



MULESOFT RESEARCH

# 2022 Connectivity Benchmark Report

In collaboration with Deloitte Digital



## About the report

**MuleSoft's seventh annual Connectivity Benchmark Report, in partnership with Vanson Bourne and Deloitte Digital, was produced from interviews with 1,050 IT leaders across the globe.**

We conducted an online survey between October 2021 and November 2021 across the United States, the United Kingdom, France, Germany, the Netherlands, Australia, Singapore, Hong Kong, and Japan. We ensured that only suitable candidates participated in the survey by using a rigorous, multi-

level screening process. Respondents are all IT leaders, which are defined as those who hold a managerial position or above in an IT department. All respondents work at an enterprise organization in the public or private sector with at least 1,000 employees.



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# Executive summary

## SECTION 01

**Organizations could lose on average \$7m if they fail to successfully complete digital transformation initiatives**

While companies have more applications than ever, they're becoming less successful at integrating them. Legacy code and systems, siloed data, and skills shortages abound.



## SECTION 02

**Data silos are a persistent challenge for 90% of organizations**

Integration demands are increasingly cited for more data scientists, business analysts, and customer support staff. The biggest challenges lie with incorporating data-derived insight into user-facing apps.



## SECTION 03

**Over half (52%\*) of IT projects weren't delivered on time last year**

The number of projects IT is being asked to deliver has increased by 40%\* in the last year. Yet existing infrastructure continues to slow down the speed of project delivery, turning the department into an innovation bottleneck.



*\*On average*



# Executive summary continued

## SECTION 04

### Over half (55%) of organizations say it is difficult to integrate user experiences

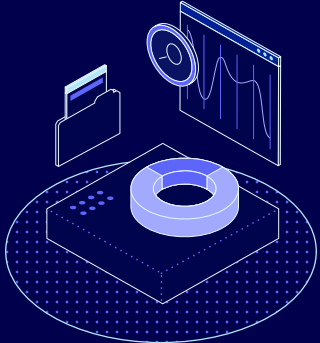
This is a 7% increase from last year, driven by security and governance challenges, outdated infrastructure, and an inability to keep up with changing processes, tools, and systems.



## SECTION 05

### More than a quarter (26%) of business leaders now demand a company-wide API strategy

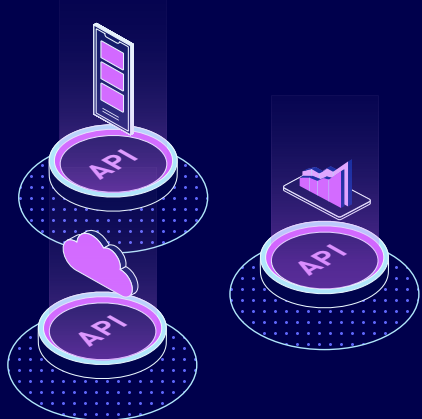
That's almost double the figure from 12 months previous, although the number using APIs to build integrations has not changed in the intervening period.

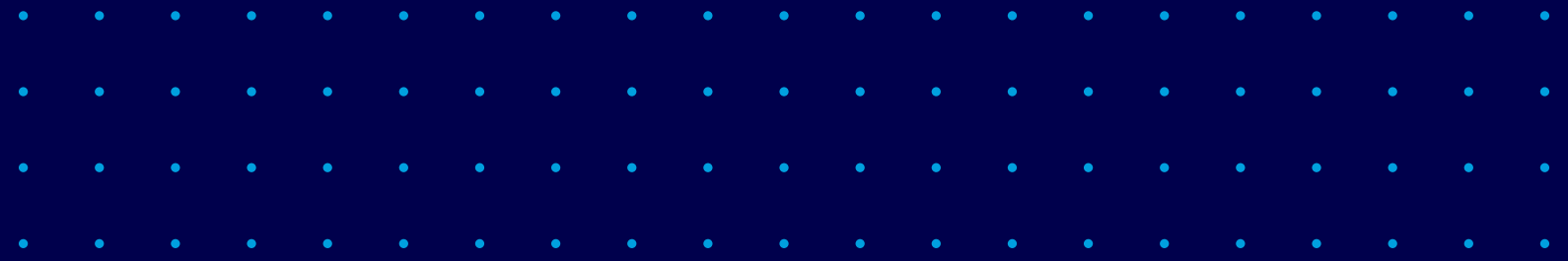


## SECTION 06

### On average, over a third (35%) of organizations' revenue is now generated by APIs and related implementations

In addition, they are recognizing how the combination of API-led connectivity and automation can deliver better employee and customer experiences.





**Digital agility is now essential, allowing organizations to drive innovation at scale, deliver new initiatives faster, and create the experiences that customers and colleagues want. Those organizations that can build a foundation of digital agility will be best positioned to adapt to change quickly without being slowed by IT or operations bottlenecks.**

**A modern strategy that combines integration, API management, and automation is central to achieving digital agility, enabling organizations to easily connect and integrate the data, applications, and devices that drive new digital capabilities as well as provide resiliency, stability, and security for existing platforms.**

**We are now entering the era of the ‘composable enterprise’. This allows anyone to draw from existing digital capabilities when building new products and services without having to start from scratch every time. Such an approach increases digital agility by easing the pressure on IT and freeing up time for innovation.**



**KURT ANDERSON, MANAGING DIRECTOR AND API TRANSFORMATION LEADER,  
DELOITTE CONSULTING LLP**

SECTION 01

# Integration challenges could cost organizations millions



# Key trends

01

Organizations could lose nearly **\$7 million\*** if they fail to successfully complete digital transformation initiatives. This comes as 72% of customer interactions are now digital, on average.

02

Organizations now have an average of **976 discrete applications**, an increase of 133 in the last 12 months. Yet only 28% are integrated, a slight decrease from a year ago.

03

This growing number of applications alongside existing custom integration practices is increasing technical debt. Organizations are spending over **\$3.6 million** on average on custom integration labor versus \$3.5 million last year. It's clear that custom integration continues to be a significant drain on time and budgets.

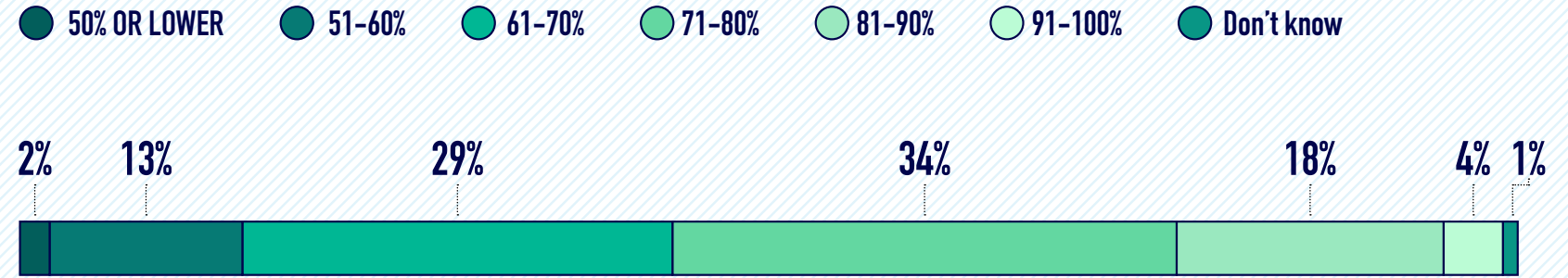
\* Based on an average



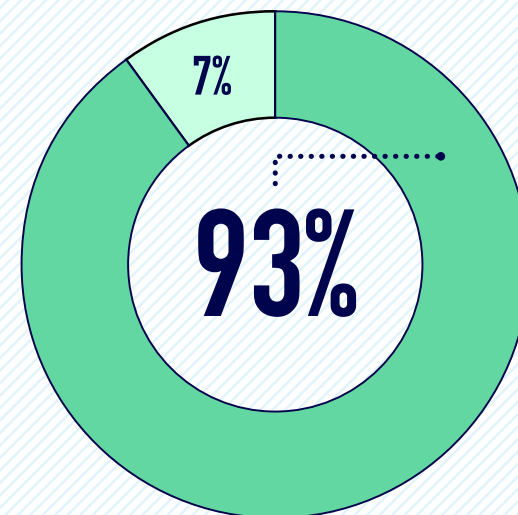
# Digital takes center stage

The rate of digital transformation continues to accelerate. Nearly three-quarters (72%) of organizations' customer interactions are now digital, and 93% say the speed at which projects take place is faster than it used to be 5 years ago.

## What percentage of your organization's customer interactions are now digital?



## To what extent do you believe that the speed at which digital transformation takes place has changed in your organization in the last 5 years?

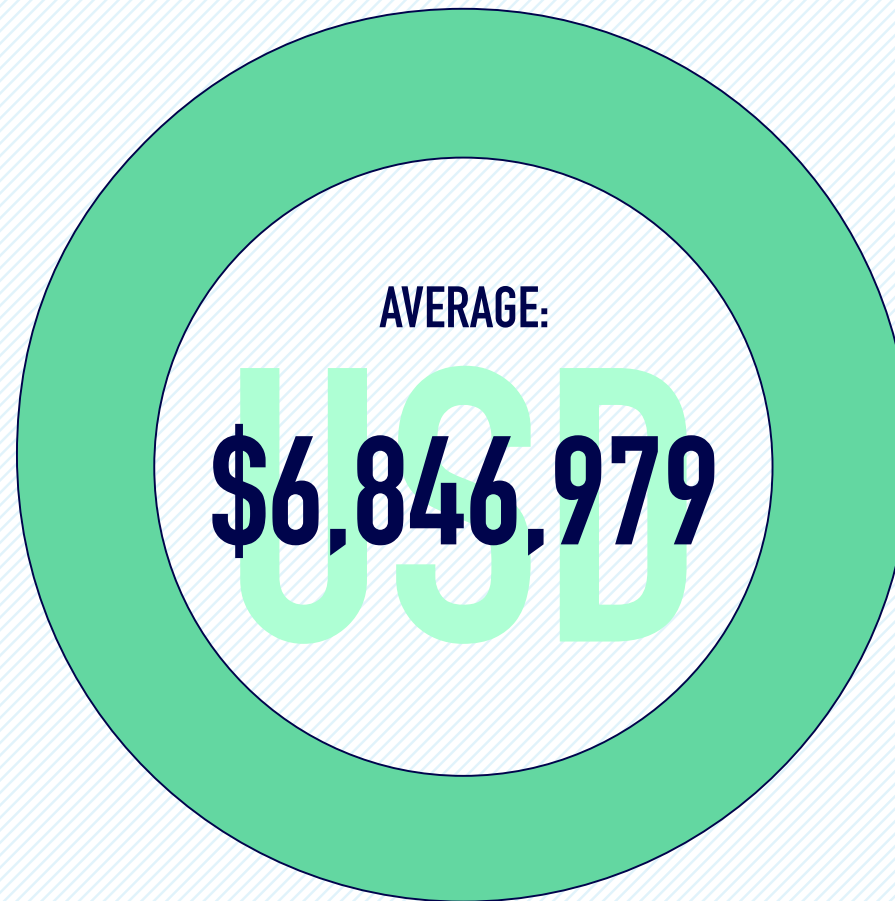


**93% OF DIGITAL TRANSFORMATION TAKES PLACE MUCH FASTER OR SLIGHTLY FASTER THAN IT USED TO**

## The financial impact of failure is significant

The stakes couldn't be higher for organizations that fail to drive digital initiatives effectively. It's calculated that they could lose on average nearly \$7 million (\$6,846,979) if they fail to successfully complete digital transformation initiatives.

Thinking about your company's digital transformation initiative(s), approximately how much revenue do you think your organization could lose if they aren't successfully completed?



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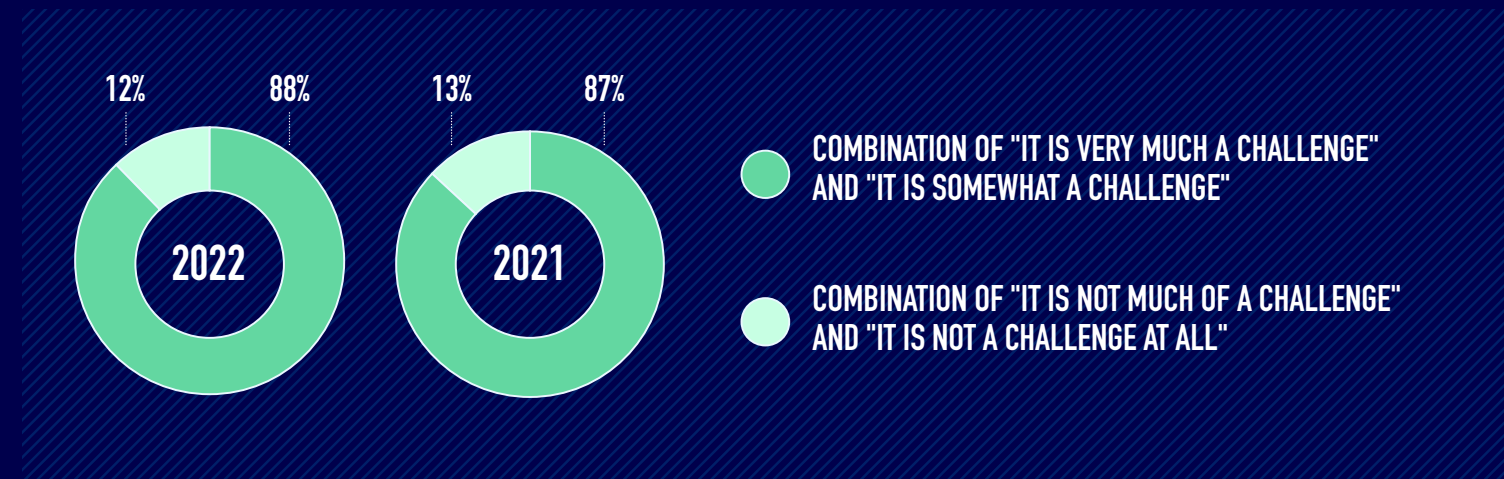
**\$6,846,979 (USD) REVENUE POTENTIALLY LOST IF ORGANIZATIONS FAIL TO SUCCESSFULLY COMPLETE DIGITAL TRANSFORMATION INITIATIVES.**

# Integration is the biggest challenge

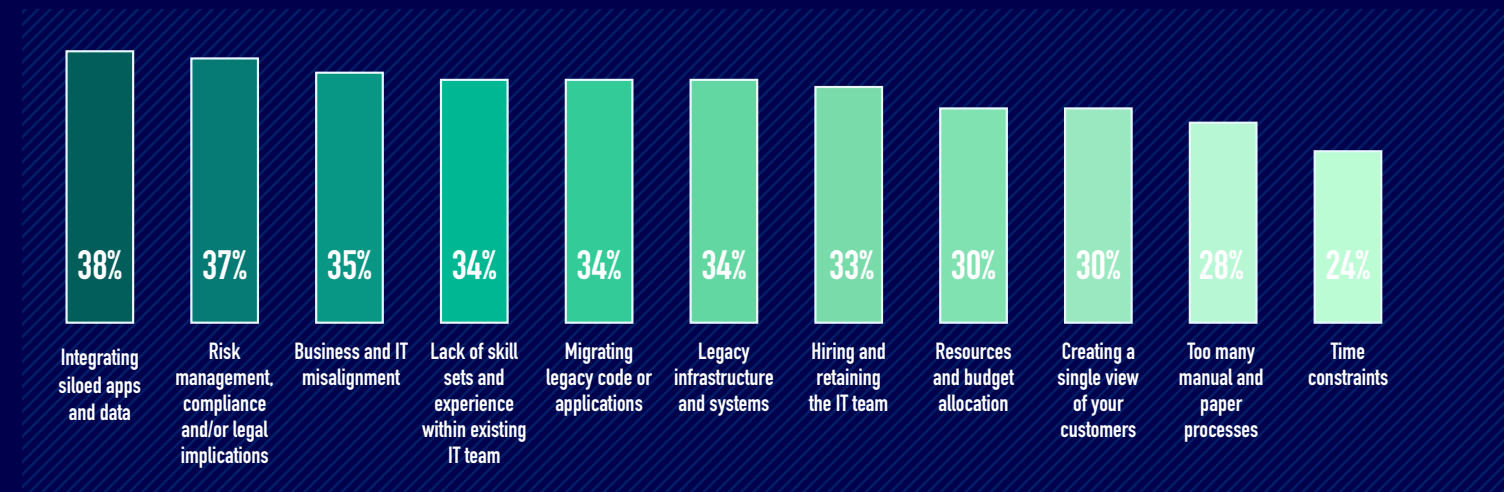
There are multiple points of potential failure when embarking on digital transformation projects. Of all of them, integration issues remain the biggest threat to digital transformation, followed by risk management and compliance.

Some 88% of respondents said integration challenges continue to slow digital transformation initiatives, virtually unchanged from the 2021 report's figure of 87%.

## To what extent are integration challenges slowing/hindering digital transformation in your organization?



## Which of the following are the biggest challenges to digital transformation within your organization?



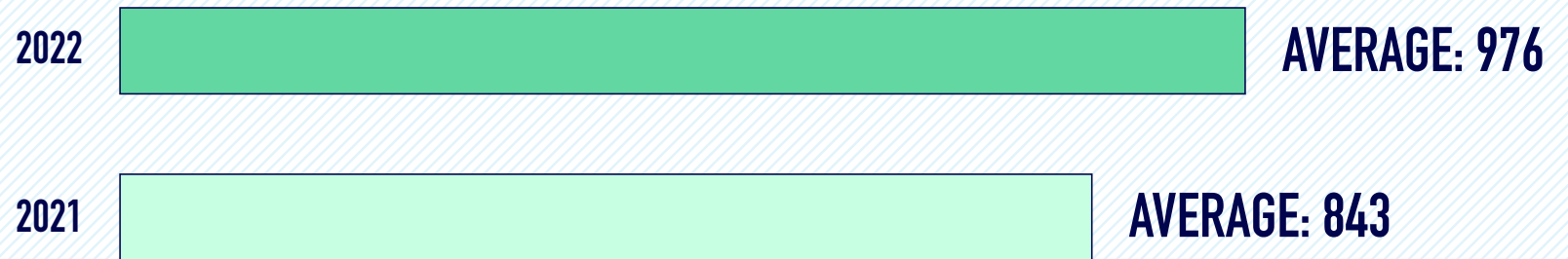


# Apps are on the rise, but integration is not

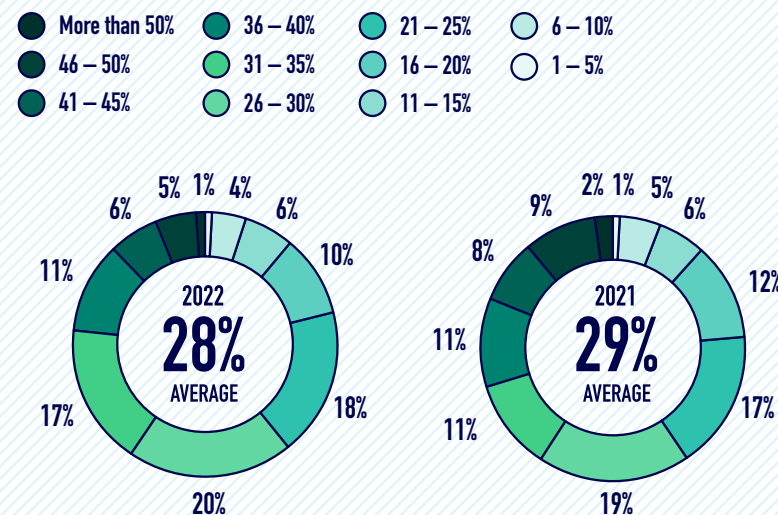
Applications lie at the center of digital transformation and efforts to enhance the user experience. The average number an organization had this year was 976, a large increase from the figure a year ago (843). This could be an indication of growing shadow IT deployments in organizations during the pandemic.

But more importantly, only 28% of these apps on average are integrated, down slightly from 29% in the 2021 report. The average lifetime for a typical application has also grown slightly to 4.1 years.

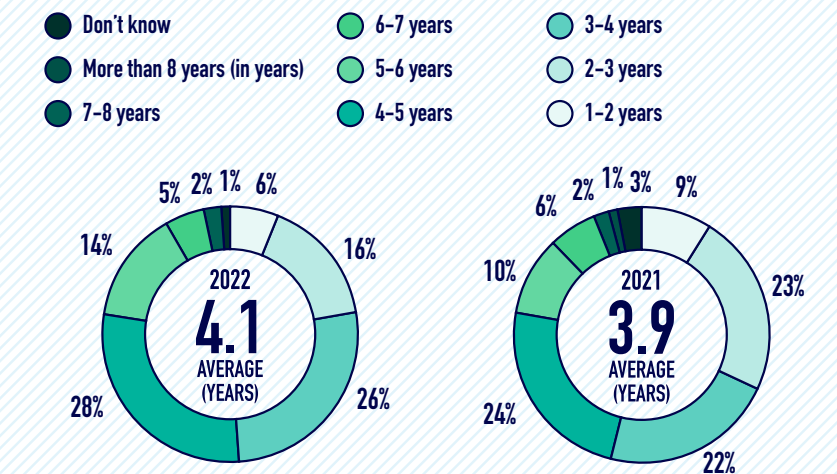
Collectively, how many different, individual applications (marketing, finance, cloud, mobile, enterprise, line of business, etc.) do you think are in use in your organization?



What percentage of these applications does your organization currently integrate/connect together?



What is the average application lifetime within your organization?





# Firms are spending too much on custom integration

In their efforts to integrate apps and data from across the enterprise, organizations appear to be focusing more resources on the wrong areas, and as a result are increasing technical debt. On average, they spent \$3.65 million in custom integration labor in 2021, versus \$3.5 million in the previous 12 months.

