Enterprise MACHified

Developed in January 2023, commissioned by the MACH Alliance

Executed by M·E·L Research

MACH ALLIANCE

Background & Objectives

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MACH Alliance aims to support companies to take advantage of the most innovative and flexible enterprise technologies available and to break the release cycle. This is the third iteration of the report, which aims to understand the current situation and to:

- Measure and monitor readiness to transition to best-of breed
- Identify drivers behind decision making
- Identify barriers to MACH architecture uptake
- Understand experiences from companies in transition
- Identify key stakeholders in the decision making process

Methodology

Methodology

- We spoke to a range of Technology Decision Makers (CIO/CTOs, VP/SVP, Senior Managers) across the UK, Germany, France, US and Australia.
- All organizations had at least 5,000 employees and had a revenue of at least $500m annually.
- Screening questions ensured all respondents are decision makers.
- Respondents were provided with a definition for MACH at the outset.
- 'Don’t know’ responses have not been reported
- Where year-on-year stats have been reported, these include only the countries interviewed in all waves (USA, UK and Germany)
- Compared to the previous years, the 2023 report asks about “Front-end” and “Back-end” rather than “Front-office” and “Back-office” infrastructure as was asked in previous surveys. This should be caveated when analysis of year on year trends is conducted

A quantitative online survey:

- Was drafted collaboratively between the MACH alliance and MEL Research.
- Was 10 minutes in length.
- Was programmed in-house by MEL Research.
- Was distributed via a leading online access panel partner.
- Data cleaning, processing and tabulation was undertaken internally be MEL Research.
- Results were then analyzed by MEL Research, and findings are outlined in this report.

Sample & Demographics

Sample & Demographics

Total number of completes: 500

COUNTRY

- **USA: 30%**
- **UK: 20%**
- **Germany: 20%**
- **France: 20%**
- **Australia: 10%**

ROLE

- **C-Suite: 34%**
- **VP/SVP: 10%**
- **DIRECTOR: 56%**

EMPLOYEES

- **5,000 – 9,999: 48%**
- **10,000 – 24,999: 22%**
- **25,000+: 30%**

JOB ROLE

- **CX: 7%**
- **IT / Information: 76%**
- **Tech / Innovation 17%**

Challenges to Upgrading IT Infrastructure

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Organizations are running numerous projects every year to upgrade their technology ecosystem

- The mean number of upgrade projects organizations are running each year is 19, or one every 2.7 weeks. However this figure is influenced by a small number of organizations who are running large numbers of projects.
- The median number of projects is 10 annually, or one every 5 weeks
- These figures are closely aligned to those in the 2022 report– upgrading is evidently a burden which organizations are struggling to reduce

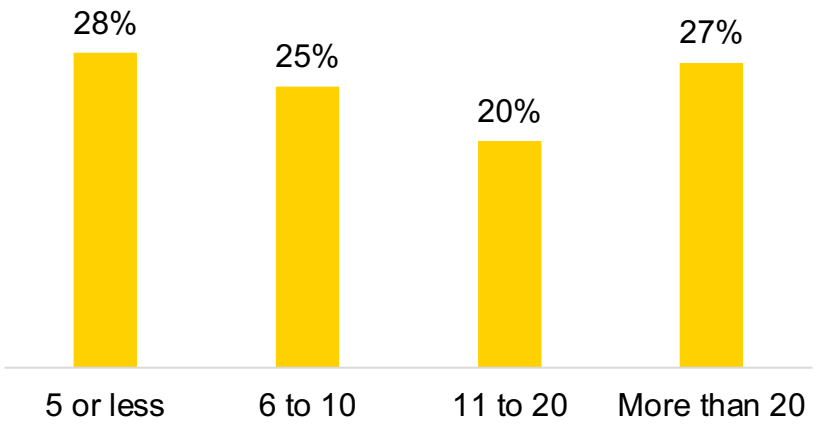
MEAN NUMBER OF PROJECTS EACH YEAR

19

MEDIAN NUMBER OF PROJECTS EACH YEAR

10

How many projects are run annually to maintain or upgrade your technology ecosystem?



UPGRADING IT INFRASTRUCTURE IS A CLEAR ONGOING PRIORITY FOR MANY ORGANIZATIONS

Country	2022 (mean)	2023 (mean)
UK	20	17
France		18
Germany	14	17
USA	19	21
Australia		18
Total	**18**	**19**

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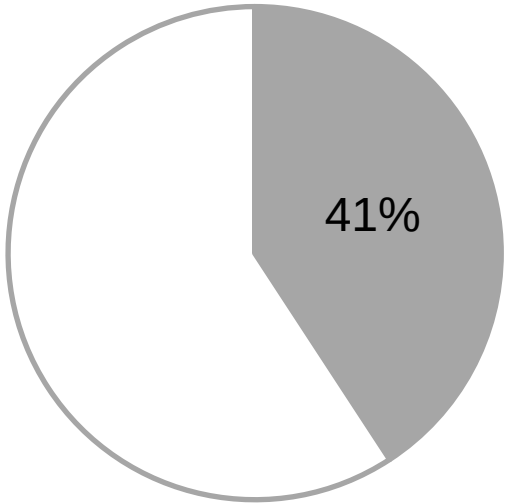
Despite this, legacy tech is still prevalent in organizations' IT ecosystems

- In 8% of organizations, over 75% of ecosystems are still legacy
- The proportion of tech which is legacy is lowest in Germany (30%), while those in United states (47%) and France (46%) have the highest proportion

Average proportion of organizations' IT infrastructure which is legacy



WITH 41% OF ORGANIZATIONS' IT ECOSYSTEMS STILL BEING LEGACY ON AVERAGE, THERE IS A CLEAR NEED FOR TOOLS WHICH CAN ENABLE THEM TO IMPROVE THE ABILITY TO UPGRADE TECHNOLOGY INFRASTRUCTURES AT SPEED

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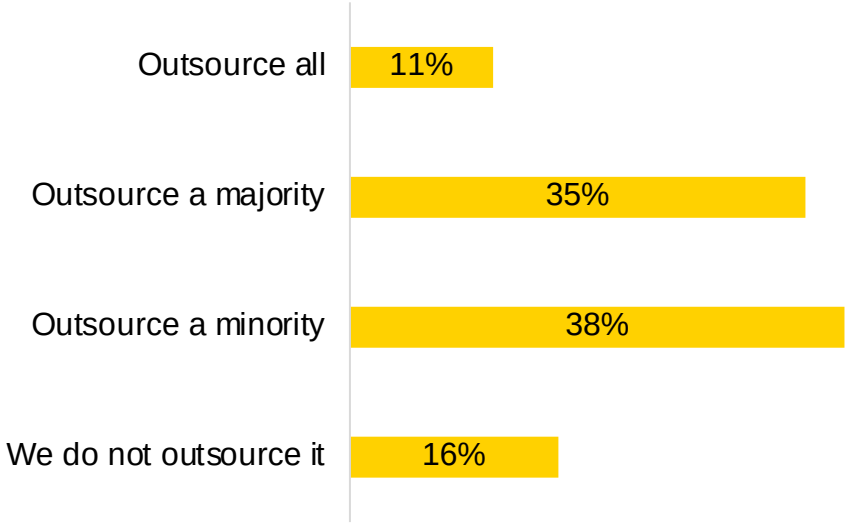
Outsourcing at least some of the management and maintenance of front-end eco-systems is common

- 84% outsource at least a minority of the management of their front office ecosystem, with 46% outsourcing all or the majority of it
- Outsourcing is more common among organizations with 5,000-9,999 employees (88%) than those with 25,000+ (74%)
- However the proportion of those outsourcing has fallen compared to the 2022 report (in all countries which were interviewed in both years)



Country	2022* (% outsource at least some)	2023 (% outsource at least some)
UK	94%	80%
France		90%
Germany	96%	84%
USA	89%	80%
Australia		90%
Total	**92%**	**81%**

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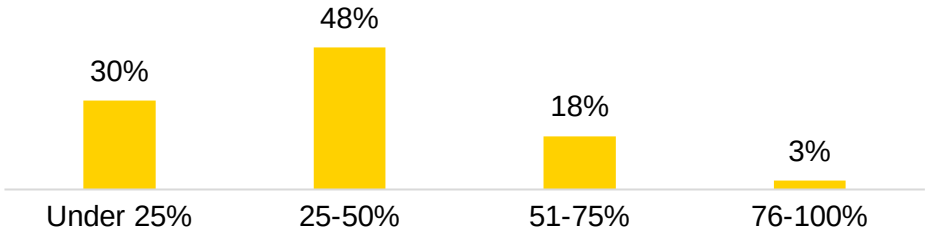
Organizations are dedicating significant financial resource to upgrading their front-end technology ecosystem

- Over a third (36%) of organizations' IT budgets are currently being spent on upgrades to their front-end technology
- One in five (21%) are spending over half of their IT budget on these upgrades
- These upgrades are taking up the highest proportion of budget in the USA (41%), where a greater proportion is being used than was reported in 2022, rising from 37%. Meanwhile, in both the UK and Germany the proportion of budget being used has fallen compared to the 2022 report

Approximately, what percentage of your organization's IT budget is currently spent on upgrades to your technology ecosystem?

