Digital Transformation in 2023

Changed Priorities, but Unchanged Spending

Couchbase

A Couchbase research report: Investigating how digital transformation strategies, priorities and investment have changed in an evolving and dynamic global economy.

Executive summary

As an increasingly essential, strategic function for enterprises, IT must perform a difficult balancing act. It needs to control costs and improve efficiency. It needs to improve agility and resilience to prepare for possible challenges ahead. And it needs to constantly invest in new technology and projects to avoid being left behind by the competition.

In the sixth Couchbase survey of IT decision makers, we wanted to understand the impact of what has been, for many organizations, a year of IT and digital transformation upheaval. In 2022, despite challenges in making digital transformation projects succeed, IT decision makers were optimistic. They saw investment increasing, and were ready to put lessons learned from the pandemic into full-time practice. One year later, does that optimism remain? Do enterprises have the same ambitions and expectations as they had at the end of 2021? Or has a year of a more dynamic economy made them reassess their priorities?

This is definitely a time of change—only 22% of respondents said their priorities have stayed the same over the last three years. And despite the changing economy, IT spending is still high: enterprises plan to invest $33 million in the next 12 months (fig. 1). And enterprises are still exploring the boundaries of digital transformation. Every single organization surveyed has put projects into effect in the past year that didn't seem possible at the end of 2021.

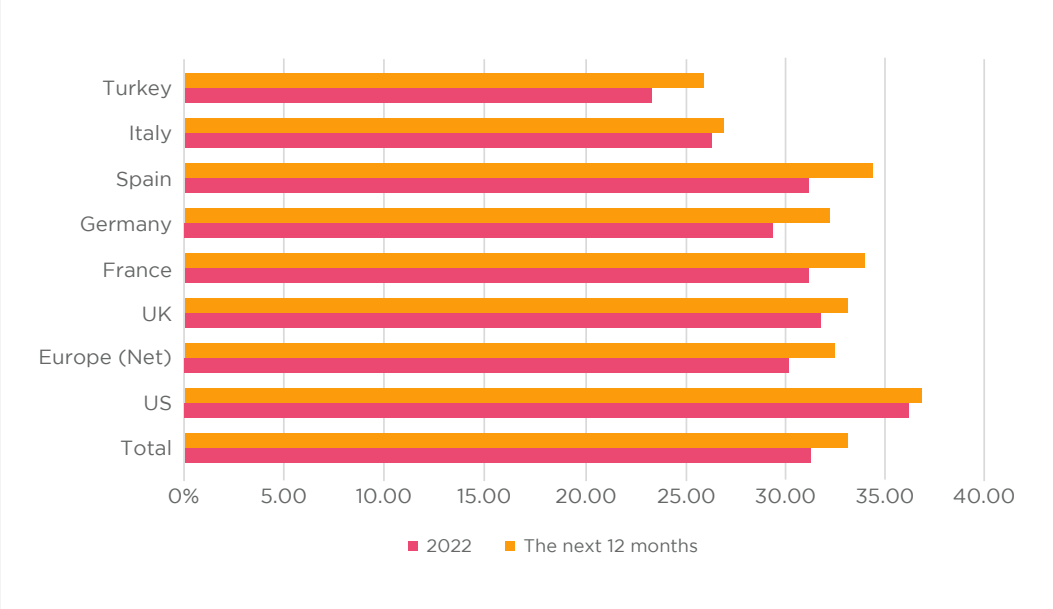

Figure 1 – Digital transformation spend ($millions USD)

The economic challenges of the past year have not defeated IT teams. Instead, they have been galvanized, with digital transformation becoming more reactive to market changes and customer preferences to help the business remain agile. Digital transformation is increasingly targeted: focused on where it will do the most good. And respondents are clear on what "the most good" looks like: 57% of enterprises say their key digital transformation goal is to improve business resilience and efficiency, understandable in a period of rapid economic change.

Naturally, IT teams have faced challenges. More than a third are under increased pressure to achieve transformation with fewer resources, and many are facing one of the greatest periods of strain in the last five years. And businesses are still facing management and technology challenges that prevent them from pursuing new projects, or cause those projects to fail or otherwise suffer drawbacks. These challenges cost enterprises up to $4.4 million, as well as pushing back digital transformation goals, so addressing them and reducing risk to the business is still a priority.