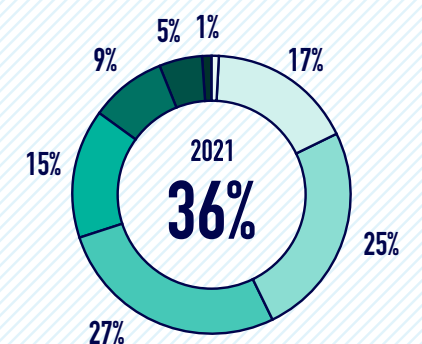
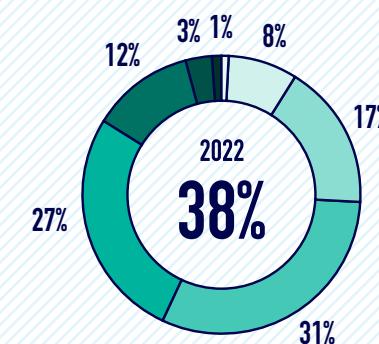
API-led connectivity can reduce these costs significantly through automation, streamlined processes, and reusable integrations.

Approximately, how much do you estimate your organization has spent on IT staff (both on employee salaries and external contractors) in the last 12 months?



Cumulatively, approximately what proportion of time do you estimate your IT team spends on designing, building, and testing new custom integrations between systems and data to enable new digital capabilities and solutions for the business?

- Don't know
- Approx. 50%-60%
- Approx. 25%-30%
- More than 70%
- Approx. 40%-50%
- Approx. 20%-25%
- Approx. 60%-70%
- Approx. 30%-40%
- Less than 20%



## CUSTOMER SPOTLIGHT

# Salesforce

Over the years, [Salesforce](#) has become one of the fastest-growing enterprise companies in the world. In the process, it has acquired over 70 companies – leading to massive amounts of data.

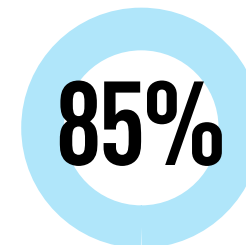
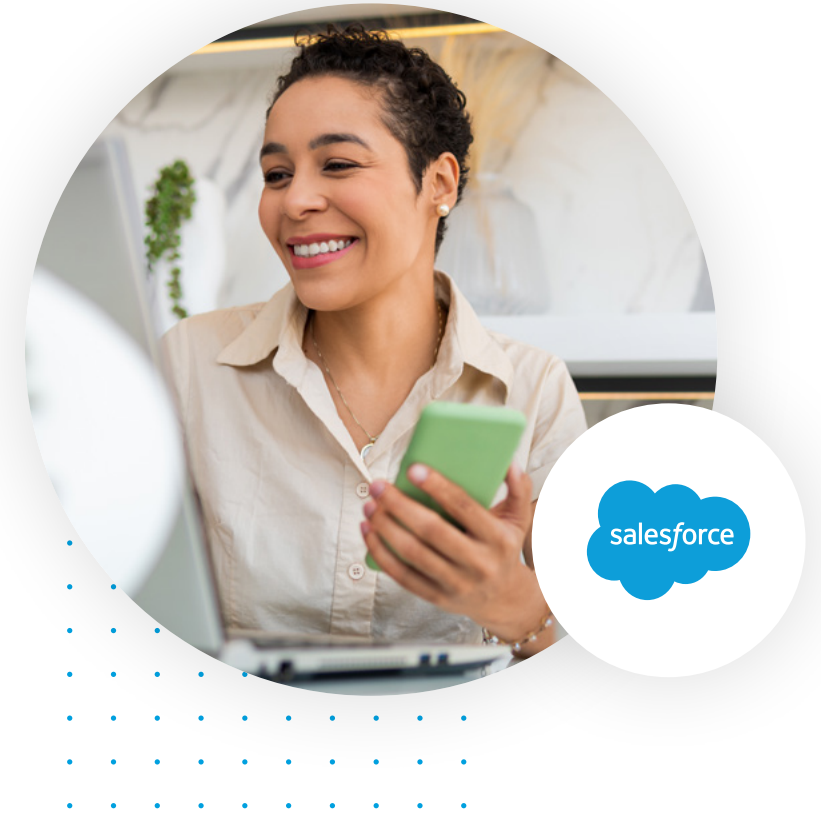
The Salesforce team made it a priority to better integrate data from acquired companies and move away from point-to-point connectivity – providing connected experiences to their 150,000 customers and 49,000 employees.

To achieve this, they built processes to map Salesforce and acquired company customer accounts by aggregating data in a Heroku DataHub. Using MuleSoft’s Anypoint Platform, the team built tools for current and future acquisitions to mirror opportunities across organizations and pass leads – enabling sales

teams to align on account planning and share thousands of leads with their counterparts.

With the help of MuleSoft, Salesforce was able to map over 3.5 billion Salesforce customer accounts with those of acquired companies. Additionally, more than 4,500 leads were internally passed by Sales teams due to MuleSoft’s integration capabilities.

[Learn more](#) about how Salesforce is taking an API-led approach to integration to transform company and employee experiences.



**FASTER INTEGRATION DEVELOPMENT**

FEATURED RESOURCE

## Webinar: IATA's integration strategy for reopening

Like many organizations, the International Air Transport Association (IATA) was hit hard by the global pandemic. However, due to their integration strategy and IT delivery model, IATA was able to overcome business challenges with speed and agility so they could support their members, lobby governments, and get passengers back on board safely.

Find out how IATA adapted to the global pandemic to support airlines and travel agents worldwide.

▶ [Watch the on-demand webinar](#)



SECTION 02

# Data silos cause pain across the business



# Key trends

01

**Data silos remain a stubborn roadblock to improved performance and customer experience.** The number of organizations citing silos as a challenge (90%) remains unchanged from a year ago.

02

**Integration requirements are increasing across the enterprise.** This need is most acute for data scientists, followed by business analysts, then customer support staff.

03

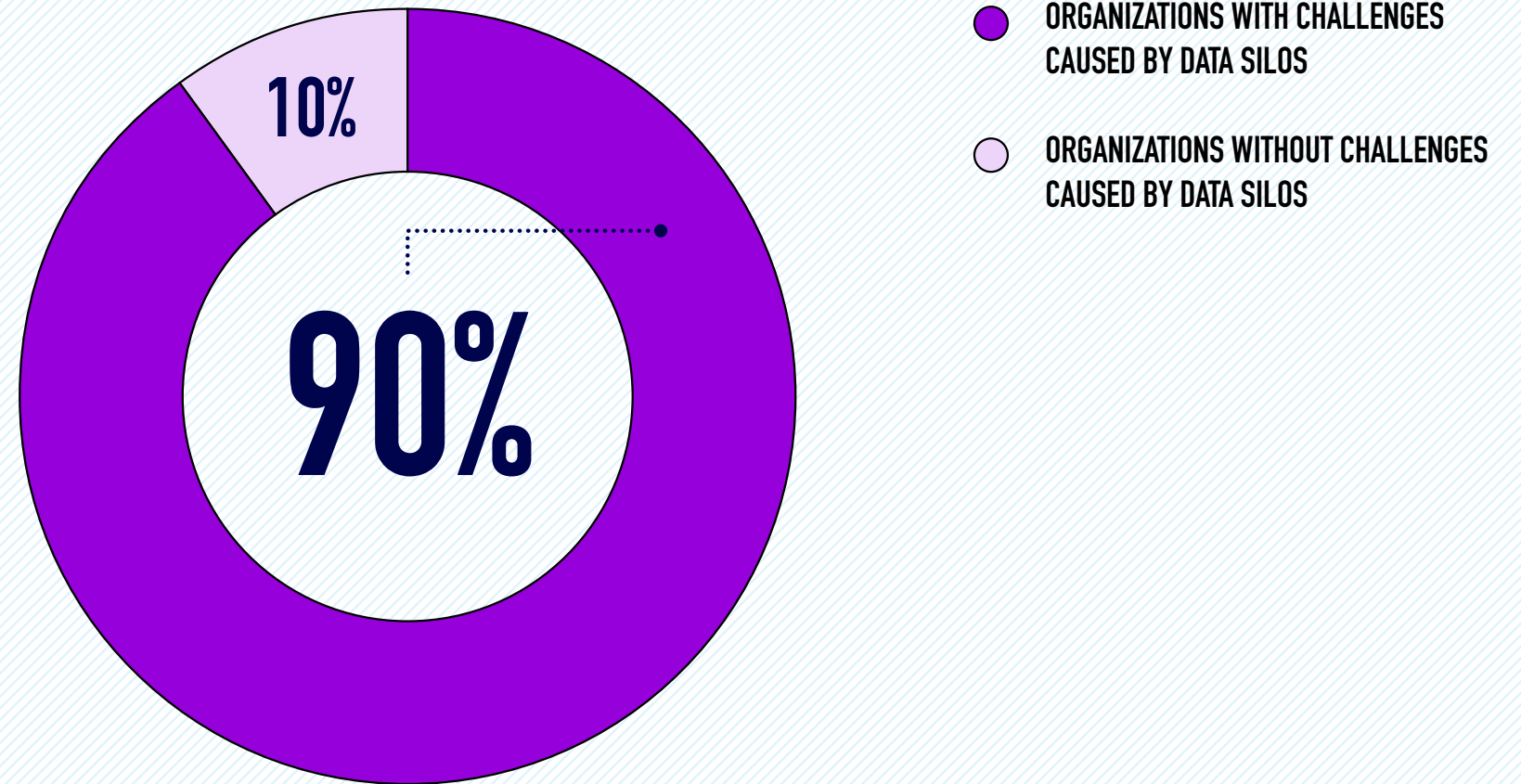
**The biggest integration challenges lie with incorporating data-derived insight into user-facing apps and reusing data sources across apps.** Data warehouse-related issues are also commonplace.



# Data silos are a persistent brake on innovation

Some 90% of respondents cite silos as a challenge, the same number as in the 2021 report, showing that little progress has been made in this crucial area. Without improvement, organizations will struggle to deliver exceptional user experiences.

## Data silos are causing significant business problems for most enterprises

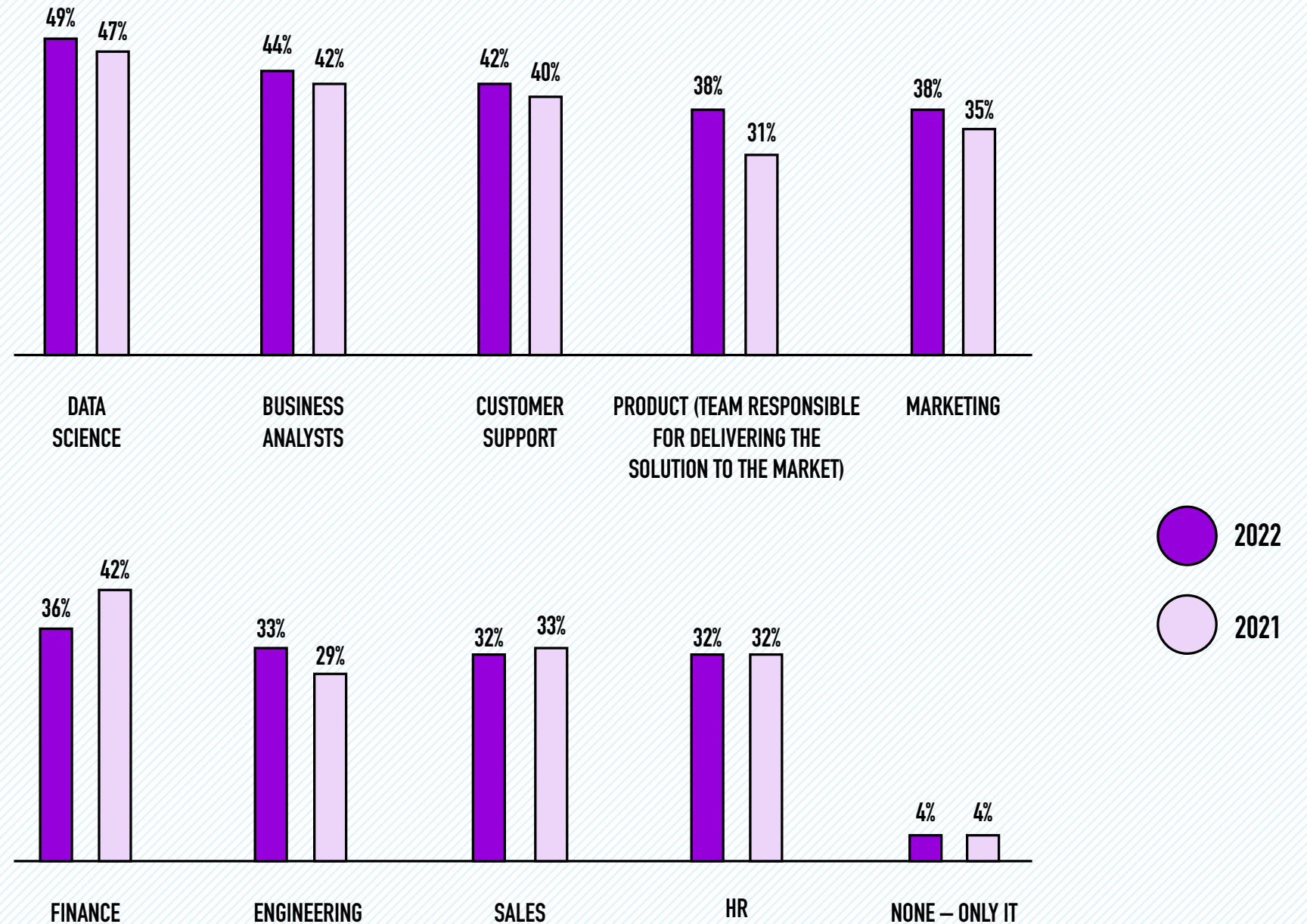




# Integration demands grow across the enterprise

Data scientists are most likely to have requirements for unlocking and integrating data (49%), followed by business analysts (44%), then customer support (42%). All of these figures recorded a two percentage-point increase from the 2021 report.

In addition to IT, which groups or roles within your organization have integration needs?

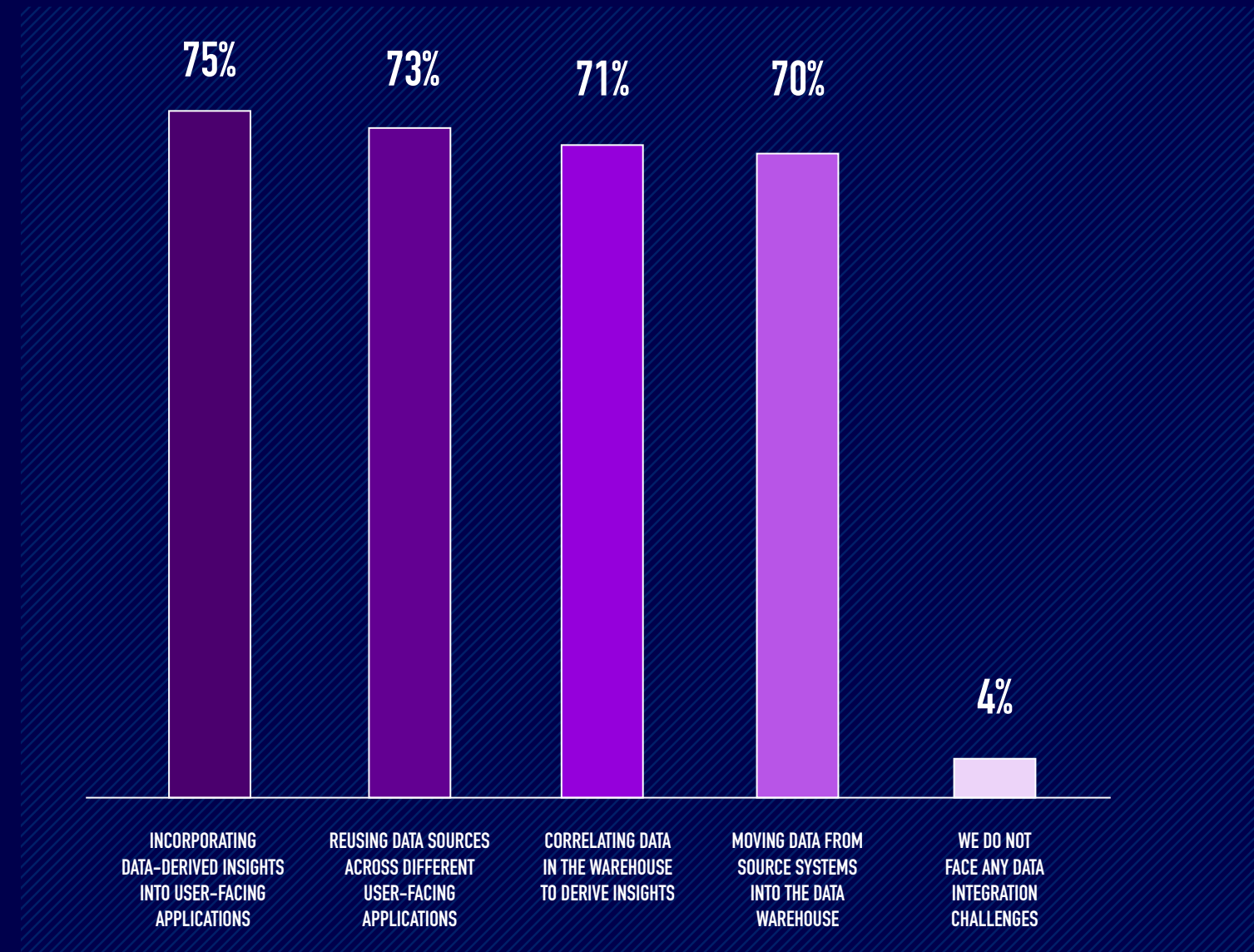


# Data integration challenges are everywhere

The most pronounced integration challenges were:

- Incorporating data-derived insights into user-facing applications (75%).
- Reusing data sources across different user-facing applications (73%).
- Correlating data in the warehouse to derive insights (71%).
- Moving data from source systems into the data warehouse (70%).

Which of the following are the biggest data integration challenges your organization faced (combination of responses ranked first, second, and third)?





CUSTOMER SPOTLIGHT

# Royal Bank of Canada

Because best-in-class customer experiences are now the new battleground for financial services firms, [RBC Wealth Management](#) had to further embrace digital and provide customers and advisors with a seamless wealth management experience.

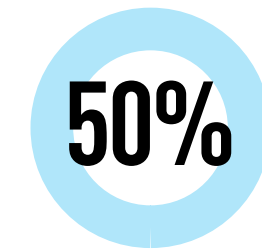
RBC not only needed to unlock critical customer and financial data in siloed legacy systems, but also integrate that data with modern cloud and on-premises applications across the organization for a single customer view.

One of the first initiatives that RBC embarked on with MuleSoft's Anypoint Platform was automating and digitizing the paper- and mail-based processes for opening a bank account.

Previously, this weeks-long process involved RBC advisors putting together 200-300 page bundles of paperwork for customer onboarding with sticky notes that indicated to clients where they should sign to finalize opening the account.

The RBC team turned to building reusable APIs to unlock and integrate siloed data. With these APIs, the team was able to completely digitize the onboarding and account opening process.

[Discover](#) how MuleSoft is helping RBC tap into critical data in legacy systems and build solutions to eliminate paper-based processes and cumbersome manual data entry.



REDUCTION IN MAINTENANCE COSTS

FEATURED RESOURCE

# Top 7 trends shaping digital transformation in 2022

CIOs must stay ahead of ever-changing digital trends to meet rising demands and accelerate their digital transformation. However, siloed data and legacy infrastructure are persistent barriers to digital transformation, keeping organizations disconnected from the data that helps them understand what is happening with their customers, partners, and employees.

Learn the top seven technology trends that will determine the business landscape in 2022 – including reasons to break down silos to develop a single source of truth.

➤ [Read the report](#)

**44%**  
INCREASE IN THE USE OF COLLABORATION PLATFORMS BETWEEN 2019 AND 2021

**42%**  
OF BUSINESS USERS SAY THE USE OF LOW-CODE TECHNIQUES WILL BE CRITICAL IN CREATING CONNECTED EMPLOYEE EXPERIENCES

TOP 7 TRENDS SHAPING DIGITAL TRANSFORMATION IN 2022 5

SECTION 03

# IT struggles to deliver a surging volume of projects



## Key trends

01

IT budgets continue to rise. **85%** of responding organizations said this was true, versus 77% in the 2021 report and 75% in the 2020 report.

02

The number of projects IT is asked to deliver has increased **by 40% this year**, a jump from 30% last year. However, IT is spending the vast majority of its time running the business, not on development and innovation.

03

Over half (**52%**) of projects weren't delivered on time last year. However, IT teams were more likely this year to have delivered all projects asked of them (**44%**) than in the previous year (**37%**).

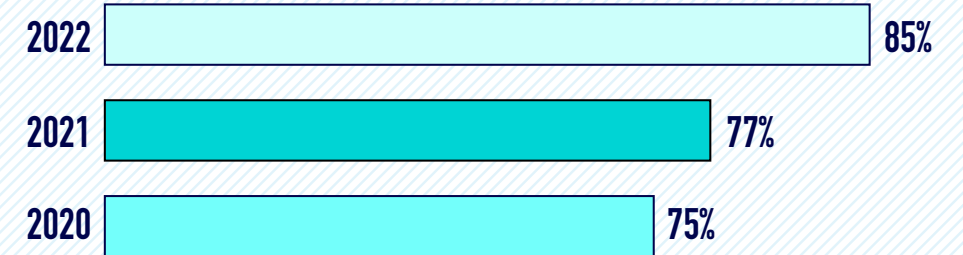
# IT budgets are up, but so is demand

The number of organizations that said IT budgets have increased year-over-year now stands at 85%. That's up from 77% in the 2021 report and 75% the year previous. This is positive news, but must be viewed in light of the increasing demands placed on IT departments.

