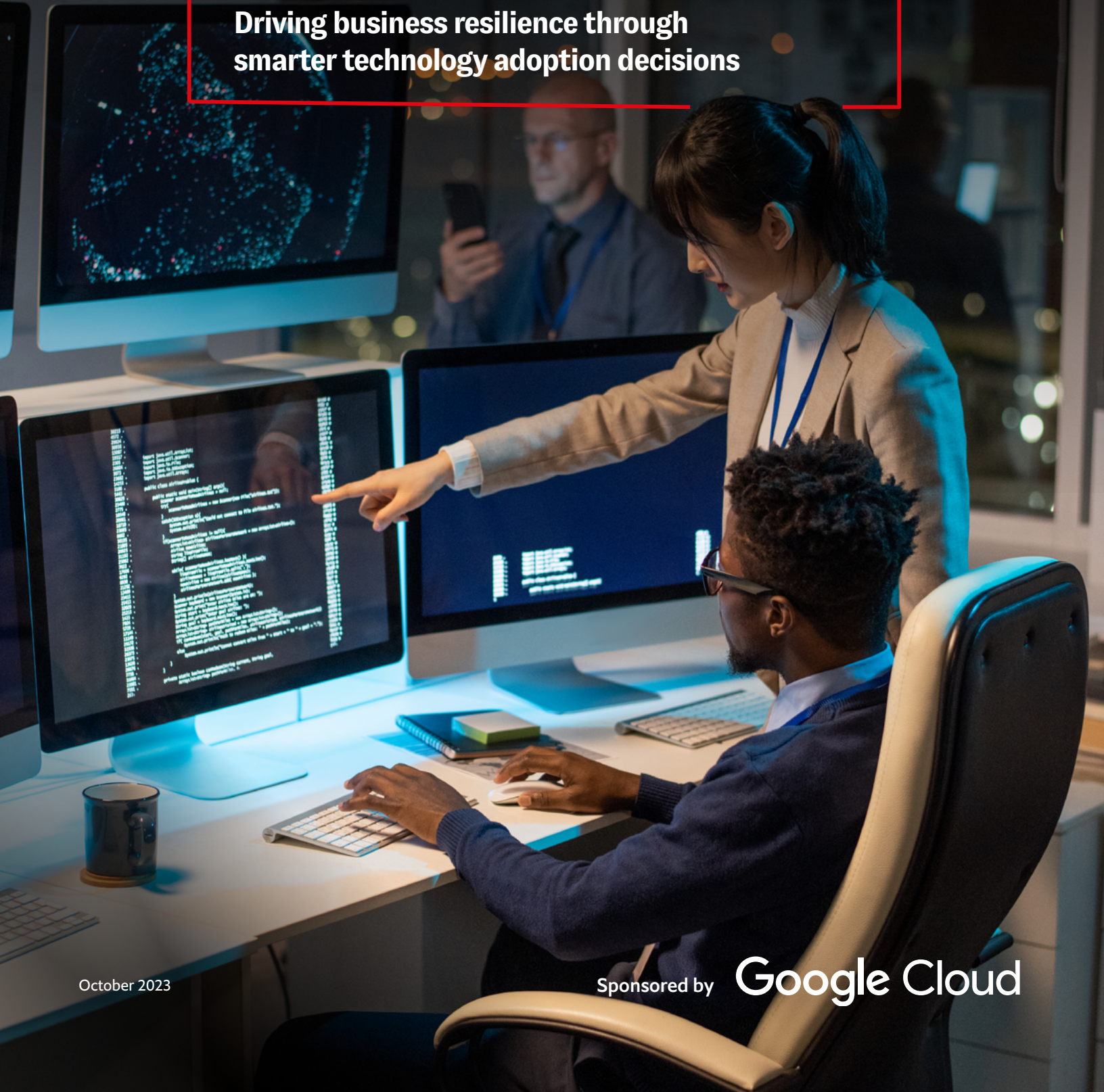


# Seizing the technology imperative

Driving business resilience through  
smarter technology adoption decisions



# About the research

**Seizing the technology imperative** is a research program conducted by Economist Impact and sponsored by Google Cloud. It leverages insights from primary research data, expert interviews and desk research to understand the challenges organisations face when adopting, implementing, and assessing new technologies. It aims to illuminate common obstacles to success and recommends paths to successful implementation and benefits realisation.

The data in this report are supported by a survey conducted in April and May 2023 of 600 business leaders (about half C-level executives) in 12 countries across four continents and six sectors: retail and consumer goods, manufacturing and industrials, government, financial services and insurance, education, and entertainment, media and publishing. Economist Impact interviewed seven experts in technology adoption and implementation:

We would like to thank the following experts for their time and expertise:

- **Per Andersson**, Professor, Stockholm School of Economics
- **Shelton Goode**, Chief Executive Officer, Icarus Consulting
- **Zia Qureshi**, Senior Fellow, Brookings Institution
- **Ian P. Rifkin**, Director of Data and Systems Integration, Brandeis University
- **Christopher Rosenqvist**, Senior Research Fellow, Stockholm School of Economics
- **Slinger Jansen**, Associate Professor, Department of Information and Computer Science, Utrecht University
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## Executive summary

An alarming portion of digital technology investments ultimately fall far short of expectations. The problem appears to have worsened in recent years, with many firms struggling to adopt and implement technologies even as their strategic value grew.<sup>1</sup> Our new research finds that about two-thirds of organisations struggle to meet customer demands, even as leaders say that the vast majority (85%) of all new technology investments aim to do just that. New technologies often fail to deliver benefits because of the disconnect between adoption decisions and business strategy, customer needs, and/or users of the new technology. And implementation can run into obstacles including lackluster project management practices and employee resistance to change. Leaders' high hopes for cutting-edge technologies frequently end up dashed—with failures often rooted in people and processes rather than technical issues. One result: Wasted money and frustrated employees.

Our survey of 600 business leaders explored business decisions around technology adoption. Respondents were asked about the decision making, implementation, and assessment processes involved in technology adoption and how these decisions relate to business resilience. The survey was taken by business leaders who have been involved in technology adoptions at their organisations across Europe, North America, APAC and Latin America and six sectors 1. Education, 2. Entertainment, media and publishing, 3. Financial services and insurance, 4. Government and the public sector, 5. Manufacturing and industrials, and 6. Retail and consumer goods. The respondents represent organisations with revenues from \$10 million to \$500 million and above. The survey illuminated specific challenges organisations and industries face while adopting new technologies.

In a fast-changing macroeconomic environment, the need for successful technology adoption is greater than ever. With this strategic imperative top

of mind, our playbook offers five recommendations to business leaders, drawing on insights from our survey as well as interviews with experts. Taken together, the recommendations offer opportunities for improving technology adoption decisions, implementation processes and assessment practices.

- **Align adoption decisions with overall business strategy to increase resilience. Before making new investments, technical and nontechnical leaders need to draw a straight line between technology capabilities and the desired business outcome.**
- **Formalise an inclusive decision-making process to ensure adopted technologies are in sync with both customer needs and strategic goals. Include representatives from all business units expected to use the technology—both managerial and technical (user) roles.**
- **Strengthen employee engagement through two-way communication practices while also investing in targeted training programs. Implementation problems are often people-related.**
- **Break up large, complex projects into stages with checkpoints, applying proven implementation best practices to improve the odds of success.**
- **Ensure post-adoption assessment practices capture both short-term and longer-term benefits. Going beyond narrow cost-benefit analyses by gathering user feedback can provide a more holistic understanding of a newly adopted technology.**

Organisations' ability to invest in the right technologies and realise their benefits is also the ability to avoid wasting time and money. These core competencies, which enable both resilience and agility in the face of volatility and evolving customer expectations, will only become more valuable in the coming years as digital technologies grow in strategic value.

<sup>1</sup> LaBerge, L., Smaje, K., Zimmel, R., & Seiler, D. (2022, June 15). *Three new mandates for capturing a digital transformation's full value*. McKinsey & Company. [www.mckinsey.com/capabilities/mckinsey-digital/our-insights/three-new-mandates-for-capturing-a-digital-transformation-full-value](https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/three-new-mandates-for-capturing-a-digital-transformation-full-value)

# Introduction

The adoption of new technologies has long been associated with efficiency and productivity gains, but recent years have underscored other key benefits including business resilience and competitive differentiation.<sup>2</sup> Amidst macroeconomic volatility, geopolitical instability and a global pandemic disrupting business as usual, organisations across sectors accelerated digital transformation efforts to keep operations running smoothly and meet customers' evolving expectations. Top goals for many businesses include increasing agility and resiliency in the face of current and future challenges, and defending (and/or seizing) competitive advantage.