AVERAGE PROPORTION OF IT BUDGET SPENT ON FRONT OFFICE UPGRADES

36%



WITH THESE UPGRADES CONTINUING TO TAKE UP A HIGH PROPORTION OF IT TIME, THERE IS A MARKET FOR SOLUTIONS WHICH CAN MAKE THE UPGRADE PROCESS MORE EFFICIENT

Country	2022* (average %)	2023 (average %)
UK	39%	32%
France		37%
Germany	36%	31%
USA	37%	41%
Australia		37%
Total	**37%**	**36%**

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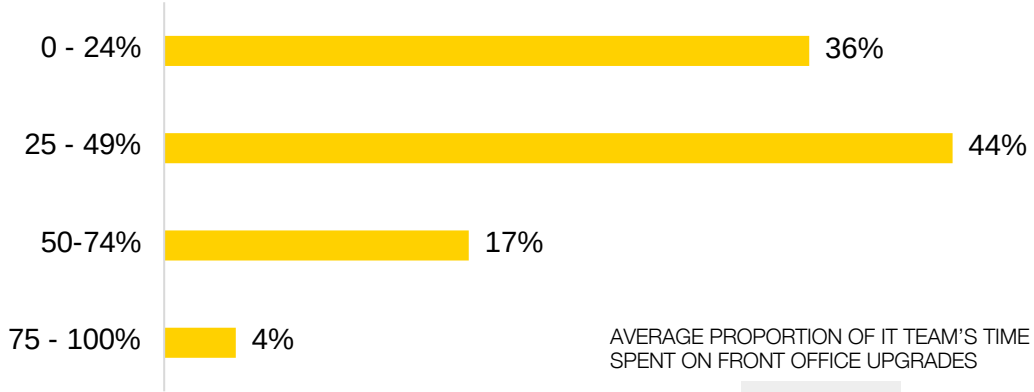
And delivering upgrades is still taking up a third of organizations' IT teams' time

- In 21% of organizations it is taking up over half of their time.
- Delivery is taking up the most time in the US (42%), where the proportion of time it takes has risen from 40% in the 2022 report. In the UK and Germany, the proportion of time delivery is taking is lower, falling from 37% to 30% in the UK and from 39% to 31% in Germany in this period

To the best of your knowledge, approximately what percentage of your <outsourced> IT team's time is spent on delivering upgrades to your technology ecosystem?



AVERAGE PROPORTION OF IT TEAM'S TIME SPENT ON FRONT OFFICE UPGRADES

36%

Country	2022 (average %)	2023 (average %)
UK	37%	30%
France		35%
Germany	39%	31%
USA	40%	42%
Australia		34%
Total	**36%**	**36%**

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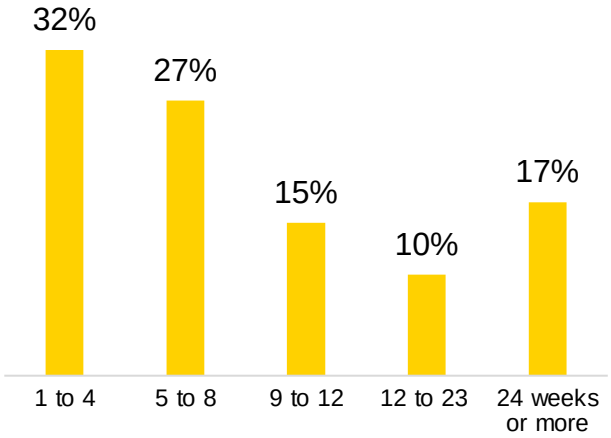
Delivery of upgrade projects is taking three months on average

- Compared to results reported in 2022, the mean number of weeks upgrade projects are taking has risen in the UK (15 to 17 weeks) and the USA (9 to 10 weeks) but fallen in Germany (14 to 12 weeks)
- Over two thirds (68%) of projects take over four weeks, and 17% are taking 24 weeks or more
- These projects are taking longest in organizations with 25,000 or more employees (16 weeks) and organizations in the UK (17 weeks)

And, on average, how long is a typical project developing a new service or meeting a new business requirement? (Weeks)



THESE FIGURES DEMONSTRATE THAT UPGRADE PROJECTS ARE USING UP LARGE VOLUMES OF IT RESOURCES IN TERMS OF BUDGET AND TIME, THUS EVIDENCING A NEED FOR MORE STREAMLINED UPGRADE PROCESSES

MEAN PROJECT LENGTH (WEEKS)

12

MEDIAN PROJECT LENGTH (WEEKS)

8

Country	2022 (mean weeks)	2023 (mean weeks)
UK	15	17
France		12
Germany	14	12
USA	9	10
Australia		13
Total	**12**	**12**

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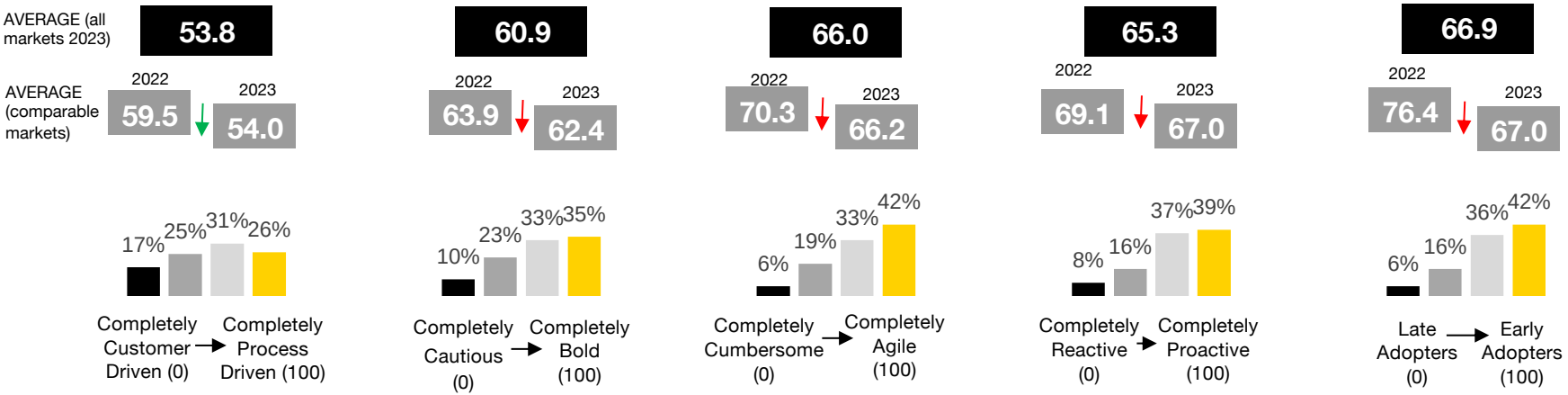
Organizations tend to see themselves as agile, proactive and early adopters, although to a lesser degree than a year ago

- The proportion who believe that they are agile or early adopters has fallen in comparable countries compared to the 2022 report, with the proportion seeing themselves as bold and proactive also falling, by a lesser degree
- This decrease suggests organizations are struggling to keep up with the speed at which technologies are developing, and increasingly perceiving it to be difficult to stay on top of innovation

On the following scales, please indicate where your organization currently sits…



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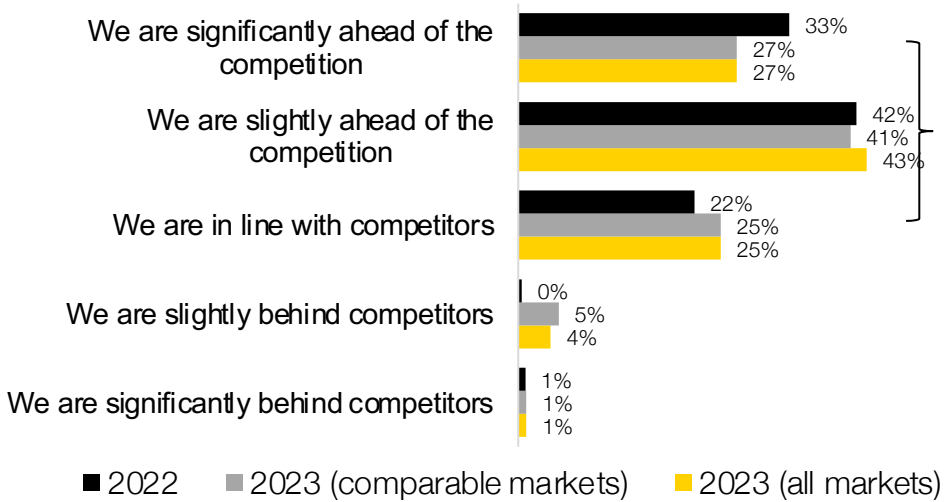
While a decreasing proportion believe that their front-office infrastructure is ahead of their competitors

- In countries interviewed in for both the 2022 and 2023 reports, the proportion who believe they are ahead has fallen from 75% to 68%, indicating an increased perception that organizations are struggling to keep up with the pace of adoption. With transformation in IT capabilities in the marketplace occurring at speed, it could be cause for alarm that organizations aren't able to increase the speed and efficiency with which upgrades are implemented however MACH is an enabler here (see 35-39).
- Those from organizations with 25,000 or more employees are most likely to say they are behind (9%)



