



# AGILE RADAR 2021

DRIVE BUSINESS VALUE. FASTER.



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## Getting better Agile outcomes

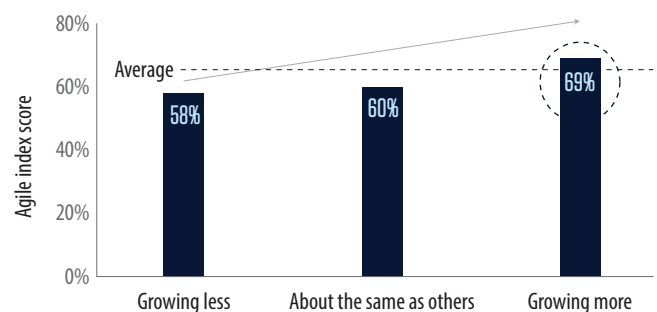
Much like software, Agile is eating the world. All five of the world’s most valuable companies<sup>1</sup> by market capitalization have used the method to grow market share and release products that customers love — and buy. From Jeff Bezos of Amazon<sup>2</sup> to Elon Musk of Tesla,<sup>3</sup> many fast-thinking executives vouch for the power of small, autonomous teams that exhibit the Agile mindset — a way of working where many organizational charts are thrown out and pockets of talent solve seemingly intractable problems. Even Samsung, an electronic hardware behemoth, has dissolved old patterns of bureaucracy and implemented teams of Agile practitioners to develop products faster and cheaper.<sup>4</sup>

Agile is no longer something just done in information technology (IT). This research, in which we surveyed 1,000 business and IT executives, found that 54% of enterprises have implemented Agile beyond technology and into finance, business operations, and human resources (HR).

The research’s conclusion was that Agile, when done well, works very well. Respondents were asked whether their firms were growing more or less than those of their peers. Our analysis found a strong correlation between holistic Agile capability and reported growth ahead of peers (see Figure 1). In fact, companies that have reported faster growth ahead of their peers have 11% greater Agile capabilities than those that do not. In Figure 1, the Agile Index score refers to a firm’s holistic Agile capability, as measured by the effectual working of **13 Agile levers** — or “behaviors” — across product-based value delivery, organization structure, Agile culture, and workspace/workforce. We will discuss the Agile Index in more detail in the next section.

Further, **seven** of these 13 Agile levers have the most impact on reported growth ahead of peers. By implementing the

**Figure 1. Effective Agile grows your business**



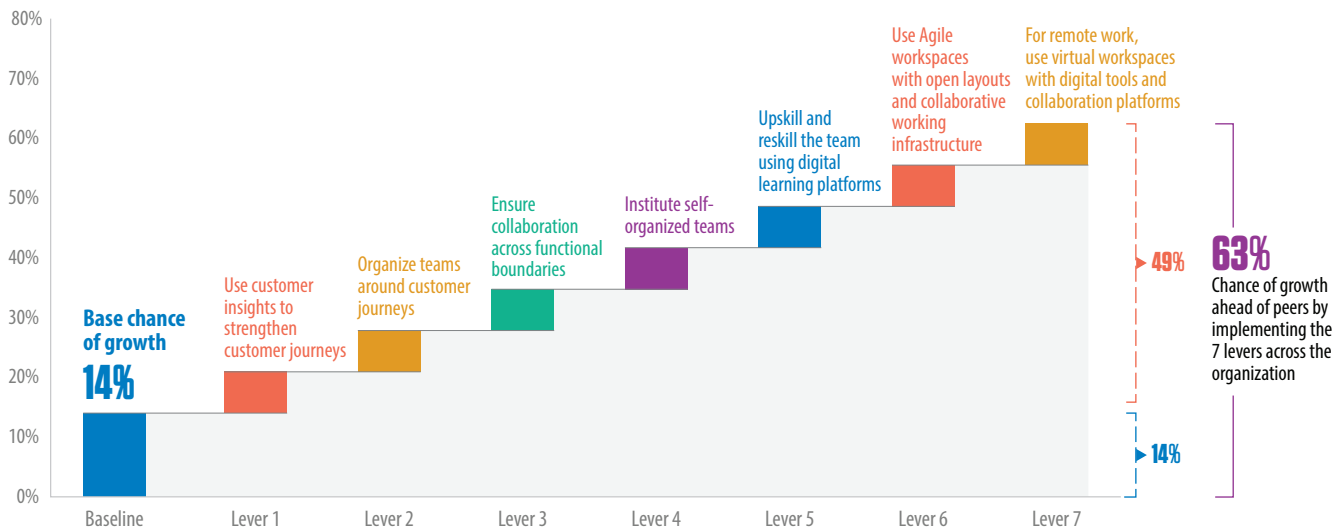
Source: Infosys

seven Agile levers in Figure 2, **a company’s reported chance of growth ahead of peers can be as much as 63%**, starting from a baseline of 14%.

*By implementing seven Agile levers, reported chance of growth ahead of peers can be as much as 63%*

We also found that **just over half** of the companies in our research reported that they had achieved the desired **business outcomes**, such as improved market share and reduced costs from their Agile programs. This begs the following questions: What are these firms doing differently than the rest to generate business value quickly? And where should the trailing enterprises focus their Agile approach and adoption to achieve the best outcomes?

**Figure 2. Seven-lever approach to increase growth from Agile transformation**



We used a linear regression model to analyze the results from 1,000 respondents whose organizations have pursued Agile transformations using Agile levers to predict growth.

Source: Infosys

Based on conversations with subject-matter experts and clients, and our analysis of 1,000 firms surveyed, we found that:

- Digital native organizations use Agile levers that enable **high business agility** and **positive business outcomes**.
- These smallish, digitally savvy firms take a product-centric approach and focus on the customer, with the

ability to quickly stand up **cross-functional** teams remotely.

- Such firms also make the employee central to business and IT operating models. This ensures that products or services with disruptive potential see the light of day, with formal budgets and channels established at the earliest stage.

Insights were developed by building an **Agile Index**. The index scored respondent firms from “0-100” on the effectual working of 13 Agile levers, creating a holistic Agile capability metric.

### Levers of Agile capability

The Agile levers used in the Agile Index span elements of **product-based value delivery, organizational structure, culture, workforce, and workspace**. With an end-to-end view, based on surveys and complemented by qualitative interviews, we were able to cherry-pick Agile levers used at scale by successful organizations.

We inputted the below 13 levers into our model to create the Agile Index.

### Business and IT performance

Two **success measures** were also developed to correlate holistic Agile capability (as measured by the Agile Index) with business and IT performance.

- **Business performance:** Firms were scored on their view of how Agile affected their cost, revenue, employee engagement, customer satisfaction, productivity, and market share.
- **IT performance:** Firms were scored on their view of how Agile affected their service availability, software quality, mean time to recover, user satisfaction, feature release frequency, and feature release velocity.

## THE 13 AGILE LEVERS

PRODUCT-BASED VALUE DELIVERY			
<b>Customer journeys</b> used to identify related value streams	<b>Customer insights</b> elicited on an ongoing basis to strengthen customer journeys	Focus on <b>value streams and products</b> instead of functional siloes	<b>Incremental funding</b> , following a minimum viable product-based approach
ORGANIZATION STRUCTURE			
Teams <b>integrated</b> across business and technology	Teams organized around <b>customer journeys</b>	Effective <b>collaboration</b> across <b>functional boundaries</b>	
CULTURE			
<b>Self-organized</b> teams	<b>Servant leadership</b> demonstrated across roles	<b>Shared purpose</b> prevalent across the organization	
WORKFORCE AND WORKSPACE			
Regular <b>upskill-reskill activity</b> , with ready access to digital learning platforms	<b>Agile workspaces with open layouts</b> and collaborative infrastructure	<b>Virtual workspaces with digital tools</b> and collaboration platforms for remote work	

### 10 Agile levers drive IT; 5 Agile levers drive superior business outcomes

While all 13 Agile levers are used to increase IT performance, we found that 10 had significant impact on the **IT success** score (see Figure 3). Given the pandemic was at its peak during this research, it is not surprising that organizations that had invested in **virtual workspaces** continue to realize success in Agile initiatives.



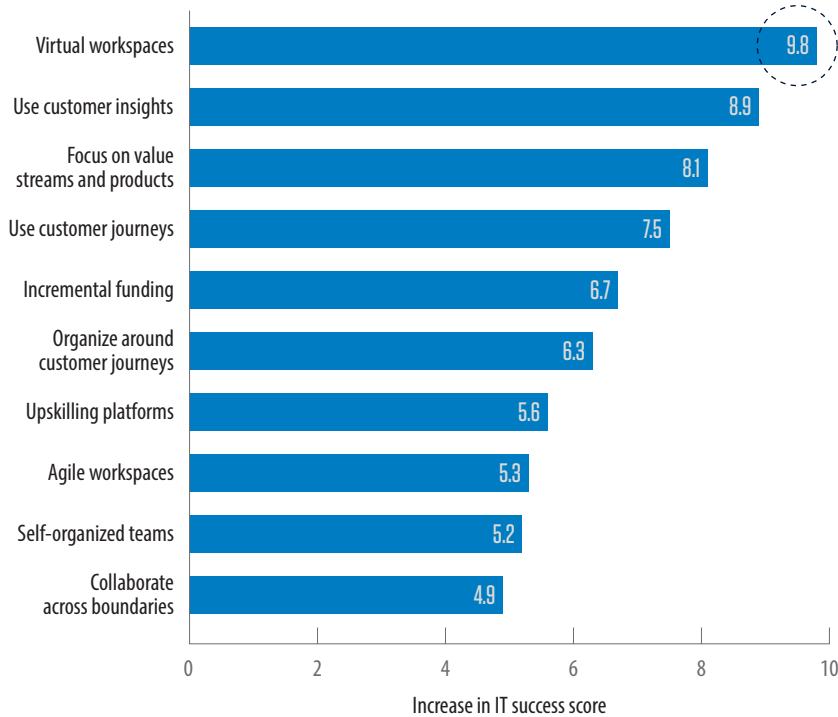
Pivoting to a remote working model, in response to the pandemic, proved less of a challenge for Infosys, thanks to our investments in building digital capabilities and skills for our workforce in distributed Agile working.

- U.B. Pravin  
COO, Infosys

Indeed, the coronavirus pandemic challenged a core principle of Agile: Use face-to-face interactions. Firms must now adapt Agile to the remote context as organizations go hybrid. To enable this, remote analogues for meetings, sales execution, and IT support are necessary, along with advanced collaboration tools so that employees are engaged and do their best work no matter where they are.

