

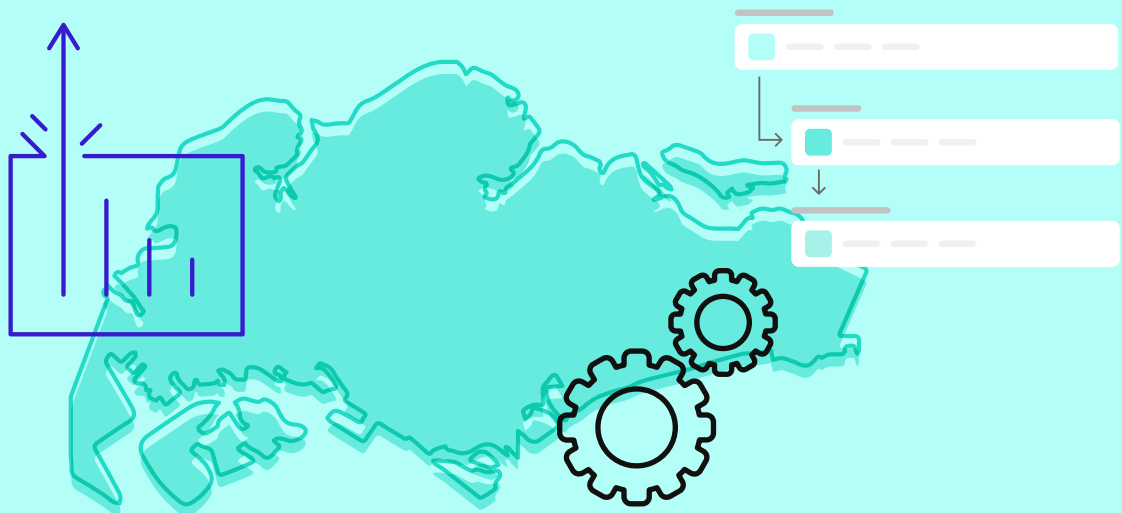
The State of Digital Automation 2023

SINGAPORE

*Based on the **State of Digital Automation Survey** conducted in H2 2022*

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Introduction

Digital automation fever has gripped the world with large and small enterprises in various stages of adoption. In Singapore, enterprise digital automation¹ is rapidly gaining currency. In 2021, Deloitte ranked the city 2nd in automation preparedness among APAC economies.² The pandemic has only hastened adoption, with businesses increasingly using automated solutions to reduce dependency on manual processes.

We wanted to dive deeper into what's driving large and small enterprises to embrace automation. What are their expectations from automation solutions, and how do they define success? How are they faring on their journey, and what impact have they seen? What does progress look like, and what are some roadblocks on this journey?

To find answers to these questions, Workato, the leading enterprise automation platform, partnered with SGTech, a non-profit trade association representing more than 1,000 companies in the innovation space. We surveyed over 100 leaders of large and small enterprises in Singapore, covering a wide range of respondents across business models, industries, job roles, and decision-making power (See Figs 1.1 & 1.2).

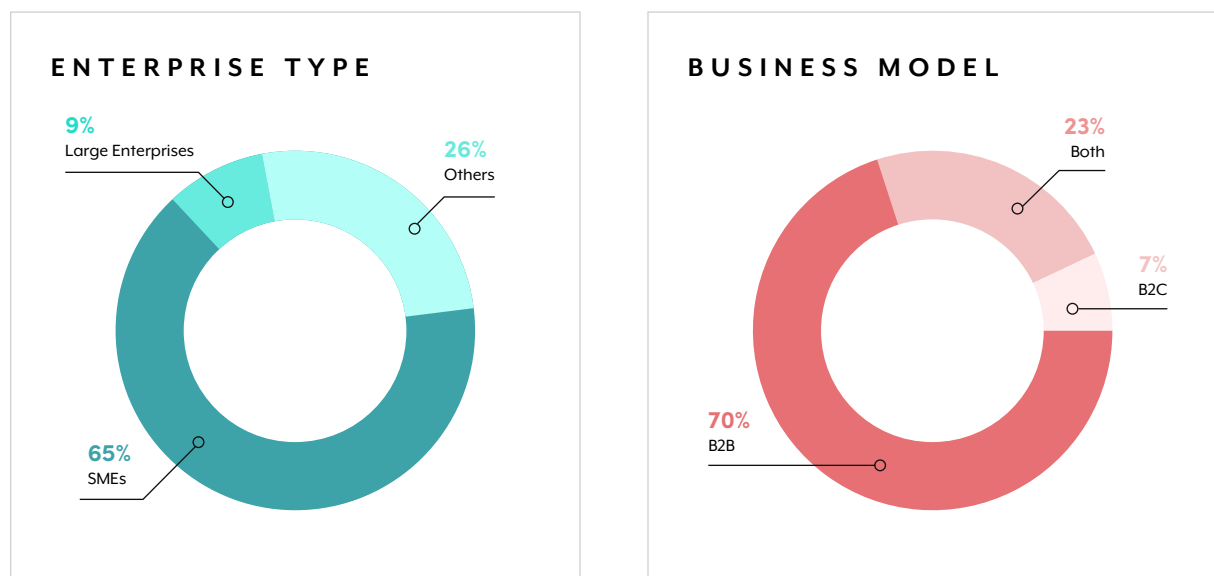


Figure 1.1: Respondent profile

¹Defined in this study as the process of using digital technology to automate business processes and workflows that typically require human interaction or intervention, specifically those that involve multiple stakeholders and/or teams.

