% of mature enterprises have a hub-and-spoke automation CoE, while approximately 75% of typical enterprises have centralized automation CoEs or follow a siloed approach. As greater ownership of automation moves to the business units, the shift in the operating model helps drive automation programs more effectively.

EXHIBIT 8

Types of CoE models

Source: Everest Group (2021)



Increasing prevalence of citizen-developer model

Mature enterprises are increasingly using a citizen-developer model, wherein business resources or SMEs play a key role in the development and delivery of automations. Benefits of a citizen-developer model include accelerated opportunity identification, better business context, less need for knowledge transfer to IT, improved process visibility, and – importantly – better change management. However, it is crucial to show quick results to minimize the likelihood of losing momentum and support.

Typically, citizen developers-created automations are narrower in scope and customized to the requirements of the specific team or unit. However, some enterprises that have more mature citizen-developer models say that automations developed by business teams can account for up to 50% of the productivity gains from its overall automation program.

66% of enterprises say citizen development is a part of their automation strategy.

Mature enterprises say that enabling a citizen-developer model is key to driving IA adoption at greater velocity and scale. Initiatives that have helped adopt a structured approach to the citizen-developer model include:

- Identifying the right talent to groom as program torch bearers
- Establishing a robust operating model that creates opportunities for higher in-house participation in automation development
- Educating management to provide flexibility in selected employees' work schedules / targets to encourage participation in the citizen-developer program
- Implementing dedicated training programs to develop in-house automation skills and support continuous learning and upskilling to ensure the quality of citizen-developed automations
- Creating a culture of innovation and design thinking across the organization, such as by conducting innovation challenges and rewarding the contributions made to creating reusable automation assets

Partnering with IT is crucial to the success of the automation program

The IT function is a key stakeholder in an enterprise's automation initiative. Ensuring that enterprise IT is on board from the start is crucial to program success, as it helps in understanding the current application landscape and infrastructure requirements for relevant technology implementations, as well as in addressing data security and privacy considerations (such as access to system data and enterprise applications). Automation implementation can be significantly delayed and value realization can get impacted if IT is not involved early.

In addition to leveraging IT teams for infrastructure set-up, about **70%** of mature enterprises say they have significant involvement of the IT function in automation program performance monitoring and ongoing digital workforce maintenance.

While IT staff members who are part of the CoE hub help validate and assess the feasibility of the use cases business users submit, mature enterprises say that the IT team can also play a key role in conducting workshops with business/operational users to help them understand the technology and its potential. This training enables them to identify appropriate use cases, especially as organizations adopt more AI-based solutions as part of their intelligent automation programs.

