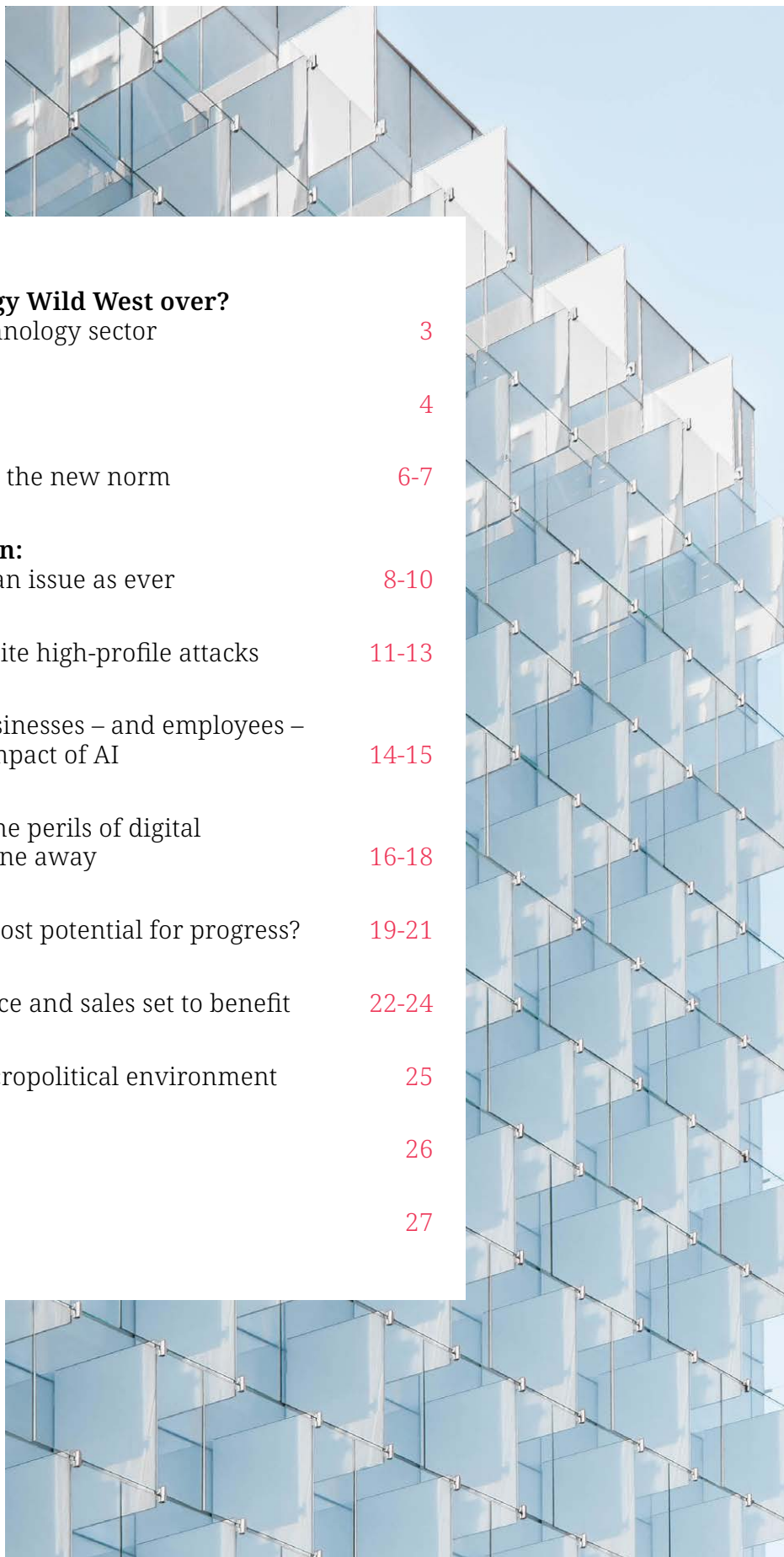


A NEW MATURITY FOR THE TECHNOLOGY SECTOR

Is the era of the technology Wild West over?

European Technology Index 2018



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Is the era of the technology Wild West over?

