

FUTUREPROOFING PAYMENTS TECH:

The challenges facing CIOs and CTOs

THE PAYMENTS BANK FOR THE NEW ECONOMY

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INTRODUCTION

The challenges facing CIOs and CTOs

To describe the events of 2020 and 2021 as 'challenging', 'difficult' or 'unprecedented' has become something of a cliché. We are all painfully aware of the dramatic changes to our everyday lives, and those working in tech know all-too-well how much their professional life has changed since the start of the pandemic.

Tech decision makers in all industries have experienced immense pressure on their time and resources when rapid upgrades and digitalisation became business necessities overnight.

Solutions to make essential banking possible under such restrictions were required urgently, to allow businesses to continue trading. And all while most employees switched to home-working, with many using their home computer and its unknown security protection, internet connection or capacity for running the necessary software.

For Chief Information Officers (CIOs) and Chief Technology Officers (CTOs) at the businesses providing essential banking and finance solutions, the pressure was multiplied. Organisations of all sizes switched to online only, or cashless in store. And individuals could no longer do their banking in branch.

With that switch came another important shift in perceptions. There is now a clear recognition of the fundamental contribution CIOs and CTOs make to the future success of their businesses

But the challenges for these professionals haven't dissipated; they've just shifted. And our new study amongst CIOs and CTOs in Payments businesses and Banks across Europe reveals a new threat that could undermine the essential economic recovery. That is the adoption of new technologies and having the skills to capitalise on the advances.



Anders la Cour Chief Executive Officer Banking Circle Group



EXECUTIVE SUMMARY

An industry (almost) ready and (very) willing to take on the future

In July 2021, Banking Circle spoke to 600 CTOs and CIOs at Banks, FinTechs and PSPs across the UK, DACH (Germany, Austria and Switzerland) and Benelux (Belgium, The Netherlands and Luxembourg) regions. The research provided insights into the challenges currently faced by CTOs and CIOs across Europe.

It was encouraging to see that the organisations we surveyed remain generally optimistic about the future, despite being 16 months into a global pandemic that has brought about dramatic changes to how the business and the IT department operates.

In all areas of responsibility, our research showed that there are more CTOs and CIOs who are 'fairly' or 'very' confident, than 'not at all' or 'not very' confident. It also showed that PSPs and FinTechs were more confident than their Bank counterparts that their organisations are fit for purpose for the future.

One area of concern is the skills required to keep the business up to date and innovative going forward. All of the FinTech respondents said that they have skills gaps in their organisation, and most

63% of FinTechs and 56% of Banks have skills gaps in their organisations

expect to see their Payments IT team or resource increase in the next 12 months

To 'build' or 'buy'?

When it comes to building new solutions, two thirds of all respondents are planning to 'build' payments tech in-house, and the same number plan to 'buy' off the shelf. Only slightly fewer (65%) expect to outsource or utilise partnerships. These results also show that organisations intend to utilise a combination of providers, bringing together external and internal resources to meet the current and future requirements of the business and its customers.

Tech outages, staying up to date with market developments, and employee skills are the key issues keeping FinTech CTOs and CIOs up at night

We also found that tech budgets are increasing, but not by enough for decision makers to sanction a complete overhaul of their tech or payments infrastructure. Around two in three have determined that they will need to partner with external providers. Such collaboration will be an important tool in futureproofing both Banks and FinTechs.

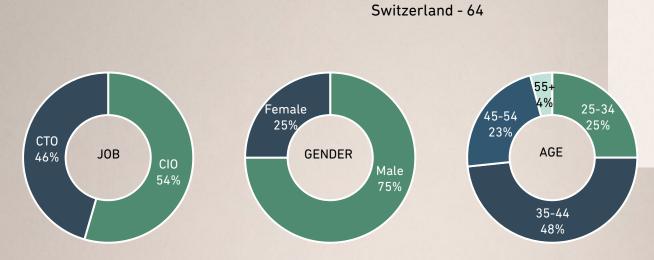
RESEARCH METHODOLOGY

The market research was conducted online in July 2021, among a survey base comprising Chief Technology Officers and Chief Information Officers.

50% Banks and 50% PSPs/FinTechs.

The 600 respondents were spread equally across the European regions involved – the UK, DACH and Benelux – with 200 based in each region.





CHAPTER I

Is existing infrastructure future proof?



In every area of responsibility, there are more CTOs and CIOs who are 'fairly' or 'very' confident, than 'not at all' or 'not very' confident. However, just a third of the CTOs and CIOs we spoke to are 'very confident' that their organisations are fit for purpose for the future in terms of investigation and procurement of new systems.

In every area of responsibility, more CTOs and CIOs are optimistic than pessimistic that their organisations are future proof.

Confidence was lower for all other areas of responsibility, including Artificial Intelligence (AI)/Machine Learning (ML), data security, new systems migration and training, to name a few. In particular, recruitment and systems training procedures stood out, with one in three 'not confident' that theirs is future proof.

Overall, PSPs and FinTechs were more confident than their Bank counterparts. The greatest difference between business types was shown in the ability to investigate and procure new systems, where 25% of Banks and 37% of FinTechs said they are 'very confident'.

CHAPTER II

Investing in future proof confidence

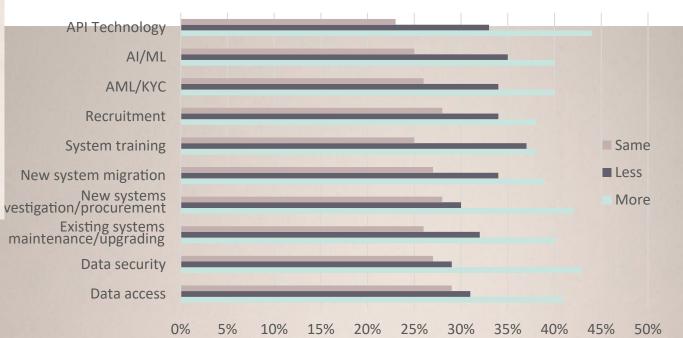


In a time of global uncertainty, two in three CIOs and CTOs are feeling good about the future. One cause for their optimism may be increasing investment: in all areas we looked at, investment plans have been increased since the start of the pandemic.