Talent and change management

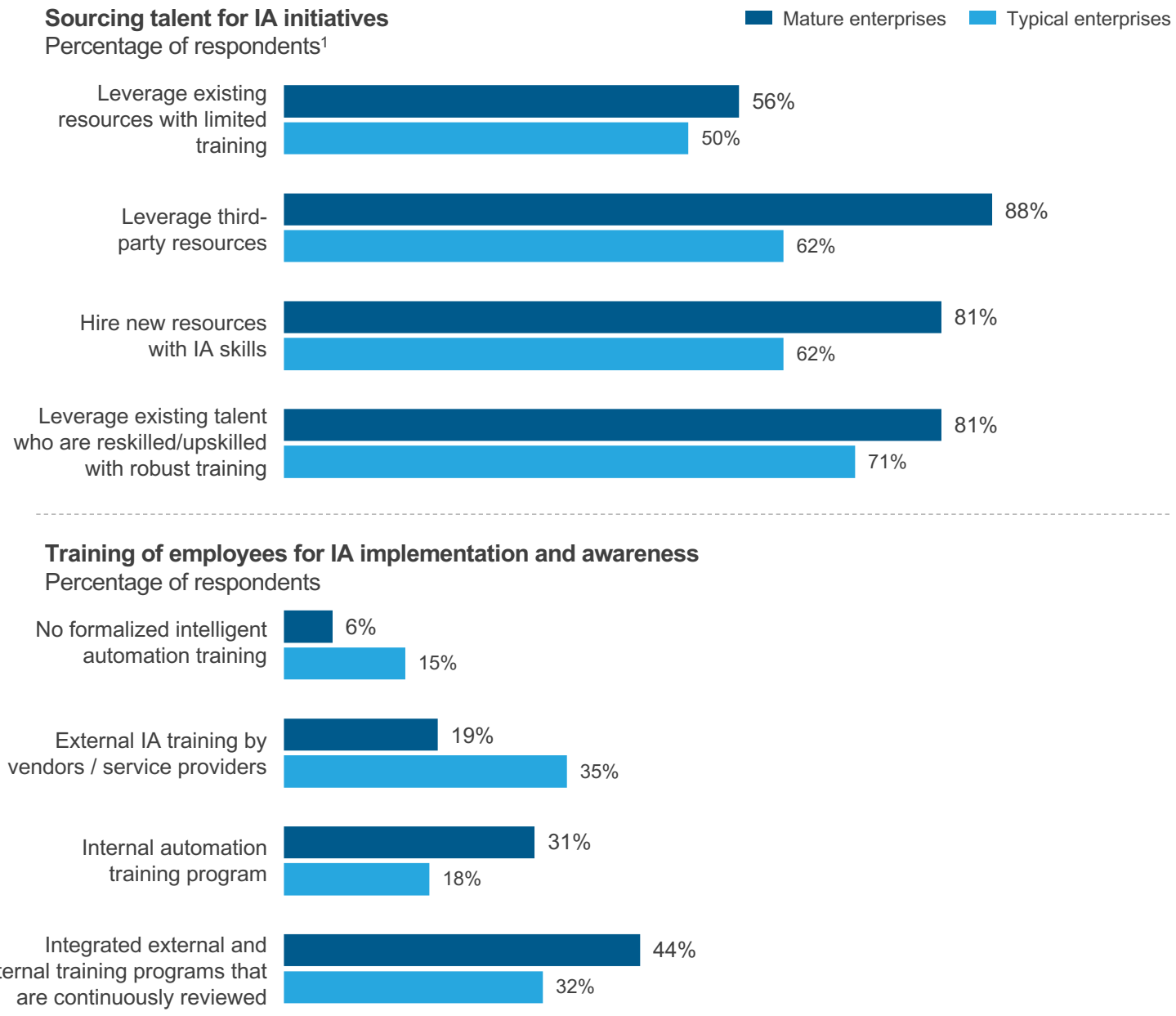
A key to success among mature enterprises is focus on, and investments in, developing effective talent and change management programs. Of the three key elements of successful organization-wide transformation – people, processes, and technology – the people component is the key to overcoming challenges such as resistance to change and a misplaced fear of automation. Mature enterprises have implemented a variety of people-centric programs and initiatives to overcome some of these challenges.

Enterprises use a number of strategies to secure the right talent for automation initiatives, including upskilling/reskilling programs, leveraging third-party resources, and hiring new resources with IA skills. Most mature enterprises go a step further to actively look outside their organizations for the right automation skillsets: 88% leverage third-party resources, and 81% hire new resources with relevant IA skills. In contrast, most typical enterprises do not invest as much to bring external skillsets: only 62% use third-party resources. Sole reliance on internal resources can delay the pace of automation programs.

EXHIBIT 9

Talent management

Source: Everest Group (2021)



1 Numbers do not sum to 100% as respondents had the option to select multiple options for this parameter

Successful adopters emphasize educating resources (especially first-line managers) and creating awareness of automation capabilities. They use a well-structured and systematic approach through multiple training avenues to spread awareness, train functional leaders, and upskill business resources. Among mature enterprises, 44% leverage consciously built, integrated external and internal training programs, which are continuously reviewed and optimized for relevant RPA and AI skills. Additionally, mature enterprises encourage business users with non-technical backgrounds to take training on relevant skill sets to expand the depth and breadth of the available talent pool.

They also track metrics such as the number of staff members trained and the extent of participation of trained talent in automation initiatives to measure the effectiveness of their training programs. Some enterprises also develop a range of educational assets such as presentations, videos, and case studies as a part of the awareness drive. In managing staff impacted by automation, most typical enterprises directly redeploy employees to other parts of the organization; however, mature enterprises look for ways to augment their capabilities by reskilling/upskilling them before redeploying, thereby increasing the value they can deliver.

A key winning insight mature enterprise shared is to ensure regular and proactive communication of the enterprise vision and reason for adopting automation. It is extremely critical to effectively communicate/position automation within the organization to ensure that employees consider it a means to reduce tedious, repetitive manual work, and an opportunity to focus on more productive and rewarding work. Effective change communication also highlights the upskilling/reskilling programs as a chance for career progression. Identifying change agents from within the business teams can play a key role in developing an inclusive culture to dispel concerns around digital workers replacing human workers. Mature enterprises emphasize the importance of charting a plan to address impacted employees, providing guidance around alternate career paths and creating new automation-focused roles.