²<https://techwireasia.com/2021/07/singapore-most-prepared-for-workforce-automation>

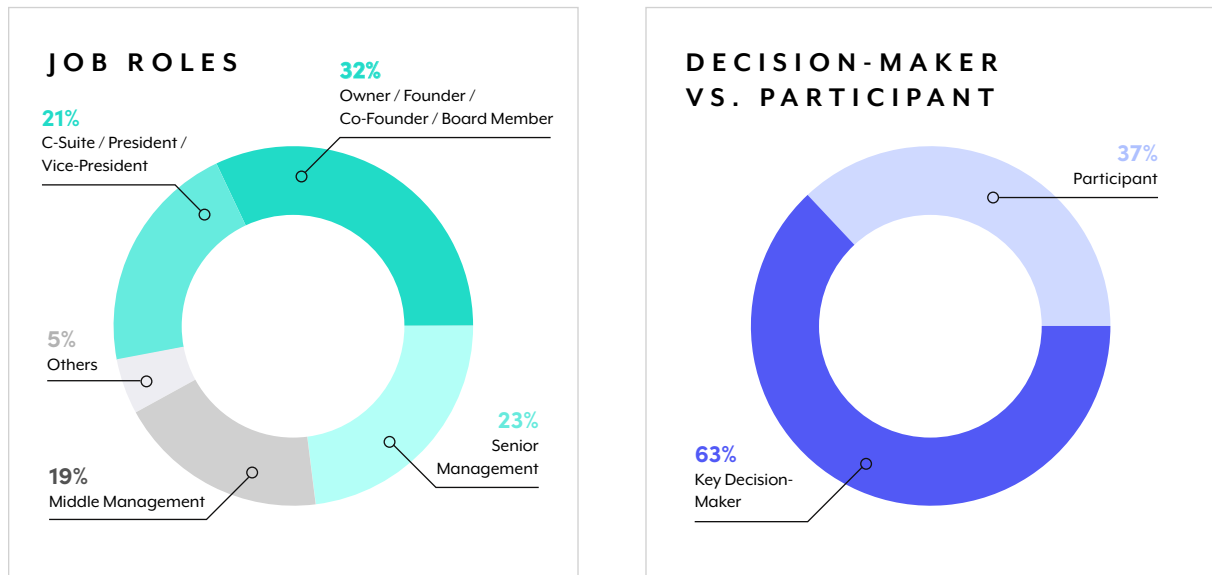


Figure 1.2: Respondent profile (continued)

The survey results, covered in this report, paint a comprehensive picture of how automation impacts organizations in Singapore and what the road ahead looks like. These findings will give you the perspective you need to create a richer automation blueprint within your enterprise.

Key findings

Singapore has always been Asia's hub for digital innovation and smart technology. But in terms of digital automation, the city has come a long way. For example, in 2014, just 7% of the work done by firms in Singapore was automated.³ Over the past decade though, the automation landscape in Singapore has changed dramatically. As our survey reports:

- Over **80%** of enterprises are now working with automation solutions.
- Automation has emerged as a key factor in business productivity, with over **50%** of respondents using it to drive productivity and efficiency.
- Despite budget cuts and technical hurdles, **82%** of enterprises saw positive results from automation in less than six months.
- Organizations that saw the most success (**78%**) implemented holistic automation plans involving cross-departmental stakeholders, like sales directors, marketing leads, finance heads, and IT staff.

³<https://www.straitstimes.com/business/economy/workplace-automation-in-singapore-expected-to-double-in-next-3-years-poll>

Automation is among the great technology levelers of the decade and will play a big part in building the future of Singapore. Our survey highlights that interest in automation remains high for 2023, with **81%** of respondents planning and earmarking budgets for automation (See Fig 2). However, to see high-impact results, there is a need to effectively manage organizational change, educate the customer on automation, and create no-code/low-code solutions.

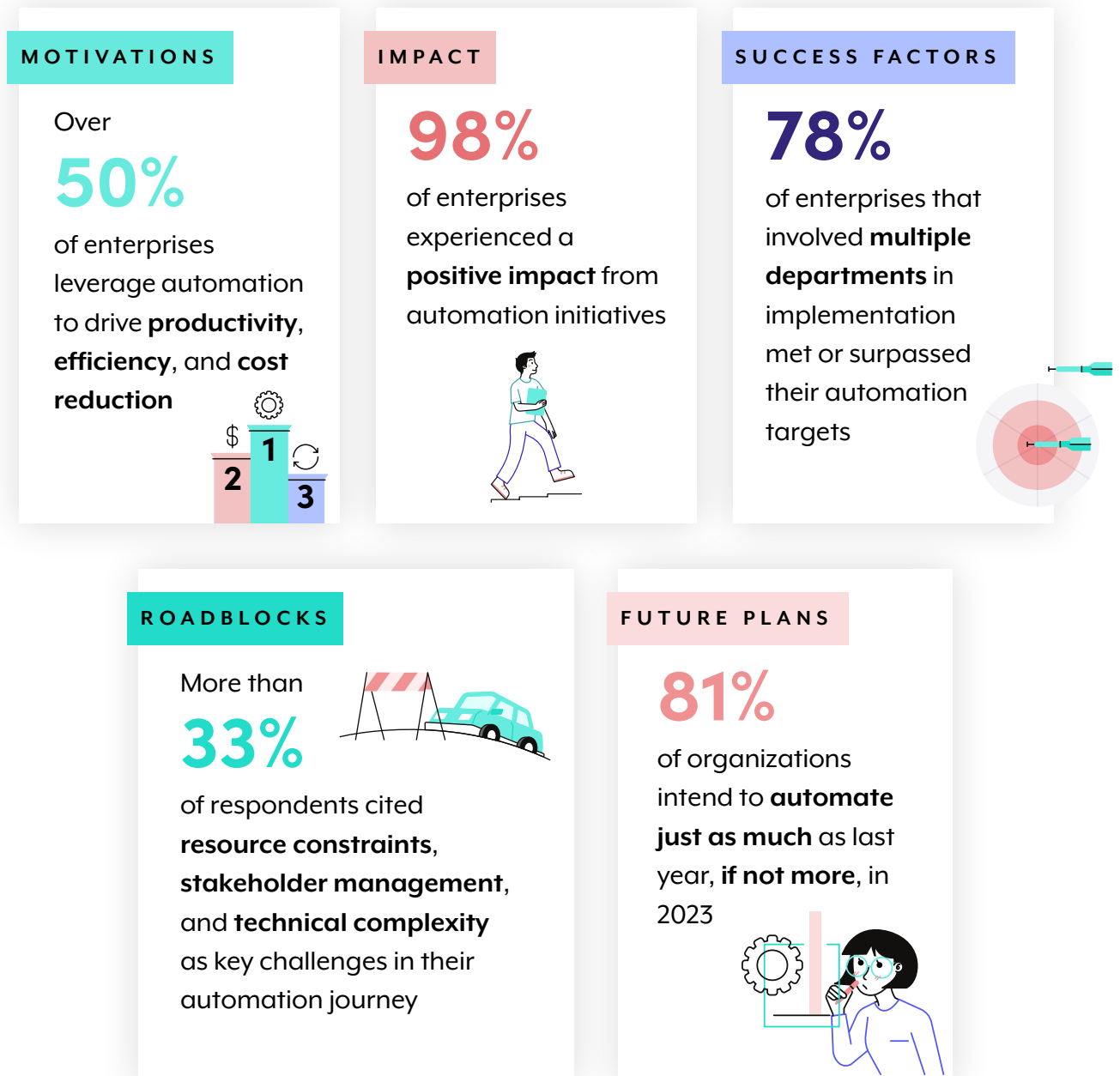


Figure 2: Key findings from the *State of Automation Report 2023*

1 If you say no to digital automation, you erode your competitive advantage

Having a competitive advantage lies in being able to do more with less. According to our survey responses, automation can help sharpen business outcomes by:

- Boosting productivity and efficiency within processes and the workforce (**79%**)
- Cutting back on hours of manual work and dependency on manual processes (**77%**)
- Reducing errors and inaccuracies (**64%**)

Moreover, enterprises that have adopted automation largely see it as a tool to improve consistency of outcomes, lower workforce spend, and drive up efficiency (See Fig 3.1). Interestingly, IT/Engineering, sales, and finance have been the departments that benefited most from automation (See Fig 3.2).

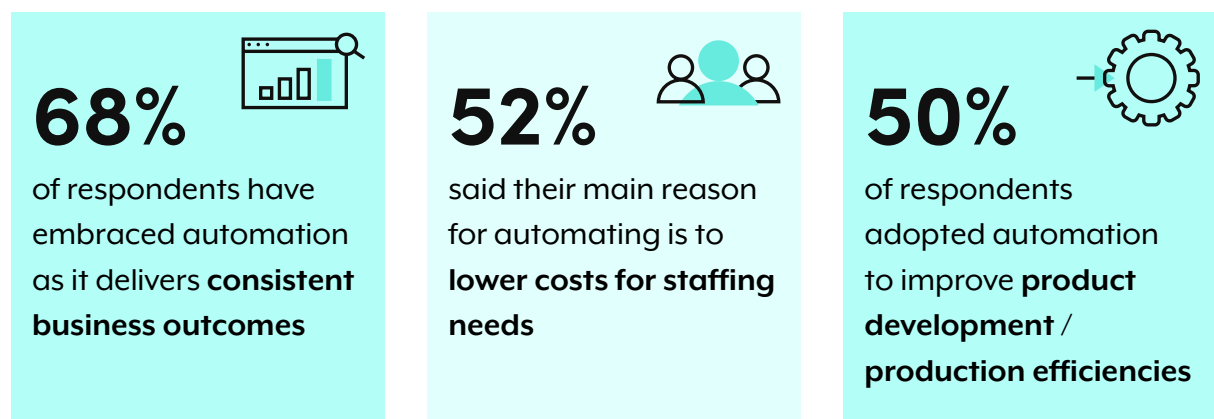


Figure 3.1: Key reasons for automation

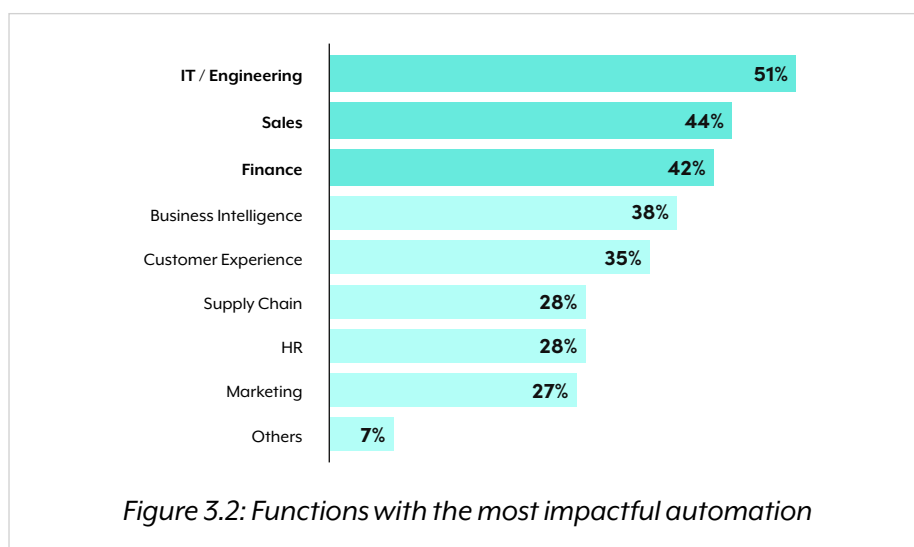


Figure 3.2: Functions with the most impactful automation

Digital automation is a necessity, not an option

The massive gains from automation have spurred adoption, and today over **83%** of enterprises in Singapore have already implemented at least one digital automation solution. Over half of these deployments are in business process management (BPM), followed by robotic process automation (RPA) and Integration Platform-as-a-Service (iPaaS).⁴ Among the companies that have not yet automated, **41%** intend to start in 2023.

Businesses ready to thrive in the digital age are investing heavily in automation and witnessing quick ROI. In fact, **79% of SMEs** and **63% of large enterprises** kickstarted their automation journeys within the last five years (See Fig 4).

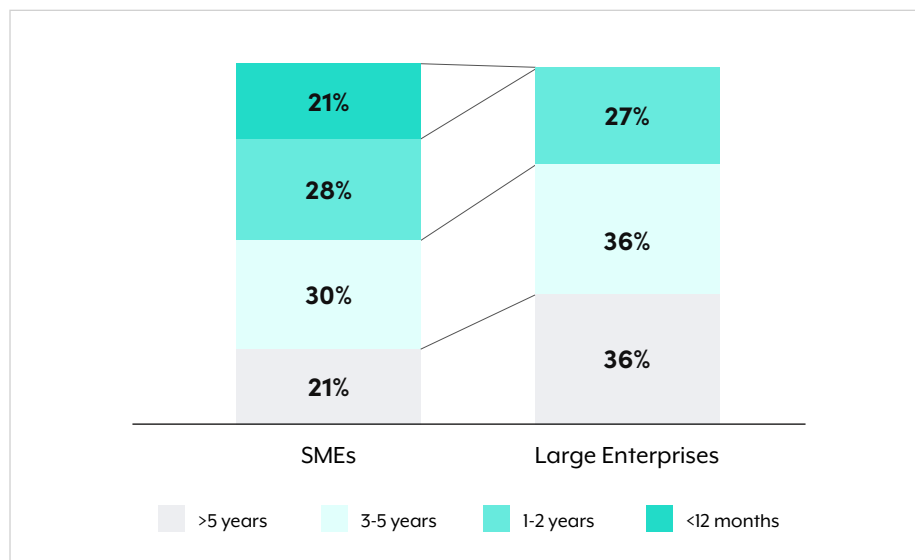


Figure 4: Timing of implementation by enterprise type

As automation adoption accelerates, companies will continue to rack up efficiency gains. In addition, they will be able to acquire greater data visibility and accelerate the pace of innovation.