And U.B. Pravin, chief operating officer at Infosys, concurs: "Pivoting to a remote working model, in response to the pandemic, proved less of a challenge for Infosys, thanks to our investments in building digital capabilities and skills for our workforce in distributed Agile working. We have clearly established that any work can potentially be done anywhere in the world without loss of productivity or integrity of the work."<sup>5</sup>

**Figure 3. 10 levers drive IT success**



Source: Infosys

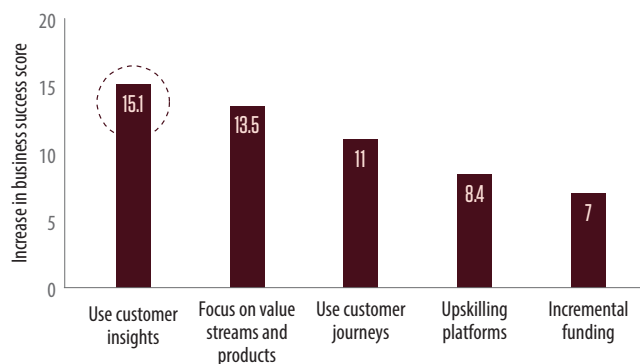
Additionally, all 13 levers used in our Agile Index influence business outcomes, when deployed effectively. However, we found that **five of those levers had greater impact on business success**, increasing the score by as much as 15 points (on a scale of 0-100) (see Figure 4). Specifically, the levers are:

- Elicit **customer insights** on an ongoing basis to strengthen customer journeys.
- Focus on **value streams and products** rather than functions.
- Use **customer or user journeys** to identify value streams.
- **Fund incrementally** and use a minimum viable product-based approach.
- **Upskill and reskill** team members frequently, often through the use of **digital learning platforms**.

The first four levers above are all of the product-based value delivery levers used in our Agile Index — and all significantly influence both business and IT success, making them critical. The fifth lever pertains to the workforce: Organizations with a continuous learning culture, enabled by digital learning platforms, also have a greater likelihood of business success.

Learning platforms such as Wingspan from Infosys bring proprietary internal organizational knowledge, along with the external content from academia, partners, and market influencers. This transition from instructor-led classrooms to remote self-service benefits globally distributed, time-starved workers.

**Figure 4. Value delivery levers drive superior business outcomes**



Source: Infosys

## Agile beyond technology delivers the greatest results

- A majority (54%) of enterprises have adopted Agile ways of working in business functions **beyond IT** — business operations, HR, finance, sales and marketing, and even legal are included.

At Infosys, internal user journeys are undergoing continuous improvements as part of our drive toward enterprise agility. Decentralized decision-making is encouraged by standing up cross-functional teams from different stakeholder units. These teams own the related value streams and are empowered to make decisions and drive improvements. Performance is measured based on productivity metrics and employee experience feedback. This helps businesses transform into what we describe as a live enterprise — an organization that responds to market feedback at speed and ensures that outcomes are aligned to customer preferences. The mantra then becomes not just “Doing Agile at scale,” but rather “Be an Agile organization.”

“As Infosys transforms to a live enterprise, agility is a core tenet that we are embedding in the DNA of the organization,” says Nabarun Roy, senior vice president and group head of quality, productivity, and risk management. “We are reimagining our internal user journeys to simplify ways of working, create sentient and responsive systems, and bring in greater collaboration among our internal functions, with the goal of ensuring faster outcomes and elevating employee experiences.”

And it’s not just Infosys or the digital natives that are taking this route. This year, we found that a majority (54%) of companies have scaled Agile outside the IT function.

After IT, operations (48%), marketing (32%), and supply chain (32%) are the functions most likely to use Agile (see Figure 5).

Instead of marketing or sales working in siloes, boundaries are blurred between these functions. Value flows through the organization quickly based on small entrepreneurial teams, sentient principles in process improvement, and a micro-change approach to adoption. Further, these teams are more likely to design and develop products and services that delight customers. See the Infosys Knowledge Institute white paper “[Where Agile Goes Wrong](#)” for a discussion regarding the need to integrate and adopt Agile across different units as well as the benefits achieved from doing so.

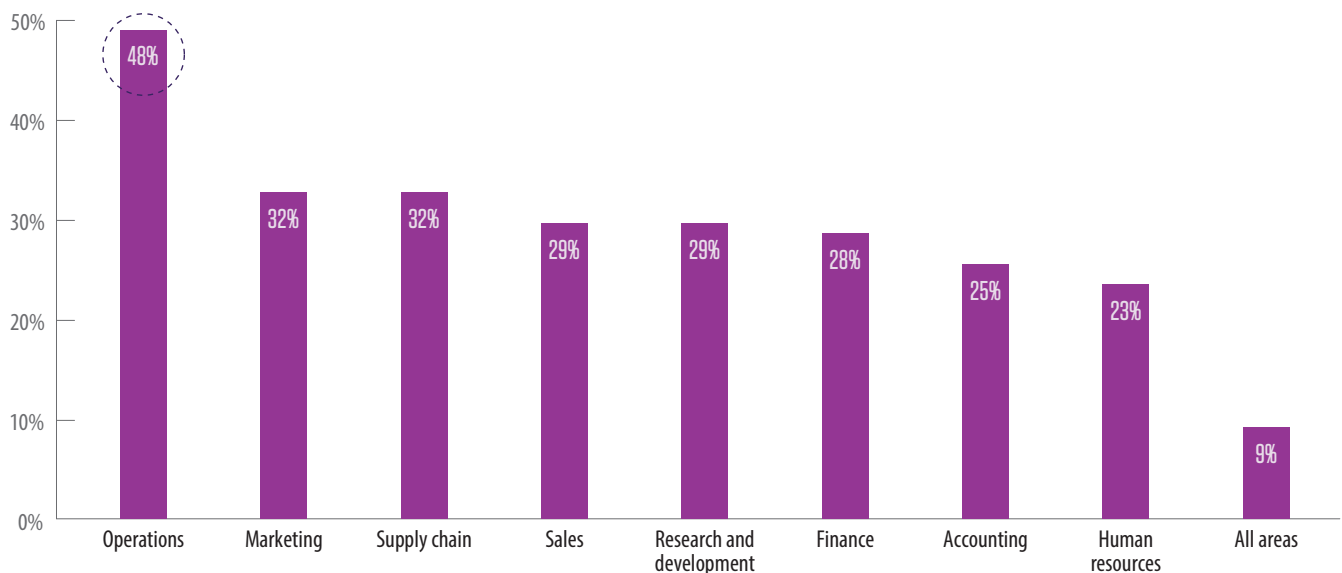


At Infosys, we are reimagining our internal user journeys to simplify ways of working, create sentient and responsive systems, and bring in greater collaboration among our internal functions.

- Nabarun Roy

SVP and group head of quality, productivity, and risk management at Infosys

**Figure 5. Operations, marketing, and supply chain lead functional Agile adoption outside of IT**



Source: Infosys



## C-suite executives are focused on product management

- For organizations undergoing an Agile transformation, **product management** is a business investment priority.

In 2021, enterprises indicated investments in product management are their top business priority, with 67% of executives investing there (see Figure 6).

We see a clear trend of enterprises shifting to a product-based delivery model to increase customer centricity and accelerate desired business outcomes such as cost reduction and revenue growth. The ability to deliver value incrementally and pivot based on customer feedback leads to faster benefits realization.

“Today, enterprises are looking to significantly accelerate their digital journeys to realize business value faster” said Ravi Kumar S, president of Infosys. “Forward thinking firms are now evolving to a product centric operating model to ingrain customer centricity, business agility and innovation in the fabric of their organizations. Building product management

and experience design capabilities are becoming the need of the hour.”

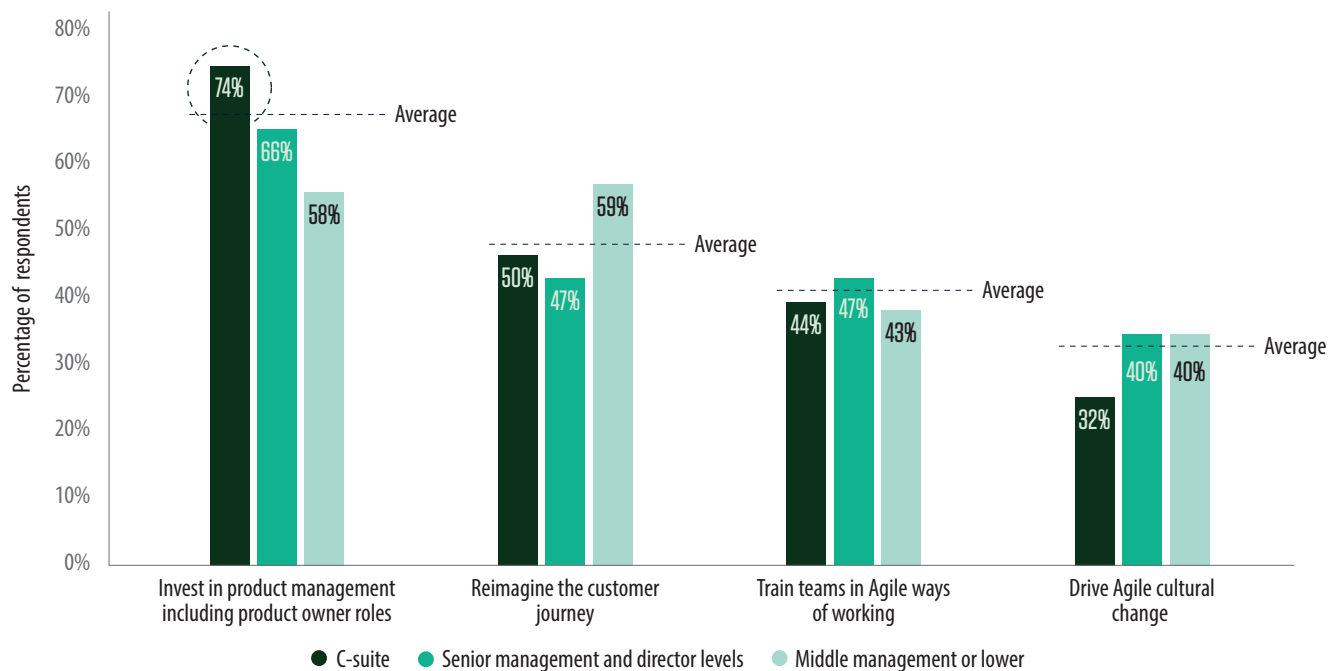
One domain product owner at a Fortune 500 automotive company we spoke to is similarly optimistic about the benefits of a product-based delivery model: “As a product-oriented organization, we remain adaptable in times of change, promote entrepreneurship, and focus our activities on finding solutions that will provide real value for our customers. Product management brings back the focus on the best possible solution to a problem, and that’s what it’s all about.”