NET AHEAD

2022: 75%

2022 (comparable markets): 68%

2023 (all markets): 70%

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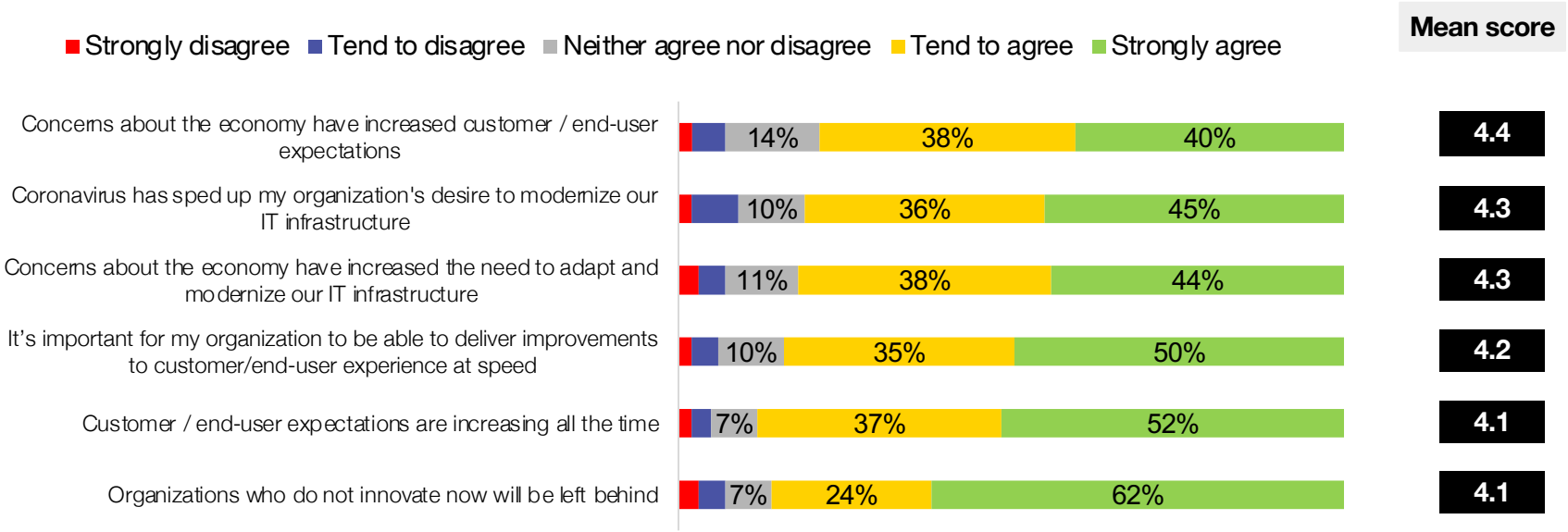
Influences on transformation

Organizations face numerous external pressures which make clear the need for innovation and agile IT

- Four fifths say their infrastructure is keeping up with customer demands (81%)
- This is likely to raise demand for tools and approaches which can be seen as means to cope with these pressures



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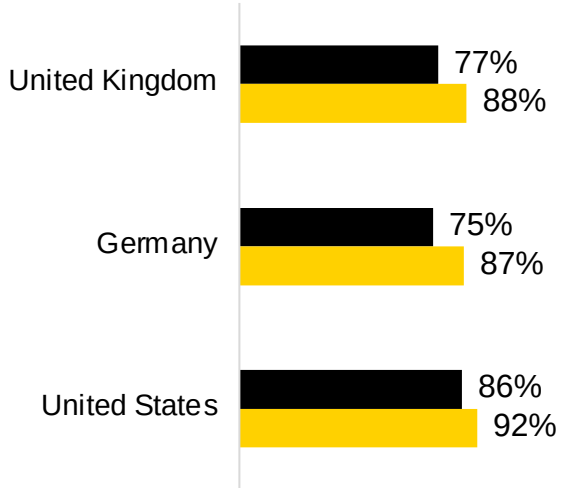
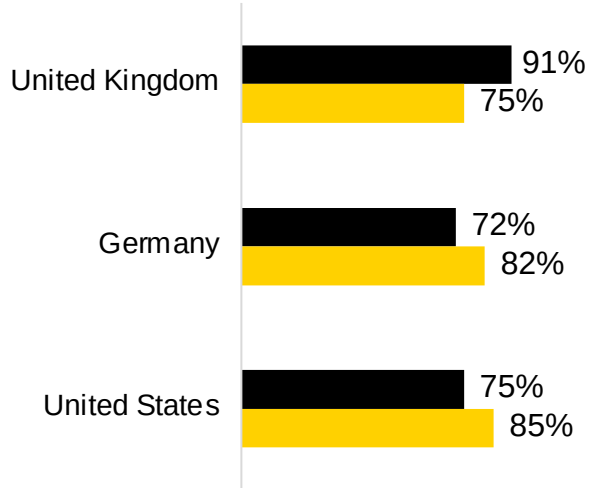
The urgency to innovate and improve IT infrastructures is increasing year on year

- In all countries that were reported on in 2022 and 2023, an increasing proportion believe that organizations need to stay on top of innovation, while in Germany and the US, an increasing proportion believe customers are demanding ever more of organizations

Organizations who do not innovate now will be left behind (% agree)



Customer / end-user expectations are increasing all the time (% agree)



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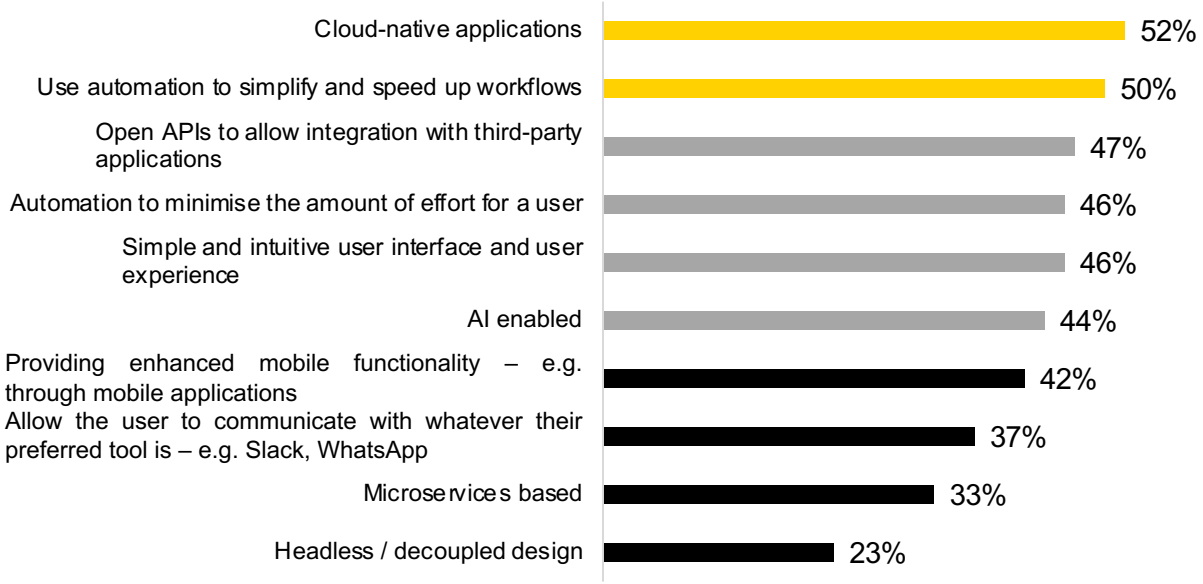
Features which will improve IT operations and integration are key to driving front-office infrastructure developments