The writing on the wall is clear — a rapid shift is happening in Singapore's business landscape, and those that lag on the automation curve will inevitably be left behind.

⁴BPM is the practice of modeling, analyzing, and optimizing end-to-end business processes to help meet strategic business goals.

RPA is a technology that mimics the way humans interact with software to perform high-volume, repeatable tasks.

iPaaS is a set of automated tools that integrate software applications deployed in different environments.

“Automation is fundamental to sustaining the momentum of digital transformation.”



ALLAN TENG
MANAGING DIRECTOR (ASIA PACIFIC & JAPAN)
@ WORKATO

2 Automation delivers business KPIs faster

There are great expectations from automation, and it is delivering on its promise. An overwhelming majority of respondents report a positive impact with stellar results in a very short time frame (See Fig 5). Most respondents have reported a reduction in manual work (**78%**), increased availability of real-time business intelligence (**64%**), and improved employee experience (**61%**). In addition, over **60%** of respondents have improved business processes by increasing the number of automated processes.

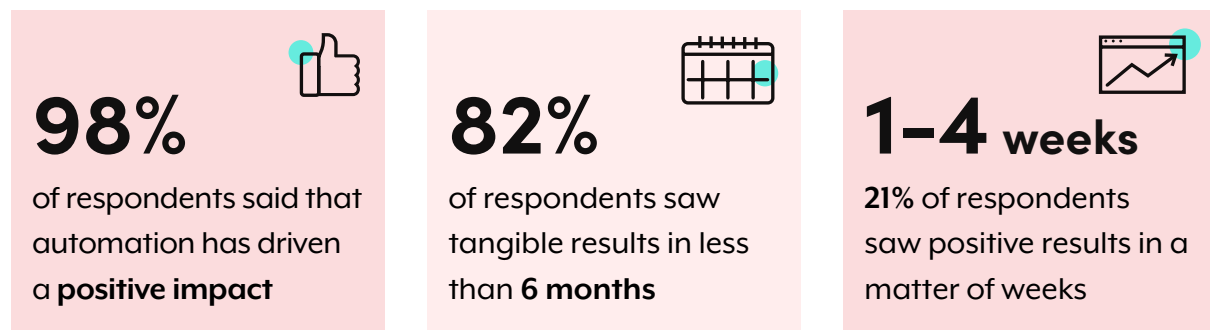


Figure 5: Automation impact

Automation can unlock significant business value

For a 21st-century digital business, speed, scale, and data-driven decisions are the key ingredients for success. Automation unearths hidden business potential by improving process efficiency and employee productivity while delivering valuable insights into operations (See Fig 6). For instance, by reducing repetitive, manual tasks, companies are freeing up valuable human capital for higher-order work. This has the dual benefit of increasing productivity and improving job satisfaction/employee experience. Similarly, automated real-time intelligence will enable adopters to respond and innovate faster in the face of changing market conditions.

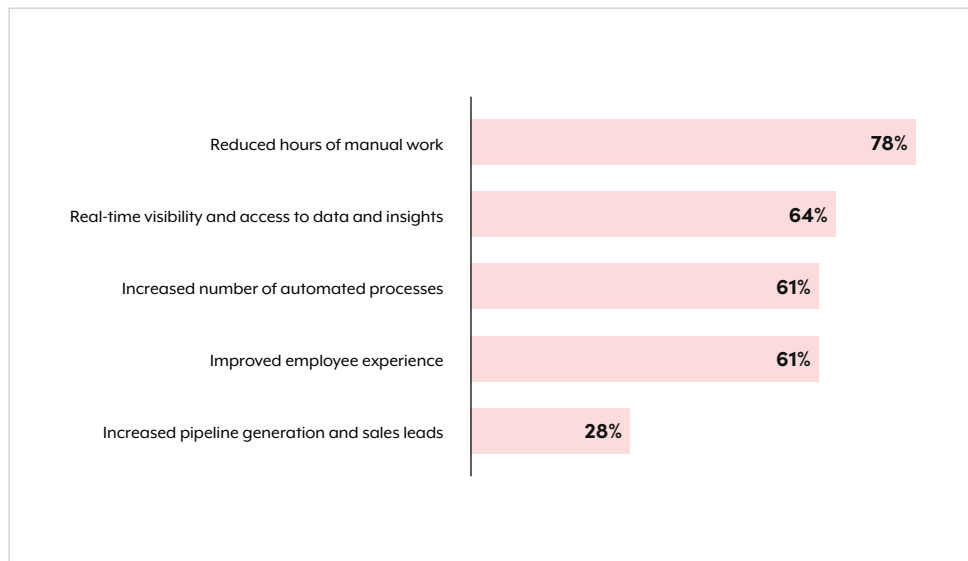


Figure 6: Results seen after implementation

As automation opens new business opportunities, we can expect an uptick in the demand for talent, especially in business intelligence, change management, and automation engineering.

“In Singapore, automation can prove to be a valuable asset to win the war for talent; a sure-fire way to improve top talent stickiness by delivering better employee experiences.”



KHOO CHOON YEN
HEAD OF PEOPLE OPS AND PEOPLE SYSTEMS
(ASIA PACIFIC & JAPAN) @ WORKATO

3 Budget constraints and lack of skills impede automation progress

While most companies see positive results from automation, it has not been smooth sailing for some. For **37%** of respondents, the progress on their digital automation roadmap has been less than expected. This is largely driven by budget constraints, followed closely by a lack of understanding and skills from internal stakeholders to fully utilize the solution (See Fig 7).

We also saw that enterprises further along in their automation journey reported different challenges compared to those that were just getting started. For example, budget constraints, reluctance to adopt a new system, and lack of utilization skills were uniformly cited as reasons for goals not being met in implementations that were less than two years old. On the other hand, in projects over three years old, **60%** of respondents said that solution providers could not meet their requirements.