In fact most firms now consider technology capabilities to be a key strategic differentiator.<sup>3</sup> A new global survey of leaders (half of them in the C-suite) from across sectors undertaken by Economist Impact and sponsored by Google Cloud found that the three top drivers of technology investments during the last three years are: new innovations in technology (28%), increased competition (28%) and supply chain disruptions (28%).

Of course, what ultimately matters to business leaders are the benefits realised. But the troubling fact is that less than one-third of the impact organisations expected from recent investments in digital transformation are actually captured,

according to a 2022 survey.<sup>4</sup> In other words, even as the strategic importance of technology has grown and transformation efforts have increased in speed (and often scope), a large majority of organisations fail to achieve their goals. Why? Siloed business units can create disconnects between leaders in the c-suite who often propose adoption of new technologies to meet changing customer demands, and those who best understand the nature of those demands. The implementation process may not be grounded in best practices, or employers may not require employee training. Much can and sometimes does go wrong within businesses of all stripes, turning multi-million dollar technology purchases with so much potential into wasteful and costly cautionary tales.

Our report points to valuable technology adoption practices that bolster the likelihood of success. It starts from the premise that successful technology adoption requires alignment of business and technology strategies, and an understanding of the risks involved in adoption. Informed by survey data collected in April, 2023, our analysis was broadly structured across three dimensions of technology adoption: decision-making and strategy, implementation and assessment. This playbook offers five key recommendations relevant to any company considering or in the process of technology change—which in 2023, is virtually every organisation.

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2 This report's references to "new technologies" encompass both established general purpose technologies such as the computer, the internet and automation of software and robotics, as well as emerging technologies such as AI, blockchain and virtual reality.

3 Sivaslioglu, Filiz et al. (2021). The Relationship Between Innovation Capabilities, Differentiation Strategies And Market Performance.

4 LaBerge, L., Smaje, K., Zimmel, R., & Seiler, D. (2022, June 15). *Three new mandates for capturing a digital transformation's full value*. McKinsey & Company. [www.mckinsey.com/capabilities/mckinsey-digital/our-insights/three-new-mandates-for-capturing-a-digital-transformations-full-value](https://www.mckinsey.com/capabilities/mckinsey-digital/our-insights/three-new-mandates-for-capturing-a-digital-transformations-full-value)

# Key recommendations

## 1: Increase resilience by aligning technology purchases with strategy

Mindful of a range of challenges that threaten instability—everything from macroeconomic volatility to cyberattacks—companies are looking to technology adoption to increase resilience.<sup>5</sup> But to maximise ROI on investments and avoid wasteful expenditure, organisations need to ensure adoption decisions are aligned with both the technology strategy and overall business strategy. To avoid misalignment between technical and nontechnical teams and ad hoc purchases, companies should perform a gap analysis of the existing technology stack.

This analysis (sometimes called a needs assessment) should be firmly grounded in an understanding of the technology strategy and how it supports the overall business strategy. By identifying gaps in terms of specific business objectives, each new technology purchase can support agreed-upon goals, advancing strategy. Ideally the analysis team should be cross-functional, bringing together nontechnical and technical leaders across functions to ensure the tech stack analysis surfaces all needs and gaps. As part of the analysis, organisations should evaluate technology goals for the short-, medium- and long-term, and map which new technologies can replace or complement existing ones. The ultimate aim: bottom-to-top alignment between specific tech needs, the technology strategy and the business outcomes.

Our survey offers evidence that many technology purchases are highly motivated by specific business goals. Common motivators for technology purchases align with core issues that firms report difficulty addressing (see Figure 1). While a large majority (85%) of respondents said that new purchases are motivated by the desire to meet increasing customer demands, about two-thirds (67%) said their organisations still struggle to meet those demands. While this alignment can be seen as good, if the difficulties persist for long after new technology is purchased, it may be a sign of an organisation's failure to effectively leverage their purchases or use them to further outcomes they promised to deliver.

A technology strategy can generate significant organisational value, but only if it helps achieve larger business goals while improving business processes and supporting use of existing technologies. If there is misalignment between technical and nontechnical teams, employee resistance, or confusion over how a new technology interfaces with existing ones, adoption decisions have the potential to distract from business objectives. Benefits realisation depends on a firm's capabilities, whether it has the capacity to adopt a new technology and has managers with the requisite skills, said Zia Qureshi of the Brookings Institution. "We have not seen the diffusion of [new] technologies through economies that one would have liked to see because of some of these factors," he said.

<sup>5</sup> Boehm, J., Salmanian, W., & Wallace, D. (2023, March 24). *A technology survival guide for resilience*. McKinsey & Company. <https://www.mckinsey.com/capabilities/risk-and-resilience/our-insights/a-technology-survival-guide-for-resilience>

**Figure 1 : Challenges persist, despite targeted technology investments**

Number of firms that report the following drivers, and challenges with, technology purchases



One unfortunate result of misalignment or capability deficits is waste. It is alarmingly common: A 2023 study found that around one-third of the money companies spend on desktop software, data centres and SaaS is wasted.<sup>6</sup> This amounts to a hugely expensive missed opportunity to create strategic value. But by embracing collaborative practices designed to support strategy alignment, such as needs assessments and gap analyses, organisations can increase their ability to seize that value. Reducing wasteful expenditure in the near-term is important. But as technology purchases increasingly become long-term strategic business decisions, the ultimate benefits of grounding adoption decisions in strategy are resilience and competitive advantage.

**2: Formalise an inclusive decision making process to increase buy-in and realised value**

When technology adoption decisions are made without input from all stakeholders who might be impacted—including employees, partners, or customers who will use a new technology every day—the risk of failed implementation rises. Yet siloed business units and communication disconnects are all too common, according to interviewed experts. The solution is to create a formal technology adoption decision-making process that requires the involvement of all relevant business units—meaning all areas of the business the new technology may potentially impact.

SPONSOR PERSPECTIVE

**Business leaders are buzzing about generative AI.**

The last few months have been a whirlwind. Generative AI is no longer just an object of fascination with theoretical disruptive potential—it’s a technology that is quickly proving to be accessible, manageable and most importantly valuable to solving very practical information problems for organisations around the world. From AI customer service assistants creating better healthcare experiences to coding collaborators and even to apps that help create public company financial reports, enterprises worldwide have begun to harness the technology in all kinds of innovative ways.

The pace remains exciting.

This is because this generation of technology, generative AI, can solve problems that the algorithm wasn’t purpose-built for. And it has become extremely more approachable. A business user can very quickly experiment and implement functions on generative AI, and get feedback as to whether or not technology works for the particular business problem.

Generative AI opens up new possibilities for businesses by allowing them to think differently about how they operate. AI and ML were more about productivity and efficiency, but generative AI can help businesses to create new products and services, improve customer experiences, and develop new business models.

Philip Moyer, Global VP, Artificial Intelligence Business, Google Cloud

Google Cloud

<sup>6</sup> Flexera. (2023). Flexera 2023 State of ITAM Report. Retrieved September 19, 2023, from <https://info.flexera.com/ITAM-REPORT-State-of-IT-Asset-Management#view-report>.

**“The highest-paid person in a room is not always the best person to make a decision. It’s very important to include a cross-functional team with different capabilities in the decision-making process. There needs to be different knowledge about different parts of activities so a clever decision can be made.”**

Christopher Rosenqvist, Senior Research Fellow, Stockholm School of Economics

This decision-making process should offer clear guidelines for which stakeholders should be involved in the decision making process. And it should include standard communication processes to elicit opinions about whether a new technology purchase is the right idea, what it would be useful for, and whether there are other challenges that should be considered. An inclusive decision-making process doesn’t only help organisations land on the best technology solution for addressing a problem. By involving stakeholders from different levels of the organisation, it also helps build buy-in for a solution. (Engaged employees who understand the need for change are more likely to welcome training and offer helpful feedback during implementation.)

But inclusive processes to support adoption decisions do not appear to be the norm. As organisations race to keep up with customer expectations and digital innovations, many start with the technology—perhaps tempted by the prospect of the automation it offers—and then try to adapt it to customer needs.<sup>7</sup> This is a recipe for disappointing ROI and unmet expectations.

Our survey made clear the extent to which the C-suite dominates the technology adoption process. Key stakeholders who typically propose a need for new technologies are CTOs (33%), CEOs (29%) and CIOs (26%). As seen in Figure 2, it is uncommon for the head of a business unit or department to propose the need for new technology (5%). A consultancy or the board of directors may be involved if the technology is expensive, according to interviewed experts.