Looking to the future, in keeping with their stated priorities, IT decision makers are under the most pressure to adopt technology that will help the enterprise save money and become more agile—for instance, serverless, edge and mobile, and low- and no-code computing. At the same time, it's clear who is driving digital transformation: developers are by far the most important influence, and empowering them is a top priority for 2023 and beyond.

Part One: The digital transformation state of the nation

54% – Enterprises who made "significant" or better improvements to the end-user experience

Given the rapid progression in recent years from pandemic to a shifting economic reality in many regions, it's understandable if some individuals' and organizations' confidence in digital transformation faltered. Financial concerns might mean reduced spending and a lack of innovation—as enterprises focus on survival instead of transformation—and the vast majority of organizations falling behind on their digital and strategic goals.

The good news is that this hasn't happened. We are undoubtedly in a period of great change—only 22% of IT decision makers say their priorities have stayed the same over the last three years. And despite evident economic concerns, which we will explore in their own section, digital transformation investment remains high and shows no sign of falling.

As a strategic, business-critical asset, it's clear IT and digital transformation need the right level of investment. There are also signs that priorities are changing. Traditionally, transforming the user experience is one of the prime goals of digital transformation. Yet in 2022, despite 54% of respondents claiming to have made "significant" or better improvements to the end-user experience, only two respondents in the whole sample claimed to have "revolutionized" the end-user experience: a notably lower figure than in previous years.

This might be a one-off change in the sample. But it may also be due to a realization that, while the user experience will always be a key consideration, digital transformation can help the business in multiple ways. Certainly, digital transformation is not standing still, or becoming less creative. Every single organization has implemented or identified opportunities for digital transformation projects that did not seem possible at the end of 2021—and 50% have specifically put their efforts into changing the way the business operates (fig. 2).

	Total	US	EUR	UK	FRA	GER	SPA	ITA	TUR
Changing the way the business operates	50%	47%	52%	52%	52%	50%	48%	60%	44%
Reducing costs	46%	43%	48%	51%	51%	46%	48%	38%	38%
Moving to the cloud	46%	41%	49%	48%	55%	38%	46%	62%	36%
Hybrid working	44%	41%	44%	44%	41%	49%	40%	42%	54%
Replacing legacy technology and processes	42%	51%	39%	32%	40%	40%	44%	42%	40%
Creating new business offerings	39%	39%	39%	45%	34%	41%	38%	36%	40%

Figure 2 – New opportunities for digital transformation identified by enterprises

While enterprises have struggled to keep pace with their digital transformation goals, progress is not as slow as might have been feared. 47% of enterprises say they are behind progress in their digital transformation goals—while 31% are on time, and 22% are ahead of progress (fig. 3).