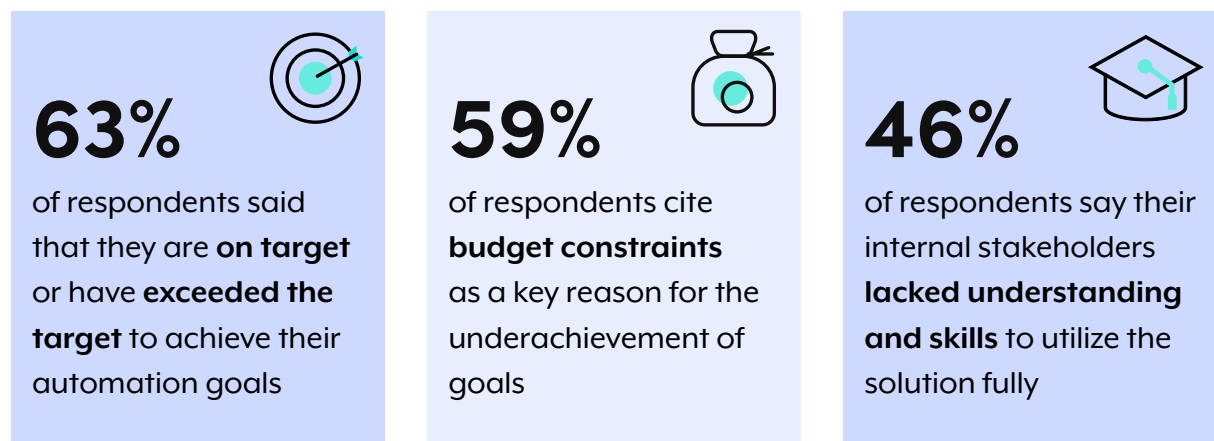


Figure 7: Automation progress and challenges

Even for those who have made the desired progress, the journey has come with challenges (See Fig 8). While stakeholder management (**41%**) was a core concern, over **36%** of respondents reported issues with process technicalities, noting that their automation solutions were often too technically complex to implement quickly. Not only did this slow down automation deployment, it also hindered uptake among business users. Another **33%** of enterprises also noted that an over-dependence on IT created bottlenecks, as technical staff were bogged down with requests from business users.

Challenges like these only serve to highlight why taking a low-code approach to automation is essential. Low-code automation platforms make it easier for business users to build, test, and deploy their own automation scripts, and take charge of departmental automation needs. By empowering staff to get involved in the organizational automation journey, enterprises can rapidly surge past the twin hurdles of adoption and change management.

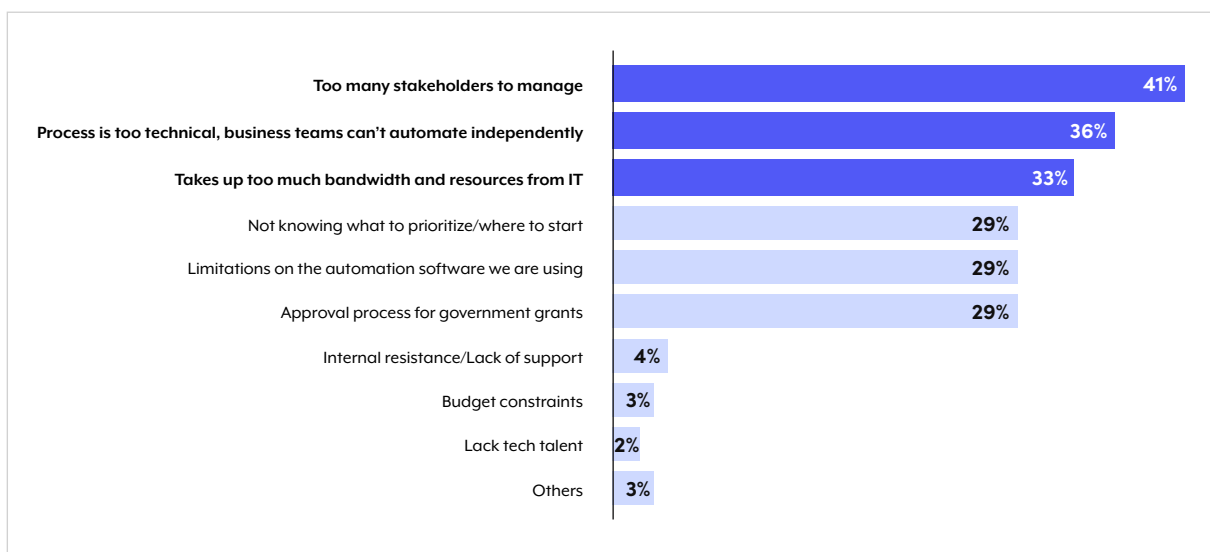


Figure 8: Implementation frustrations

A holistic and democratized approach yields better results

The true value of automation will only be realized when even business users can automate with ease. Among respondents that were less than two years into their automation journey, **63%** stated that a lack of skills and understanding among internal stakeholders was a key reason they fell short of their automation goals (See Fig 9). Citizen developer friendly, low-code/no-code platforms can improve automation adoption, ease technical difficulties in implementation, free up IT bandwidth, and enable both business users and IT specialists to adjust quickly to new workflows and KPIs.