Those experts characterised the typical proposal, vendor selection and decision-making process as detached from how a technology will function in the company. Instead, top-down, project-by-project ad hoc change efforts predominate. This can mean that significant costs of implementation (such as upskilling employees), or the risks of being locked into a service contract even as technology evolves, are not properly accounted for. And when different business units are making independent adoption decisions, they can unwittingly purchase duplicative technologies.

**Figure 2: Top-down decision making leaves out those closest to the problems**

Percentage of firms that report the following roles as key technology decision makers



<sup>7</sup> Leachman, L., & Scheibenreif, D. (2023, March 17). Using Technology to Create a Better Customer Experience. Harvard Business Review. <https://hbr.org/2023/03/using-technology-to-create-a-better-customer-experience>



**“Integrating different viewpoints drives better outcomes. If you’re changing an existing technology, having a product manager and an architect sit together will make a much better decision.”**

Slinger Jansen, Associate Professor, Department of Information and Computer Science, Utrecht University



A formal decision-making process that engages both strategy-makers and lower-level employees, and connects various stakeholders via standardised communication practices, can prevent negative business outcomes. With everyone at the same table, so to speak, a new technology is more likely to serve its intended purpose in the hands of intended users and support a strategic goal. Academia offers an example of what this approach can look like. At many higher education institutions, voting bodies comprising representatives from various academic and nonacademic departments are tasked with approving organisation-wide technology purchases. This ensures buy-in to the adoption decision and also supports take-up rates post-implementation.

This is not to say there is one optimal decision-making process for all companies; it necessarily depends on variables including industry, company size, and local capabilities and knowledge. What an effective technology adoption process does require, experts say, is the involvement of both technical and managerial roles, as well as customer-focused and strategy-oriented employees. In today’s tech-centric business landscape, the stakes of adoption decisions couldn’t be higher.

### **3: Improve implementation via training and two-way communication practices**

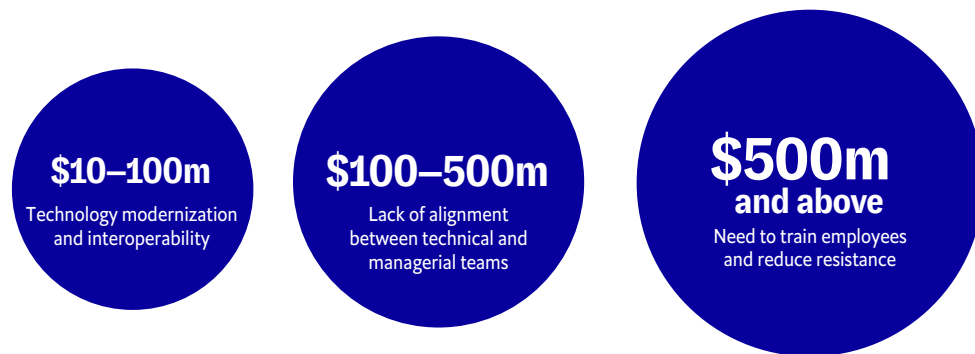
To improve the odds of successful implementation, organisations should do two things: improve communication practices to engage employees and address their concerns and prioritise training.

Clear communication between senior executives, middle managers, and junior level employees increases the chances of successful implementation because it increases employee buy-in and participation. Communication can be improved by identifying, and acting upon, missing feedback loops.<sup>8</sup> In our survey, CxOs identified the most significant obstacle to technology implementation as employee resistance to new technology (36%). Non-CxOs, on the other hand, pointed to three different challenging factors (all 31%): lack of alignment between technical and managerial teams, lack of consensus at the leadership level and lack of knowledge of the new technology. The more nuanced views of the latter group suggest that CXOs may be disconnected from frontline employees’ experience with newly adopted technologies.

<sup>8</sup> Stackpole, B. (2022, October 12). How to forge a clear path to Industry 4.0. MIT Sloan. <https://mitsloan.mit.edu/ideas-made-to-matter/how-to-forge-a-clear-path-to-industry-4-0>

**Figure 3: Top technology implementation challenges by organisation size**

Organisation size in annual revenues (\$m)



The disparity in perception between the C-suite and lower-level employees aligns with points made in expert interviews. Executives view their greatest obstacle to change to be management of workers. Meanwhile, employees tend to experience technological change within companies as a top-down process for which they receive little support and during which their feedback is not solicited. In a sense, the two groups are blaming each other—and organisations seem to be missing opportunities to ramp up effective methods for improving implementation.

Furthermore, as Figure 3 shows, the most common obstacle to technology implementation varies by the size of the organisation. The largest organisations most commonly struggle with employees' lack of knowledge regarding new technologies. This may be due to the scale of technology adoption and the cost to train a large number of employees on new technology.

This type of technology adoption may be very different when compared to an implementation at a medium sized firm that struggles with the alignment of technical and managerial teams. As companies grow, new teams and hierarchies are often created. However, communication and hierarchical norms are often codified after organisational growth which can lead to unclear processes or communication.

Smaller organisations are often challenged by the need to update legacy software and by the need to integrate new technology purchases into preexisting systems for the first time. This type of technology project is often extremely challenging and costly, making it disproportionately more onerous for smaller organisations.

In addition to clear communication, research shows that employee satisfaction can be improved and resistance decreased—thereby increasing the likelihood of implementation reach and success—when workers receive targeted training and opportunities to offer feedback. The same goes for supervisors and middle managers, who are often tasked with leading implementation initiatives they may or may not buy-in to. People in these roles often experience fear of job loss, yet organisations often overlook the need to train them. Resentment and technology resistance can result, cementing critical skill gaps that can be toxic in workplaces.

One solution: train supervisors and rank-and-file workers on new technologies together. This can decrease fear of job loss and increase the chances of successful adoption.<sup>9</sup> Clear messaging from leaders explaining why a new technology was adopted, and transparency about any related staffing reductions, can also potentially address employee fears of job loss. The optimal ways

<sup>9</sup> Kellogg, K. C., Sendak, M., & Balu, S. (2022, May 4). AI on the Front Lines. MIT Sloan Management Review. <https://sloanreview.mit.edu/article/ai-on-the-front-lines/>

for any given organisation to address employee fears, however, will depend on various factors including its industry, geography and culture.

Despite the proven value of integrating an employee training program or internal feedback processes into technology implementations, our survey found that a large majority of organisations globally do not require them. Only 26% of respondents said training or employee support were required, while just 23% said feedback processes were required. This is a missed opportunity, as leaders can improve chances of implementation success by regularly collecting and respectfully responding to workers' concerns and feedback as they navigate change.

Similarly, requiring training programs can increase employee retention by helping workers feel adequately supported. Two-thirds (67%) of respondents said their organisation struggles to retain talent. By defining and clarifying employee responsibilities and the business value specific roles entail, such training requirements could also boost employee satisfaction, which the survey found to be the most important indicator of business resilience.

A final point about training. Upskilling programs are often underfunded because they are difficult to plan and budget for. Uncertainty about how long training will take and how much productivity will be lost is common, experts said. But as a valuable opportunity to boost employee engagement and buy-in, training should be a must-have line in any implementation budget. Rank-and-file employees, after all, are the ones who will actually be using the tech day-to-day.

#### 4. Embrace proven project management methods to standardize implementation practices

In general, the probability of a technology adoption project failing rises when an initiative has many parts that are interrelated with other business or tech units.<sup>10</sup> To guard against technology projects' complexity and attendant risks of failure, implementation methodologies and best practices have been developed in recent decades. Organisations should view competency in a proven project management framework as a strategic necessity—a crucial way to de-risk implementation and increase the odds of realising the value of new technology. Importantly, common approaches such as stage gate and agile are flexible, allowing companies to customise project management practices to account for unique organisational cultures and leadership communication styles, and the specific technology at hand.

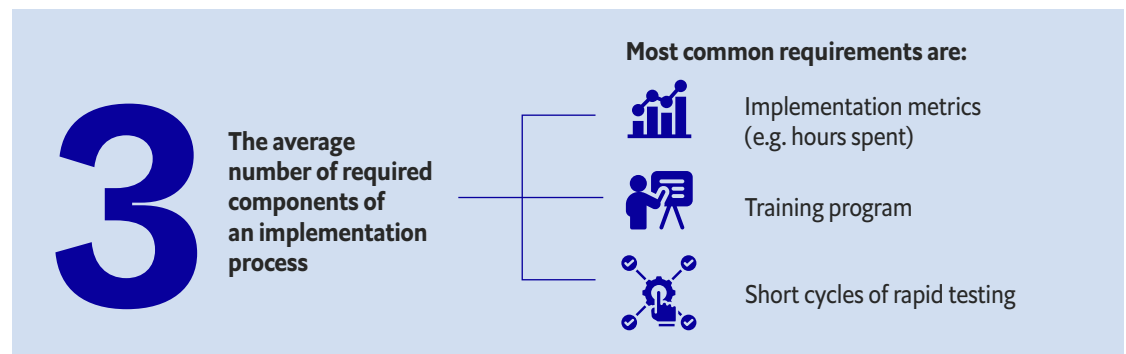
The stage gate methodology manages risks by establishing gates, or milestone-based review points, that teams must pass through before implementation can continue. Agile project management is an iterative process that incorporates rapid user testing and feedback, allowing for course corrections. While these may not be applicable to all technology implementations, the fundamental idea of breaking up a large project into incremental goals and seeking regular feedback in stages to ensure things remain on track can be universally applied.