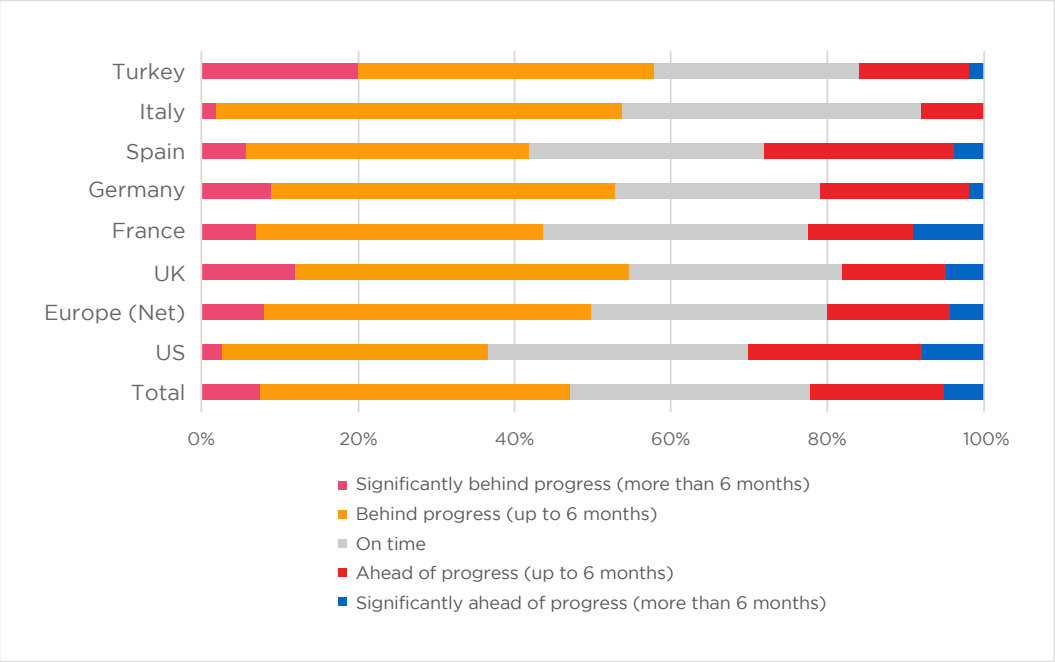

Figure 3 – Enterprise progress on digital transformation goals

We can see that the economic and other challenges of the past year have not defeated digital transformation teams. So, how have they reacted?

Part Two: Reacting to the times

As might be expected, the shifting economy has taught IT and digital transformation teams a number of lessons. Businesses in every industry need to do more with less, and IT teams are no exception—either to reduce costs, or to ensure that the department can keep innovating and supporting business transformation using its current budget. Similarly, enterprises need to ensure they have the people, skills, and technology to support changes, and to ensure the entire business is aligned with strategy. Without this, the result will be costly confusion and delays.

With this in mind, it's perhaps unsurprising that the most common lessons enterprises say they have learned from the evolving economic landscape are the importance of reducing costs without affecting performance and the importance of people and skills in digital transformation strategy; followed closely by the need to modernize applications, and how to better engage the wider business in digital transformation (fig. 4).

1.= The importance of reducing costs without affecting performance

1.= The importance of people and skills in digital transformation strategy

3. The need to modernize applications

4. How to better engage the wider business in digital transformation

5. The importance of supporting remote and hybrid working

6. The need to identify which assets are truly mission-critical

7. How to better empower our developer team

8. The importance of having a strong partner ecosystem

9. The need for continuous investment and research in digital transformation technologies

10. The need for the C-suite to get involved in technology adoption decisions

Figure 4 – Lessons learned from the changing economic state

This seems to be reflected in a change in approach to digital transformation projects in the last 12 months. A clear majority of respondents (58%) say that their projects have become more targeted towards specific business outcomes, while more than half (54%) say projects have become more reactive to external factors, such as the economy (fig. 5).

	Total	US	EUR	UK	FRA	GER	SPA	ITA	TUR
Become more targeted on specific business outcomes	58%	54%	60%	59%	58%	58%	54%	74%	58%
Become more reactive to external factors (such as the economy)	54%	59%	52%	49%	54%	51%	50%	56%	58%
Become business-wide initiatives	45%	42%	46%	46%	50%	41%	54%	36%	50%
Become more ambitious in scope and budget	45%	47%	42%	43%	44%	42%	36%	38%	64%
Become more customer experience focused	43%	46%	44%	47%	47%	38%	52%	32%	34%
Become more creative in scope	43%	44%	43%	44%	37%	43%	54%	44%	36%

Figure 5 – How have digital transformation projects changed in the last 12 months?

54% – Enterprises where digital transformation has become more reactive to market changes and customer preferences

38% – IT departments that focus on practical instead of creative digital transformation projects

In addition, significant proportions say their projects have become business-wide initiatives; more ambitious in scope and budget; more customer experience-focused; and more creative in scope. This suggests that organizations are not shying away from digital transformation. Instead, they are ensuring they get the maximum possible value: regardless of a project's goals or ambitions, it should be focused on where it will do the most good and deliver the specific business outcomes the organization needs at that moment.

This agility is critical. 54% of respondents say that their digital transformation focus has become more reactive to market changes and customer preferences, in order to help the wider organization stay agile. And in a minority of cases this need for agility has stifled creativity: 38% of respondents no longer focus on creative digital transformation projects, and instead concentrate on practical projects to provide immediate results.