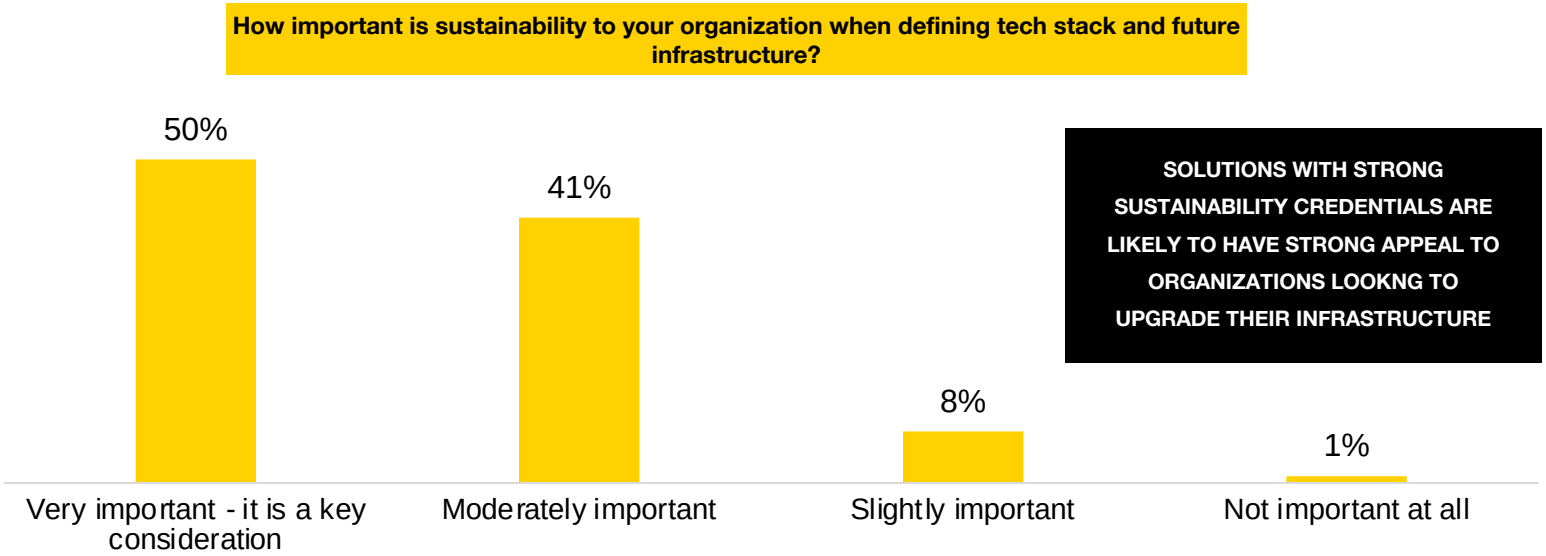
- Cloud integration and automation continue to be top priorities for Decision Makers, as they were also reported to be in 2022*
- Automation is of particular importance in the US (60%), while being less of a driver in Australia (36%)
- Organizations may need to reframe how they look at the factors driving their front-end infrastructure development, as usage of open APIs is often linked to microservices



THE PRIORITIZATION OF THESE FEATURES SUGGESTS THAT ORGANIZATIONS ARE LOOKING TO INTEGRATE AND SPEED UP THEIR WORKFLOWS. IF IMPLEMENTED EFFECTIVELY THESE TRAITS WILL HELP THEM TO ACHIEVE THE AGILITY AND RESPONSIVENESS REQUIRED IN THE CURRENT MARKET CONDITIONS (SLIDE 17) AS WELL AS STREAMLINING THE UPGRADE PROCESS

Sustainability considerations are influencing the tech solutions IT teams are choosing to implement

- More than nine in ten decision makers (91%) consider sustainability to be moderately or very important when defining tech stack and future infrastructure
- Those in the US are most likely to say it is very important (62%)
- Additional research could be key to uncovering the motivators of behaviour to become more sustainable, and the actions that organizations are taking in line with these goals



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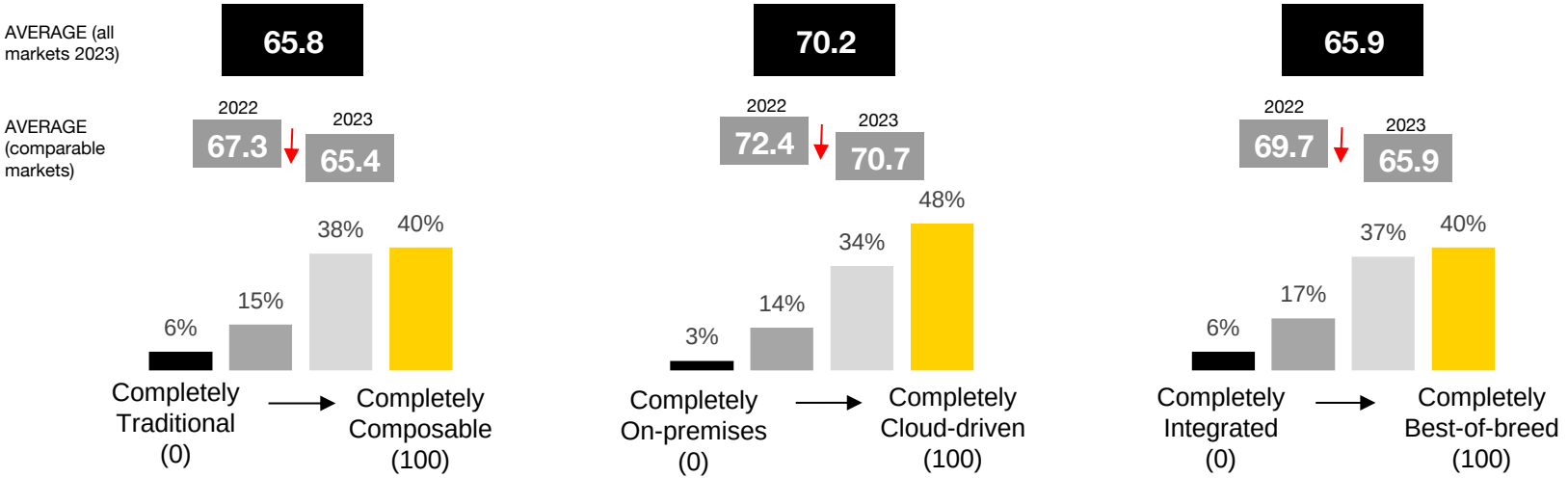
In developing front-office applications, cloud-centricity is key

- Best-of-breed applications are particularly key in Germany (71.3)

On the following scales, please indicate where your organization would ideally sit, considering your front-office applications environment specifically…

UPGRADE APPROACHES WHICH ALLOW ORGANIZATIONS TO MAINTAIN THESE VALUES ARE LIKELY TO BE SOUGHT OUT



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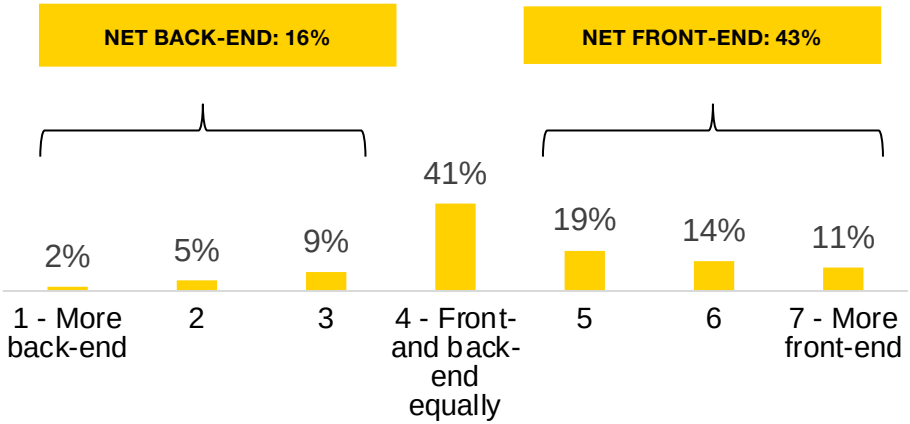
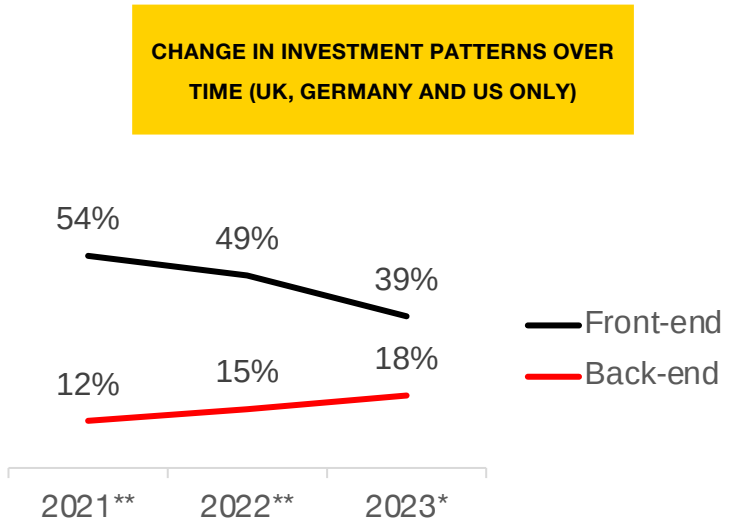
Investment is increasingly focused on back-end infrastructure, although front-end still dominates

- Whereas 49% of organizations in the US, Germany and UK were focusing investment on the front-end in the research reported in 2022, this has now fallen to 39%, while the proportion investing primarily in the backend has risen from 15% to 18%. This could be taken as a change in organizations' outlook, indicating that they are not solely focusing on the tech they want, but also the tech they need
- Organizations of 5,000-9,999 employees tend to be focusing less on the front end (38%) than larger organizations