**“Implementations are usually more people-and process-related than technology-related.”**

Ian P. Rifkin, Director of Data and Systems Integration, Brandeis University

<sup>10</sup> García-Quevedo, José, Agustí Segarra-Blasco, and Mercedes Teruel. 2018. Financial constraints and the failure of innovation projects. *Technological Forecasting and Social Change* 127: 127–40.

**Figure 4: Organisations have an average of three requirements during technology implementation**



Our survey finds that organisations require a wide variety of implementation and feedback tools—and none is dominant. As seen in Figure 4, our survey found that on average, organisations have three required components for a technology implementation. These requirements may be internal feedback processes, clearly defined roles during an implementation, or employee training. A lack of common requirements is evident across regions, company sizes, and industries. For example, organisations in retail and consumer goods are the most likely to establish implementation metrics and internal feedback processes. Financial services and insurance organisations are the most likely to require agile approaches, or short cycles of rapid testing and iteration. These differences may be due to the different types of technology implementations that different industries pursue. However, this lack of consensus on technology implementation requirements could also be due to the different organisational structures and values across industries. This is not inherently an issue. Instead, this can be seen as an opportunity for inter- and intra-industry collaboration and learning.

Rifkin notes that at his institution (Brandeis University), implementation involves continual contact between technologists, project managers, the governing bodies that approved the technology and any vendors. Through the whole process, project managers are communicating with

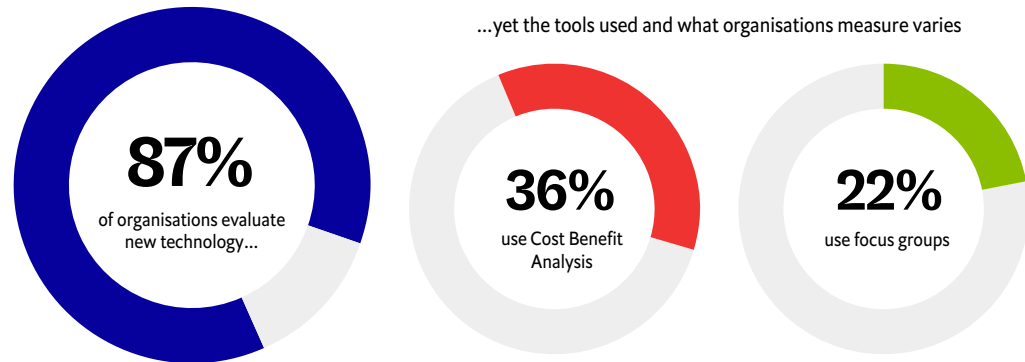
project sponsors so they can understand goals and requirements, and working with vendors to understand the degree to which they need to be involved in a successful implementation. “What can the vendor contribute to the implementation process that will increase the chance of success? Who is supporting the product and to what extent? Who needs to do technical integration work?” Rifkin says. Furthermore, he stresses the importance of establishing clear roles and expectations from all stakeholders early on in the implementation.

Adopting organisations should establish and require best practices for project implementations, drawing on lessons learned from other companies. Leaders should understand that standardising implementation practices delivers benefits beyond the technology itself. Value can extend to employee morale and retention.

### **5. Improve post-adoption assessments by improving data practices and gathering user feedback**

Evaluating the performance of new technologies to understand benefits realised and ROI can be tricky. Understanding ROI is heavily dependent on when measurements take place. For example, an organisation may initially measure

Figure 5. Organisations use a variety of tools to measure the performance of new technology



the hours saved by automating a process, or reduced expenses to perform a certain task. That’s clear enough—but the larger benefits technology can bring to a company often change over time and are unexpected, and therefore difficult to capture. Leaders should keep in mind that when an assessment occurs has significant bearing on what it can reveal.

Our survey found that globally, the top three tools organisations use to evaluate performance of new technologies are Cost Benefit Analysis (CBA) (35%), usage data or telemetry (31%), and user surveys or feedback forms (31%). CBA was the most commonly used tool across all regions. If organisations are relying primarily on CBA to evaluate performance, that’s potentially problematic because CBA only analyses one aspect of the new technology, rather than offering a holistic performance of it. An overreliance on CBA can result in a technology

being forced onto other business units to scale up a benefit, even when it’s not the best fit for the unit, one expert interviewee noted.

Ultimately, a multi-pronged approach to assessment—that spans CBA, telemetry and user surveys, yielding both quantitative and qualitative data—is most likely to provide the fullest picture of a technology’s benefits.

While it is encouraging that globally, as seen in Figure 5, 87% of respondents reported that their organisations formally review new technologies, it’s unclear if the results of the assessments are integrated into the technology implementation. Our survey showed that 31% of organisations report utilising usage data or telemetry to evaluate new technology. However, it is unclear if this data is being returned to the implementation team to improve implementation or adoption because it’s not reflected in the common requirements for technology implementation.

**“One of the problems you see is the fragmentation of the availability of data, data interoperability, access to data, rules for access to data, the willingness to keep supplying, and keeping up the quality of data.”**

Per Andersson, Professor, Stockholm School of Economics

Likewise, 30% of organisations reported using surveys or feedback forms to evaluate new technology without any confirmed feedback loop or mechanism for this information to be used. Without a feedback loop or connection back to the implementation, the data collected during post-adoption assessments goes underutilised. Organisations can improve their data practices by having a clear plan for how post-assessment data will be used. Without a data plan, organisations may be giving up valuable insights.

This raises an important question: How involved are employees in technology assessment? The answer matters because employee feedback is most likely to capture the softer benefits and costs flowing out of adopted technologies, which often go unmeasured but have the potential to more fundamentally transform a business.

Imagine, for example, that a company implements an AI-facilitated procurement process, freeing up resources that can be re-allocated for more creative innovation-focused efforts that ultimately lead to entirely new revenue streams at the organisation. This type of benefit is inherently difficult to measure, but of paramount importance.

Technology can automate tedious work activities, but it can also often help “create new things,” says Per Andersson, Professor, Stockholm School of Economics. “AI is interesting because it’s not so much replacing, it’s creating new combinations of AI with humans.”

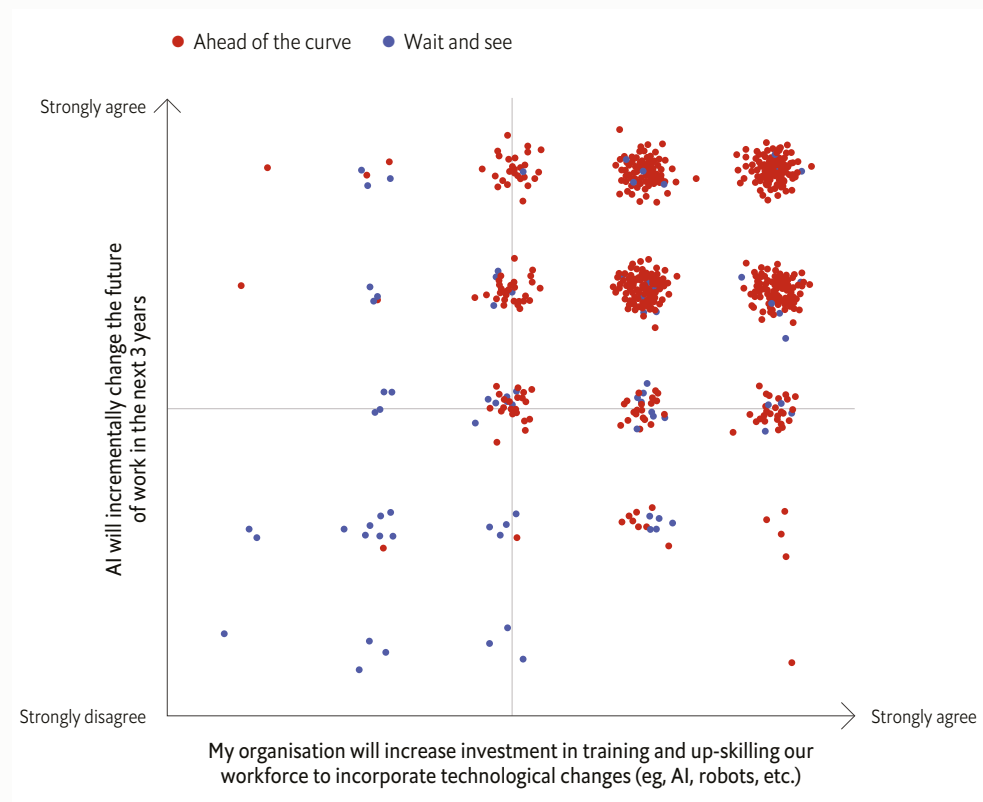


## Two sides of the AI coin

Economist Impact conducted a cluster analysis on the survey results and identified two groups of executives that hold different views on emerging technologies like AI and its effects on the future of work. While the majority are optimistic about the effects of these technologies on workers and the workplace both now and in the future, a smaller fraction of executives think their potential is overblown and are not planning for their integration in the new era of work. This divergence could produce two starkly different types of corporate strategies, and shape the way companies prepare for the AI transformation.