Forward thinking firms are now evolving to a product centric operating model to ingrain customer centricity, business agility and innovation in the fabric of their organizations.

- Ravi Kumar S  
President, Infosys

**Figure 6. Product management is the top Agile business investment this year, and a focus for the business C-suite**



Source: Infosys



A leading logistics client established a product-based organizational construct, with more than 40 Agile scrum teams having both engineering and product management capabilities. These autonomous teams were highly responsive and adapted rapidly to customer feedback, enhancing the experience. This led to increased profitability early on and a two-fold increase in shareholder value.

## Nearly three-quarters of the business C-suite invest in product owner roles

To achieve success in product-based delivery, senior executive support is required. Executives can remove impediments to progress and ensure product teams have the ears of both business and IT. They can act to support experimentation and rapid decision-making through high-level strategy that rewards risk-taking. See the book

“No Rules Rules: Netflix and the Culture of Reinvention” for a better understanding of how Netflix’s CEO Reed Hastings organizes teams into product delivery units with high levels of autonomy and product-based funding. It is interesting to note, then, that the move to product management is driven from the top, with nearly three-quarters of the business C-suite investing in product owner roles.

When teams focus on value delivery, customer experience improves, business investments pay off quickly, and higher motivation and a sense of shared purpose prevail. In this paradigm, teams are autonomous and self-managed. However, onboard product owners carefully: Finding strong product owners with the right outlook and mix of skills is tough to get right.<sup>6</sup> Indeed, a key element of setting up a successful product team approach comes from having full stack capabilities. Most important, the product owner and team must promote a pervasive product mindset.

## DevSecOps is a top priority for CIOs

- For organizations undergoing Agile transformation, **scaling DevSecOps** is a top priority for IT executives.
- IT middle management sees a greater need for **Agile scaling frameworks**.

Accelerated business outcomes are very important. But without resilience across people, process, and technology, an organization’s ability to thrive in depressed markets will falter. For the technology function within the enterprise, being resilient also means having the ability to develop and deliver secure, reliable code.

“

DevSecOps drives higher automation across the value chain and allows for quick, reliable, and repeatable deployment of rapidly developed code.

- Alok Uniyal

Head of Agile-DevOps Services, Infosys

DevSecOps enables enterprises' value delivery systems to be secure by design, while also ensuring that the consistency, governance, efficiency, scale, and speed associated with software development are not compromised.<sup>7</sup> This move to DevSecOps establishes reliability and intelligent insight within application portfolios, making it easier to collaborate and detect problems early in the engineering life cycle. Further, DevSecOps ensures faster business decisions through AI and ML-enabled **customer insights**, often in close to real time.<sup>8</sup> For one automotive client, the Infosys DevSecOps Platform was used to quickly reengineer the core procurement platform, resulting in a ten-fold increase in deployment velocity and faster return on investment. The new platform was operational in just three months.

"With continuous delivery being a core tenet, DevSecOps drives higher automation across the value chain and allows for quick, reliable, and repeatable deployment of rapidly developed code," says Alok Uniyal, head of Agile-DevOps Services at Infosys. "This approach also avoids product delays and minimizes [the risks] and costs associated with security errors. Businesses should therefore use DevSecOps as a key

component in their digital transformation journey as they look at achieving speed while being resilient."

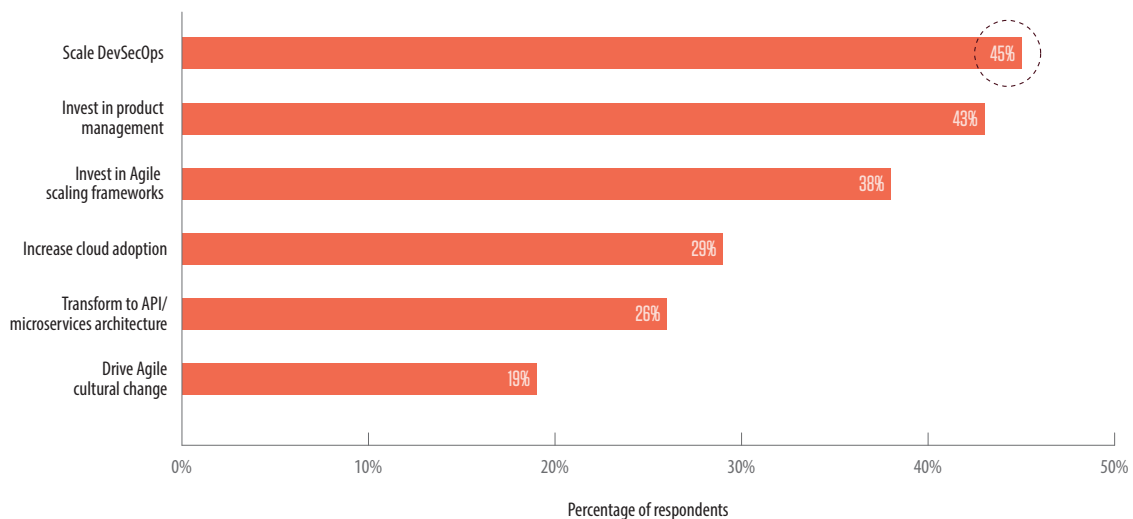
Beyond senior and middle management IT executives, CIOs are also prioritizing investments in DevSecOps (44%) and product management (46%).

We found that 48% of middle management is prioritizing investments in Agile scaling frameworks. This is not surprising given that middle management is accountable for scaling Agile adoption from small teams to a portfolio level. Scrum@Scale, SAFe, Spotify, and LESS are examples of scaling frameworks. A hybrid approach to these frameworks can help organizations identify the best fit for them, according to an [Infosys Knowledge Institute white paper](#).

## Cloud significantly increases profits when adoption hits 60%

In addition to Agile, Infosys research has shown that cloud is an IT priority and game-changer across industries and

**Figure 7. Agile investment priorities for IT executives in 2021**



Source: Infosys

business functions. The benefits of shifting workloads to the cloud and containing applications in technologies such as Docker include increases in business capability and speed while reducing costs. In fact, a new [research](#) study by the Infosys Knowledge Institute shows that when 60% or more of workloads are shifted to the cloud, \$414 billion in new net profits can be realized by incumbent organizations in the survey regions.<sup>9</sup>

For example, Vanguard, an investment adviser and asset manager in the U.S., benefits from cloud implementation



Cloud at Vanguard goes further with Agile and DevSecOps, with automatic infrastructure provisioning, and a cloud-native experimental approach to product creation.

- Martha King  
Chief Client Officer, Infosys



with a future-proof technology stack to improve time to market of AI-enabled analytics, faster iterative releases of applications, and a secure-by-design approach that protects data, applications, and infrastructure from threats. “The Vanguard digital journey shows how cloud can enable secure, radical, and client-centric technology transformation,” says Martha King, executive vice president and chief client officer at Infosys. “It has helped create a new standard for the industry, improving retirement savings outcomes for plan participants and sponsors through the use of secure digital technologies.”<sup>10</sup>

However, cloud isn’t used on its own, as King explains. “Cloud goes even further with an Agile delivery methodology and mindset. Through DevSecOps, cloud infrastructure can be provisioned automatically by engineers, with teams completing traditionally weeklong tasks in a matter of minutes. And with an Agile mindset, business and IT teams can take an experimental approach when releasing products to market. For instance, using lean start-up methods, client experience teams bring together business and technology to deploy experiments daily.”

## Culture is crucial to Agile success but is not prioritized by executives

- Two-thirds of respondents identified culture and mindset as the biggest challenges to implementing Agile.
- Yet, only 32% of business C-suite executives listed driving cultural change as a “top 2” investment priority, and only 24% of CIOs did the same.

### There is a need to align the entire organization with the Agile mindset

To be truly effective, the **entire** organization needs to be aligned with the Agile mindset and its methods. With this mindset in motion, small pockets of Agile spread quickly to the wider organization. Two prominent examples are one

Fortune 500 American healthcare company we spoke to, and Netflix, the video streaming titan.

The head of the American healthcare company’s enterprise product acceleration unit started small with a trusted band of believers that embraced the Agile mantra of working prototypes over finished goods. Bringing on board junior programmers that had the space to shine was important. By removing obstacles to progress and ensuring business leaders were on board, product velocity went up. Further, bringing in DevOps processes meant the team could deploy applications and drive automation all the way through the application lifecycle. Even more important, however, was a culture and mindset that prioritized fast, iterative work cycles, human-centered design, autonomy of decision-making, and

senior leaders that worked with the product acceleration unit from the requirements stage all the way to deployment.

"We are an Agile accelerator," says the head of the enterprise product acceleration unit. "We rarely, if ever, hear the normal complaints of IT being too slow or too expensive as the business is "in the room" and see the whole process. They write and prioritize user stories with us and push the button for higher velocity delivery, with software deployed multiple times a day. It's awesome. Key to this is having business alignment, expert cloud-native engineers without pre-programmed biases, and a start-up vibe with feedback from key users so that we can deliver products that customers want and love."

However, that doesn't mean more formal processes aren't in place. In fact, the unit are pioneers for innovation at wider scale. "Because our team works fast and hard in short cycles, we balance autonomy with a good amount of governance and robust software standards. This helps other teams in the organization adopt Agile too. As time progresses, the wider organization is given an uplift, with re-usable components, standards and patterns that all accelerate organization wide product delivery."

And the proof is in the pudding. "A year ago, a senior executive had the idea for a large revenue generating idea. We delivered the MVP on time and on budget. Something that might have taken 8 months was taken to production in 7 weeks. Further, this work spearheaded the creation of a spin-off company. These sorts of successes become legend within an organization and really boost the credibility and expansion of Agile practices."

The Netflix case study speaks volumes about how Agile culture can challenge and change any workplace. Netflix's Hastings established a culture of radical honesty, freedom, and responsibility. Each senior lead is given a number of "chips" to work with, putting money into ventures they believe will drive considerable business benefits. They are invited to share both successes and failures with teams across the firm, with lessons catalogued and broadcast

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Agile ways of working has ensured that our employees are fully geared for hybrid work, which requires new ways to collaborate, orchestrate, and deliver.