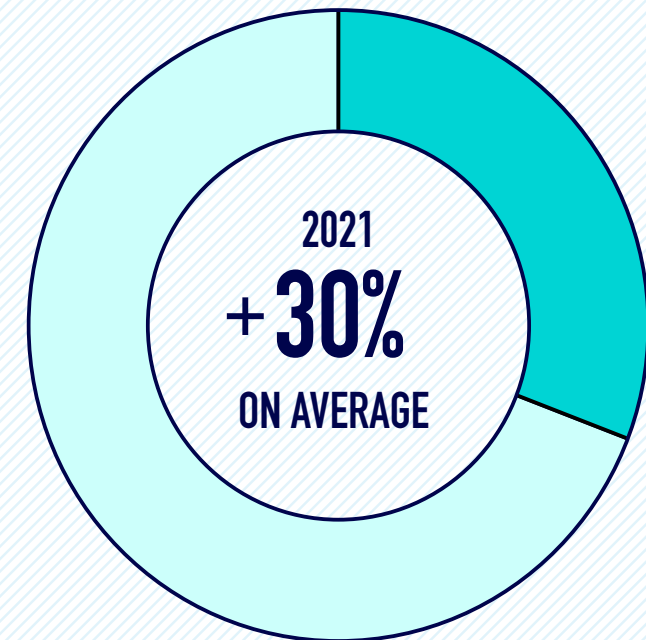
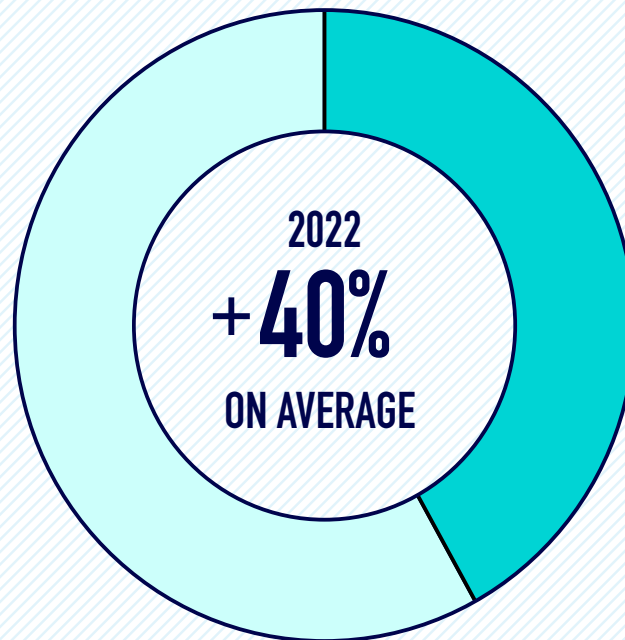
The number of projects IT is asked to deliver increased by 40% in the current (2022) report – a big jump from 30% a year ago. That reflects the growing strategic importance of IT and digital transformation during the pandemic.

## How will your IT budget change over the coming year (2022)?

COMBINATION OF "SIGNIFICANTLY INCREASE" AND "SOMEWHAT INCREASE"



## As IT underpins an increasing number of business functions, by what percentage are you finding the number of projects you are being asked to deliver in your organization is increasing?



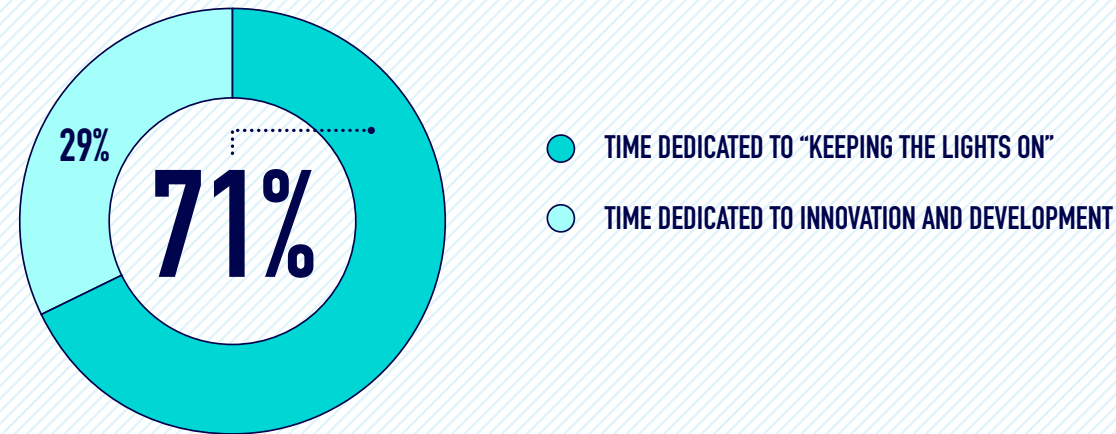


# IT is struggling to deliver on time

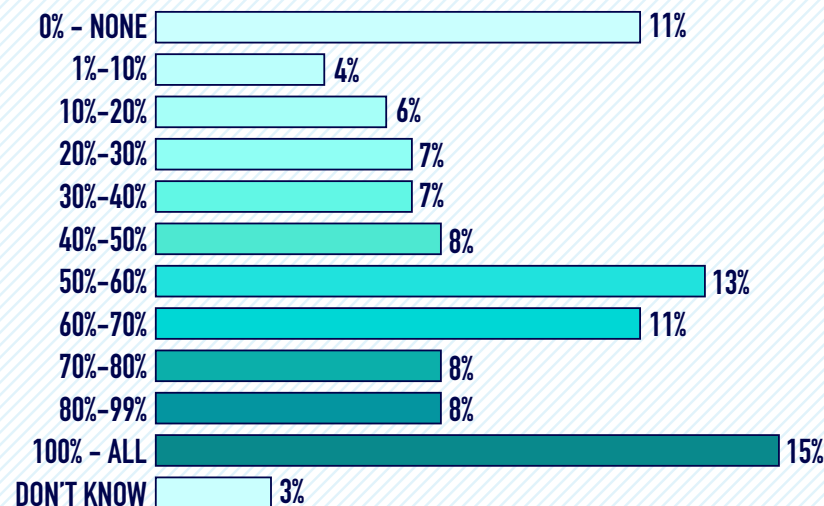
Despite the extra budget, IT is finding it difficult to meet the growing demands placed upon the department. On average, 52% of projects weren't delivered on time over the past 12 months. However, the good news is that IT is more likely to be completing all the projects asked of them than in the period covered by the 2021 report: 44% versus 37%.

The challenge for IT continues to be how much work it must undertake to simply “keep the lights on.” IT spends on average 71% of its time running the business, leaving less than a third (29%) for equally critical development and innovation work.

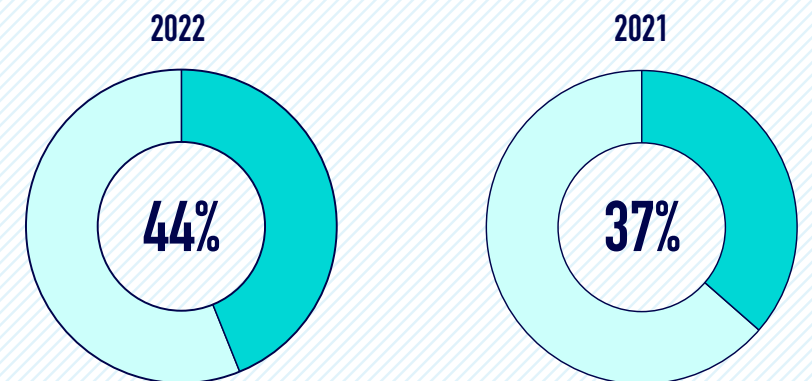
What percentage of your time is spent on running the business (i.e., keeping the lights on) compared to innovation and development projects that are designed to change the business?



What percentage of projects asked of you were not delivered on time last year?



Percentage of IT teams that were able to complete all projects asked of them



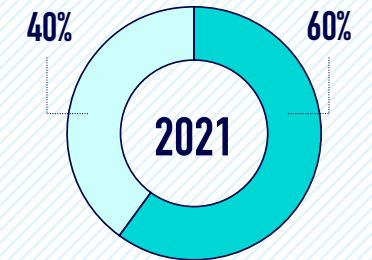
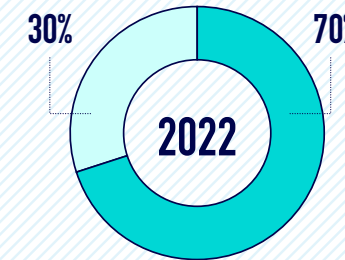
# Existing infrastructure is a roadblock to efficiency

Project delivery is more streamlined if users have the right set of tools and infrastructure to work with. Yet existing IT makes it difficult for organizations to introduce new technologies, according to 70% of respondents. This is a major leap from the 60% who said the same in the 2021 report. It's also a roadblock to making changes to specific systems or applications, according to 74% of respondents (up from 66%).

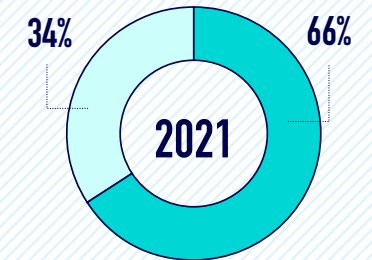
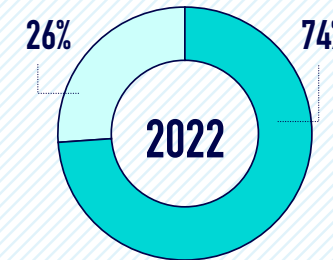
Over three-quarters (78%) also say that their IT infrastructure makes systems overly dependent on each other.

## To what extent do you agree with the following statements?

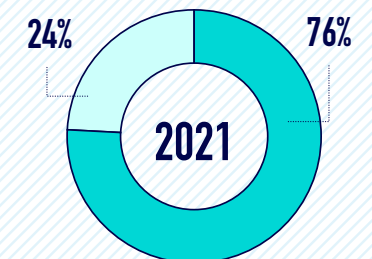
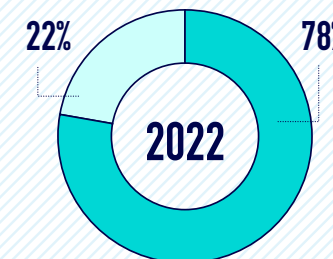
**01. MY TEAM FINDS IT HARD TO INTRODUCE NEW TECHNOLOGIES BECAUSE OF OUR IT INFRASTRUCTURE:**



**02. IT'S DIFFICULT TO MAKE CHANGES TO A PARTICULAR SYSTEM OR APPLICATION BECAUSE OF OUR IT INFRASTRUCTURE:**



**03. OUR IT INFRASTRUCTURE MAKES OUR SYSTEMS OVERLY DEPENDENT ON ONE ANOTHER:**



## CUSTOMER SPOTLIGHT

# Airbus

To meet the needs of the growing aviation industry – expected to double customers in the next 15 years – [Airbus](#) needed to significantly ramp up aircraft production while decreasing costs and improving efficiency in a sustainable way.

Since the company’s legacy systems could not support this massive growth, Airbus needed to revolutionize its approach to IT – transforming this manufacturing company into a technology company.

To meet this goal, Airbus formed a team within the IT department called the “Digital Accelerator,” with the mission to apply digital technologies to transform the way Airbus builds aircraft. One of the Digital Accelerator’s first decisions was

to implement Anypoint Platform to drive digital transformation and enable an API-first strategy across the organization.

With MuleSoft, the team is building a library of reusable APIs which can aggregate data from multiple backend systems and make it accessible and consumable to deliver real business value to multiple stakeholders.

[Learn more](#) about how Airbus has responded to the increased demand on IT.



**FASTER IT  
PROJECT DELIVERY**



FEATURED RESOURCE

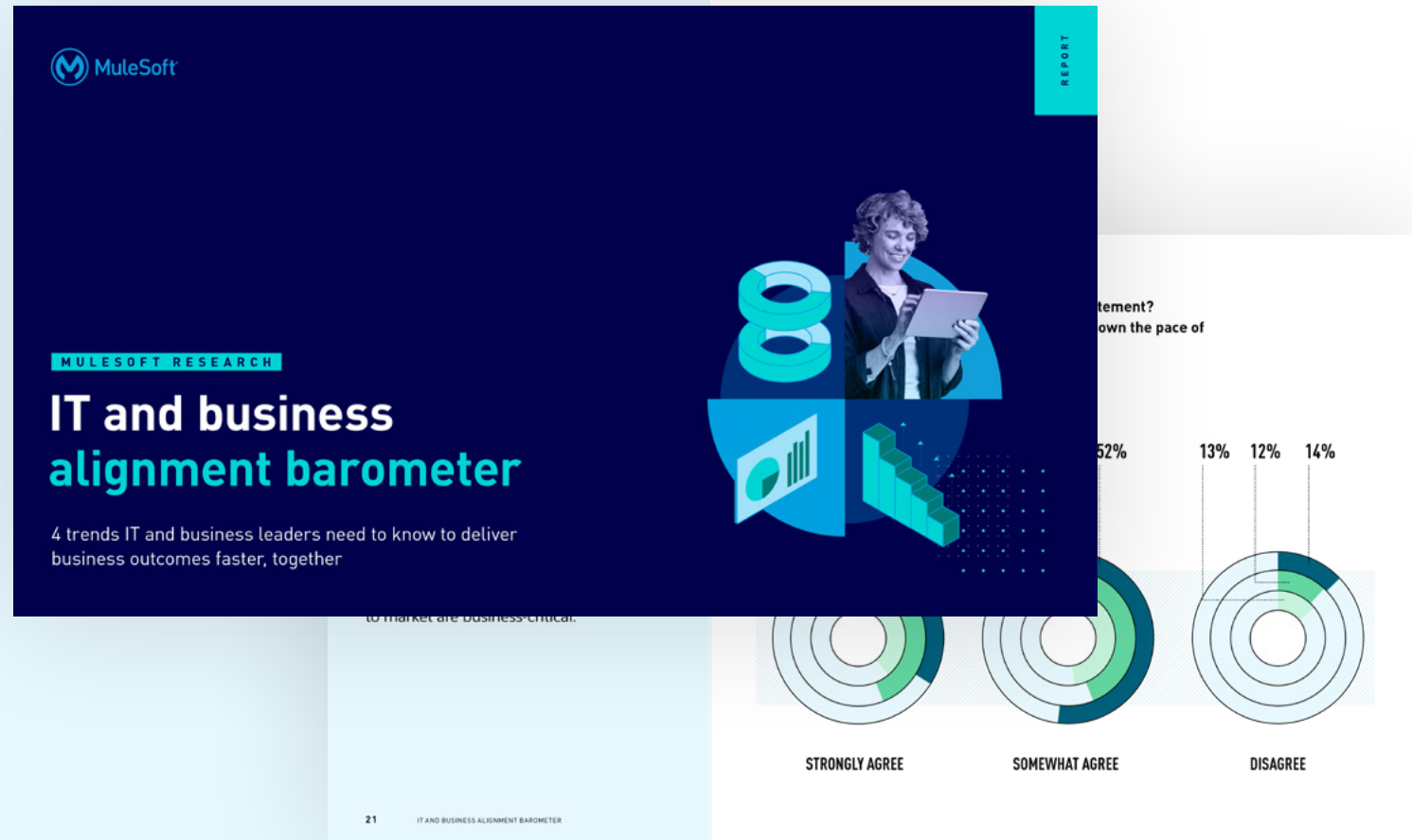
# IT and business alignment barometer

Over 2,400 IT and business decision makers across the globe were surveyed to learn what is driving closer collaboration.

The study revealed that IT and business have aligned even more closely over the past year to improve operational efficiency, increase productivity, and innovate more quickly.

Find out how IT and business team alignment is impacting organizations and what leaders are doing to create shared objectives to drive business outcomes.

[Read the report](#)



SECTION 04

# Organizations find it harder to integrate user experiences



## Key trends

01

**Over half (55%) of organizations are finding it difficult to integrate user experiences.** This is up from 48% 12 months previously. It means they may be missing out on much-cited operational visibility, customer engagement, innovation, and ROI benefits.

02

**Security and governance remain the biggest challenge to integrated user experiences.** However, legacy IT infrastructure, data silos, and the rapid pace of technology change are also issues.

03

**Nearly a third (30%) of organizations are able to provide completely connected user experiences across all channels.** This is almost double the number who could in the 2021 report and a sign of some progress.



# Connected experiences are more common today

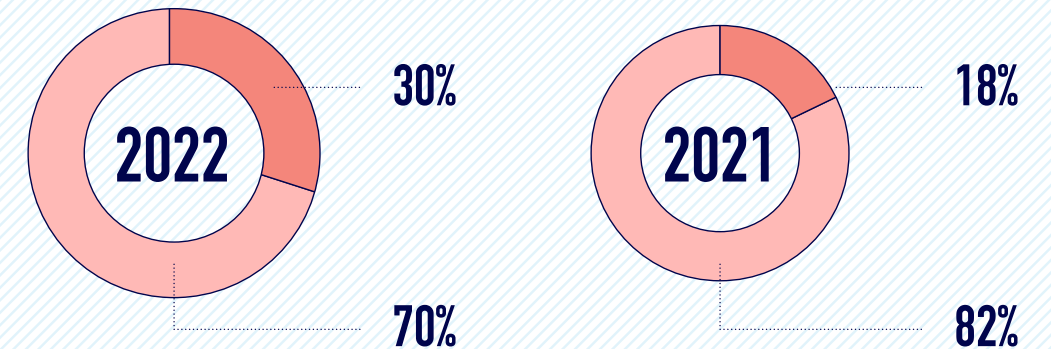
The good news is that 30% of organizations are able to provide completely connected user experiences across all channels. It's a major increase from the 18% who said the same in the 2021 report.

The biggest benefits these companies have witnessed since doing so are:

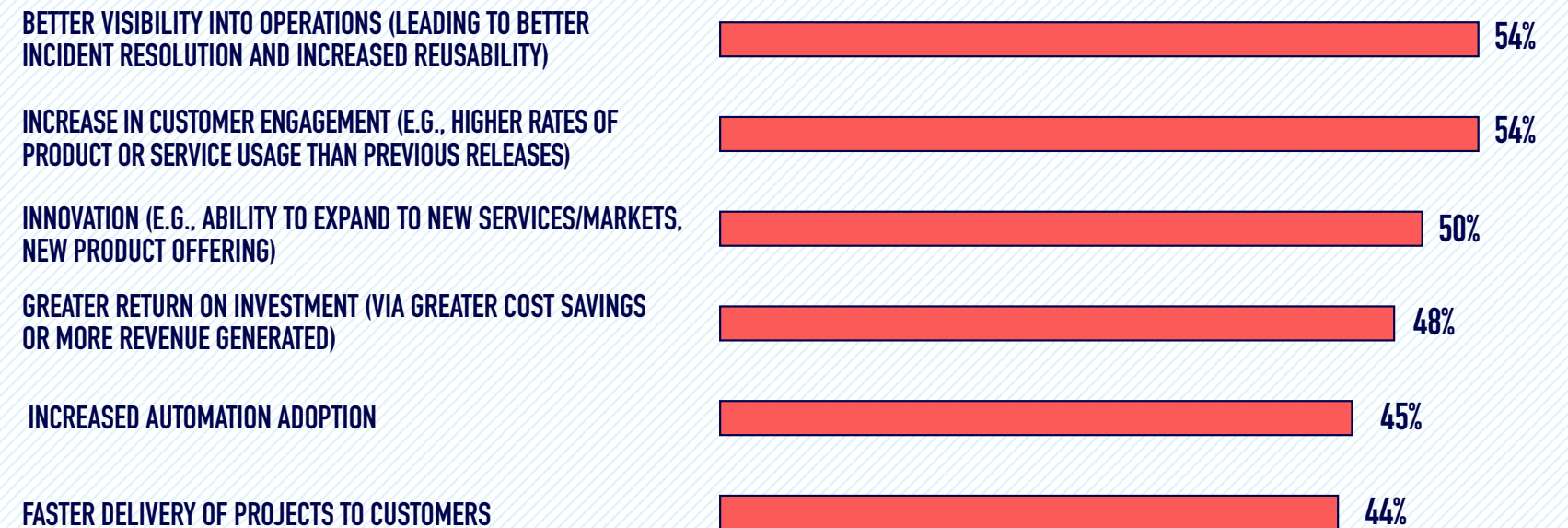
- Enhanced visibility into operations (54%).
- Increased customer engagement (54%) – compared to 53% in 2021.
- Innovation (50%) – unchanged since 2021.
- Improved ROI (48%) – compared to 42% in 2021.