57% – Enterprises whose key digitization goal is improving business resilience and efficiency

Most importantly it seems that IT departments' digital transformation efforts have helped steer their organization through recent economic changes. 57% of enterprises say their key digitization goal has been to improve business resilience and efficiency in the face of the global economic situation. And that has borne fruit—increased business resilience was the most common benefit organizations could tangibly show from digital projects in the past 12 months. Looking ahead, enterprises' top expected benefits for the next 12 months show them benefitting from this focus on resilience: with increased profitability, employee productivity and application performance, and reduced expenditure, leading the list (fig. 6).

Benefits realized in the past 12 months		Expected benefits in the next 12 months	
1	Increased business resilience	1	Increased profitability of products and services
2=	Improved compliance	2	Increased worker productivity
2=	Expanded or new mobile capabilities or features	3	Improved application performance
4	More efficient working processes	4	Reduced expenditure
5	Improved customer experience	5	Improved customer experience
6	Delivered greater operational efficiency for the business	6	Reaching more customers over more channels
7	Reduced expenditure	7=	Improved employee experience
8=	Improved employee experience	7=	Expanding into new regions
8=	Increased worker productivity	9	Bringing new services and products to market faster
10	Bringing new services and products to market faster	10	Improved compliance
11	Improved application performance	10=	Increased business resilience
12	Reaching more customers over more channels	12	More efficient working processes
13	Expanded into new regions	13	Expanded or new mobile capabilities or features
14	Increased profitability of products and services	14	Delivering greater operational efficiency for the business

Figure 6 – Realized and expected benefits from digital transformation

The past year might not have been easy, but in most cases, IT teams have passed the test.

Part Three: Challenges and pressures

IT teams have naturally come under considerable pressure in the last 12 months. Many have had to react quickly to new challenges, while also being asked to do more with less by their organization, and coming under increased scrutiny.

49% – Of CFOs questioning IT investment more

37% – IT departments under pressure to achieve transformation with less

35% – Of IT departments under more strain than any point in the last five years

49% of respondents say their CFO is managing budgets in more detail and asking more questions about IT investment, while 37% say the pressure to achieve transformation with less budget and staff resources has increased in the last 12 months. While these changes are understandable, they still increase the risk that IT teams will make mistakes or suffer delays under the strain. Indeed, 35% of respondents say their IT department is under more strain now than at any other point in the last five years. Finding the right cost-effective and modern cloud-based technologies for developers to adopt will be key in navigating these challenges.

Partly this may be because of a lack of clarity. Becoming more agile and reactive may be necessary, but without correct planning, it can also mean short-term thinking prevents teams from understanding priorities, or the strategic value of a project. 38% of respondents do not have a clear sense of the top priorities for new transformation projects (fig. 7).

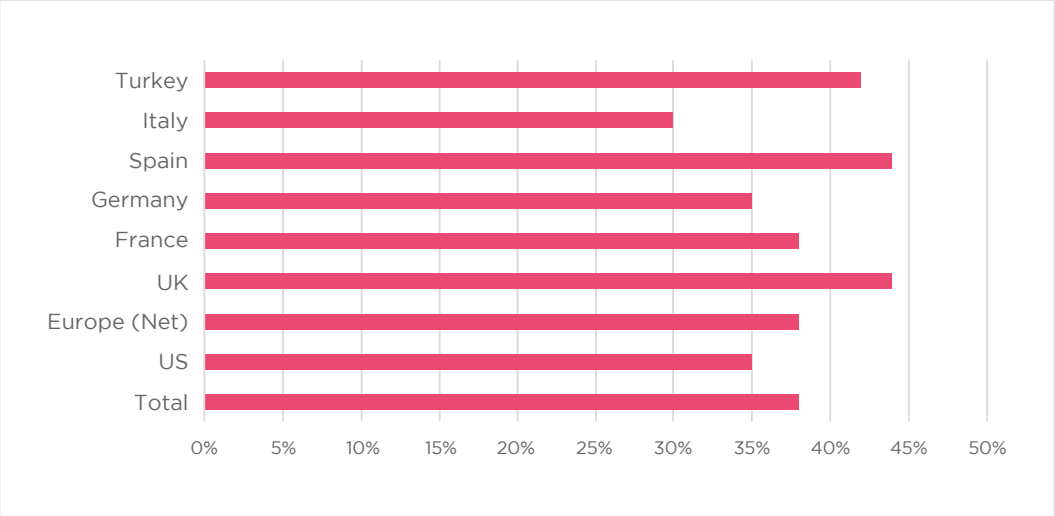

Figure 7 – IT decision makers without a clear sense of top digital transformation priorities