Nandan M. Nilekani  
Chairman, Infosys

to executives without fear of backlash. Of course there is some operational control to ensure the company doesn't dissolve into chaos. As Dr. Ranjay Gulati writes in the Harvard Business Review,<sup>11</sup> "By giving people a clear sense of the organization's purpose, priorities, and principles, leaders can equip teams to make autonomous decisions that are in the company's best interests."

## Leaders leverage the Agile mindset as a recipe for success

Infusing this sort of Agile mindset into an enterprise's DNA is now a recipe for success in a volatile, complex, and ambiguous world.<sup>12</sup> Once the Agile mindset and practices are established, other impediments to progress in Agile initiatives tend to dissolve. Teams transcend their day-to-day pain points and move to a state of nirvana (empowered, having a big-picture view, self-motivated, connected) and produce high-quality work in half the time. This state of "flow" ensures teams are much more than the sum of their parts, and increases productivity, creativity, and improvisation. Instead of individuals blaming others when things go wrong, team members look for faults in the system and processes and take an objective view of both failure and success.

"Investments in our people have ensured that our employees have access to the latest digital skills and are embracing Agile ways of working," says Nandan M. Nilekani, chairman of Infosys. "Fortuitously, this also ensured that our employees are fully geared for the pandemic-induced model for hybrid work, which requires new ways to collaborate, orchestrate, and deliver."

Leaders at the American healthcare company and Netflix don't tell everyone what to do all the time. Rather, with the right processes, values, and resources in place, they remove team impediments and spend their time on high-value, strategic thinking. They lead from the "back of the room," and have faith that each team member will pull their weight, synchronizing on high-priority items with cross-functional teams. Servant leadership helps continuously improve teams, asking the question, "How can we do what we do better?"

"Culture eats everything for breakfast, not just strategy," says the automotive domain product owner. "A common understanding of the right values and beliefs, and [a] fully committed set of work and leadership principles, pave the way for psychological safety and form the basis for high-performance teams. From my experience, it is the cultural characteristics of a work environment that attract talent and ignite creativity, eventually enabling true agility with a unique spirit."

## Executives understand the importance of culture and mindset

Respondents in our research implicitly understand the importance of culture. Five of the top six challenges to Agile implementation this year were related to culture or mindset (see Figure 8). Number one, at 16%, was the inability of teams to collaborate across functional boundaries. Next was business misalignment (15%), which when addressed can significantly increase growth, according to our analysis. Legacy thinking (13%), inability to experiment quickly (12%), and organizational culture itself (10%) were all rated by respondents as major pain points. In total, two-thirds of respondents cited cultural challenges as most significant this year.

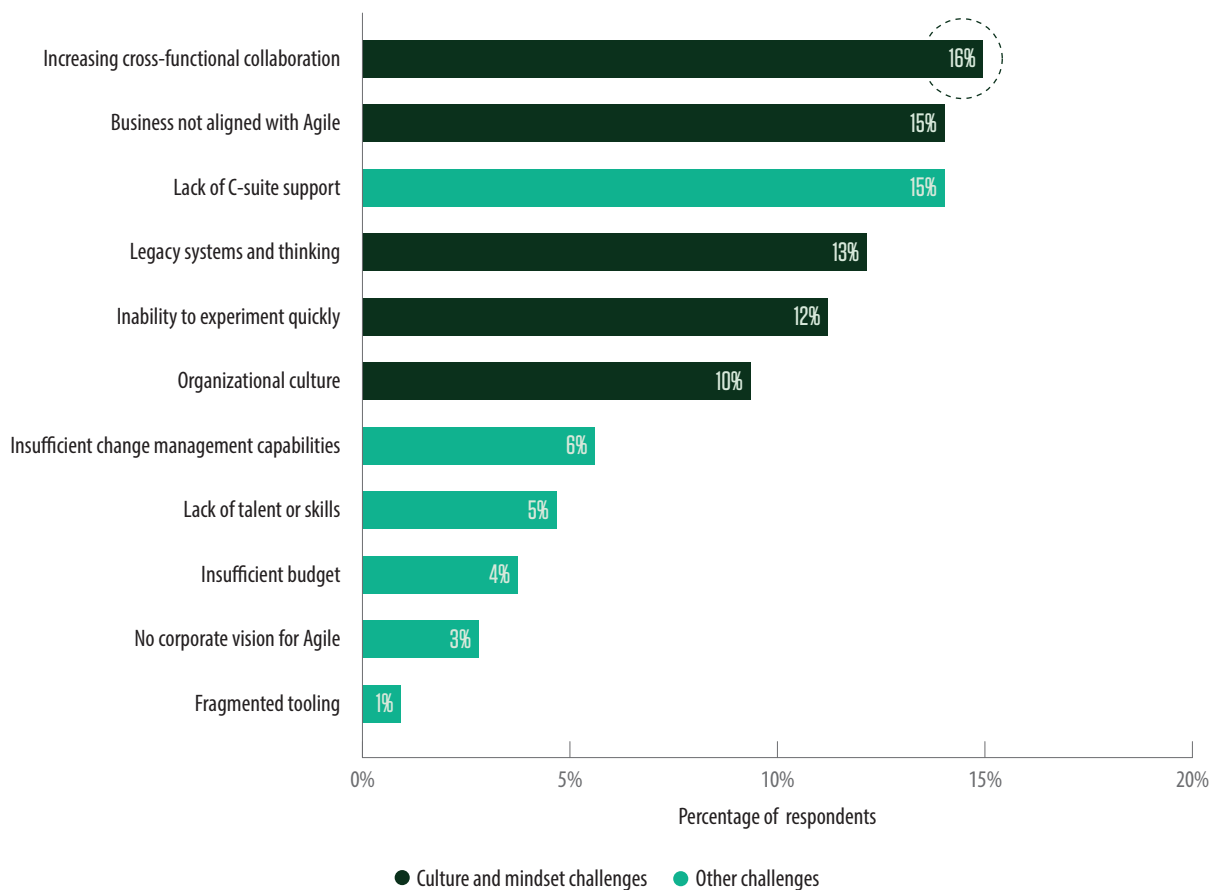
## But few executives invest in cultural change

However, just 32% of top business executives (see Figure 6) and 24% of CIOs are investing in cultural change. Sustaining

cultural change does not seem to be a priority, and yet it is a change that is crucial to survival and ongoing competitiveness — a 20th-century operating model<sup>13</sup> is not going to succeed in the 21st century. Firms such as Amazon bring together cross-functional teams that combine web developers, product owners, and pricing and merchandising specialists. Individuals and teams have significant autonomy to change items in the product line without senior management pointing the way. Sensing and responding to change becomes easier, and they are able to stay close to the customer. That strategy shows a significant increase in business success, according to our research.

Only with a concerted effort to establish and nurture an Agile culture will other strategic investments (product management, DevSecOps, cloud, etc.) pay off. This road to both **doing** and **being** Agile leads to transformational change, and pushes organizations one step closer to a live enterprise. With that approach, leaders can emulate in a modern way what Alexander the Great did upon landing on the shores of Persia. He told his men to burn their own ships,

**Figure 8. Cultural challenges were the most significant in our research**



Source: Infosys

giving them no path to retreat. “We will either return home in Persian ships or we will die here,” he famously said. While not following this literally, leaders today must demonstrate

similar commitment, daring to look to the vistas of tomorrow while ensuring employees are empowered and customers are served well.

## The 2 eras of Agile

Further patterns emerged from our analysis. We found that use of Agile levers and respective outcomes are different depending on **when a company began** adopting Agile, and **how far it has spread** in their organization.

In our research, we asked respondents **about the**

- **Duration** of their Agile journey (how long ago the organization adopted Agile ways of working).
- **Extent** of Agile adoption (spread of Agile within the organization).

This analysis found that the firms that started Agile in **the past two years** used levers and derived outcomes

significantly different than those starting more than two years ago. Further, higher Agile capability and greater IT success accrued to those firms that **spread Agile to more than 60% of their teams**, and those that had spread Agile to less than 60% of their teams.

Four cohorts or archetypes were identified using this two-dimensional split among duration of Agile journey and extent of Agile spread: “Starters,” “Sprinters,” “Marathoners,” and “Walkers.”