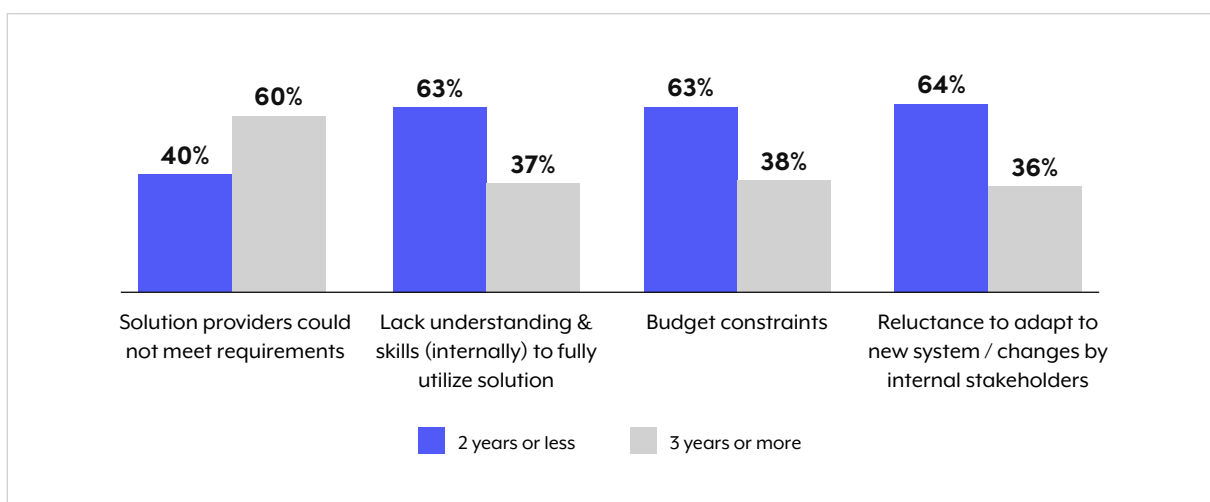


Figure 9: Reasons for underachievement of automation goals vs duration of implementation

Beyond the automation technology and platform, the approach to automation is a significant aspect of streamlining the journey. For instance, **60%** of the enterprises that have implemented automation for over three years indicated that their solution providers were often unable to meet their business needs.

These findings highlight the importance of choosing the right automation partner and platform. When zeroing in on automation software, enterprises should look for a vendor that offers comprehensive product education initiatives, realistic budget communications, and a change management program designed to maximize business user adoption.

In addition, vendors that offer a modular approach to implementation make it easier to plan IT spends and enable quick upgrades as requirements evolve over time.

“Automation is not a one-hit wonder. Enterprises need to think about automation as an enterprise-wide strategy, not a once-off side project, to ensure sustainable growth and see long-term success.”



YEAP CHONG
EXECUTIVE DIRECTOR @ SGTECH



The Scoot employee experience

Scoot, a low-cost, long-haul airliner based out of Singapore, uses a low-code platform to help business teams take charge of their digital automation needs. This lets them quickly establish, optimize, and modify their internal workflows using an iterative approach. The platform also helped business users gain a sharper view of their departmental and role-specific needs. Executives and managers at Scoot now have better control over their workflows and can deliver predictable, consistent, and engaging employee experiences.

According to Ivan Chuah, Human Resource Director at Scoot:



“The team can now manage our systems in-house and this provides us with more flexibility to scale solutions to enhance our employee experience by providing real-time support for more complex requests.”

As a direct result, Scoot has also enhanced their employee experience by creating a highly automated system for employee requests. The new automation platform makes it easier for employees to send leave applications, team notifications, and request office access on-the-go, using a hassle-free, mobile-friendly UI.

4 It takes a village to automate

Across the board, the most successful automation stories involve all departments in an organization working together, alongside IT, to create a holistic automation roadmap (See Fig 10). In fact, the likelihood of achieving automation targets was higher when every department was an active part of the implementation process (**78%**). However, IT departments still own most automation initiatives (**54%**), with only **38%** of our respondents citing cross-departmental collaboration as a mainstay of their automation journey.

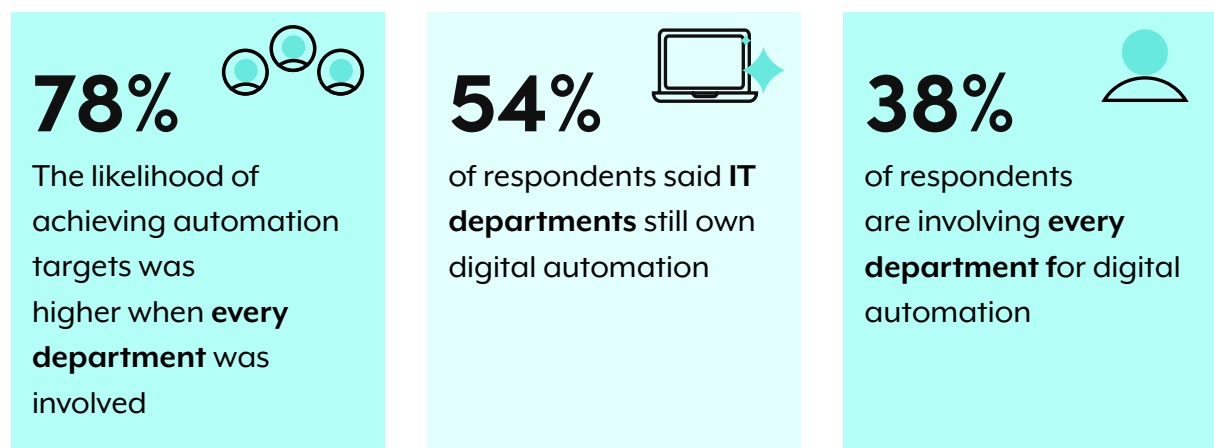


Figure 10: How automation ownership affects outcomes

Collaboration leads to wins

When implemented in silos, automation is rarely as effective as a holistic program that considers scaling strategy, growth projections, and accurate data visibility and management (See Fig 10). Leaders looking to guarantee the success and resilience of their automation initiatives should take a multi-stakeholder approach that considers how different workflows from different departments intersect.



How Atlassian democratized automation

Atlassian, the leading maker of enterprise collaboration software, established a centralized Intelligent Automation function to spearhead their digital transformation initiatives. Within this division, a Centre of Excellence (CoE) team worked to implement and maintain their automation initiatives. With much of their work centered around low-impact RPA, mounting technical debt and a lack of bandwidth for larger, more complex automation meant they had to adopt a low-code/no-code platform to equip business units with the skills to automate independently.

Atlassian business units now work hand-in-hand with their CoE team to rapidly write, test, and deploy automation projects. The results were spectacular. For example, the company's finance team can now build automation workflows in less than 3 weeks, as opposed to 2-3 months in the past. This has saved nearly 25,000 man-hours annually.

Srividya Sathyamurthy, Senior Manager of Intelligent Automation at Atlassian, says:



“We want to engage the business teams as part of our automation story rather than simply doing things on their behalf. This removes the dependency on our IT teams, and our people will be equipped to resolve issues quickly on their own.”

5 SMEs are rapidly adopting automation but facing unique challenges

Automation has been entrenched in large enterprises for quite some time — **92%** have implemented at least one solution. But there's also been a significant rise in the number of SMEs adopting automation (**77%**). It's worth noting that of the SMEs we surveyed, nearly **50%** have only implemented these solutions in the past two years, indicating a recent surge in automation technology uptake (See Fig 11).