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MACH Utilization

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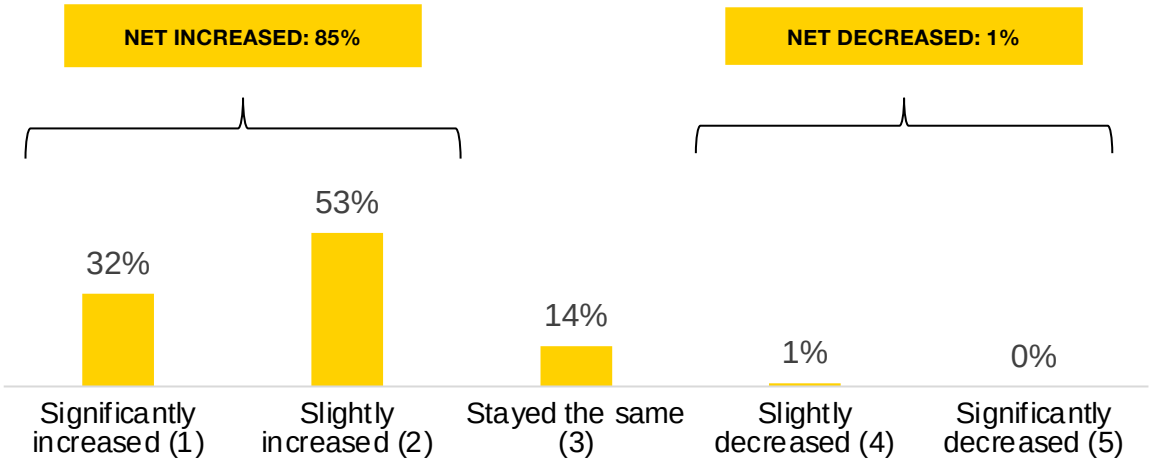
MACH adoption is on the rise

- 85% of organizations have increased the percentage of their organization's infrastructure which is MACH in the past 12 months
- Organizations which are bold, agile, proactive and early adopters have more commonly increased the MACH elements in their architecture in the past 12 months than those who are cautious, cumbersome, reactive and late adopters (see notes)
- Organizations with 25,000 or more employees are least likely to have increased the proportion of their infrastructure which is MACH (80%), indicating a slower pace of adoption – these are also the organizations which are least likely to see themselves as bold, agile, proactive and early adopters



ORGANIZATIONS WHICH AREN'T CURRENTLY INCREASING THE PROPORTION OF THEIR BACK-END INFRASTRUCTURE WHICH IS MACH NEED TO ACT TO MAKE SURE THEY AREN'T LOSING OUT TO ORGANIZATIONS WHICH ARE

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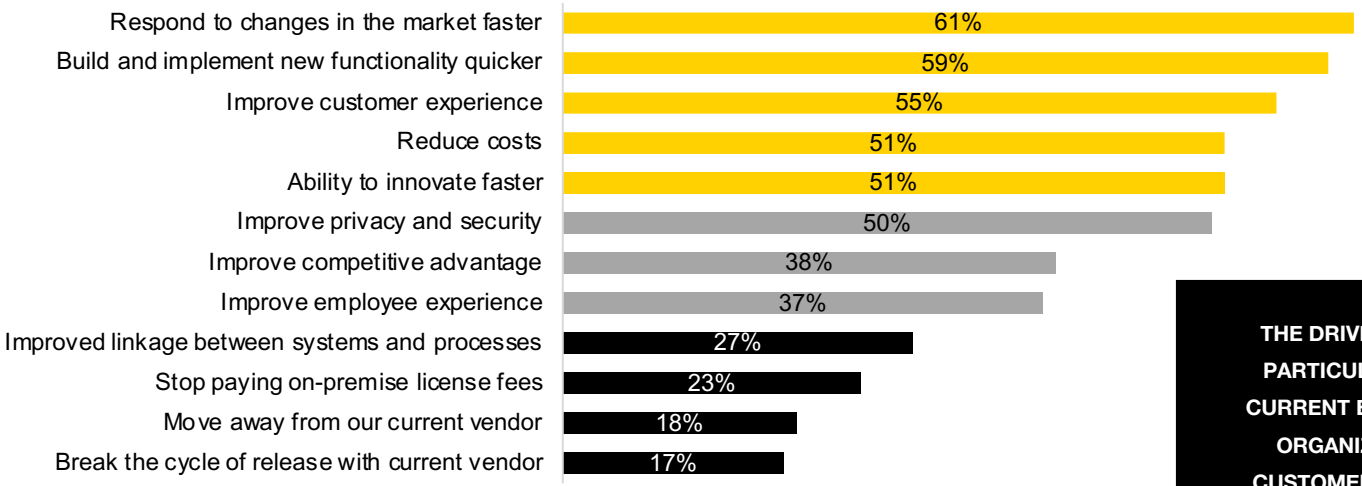
Responsiveness is a key driver of MACH adoption

- Compared to the 2022 report, responding to changes in the market faster (61% cf. 59%) and building and implementing new functionality quicker (59% cf. 54%) are increasingly driving MACH adoption, as is the need to reduce costs (51% cf. 47%
- Improving CX (68%), privacy and security (62%) and the employee experience (62%) are particularly key in the United States, along with improving competitive advantage (53%)



THE DRIVERS OF MACH ADOPTION ARE PARTICULARLY PERTINENT GIVEN THE CURRENT EXTERNAL PRESSURES FACING ORGANIZATIONS TO BECOME MORE CUSTOMER CENTRIC, AND THE NEED TO ADAPT AND MODERNIZE THROUGH UPGRADES

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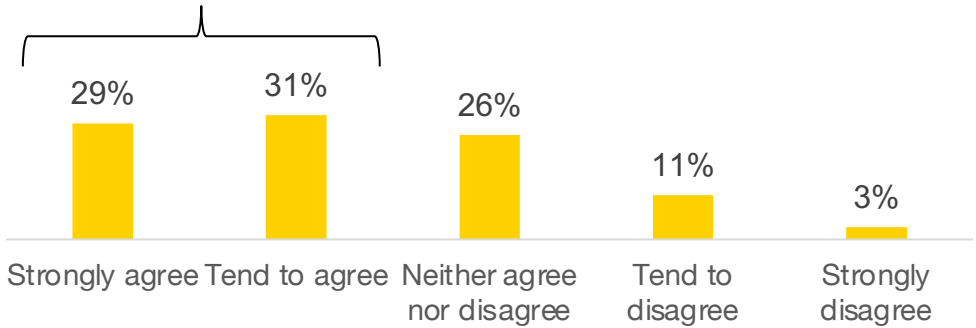
MACH is gaining traction as a back-end option, though front-end perceptions still dominate

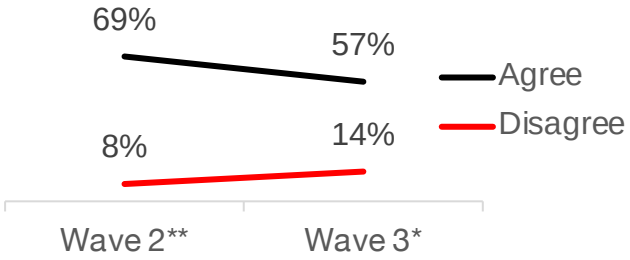
- In the countries included in both the 2022 and 2023 reports, the proportion who agree that MACH architecture applies more to front-end processes than back-end has decreased from 69% to 57%, however this view is still expressed by over half in those countries
- This perception is least commonly held in the UK (48%)
- However, with the majority of organizations investing to greater degree in the front-end (slide 21), this perception may help increase the profile and attractiveness of MACH architectures

MACH ARCHITECTURE APPLIES MORE TO FRONT-END PROCESSES THAN BACK-END PROCESSES

NET AGREE: 60%

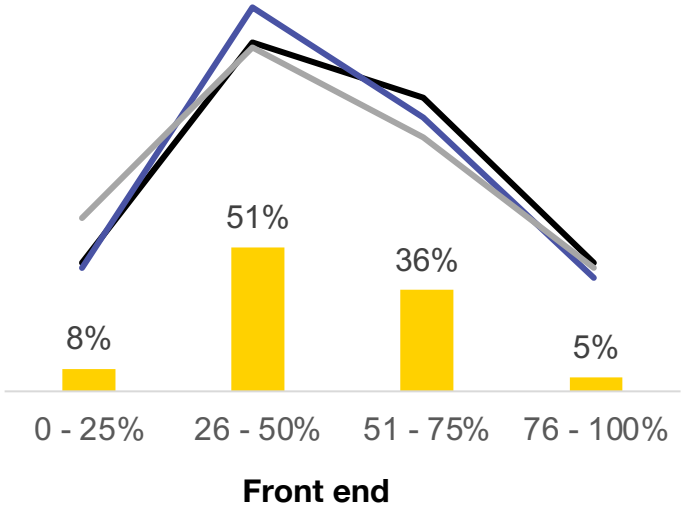


NET AGREEOVER TIME (UK, GERMANY AND US ONLY)