## Does your organization integrate end-user (i.e., customer or employee) experiences across channels?

- ORGANIZATIONS THAT PROVIDE A COMPLETELY CONNECTED USER EXPERIENCE ACROSS ALL CHANNELS
- ORGANIZATIONS THAT DON'T PROVIDE A COMPLETELY CONNECTED USER EXPERIENCE ACROSS ALL CHANNELS



## What benefits has your organization realized since integrating user experiences?



# Security and governance top integration challenges

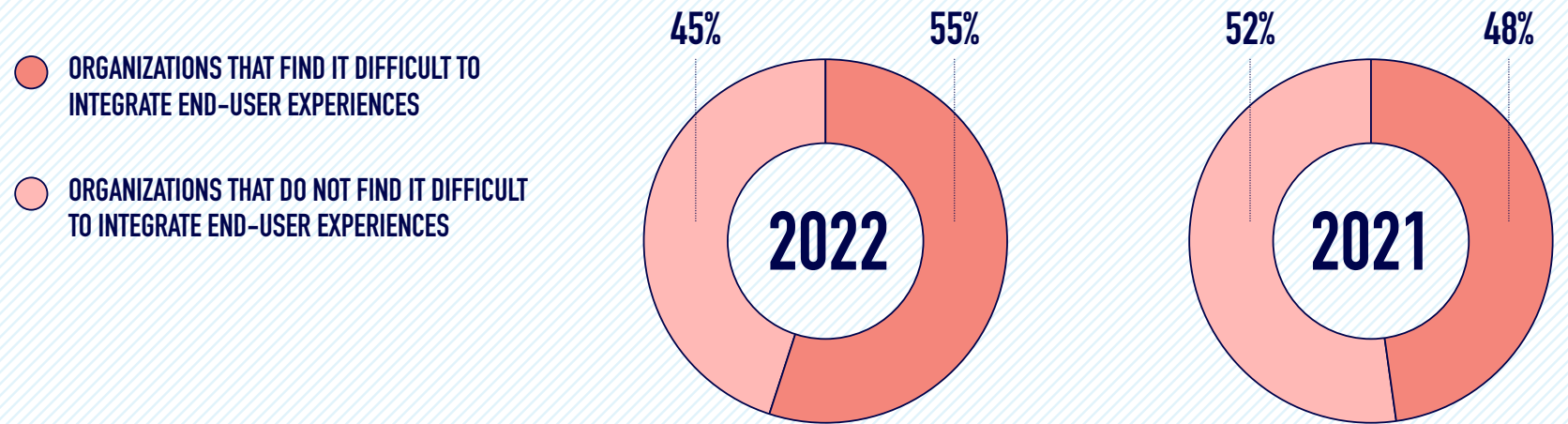
Despite this progress, there's still some way to go. Over half (55%) of organizations say it's difficult to integrate user experiences, up from 48% a year ago.

The biggest challenges are:

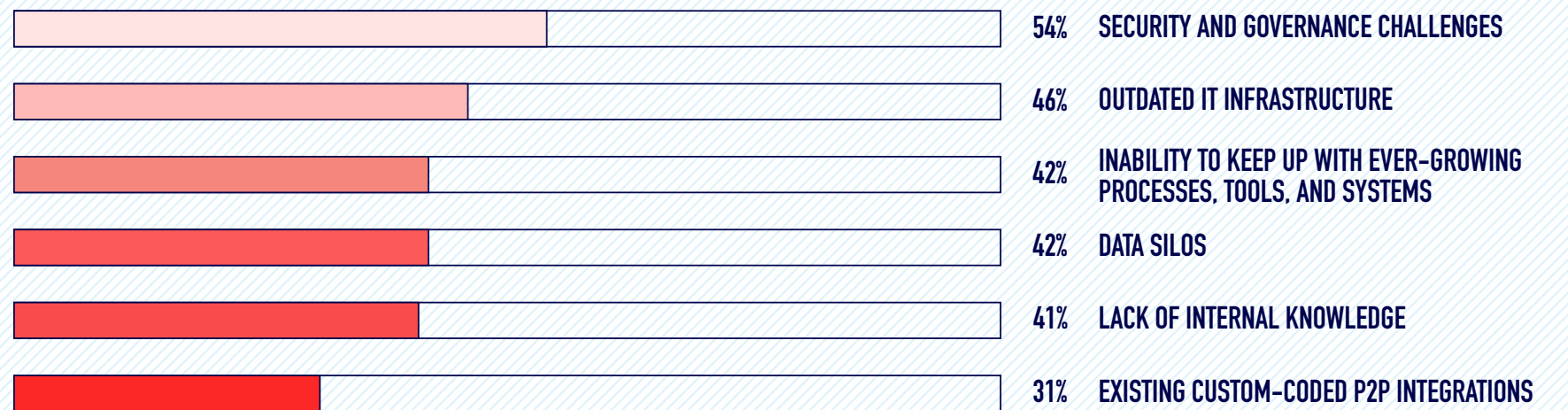
- Security and governance (54%).
- Outdated IT infrastructure (46%).
- An inability to keep up with ever-changing processes, tools, and systems (42%).
- Data silos (42%).

With a combined integration, API management, and automation approach, the same organizations can overcome these roadblocks to drive operational, customer engagement, and financial benefits.

## How difficult is it for your organization to integrate end-user experiences?



## What makes it difficult for your organization to integrate end-user experiences?





## CUSTOMER SPOTLIGHT

# INSEAD

[INSEAD](#), which boasts the #1 MBA program in the world, maintains its edge by delivering exemplary experiences for students and faculty. However, a sprawling tech ecosystem with more than 100 siloed applications made it difficult for INSEAD to keep up with student and faculty expectations.

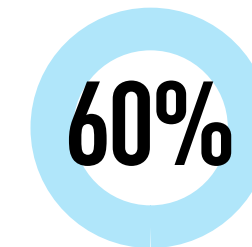
This translated into a depreciated experience for students – especially during enrollment and scheduling – while overloading staff with manual work and driving up IT operations costs.

INSEAD needed a new integration approach to unlock information silos, connect multiple mission-critical systems, and ultimately deliver an industry-leading education experience for students and faculty across the globe.

By building APIs on Anypoint Platform, INSEAD delivered user-friendly functionality that enabled Excel schedules to be uploaded into TimeEdit in minutes.

Employing MuleSoft also accelerated the development process at INSEAD, increasing developer speed by 44%, and saving an average of 80 development hours on every new integration.

[Read more](#) about how INSEAD uses API-led connectivity to improve student experiences.



**REDUCTION IN  
MANUAL WORK**

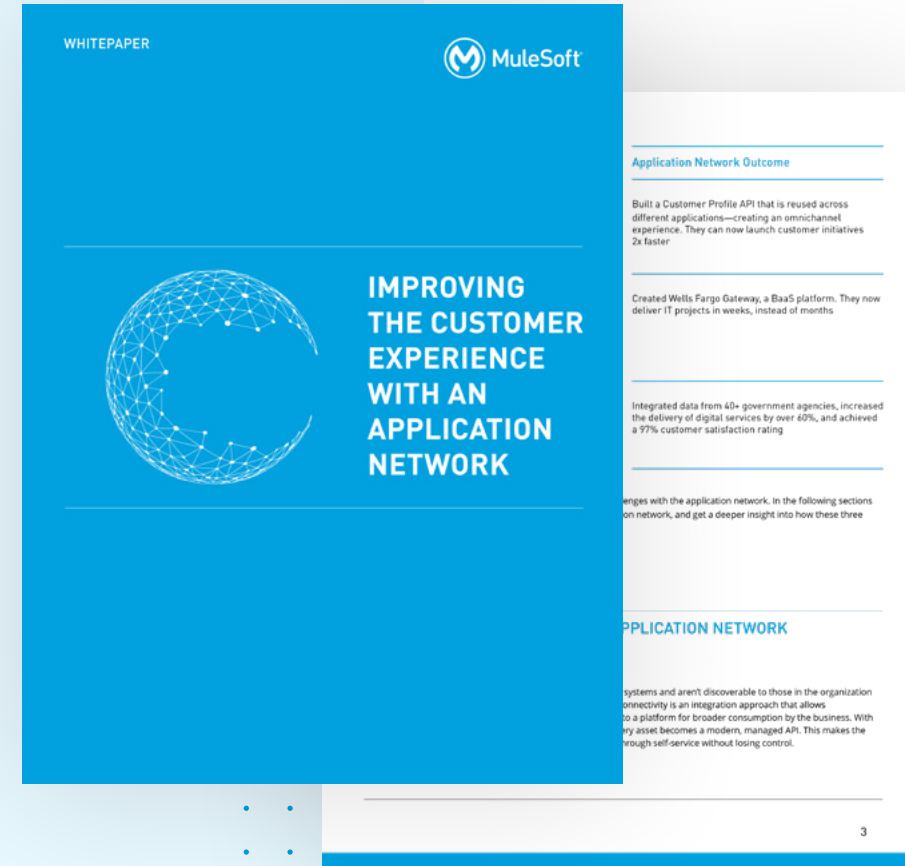
FEATURED RESOURCE

# Cutting-edge customer experiences begin with APIs

The customer experience now drives differentiation. Seamless and personalized interactions are essential to establishing long-lasting customer relationships. In this whitepaper, find out how an organizational shift in IT culture will help lay an agile and adaptable digital foundation.

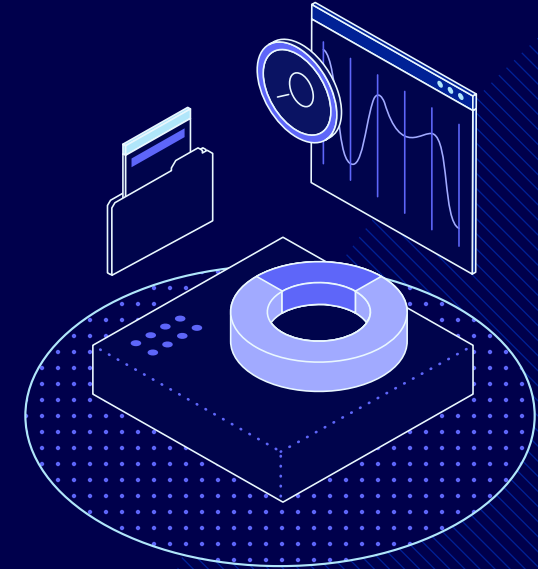
Plus, discover how to use APIs to make sure your customers have the experience you intend – no matter when or on which channel they choose to interact.

[▶ Read the whitepaper](#)



SECTION 05

# Leadership now mandates a company-wide API strategy





# Key trends

01

The vast majority (98%) of organizations now use APIs. This underlines the recognition that API-led connectivity and reuse can be a key enabler of digital transformation and a driver of business success.

02

Leadership is buying into the importance of APIs as a driver of connected user experiences. The number who mandate a company-wide API integration strategy has surged to 26% from 15% just a year ago.

03

The reuse of components, such as APIs and best-practice templates, and the empowerment of business users are increasingly central to API-led connectivity. Nearly half (46%) of internal software assets are available for reuse, and 55% of organizations have a mature or very mature strategy for non-technical users.



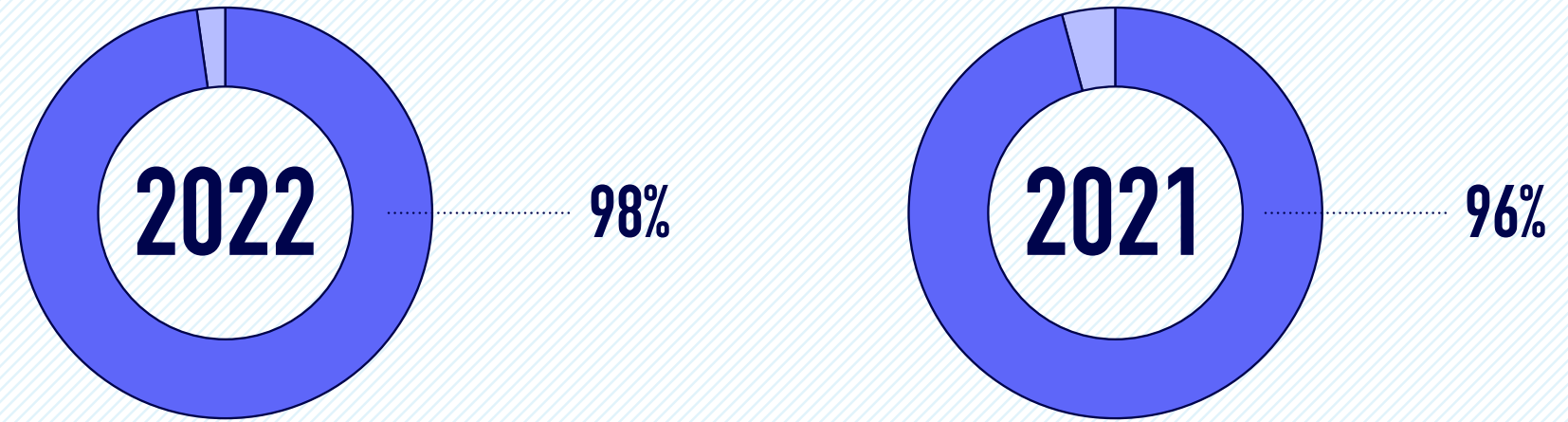
# APIs are virtually ubiquitous in modern enterprises

Despite the integration challenges many organizations still face, virtually all (98%) now use public and/or private APIs, up from 96% a year ago.

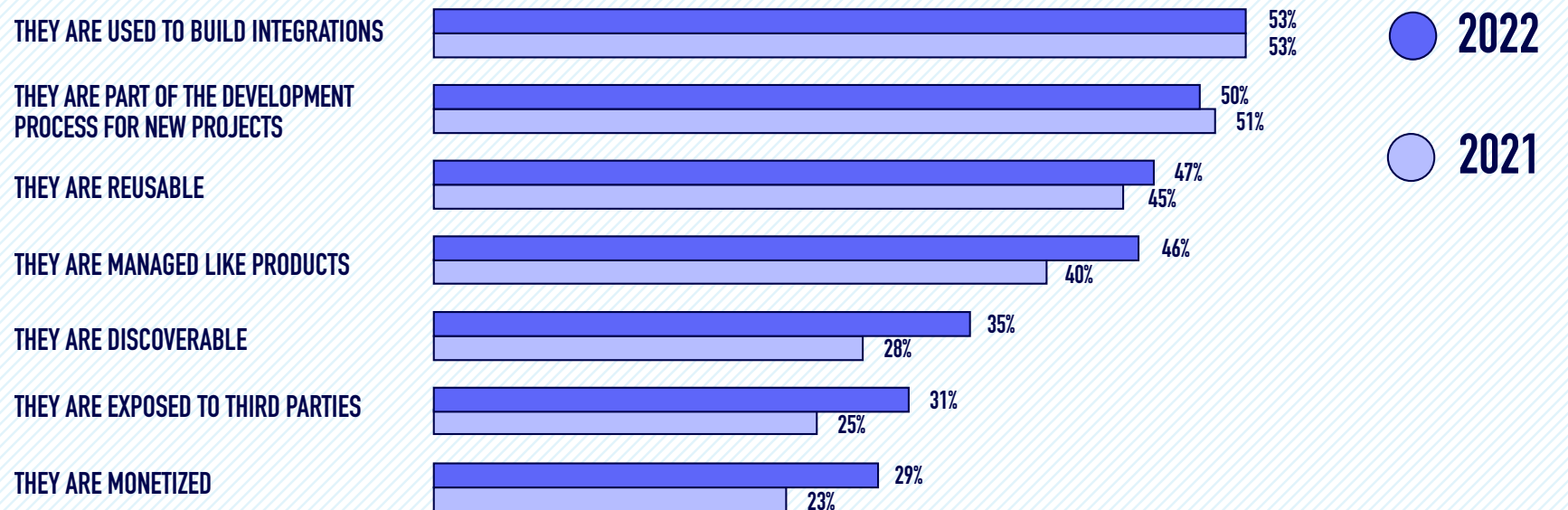
Here's more detail on the progress enterprises have made over the past year:

- 53% use APIs to build integrations – unchanged from a year ago.
- 50% say they are part of the development process for new projects – virtually unchanged (51%).
- 47% say their APIs are reusable – up from 45%.
- 46% say they are managed like products – an increase from 40%.
- 35% say their APIs are discoverable – up from 28%.
- 31% say their APIs are exposed to third parties – up from 25%.
- 29% say their APIs are monetized – up from 23%.

## Percentage of organizations that use APIs



## What characteristics do the APIs owned by your company have?

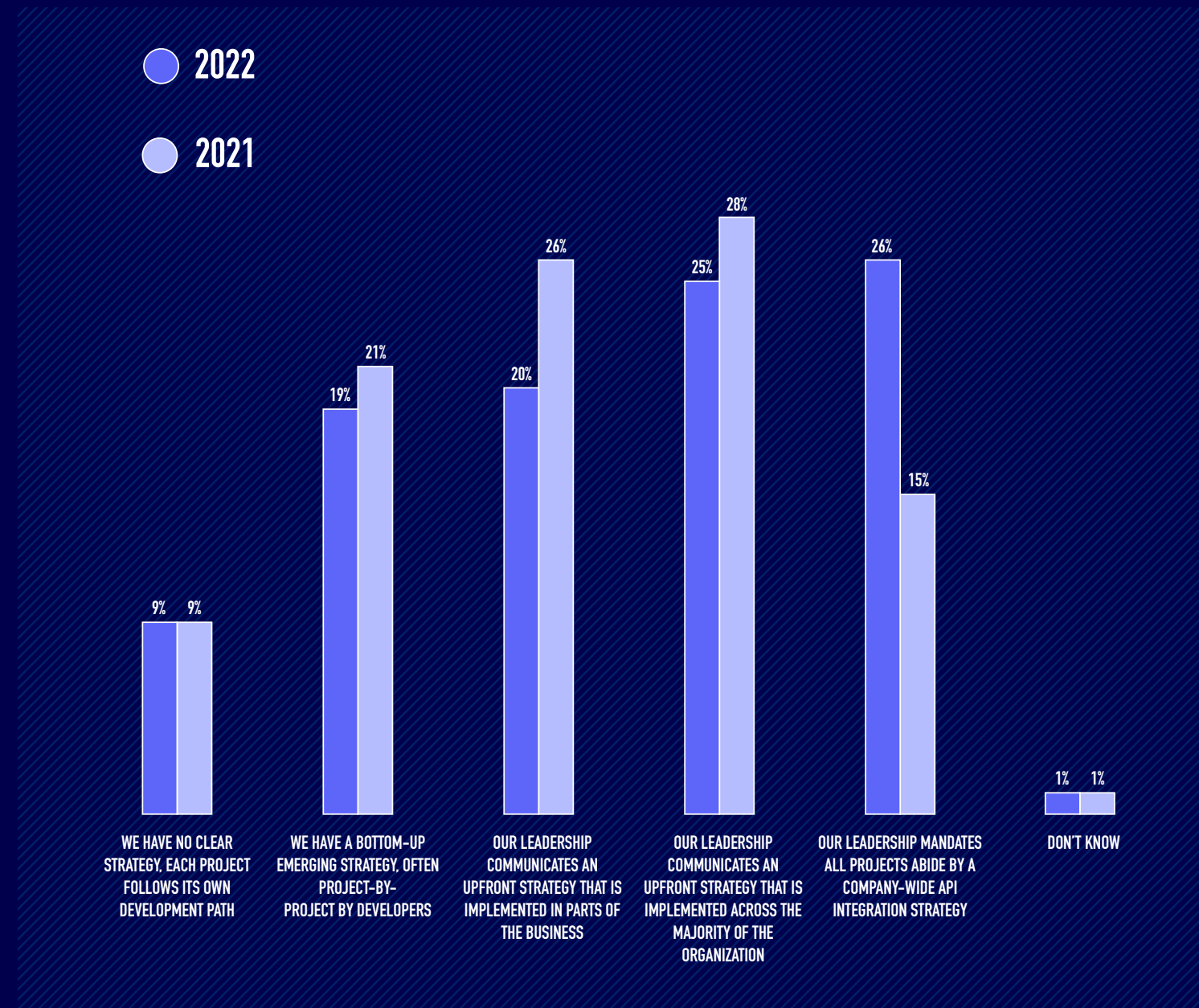


## Business leaders are on board

Even more heartening is the fact that leadership is increasingly committed to driving forward API-led integration projects. Most (90%) organizations now have a clear integration and API strategy. And over a quarter (26%) said leaders now demand that all projects abide by a company-wide API integration strategy, up from just 15% a year ago.

This bodes well for the future of such projects – and the likelihood of their success.

### How does your organization approach and promote its integration and API strategy?



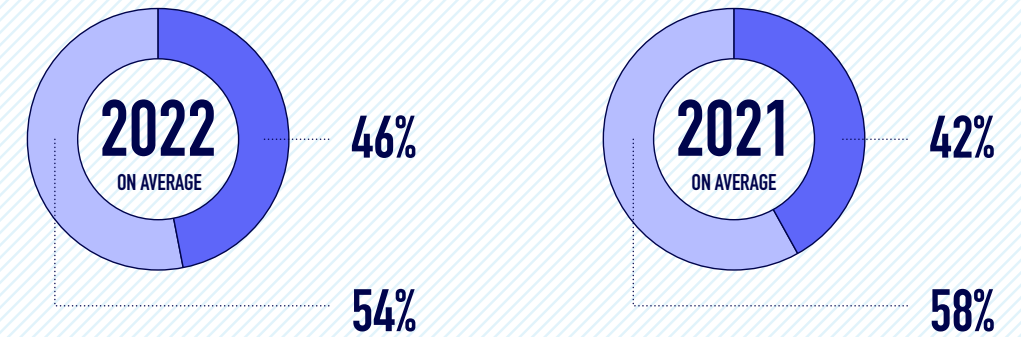
# Reuse is on the rise

A key benefit of API-led connectivity is that it drives faster time-to-value and cost efficiency while lowering the barrier to entry for non-technical users. Organizations are already leveraging this to great effect to create new experiences and accelerate projects.