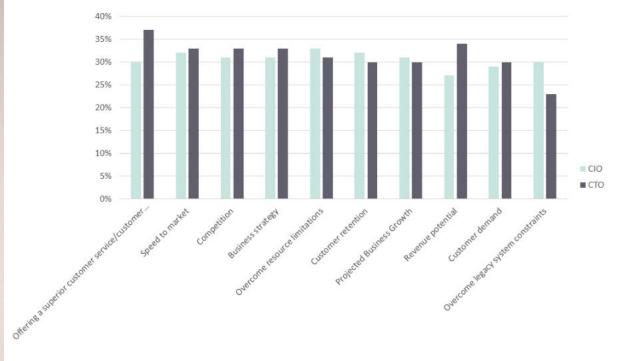
Across all respondents, the aspect that will see the highest level of new funding compared to pre-Covid levels is 'API technology', with 44% planning more investment in the coming months. This shows a desire for better integration, compatibility and usability to improve the customer experience.

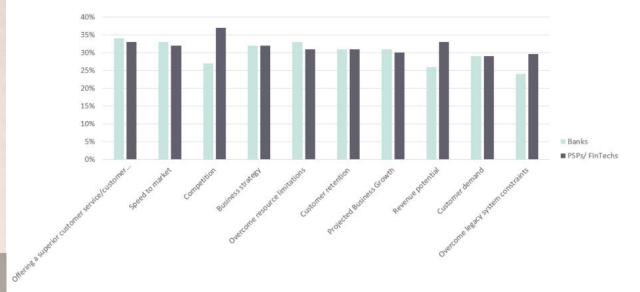
Offering a superior customer experience, speed to market and competition are the three main factors driving increased investment. For the CTO, the most common driver is offering a superior customer experience (37%), while CIOs are driven mostly by the need to overcome resource limitations (33%)—which could be reflective of CTOs typically being more outward-looking, while CIOs are generally more inward.

In the next 12 months, do you plan to invest more, less or the same as pre-COVID in relation to your organisation's Payments infrastructure?









Looking at spending priorities according to different age groups reveals an interesting picture :

- 25-30 : new systems for investigation / procurement (53%)
- 35-44 : data security (48%)
- 45-54 : existing systems and maintenance (45%)
- 55+ : new systems migration (56%)

The four different age groups giving four different answers could show how individuals' priorities and concerns change as they get older and gain experience in their roles.

CHAPTER III

No one-size-fits-all payments tech solution



Once the increased budget is confirmed, CIOs and CTOs need to work out the best route, from both a time and cost perspective, when launching a new solution. Building in-house, buying off-the-shelf or collaborating with external providers are all viable options, but they do not suit every organisation equally.

In terms of payments technology, many respondents are planning to spread their budgets across a number of these routes, rather than just relying on one platform.

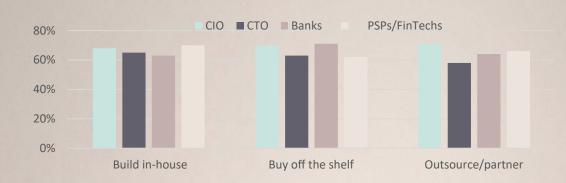
Two thirds of all respondents are planning to build payments tech in-house, and the same number plan to buy off-the-shelf. Only slightly fewer (65%) intend to outsource or utilise partnerships.

Banks are more likely to buy payment solutions off-the-shelf. PSPs and FinTechs are most likely to build in-house.

Respondents are clearly willing to select the approach they think best for each use case, rather than applying a one-size-fits-all approach.

Banks are most likely to buy off-the-shelf (71%) and PSPs and FinTechs are most likely to build solutions in-house (70%).

Both Banks and FinTechs are almost equally likely to collaborate with external partners, but FinTechs (66%) are slightly more likely than Banks (64%) to take this route.



CHAPTER III -No one-size-fits-all payments tech solution

Vhat's driving the switch to collaboration?

/hen we asked about the CTOs' and CIOs' priorities for the next year, the most common high priority for our espondents was improving data quality. This was closely followed by improving the customer experience ar ligrating to digital delivery of services.

lmost half (44%) of CTOs and CIOs said improving data quality was a high priority. Migration to digital delive ervices was the second highest priority with 43% ranking it as high, while improving customer service cambace, with 42% ranking it as high. The golden thread seems to be keeping up with customer demand and entact customers are happy in order to remain competitive.

ver the past few years there has been a gradual increase in collaboration between Financial Institutions an arty providers. As we have seen, two in three Banks, PSPs and FinTechs are planning to work with partners eliver Payments technology, but what is motivating this approach?

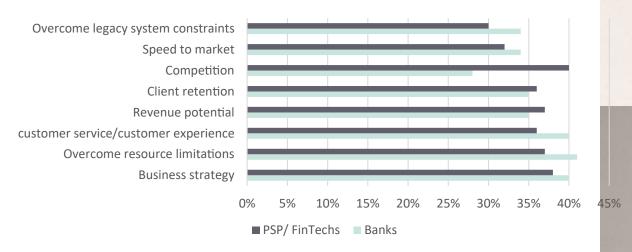
IOs are much more positive about outsourcing and partnering with external providers; building solutions in vas their least preferred option.

verall, business strategy (39%), ability to overcome resource limitations (39%) and ability to offer a superioustomer experience (38%) were the main drivers pushing our respondents to partner with external provide

inTechs are far more focused than Banks on remaining competitive, with 40% of FinTechs giving competitic neir main driver, compared with just 28% of Banks. Business strategy followed by revenue potential were the econd and third biggest drivers. In contrast – and perhaps not surprising given the legacy challenges often ne banking sector – Banks said the ability to overcome resource limitations was their main motivation (41%).