100% – Enterprises suffering digital transformation failure, cancellation, or severe delays in the last 12 months

100% – Enterprises prevented from pursuing new digital services or other transformation projects

At the same time, as in previous years, IT departments still face the issue of digital transformation projects that either cannot be started or that fail, are canceled, or are delayed. 100% of respondents had both experienced digital transformation projects failing, being canceled, or severely delayed in the last 12 months; and had been prevented from pursuing a new digital service or other transformation project.

It's interesting to compare the causes of these issues. The most common causes of projects failing, suffering significant delays, and/or being canceled were: a perception that the risk of failure was or had become too high; followed by a lack of buy-in or support from across the organization; and an inability to secure or stay within the necessary budget. Technological issues—such as reliance on legacy technology that could not meet new digital requirements, or problems accessing or managing the required data—were conspicuously absent from the top three.

Conversely, the top three factors that prevented organizations from pursuing new digital services or other digital transformation projects were: reliance on legacy technology; a perception that the risk of failure was too high; and problems accessing or managing the required data (fig. 8). Broadly it seems that technological issues are most likely to prevent organizations from pursuing new projects—but once underway, management issues are more likely to lead to failure.

Causes preventing pursuing new digital service or other digital transformation project			Causes of active digital projects failing, suffering significant delay, and/or being canceled		
1	Reliance on legacy technology that could not meet new digital requirements	36%	1	Perception that risk of failure was too high	31%
2	Perception that risk of failure was too high	33%	2	Lack of buy-in or support from across the organization	26%
3	Problems accessing or managing required data	33%	3	Inability to secure necessary budget or stay within budget	26%
4	Inability to secure necessary budget or stay within budget	31%	4	Reliance on legacy technology that could not meet new digital requirements	24%
5	Lack of buy-in or support from across the organization	30%	5	Problems accessing or managing required data	24%
6	Lack of resources/funds	28%	6	Inability of development team to meet goals set for them	23%
7	Inability of development team to meet goals set for them	27%	7	Lack of knowledge of available technologies	20%
8	Lack of knowledge of available technologies	26%	8	Lack of skills to deliver project	20%
9	Complexity of implementing technologies	24%	9	Complexity of implementing technologies	20%
10	Lack of skills to deliver project	23%	10	Lack of resources/funds	19%
11	Lack of buy-in or support from C-Suite	17%	11	Lack of buy-in or support from C-Suite	16%

Figure 8 – The causes of digital transformation issues

What is certain is that these issues have consequences. On average, enterprises invested 14% of their digital transformation budgets in projects that failed, were canceled, or suffered significant delays—the equivalent of $4.4 million (fig. 9). And for 68% of organizations, these failures, cancellations, and delays pushed back digital transformation goals by more than three months—and for 24%, by more than six months (fig. 10).