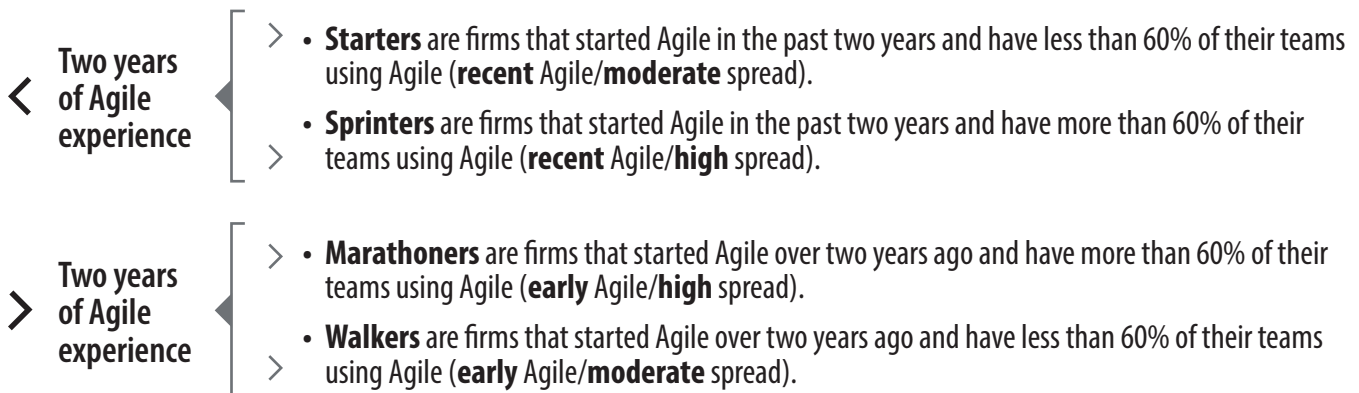
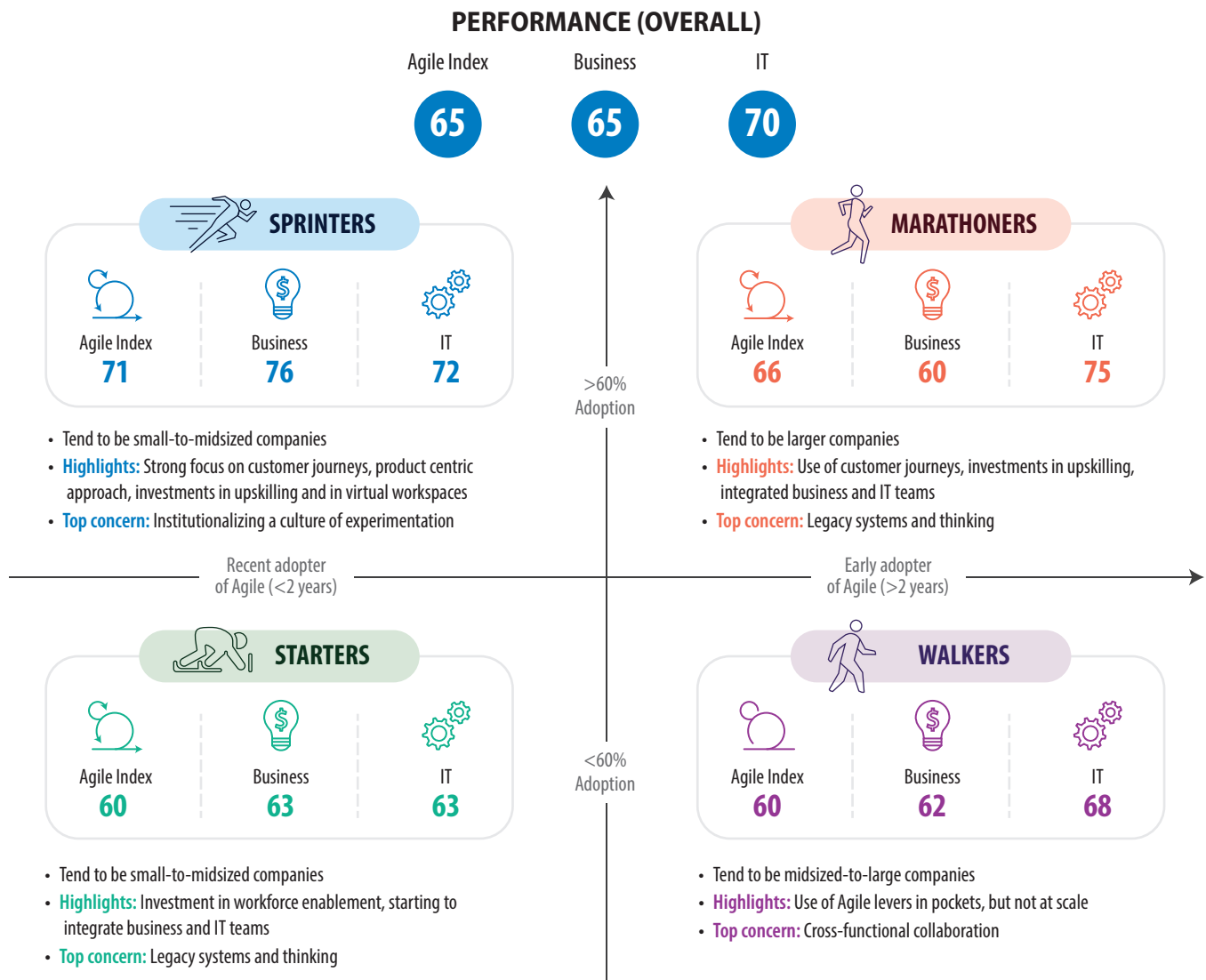


Figure 9 depicts these four archetypes, the typical levers used, and the outcomes realized by most firms within each group.

**Figure 9. Sprinters are out in front because they scaled Agile effectively for the past two years**



Source: Infosys

This two-by-two matrix shows the extent and duration of Agile adoption, with Sprinters and Marathoners (>60% adoption) performing better than the rest on the **Agile Index** and **IT success** measures.

Ironically, **firms that started Agile more recently** (Sprinters) **achieve better business outcomes from**

**their Agile transformation.** A further hypothesis might be that those using “early Agile” — the Marathoners and Walkers — adopted Agile ways of working in a sequential mode, whereas Sprinters tend to go all-in and use a holistic approach.



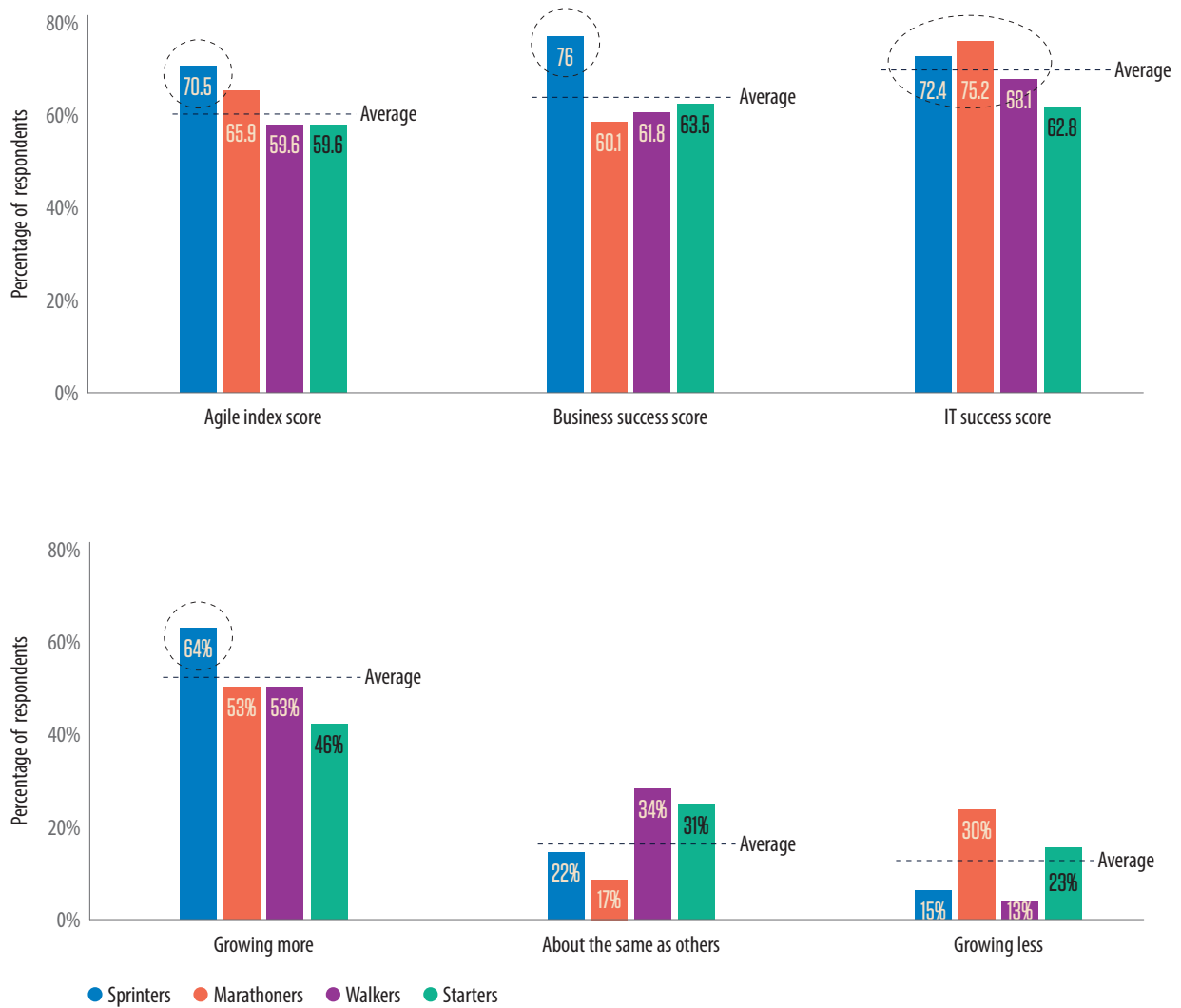


## Why Sprinters stand out from the rest

It is notable that Sprinters tend to be smaller firms that are growing faster (see Figure 10). However, Starters and Walkers

lag in scoring across the board and achieve mediocre growth compared with peers.

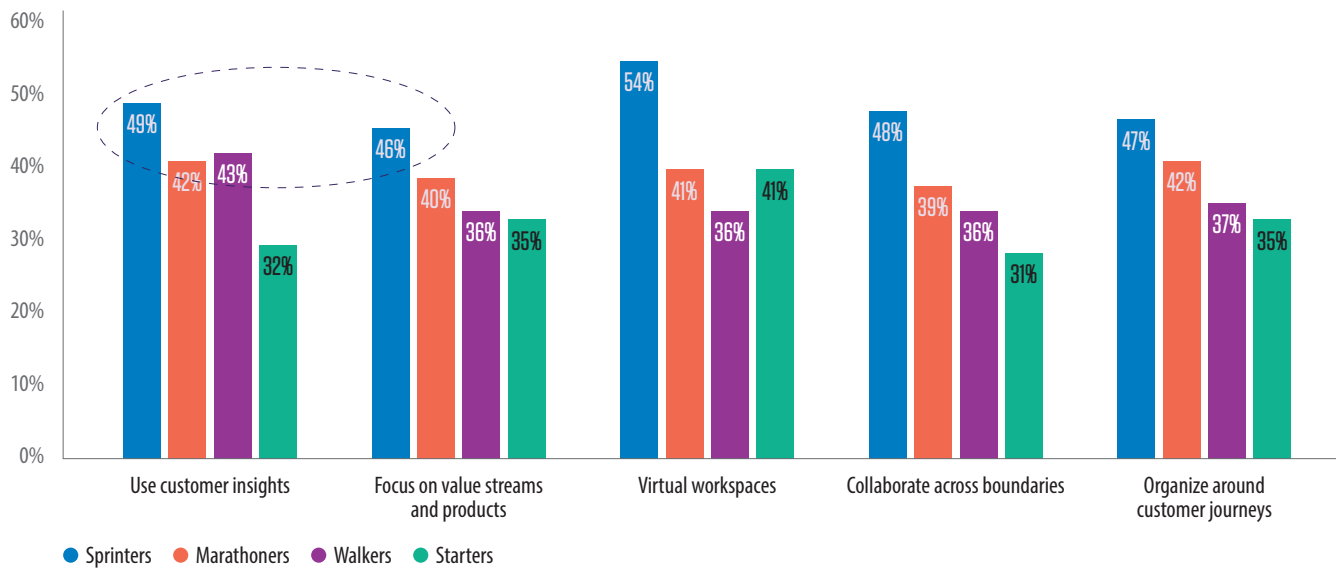
**Figure 10. Sprinters achieve both high growth and high Agile Index scores**



Source: Infosys

How do Sprinters achieve success? (See Figure 11.)