Business strategy, overcoming resource limitations and offering a superior customer experience push respondents to collaborate

What, if anything, drives your decision to partner with external specialists?



Across all priorities, Swiss CTOs and CIOs consistently ranked each item as a lesser priorities than other countries, whilst Austrian CTOs and CIOs consistently ranked them as higher.

PSPs were more likely than Banks to rank each area as a higher priority with new regula was the only area Banks placed at a higher priority than FinTechs and PSPs.

CHAPTER IV

Disconnection and inconsistency stall innovation



The life of a CIO or CTO would be far simpler and less stressful if these expert decision-makers were able to implement the necessary changes and technology simply, quickly and cost-effectively. However, a multitude of internal and external obstacles combine to hold back our CIO and CTO respondents from achieving many of their goals.

More than 99% of respondents feel progress is hindered by at least one internal and/or external challenge.

The biggest internal challenge that stands in the way of half (49%) of our respondents is the lack of integration with customer-facing departments. Only slightly fewer (45%) cited a lack of data consistency between internal systems, and a lack of consistency across countries' operations (45%).

It is apparent that a disconnect exists between departments, tools and countries, which can all combine to impact customer experience.

Lack of integration with customer-facing departments is the biggest internal challenge

What do you see as the current top three INTERNAL challenges to achieving your objectives?

| | Banks | PSPs/ FinTechs |
|--|-------|----------------|
| Lack of integration with customer-facing departments | 49% | 49% |
| Lack of data consistency between internal systems | 45% | 45% |
| Lack of consistency across countries' operations | 47% | 42% |
| Lack of c-suite or board-level support | 45% | 42% |
| Existing legacy IT infrastructure | 41% | 43% |
| Lack of funding | 36% | 38% |
| I don't see any top internal challenges currently | 1% | 1% |

The second most selected internal challenge by CTOs was a 'lack of c-suite support' (46% of CTOs, compared with 41% of CIOs) revealing that CTOs often find it difficult to secure the backing of their peers.

CHAPTER IV -Disconnection and inconsistency stall innovation

Looking outward, the most common of the external challenges across all respondents was the inconsistency of regulations across geographies. Overall, challenges featuring most frequently in CTOs' and CIOs' top concerns were: inconsistent regulation across geographies (30%), money laundering risk (30%), recession (29%) and skills gaps (29%).

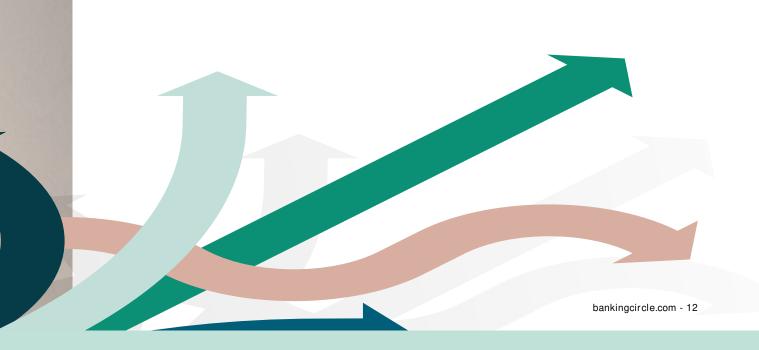
As with the internal challenges, these issues are driven by a range of factors and mostly can't easily be fixed, leaving respondents with much to juggle. The threat of recession is a sure consequence from the pandemic, whilst money laundering risk is impacted by the increased sophistication of fraudsters.

The most common external challenge for PSPs and FinTechs is the threat of recession, closely followed by money laundering risk, then the skills gap and difficulties with recruitment. In contrast, Banks are troubled most by inconsistency in regulation across geographies, money laundering risk and data security risk.

As many Financial Institutions are coming to realise, partnerships with expert external providers could help resolve these issues without the significant investment of internal overhaul.

What are your top three current EXTERNAL challenges to achieving your objectives?

| | Banks | PSPs/ FinTechs |
|---|-------|----------------|
| Inconsistent regulation across geographies | 32% | 29% |
| Money laundering risk | 31% | 29% |
| Recession | 29% | 30% |
| Skills gaps/recruitment difficulties | 28% | 30% |
| Data security risk | 29% | 26% |
| Different data standards across borders | 26% | 29% |
| Different payment systems across borders | 27% | 28% |
| High customer expectations | 25% | 29% |
| Working from home operations | 25% | 26% |
| Regulation generally | 26% | 20% |
| I don't see any top external challenges currently | 1% | 0% |





Every PSP and FinTech confirmed that there are gaps in their team's knowledge and experience. Skills gaps and difficulties with recruitment are one of the top three biggest challenges for a third of the Banks, FinTechs and PSPs we surveyed.

To plug the skills gaps, 60% of respondents said they intend to increase their payments IT team in the next 12 months, with around 38% planning to increase investment in both recruitment and systems training.

However, 30% say they expect to reduce the size of their team in the next year, suggesting that the focus on 'buy' over 'build' is influencing recruitment decisions. Banks (35%) are more likely than FinTechs and PSPs (25%) to reduce the size of their IT teams, with more FinTechs increasing the team (63%).

60% plan to grow the payments IT team in the coming year

There are also conflicting opinions between CIOs and CTOs about the future of the payments team, with 68% of CIOs believing that payments resources will increase, compared with 50% of CTOs holding this view.

23% of CIOs expect resource to decrease, compared with 39% of CTOs.

Do you expect your Payments IT team/resource to increase or decrease in the next 12 months?

| | ALL | CIOs | CT0s | Banks | PSPs/ Fintechs |
|---------------|-----|------|------|-------|-------------------|
| Increase | 60% | 68% | 50% | 56% | 63% |
| Decrease | 30% | 23% | 39% | 35% | 25% |
| Stay the same | 10% | 9% | 11% | 9% | 11% |

Across Europe it is Austria, the UK and Belgium that have the greatest expectations of growing their teams – Austria (91%), Belgium (78%) and UK (78%), contrasting with Germany where 65% anticipate a decrease.