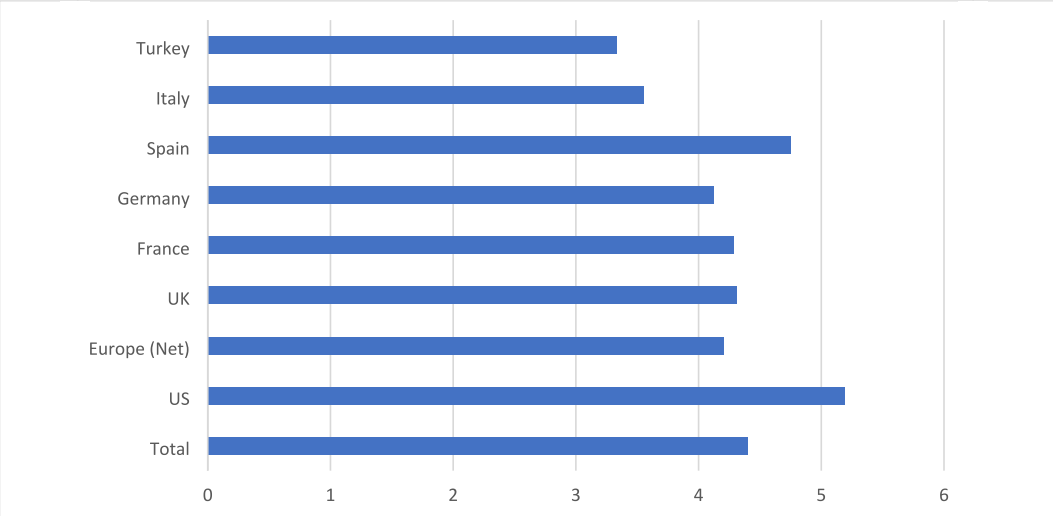

Figure 9 – Cost of digital transformation issues ($millions USD)

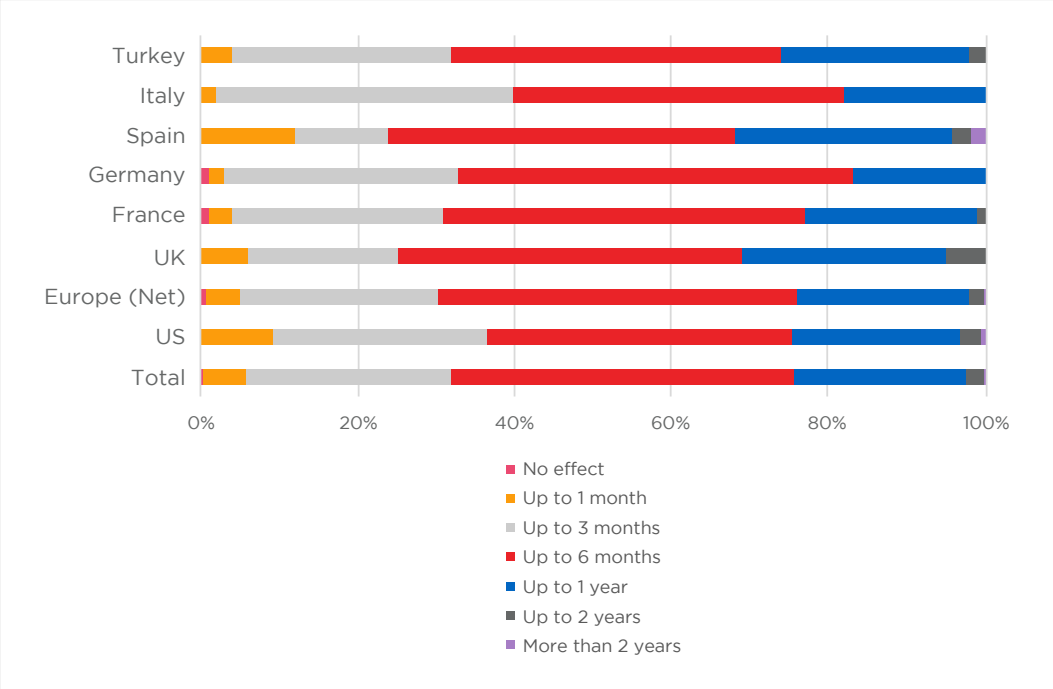

Figure 10 – Delays caused by digital transformation issues

Respondents are also clear on the need for digital innovation, and the risks of failing to innovate. They are much more aware of risks to the business than to themselves. Only six percent worry that they could lose their job if their business does not successfully digitally innovate in the next 12 months. Conversely, 54% say that their business would struggle to secure corporate finance or undergo a successful IPO; 51% that the company would lose valuable non-IT staff to more innovative competitors; and 50% that the company would lose valuable IT staff. Similarly, almost half believe that the business will become less relevant in the market, go out of business, or be absorbed by a competitor (fig. 11).