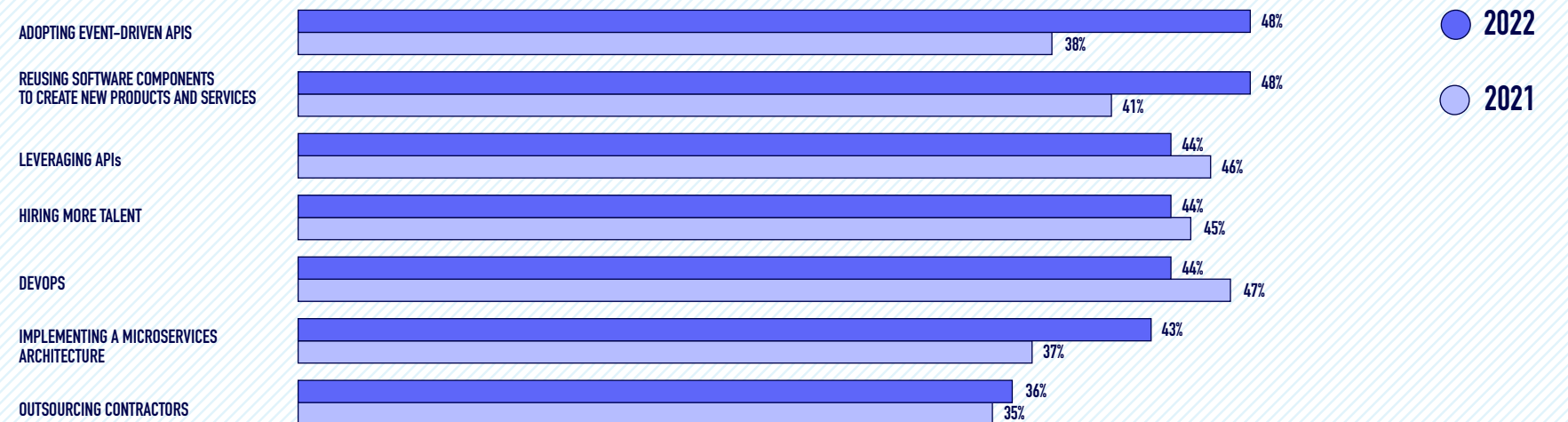
On average, 46% of organizations' internal software assets and components are available for developers to reuse – an increase from 42% a year ago. Nearly half (48%) of organizations said IT is actively reusing these components, versus 41% in the 2021 report.

## What percentage of your organization's internal software assets and components (e.g., code, APIs, best practice templates) are available for developers to reuse?

- SOFTWARE ASSETS AND COMPONENTS THAT ARE REUSABLE
- SOFTWARE ASSETS AND COMPONENTS THAT ARE NOT REUSABLE



## What are IT teams doing in your organization to increase the efficiency of your application development process?

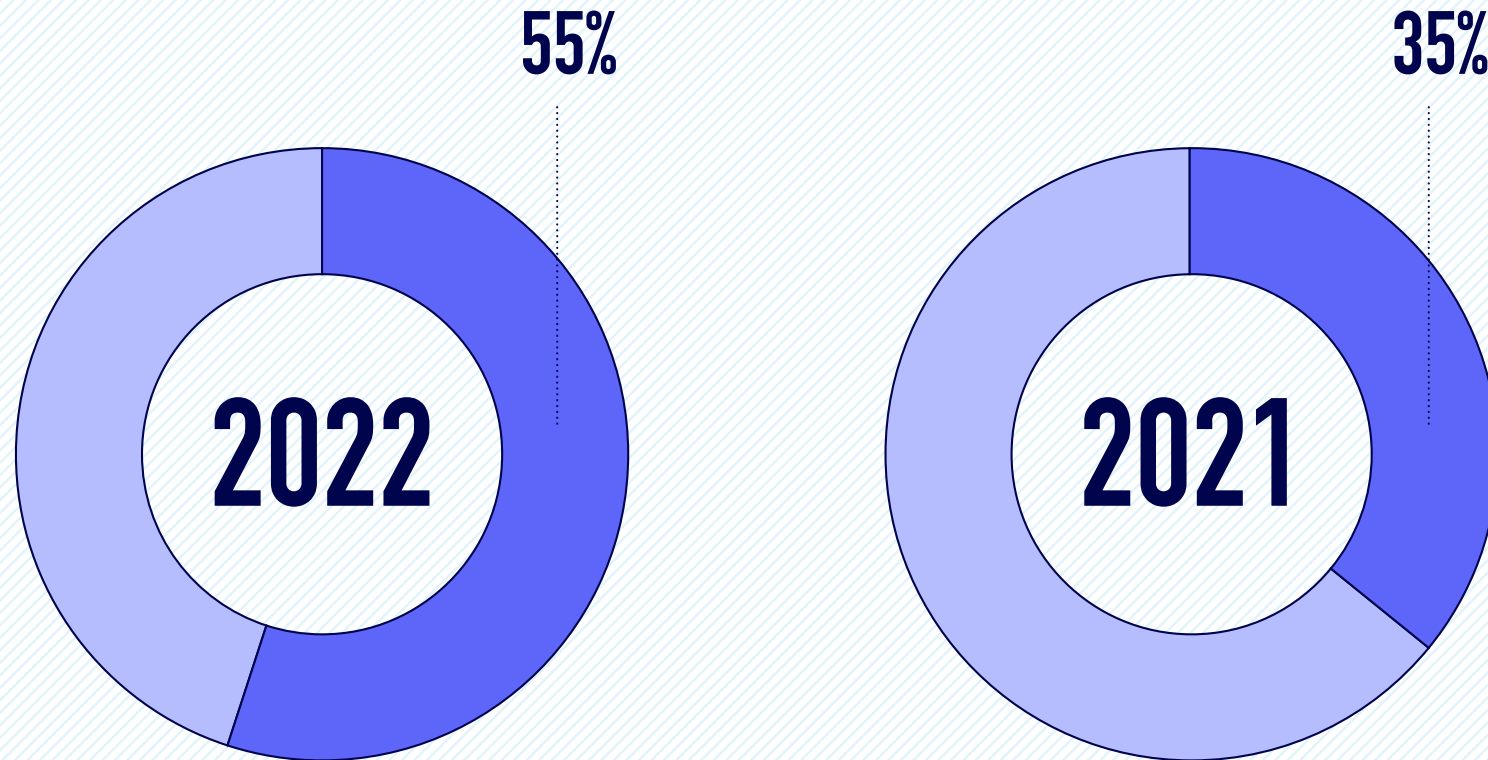


## Business users are empowered to take action

That's good news for non-technical users who can use API-led no- and low-code tools to drive their own automation and digital transformation projects – taking the pressure off IT teams in the process. It's hugely encouraging that over half (55%) of organizations now have a “very mature” or “mature” strategy empowering these users to integrate apps and data sources powered by APIs. This is up from 36% in 2021.

How would you rate the maturity of your organization's strategy to enable non-technical business users to easily integrate apps and data sources powered by APIs?

● "VERY MATURE" OR "MATURE" STRATEGY





## CUSTOMER SPOTLIGHT

# Unilever

As a leading consumer goods brand, [Unilever's](#) IT team faced numerous challenges, due to their infrastructure size, which encompasses 1,000 applications, 10,000 interfaces, and 500 IT projects per year. Unilever had multiple global teams and was looking to find more efficient solutions to deploy new products and services.

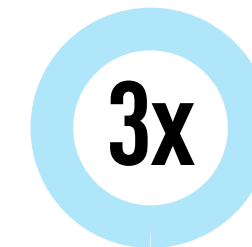
Unilever set about creating a best-of-breed platform for eCommerce that unifies their portfolio of multiple brands on a common operating model.

MuleSoft was adopted to enable the connectivity between the eCommerce platform's multiple tools (NetSuite, Salesforce Commerce Cloud, and others) and to access key on-premise systems such as SAP. In addition, their “adaptive

integration” team took an API-led approach to remove bottlenecks and support line-of-business innovation.

Using API-led connectivity and Anypoint Platform, Unilever's teams created a network of reusable services, enabling self-service across various brands. MuleSoft successfully supported the six-month launch of a newly acquired pure play eCommerce entity.

[Learn more](#) about the global giant's journey with APIs and MuleSoft by watching the Dreamforce 2018 Integration Keynote.



**FASTER DEPLOYMENT  
FOR NEW INITIATIVES**



FEATURED RESOURCE

# API strategy essentials

Businesses with an API strategy are more likely to complete projects on time, achieve higher rates of innovation, enable citizen integrators, save operational costs, and open up new revenue streams with APIs. To participate in the API economy, organizations must take a logical, methodological, and proven approach.

Use the proven, four-stage blueprint to structure your organization's API strategy journey.

[▶ Get the blueprint](#)



SECTION 06

**APIs are helping organizations  
drive more value and revenue**



# Key trends

01

**APIs are delivering real value to organizations**, led by increased productivity and greater use of self-serve IT. Innovation, time-to-value, and collaboration have also surged thanks to these projects.

02

**APIs can also unlock major revenue growth opportunities.** In fact, over a third (35%) of organizations' revenue is now being generated by APIs and related implementations.

03

**Organizations are recognizing that the combination of API-led connectivity** and automation can deliver better employee and customer experiences. A third (31%) of organizations plan to invest in robotic process automation (RPA), more than double the figure of a year ago.

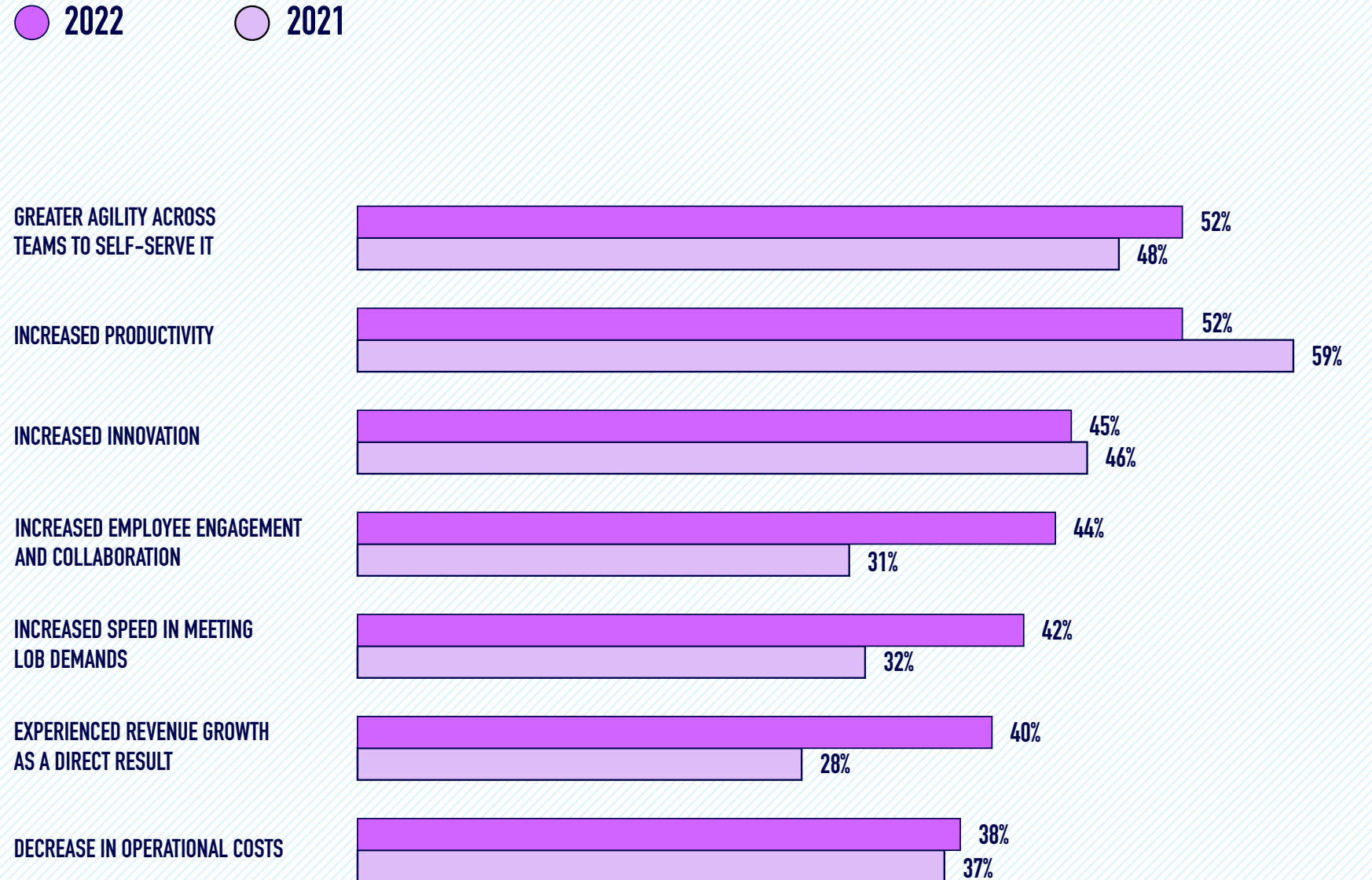


# APIs deliver genuine value to organizations

It's clear to see why API-led connectivity has moved to mainstream adoption over recent years. Organizations said it has enabled them to:

- Increase productivity (52%).
- Drive agility via self-serve IT (52%).
- Enhance innovation (45%).
- Increase speed in meeting LoB demands (42%) – compared to 32% in the 2021 report.
- Increase employee engagement and collaboration (44%) – compared to 31% a year ago.

## What business result(s) has your company realized from leveraging APIs?

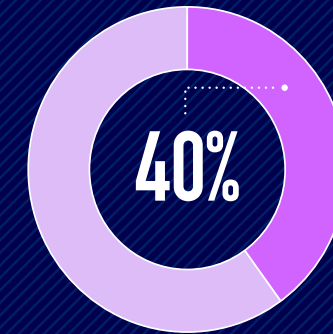


# APIs drive revenue

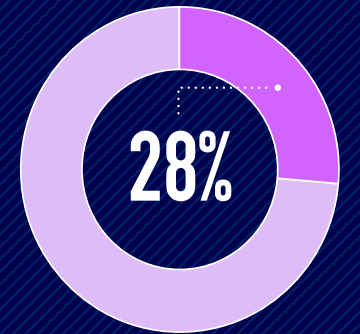
Two-fifths (40%) of organizations have experienced revenue growth as a direct result of leveraging APIs, up from 28% a year ago. APIs are also generating a larger share of revenue than before. On average, over a third (35%) of organizations' revenue was driven by the technology and API-related implementations, up from 27%.

## What business result(s) has your company realized from leveraging APIs?

● EXPERIENCED REVENUE GROWTH AS A DIRECT RESULT



2022

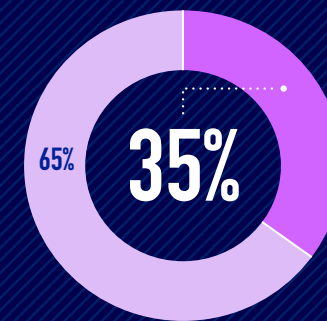


2021

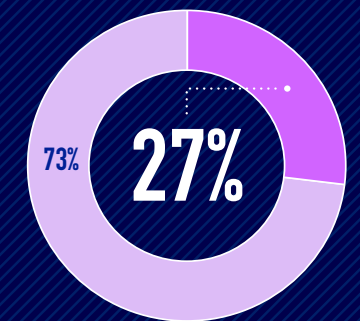
## What percentage of your company's revenue is generated from APIs and API-related implementations?

● REVENUE GENERATED BY APIS AND RELATED IMPLEMENTATIONS

● REVENUE GENERATED OUTSIDE OF APIS



2022

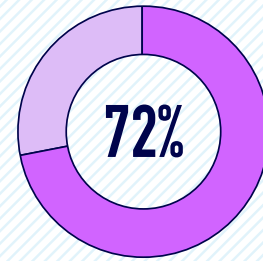


2021

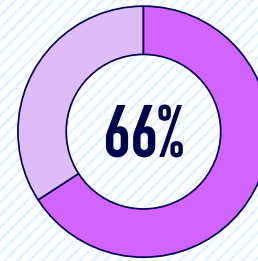
# Automation emerges as a key ingredient

Nearly a third (31%) of organizations plan to invest in robotic process automation (RPA), versus 13% a year ago. Most are currently managing this (67%) and tracking it (58%) centrally via IT. It is IT developers (72%) and IT operations (66%) who are most involved in automating business processes and tasks. The combination of automation, integration, and API management will prove increasingly irresistible for global organizations as they seek to deliver the experiences their employees and customers crave.

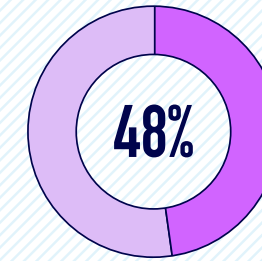
## Who is involved in automating business processes and tasks in your organization?



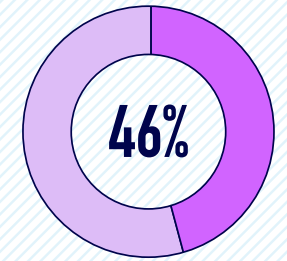
IT DEVELOPERS



IT OPERATIONS



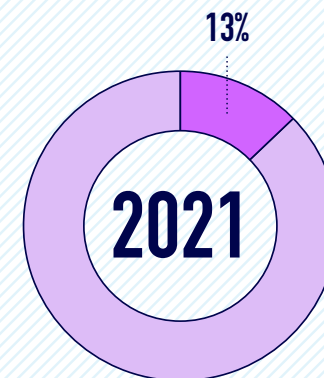
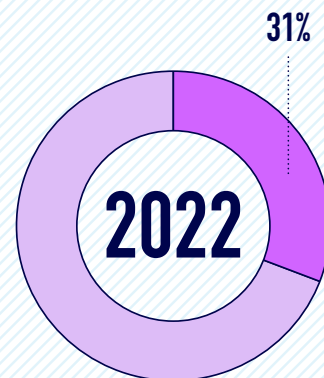
APPLICATION ADMINISTRATORS



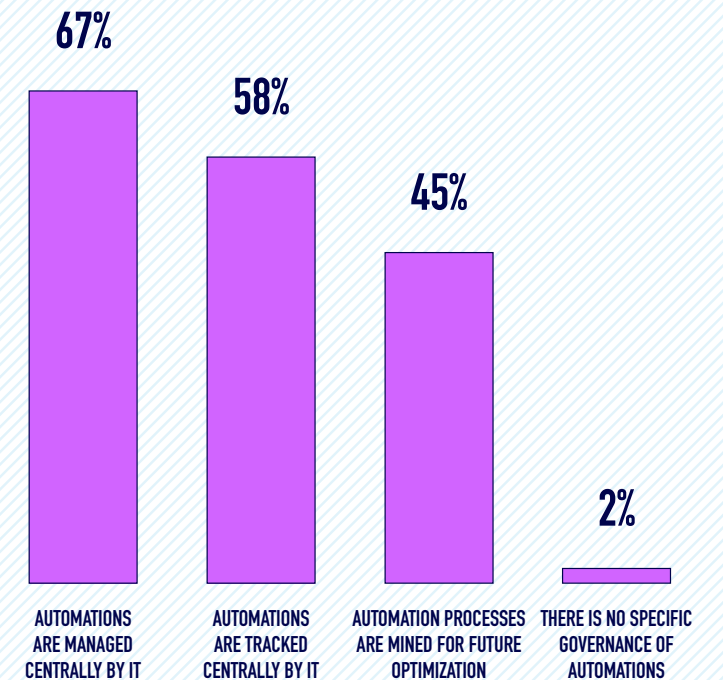
SYSTEM INTEGRATORS HIRED BY THE BUSINESS

## Which of the following technologies is your organization currently or planning to invest in?

ROBOTIC PROCESS AUTOMATION (RPA)



## How are automations governed in your organization?





## CUSTOMER SPOTLIGHT

# Buffalo Wild Wings

Faced with the challenge of managing real-time beverage inventory across 1,200 stores, [Buffalo Wild Wings](#) needed a real-time monitoring technique and a better understanding of inventory.

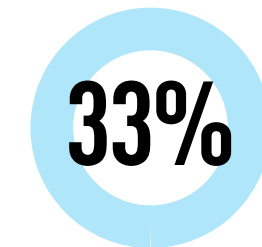
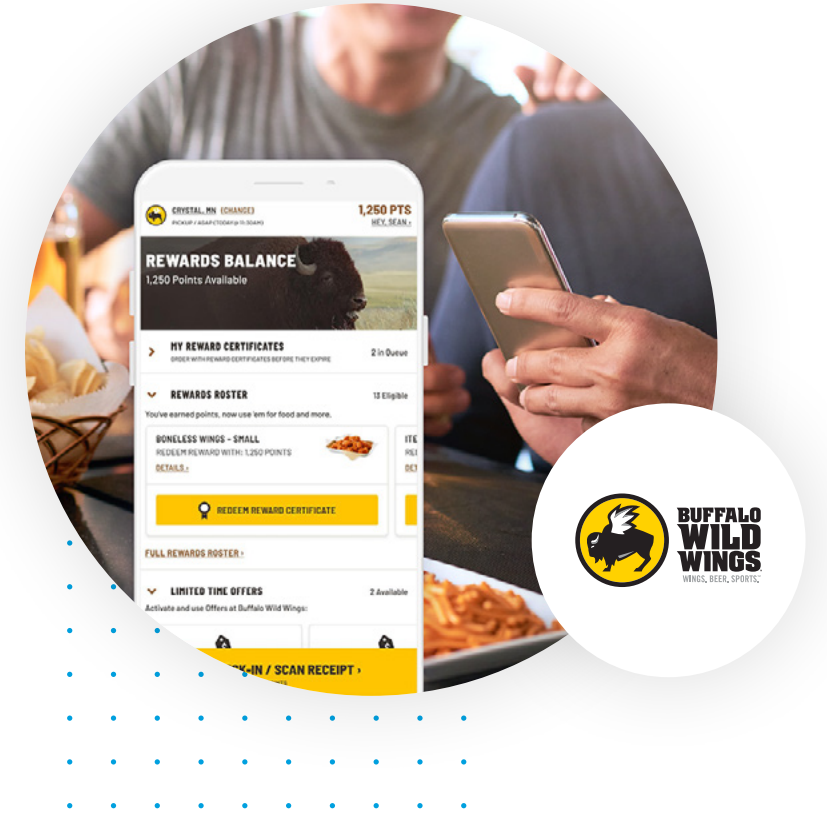
This was an IT challenge considering that the company needed to configure all new beer items in POS systems before a restaurant can begin selling a new beer to a guest. Additionally, it was a business challenge to ensure restaurants understood the actual beer inventory usage across all restaurants to help drive future purchasing decisions.