CHAPTER V - Strengthening the team

What are the crucial skills?

When we asked which skills the organisations feel are most crucial, Banks and FinTechs agreed: Data warehousing / Business Intelligence (47%) and Technology management (46%) came out on top for both business types.

Two thirds of respondents see a cloud skills gap in their organisations

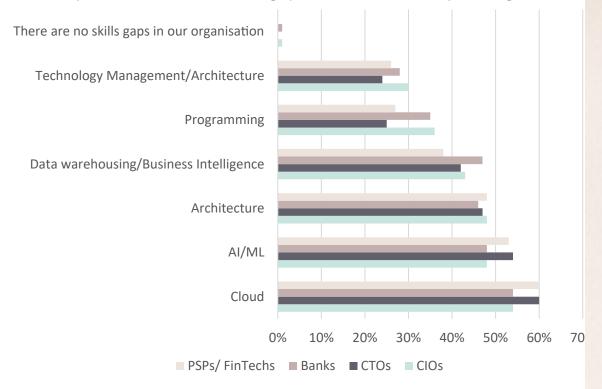
Where are the gaps?

The most common gap, seen by 57% of all respondents, was in cloud skills, followed by AI/ML, which is lacking in 51% of organisations.

Despite multiple skills gaps, organisations over remain optimistic about the future, possibly ir due to increasing budgets.

However, faced with a global skills shortage a resulting high level of competition for experie candidates, it's unsurprising that many organ are looking to partnerships as a way to plug tl—enabling them to remain competitive withou blowing the budget on recruitment.

Where, if anywhere, are the current gaps in these skills in your organisation?



In a recent blog from the Financial Services Skills Commission, CEO Claire Tunley confirmed that organisations across the financial industry are facing similar challenges regarding skills gaps:

"...financial services firms continue to experience skills gaps, and investment in learning and development is not keeping pace with the evolving skills needs of the sector. Government research shows financial services have one of the lowest rates of investment in employee learning and development and skills needs are not static. Meanwhile our research shows that the pandemic has increased skills needs in a number of areas."



According to our study, the Cloud is not currently a priority for many of the 600 Financial Institutions we surveyed. It is perhaps then unsurprising that less than 1% of the organisations involved currently have their IT or payments systems based entirely in the cloud. However, all respondents do have at least some of their Payments and/or IT systems in the cloud, with 56% saying at least half their systems are now cloud-based.

Half of PSPs and FinTechs across all regions have less than half of their IT systems in the cloud; while just over a third (37%) of Banks are in similar positions, showing a huge reliance on on-premises setups. There clearly remains some hesitation.

Cloud benefits

Cloud-based infrastructure offers flexibility and scalability, enabling Financial Institutions to be agile in the face of ever-evolving requirements. Customer demands are always changing, but when organisations can adapt quickly, they are futureproofed.

A decoupled cloud infrastructure means providers can update individual modules seamlessly with minimal impact on their clients' workloads. This allows new features to be added, such as event-based payments processing and real-time reporting, all while delivering the quality of service expected.

Operating in a rapidly-evolving industry, Financial Institutions that don't choose suitable cloud-driven partners risk not being able to keep up with customer demand – and the competition.

Banking in the cloud

Interestingly, and perhaps contradicting the perception of Banks being mired in legacy systems, Banks are more likely than FinTechs and PSPs to have their IT and Payments systems in the cloud: 60% of Banks have at least half of their payments systems in the cloud, while 52% of FinTechs said the same.

Banks are more likely than FinTechs to have thier IT and Payments systems in the cloud

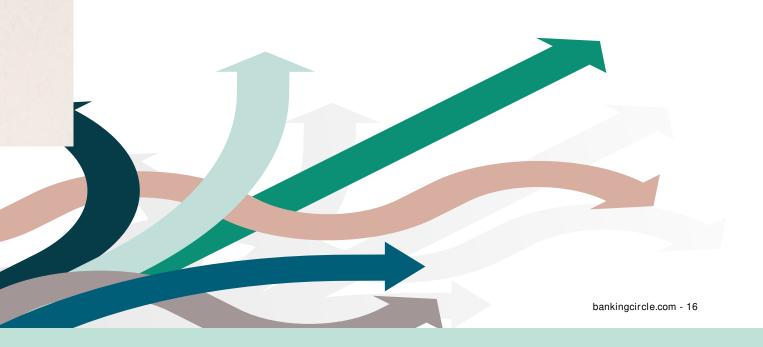
IAPTER VI - Futureproofing banking

How much, if any, of your organisation's Payments systems are in the cloud?

| | All | Banks | PSPs/ FinTechs |
|---------------|-----|-------|----------------|
| 100% | 1% | 1% | 0% |
| 75-99% | 10% | 12% | 8% |
| 50-74% | 46% | 47% | 44% |
| 25-49% | 38% | 36% | 40% |
| Less than 25% | 6% | 4% | 7% |

When broken down by revenue, the organisations with the highest average annual revenue (£500 million+) have the smallest portion of IT infrastructure in the cloud. 53% have less than half in the cloud, suggesting that larger, long-established brands are wedded to and held back by legacy tech.

Following the same pattern, it's again the organisations with the highest average annual revenue (£500 million+) that have the smallest amount of Payments systems in the cloud (55% have less than half).



CONCLUSIONS

What is keeping CIOs and CTOs awake at night?

Being a CTO or CIO is no mean feat juggling a myriad of challenges in today's landscape; 72% of respondents are kept awake at night by at least one aspect of their role.

The main issues keeping PSP and FinTech CTOs and CIOs awake are tech outages, staying up to date with market developments and the issue of staff skills.