**Figure 11. Focus areas for Sprinters: Customer insights, and value streams and products**



Source: Infosys

Sprinters have a strong focus on customer centricity and on creating a sustainable ecosystem to support Agile ways of working. First, they elicit more insights to strengthen customer journeys and focus on value streams more than other firms, indicating a product-based approach. This approach accelerates innovation in these organizations. Our analysis indicates that these levers correlate strongly with superior business and IT performance.

Second, Sprinters also make investments in continuous learning for their workforce and encourage upskilling.

Third, these companies invest in virtual collaborative workspaces, which enables sourcing from a global talent pool as well as flexibility in choosing work models — distributed or co-located. This helps Sprinters navigate remote working.

“Recent development at our company reflect a more holistic approach to enterprise agility, following the Sprinter model of engagement,” the automotive domain product owner says. “Our internal ‘Sprinters’ follow a well-structured and strategic plan along the three Agile dimensions of strategy, structure, and culture. This enables these units to sustainably implement a broader organizational setup toward customer-centricity and business value. In some cases, this way of working even enables the whole business model to transform and deliver best-in-class customer solutions.”

While Marathoners deploy Agile widely and have strong IT performance, they may not significantly change funding models, core processes, and organizational hierarchies to achieve full business benefit. Indeed, our analysis shows that Marathoners find business misalignment to be a major challenge. Starters have just started to integrate business and IT teams, but are not achieving IT success, with legacy systems and thinking a top concern. Walkers, though a good way into their Agile journey, are still using Agile in pockets, but not at scale. These mid-sized-to-larger companies scored lowest on our business success measure, unable to kick-start cross-functional collaboration between teams.



**Sprinters focus on product-based customer-centricity, continuous learning and going virtual**



With business alignment and a focus on both products and customers, Sprinters can quickly launch small, autonomous Agile teams that prioritize vital touch points on the customer journey. Bigger, slower firms would do well to replicate this approach, organizing teams around value streams that generate greater profits for the organization before scaling more widely.

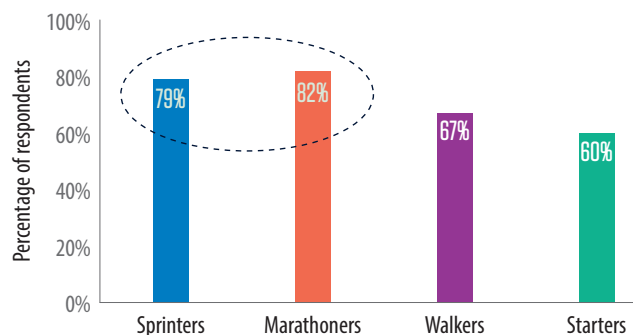


## The importance of Agile strategy

It is telling that firms with higher Agile Index and IT success (Sprinters, Marathoners) have CXOs that are **much more**

**likely to set Agile strategy** than CXOs from the Starters and Walkers (see Figure 12).

**Figure 12. Sprinter and Marathoner CXOs are more likely to set strategy**



Source: Infosys

As firms launch Agile programs, success requires executive support and sponsorship. This is essential to drive culture change, making the investments necessary for the transformation. This high-level strategy provides the tools

and techniques to break through impediments. Senior leaders should act now to work in an Agile cadence, shifting priorities and big bets to focus on areas that have significant impact on current operations and innovative new ventures.

“Working in an Agile cadence underpins our own transformative journey toward a live enterprise,” says Rafee Tarafdar, senior vice president and unit technology officer at Infosys. “With leaders focusing on high strategic priorities such as cloud; modernization; data and AI; and cybersecurity, using rapid funding cycles and shared digital infrastructure, we can launch innovative new products and services quickly, both for ourselves and our clients.”

**Success in Agile programs requires executive support and sponsorship**

## The industry perspective

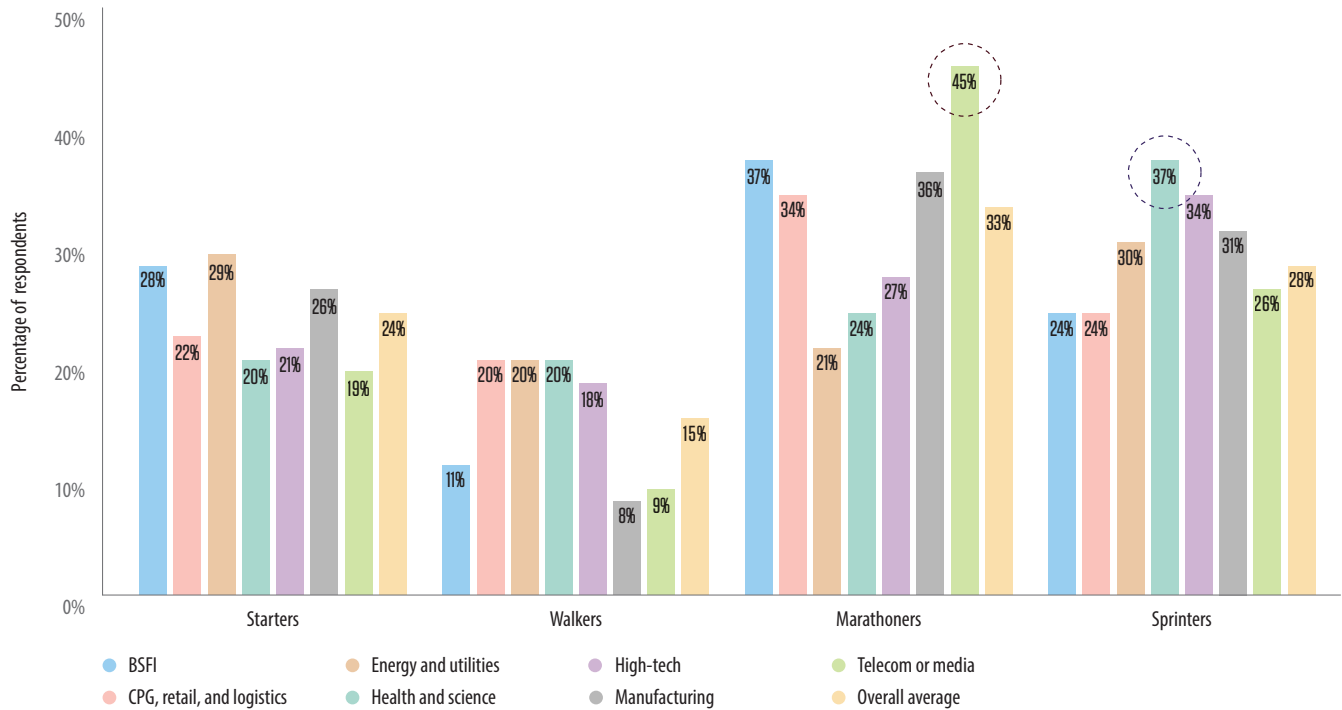
Similar patterns emerged across the various industries on the findings articulated above.

“Organizations have now realized that the most important store front is digital,” says Mohit Joshi, president of Infosys. “Agile ways of working are key to being digital. Large firms across industries are taking a leaf out of the experience of

digitally native firms, to rapidly scale Agile and make a step change in their digital transformation.”

Figure 13 shows that the Sprinter archetype has more firms in health care and life sciences and fewer firms in banking and retail. It is also notable that there are many more telecom or media firms in the Marathoner archetype, with high IT success but mediocre business performance.

**Figure 13. Health care and life sciences firms have more Sprinters**



Source: Infosys

Along with the American healthcare company’s enterprise product acceleration unit, an example of a Sprinter health care organization is 3M Health Information Systems, which provides health care performance measurement and management solutions.

Two years ago, executives at 3M decided to go all-in on Agile. To build innovative products that delighted customers, they spun off 3M Health in a way that took advantage of current structures and processes in the parent organization. The new company launched eight to 10 Agile teams every month or so. Two years later, more than 90 Agile teams are up and running. “Agile adoption has already enabled accelerated product deliveries and the release of a beta application six months earlier than originally planned,” says Tammy Sparrow, a senior program manager at the company.<sup>14</sup>

Analyzing further, we found that some industries achieve better business outcomes. Health care and life sciences firms scored 30 points higher on our business success measure than those in the telecom or media industries. It is also notable that high-tech firms attain superior IT performance, six points greater than the average across industries. Many of these high-tech firms were born Agile, and the industry includes a large number of smaller firms that focus

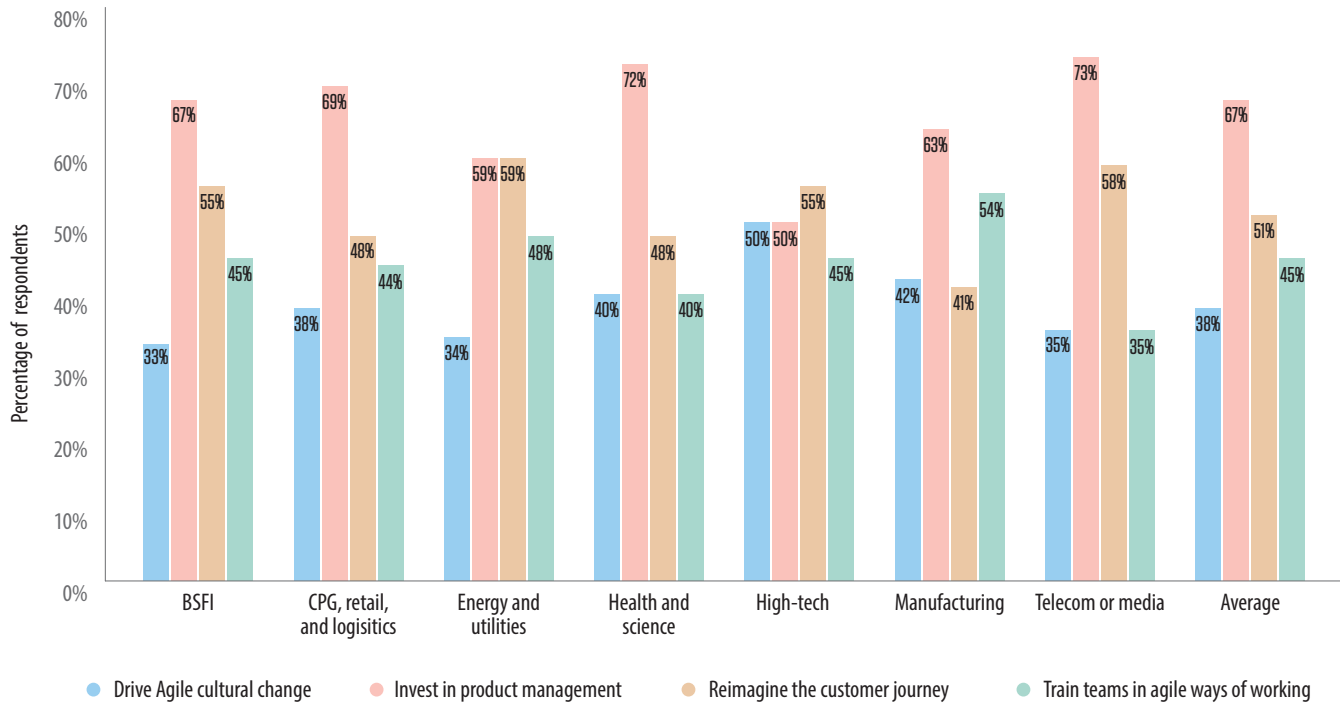
consistently on the customer and on product management. Our analysis also showed that high tech has also invested heavily in Agile scaling frameworks.