	Total	US	EUR	UK	FRA	GER	SPA	ITA	TUR
Struggle to secure corporate finance or undergo a successful IPO	54%	51%	55%	52%	60%	58%	54%	44%	52%
Lose valuable staff in non-IT areas of the business to more innovative competitors	51%	49%	52%	59%	50%	50%	60%	36%	48%
Lose valuable IT staff to more innovative competitors	50%	47%	50%	47%	50%	50%	52%	58%	48%
Become less relevant in the market	49%	51%	48%	43%	48%	48%	46%	64%	50%
Go out of business or be absorbed by a competitor in the next 3 years	49%	54%	48%	49%	46%	46%	52%	46%	46%
Lose my own job	6%	8%	6%	8%	7%	2%	6%	10%	4%

Figure 11 – Consequences of failing to innovate

These issues and risks make clear the need for the right approach to digital transformation. If organizations have access to modern technology—such as databases that can easily handle the data needed to drive new applications and services—and can ensure the ROI of their new projects while managing them effectively, they will greatly reduce the risk that projects fail, or don't happen at all—and ensure the business does not suffer the consequences over the next year.

Part Four: Who's in the driving seat?

We know that digital transformation is still an essential part of business strategy; that it has been essential in giving many businesses the resilience they need during a period of rapid economic change; and there are still challenges that prevent organizations from realizing the maximum possible value from their investments.

The next question is what will happen in the future? What technologies are enterprises focusing on? And who is driving digital transformation projects—both in terms of leading initiatives, and being the intended audience for new services?

When planning digital transformation projects, IT teams will often be under pressure from the rest of the business to adopt certain technologies—whether to pursue specific strategic goals, or to keep pace with industry trends. We wanted to dig deeper into this, and understand whether IT teams were feeling pressured into adopting new technologies without feeling fully comfortable with how to use them effectively and safely, and what benefits they could bring to the business.

Interestingly, the technologies IT teams are under the most pressure to adopt are serverless computing, edge and IoT, and low- and no-code technologies (fig. 12). All of these have the potential to increase business agility and reduce costs—for instance by allowing better management of OpEx, and enabling individual business units to purchase and develop their own IT services. A large part of IT not feeling fully comfortable may be down to respondents understanding the need to properly educate the business, and act as a consultant and trainer for other business units in order to avoid costly mistakes.

	Total	US	EUR	UK	FRA	GER	SPA	ITA	TUR
Serverless computing	42%	44%	42%	34%	51%	44%	38%	44%	28%
Edge computing/ IoT	40%	43%	39%	37%	43%	37%	42%	36%	42%
Low-code and no-code technologies	39%	34%	42%	39%	46%	35%	42%	54%	30%
Augmented and/or virtual reality	38%	39%	38%	38%	31%	40%	52%	30%	44%
Blockchain and related technologies	37%	35%	38%	42%	35%	37%	46%	30%	34%
Large Language Model AI (e.g. ChatGPT)	35%	37%	34%	45%	30%	29%	36%	28%	34%
Web 3.0	29%	26%	30%	29%	33%	32%	14%	38%	32%
FinOps	27%	29%	26%	24%	22%	27%	18%	40%	28%

Figure 12 – Technologies IT teams are under pressure to adopt

Who drives IT strategy?

56% – The IT department

23% – The C-Suite

11% – Pressure from outside the organization

10% – Other business departments

Of note, while there have been many exciting AI developments, and AI demonstrates a huge promise in its ability to accelerate and transform businesses, IT teams are under less pressure today to adopt large language model (LLM) AIs such as ChatGPT. This is potentially because businesses better understand the need to fully understand these technologies before proceeding, and so are not pushing to adopt them too soon. Regardless, it will be interesting to watch how rapidly this trend increases. Finally, teams are under the least pressure to adopt Web 3.0 and FinOps—again, likely because the business either understands the need for caution, or, in the case of FinOps, because the benefits are already clear.

Despite the pressure to adopt new technologies, IT is still firmly in control of IT decisions. The IT department drives IT strategy in 56% of enterprises, with the C-suite driving in 23%. As a result, pressure to adopt new technology is likely to be mediated by IT either owning decisions outright, or having a say as part of the C-suite.

Looking at the primary drivers behind individual digital transformation projects, the primary motivation is clear—supporting and empowering developers. Pressure from developers to support agile development and innovation, and empowering developers to build more applications to meet customer needs were the two most common drivers, followed by increasing business resilience and efficiency. Interestingly, pressure from the C-suite was by far the least common driver: suggesting most C-suites trust IT's decision-making (fig. 13).