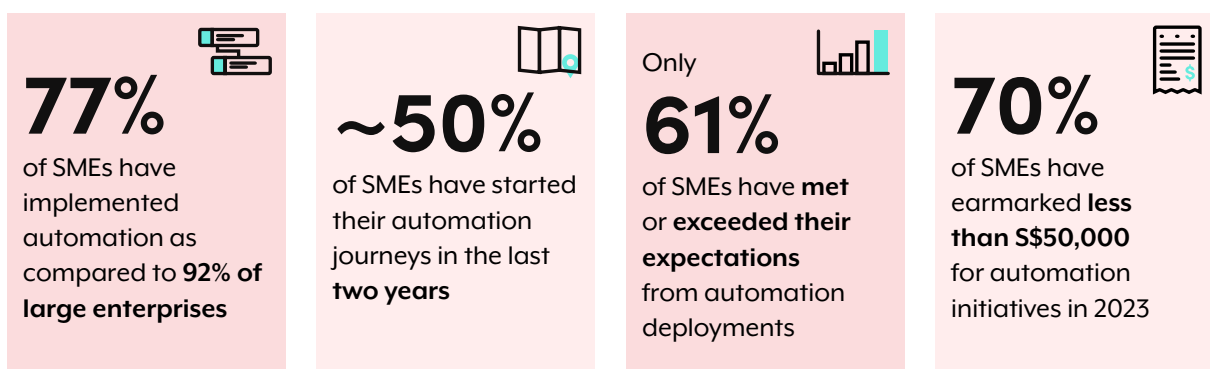


Figure 11: Automation adoption in SMEs

While larger enterprises (**82%**) have made more progress than SMEs (**61%**), SMEs have seen quick results, with **85%** of them chalking up real business impact within six months of implementation. However, budget constraints continue to plague SMEs' automation aspirations. Part of the problem lies in getting approvals for government grants, cited by **30%** of SMEs as their primary frustration on their automation journey (See Fig 12). Access to greater public and private sector grants could ease SME automation journeys considerably.

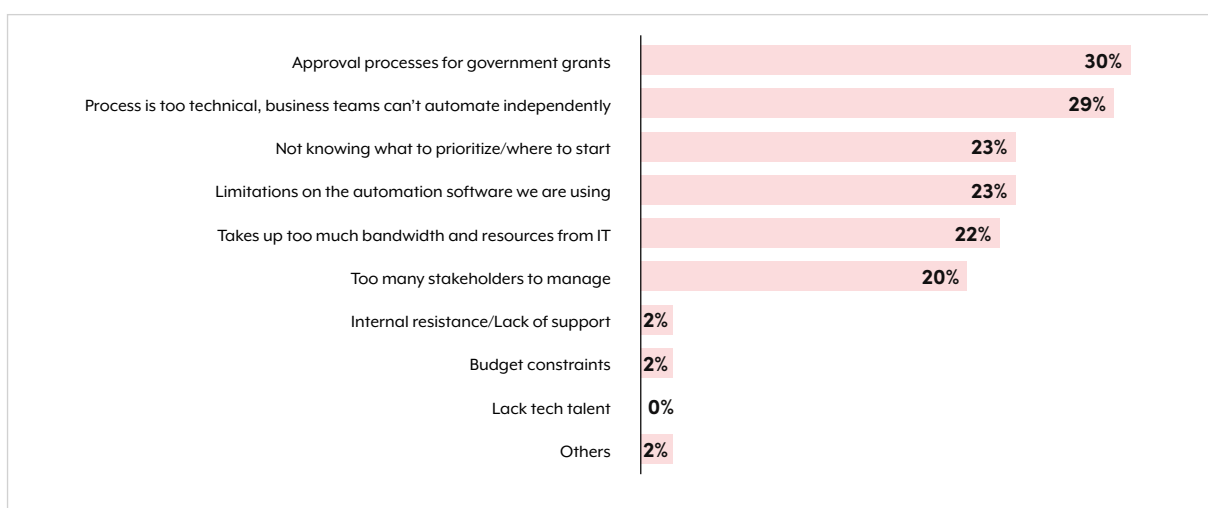


Figure 12: Implementation frustrations for SMEs

Automation will be the bedrock for SME success

In markets dominated by digital natives, where customer loyalty can erode overnight, a solid automation foundation can mean the difference between successful scaling and stagnation. As automation frees employees from repetitive workloads, SMEs will have more innovation bandwidth. From an operational perspective, automation also translates to leaner teams, lower overheads, and reduced human error – critical to shoring up investor expectations and tight profit margins.

Enterprise automation is inevitable

Championed by the C-suite, the automation train shows no signs of stopping. Most respondents expect to expand their automation footprint in 2023 (See Fig 13). Even among enterprises that haven't jumped on the bandwagon yet, **41%** intend to launch automation initiatives over the next 12 months. Especially among large enterprises, a majority are gearing up to make significant automation investments in the coming year. Easy-to-use low-code and no-code solutions are further encouraging business involvement. This gives business teams more autonomy to automate with minimal IT involvement.

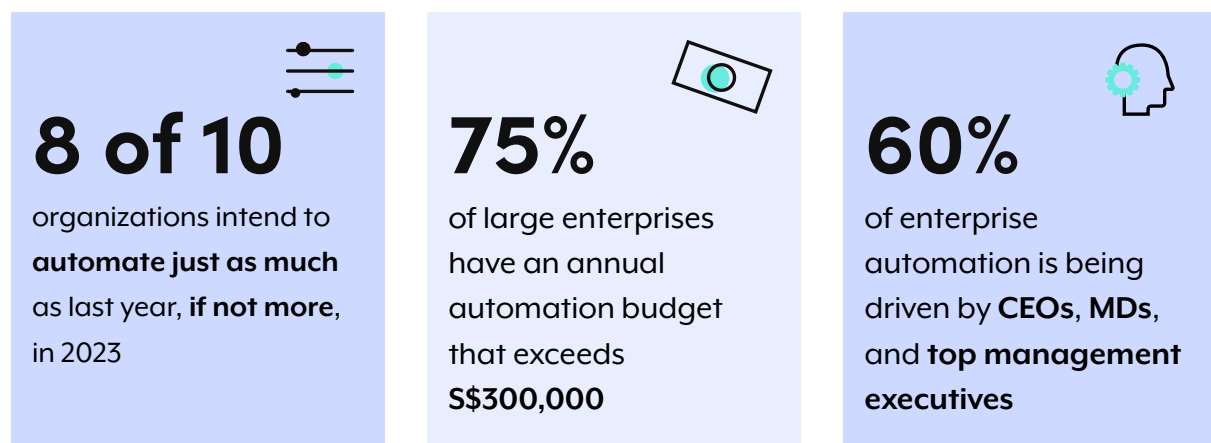


Figure 13: Automation adoption will continue to accelerate

As business users get more comfortable with automation, we expect to see an uptick in enterprise-wide automation adoption. Over **60%** of enterprises intend to roll out company-wide automation systems, as opposed to point solutions or departmental automations (See Fig 14).