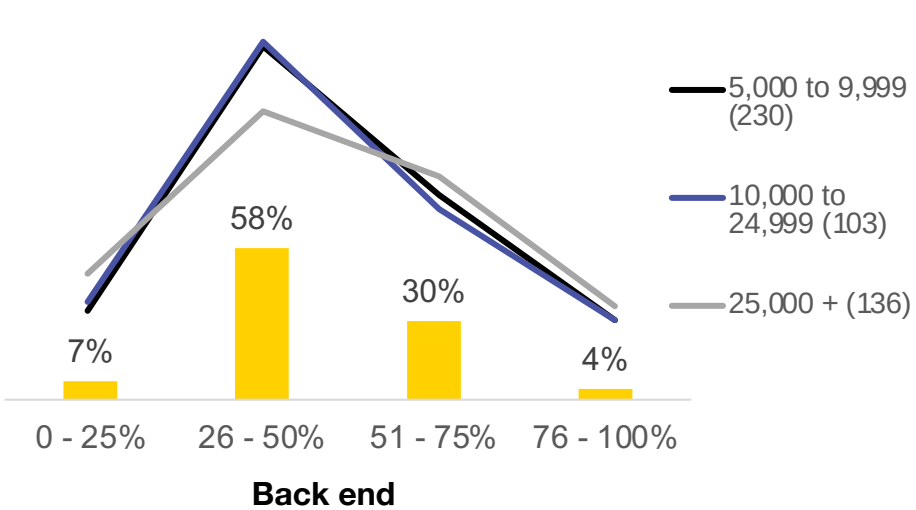


Currently MACH makes up just less than 50% of back-end and front-end infrastructures

- On average, 48.9% of front-end and 47.36% of back-end infrastructures are MACH
- Organizations with 25,000 or more employees have the lowest level of adoption of MACH in their front-end infrastructure, with it making up 45.87% of their front-end on average



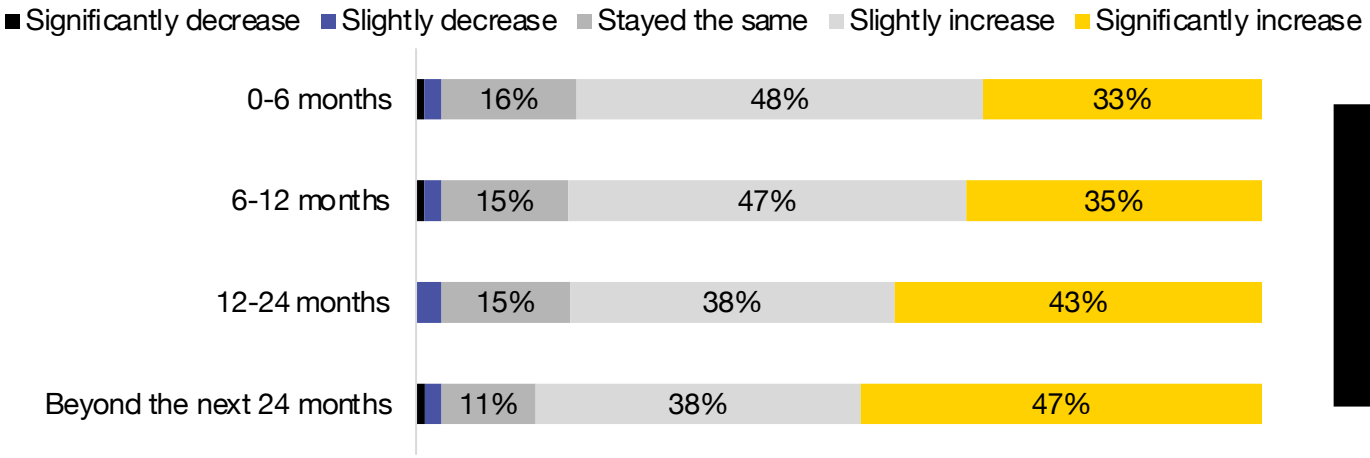
Front end



Back end

Decision makers see increasing MACH as the future

- 81% have plans to increase the elements of MACH in their architecture in the next six months. Looking beyond the next two years, this rises to 85%, with 47% planning a significant increase
- In 12-24 months, the increase in adoption is expected to be greatest in organizations of 25,000 or more employees, with 87% expecting to increase adoption in this period, compared to 79% of organizations with 5,000 to 9,999 employees
- Organizations which are bold, agile, proactive and early adopters are more likely to increase the MACH elements in their architecture in the short and long term than those who are cautious, cumbersome, reactive and late adopters (see notes)



THOSE WHO AREN'T CURRENTLY PLANNING TO INCREASE THE MACH ELEMENTS OF THEIR ARCHITECTURE SHOULD EVALUATE WHETHER THEY WOULD BENEFIT FROM DOING SO

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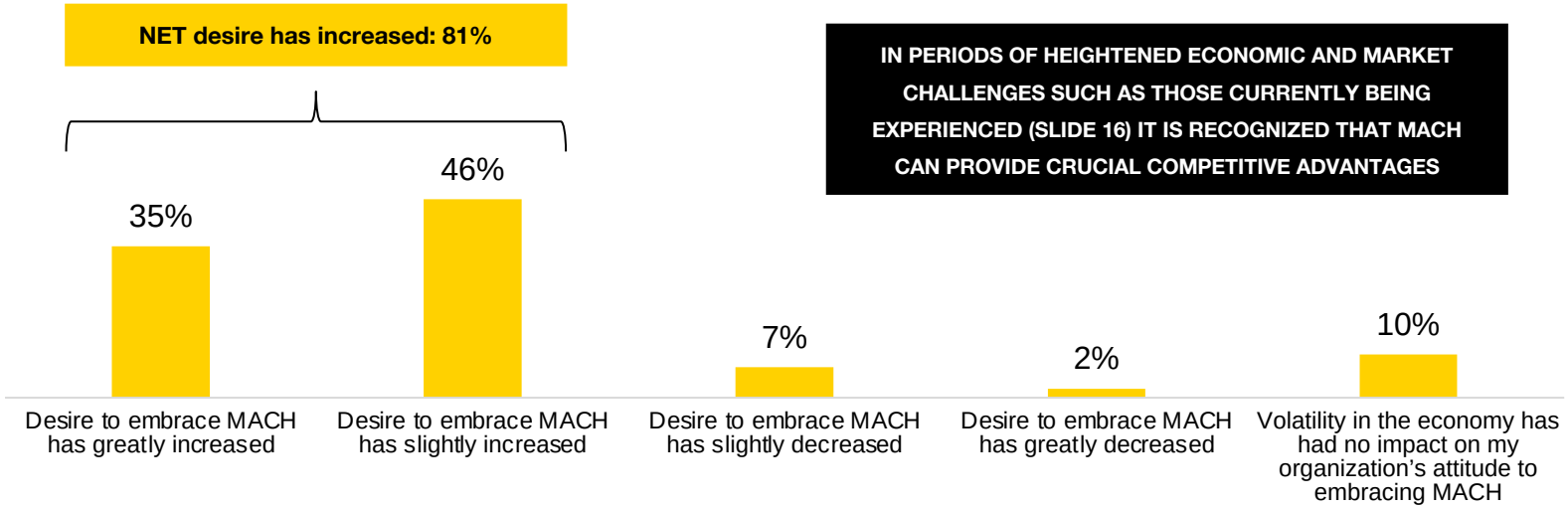
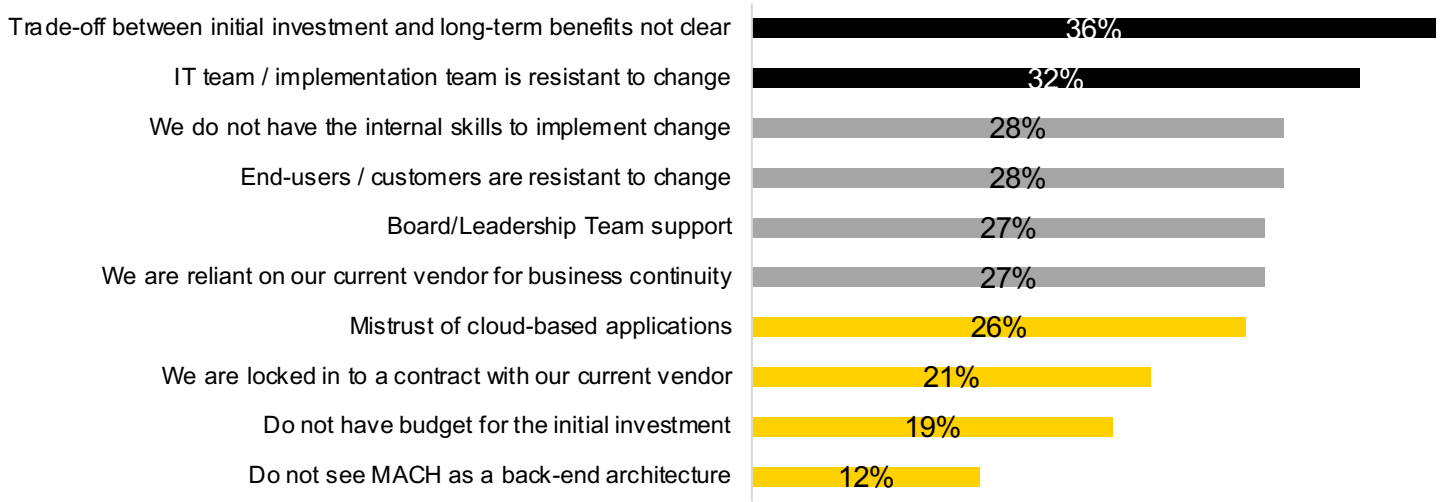
MACH is seen as a way to respond to economic volatility