For Banks, the main cause of sleepless nights for CTOs and CIOs is an ongoing or upcoming digital transformation project. But that is not exclusive to Banks; it is also a concern for one in ten FinTechs.

Looking to the future

The sudden acceleration of digitalisation is set to bring widespread benefits to the industry and its customers, increasing the value of the financial services providers within the future digital economy.

Payments will get faster and more streamlined, and costs will fall. To bring about that change, Financial Institutions are investing heavily in rapidly transforming their businesses and digitalising their services.

Two thirds of CTOs and CIOs feel supported in their jobs

As the AltFi 'State of the Market: Digital Banking Annual Report 2020' explains, CIOs have seen their role change significantly as digitalisation leapt to the top of the agenda:

"In years past, many CIOs were principally concerned with making sure that systems like email, file storage and other back-office applications stayed up and running – 'keeping the lights on', as it's often known. Now, however, more and more CIOs are being brought into key decision-making processes at the top level of their organisations."

The role of the CTO has also shifted dramatically. Like the CIO, the pandemic meant stepping into the spotlight to ensure that digital access for colleagues, clients and customers was not only possible but seamless. The result of the sudden change in demand is that CIOs and CTOs were given the budgets and autonomy they needed to fulfil the vital role they play in futureproofing the business.

The new prominence and accountability of the CIO and CTO role weighs heavily on their shoulders. But the burden of responsibility doesn't need to fall entirely on the in-house team; working in

Working with external providers spreads the load and eases the burden on CTOs and CIOs

partnership with external providers can ease the burden by spreading the load. A payments bank or financial utility partner can take on a lot of the heavy lifting and reduce stress on any one individual or team.

APPENDICES

DATA CHARTS

How confident do you feel that your organisation is fit for purpose for the future?

| | | Not confid | lent | Confident | | |
|--|-----|------------|----------|-----------|-------|----------|
| | ALL | Banks | FinTechs | ALL | Banks | FinTechs |
| New systems investigation/procurement | 27% | 28% | 25% | 71% | 69% | 73% |
| Existing systems maintenance/upgrading | 29% | 35% | 23% | 69% | 63% | 76% |
| AI/ML | | 30% | 28% | 69% | 68% | 71% |
| API technology | | 31% | 31% | 68% | 67% | 68% |
| Data access | 31% | 32% | 30% | 66% | 65% | 68% |
| AML/KYC | 32% | 36% | 28% | 66% | 62% | 69% |
| Data security | 33% | 36% | 30% | 66% | 62% | 69% |
| Systems training | | 33% | 31% | 66% | 64% | 67% |
| New systems migration | | 37% | 28% | 65% | 61% | 70% |
| Recruitment | 34% | 38% | 29% | 64% | 60% | |

What is driving an increase in investment planned for the next 12 months?

| | CIO | сто |
|--|-----|-----|
| Offering a superior customer service/customer experience | 30% | 37% |
| Speed to market | 32% | 33% |
| Competition | 31% | 33% |
| Business strategy | 31% | 33% |
| Overcome resource limitations | 33% | 31% |
| Customer retention | 32% | 30% |
| Projected Business Growth | 31% | 30% |
| Revenue potential | 27% | 34% |
| Customer demand | 29% | 30% |
| Overcome legacy systems constraints | 30% | 23% |

Feedback by Country

Please indicate, for all areas for which you have responsibility in relation to your organisations Payments infrastructure, how confident you feel that your organisation is fit for purpose for the future?

| Data access | All | UK | Germany | Austria | Switzerland | Belgium | Netherlands | Luxembourg |
|---|--------|--------|---------|---------|-------------|---------|-------------|------------|
| Not at all confident | 8.83% | 2.00% | 11.24% | 4.26% | 18.75% | 6.02% | 18.89% | 11.11% |
| Not very confident | 22.17% | 21.00% | 20.22% | 12.77% | 32.81% | 24.10% | 23.33% | 18.52% |
| Fairly confident | 34.33% | 38.50% | 32.58% | 34.04% | 21.88% | 39.76% | 31.11% | 33.33% |
| Very confident | 32.00% | 38.50% | 31.46% | 44.68% | 20.31% | 28.92% | 24.44% | 25.93% |
| N/A not responsible for this area | 2.67% | 0.00% | 4.49% | 4.26% | 6.25% | 1.20% | 2.22% | 11.11% |
| | | | | | | | | |
| Data security | All | UK | Germany | Austria | Switzerland | Belgium | Netherlands | Luxembourg |
| Not at all confident | 9.33% | 3.00% | 14.61% | 2.13% | 15.63% | 3.61% | 18.89% | 22.22% |
| Not very confident | 23.67% | 21.50% | 19.10% | 19.15% | 31.25% | 26.51% | 27.78% | 22.22% |
| Fairly confident | 32.50% | 38.00% | 34.83% | 31.91% | 25.00% | 30.12% | 25.56% | 33.33% |
| Very confident | 33.00% | 36.50% | 30.34% | 46.81% | 21.88% | 38.55% | 26.67% | 22.22% |
| N/A not responsible for this area | 1.50% | 1.00% | 1.12% | 0.00% | 6.25% | 1.20% | 1.11% | 0.00% |
| | | | | | | | | |
| Existing systems maintenance/ upgrading | All | UK | Germany | Austria | Switzerland | Belgium | Netherlands | Luxembourg |
| Not at all confident | 9.00% | 3.00% | 12.36% | 4.26% | 10.94% | 6.02% | 15.56% | 33.33% |
| Not very confident | 19.67% | 17.00% | 17.98% | 12.77% | 29.69% | 19.28% | 24.44% | 18.52% |
| Fairly confident | 37.83% | 45.50% | 32.58% | 34.04% | 29.69% | 37.35% | 36.67% | 29.63% |
| Very confident | 31.50% | 33.50% | 34.83% | 46.81% | 25.00% | 37.35% | 22.22% | 7.41% |
| N/A not responsible for this area | 2.00% | 1.00% | 2.25% | 2.13% | 4.69% | 0.00% | 1.11% | 11.11% |
| | | | | | | | | |
| New systems investigation/ procurement | All | UK | Germany | Austria | Switzerland | Belgium | Netherlands | Luxembourg |
| Not at all confident | 8.00% | 3.50% | 13.48% | 10.64% | 15.63% | 1.20% | 12.22% | 7.41% |
| Not very confident | 18.83% | 16.00% | 15.73% | 19.15% | 17.19% | 21.69% | 28.89% | 11.11% |
| Fairly confident | 37.50% | 36.50% | 37.08% | 40.43% | 26.56% | 45.78% | 37.78% | 40.74% |
| Very confident | 33.67% | 43.00% | 30.34% | 29.79% | 37.50% | 28.92% | 21.11% | 29.63% |
| N/A not responsible for this area | 2.00% | 1.00% | 3.37% | 0.00% | 3.13% | 2.41% | 0.00% | 11.11% |