### Overall, executive perception about AI's impact on the future of work is positive

Figure 10: Survey responses by cluster<sup>h</sup>



<sup>h</sup> NA responses have been excluded from this chart.

### Ahead of the curve

Executives that we describe as “ahead of the curve,” are those who believe their organisation will increase investment in training and up-skilling their workforce to incorporate technological changes (eg, AI, robots, etc.) and that AI will incrementally change the future of work in the next three years. These executives are optimistic about the AI-driven future of work, with humans at the centre. They:

- Report regular use of AI and value its benefits, such as improvement of job quality;
- Believe training and upskilling workers is a key strategy to keep pace with technological changes;
- Support employees to work seamlessly, regardless of working arrangement.

### Wait and see

The second type of executives are those that are adopting the “wait and see” approach. This includes executives who do not think technologies like AI will incrementally change the future of work over the next three years, and their organisations are not going to increase investment in training and upskilling their workforce to incorporate technological changes (eg, AI, robots, etc.). The “wait and see” executives are wary of the impact of AI on the workforce as well as the associated cybersecurity risks. They:

- Do not believe humans will remain at the centre of work as AI technology continues to evolve;
- Are more likely to feel that their organisations have not benefited from the adoption of AI technology, and don't believe it will improve of job quality or increase creativity;
- Have limited experience with AI capabilities and are less likely to have a set strategy or plans to navigate technological change;
- Are less likely to invest in training and upskilling their workforce, and are unprepared to upgrade their cybersecurity and data privacy solutions.

**Making work more human** is a multi-phased research programme, conducted by Economist Impact and sponsored by Google Workspace. The report focuses on emerging and sustainable models of flexible work. It presents findings from a first-of-its-kind flexible work barometer that measures companies' progress on the adoption, implementation and evaluation of flexible work models. See the report [here](#).



## Conclusion

Prompted by fast-changing customer expectations and the accelerating pace of innovation, organisations across virtually all sectors are racing to adopt digital technologies. The need for change is urgent—which raises the risks that lurk in any strategic change process. Most organisations are unable to meet customer demands, even as they invest significant resources in technology designed to address those needs. Why? There are no universal answers, given the complexity of many technology

implementations and each organisation's unique culture, strategy and structure. But this study makes one overarching point clear. Even if the correct new technology is chosen—by no means a sure thing—many businesses need to pay much closer attention to implementation and assessment practices. Failure to do so raises the risk of disappointment and waste. An adoption decision is just the first step in a change management process that is ultimately as much about people as it is technology.



# Appendix I

## Survey specifications and results

### Survey design

**Sample size:** 600

**Geography (respondent location):**  
25% from each region below:

- North America: US, Canada
- Europe: UK, France, Germany, Spain, Italy, Switzerland
- APAC: South Korea, Japan
- LATAM: Mexico, Brazil

**Seniority:** SVP and above with 50% C-suite

**Function:** 50% from IT/tech/security;  
50% range from general management/

strategy, operations/supply chain management, risk management, finance

**Industry:** n=100 each from entertainment, media & publishing; financial services & insurance; retail & consumer goods; manufacturing & industrials; education; government & public sector

**Size (Revenue):** 33% each from \$10m to \$100m, \$100m to \$500m, \$500m and above in annual revenue

**Screeners:** Involved in or has influence over decision-making as it relates to adoption/ deployment of digital technologies.

**Branding:** Economist Impact, sponsored by Google Cloud

## Survey Introduction

This 15-minute survey, conducted by Economist Impact and sponsored by Google Cloud, aims to explore business decisions around technology adoption.

Economist Impact is committed to protecting your privacy. Your personal details and company name will not be shared with any third party, including the survey sponsor.

## Survey questionnaire responses

The following tables detail responses from all of the survey questions.

**Q1.** Which country are you located in? Select one.

Response	#	%
Brazil	85	13.8%
Canada	35	5.7%
France	25	4.1%
Germany	25	4.1%
Italy	33	5.3%
Japan	80	13.0%
Mexico	65	10.5%
South Korea	75	12.2%

Response	#	%
Spain	25	4.1%
Switzerland	15	2.4%
United Kingdom	35	5.7%
United States of America	119	19.3%
Total	617	100.0%

**Q2.** Which of the following best describes your title? Please select one.

Response	#	%
CEO/President or equivalent	35	5.7%
Chief Financial Officer (CFO)	53	8.6%
Chief Marketing Officer (CMO)	30	4.9%
Chief Strategy Officer (CSO)	26	4.2%
Chief Technical Officer (CTO)	93	15.1%
Other C-suite title	76	12.3%
Managing director	89	14.4%

Response	#	%
Senior Vice President/Executive Vice President	215	34.8%
Vice President	0	0.0%
Director	0	0.0%
Head of business unit or department/line of business	0	0.0%
Senior manager / Manager / Supervisor	0	0.0%
Other	0	0.0%
<b>Total</b>	<b>617</b>	<b>100.0%</b>

Q3. What is your main functional role? Please select one.

Response	#	%
IT/Technology	301	48.8%
HR/Talent	40	6.5%
Sales/Marketing	54	8.8%
Operations/Logistics	56	9.1%
Supply Chain	38	6.2%
General management	31	5.0%
Strategy	45	7.3%
Finance	52	8.4%
Other	0	0.0%
<b>Total</b>	<b>617</b>	<b>100.0%</b>

**Q4.** What is your company's primary industry? Please select one.

Response	#	%
Education	101	16.4%
Energy (incl. oil & gas)	0	0.0%
Entertainment, media & publishing	105	17.0%
Financial services & insurance	106	17.2%
Government & public sector	100	16.2%
Healthcare & life sciences	0	0.0%
Manufacturing & industrials	104	16.9%
Professional services	0	0.0%
Retail & consumer goods	101	16.4%
Technology & telecommunications	0	0.0%
Transportation & logistics	0	0.0%
Other	0	0.0%
<b>Total</b>	<b>617</b>	<b>100.0%</b>

**Q5.** What is your organisation's annual revenue? For multinationals, please answer for your entire organisation. Please select one.

Response	#	%
Under \$10 million	0	0.0%
\$10 million to under \$100 million	201	32.6%
\$100 million to under \$500 million	208	33.7%
\$500 million or more	208	33.7%
Don't know	0	0.0%
Total	617	100.0%

**Q6.** To what extent are you involved in decisions about introducing new technologies at your organisation? Please select one.

Response	#	%
I am not involved	0	0.0%
I am informed	32	5.2%
I am consulted	107	17.3%
I am accountable	478	77.5%
Total	617	100.0%



**Q7.** At your organisation, which of the following types of technology are you involved in making decisions about? Select all that apply.

Response	#	%
Data analytics and business intelligence software	241	39.1%
HR software	233	37.8%
Automation programs (e.g. software or robotics)	233	37.8%
Customer-facing technologies (e.g. e-commerce portals)	232	37.6%
Cloud computing	227	36.8%
Hardware (e.g. computers, laptops, security systems)	225	36.5%
Communication platforms (e.g. Teams, Meet, Zoom)	212	34.4%
CRM systems	194	31.4%
AI	169	27.4%
Security	161	26.1%
Other	0	0.0%
<b>Total</b>	<b>617</b>	<b>100.0%</b>

**Q8.** Over the past three years, which of the following were the most significant drivers of your organisation's investments in new technology? Select up to three.