- Four in five (81%) decision makers state that volatility in the economy has impacted their organization's attitude towards embracing MACH. This reflects trends seen during the COVID-19 pandemic, where uncertainty drove organizations to innovate and modernize
- This impact has been felt to a lesser extent (75%) in organizations with 25,000 or more employees



Resistance to change among IT teams is falling, however demonstration of the long term benefits is still required

- The proportion in the UK, Germany and USA who state that the IT/implementation team is resistant to change has fallen from 39% to 30%
- Large organizations with 25,000 or more employees (35%) in particular lack the internal skills to implement changes, however decision makers from these organizations are also least likely to say they are reliant on their current vendors (21%)



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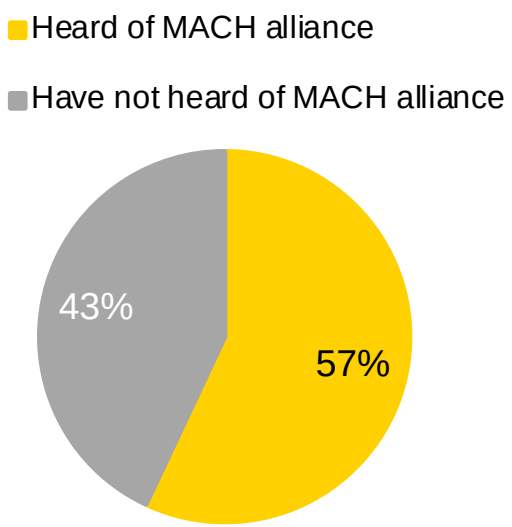
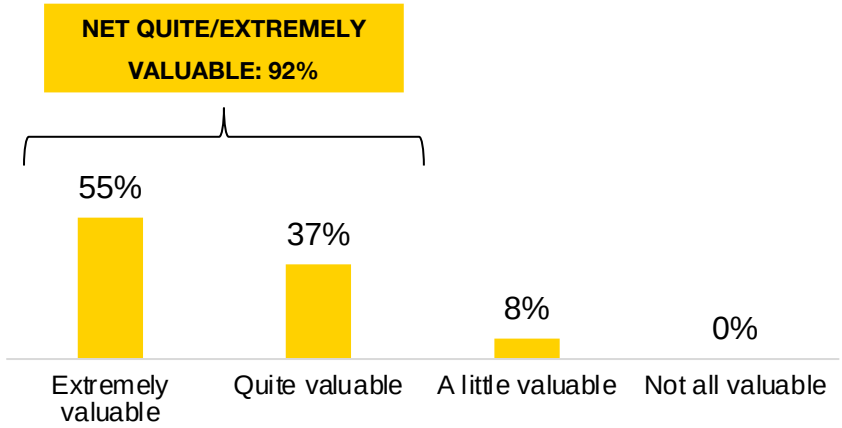
The MACH Alliance are perceived to be highly valuable to the MACH technological movement, playing a key role in demonstrating the long term value of adopting MACH architectures

- 92% of those who have heard of the MACH Alliance believe they are extremely/quite valuable to progressing the MACH technological movement
- Awareness of the MACH Alliance is highest in the US (65%) and lowest in Germany (48%)



HOW VALUABLE DO YOU BELIEVE THE WORK OF THE MACH ALLIANCE IS IN PROGRESSING THE MACH TECHNOLOGICAL MOVEMENT?



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Evidence of MACH benefits

REASONS FOR EMBRACING MACH

"The adoption of MACH principles has helped increase the value of our business , as well as functionality and infrastructure improvements over time."

Chief Information Officer, 5,000-9,999, Technology

"Improved speed of releases due to looser coupling between front and back ends. Cloud simplifies resource allocation and removes hardware requisitioning. More nimble operations. All applications work in same architecture."

Lead Architect, 25,000+, Financial services

"Seamless customization and innovation. We can change as our customers needs change. We can launch a rebranding overnight if needed for example." IT Director, **25,000+, Retail**

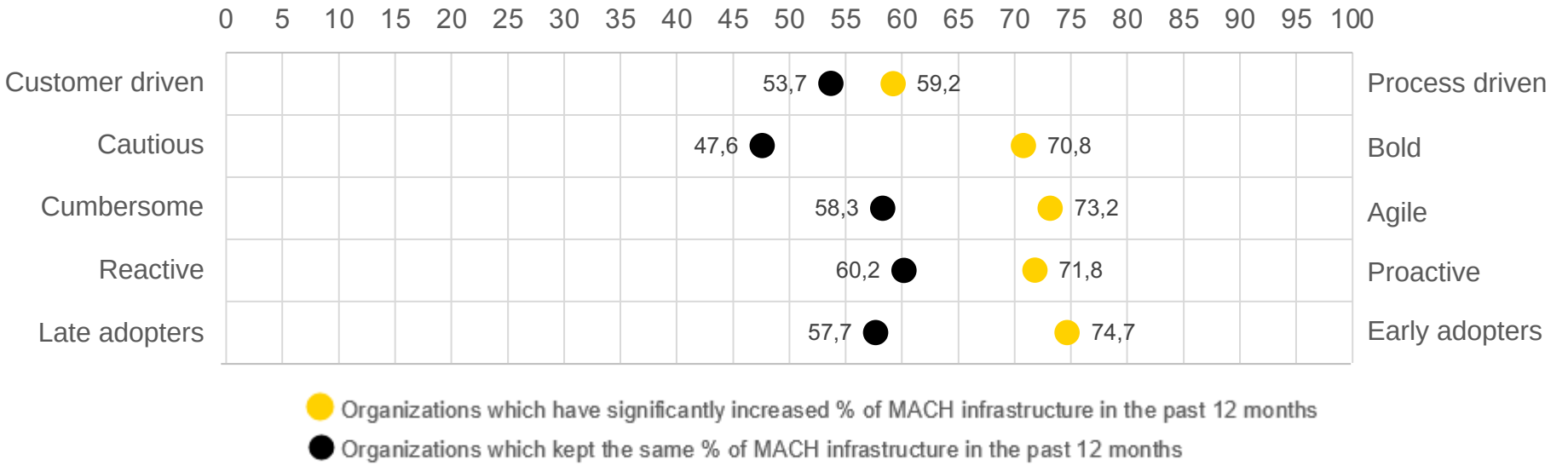
"We have much improved in delivery speed with less risk as we are able to deploy prototypes, study the risks involved before investing on projects."

Chief Technology Officer, 5,000-9,999, Technology

Increasing MACH infrastructure correlates with being bold, agile, proactive and early-adopters

- Organizations which significantly increased their MACH infrastructure in the past 12 months are more closely considered to be process driven, bold, agile, proactive and early adopters than customer driven, cautious, cumbersome, reactive and late adopters by decision makers

On the following scales, please indicate where your organization currently sits…



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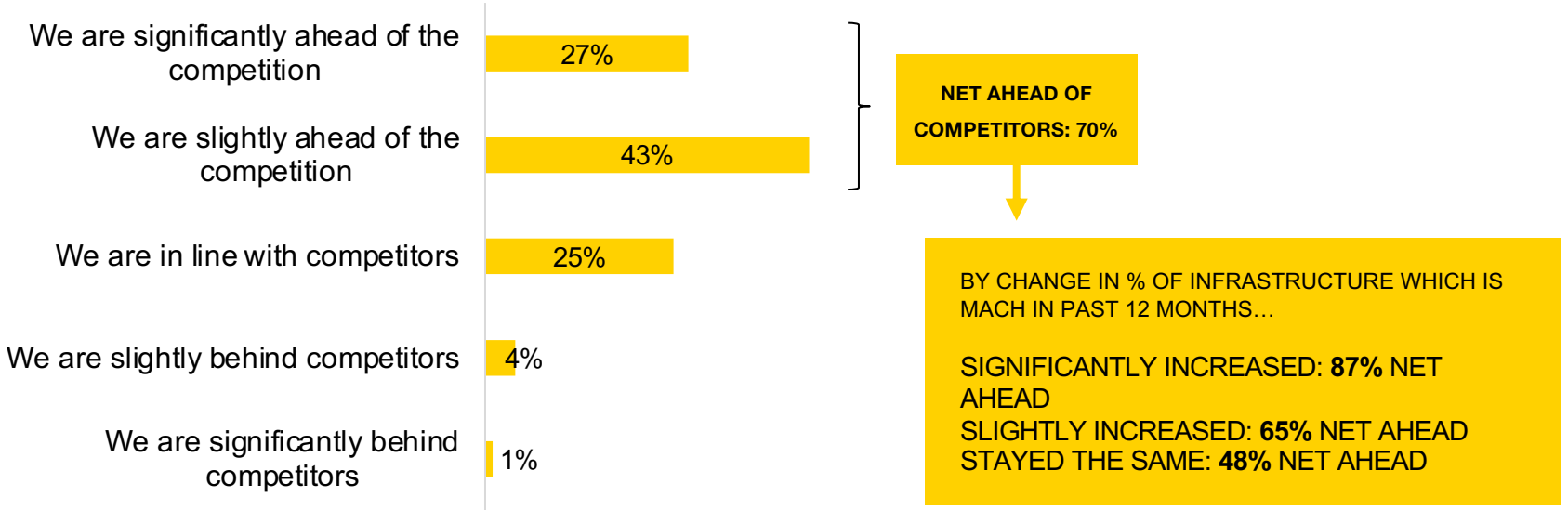
Those who have increased their MACH capabilities are more likely to believe they are ahead of the competition