As high-tech firms move into markets once fought over by telecom and media firms (e.g. video streaming, advertising, gaming), the incumbents must now put effort into increasing their business performance. Many business executives in telecom and media are investing in product management and reimagining the customer journey (see Figure 14) so that the customer is center stage. The top concerns in this industry include business misalignment and a lack of cross-functional collaboration.

“ Large firms are taking a leaf out of the digital native playbook, rapidly scaling Agile to make a step change in their digital transformation.

**Mohit Joshi,**  
President, Infosys

Figure 14. Product management is a key investment priority across industries



Source: Infosys

Manufacturing scored highest on the Agile Index (68 points, compared to an average of 65). Manufacturing firms also invest highly in DevSecOps and have a good spread of Agile outside of IT (56%, compared to the 54% average). Firms such as Daimler,<sup>15</sup> Tesla,<sup>16</sup> and Bosch<sup>17</sup> have completely changed the way they do business. Building on their industry’s adoption of lean manufacturing in the 1980s and 1990s, these firms embraced the Agile mantra of working prototypes over finished products. They have also significantly redesigned their organization structure to allow small independent teams to build products that customers love. Firms in this industry are investing more than the rest in Agile ways of working in 2021, a full eight percentage points more than average (see Figure 14).

SpaceX is a hybrid manufacturing-high tech company that seamlessly combines elements of both industries. CEO Elon Musk took what he learned from early software ventures and applied the same Agile methodologies to the space industry. This includes Agile leadership as well as automation and DevOps for software delivery.<sup>18</sup> Teams are built around micro-products, and engineers use CAD and 3D modelling to view and simulate entire assemblies and automatically print parts. All this works in combination to reduce cycle time, improving both business and IT performance. One of the biggest factors in their success is that teams iterate quickly and fail fast. The whole organization learns how to work autonomously, and big decisions are made down the organizational hierarchy.

# Recommendations to achieve Agile business benefits

Based on the previous sections, we identified **six** approaches with leading strategies and actionable recommendations that can help companies increase the velocity, scale, and impact of their Agile programs. We detail these below.

## 1. Operate with empathy

An **organization built around the customer** is empathetic, productive, and effective.

To embed this way of working in the organization, firms can implement the following strategic initiatives and tactical actions:

### Strategic

- Create a workplace where employees are encouraged to reveal more human traits and aren't afraid to speak up about social issues. This will make the workforce more human, which pays off with customers. "If people who represent the brand act like humans and friends, then that's how customers will see you," says Daryl Person, a marketing professional at Hallmark. "They'll defend you when you have hard times, celebrate when you accomplish something, and thank you for being a good brand."<sup>19</sup>

### Tactical

- Use empathy maps to discover customer pain points and create the right value proposition. Who is the customer? What do they see, hear, and do in the market? A customer journey for each customer persona can then be developed.
- Use systems and design thinking to understand how the product or service will evolve and scale. What new markets will accept the product? What regulations and environmental, social, and governance (ESG) factors should be considered?

WONGDOODY, an Infosys company, developed a blockchain-based digital ID system using empathetic product design- and systems-thinking methodology. Built for people in impoverished countries, the ID system was created by mapping out the entire ecosystem that had some stake in the finished product — the processes, technologies, policy advisers, data, and users. The team

then brought together nongovernmental organizations, hospitals, governments, and other groups on one platform. With customer focus paramount at all stages of design, the use of empathy maps and systems thinking was able to embrace an inclusive process of engagement. Teams followed the Agile mantra of working prototypes over finished goods, with business outcomes realized in an iterative approach. This way of working created meaningful change, encouraging creativity and championing open solutions to a problem that once seemed unworkable.<sup>20</sup>

## 2. Increase learning agility

Any platform, product, or service requires fully enabled talent to make the journey from conception to execution. New technologies and processes must be mastered within cross-functional, autonomous teams that own the solution across the life cycle.

To embed this way of working in the organization, firms can:

### Strategic

- Drive a culture of learning in the enterprise.
- Invest in upskilling their existing talent pool by identifying the skills needed today and in the future.

### Tactical

- Accelerate learning curves by providing immersive experiences to supplement learning.
- Use hackathons to build resilient workforces and solve new problems. Business leaders give the team a problem statement and individuals work together in their domain of competence, developing critical thinking and design-thinking skills.

At Infosys, employees are categorized into different skill horizons based on workers' core, digital, and emerging skills. Learning programs are established to enable upskilling with a clear learning path. All of this is made possible by a platform (Wingspan) that connects learning, assignments, opportunities, and careers. Additionally, the platform provides an immersive, interactive experience with virtual playgrounds that are accessible to all employees for in-depth learning at their own pace.<sup>21</sup>

### 3. Collaborate virtually

Strategically minded CXOs will play a key role in using technology and information to build a hybrid workplace — both physical and virtual — that embraces the work styles of dispersed Agile teams across various roles and functions.

To enhance collaboration as teams go virtual, firms can:

#### Strategic

- Use skill tags and digital quotients for each employee to establish skill expertise in new-age, virtual, and niche technology spaces.
- Ensure recruitment drives can be conducted virtually.
- Ensure IT management systems minimize threats and prevent attacks, through a continuous cycle of vulnerability assessment and remediation, safeguarding data and brand reputation.<sup>22</sup>

#### Tactical

- Use digital whiteboards for real-time brainstorming, resolving impediments to progress.
- Use code collaboration software for increased developer productivity.
- Reference “virtual information radiators” at least once a day to keep them relevant.

Virtual work will never do away with the need for face-to-face communication. But by employing these practices, one can simulate an always-on environment for Agile teams.

### 4. Identify value flow and institute product-based value streams

Compelling **customer journeys** optimize the flow of value across functional boundaries. To be effective, map current business value streams and reimagine them for enhanced customer experiences. In large organizations, mapping will be more difficult. Questions to ask include: What are the products or services we serve to our customers and other businesses? What market segments do we support? What are the larger subsystems of these products?

Analysis requires awareness of purpose and how specific elements of value flow through numerous systems.

For example, Scaled Agile Framework (SAFe) suggests four types of business value streams: “fulfilment,” “manufacturing,” “software,” and “supporting.”<sup>23</sup> Once these business value streams are identified, products can be developed to support them.

Before organizing your teams around products and value streams, first ask: Will it benefit the business to organize in this way? To answer this question, look at inefficiencies of the current process, regulations that might require a project-based approach, or architecture that is better served without a value stream approach. If there are many handovers among teams, or customer value is lacking, this new approach is feasible.

To institute product-based value streams, firms can:

#### Strategic

- Define the boundaries, people, solutions, and deliverables that these value streams enable, with thought given to people and locations, key performance indicators, customer relationships, solutions developed, and customer segments served.

#### Tactical

- Map connections from products to the various steps in the value stream and identify the people who operate the solutions.
- Ensure systems and software developers, product managers, and IT practitioners all work together to define, build, and deploy solutions that customers want and need.

To help further, the Agile release train (ART) concept can be leveraged to deliver small increments of value to customers. You can find out more about ARTs [here](#) and how they can be used to incrementally develop, deliver, and operate one or more solutions in a value stream.

### 5. Use real-time customer insights to respond to market needs

Product marketers, software coders, and even business executives are using real-time analytics to know what’s working and what’s not. At the tactical level, effective customer insights provide real-time feedback on how to improve a product or service, and provide the wherewithal to pivot at the speed of market data.



To embed this way of working in the organization, firms can:

**Strategic**

Ensure data is not a lazy asset locked in systems of record. Use “systems of insight” to put in place an end-to-end system that translates **customer insights** into action.

- Use customer insights to unlock the attitudes and motivations that cause churn, engender loyalty, and convert emotion to action. Emotional AI, or affective computing, can be used by forward-thinking firms to tap into unspoken behaviors and reactions, increasing revenue by as much as 63%, according to CB Insights.<sup>24</sup> In fact, emotional AI can analyze speech and better match service representatives to customers across industries, massively improving net promoter scores.

**Tactical**

- Use tools such as GlassBox (analytics software for web and mobile platforms) to record customer journeys in production and gain insights on customer drop-off. Firms then iterate to improve the product.
- Use demos and A/B-testing techniques. Customers aid in the development process, and product owners show details of a product or service before larger roll-out. This strategy is especially useful when a product or service has no precedent in the market.
- Start with an MVP. Test it. And then embed learnings in the product life cycle.

## 6. Transform to Agile culture using micro-change management

Change is most effective when it occurs over a series of smaller micro changes, a way of working formalized

through the Large-Scale Adoption framework by Pramod Varma and Sanjay Purohit of the Societal Platform.<sup>25</sup> Small, orchestrated iterations change culture with a compounding effect, increase business results logarithmically, and reduce the leap of faith often needed in large enterprise programs.