Feedback by Country

Please indicate, for all areas for which you have responsibility in relation to your organisations Payments infrastructure, how confident you feel that your organisation is fit for purpose for the future?

| Recruitment | All | UK | Germany | Austria | Switzerland | Belgium | Netherlands | Luxembourg |
|-----------------------------------|--------|--------|---------|---------|-------------|---------|-------------|------------|
| Not at all confident | 10.50% | 2.00% | 14.61% | 4.26% | 21.88% | 3.61% | 22.22% | 25.93% |
| Not very confident | 23.17% | 23.00% | 21.35% | 23.40% | 18.75% | 22.89% | 24.44% | 37.04% |
| Fairly confident | 34.50% | 40.50% | 31.46% | 19.15% | 31.25% | 42.17% | 34.44% | 11.11% |
| Very confident | 29.83% | 34.00% | 29.21% | 51.06% | 20.31% | 30.12% | 18.89% | 22.22% |
| N/A not responsible for this area | 2.00% | 0.50% | 3.37% | 2.13% | 7.81% | 1.20% | 0.00% | 3.70% |
| | | | | | | | | |
| AML/KYC | All | UK | Germany | Austria | Switzerland | Belgium | Netherlands | Luxembourg |
| Not at all confident | 9.17% | 3.00% | 11.24% | 0.00% | 18.75% | 3.61% | 18.89% | 25.93% |
| Not very confident | 22.83% | 18.50% | 20.22% | 14.89% | 23.44% | 28.92% | 26.67% | 44.44% |
| Fairly confident | 34.67% | 37.00% | 38.20% | 31.91% | 23.44% | 43.37% | 32.22% | 18.52% |
| Very confident | 31.00% | 40.50% | 25.84% | 51.06% | 28.13% | 22.89% | 20.00% | 11.11% |
| N/A not responsible for this area | 2.33% | 1.00% | 4.49% | 2.13% | 6.25% | 1.20% | 2.22% | 0.00% |
| | | | | | | | | |
| AI/ML | All | UK | Germany | Austria | Switzerland | Belgium | Netherlands | Luxembourg |
| Not at all confident | 7.33% | 1.50% | 8.99% | 2.13% | 20.31% | 1.20% | 16.67% | 11.11% |
| Not very confident | 21.50% | 16.00% | 19.10% | 17.02% | 26.56% | 30.12% | 21.11% | 40.74% |
| Fairly confident | | 43.00% | 34.83% | 40.43% | 25.00% | 39.76% | 28.89% | 22.22% |
| Very confident | | 36.00% | 35.96% | 40.43% | 23.44% | 28.92% | 32.22% | 25.93% |
| N/A not responsible for this area | 2.00% | 3.50% | 1.12% | 0.00% | 4.69% | 0.00% | 1.11% | 0.00% |
| | | | | | | | | |
| API technology | All | UK | Germany | Austria | Switzerland | Belgium | Netherlands | Luxembourg |
| Not at all confident | 9.17% | 2.50% | 14.61% | 2.13% | 20.31% | 1.20% | 23.33% | 3.70% |
| Not very confident | 21.83% | 19.00% | 13.48% | 12.77% | 29.69% | 39.76% | 21.11% | 14.81% |
| Fairly confident | 37.83% | 39.50% | 44.94% | 44.68% | 26.56% | 43.37% | 26.67% | 37.04% |
| Very confident | 29.83% | 38.00% | 25.84% | 40.43% | 18.75% | 15.66% | 28.89% | 37.04% |
| N/A not responsible for this area | 1.33% | 1.00% | 1.12% | 0.00% | 4.69% | 0.00% | 0.00% | 7.41% |
| | | | | | | | | |
| Other | All | UK | Germany | Austria | Switzerland | Belgium | Netherlands | Luxembourg |
| Not at all confident | 6.17% | 4.00% | 14.61% | 0.00% | 3.13% | 2.41% | 13.33% | 0.00% |
| Not very confident | 22.17% | 26.00% | 16.85% | 8.51% | 1.56% | 37.35% | 31.11% | 7.41% |
| Fairly confident | 31.67% | 39.00% | 33.71% | 46.81% | 6.25% | 33.73% | 28.89% | 7.41% |
| Very confident | 23.67% | 29.00% | 28.09% | 34.04% | 7.81% | 20.48% | 21.11% | 7.41% |
| N/A not responsible for this area | 16.33% | 2.00% | 6.74% | 10.64% | 81.25% | 6.02% | 5.56% | 77.78% |

What is driving an increase in investment planned for the next 12 months?