- 87% of those who have significantly increased the proportion of their infrastructure which is MACH believe they are ahead of the competition, compared to 48% of those for whom the percentage of MACH has stayed the same in this period



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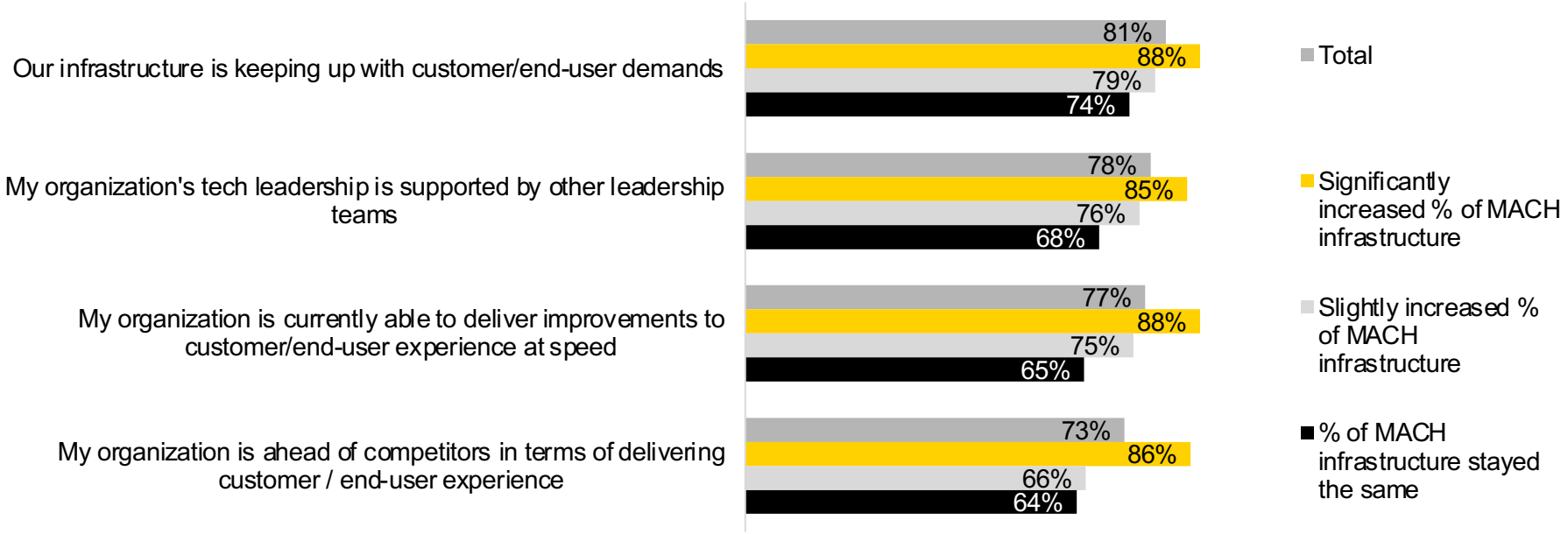
Those who have increased their MACH infrastructure feel more agile and responsive

- Those who have significantly increased the percentage of their infrastructure which is MACH in the past 12 months are meeting these targets the most commonly, compared to those who have increased the percentage of their infrastructure which is MACH slightly or have seen no change



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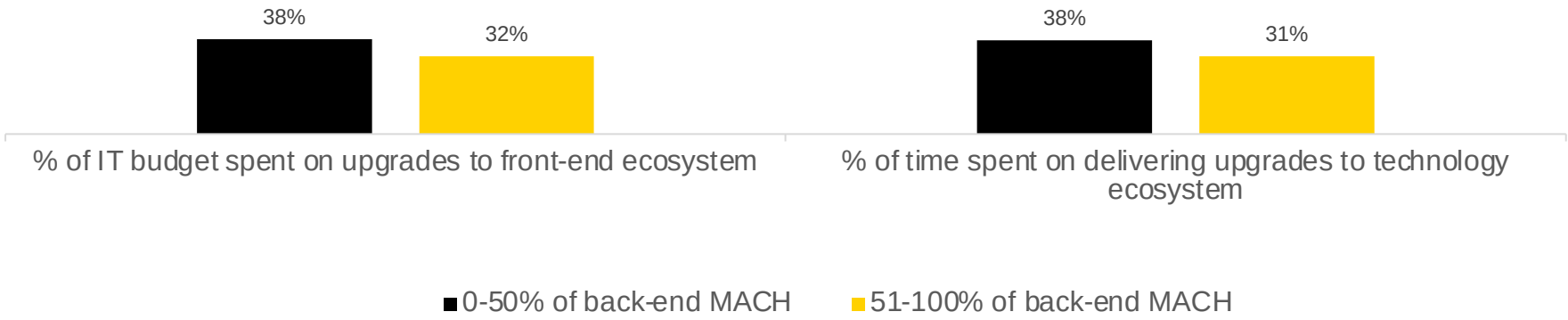
Organizations where a greater proportion of the back-end is MACH have smoother upgrade processes

- Those where more than half of their back-end is MACH have less legacy tech, and spend less time and money on upgrades than those where less than half of their back-end is MACH



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AREA OF FOCUS:

THE DRIVE TO INNOVATE

THE FREQUENCY, COST AND SPEED OF UPGRADES REMAINS SIMILAR TO THAT REPORTED IN PREVIOUS YEARS

MEANWHILE FEWER ORGANIZATIONS SEE THEMSELVES AGILE AND EARLY ADOPTERS. FEWER ALSO SEE THEMSELVES AS AHEAD OF THEIR COMPETITION, INDICATING THAT KEEPING UP WITH THE PACE OF TRANSFORMATION IS A GROWING CHALLENGE. NOT BEING ABLE TO IMPLEMENT UPGRADES AT SPEED COULD CAUSE ORGANIZATIONS TO LAG EVEN FURTHER BEHIND IN THE FUTURE

THE HISTORICAL FOCUS ON FRONT-END OVER BACK-END DEVELOPMENT MIGHT BE CONTRIBUTING TO ORGANIZATIONS' DIFFICULTIES KEEPING UP WITH INNOVATION AND TRANSFORMATION

HOWEVER THOSE WHO ARE MOVING TOWARDS MACH ARE BETTER ABLE TO IMPLEMENT THEIR UPGRADES THAN THOSE WHO AREN'T. THEY ALSO TEND TO SEE THEMSELVES AS MORE BOLD, AGILE AND AS EARLY ADOPTERS, SUGGESTING MACH COULD BE KEY TO HELPING THEM FACE THEIR UPGRADE CHALLENGES

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MACH ALLIANCE

AREA OF FOCUS:

INCREASING PERCEPTIONS OF MACH AS A BACK-END SOLUTION

THE FRONT END IS STILL RECEIVING THE MOST FOCUS FOR INVESTMENT, HOWEVER THIS IS DECLINING YEAR ON YEAR. WHILE 54% PRIORITISED FRONT END INVESTMENT IN THE 2022 REPORT, 39% FROM THE SAME COUNTRIES STATED THIS IN 2023

A DECLINING PROPORTION BELIEVE THAT MACH APPLIES MORE TO FRONT-END THAN BACK-END SERVICES, DOWN FROM 69% TO 57% IN THE US, UK AND GERMANY BETWEEN THE 2022 AND 2023 REPORTS

ONLY 12% STATE THAT THEIR TEAMS NOT SEEING MACH AS A BACK-END TOOL IS A BARRIER TO ADOPTION

ORGANIZATIONS IN WHICH OVER HALF OF THE BACK-END INFRASTRUCTURE IS MACH USE LESS TIME AND MONEY ROLLING OUT UPGRADES, AND HAVE LESS LEGACY TECH IN THEIR ECOSYSTEM

Conclusions

Conclusions

Challenges facing organizations

- Organizations are facing numerous external challenges which require them to be responsive to meet customer demands
- However, internal upgrades to IT infrastructure are lengthy and difficult to implement
- Organizations tend to focus on front-end upgrades, although increasingly are prioritising back-end – and this is where many of the gains are clearly evidenced

MACH as a solution to infrastructure problems

- Adoption of MACH principles has increased in the past 12 months, and is expected to grow further in the coming years
- A desire to be responsive and agile is driving adoption
- Organizations which have increased their adoption of MACH principles in the past 12 months see themselves as ahead of competitors
- Those whose back-end infrastructure is over half MACH are able to more efficiently roll out upgrades

Recommendations

- Highlight the rates of adoption of MACH principles and the risk of falling behind in the capabilities of their IT infrastructure if others don't follow
- Demonstrate the benefits which are correlated with implementation of MACH principles in the back end to IT upgrades and time saving
- The MACH Alliance is perceived well by decision makers. Continue to support organizations to achieve the aims driving their transition to MACH infrastructure, namely responding to changes in the market and building and implementing new functionality quicker