Response	#	%
Increased competition	175	28.4%
New innovations in technology	174	28.2%
Supply chain disruptions	173	28.0%
Inflation - impact on customer behavior	159	25.8%
Flexible or remote work arrangements	148	24.0%
Inflation - impact on cost of capital	147	23.8%
Business model changes	144	23.3%
Diversifying revenue streams	136	22.0%
Political, regulatory or policy pressures	133	21.6%
Expected recession	130	21.1%
Difficulty hiring skilled talent	125	20.3%
ESG agenda	100	16.2%
Other (specify)	0	0.0%
I don't know	0	0.0%
None of the above	0	0.0%
<b>Total</b>	<b>617</b>	<b>100.0%</b>

**Q9.** Over the coming year, which of the following do you expect to be the most significant drivers of your organisation's investments in new technology? Select up to three.

Response	#	%
New innovations in technology	169	27.4%
Diversifying revenue streams	162	26.3%
Political, regulatory or policy pressures	160	25.9%
Business model changes	157	25.4%
Increased competition	154	25.0%
Flexible or remote work arrangements	151	24.5%
Inflation - impact on customer behavior	146	23.7%
Supply chain disruptions	144	23.3%
Inflation - impact on cost of capital	141	22.9%
Difficulty hiring skilled talent	129	20.9%
Expected recession	118	19.1%
ESG agenda	100	16.2%
Other (specify)	0	0.0%
I don't know	0	0.0%
None of the above	0	0.0%
<b>Total</b>	<b>617</b>	<b>100.0%</b>

**Q10.** At your organisation, which of the following are the most important indicators of business resilience? Select up to 3

Response	#	%
Employee satisfaction	208	33.7%
Easy access to capital	203	32.9%
Improved information security	201	32.6%
Ability to quickly adapt to new macroeconomic challenges	197	31.9%
Increasing productivity	189	30.6%
Maintaining sales/revenue	186	30.1%
Reliable supply chains	186	30.1%
Timely payment of bills	173	28.0%
Adoption of state-of-the-art technology (e.g. AI/ML, IoT, Blockchain, etc.)	173	28.0%
Other (specify)	0	0.0%
I don't know	0	0.0%
None of the above	0	0.0%
<b>Total</b>	<b>617</b>	<b>100.0%</b>

Q11. To what extent do you agree or disagree with the following statements? Select one in each row.

Response	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree	Don't know	Total
My organisation has difficulty meeting increasing customer expectations	54 8.8%	85 13.8%	64 10.4%	193 31.3%	221 35.8%	0 0.0%	617 100.0%
My organisation has difficulty with the digital transformation process	54 8.8%	84 13.6%	59 9.6%	210 34.0%	207 33.5%	3 0.5%	617 100.0%
My organisation is significantly impacted by supply chain disruptions	52 8.4%	66 10.7%	81 13.1%	228 37.0%	188 30.5%	2 0.3%	617 100.0%
My organisation's strategy is significantly impacted by inflation	51 8.3%	62 10.0%	73 11.8%	218 35.3%	212 34.4%	1 0.2%	617 100.0%
My organisation struggles to retain talent	58 9.4%	78 12.6%	63 10.2%	196 31.8%	219 35.5%	3 0.5%	617 100.0%
My organisation struggles to attract skilled talent	61 9.9%	72 11.7%	79 12.8%	189 30.6%	215 34.8%	1 0.2%	617 100.0%
My organisation struggles to implement its strategy to protect digital information	57 9.2%	78 12.6%	60 9.7%	222 36.0%	200 32.4%	0 0.0%	617 100.0%
My organisation struggles to set ambitious ESG goals	55 8.9%	70 11.3%	83 13.5%	204 33.1%	204 33.1%	1 0.2%	617 100.0%
My organisation struggles to meet ESG targets	50 8.1%	70 11.3%	85 13.8%	211 34.2%	199 32.3%	2 0.3%	617 100.0%
My organisation has difficulty finding the right technologies to facilitate flexible or remote work	52 8.4%	86 13.9%	64 10.4%	211 34.2%	202 32.7%	2 0.3%	617 100.0%

**Q12.** At your organisation, who typically proposes the need for new technology? Please select all that apply.

Response	#	%
CTO	206	33.4%
CEO	180	29.2%
CIO	158	25.6%
C-Suite executives (as a group)	142	23.0%
Senior Vice President/Executive Vice President	132	21.4%
IT department	122	19.8%
Chairperson/Board of directors or equivalent	119	19.3%
CFO	112	18.2%
President	98	15.9%
CMO	95	15.4%
Founder/Co-founder	60	9.7%
Vice President	58	9.4%
Director /Senior Director	53	8.6%
End-users (customers or internal users)	34	5.5%
Head of business unit/Head of department	33	5.3%
External consultants	2	0.3%
Various employees - there is no "regular" person or group	0	0.0%
Other (specify)	0	0.0%
I don't know	0	0.0%
<b>Total</b>	<b>617</b>	<b>100.0%</b>

**Q13.** Which of the following does your organisation regularly rely on to inform or help your organisation adopt new technologies? Please select all that apply.

Response	#	%
Technology implementation partners (e.g. independent software vendors like Amazon Web Services, system integrators like IBM, managed service providers like Accenture)	291	47.2%
Technology research/analytics providers (e.g. Gartner, International Data Corporation)	218	35.3%
Technology vendor events	210	34.0%
Company training programs	205	33.2%
Industry groups/associations	193	31.3%
Online communities	170	27.6%
Trade shows	153	24.8%
Buying collective	144	23.3%
Webinars	135	21.9%
Other (specify)	0	0.0%
I don't know	0	0.0%
None of the above	0	0.0%
<b>Total</b>	<b>617</b>	<b>100.0%</b>

**Q14.** To what extent do you agree or disagree with the following statements? Please select one in each row.

Response	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree	Don't know	Total
Meet increasing customer demands	8 1.3%	14 2.3%	67 10.9%	261 42.3%	263 42.6%	4 0.6%	617 100.0%
Increase employee flexibility or ability to work remotely	5 0.8%	22 3.6%	55 8.9%	281 45.5%	253 41.0%	1 0.2%	617 100.0%
Attract new talent	4 0.6%	13 2.1%	67 10.9%	264 42.8%	267 43.3%	2 0.3%	617 100.0%
Improve cybersecurity	6 1.0%	15 2.4%	66 10.7%	251 40.7%	278 45.1%	1 0.2%	617 100.0%
Grow revenues	3 0.5%	15 2.4%	55 8.9%	283 45.9%	260 42.1%	1 0.2%	617 100.0%
Meet ESG targets	8 1.3%	22 3.6%	67 10.9%	246 39.9%	273 44.2%	1 0.2%	617 100.0%
Address software engineering or IT department needs	5 0.8%	15 2.4%	59 9.6%	247 40.0%	290 47.0%	1 0.2%	617 100.0%
Address C-suite needs	4 0.6%	17 2.8%	73 11.8%	256 41.5%	262 42.5%	5 0.8%	617 100.0%
Increase operational efficiency	6 1.0%	10 1.6%	64 10.4%	257 41.7%	279 45.2%	1 0.2%	617 100.0%
Meet regulatory changes	6 1.0%	19 3.1%	72 11.7%	253 41.0%	266 43.1%	1 2%	617 100.0%
Improve ability to respond to the changing macroeconomic environment	4 0.6%	13 2.1%	72 11.7%	232 37.6%	295 47.8%	1 0.2%	617 100.0%
Modernise older, legacy systems	6 1.0%	13 2.1%	65 10.5%	265 42.9%	267 43.3%	1 0.2%	617 100.0%



**Q15.** When evaluating whether to introduce new technologies, which of the following does your organisation formally assess? Please select all that apply.

Response	#	%
Expected impact on customer experience	186	30.1%
Improved data management	182	29.5%
Employee sentiment regarding the new technology	181	29.3%
Expected longevity of new technology	166	26.9%
Expected impact on data security	161	26.1%
Time required to implement new technology	159	25.8%
Cost of new technology	154	25.0%
Cost of employees learning how to use a new technology	152	24.6%
Cost of implementation	141	22.9%
Environmental impact data	140	22.7%
Location of data storage	127	20.6%
Change in revenue	126	20.4%
Other (specify)	0	0.0%
I don't know	0	0.0%
None of the above	0	0.0%
<b>Total</b>	<b>617</b>	<b>100.0%</b>

**Q16.1** At your organisation, who is involved at each of the following stages of new technology adoption - Determining the need for new technology. Please select all that apply.