To address these challenges, Buffalo Wild Wings turned to technology leaders: BeerBoard, an industry expert offering a beer management application; Capgemini, a leading technology consultancy; and

MuleSoft, a leader in enterprise integrations, to help implement the solution.

Having access to real-time pour data extends the company's visibility to beer inventory. The real-time, accurate flow data is available to Restaurant Managers, the Field Leadership Team, and Business and Analytics teams, reducing time and effort to extract and crunch data as well as equipping teams to make more informed business decisions.

[Learn more](#) about how Buffalo Wild Wings is tapping into IoT to make data-driven buying decisions.



**REDUCTION IN  
CYCLE TIMES**

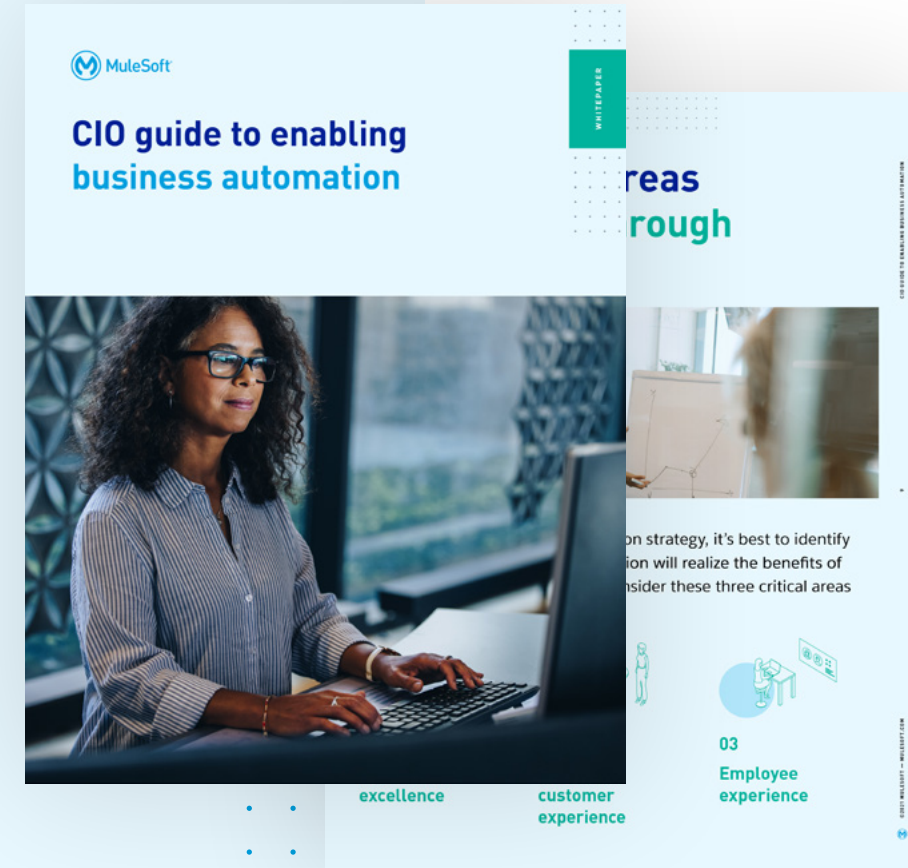
FEATURED RESOURCE

# CIO guide to enabling business automation

From driving better customer experiences to improving the quality of output resulting in reduced costs, automation enables teams to be faster, more agile, and more productive.

By building a composable enterprise, you are positioned to take a platform approach to automation, where APIs and reusable packaged business capabilities (PBCs) help unlock data from back-end systems to provide teams with governed access to automate processes. This gives teams more time to innovate at an unprecedented scale.

➤ [Download the guide](#)



# Recommendations

For the post-pandemic enterprise, digital transformation has become a critical driver of customer engagement and employee productivity. Yet data silos, legacy infrastructure, and IT bottlenecks are a persistent challenge. To overcome these, organizations must leverage the undoubted benefits of API-led integration. Here's how:

---

## Empower business users

IT departments are struggling to deliver all the projects required of them on time. To optimize your organization's potential, accelerate the speed of digital transformation by handing low- and no-code tools to business technologists. They can then simply drag-and-drop components to create new integrated user experiences built on reusable APIs.

---

## Tackle security and governance challenges

Security is an increasingly acute challenge for IT teams as they transition to API-led connectivity approaches. A serious incident could delay or even permanently derail transformation projects. Organizations should seek vendors that can provide multi-layered protection of the data itself, the API that provides access to it, and the perimeter within which the API is deployed.

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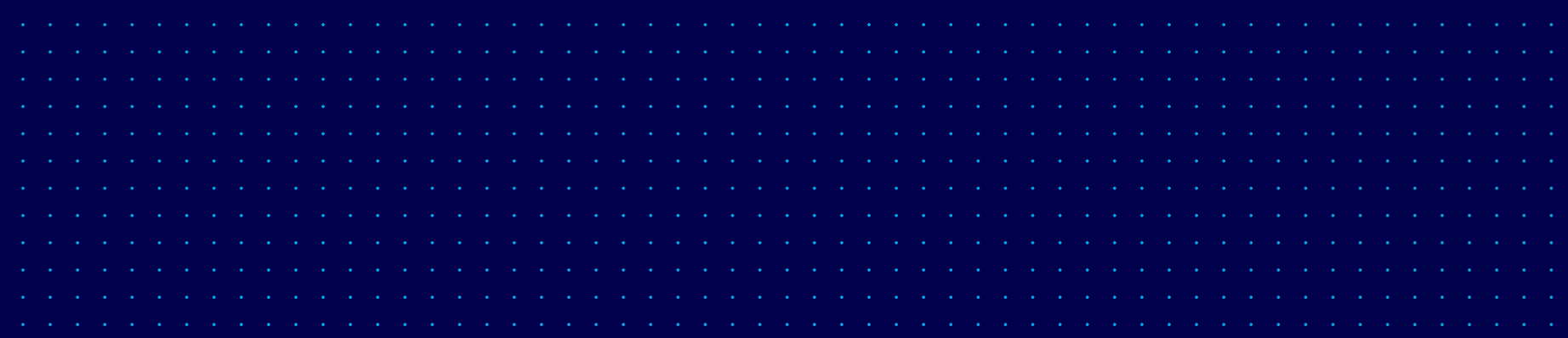
## Focus on API reuse

The era of point-to-point integrations is drawing to a close. In its place is a more flexible, agile, and cost-effective way to create the experiences your users and customers crave: reusable API-led integration. It's faster, more cost effective, and will mean less effort for IT and business users.

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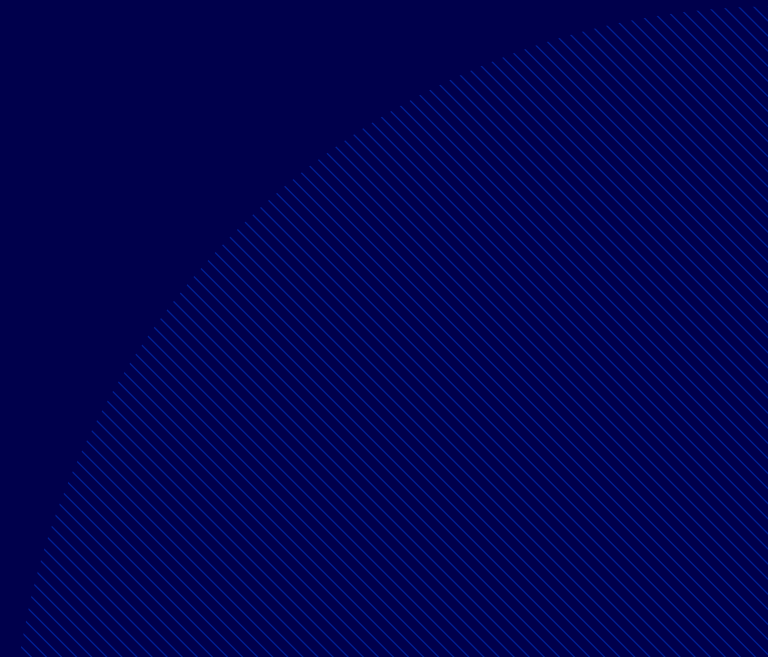
## Create a Single Source of Truth (SSOT)

Data-driven organizations will increasingly pull ahead of the competition as the post-pandemic era unfolds. To join them, you must first break down longstanding data silos by creating a SSOT to ensure all users are working from the same set of standardized, relevant data. Then it's about using API-led connectivity to turn this data into meaningful insight and innovative user experiences. The future awaits.

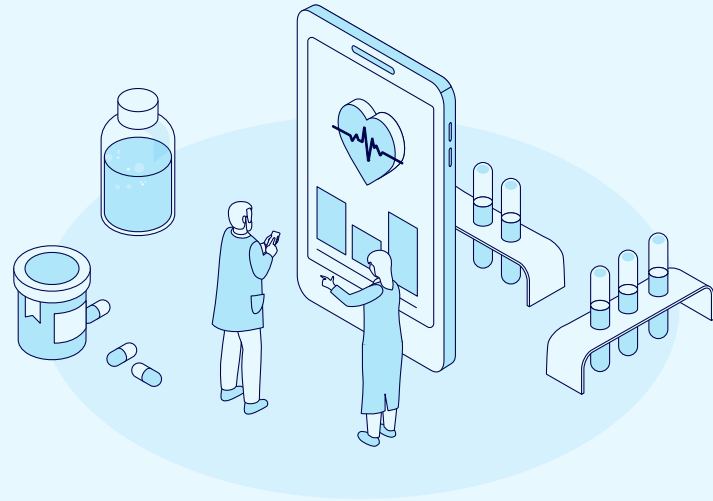


# Appendix

**Sector and geographic breakdowns**



# Healthcare and life sciences



**1046**  
APPS

On average, organizations in the healthcare & life sciences sector have the highest number of different, individual applications in use (1046) compared to the global average (976).

**46%**

## PROJECTS DELIVERED

OF PROJECTS WERE DELIVERED LAST YEAR INDICATING A POTENTIAL LACK OF ABILITY TO KEEP UP. FURTHER TO THIS, 53% WERE NOT DELIVERED ON TIME.

**92%**

## DIGITAL TRANSFORMATION

BELIEVE THAT THE SPEED THAT DIGITAL TRANSFORMATION TAKES PLACE IN THEIR ORGANIZATION HAS SPED UP IN THE LAST 5 YEARS.

**\$6,131,902**

IT DECISION MAKERS IN THE HEALTHCARE & LIFE SCIENCES SECTOR BELIEVE THAT, ON AVERAGE, THEIR ORGANIZATION COULD LOSE \$6,131,902 IF DIGITAL TRANSFORMATION INITIATIVES AREN'T SUCCESSFULLY COMPLETED.

**55%**

## INTEGRATE END-USER EXPERIENCES

SAY THAT IT IS HARD FOR THEIR ORGANIZATION TO INTEGRATE END-USER EXPERIENCES

**PRIMARY REASONS:**

- SECURITY AND GOVERNANCE CHALLENGES (52%)
- OUTDATED IT INFRASTRUCTURE (45%)
- DATA SILOS (45%)

**47%**

## REUSE

SAY THEIR ORGANIZATION'S INTERNAL COMPONENTS (E.G., CODE, APIS, BEST PRACTICE TEMPLATES) ARE AVAILABLE FOR DEVELOPERS TO REUSE.

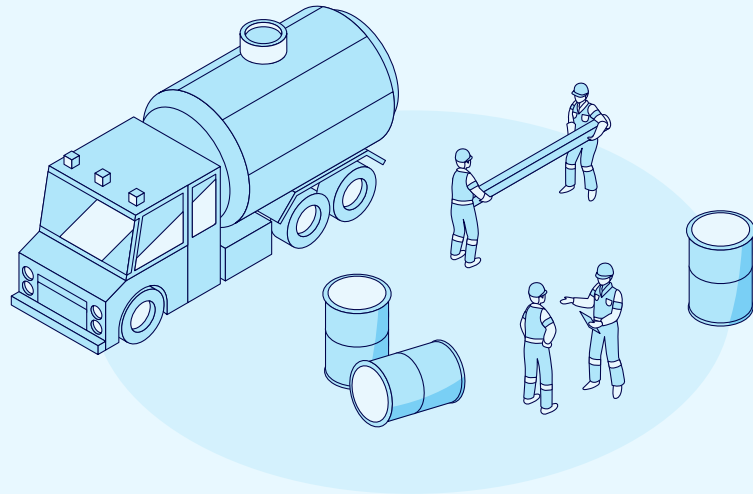
**37%**

## REVENUE

ON AVERAGE, RESPONDENTS IN THE HEALTHCARE AND LIFE SCIENCES SECTOR WHOSE ORGANIZATIONS USE APIS CITE THAT JUST OVER A THIRD (37%) OF REVENUE IS GENERATED FROM APIS AND API-RELATED IMPLEMENTATIONS



# Energy, oil & gas, and utilities sector



**79%** Compared to the global average (90%), organizations in the energy, oil & gas, and utilities sector are the least likely to cite that data silos are creating business challenges (79%).

**42%** **PROJECTS DELIVERED**  
 OF PROJECTS WERE DELIVERED LAST YEAR INDICATING A POTENTIAL LACK OF ABILITY TO KEEP UP. FURTHER TO THIS, 52% WERE NOT DELIVERED ON TIME.

**94%** **DIGITAL TRANSFORMATION**  
 BELIEVE THAT THE SPEED THAT DIGITAL TRANSFORMATION TAKES PLACE IN THEIR ORGANIZATION HAS SPED UP IN THE LAST 5 YEARS.

**\$7,910,692**

IT DECISION MAKERS IN THE ENERGY, OIL & GAS, AND UTILITIES SECTOR BELIEVE THAT, ON AVERAGE, THEIR ORGANIZATION COULD LOSE \$7,910,692 IF DIGITAL TRANSFORMATION INITIATIVES AREN'T SUCCESSFULLY COMPLETED.

**52%** **INTEGRATE END-USER EXPERIENCES**  
 SAY THAT IT IS HARD FOR THEIR ORGANIZATION TO INTEGRATE END-USER EXPERIENCES

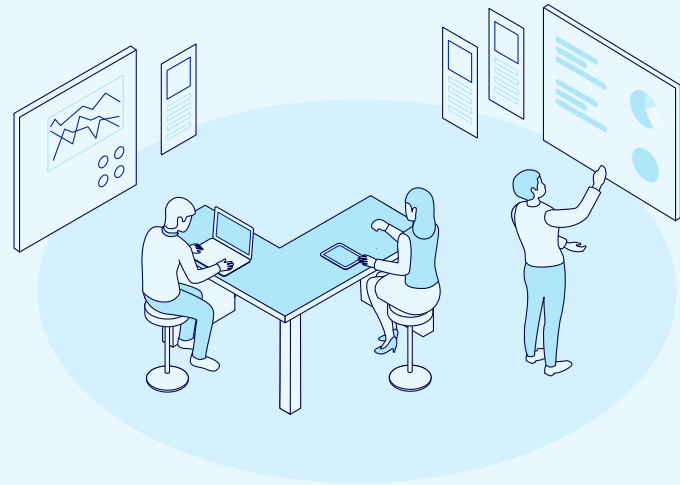
- PRIMARY REASONS:**
- SECURITY AND GOVERNANCE CHALLENGES (59%)
  - OUTDATED IT INFRASTRUCTURE (44%)
  - AN INABILITY TO KEEP UP WITH EVER-GROWING PROCESSES, TOOLS, AND SYSTEMS (41%)
  - LACK OF INTERNAL KNOWLEDGE (41%)

**50%** **REUSE**  
 SAY THEIR ORGANIZATION'S INTERNAL COMPONENTS (E.G., CODE, APIS, BEST PRACTICE TEMPLATES) ARE AVAILABLE FOR DEVELOPERS TO REUSE.

**38%** **REVENUE**  
 ON AVERAGE, RESPONDENTS IN THE ENERGY, OIL & GAS, AND UTILITIES SECTOR WHOSE ORGANIZATIONS USE APIS CITE THAT OVER A THIRD (38%) OF REVENUE IS GENERATED FROM APIS AND API-RELATED IMPLEMENTATIONS



# Financial services and insurance sector



**35%** Respondents from organizations in the financial services and insurance sector are the least likely (35%) to cite that all projects asked of them were delivered last year.

**35%** **PROJECTS DELIVERED**  
 OF PROJECTS WERE DELIVERED LAST YEAR INDICATING A POTENTIAL LACK OF ABILITY TO KEEP UP. FURTHER TO THIS, 51% WERE NOT DELIVERED ON TIME.

**94%** **DIGITAL TRANSFORMATION**  
 BELIEVE THAT THE SPEED THAT DIGITAL TRANSFORMATION TAKES PLACE IN THEIR ORGANIZATION HAS SPED UP IN THE LAST 5 YEARS.

**\$7,647,629**

**IT DECISION MAKERS IN THE FINANCIAL SERVICES AND INSURANCE SECTOR BELIEVE THAT, ON AVERAGE, THEIR ORGANIZATION COULD LOSE \$7,647,629 IF DIGITAL TRANSFORMATION INITIATIVES AREN'T SUCCESSFULLY COMPLETED**

**58%** **INTEGRATE END USER-EXPERIENCES**  
 SAY THAT IT IS HARD FOR THEIR ORGANIZATION TO INTEGRATE END-USER EXPERIENCES

**PRIMARY REASONS:**  
 DATA SILOS (54%)  
 OUTDATED IT INFRASTRUCTURE (51%)  
 SECURITY AND GOVERNANCE CHALLENGES (49%)

**47%** **REUSE**  
 SAY THEIR ORGANIZATION'S INTERNAL COMPONENTS (E.G., CODE, APIS, BEST PRACTICE TEMPLATES) ARE AVAILABLE FOR DEVELOPERS TO REUSE.

**35%** **REVENUE**  
 ON AVERAGE, RESPONDENTS IN THE FINANCIAL SERVICES AND INSURANCE SECTOR WHOSE ORGANIZATIONS USE APIS CITE THAT JUST OVER A THIRD (35%) OF REVENUE IS GENERATED FROM APIS AND API-RELATED IMPLEMENTATIONS.

# Communications, media, and technology sector



**\$10M**

On average, organizations in the communications, media, and technology sector have spent, approximately, the most on IT staff in the last 12 months.

**49%**

## PROJECTS DELIVERED

OF PROJECTS WERE DELIVERED LAST YEAR INDICATING A POTENTIAL LACK OF ABILITY TO KEEP UP. FURTHER TO THIS, 54% WERE NOT DELIVERED ON TIME.

**95%**

## DIGITAL TRANSFORMATION

BELIEVE THAT THE SPEED THAT DIGITAL TRANSFORMATION TAKES PLACE IN THEIR ORGANIZATION HAS SPED UP IN THE LAST 5 YEARS.

**\$7,207,105**

IT DECISION MAKERS IN THE COMMUNICATIONS, MEDIA, AND TECHNOLOGY SECTOR BELIEVE THAT, ON AVERAGE, THEIR ORGANIZATION COULD LOSE \$7,207,105 IF DIGITAL TRANSFORMATION INITIATIVES AREN'T SUCCESSFULLY COMPLETED

**49%**

## INTEGRATE END-USER EXPERIENCES

SAY THAT IT IS HARD FOR THEIR ORGANIZATION TO INTEGRATE END-USER EXPERIENCES

### PRIMARY REASONS:

- SECURITY AND GOVERNANCE CHALLENGES (58%)
- AN INABILITY TO KEEP UP WITH EVER-GROWING PROCESSES, TOOLS, AND SYSTEMS (39%)
- OUTDATED INFRASTRUCTURE (38%)
- DATA SILOS (38%)

**46%**

## REUSE

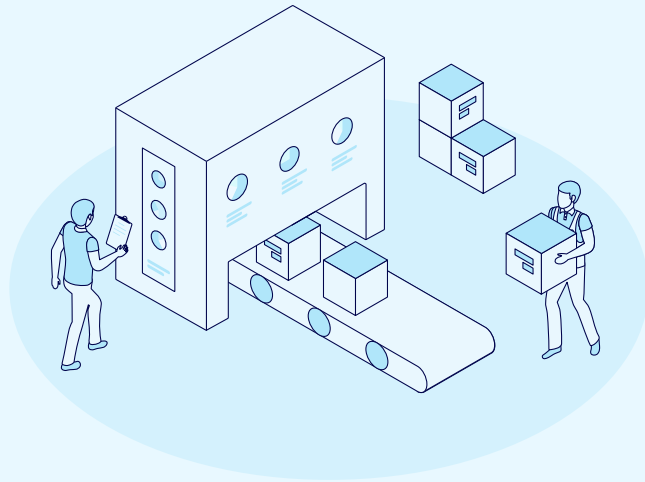
SAY THEIR ORGANIZATION'S INTERNAL COMPONENTS (E.G., CODE, APIS, BEST PRACTICE TEMPLATES) ARE AVAILABLE FOR DEVELOPERS TO REUSE.