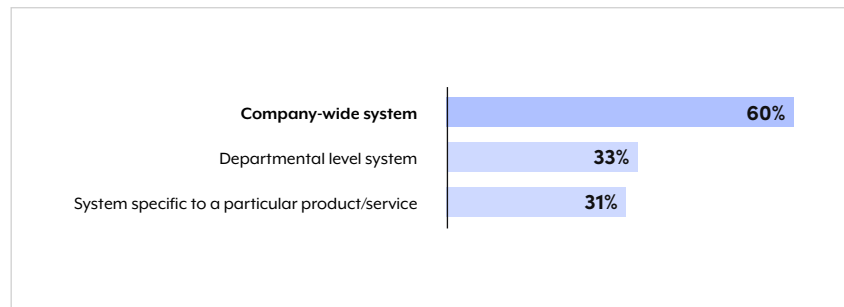


Figure 14: Level of digital solution implementation expected

The chart below (See Fig 15) illustrates how RPA, while useful, can only automate specific tasks as opposed to entire business processes. Most of the organizations we surveyed appear to be moving from basic RPA to the higher orders of automation represented by Levels 2-4.

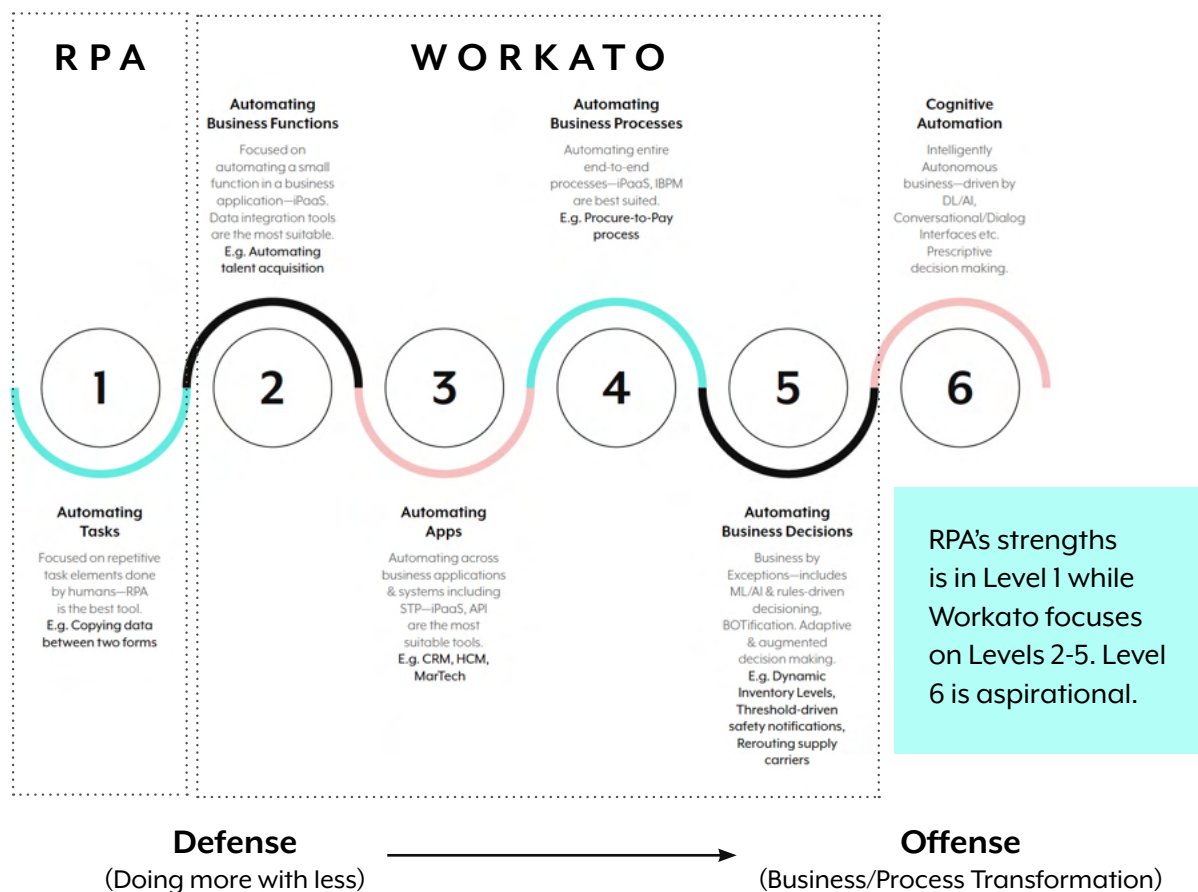


Figure 15: Enterprise automation maturity

Holding on to your competitive edge means treating automation as a longer-term strategy rather than a quick win. And that means it's more important than ever to move towards end-to-end business process transformation rather than simply wielding RPA or deploying point solutions to fix gaps in your frontline.

As companies connect and automate more and more of their processes end-to-end, the outcomes will amplify. Over the next decade, we expect that the competitive gap between organizations that are further ahead on the automation roadmap and those that aren't will only widen.

The question is, which end of the spectrum do you see yourself on in the coming year?

Methodology

This report is based on anonymized data collected from 133 enterprises in Singapore with annual revenues that range from under S\$1 million to over S\$500 million. The data was aggregated from a 20-question survey held from mid-July to early August 2022. This survey invited participation from all organizations with a business presence in Singapore.

Acknowledgments

SGTech and Workato would like to thank the following organizations for their support in conducting the *State of Digital Automation Survey in H2 2022*.