| | All | UK | Germany | Austria | Switzerland | Belgium | Netherlands | Luxembourg |
|--|--------|--------|---------|---------|-------------|---------|-------------|------------|
| Offering a superior customer service/customer experience | 33.22% | 33.67% | 26.97% | 34.04% | 46.88% | 32.53% | 33.33% | 18.52% |
| Speed to market | 32.22% | 28.64% | 34.83% | 34.04% | 46.88% | 32.53% | 28.89% | 22.22% |
| Competition | 32.22% | 31.66% | 29.21% | 31.91% | 39.06% | 37.35% | 30.00% | 22.22% |
| Business strategy | 32.05% | 29.15% | 32.58% | 31.91% | 34.38% | 27.71% | 34.44% | 51.85% |
| Overcome resource limitations | 32.05% | 34.17% | 22.47% | 44.68% | 34.38% | 25.30% | 33.33% | 37.04% |
| Customer retention | 31.05% | 24.12% | 30.34% | 42.55% | 35.94% | 32.53% | 30.00% | 51.85% |
| Projected Business Growth | 30.55% | 33.67% | 28.09% | 38.30% | 28.13% | 22.89% | 31.11% | 29.63% |
| Revenue potential | 29.88% | 23.12% | 17.98% | 44.68% | 51.56% | 31.33% | 31.11% | 33.33% |
| Customer demand | 29.05% | 33.67% | 33.71% | 25.53% | 28.13% | 21.69% | 21.11% | 37.04% |
| Overcome legacy system constraints | 26.88% | 27.14% | 16.85% | 34.04% | 39.06% | 18.07% | 33.33% | 22.22% |
| Other, please specify | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

With regards to your organisation's future plans for its Payments technology, please indicate your strategy in terms of resources – overall do you plan to build in-house; buy off the shelf solutions; outsource to specialist partners?

| | All | UK | Germany | Austria | Switzerland | Belgium | Netherlands | Luxembourg |
|-----------------------|--------|--------|---------|---------|-------------|---------|-------------|------------|
| Build in-house | 66.67% | 71.00% | 55.06% | 80.85% | 71.88% | 67.47% | 56.67% | 66.67% |
| Buy off the shelf | 66.67% | 71.00% | 56.18% | 87.23% | 59.38% | 57.83% | 70.00% | 66.67% |
| Outsource/partner | 65.17% | 70.00% | 48.31% | 82.98% | 62.50% | 71.08% | 61.11% | 55.56% |
| Other, please specify | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| l don't know | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

What, if anything, drives your decision to partner with external specialists?

| | All | UK | Germany | Austria | Switzerland | Belgium | Netherlands | Luxembourg |
|--|--------|--------|---------|---------|-------------|---------|-------------|------------|
| Business strategy | 39.00% | 39.00% | 39.33% | 42.55% | 45.31% | 32.53% | 35.56% | 48.15% |
| Overcome resource limitations | 38.83% | 39.00% | 31.46% | 38.30% | 53.13% | 34.94% | 41.11% | 33.33% |
| Offering a superior customer service/customer experience | 38.00% | 37.50% | 37.08% | 38.30% | 37.50% | 39.76% | 43.33% | 22.22% |
| Revenue potential | 36.17% | 38.50% | 23.60% | 42.55% | 39.06% | 31.33% | 40.00% | 44.44% |
| Client retention | 35.67% | 38.50% | 28.09% | 40.43% | 34.38% | 32.53% | 38.89% | 33.33% |
| Competition | 34.17% | 31.50% | 31.46% | 44.68% | 43.75% | 26.51% | 37.78% | 33.33% |
| Speed to market | 33.00% | 31.00% | 29.21% | 34.04% | 53.13% | 27.71% | 31.11% | 33.33% |
| Overcome legacy system constraints | 32.00% | 32.50% | 26.97% | 44.68% | 31.25% | 28.92% | 23.33% | 62.96% |
| Nothing drives the decision to partner with external specialists | 0.17% | 0.00% | 1.12% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Other, please specify | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

How much, if any, of your organisations overall IT systems are in the cloud?

| | All | UK | Germany | Austria | Switzerland | Belgium | Netherlands | Luxembourg |
|---------------|--------|--------|---------|---------|-------------|---------|-------------|------------|
| 100% | 0.50% | 0.50% | 1.12% | 0.00% | 0.00% | 0.00% | 1.11% | 0.00% |
| 75-99% | 11.17% | 8.00% | 13.48% | 2.13% | 7.81% | 3.61% | 31.11% | 7.41% |
| 50-74% | 44.67% | 44.00% | 65.17% | 46.81% | 32.81% | 33.73% | 45.56% | 37.04% |
| 25-49% | 38.83% | 38.00% | 20.22% | 46.81% | 50.00% | 61.45% | 22.22% | 51.85% |
| Less than 25% | 4.83% | 9.50% | 0.00% | 4.26% | 9.38% | 1.20% | 0.00% | 3.70% |
| None | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

How much, if any, of your organisations Payments systems are in the cloud?

| | All | UK | Germany | Austria | Switzerland | Belgium | Netherlands | Luxembourg |
|---------------|--------|--------|---------|---------|-------------|---------|-------------|------------|
| 100% | 0.67% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 4.44% | 0.00% |
| 75-99% | 9.83% | 7.50% | 8.99% | 4.26% | 4.69% | 3.61% | 24.44% | 22.22% |
| 50-74% | 45.50% | 43.00% | 55.06% | 40.43% | 37.50% | 51.81% | 38.89% | 62.96% |
| 25-49% | 38.17% | 42.00% | 35.96% | 48.94% | 42.19% | 36.14% | 32.22% | 14.81% |
| Less than 25% | 5.83% | 7.50% | 0.00% | 6.38% | 15.63% | 8.43% | 0.00% | 0.00% |
| None | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

What, if anything, do you see as the current top internal challenges to achieving your objectives?