**38%**

## REVENUE

ON AVERAGE, RESPONDENTS IN THE COMMUNICATIONS, MEDIA, AND TECHNOLOGY SECTOR WHOSE ORGANIZATIONS USE APIS CITE THAT OVER A THIRD (38%) OF REVENUE IS GENERATED FROM APIS AND API-RELATED IMPLEMENTATIONS

# Manufacturing and production sector



**58%** Organizations in the manufacturing and production sector see the highest average (58%) of projects not being delivered on time.

**48%** **PROJECTS DELIVERED**  
 OF PROJECTS WERE DELIVERED LAST YEAR INDICATING A POTENTIAL LACK OF ABILITY TO KEEP UP. FURTHER TO THIS, 58% WERE NOT DELIVERED ON TIME.

**91%** **DIGITAL TRANSFORMATION**  
 BELIEVE THAT THE SPEED THAT DIGITAL TRANSFORMATION TAKES PLACE IN THEIR ORGANIZATION HAS SPED UP IN THE LAST 5 YEARS.

**\$7,343,944**

IT DECISION MAKERS IN THE MANUFACTURING AND PRODUCTION SECTOR BELIEVE THAT, ON AVERAGE, THEIR ORGANIZATION COULD LOSE \$7,343,944 IF DIGITAL TRANSFORMATION INITIATIVES AREN'T SUCCESSFULLY COMPLETED

**59%** **INTEGRATE END-USER EXPERIENCES**  
 SAY THAT IT IS HARD FOR THEIR ORGANIZATION TO INTEGRATE END-USER EXPERIENCES

**PRIMARY REASONS:**  
 SECURITY AND GOVERNANCE CHALLENGES (60%)  
 OUTDATED INFRASTRUCTURE (60%)  
 DATA SILOS (52%)

**45%** **REUSE**  
 SAY THEIR ORGANIZATION'S INTERNAL COMPONENTS (E.G., CODE, APIS, BEST PRACTICE TEMPLATES) ARE AVAILABLE FOR DEVELOPERS TO REUSE.

**33%** **REVENUE**  
 ON AVERAGE, RESPONDENTS IN THE MANUFACTURING AND PRODUCTION SECTOR WHOSE ORGANIZATIONS USE APIS CITE THAT A THIRD (33%) OF REVENUE IS GENERATED FROM APIS AND API-RELATED IMPLEMENTATIONS

# Public sector/ government



**29%** Of public sector organizations who use APIs, just 29% of revenue is generated from APIs and API-related implementations, on average.

**42%** **PROJECTS DELIVERED**  
OF PROJECTS WERE DELIVERED LAST YEAR INDICATING A POTENTIAL LACK OF ABILITY TO KEEP UP. FURTHER TO THIS, 47% WERE NOT DELIVERED ON TIME.

**88%** **DIGITAL TRANSFORMATION**  
BELIEVE THAT THE SPEED THAT DIGITAL TRANSFORMATION TAKES PLACE IN THEIR ORGANIZATION HAS SPED UP IN THE LAST 5 YEARS.

**\$6,507,634** IT DECISION MAKERS IN THE PUBLIC SECTOR BELIEVE THAT, ON AVERAGE, THEIR ORGANIZATION COULD LOSE \$6,507,634 IF DIGITAL TRANSFORMATION INITIATIVES AREN'T SUCCESSFULLY COMPLETED

**56%** **INTEGRATE END-USER EXPERIENCES**  
SAY THAT IT IS HARD FOR THEIR ORGANIZATION TO INTEGRATE END-USER EXPERIENCES

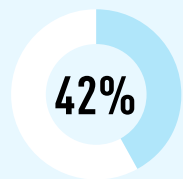
**PRIMARY REASONS:**  
SECURITY AND GOVERNANCE CHALLENGES (57%)  
AN INABILITY TO KEEP UP WITH EVER-GROWING PROCESSES, TOOLS, AND SYSTEMS (43%)  
DATA SILOS (43%)

**42%** **REUSE**  
SAY THEIR ORGANIZATION'S INTERNAL COMPONENTS (E.G., CODE, APIS, BEST PRACTICE TEMPLATES) ARE AVAILABLE FOR DEVELOPERS TO REUSE.

**29%** **REVENUE**  
ON AVERAGE, RESPONDENTS IN THE PUBLIC SECTOR/GOVERNMENT WHOSE ORGANIZATIONS USE APIS CITE THAT LESS THAN A THIRD (29%) OF REVENUE IS GENERATED FROM APIS AND API-RELATED IMPLEMENTATIONS



# Retail and consumer packaged goods sector

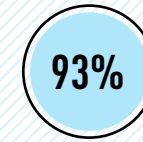


Respondents from the retail and consumer packaged goods sector whose organization uses APIs are the most likely to cite that their company's APIs are exposed to third parties (42%).



## PROJECTS DELIVERED

OF PROJECTS WERE DELIVERED LAST YEAR INDICATING A POTENTIAL LACK OF ABILITY TO KEEP UP. FURTHER TO THIS, 51% WERE NOT DELIVERED ON TIME.

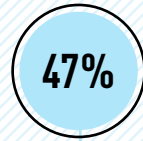


## DIGITAL TRANSFORMATION

BELIEVE THAT THE SPEED THAT DIGITAL TRANSFORMATION TAKES PLACE IN THEIR ORGANIZATION HAS SPED UP IN THE LAST 5 YEARS.

# \$6,403,846

IT DECISION MAKERS IN THE RETAIL AND CONSUMER PACKAGED GOODS SECTOR BELIEVE THAT, ON AVERAGE, THEIR ORGANIZATION COULD LOSE \$6,403,846 IF DIGITAL TRANSFORMATION INITIATIVES AREN'T SUCCESSFULLY COMPLETED

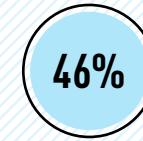


## INTEGRATE END-USER EXPERIENCES

SAY THAT IT IS HARD FOR THEIR ORGANIZATION TO INTEGRATE END-USER EXPERIENCES

### PRIMARY REASONS:

- SECURITY AND GOVERNANCE CHALLENGES (56%)
- AN INABILITY TO KEEP UP WITH EVER-GROWING PROCESSES, TOOLS, AND SYSTEMS (50%)
- OUTDATED IT INFRASTRUCTURE (44%)
- LACK OF INTERNAL KNOWLEDGE (44%)



## REUSE

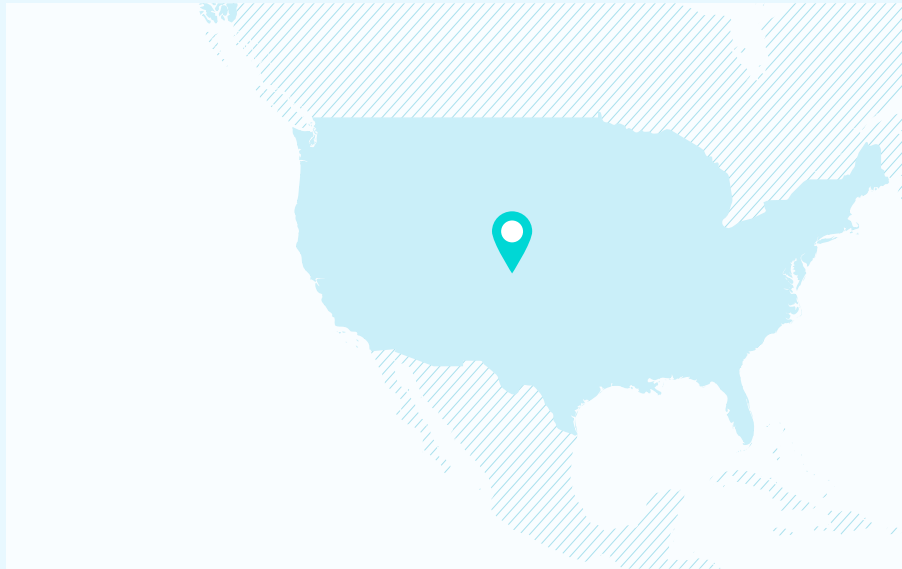
SAY THEIR ORGANIZATION'S INTERNAL COMPONENTS (E.G., CODE, APIS, BEST PRACTICE TEMPLATES) ARE AVAILABLE FOR DEVELOPERS TO REUSE.



## REVENUE

ON AVERAGE, RESPONDENTS IN THE RETAIL AND CONSUMER PACKAGED GOODS SECTOR WHOSE ORGANIZATIONS USE APIS CITE THAT JUST OVER A THIRD (38%) OF REVENUE IS GENERATED FROM APIS AND API-RELATED IMPLEMENTATIONS

# Region profile: United States



For respondents from organizations in the US, on average, just over three quarters (76%) of projects were not delivered on time compared to around half globally (52%).



## PROJECTS DELIVERED

OF PROJECTS WERE DELIVERED LAST YEAR INDICATING A POTENTIAL LACK OF ABILITY TO KEEP UP. FURTHER TO THIS, 76% WERE NOT DELIVERED ON TIME.



## DIGITAL TRANSFORMATION

BELIEVE THAT THE SPEED THAT DIGITAL TRANSFORMATION TAKES PLACE IN THEIR ORGANIZATION HAS SPED UP IN THE LAST 5 YEARS.



IT DECISION MAKERS IN THE US BELIEVE THAT, ON AVERAGE, THEIR ORGANIZATION COULD LOSE \$6,675,813 IF DIGITAL TRANSFORMATION INITIATIVES AREN'T SUCCESSFULLY COMPLETED



## INTEGRATE END-USER EXPERIENCES

SAY THAT IT IS HARD FOR THEIR ORGANIZATION TO INTEGRATE END-USER EXPERIENCES

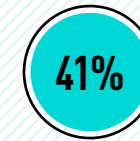
**PRIMARY REASONS:**

- SECURITY AND GOVERNANCE CHALLENGES (58%)
- DATA SILOS (46%)
- AN INABILITY TO KEEP UP WITH EVER-GROWING PROCESSES, TOOLS, AND SYSTEMS (45%)



## REUSE

SAY THEIR ORGANIZATION'S INTERNAL COMPONENTS (E.G., CODE, APIS, BEST PRACTICE TEMPLATES) ARE AVAILABLE FOR DEVELOPERS TO REUSE.



## REVENUE

ON AVERAGE, RESPONDENTS IN THE US WHOSE ORGANIZATIONS USE APIS CITE THAT JUST OVER TWO FIFTHS (41%) OF REVENUE IS GENERATED FROM APIS AND API-RELATED IMPLEMENTATIONS.



# Region profile: United Kingdom

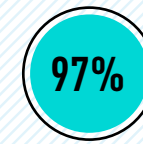


Respondents from the UK are the most likely to cite that their organization is currently or planning to invest in cloud or multicloud technologies (59%), compared to 48% of the global total.



## PROJECTS DELIVERED

OF PROJECTS WERE DELIVERED LAST YEAR INDICATING A POTENTIAL LACK OF ABILITY TO KEEP UP. FURTHER TO THIS, 64% WERE NOT DELIVERED ON TIME.



## DIGITAL TRANSFORMATION

BELIEVE THAT THE SPEED THAT DIGITAL TRANSFORMATION TAKES PLACE IN THEIR ORGANIZATION HAS SPED UP IN THE LAST 5 YEARS.

# \$6,183,029

IT DECISION MAKERS IN THE UK BELIEVE THAT, ON AVERAGE, THEIR ORGANIZATION COULD LOSE \$6,183,029 IF DIGITAL TRANSFORMATION INITIATIVES AREN'T SUCCESSFULLY COMPLETED



## INTEGRATE END-USER EXPERIENCES

SAY THAT IT IS HARD FOR THEIR ORGANIZATION TO INTEGRATE END-USER EXPERIENCES

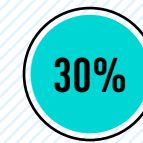
### PRIMARY REASONS:

- SECURITY AND GOVERNANCE CHALLENGES (64%)
- OUTDATED IT INFRASTRUCTURE (55%)
- AN INABILITY TO KEEP UP WITH EVER-GROWING PROCESSES, TOOLS, AND SYSTEMS (53%)



## REUSE

SAY THEIR ORGANIZATION'S INTERNAL COMPONENTS (E.G., CODE, APIS, BEST PRACTICE TEMPLATES) ARE AVAILABLE FOR DEVELOPERS TO REUSE.



## REVENUE

ON AVERAGE, RESPONDENTS IN THE UK WHOSE ORGANIZATIONS USE APIS CITE THAT JUST UNDER A THIRD (30%) OF REVENUE IS GENERATED FROM APIS AND API-RELATED IMPLEMENTATIONS.

# Region profile: France



Respondents from organizations in France are the least likely (66%) to cite that integration challenges are slowing/hindering digital transformation compared to 88% globally.



## PROJECTS DELIVERED

OF PROJECTS WERE DELIVERED LAST YEAR INDICATING A POTENTIAL LACK OF ABILITY TO KEEP UP. FURTHER TO THIS, 32% WERE NOT DELIVERED ON TIME.



## DIGITAL TRANSFORMATION

BELIEVE THAT THE SPEED THAT DIGITAL TRANSFORMATION TAKES PLACE IN THEIR ORGANIZATION HAS SPED UP IN THE LAST 5 YEARS.

# \$6,812,500

IT DECISION MAKERS IN FRANCE BELIEVE THAT, ON AVERAGE, THEIR ORGANIZATION COULD LOSE \$6,812,500 IF DIGITAL TRANSFORMATION INITIATIVES AREN'T SUCCESSFULLY COMPLETED



## INTEGRATE END-USER EXPERIENCES

SAY THAT IT IS HARD FOR THEIR ORGANIZATION TO INTEGRATE END-USER EXPERIENCES

**PRIMARY REASONS:**

- SECURITY AND GOVERNANCE CHALLENGES (52%)
- DATA SILOS (44%)
- LACK OF INTERNAL KNOWLEDGE (40%)



## REUSE

SAY THEIR ORGANIZATION'S INTERNAL COMPONENTS (E.G., CODE, APIS, BEST PRACTICE TEMPLATES) ARE AVAILABLE FOR DEVELOPERS TO REUSE.



## REVENUE

ON AVERAGE, RESPONDENTS IN THE UK WHOSE ORGANIZATIONS USE APIS CITE THAT JUST UNDER A THIRD (30%) OF REVENUE IS GENERATED FROM APIS AND API-RELATED IMPLEMENTATIONS.

## Region profile: Germany



On average, respondents from organizations in Germany think that \$10,474,834 would be lost if digital transformation initiatives aren't successfully completed, almost double the global average of \$6,846,979.



### PROJECTS DELIVERED

53% OF PROJECTS WERE DELIVERED LAST YEAR INDICATING A POTENTIAL LACK OF ABILITY TO KEEP UP. FURTHER TO THIS, 33% WERE NOT DELIVERED ON TIME.



### DIGITAL TRANSFORMATION

97% BELIEVE THAT THE SPEED THAT DIGITAL TRANSFORMATION TAKES PLACE IN THEIR ORGANIZATION HAS SPED UP IN THE LAST 5 YEARS.

# \$10,474,834

IT DECISION MAKERS IN GERMANY BELIEVE THAT, ON AVERAGE, THEIR ORGANIZATION COULD LOSE \$10,474,834 IF DIGITAL TRANSFORMATION INITIATIVES AREN'T SUCCESSFULLY COMPLETED

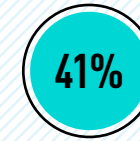


### INTEGRATE END-USER EXPERIENCES

58% SAY THAT IT IS HARD FOR THEIR ORGANIZATION TO INTEGRATE END-USER EXPERIENCES

#### PRIMARY REASONS:

SECURITY AND GOVERNANCE CHALLENGES (61%)  
 OUTDATED IT INFRASTRUCTURE (54%)  
 AN INABILITY TO KEEP UP WITH EVER-GROWING PROCESSES, TOOLS, AND SYSTEMS (43%)



### REUSE

41% SAY THEIR ORGANIZATION'S INTERNAL COMPONENTS (E.G., CODE, APIS, BEST PRACTICE TEMPLATES) ARE AVAILABLE FOR DEVELOPERS TO REUSE.



### REVENUE

ON AVERAGE, RESPONDENTS IN GERMANY WHOSE ORGANIZATIONS USE APIS CITE THAT UNDER A THIRD (29%) OF REVENUE IS GENERATED FROM APIS AND API-RELATED IMPLEMENTATIONS.

## Region profile: Netherlands



For respondents from organizations in the Netherlands who use APIs, on average, just over a quarter (27%) of their revenue is generated from APIs and API-related implementations, the lowest when compared to their global counterparts (35% on average).



### PROJECTS DELIVERED

OF PROJECTS WERE DELIVERED LAST YEAR INDICATING A POTENTIAL LACK OF ABILITY TO KEEP UP. FURTHER TO THIS, 36% WERE NOT DELIVERED ON TIME.



### DIGITAL TRANSFORMATION

BELIEVE THAT THE SPEED THAT DIGITAL TRANSFORMATION TAKES PLACE IN THEIR ORGANIZATION HAS SPED UP IN THE LAST 5 YEARS.

# \$6,849,462

IT DECISION MAKERS IN THE NETHERLANDS BELIEVE THAT, ON AVERAGE, THEIR ORGANIZATION COULD LOSE \$6,849,462 IF DIGITAL TRANSFORMATION INITIATIVES AREN'T SUCCESSFULLY COMPLETED.

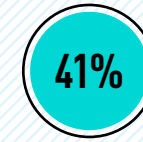


### INTEGRATE END-USER EXPERIENCES

SAY THAT IT IS HARD FOR THEIR ORGANIZATION TO INTEGRATE END-USER EXPERIENCES.

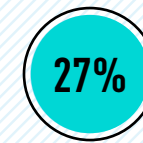
#### PRIMARY REASONS:

OUTDATED IT INFRASTRUCTURE (57%)  
SECURITY AND GOVERNANCE CHALLENGES (49%)  
DATA SILOS (48%)



### REUSE

SAY THEIR ORGANIZATION'S INTERNAL COMPONENTS (E.G., CODE, APIS, BEST PRACTICE TEMPLATES) ARE AVAILABLE FOR DEVELOPERS TO REUSE.



### REVENUE

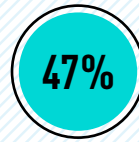
ON AVERAGE, RESPONDENTS IN THE NETHERLANDS WHOSE ORGANIZATIONS USE APIS CITE THAT JUST OVER A QUARTER (27%) OF REVENUE IS GENERATED FROM APIS AND API-RELATED IMPLEMENTATIONS.



# Region profile: Australia



Respondents from organizations in Australia are the most likely (96%) to cite that integration challenges are slowing/hindering digital transformation compared to 88% globally.



## PROJECTS DELIVERED

OF PROJECTS WERE DELIVERED LAST YEAR INDICATING A POTENTIAL LACK OF ABILITY TO KEEP UP. FURTHER TO THIS, 57% WERE NOT DELIVERED ON TIME.



## DIGITAL TRANSFORMATION

BELIEVE THAT THE SPEED THAT DIGITAL TRANSFORMATION TAKES PLACE IN THEIR ORGANIZATION HAS SPED UP IN THE LAST 5 YEARS.



IT DECISION MAKERS IN AUSTRALIA BELIEVE THAT, ON AVERAGE, THEIR ORGANIZATION COULD LOSE \$6,532,500 IF DIGITAL TRANSFORMATION INITIATIVES AREN'T SUCCESSFULLY COMPLETED.

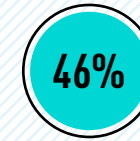


## INTEGRATE-END USER EXPERIENCES

SAY THAT IT IS HARD FOR THEIR ORGANIZATION TO INTEGRATE END-USER EXPERIENCES.

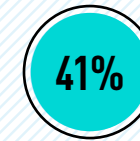
### PRIMARY REASONS:

- LACK OF INTERNAL KNOWLEDGE (56%)
- OUTDATED IT INFRASTRUCTURE (55%)
- AN INABILITY TO KEEP UP WITH EVER-GROWING PROCESSES, TOOLS, AND SYSTEMS (53%)



## REUSE

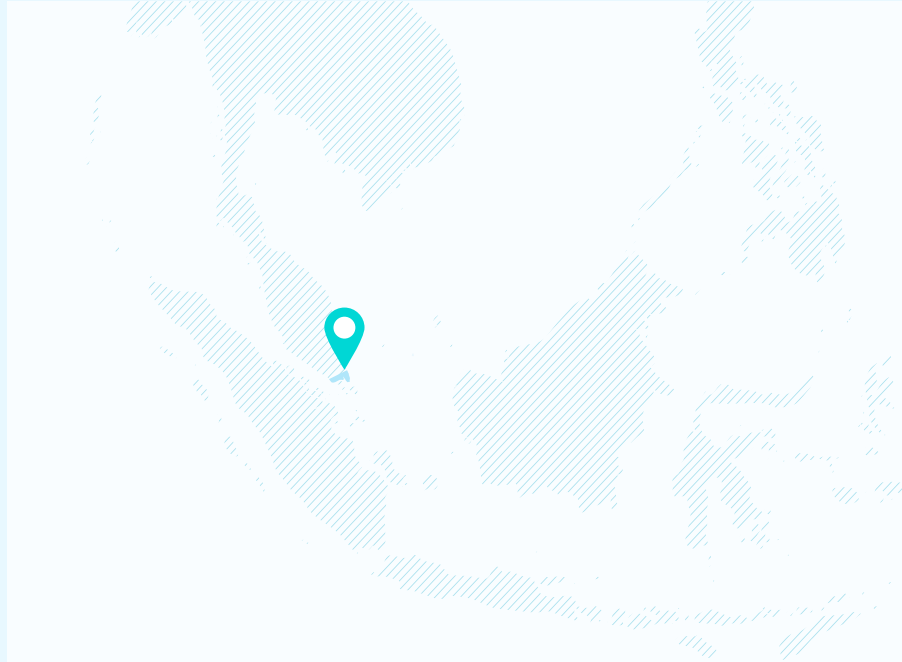
SAY THEIR ORGANIZATION'S INTERNAL COMPONENTS (E.G., CODE, APIS, BEST PRACTICE TEMPLATES) ARE AVAILABLE FOR DEVELOPERS TO REUSE.