To embed this Agile way of working in the organization at scale, firms can:

**Strategic**

- Modify team culture through behavioral nudges: Cues and suggestions are used along with targeted rewards and recognition to move individuals and teams toward what Jeff Kavanaugh, head of Infosys Knowledge Institute, and Tarafdar call “Routine +1.” This is a “small but positive step that eventually leads to ultimate behavioral shift with minimum resistance and risk along the way.”<sup>26</sup>
- Continuously measure, learn, and evolve. When outcomes deviate from the business objective, course correct through successive iterations. Change measurement should be evaluated for convenience, behavior, adoption, and value. In this way, products are piloted with a small subset of the customer base, and adoption is increased through hints, recommendations, and customer rewards.

**Tactical**

- Deconstruct big changes into smaller steps: In this paradigm, small, cross-functional teams work on high-priority initiatives in an Agile cadence.

At Infosys, this micro-change management approach enabled new capabilities to roll out every six weeks during the pandemic. Moving from desktop to mobile applications was the goal, with employees provided animated email hints, activity recommendations, and even credential badges. By 2021, more than 80% of the firm’s over 200,000 employees were using these mobile applications in their day-to-day work.

## Racing towards the Live Enterprise

Our research found a number of firms in the Sprinter archetype — firms that make customer centricity and a focus on products central to their business and operating model. With a high Agile Index score and superior business outcomes, these firms have created a sustainable ecosystem to support Agile ways of working. Core to their value proposition is the ability to upskill employees across business and IT, with working models that range from distributed to dispersed and co-located. Health care and high-tech firms often use this model of engagement, and are seeing tangible benefits to their top line.

In this new era of Agile, companies prize superior business outcomes beyond IT capability. And never has it been more necessary. Firms that don't grow quickly will be yesterday's high achievers. Sprinters inherently understand this. By following the six recommendations outlined above, Starters, Walkers, and Marathoners get a leg up on their Agile journey, and replicate this success.

However, the North Star for organizations isn't just more and better Agile or more and better technology. A clearer guiding light, rather, is one where the whole organization is "live," with employees, partners, [and the processes they use to get work done] able to respond to customer needs in "next to real time." "The Live Enterprise brings together the best of people, process, and technology to create a connected, observant, innovative, and sentient organization that can meet the expectations of an increasingly digitally conscious employee, partner, and customer. We first demonstrated its viability at Infosys, then brought to our wider ecosystem of partners and clients the lessons learned to help them grow," says Kavanaugh.

To get there, the workforce of the future will require constant upskilling and digital dexterity, with a fundamental reevaluation of how the business operates. Instead of a process-based ecosystem, high-performing

firms will continuously evolve and learn with start-up-like agility. Here, nurturing data-driven insights, responsive value chains, and perceptive experiences is important.<sup>27</sup> So too are enterprise-scale Agile teams with a product mindset, leveraging DevSecOps.

.....

***A North Star for Agile transformation is one where the whole organization is "live" with employees and partners responding to customer needs in real time***

.....

Most important though is the ability to take measured risks and build tomorrow's future with today's resources. "To dare is to lose one's footing momentarily. Not to dare is to lose oneself," said Soren Kierkegaard, the father of Existentialist philosophy. We hope this report and the insights shared offer food for thought to do just that, and acts as both compass and courage to launch bravely into the unknown.



The Live Enterprise brings together the best of people, process, and technology to create a connected, observant, innovative, and sentient organization that can meet the expectations of an increasingly digitally conscious employee, partner, and customer.

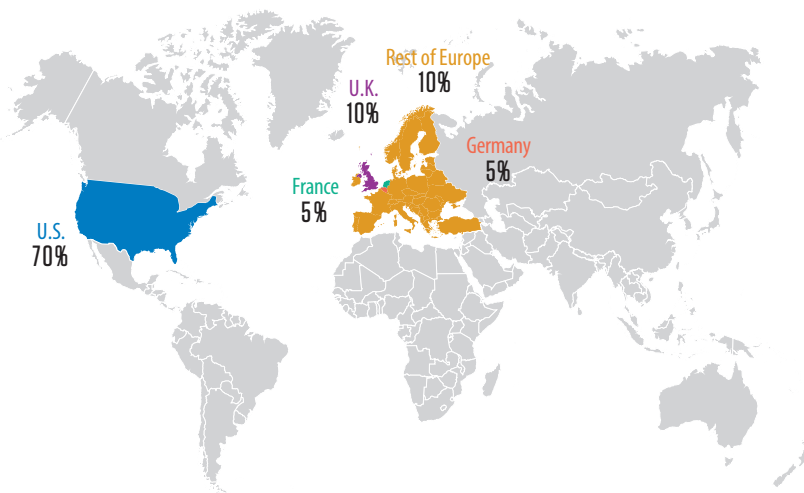
**Jeff Kavanaugh,**  
*Head of Infosys Knowledge Institute*

# Research approach

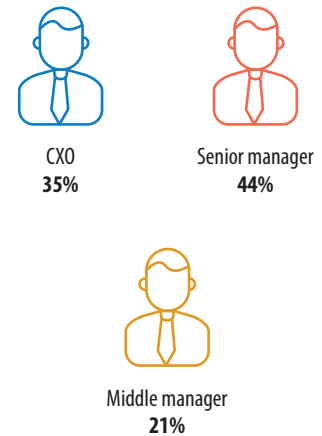
### Research methodology

- ▶ **Literature review.**
  - Reviewed Infosys publications and internal data
  - Reviewed relevant publicly available research
- ▶ **Primary quantitative — survey.**
  - 1,000 respondents (600 IT executives, 400 business leaders)
- 5 regions (U.S., U.K., Germany, France, and Rest of Europe)
- ▶ **Primary qualitative - 15 practitioner and executive interviews.**

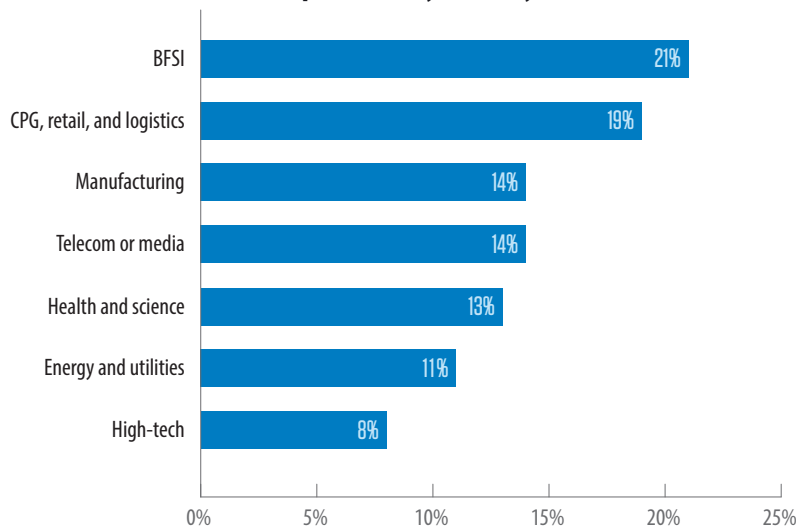
**Respondents by country**



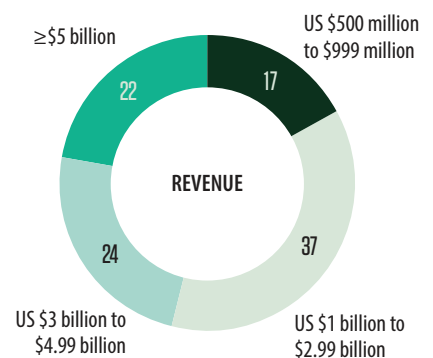
**Respondents by role**



**Respondents by industry**



**Respondents by revenue**





## References

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1. Apple Inc., Microsoft, Amazon, Alphabet Inc., Facebook Inc.
2. [How Amazon became agile](#), Steve Denning, June 2019, Forbes
3. [Tesla's Elon Musk is solving hardware challenges with software solutions](#), Evannex, July 2020, InsideEVs
4. [Samsung's Agile & Lean UX journey](#), Ben Linders, April 2019, InfoQ
5. [Cloud chaos to clarity: Annual Report 2020-21](#), Infosys.
6. [Where Agile goes wrong](#), Samad Masood, Alok Uniyal, and Harry Keir Hughes, May 2021, Infosys Knowledge Institute
7. [DevSecOps: Future-proofing developer-tool adoption for a hybrid IT ecosystem](#), Ramesh N et al., Jan 2021, Infosys Knowledge Institute
8. [Infosys DevSecOps platform](#), Infosys
9. [Infosys Cloud Radar 2021](#), May 2021, Infosys Knowledge Institute
10. [Cloud chaos to clarity: Annual Report 2020-21](#), Infosys
11. [Structure that's not stifling](#), Ranjay Gulati, May-June 2018, HBR
12. [The age of Agile](#), Stephen Denning, Feb 2018, AMACOM
13. [The Live Enterprise: Create a continuously evolving and learning organization](#), Jeff Kavanaugh, Rafee Tarafdar, and Nandan Nilekani, March 2021, McGraw-Hill Education
14. [Doing Agile right: Transformation without chaos](#), Darrell Ribgy, May 2020, HBR Press
15. [Part 5: Agility in practice: The swarm organization at Daimler](#), Roland Deiser, May 2019, The Digital Transformation People
16. [Tesla's Elon Musk is solving hardware challenges with software solutions](#)
17. [Case study: Bosch embracing agility](#), Volkmar Denner, May 2017, Bosch
18. [SpaceX's use of Agile methods](#), Cliff Berg, Dec 2019, Medium
19. [How to implement empathy in your marketing strategy](#), Serenity Gibbons, Oct 2019, Forbes
20. [System design: Design Thinking 2.0](#), Harry Keir Hughes, Nur Karadeniz, and Samad Masood, Jan 2020, Infosys Knowledge Institute
21. [Infosys Wingspan to drive learning experience for Siemens](#), March 2020, Infosys
22. [Cloud chaos to clarity: Annual Report 2020-21](#), Infosys
23. [Identify value streams and ARTs](#), SAFe by Scaled Agile Inc.
24. [Simulating empathy: Using emotion AI to improve the customer experience](#), March 2021, CB Insights
25. [Break down change management into small steps](#), Jeff Kavanaugh and Rafee Tarafdar, May 2021, Harvard Business Review
26. [Break down change management into small steps](#)
27. [How can enterprises efficiently harness the power of Agile and DevSecOps](#), March 2021, Alok Uniyal, Express Computer

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To view our research, visit Infosys Knowledge Institute at [infosys.com/IKI](https://infosys.com/IKI)



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