| | All | UK | Germany | Austria | Switzerland | Belgium | Netherlands | Luxembourg |
|---|--------|--------|---------|---------|-------------|---------|-------------|------------|
| Lack of integration with customer-facing departments | 49.00% | 51.00% | 34.83% | 55.32% | 54.69% | 53.01% | 50.00% | 40.74% |
| Lack of data consistency between internal systems | 45.00% | 47.00% | 38.20% | 44.68% | 50.00% | 42.17% | 50.00% | 33.33% |
| Lack of consistency across countries' operations | 44.50% | 44.50% | 41.57% | 57.45% | 51.56% | 39.76% | 38.89% | 48.15% |
| Lack of c-suite or board-level support | 43.67% | 41.00% | 40.45% | 42.55% | 50.00% | 37.35% | 47.78% | 66.67% |
| Existing legacy IT infrastructure | 42.00% | 46.00% | 30.34% | 44.68% | 48.44% | 37.35% | 44.44% | 37.04% |
| Lack of funding | 36.83% | 36.00% | 29.21% | 40.43% | 39.06% | 34.94% | 44.44% | 37.04% |
| I don't see any top internal challenges currently | 0.67% | 1.00% | 1.12% | 2.13% | 0.00% | 0.00% | 0.00% | 0.00% |
| Other (please state) | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

What, if anything, do you see as the current top external challenges to achieving your objectives?

| | All | UK | Germany | Austria | Switzerland | Belgium | Netherlands | Luxembourg |
|--|--------|--------|---------|---------|-------------|---------|-------------|------------|
| Inconsistent regulation across geographies | 30.50% | 32.00% | 21.35% | 29.79% | 35.94% | 25.30% | 37.78% | 29.63% |
| Money laundering risk | 30.17% | 29.50% | 23.60% | 23.40% | 37.50% | 31.33% | 34.44% | 33.33% |
| Recession | 29.50% | 27.00% | 20.22% | 27.66% | 42.19% | 34.94% | 31.11% | 29.63% |
| Skills gaps/recruitment difficulties | 29.00% | 26.50% | 30.34% | 36.17% | 23.44% | 32.53% | 28.89% | 33.33% |
| Data security risk | 27.67% | 29.00% | 30.34% | 34.04% | 21.88% | 22.89% | 31.11% | 14.81% |
| Different data standards across borders | 27.33% | 30.00% | 25.84% | 34.04% | 23.44% | 24.10% | 25.56% | 25.93% |
| Different payment systems across borders | 27.17% | 25.00% | 24.72% | 25.53% | 34.38% | 24.10% | 26.67% | 48.15% |
| High customer expectations | 27.17% | 30.00% | 25.84% | 21.28% | 25.00% | 24.10% | 27.78% | 33.33% |
| Working from home operations | 25.50% | 27.50% | 17.98% | 21.28% | 28.13% | 24.10% | 27.78% | 33.33% |
| Regulation generally | 23.17% | 24.00% | 20.22% | 42.55% | 26.56% | 15.66% | 21.11% | 14.81% |
| I don't see any top external challenges currently | 0.33% | 1.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Other (please state) | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |

What parts of your job, if any, keeps you awake at night?

| | All | UK | Germany | Austria | Switzerland | Belgium | Netherlands | Luxembourg |
|--|--------|--------|---------|---------|-------------|---------|-------------|------------|
| Prefer not to say | 29.67% | 12.50% | 22.47% | 74.47% | 35.94% | 75.90% | 4.44% | 29.63% |
| No parts of my job keep me awake at night | 27.83% | 38.00% | 14.61% | 14.89% | 60.94% | 9.64% | 13.33% | 44.44% |
| Tech outage | 13.50% | 18.00% | 11.24% | 2.13% | 0.00% | 3.61% | 30.00% | 14.81% |
| Staff skills | 13.17% | 14.00% | 16.85% | 8.51% | 0.00% | 1.20% | 31.11% | 11.11% |
| Staying up to date with market developments | 13.17% | 12.50% | 12.36% | 2.13% | 0.00% | 7.23% | 35.56% | 14.81% |
| A major digital transformation project | 13.00% | 11.50% | 15.73% | 2.13% | 3.13% | 2.41% | 37.78% | 7.41% |
| Staff recruitment | 12.50% | 14.50% | 19.10% | 2.13% | 0.00% | 1.20% | 28.89% | 3.70% |
| Getting internal support for tech investment | 11.67% | 12.00% | 14.61% | 0.00% | 0.00% | 2.41% | 31.11% | 11.11% |
| Staying ahead of the competition | 11.17% | 14.50% | 13.48% | 4.26% | 0.00% | 3.61% | 22.22% | 3.70% |
| Security breach | 11.00% | 15.00% | 8.99% | 4.26% | 1.56% | 3.61% | 22.22% | 7.41% |
| Staff retention | 11.00% | 10.00% | 13.48% | 2.13% | 0.00% | 3.61% | 31.11% | 7.41% |
| Staff management | 10.33% | 11.50% | 12.36% | 0.00% | 1.56% | 2.41% | 26.67% | 3.70% |
| Other | 6.33% | 7.00% | 12.36% | 0.00% | 1.56% | 2.41% | 11.11% | 0.00% |

Sources

Source: CEO blog – Skills and talent in financial services – the impact of the pandemic, March 2021 https://financialservicesskills.org/news/eo-blog-skills-and-talent-in-financial-services-the-impact-of-the-pandemic

Source: AltFi State of the Market: Digital Banking Annual Report 2020, December 2020 https://www.altfi.com/research/digital-banking-state-of-the-market-report-2020-coming-soon



Banking Circle is the Payments Bank for the new economy. As a fully licensed bank, free of legacy systems, Banking Circle enables payments companies and banks of any scale to seize opportunities in the new economy - quickly, at low cost.

Banking Circle is a modern correspondent bank committed to building a local clearing network for all major currencies, to deliver the fastest, lowest cost payments, with no hidden fees for the beneficiary. It provides a suite of unique and award-winning banking solutions, including multi-currency banking accounts and Virtual IBANs, bank connections for local clearing and cross border payments, all underpinned by market leading compliance and security.

Through bespoke, flexible, scalable and futureproof solutions Banking Circle is enabling financial institutions to help their customers transact across borders in a way that was previously not possible.

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