	Total	US	EUR	UK	FRA	GER	SPA	ITA	TUR
Pressure from developers to support agile development and innovation	44%	41%	46%	45%	46%	49%	42%	46%	40%
Empowering developers to build more applications to meet customer needs	44%	46%	44%	38%	51%	45%	42%	44%	36%
Increasing business resilience and efficiency	36%	39%	34%	34%	31%	39%	42%	26%	34%
An original idea from within the business	35%	39%	34%	42%	31%	36%	22%	32%	34%
Pressure from customers for new services	35%	32%	34%	34%	37%	30%	34%	36%	50%
Reacting to outside events—e.g., economy, political uncertainty	35%	36%	34%	33%	36%	26%	38%	44%	36%
Responding to changes in regulation	35%	34%	35%	35%	36%	32%	38%	38%	32%
Responding to advances made by competitors	30%	27%	32%	27%	30%	37%	36%	28%	26%
Pressure from the C-Suite	7%	7%	6%	12%	2%	6%	6%	6%	12%

Figure 13 – Primary drivers behind digital transformation projects

Finally, looking at enterprises' top IT investment priorities, the most common are adopting new technologies, empowering developers, and improving application performance. This contrasts with priorities at the end of 2021, when improving application performance, supporting hybrid working, and increasing the organization's skills base were firmly in the lead, and empowering developers was in last place (fig. 14).

Priorities as of end 2021		Priorities as of present day	
1	Improving application performance	1	Adopting new technologies
2	Supporting hybrid working	2	Empowering developers
3	Increasing skills base	3	Improved application performance
4	Partnering with the right technology vendors	4	Modernizing existing technologies
5	Strengthening business resilience	5	Partnering with the right technology vendors
6	Modernizing existing technologies	6	Enhancing customer experience
7=	Maintaining skills already on the team	7	Supporting hybrid working
7=	Improving cybersecurity	8	Improving cybersecurity
9	Enhancing customer experience	9	Strengthening business resilience
10=	Improving compliance	10	Improving compliance
10=	Adopting new technologies	11	Maintaining skills already on the team
12	Empowering developers	12	Increasing skills base

Figure 14 – IT investment priorities—end 2021 vs. present day

Giving developers the support and tools they need to help the business take advantage of new technologies and create new services is an understandable priority for businesses. These developers will be key to building the agility and resilience organizations need through new services and ways of doing business. It's clear that, for 2023 at least, developers are in the driving seat.

Conclusion: Building on business resilience

Last year, enterprises had a newfound vigor for digital transformation after spending two years reacting to world events. The events of the past year might have disrupted their plans, but enterprises have once more shown that they are highly resilient and that the right approach to and investment in digital transformation can help them prepare for and react to any challenge.

With developers now in the driving seat, enterprises can use their investment in resilience and agility as a base to explore new projects, new technologies, and new ways of doing business. For instance, by investing in modern database technology, they can realize the full value of the data they hold, creating new applications and services that will open new opportunities. There is a vast opportunity in the cloud to increase agility and drive efficiency: for instance, by using low- and no-code technologies and serverless computing to empower other business units to create their own services, with IT acting as an educator and consultant. Similarly, using cloud-based databases and other services can reduce capital and management costs, while ensuring the business always has the exact resources it needs at its disposal. And the accelerating wave of AI technologies, tools and AI-driven applications presents another massive transformation/disruption for IT.

IT will always have to perform a balancing act between cost, resilience, and investing in new technologies and projects. But the experiences of the last few years have shown that teams are more than capable of doing so, and can plan for the future with confidence.

Methodology

The report is based on an online survey conducted in April-June 2023 by Coleman Parkes (https://colemanparkes.com/), an independent market research organization, of 600 senior IT decision makers, such as CIOs, CDOs and CTOs, in organizations with 1,000 employees or more in the US, UK, France, Germany, Spain, Italy and Turkey.

Modern customer experiences need a flexible database platform that can power applications spanning from cloud to edge and everything in between. Couchbase's mission is to simplify how developers and architects develop, deploy and consume modern applications wherever they are. We have reimagined the database with our fast, flexible and affordable cloud database platform Capella, allowing organizations to quickly build applications that deliver premium experiences to their customers—all with best-in-class price performance. More than 30% of the Fortune 100 trust Couchbase to power their modern applications.

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