A new maturity for the technology sector

Background

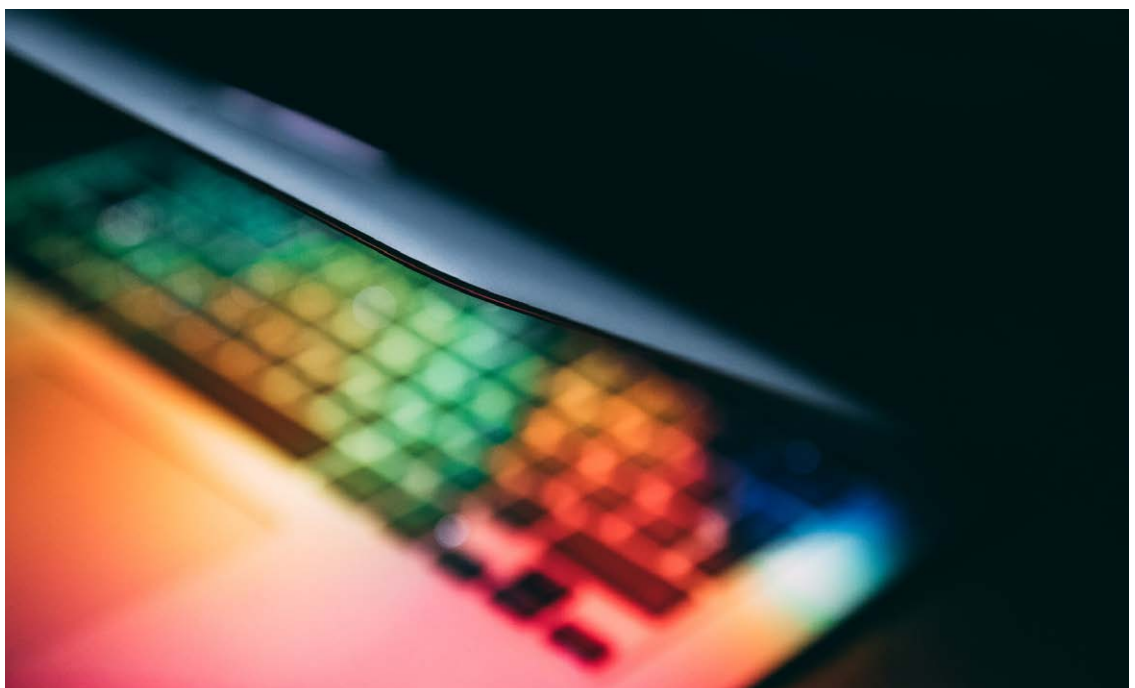
This is DLA Piper's fourth Tech Index study into the perceptions and attitudes of European technology growth. As ever, we review how attitudes are changing with regard to market developments, shifts in the financial regulatory landscape and government policies designed to spur business innovation in an increasingly uncertain and disruptive world.

We have generated some fascinating insights, speaking to 350 senior business executives across Europe from organizations in the fields of technology, financial services and the public sector, with turnovers from €10 million to over €10 billion.

Our 2018 report develops the 2016 focus on current important innovations and topics, including:

- cloud computing
- talent scarcity
- cybersecurity
- FinTech
- digital transformation
- big data

Full details of the research sampling and the methodology can be found in the Appendix on page 27.