Response	#	%
IT department	297	48.1%
End-users	189	30.6%
Founder/ President	143	23.2%
Middle management	127	20.6%
C-suite executives	109	17.7%
Don't know	0	0.0%
<b>Total</b>	<b>617</b>	<b>100.0%</b>

**Q16.2** At your organisation, who is involved at each of the following stages of new technology adoption - Selecting technology type. Please select all that apply.

Response	#	%
IT department	267	43.3%
Middle management	249	40.4%
C-suite executives	211	34.2%
Founder/ President	66	10.7%
End-users	52	8.4%
Don't know	0	0.0%
<b>Total</b>	<b>617</b>	<b>100.0%</b>

**Q16.3** At your organisation, who is involved at each of the following stages of new technology adoption - Implementing new technology. Please select all that apply.

Response	#	%
Middle management	326	52.8%
IT department	241	39.1%
C-suite executives	170	27.6%
Founder/ President	97	15.7%
End-users	51	8.3%
Don't know	0	0.0%
<b>Total</b>	<b>617</b>	<b>100.0%</b>

**Q16.4** At your organisation, who is involved at each of the following stages of new technology adoption - Assessing/evaluating new technology. Please select all that apply.

Response	#	%
IT department	261	42.3%
C-suite executives	253	41.0%
Middle management	220	35.7%
Founder/ President	80	13.0%
End-users	56	9.1%
Don't know	0	0.0%
<b>Total</b>	<b>617</b>	<b>100.0%</b>

**Q16.5** At your organisation, who is involved at each of the following stages of new technology adoption - Final approval to purchase new technology. Please select all that apply.

Response	#	%
Middle management	220	35.7%
C-suite executives	202	32.7%
Founder/ President	200	32.4%
IT department	183	29.7%
End-users	59	9.6%
Don't know	0	0.0%
Total	617	100.0%

**Q17.** Which of the following does your organisation require as part of new technology implementation?  
Please select all that apply.

Response	#	%
Establishing implementation metrics for evaluation (e.g. hours spent to implement)	172	27.9%
Training program or employee support for the new technology	163	26.4%
Agile project implementation or short cycles of rapid testing and iteration	152	24.6%
Thorough review of error reporting protocols	149	24.1%
Alignment of implementation with business strategy	145	23.5%
Internal feedback processes	139	22.5%
Clearly defined implementation roles	137	22.2%
Standardised processes for all technology implementation	135	21.9%
Customised/bespoke processes for each new technology	133	21.6%
Stage gate or milestone-based implementation	133	21.6%
Consultant/third-party implementation	132	21.4%
Implementation schedule and benchmarks	131	21.2%
Readiness assessment prior to implementation	118	19.1%
Third-party testing	75	12.2%
Internal testing	73	11.8%
Other (specify)	0	0.0%
I don't know	0	0.0%
None of the above	0	0.0%
<b>Total</b>	<b>617</b>	<b>100.0%</b>

**Q18.** Which of the following are the most significant obstacles your organisation faces when implementing new technology? Please select up to three.

Response	#	%
Employees' lack knowledge on how to use the new technology	192	31.1%
Lack of alignment between technical and managerial teams	181	29.3%
Employee resistance to use of new technology	177	28.7%
Transition from a legacy system	177	28.7%
Insufficient financial resources	174	28.2%
Requires a lot of employee hours	163	26.4%
Lack of consensus at the leadership level	161	26.1%
Integration with existing systems	160	25.9%
Overly aggressive timelines	155	25.1%
Unsuccessful pilots	125	20.3%
Other (specify)	0	0.0%
I don't know	0	0.0%
None of the above	5	0.8%
<b>Total</b>	<b>617</b>	<b>100.0%</b>

**Q19.** Which of the following processes or tools does your organisation use to evaluate the performance of new technologies? Please select all that apply.

Response	#	%
Cost Benefit Analysis	217	35.2%
Product/technology usage data or telemetry	190	30.8%
User surveys or feedback forms	188	30.5%
Analytics tools (e.g. tools or metrics to track and assess performance indicators)	185	30.0%
Post-implementation reviews	177	28.7%
Third-party assessments	169	27.4%
Direct feedback to managers	165	26.7%
User testing	148	24.0%
Internal audits	137	22.2%
Focus groups	134	21.7%
A/B testing	111	18.0%
Other (specify)	0	0.0%
I don't know	0	0.0%
None of the above	0	0.0%
<b>Total</b>	<b>617</b>	<b>100.0%</b>

Q20. To what extent do you agree or disagree with the following statements? Please select one in each row.

Response	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree	Don't know	Total
Everyone at my organisation plays a role in ensuring we have quality data	6 1.0%	12 1.9%	63 10.2%	264 42.8%	269 43.6%	3 0.5%	617 100.0%
My organisation shares technology adoption metrics across business units	5 0.8%	22 3.6%	67 10.9%	248 40.2%	272 44.1%	3 0.5%	617 100.0%
My organisation has a formal review process to assess how the technology implementation was carried out	10 1.6%	12 1.9%	77 12.5%	269 43.6%	248 40.2%	1 0.2%	617 100.0%
My organisation conducts assessments to understand the financial return on investments in new technology	8 1.3%	16 2.6%	69 11.2%	256 41.5%	267 43.3%	1 0.2%	617 100.0%
My organisation uses data to make better technology decisions in the future	7 1.1%	18 2.9%	63 10.2%	250 40.5%	275 44.6%	4 0.6%	617 100.0%
My organisation encourages feedback about newly introduced technologies	3 0.5%	18 2.9%	71 11.5%	245 39.7%	279 45.2%	1 0.2%	617 100.0%
My organisation has a documented technology strategy	6 1.0%	15 2.4%	60 9.7%	265 42.9%	268 43.4%	3 0.5%	617 100.0%
My organisation's technology enables different teams to work collaboratively together	6 1.0%	18 2.9%	74 12.0%	252 40.8%	264 42.8%	3 0.5%	617 100.0%



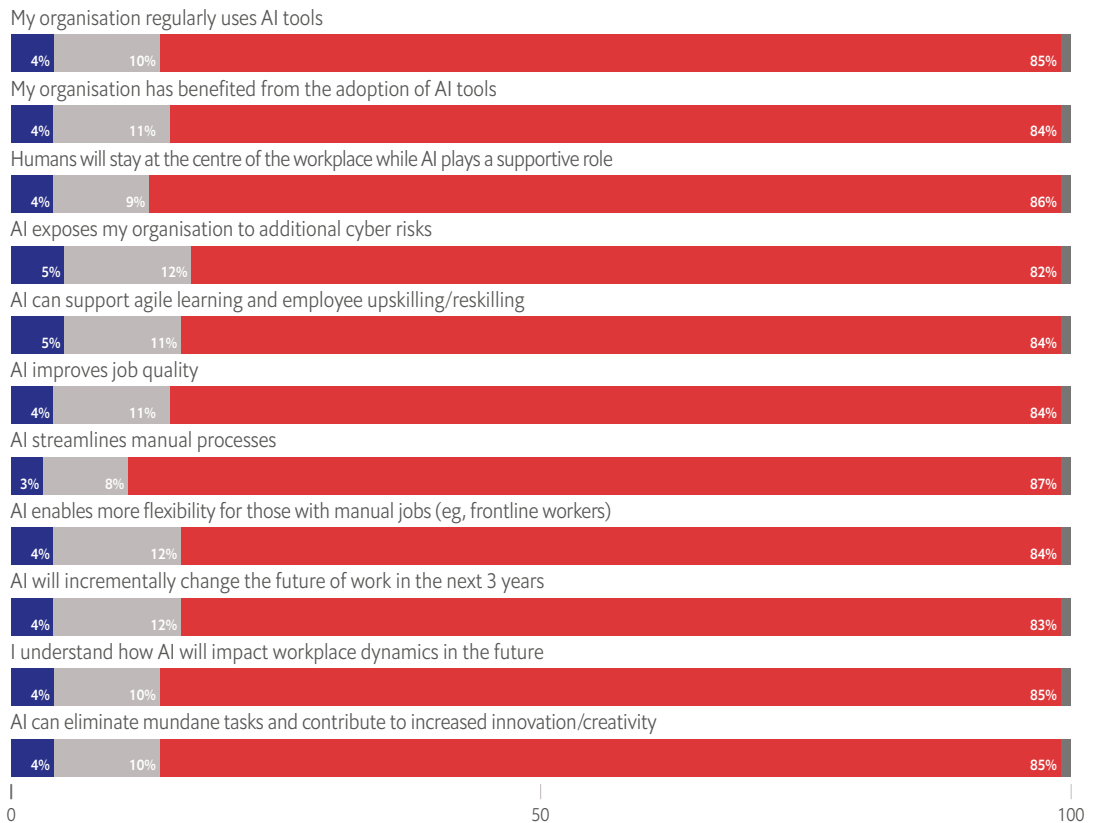
# Appendix II

## Cluster analysis methodology

Economist Impact conducted cluster analysis on survey data. Cluster analysis is a statistical method for processing data that works by organising items into groups, or clusters, on the basis of how closely associated they are. The goal is to identify natural groupings among items. Analysis was run on two particular questions, which were not included in the barometer calculations (see below):