## REVENUE

ON AVERAGE, RESPONDENTS IN AUSTRALIA WHOSE ORGANIZATIONS USE APIS CITE THAT OVER A THIRD (41%) OF REVENUE IS GENERATED FROM APIS AND API-RELATED IMPLEMENTATIONS.

## Region profile: Singapore



Respondents from Singapore are the most likely to cite that their organization has seen an increase in customer engagement since integrating user experiences (65%), compared to 54% of the global total.



### PROJECTS DELIVERED

OF PROJECTS WERE DELIVERED LAST YEAR INDICATING A POTENTIAL LACK OF ABILITY TO KEEP UP. FURTHER TO THIS, 49% WERE NOT DELIVERED ON TIME.



### DIGITAL TRANSFORMATION

BELIEVE THAT THE SPEED THAT DIGITAL TRANSFORMATION TAKES PLACE IN THEIR ORGANIZATION HAS SPED UP IN THE LAST 5 YEARS.

# \$6,132,959

IT DECISION MAKERS IN SINGAPORE BELIEVE THAT, ON AVERAGE, THEIR ORGANIZATION COULD LOSE \$6,132,959 IF DIGITAL TRANSFORMATION INITIATIVES AREN'T SUCCESSFULLY COMPLETED.



### INTEGRATE END-USER EXPERIENCES

SAY THAT IT IS HARD FOR THEIR ORGANIZATION TO INTEGRATE END-USER EXPERIENCES.

#### PRIMARY REASONS:

SECURITY AND GOVERNANCE CHALLENGES (63%)  
AN INABILITY TO KEEP UP WITH EVER-GROWING PROCESSES, TOOLS, AND SYSTEMS (51%)  
DATA SILOS (45%)



### REUSE

SAY THEIR ORGANIZATION'S INTERNAL COMPONENTS (E.G., CODE, APIS, BEST PRACTICE TEMPLATES) ARE AVAILABLE FOR DEVELOPERS TO REUSE.

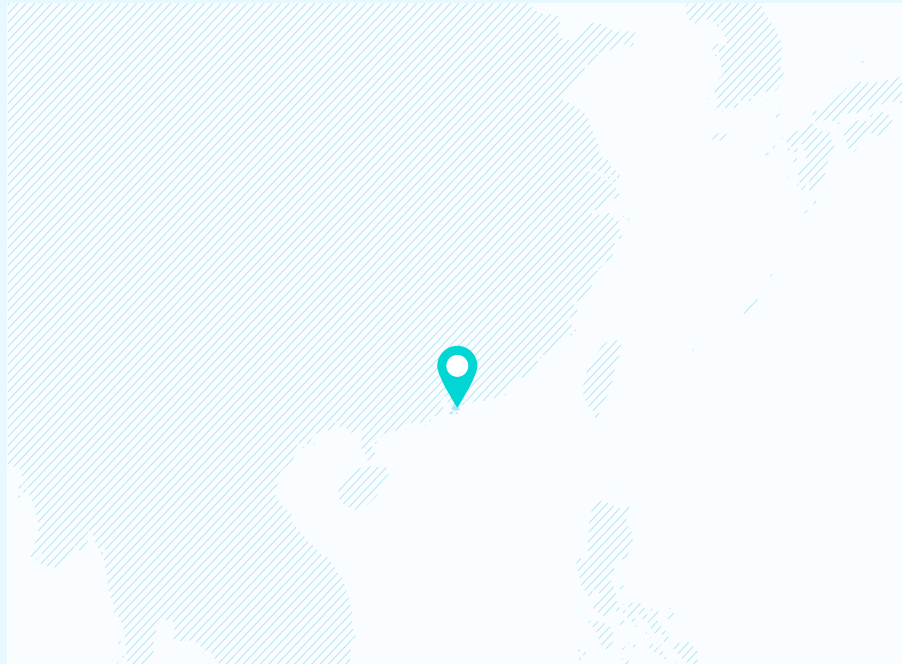


### REVENUE

ON AVERAGE, RESPONDENTS IN SINGAPORE WHOSE ORGANIZATIONS USE APIS CITE THAT A THIRD (33%) OF REVENUE IS GENERATED FROM APIS AND API-RELATED IMPLEMENTATIONS.



## Region profile: Hong Kong



On average, organizations in Hong Kong have the highest number of different, individual applications in use (1112) compared to the global average (976).



### PROJECTS DELIVERED

45% OF PROJECTS WERE DELIVERED LAST YEAR INDICATING A POTENTIAL LACK OF ABILITY TO KEEP UP. FURTHER TO THIS, 41% WERE NOT DELIVERED ON TIME.



### DIGITAL TRANSFORMATION

85% BELIEVE THAT THE SPEED THAT DIGITAL TRANSFORMATION TAKES PLACE IN THEIR ORGANIZATION HAS SPED UP IN THE LAST 5 YEARS.

# \$6,116,162

IT DECISION MAKERS IN HONG KONG BELIEVE THAT, ON AVERAGE, THEIR ORGANIZATION COULD LOSE \$6,116,162 IF DIGITAL TRANSFORMATION INITIATIVES AREN'T SUCCESSFULLY COMPLETED.



### INTEGRATE END-USER EXPERIENCES

49% SAY THAT IT IS HARD FOR THEIR ORGANIZATION TO INTEGRATE END-USER EXPERIENCES.

#### PRIMARY REASONS:

- LACK OF INTERNAL KNOWLEDGE (65%)
- AN INABILITY TO KEEP UP WITH EVER-GROWING PROCESSES, TOOLS, AND SYSTEMS (51%)
- OUTDATED IT INFRASTRUCTURE (49%)



### REUSE

49% SAY THEIR ORGANIZATION'S INTERNAL COMPONENTS (E.G., CODE, APIS, BEST PRACTICE TEMPLATES) ARE AVAILABLE FOR DEVELOPERS TO REUSE.



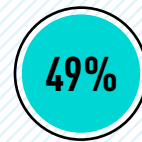
### REVENUE

ON AVERAGE, RESPONDENTS IN HONG KONG WHOSE ORGANIZATIONS USE APIS CITE THAT JUST UNDER TWO FIFTHS (37%) OF REVENUE IS GENERATED FROM APIS AND API-RELATED IMPLEMENTATIONS.

# Region profile: Japan



Respondents from organizations in Japan who find integrating end-user experiences hard are far more likely (42%) to cite existing custom-coded P2P integrations as a difficulty when integrating end-user experiences compared to the global group (31%) and their counterparts.



## PROJECTS DELIVERED

OF PROJECTS WERE DELIVERED LAST YEAR INDICATING A POTENTIAL LACK OF ABILITY TO KEEP UP. FURTHER TO THIS, 47% WERE NOT DELIVERED ON TIME.

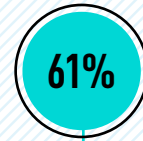


## DIGITAL TRANSFORMATION

BELIEVE THAT THE SPEED THAT DIGITAL TRANSFORMATION TAKES PLACE IN THEIR ORGANIZATION HAS SPED UP IN THE LAST 5 YEARS.

# \$6,119,565

IT DECISION MAKERS IN JAPAN BELIEVE THAT, ON AVERAGE, THEIR ORGANIZATION COULD LOSE \$6,119,565 IF DIGITAL TRANSFORMATION INITIATIVES AREN'T SUCCESSFULLY COMPLETED.

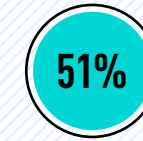


## INTEGRATE END-USER EXPERIENCES

SAY THAT IT IS HARD FOR THEIR ORGANIZATION TO INTEGRATE END-USER EXPERIENCES.

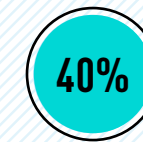
### PRIMARY REASONS:

- SECURITY AND GOVERNANCE CHALLENGES (53%)
- OUTDATED IT INFRASTRUCTURE (43%)
- EXISTING CUSTOM-CODED P2P INTEGRATIONS (42%)



## REUSE

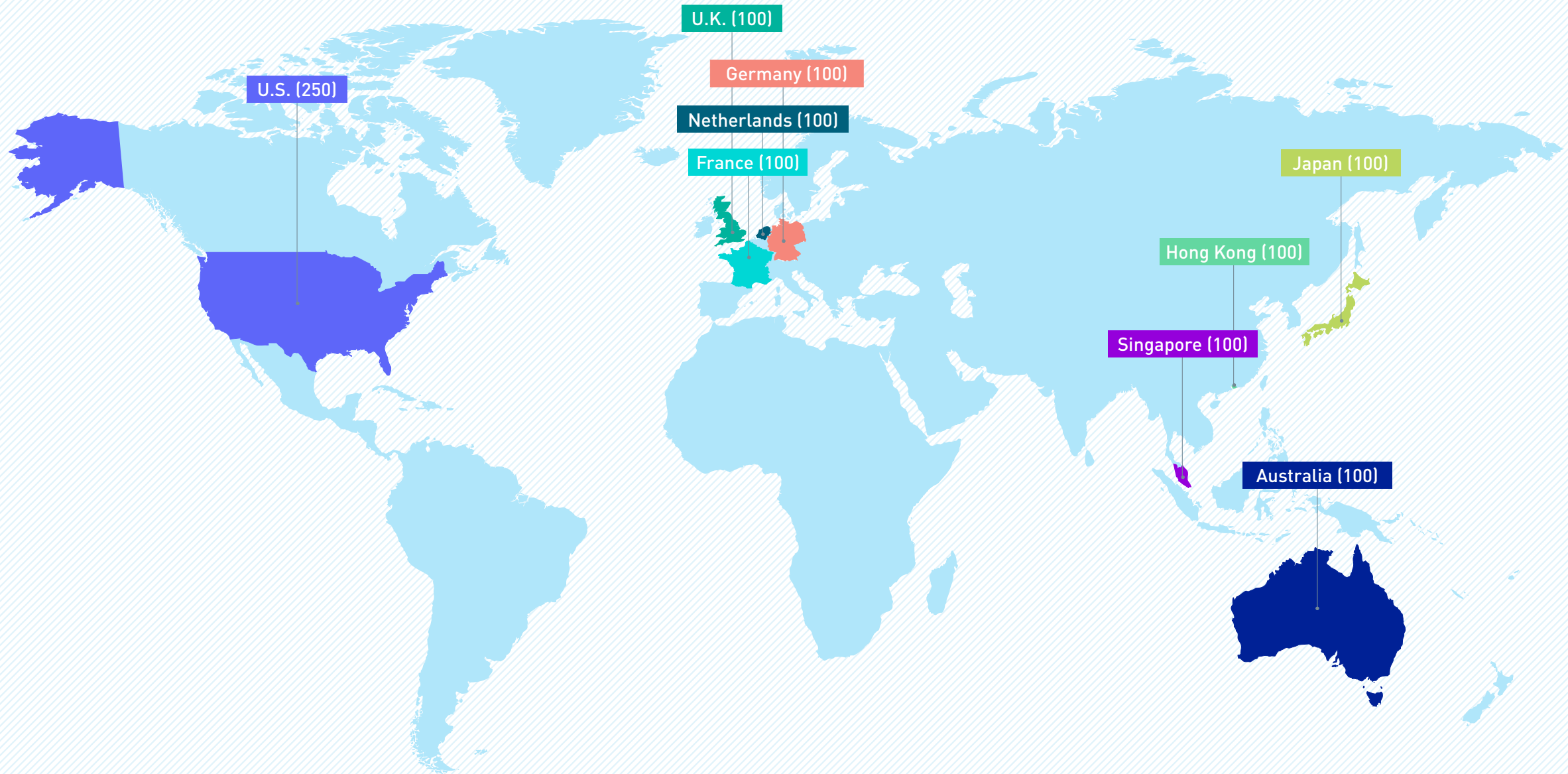
SAY THEIR ORGANIZATION'S INTERNAL COMPONENTS (E.G., CODE, APIS, BEST PRACTICE TEMPLATES) ARE AVAILABLE FOR DEVELOPERS TO REUSE.



## REVENUE

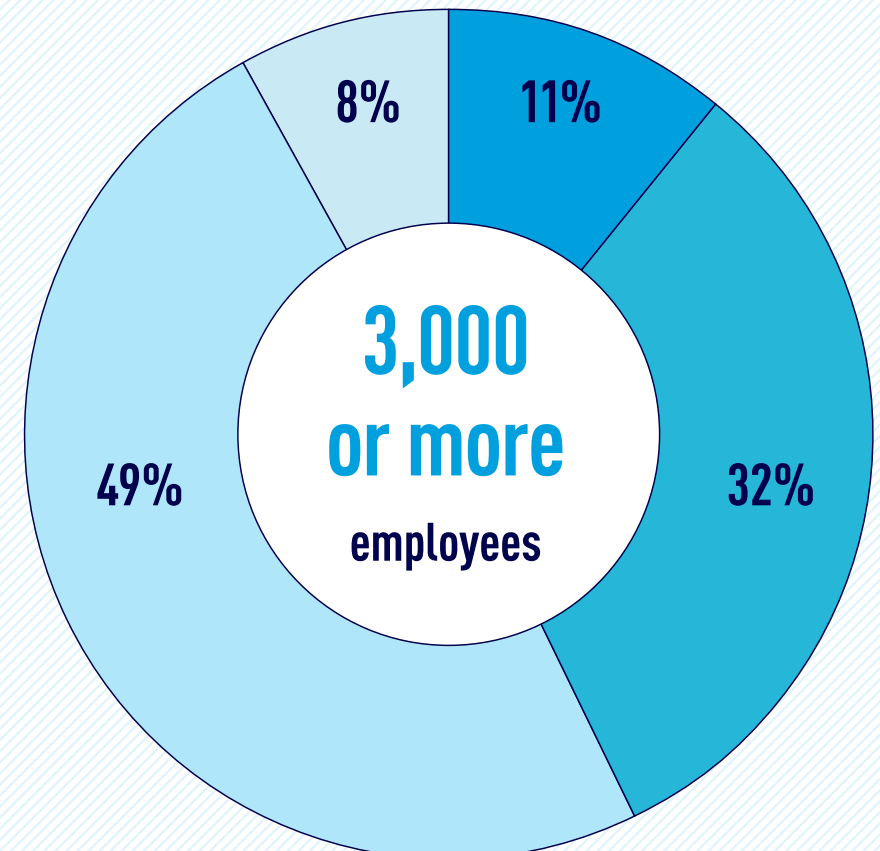
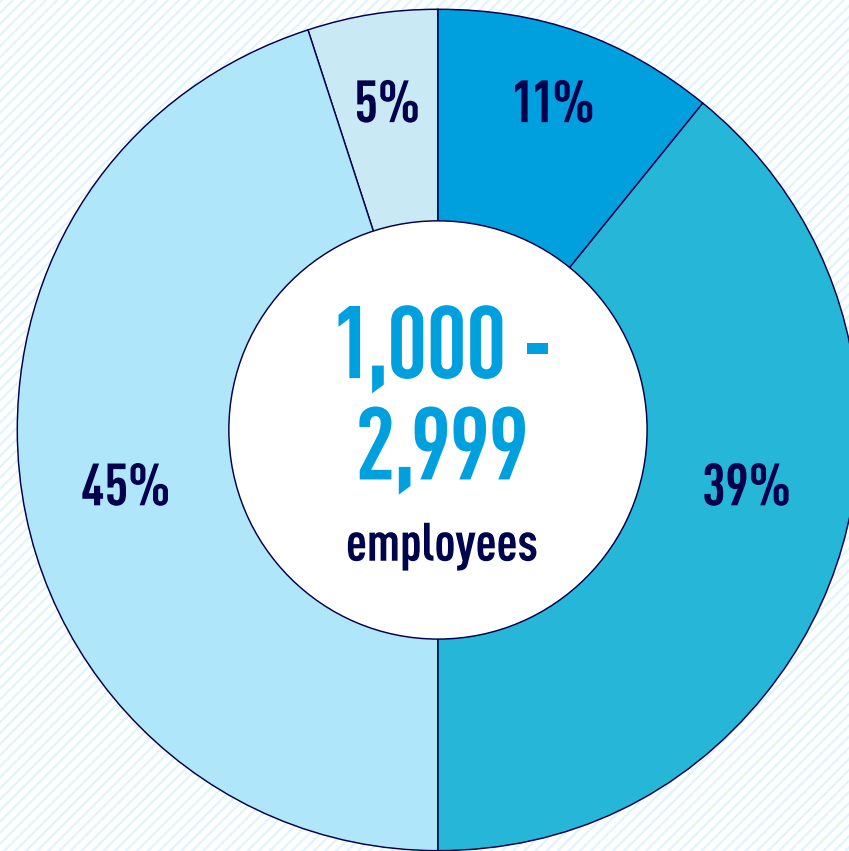
ON AVERAGE, RESPONDENTS IN JAPAN WHOSE ORGANIZATIONS USE APIS CITE THAT TWO FIFTHS (40%) OF THEIR REVENUE IS GENERATED FROM APIS AND API-RELATED IMPLEMENTATIONS.

# Connectivity Benchmark Report by the numbers

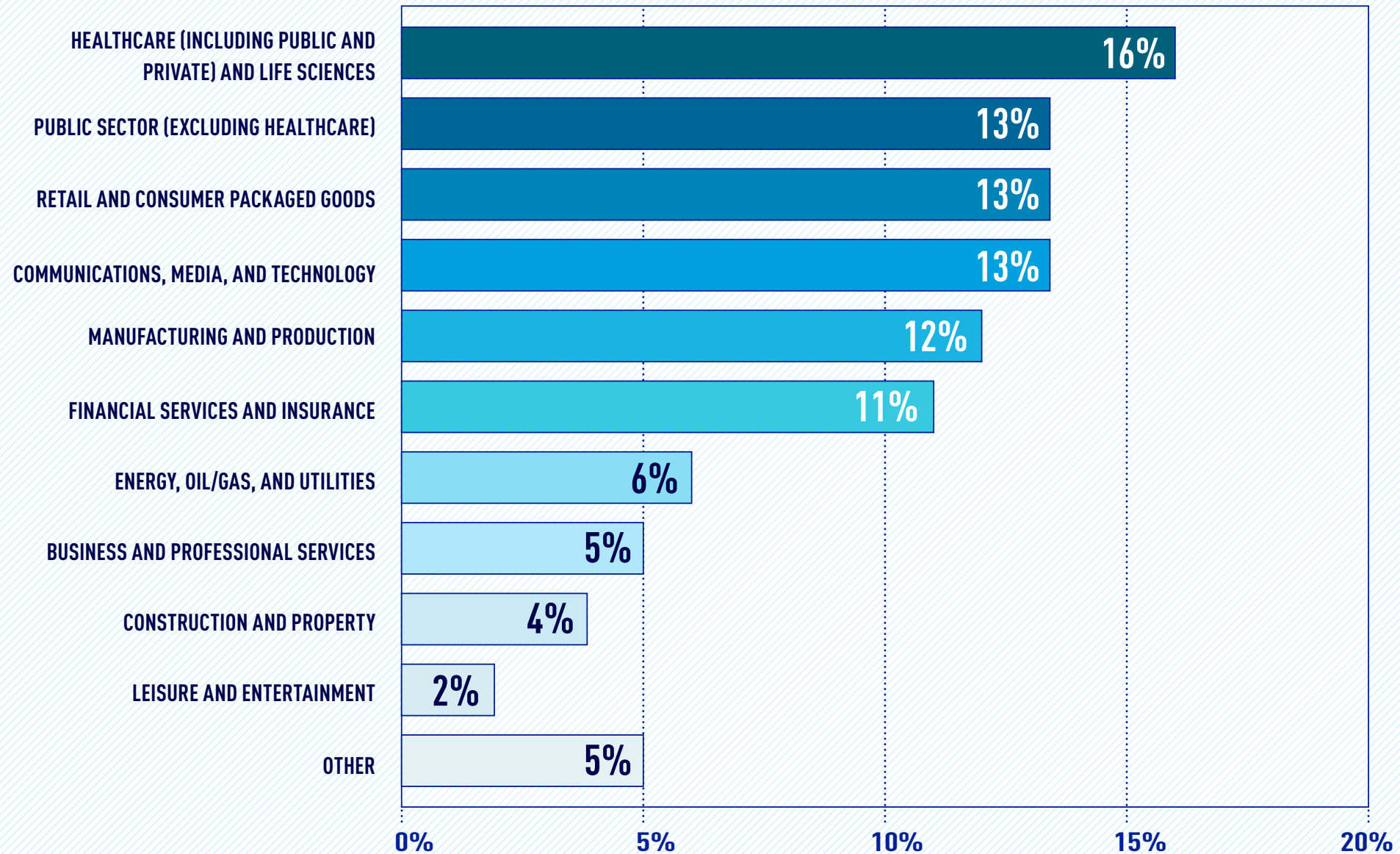


# Connectivity Benchmark Report by the numbers

- OWNER; CO-OWNER; PARTNER; CEO; MD; MOST SENIOR LEVEL IN THE ORGANIZATION
- BOARD MEMBER; CXO; DIRECTOR/SVP; SENIOR MANAGER OF UNIT; FUNCTION OR DEPARTMENT
- DEPARTMENTAL OR INTERMEDIATE MANAGEMENT
- TEAM OR GROUP SUPERVISOR



# Connectivity Benchmark Report by the numbers





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