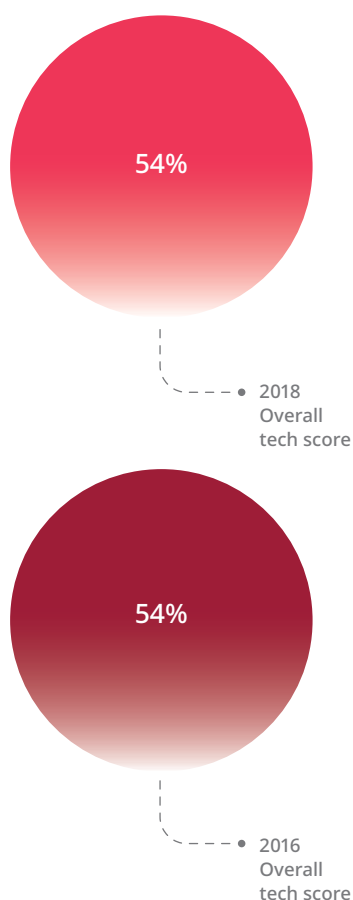
Executive summary

Tech Index: (Overall comparison) The maturing of technology

Despite the dynamic nature inherent in the technology sector, the fact that our 2018 Tech Index score is actually unchanged from 2016 (Fig 1.) suggests that we have entered an interesting new era. Previously emergent technologies in areas such as digital transformation, cloud computing and mobile computing are now more widely adopted than ever before and – notwithstanding some notable implementation failures – have undoubtedly reached a new level of market penetration and maturity. Interestingly, however, the means through which these concepts are achieved continues to develop rapidly, surfacing new challenges and opportunities in a fast and fluid tech landscape.

Fig 1.

Overall tech score



While superficially the individual scores that underpin the overall Index have moved very little between the 2016 and 2018 surveys (Fig 2.), there is plenty of information in the underlying data that points us to some more specific trends.

Overall, we are seeing that:

- Cloud computing adoption has reached a mature stage, and while some of the barriers to adoption persist, for most businesses these are now outweighed by the advantages.
- Issues with talent scarcity have never gone away, with the dynamism of emerging tech such as blockchain resulting in acute shortages of people with the desired talent in the newest technologies.
- Attitudes towards cybersecurity – like cloud – are maturing, with most businesses unsurprisingly aware of the threats, and with processes in place to mitigate associated risks; this doesn't mean they are complacent, just better protected.
- For many businesses, digital transformation seems to be a journey rather than a destination, as emerging technologies disrupt already digitized processes, creating budget pressures not foreseen when digital transformation projects were initiated.
- FinTech has clear strong potential for growth, though one of the barriers to more widespread adoption is the need for regulatory compliance at a time where the rate of development in some of the technologies has outstripped the regulatory framework meant to govern it.
- The adoption of big data as a business resource is now spreading across the enterprise to finance and sales teams.

Base: Total respondents 2018 (350) 2016 (357)

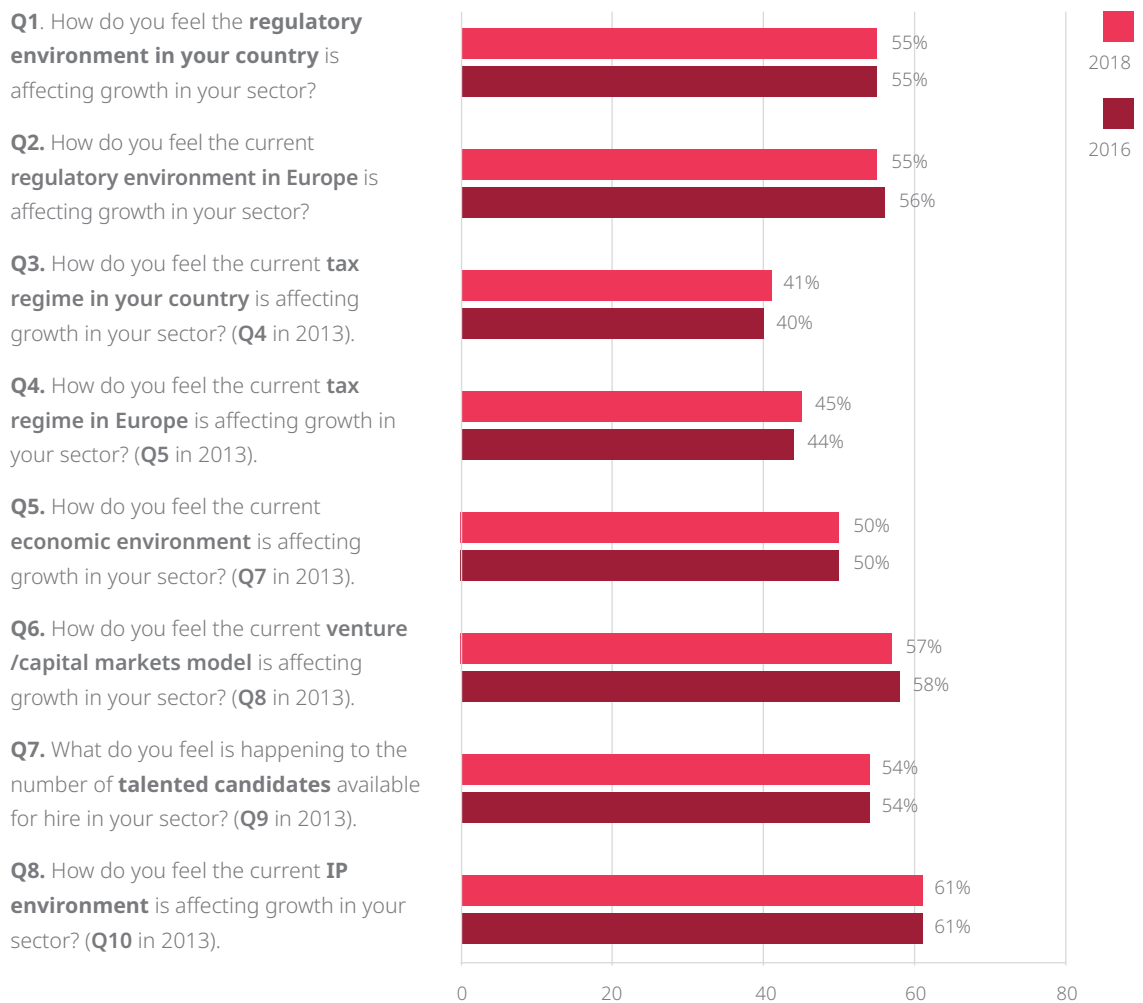
Detail for tech index calculation can be found in the appendix.