Approximately 50% of mature enterprises say they have seen increased participation from the automation CoE in co-leading the change management program in cooperation with business function heads. It is essential to have a clear division of roles and responsibilities among stakeholder groups, such as the CoE conducts workshops to communicate the vision, business heads drive regular discussions to address concerns, and HR takes responsibility for communicating plans to manage impacted employees. However, most typical enterprises take a siloed approach to change management, implementing changes at the individual business unit-/function-level, without much involvement from the CoE in launching dedicated initiatives to effectively drive an organization-wide communication and change management effort.

Automation program performance monitoring

As automation initiatives are tied to business objectives, organizations typically track outcomes using metrics such as cost savings, ROI, and FTE capacity created, to measure the impact achieved. However, mature enterprises are increasingly employing other metrics to track automation program performance, which also evaluate program success from an operational performance perspective.

Enterprises that are in the early stages of automation typically use traditional metrics to define the scale of the automation program, such as the number of robots / digital workers deployed or number of licenses in place. However, these metrics do not provide a true picture of the scale of automation, as they neither account for the complexity of the use cases being automated nor assess the efficiency of the enterprise-wide automation initiative. Hence, as the automation program matures, organizations start to look for more holistic metrics that can help improve operational decision-making to efficiently drive automation initiatives.

As Exhibit 10 demonstrates, mature enterprises use a set of integrated metrics covering aspects such as speed of automation implementation, use case complexity, the extent of reusability, and Straight-through Processing (STP) rate, to measure the capabilities developed and the efficiency of the program. In some cases, enterprises use these metrics as soft targets to nudge CoE spokes to push for better outcomes. While the speed of automation implementation varies significantly based on the complexity of the use cases, some enterprises are setting benchmarks and exploring the use of mandates for automation CoE spoke leaders to maximize reusability of automation assets, including vertical- / function-specific assets and automation activities/components, such as login and logout.

EXHIBIT 10

Measuring scale and efficiency of IA initiative

Source: Everest Group (2021)

Metrics	Prevalence among mature adopters	Prevalence among typical enterprises
Speed of automation implementation	■■■■■	■■■◧□
Extent of reusability of automation assets/codes	■■■■□	■■■□□
Straight-through Processing (STP) rates	■■■■□	■■◧□□
Number of use cases / sub-processes automated	■■■■◧	■■■■◧
IT infrastructure utilization	■■■◧□	■■◧□□
License utilization	■■■□□	■■◧□□
Number of robots/licenses	■■◧□□	■■■■□
Graphics Processing Units (GPUs) usage	■□□□□	◧□□□□

Over 75% of mature adopters use speed of implementation as a key metric to measure automation program efficiency, followed by extent of reusability and Straight-through Processing (STP) rate.

While the speed of automation implementation varies significantly based on the complexity of the use cases, some enterprises are setting benchmarks and exploring the use of mandates for automation CoE spoke leaders to maximize reusability of automation assets, including vertical- / function-specific assets and automation activities/components, such as login and logout.

With increasing leverage of the citizen-led development model, mature enterprises are focusing on improving the extent of reusability by leveraging a central repository or library to share assets developed for specific projects undertaken by a business unit / function with the broader organization. Over 50% of mature enterprises have achieved a reusability ratio of 20-40%. In addition to reducing the automation development time and cost, maximizing reusability also helps improve/ensure the quality and sustainability of automations created as these reusable assets are centrally managed by the automation CoE hub.

In addition to leveraging well-defined and standardized metrics to monitor their automation initiatives, mature enterprises ensure they revise these metrics and internal benchmarks regularly based on the maturity and type of technologies being used. Some mature enterprises have started to use FTE capacity created per robot / digital worker as a key metric to better understand the efficacy of their automation programs and tie it back to business outcomes.

Mature enterprises have achieved **2-3x FTE** capacity created per robot / digital worker, whereas the ratio for typical enterprises is **1-1.5x**.

Also, with the increasing adoption of AI-based solutions to automate more complex processes, enterprises need to measure metrics specific to AI models to ensure that these solutions are performing as intended. Mature enterprises are increasingly tracking metrics such as processing time, STP rate, and human intervention required to complete the process. Enterprises successfully leveraging AI/ML models say that continuously monitoring the accuracy of the model with real data is crucial to mitigating AI biases.