### Q17: Impact of AI on work

■ Disagree ■ Neutral ■ Agree ■ Not sure



**Q18: Organisation preparedness for changing the future of work**

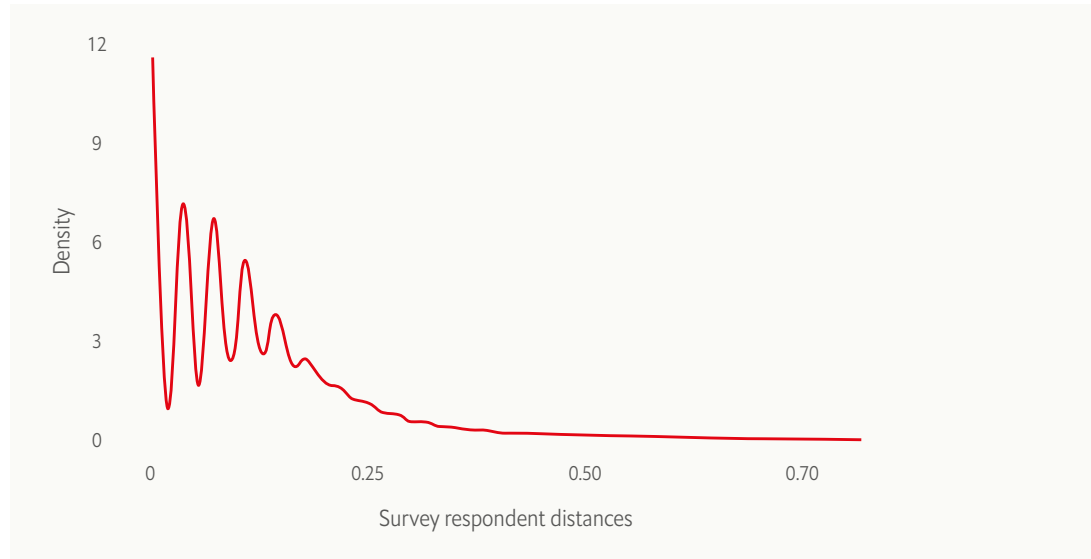
■ Disagree ■ Neutral ■ Agree ■ Not sure



An agglomerative hierarchical clustering method was used to determine the clusters. The distance between all individual survey respondents was calculated first. The Gower similarity is utilised, with Podani’s extension for ordinal numbers, given the suitability of this measure for ordinal survey data.<sup>1</sup> In plain terms, this method determines the distance of all respondents to one another (see Fig 1), using equal weighting for all the questions used to determine clusters, based on comparative rank order and frequency of responses to the survey questions.

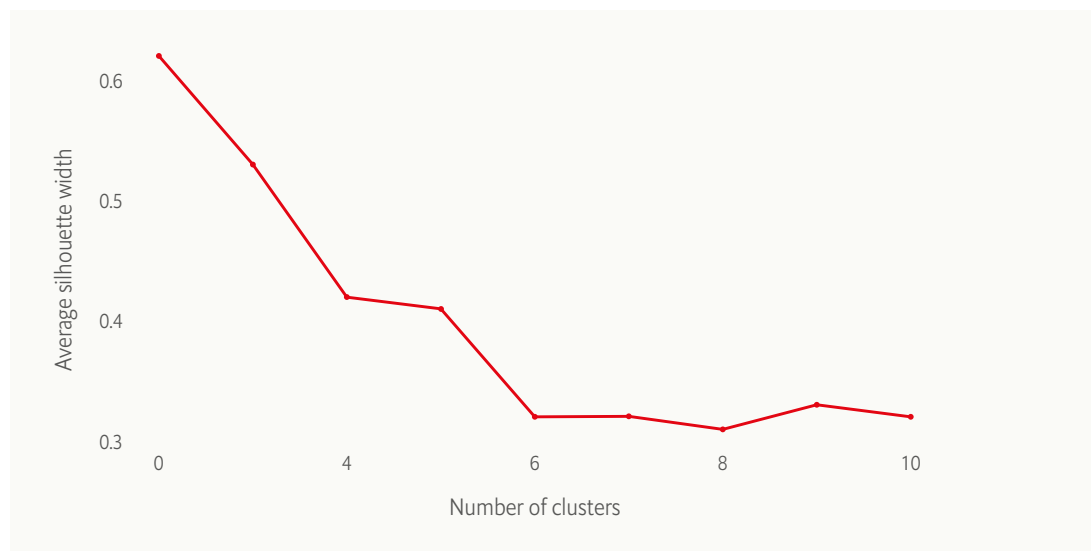
<sup>1</sup> The non-metric version is used, which is suitable for complete-linkage clustering.

**Figure 1: Density plot of distances of all survey respondents to one another**



Then, in an iterative fashion, the closest two objects (either individual survey respondents or clusters) are combined. A “complete” linkage was used, which means if clusters are being compared for distance, the furthest distance from within the clusters is used to determine the cluster’s distance to a survey respondent or another cluster. This linkage helps create tight clusters, and is appropriate for use with the chosen distance measure. Through this process, all items are combined until they form a single cluster. Following this procedure, a split point is chosen based on the optimal number of clusters. Analysis of the silhouette score indicated that if clusters are to be defined, two would be the best number.<sup>1</sup>

**Figure 2: Agglomerative clustering silhouette plot**



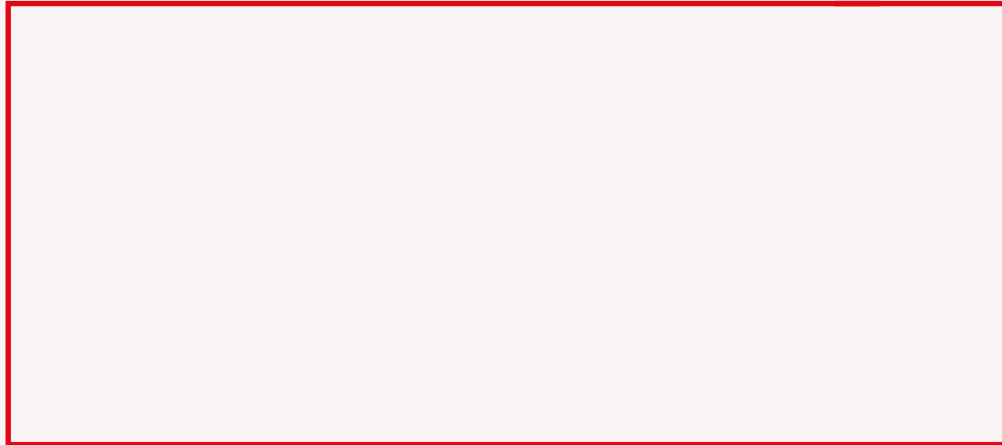
<sup>1</sup> There are a number of evaluation measures that can be used to determine the optimal number of clusters, of which the silhouette score is a methodologically robust option. For a task such as the one here (as with many tasks), choosing the optimal number of clusters requires subjective determination and domain knowledge. For instance, the “elbow method” could suggest the use of four clusters, but post-hoc analysis determined that three of the four clusters were quite small, and poorly differentiated, so two were ultimately used.

## Limitations

Cluster analysis, including for exploratory data analysis, ultimately requires subjective determination, domain knowledge and consideration of the end use. In this case, clustering should be treated as a complementary method for identifying related survey respondents for the purpose of investigating patterns in the data. Other groupings could reasonably be used, as there are myriad clustering algorithms available, as well as a number of evaluation measures that can be used to determine the optimal number of clusters. While the silhouette score, used in this case, is considered a methodologically robust option, other conventional choices would have led to different results. For instance, the “elbow method” could suggest the use of four clusters, but post-hoc analysis determined that three of the four clusters were quite small and poorly differentiated, so two were ultimately used. Together, evaluative metrics and subjective expertise led to the use of two clusters, broadly representing groups more optimistic and pessimistic towards AI and flexible work.

While every effort has been taken to verify the accuracy of this information, Economist Impact cannot accept any responsibility or liability for reliance by any person on this report or any of the information, opinions or conclusions set out in this report.

The findings and views expressed in the report do not necessarily reflect the views of the sponsor.



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