Leveraging third-party service providers for successful adoption and scaling up

External stakeholders, including third-party service providers, system integrators, and management consultants, play an important role in enterprise IA. The role of a third-party service partner also evolves as the enterprise transitions through the IA phases and spans various aspects as described in Exhibit 11.

As enterprises progress in their automation journey from planning to piloting to scaling up and steady state, it is clear that across most areas, mature enterprises tend to leverage third-party expertise more than typical enterprises to supplement their own intelligent automation expertise. In particular, mature enterprises use third-party service providers more in the early IA stages to

EXHIBIT 11

Third-party service provider leverage

Source: Everest Group (2021)

Areas where enterprises leverage third-party service providers	Percentage of enterprises indicating high leverage of third-party service provider: Mature enterprises	Typical enterprises
COE design and set up	81%	38%
Technology advisory	75%	41%
Process assessment and business case creation	63%	47%
Automation strategy and roadmap	63%	47%
Industry/domain use cases identification	56%	35%
Change management support	44%	35%
Training and education	44%	41%
Monitoring and maintaining the digital workforce	19%	26%

create awareness about the potential of IA technologies among stakeholders at different levels within the firm. Service providers can meaningfully contribute to business case development, gaining executive buy-in and sponsorship, and shaping the enterprise's long-term vision and automation strategy.

Given their prior and broader experience, third-party providers can guide enterprises in setting up the automation CoE and establishing the right governance standards/procedures to ensure a successful rollout of the IA program. They often assist enterprises in conducting the initial assessment of current technological capabilities and business needs to create the implementation roadmap. Third-party service providers can share best practices for identifying areas and use cases where PoC projects should be deployed to demonstrate quick value to business users as well as clear ROI to executive stakeholders. Mature enterprises say they seek technical guidance/advice from service providers to identify the right technologies and conduct due diligence to find the most suitable vendor/solution that aligns with their requirements.

As enterprises transition to the scaling-up stage, support from third-party providers can help refine the IA strategy and implementation approach. Providers can also play a crucial role in implementing and scaling up training programs to develop in-house resources and can lend support to citizen developers in conducting prototype projects without straining internal IT resources. Service providers can help enterprises evangelize automation capabilities among the employees and build change management frameworks and processes to overcome employee resistance and drive greater engagement and support for the initiative.

As the automation program gains stature, mature enterprises tend to leverage more in-house resources for ongoing monitoring and maintenance of the digital workforce, reducing dependence on third-party providers. However, when they want to expand the scope and scale of the IA program, mature enterprises generally drive innovation through third-party service providers by leveraging their expertise to adopt advanced technologies such as IVA, IDP, process mining, or bespoke AI-based solutions to automate more complex processes. This arrangement helps them continuously identify new opportunities for automation and innovation, enabling them to achieve greater value from their IA program.

Future outlook and conclusion

IA technologies offer significant potential for enterprises to transform their business models and evolve into digital-first businesses. COVID-19 has acted as a catalyst, making automation a strategic priority, with automation initiatives increasingly becoming a part of large transformation deals. While these challenges have led enterprises to consider implementing these technologies, most organizations run these programs in siloes with no enterprise-wide automation strategy, significantly negatively impacting value realization.

However, mature enterprises that have successfully driven IA initiatives at scale have achieved superior business outcomes from their automation investments. These enterprises have focused their efforts on critical factors and winning strategies including securing executive sponsorship, establishing the right operating models, ensuring early alignment with IT, driving citizen-led discovery and development, continuously monitoring automation program performance, and implementing a robust talent and change management strategy.

The IA ecosystem offers a strong arsenal of technologies to automate more complex processes; going forward, we expect enterprises to adopt more AI-based solutions and other complementary technologies such as process mining, process orchestration, and analytics, to augment RPA. As enterprises look to reduce deployment time and ensure faster ROI, we also expect adoption of pre-built function-, vertical-, and technology-specific packaged solutions/platforms to rise. To further increase automation penetration across the organization, enterprises would need to focus attention on further scaling their citizen-led models across business units/functions, while also ensuring avenues to maximize the reusability of these automation assets. Driving a mindset shift to increase involvement from business and improve employee engagement at the grassroots level will be a continuous effort.

Intelligent automation promises a great deal, and most enterprises today are barely scratching the surface of its opportunity. As is evident from successful scalers, following a few basic principles can help enterprises unlock exponential value and benefits.

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