Comparing overall scores between our 2018 v 2016 data

Fig 2.

Eight questions are used to create the overall tech score

For the eight questions below that were used to create the overall tech score, the scores reflect the net percentage of respondents that considered each item in bold was improving growth in their country/region/sector. (See page 15 for calculation detail.)



Base: Total respondents 2018 (350) 2016 (357)
Detail for tech index calculation can be found in the Appendix.



Kit Burden,
Partner and global co-head of
Technology sector, DLA Piper

Cloud computing

Cloud is the new norm

Cloud computing is now widespread – the new norm – with just 8 percent of respondents claiming that their business does not have a cloud strategy in 2018, against 14 percent in 2016 (Fig 3.).

Widespread familiarity with the benefits of cloud is borne out by the fact that there was increased visibility of all eight cloud computing benefits presented to respondents in 2018, compared to two years earlier.

However, cloud's widespread adoption also means that its future transformational potential is seen as more limited than other more recent technological developments such as the internet of things (IoT).

Cost was a key cloud computing adoption barrier in the public sector, where it was cited as the most significant drawback (62 percent of respondents). Although overall worries about cost have reduced from 48 percent in 2016 to 43 percent in 2018, perhaps reflecting a subtle move away from government austerity (Fig 4.).

The system scalability that cloud computing can bring remains the most widely-recognized key benefit (particularly in the public sector, where 81 percent thought scalability is key), and there is also greater confidence about the security/privacy challenges that cloud computing presents, with this concern tending to decrease even further in the larger companies surveyed.

Interestingly, in a period where GDPR challenges have been prominent in the industry, one might have expected security and data privacy to have risen in prominence as a key drawback of cloud computing. However, this showed the largest fall, from 55 percent citing data security/privacy as a drawback in 2016 (and 62 percent in the 2012 survey) down to 47 percent in 2018. This clearly reflects a maturity of outlook on cloud computing across all businesses.

This may well be because in an era of tighter regulation, businesses are increasingly seeing that aggregating all their data in the cloud makes visibility and control of that data much more efficient – as opposed to hosting data on premises in a network of unconnected servers.

The DLA Piper view:

“We are now entering a new phase of cloud adoption – ‘the enterprise cloud’. Put simply, organizations have become comfortable with the pros and cons of larger-scale cloud adoption and are looking to place more business critical and substantial solutions into the cloud, which in turn places the spotlight on the contract terms to make sure that the balance between risk and reward remains in place.”

– Kit Burden, partner and global co-head of Technology sector, DLA Piper

Fig 3.

Benefits of cloud features

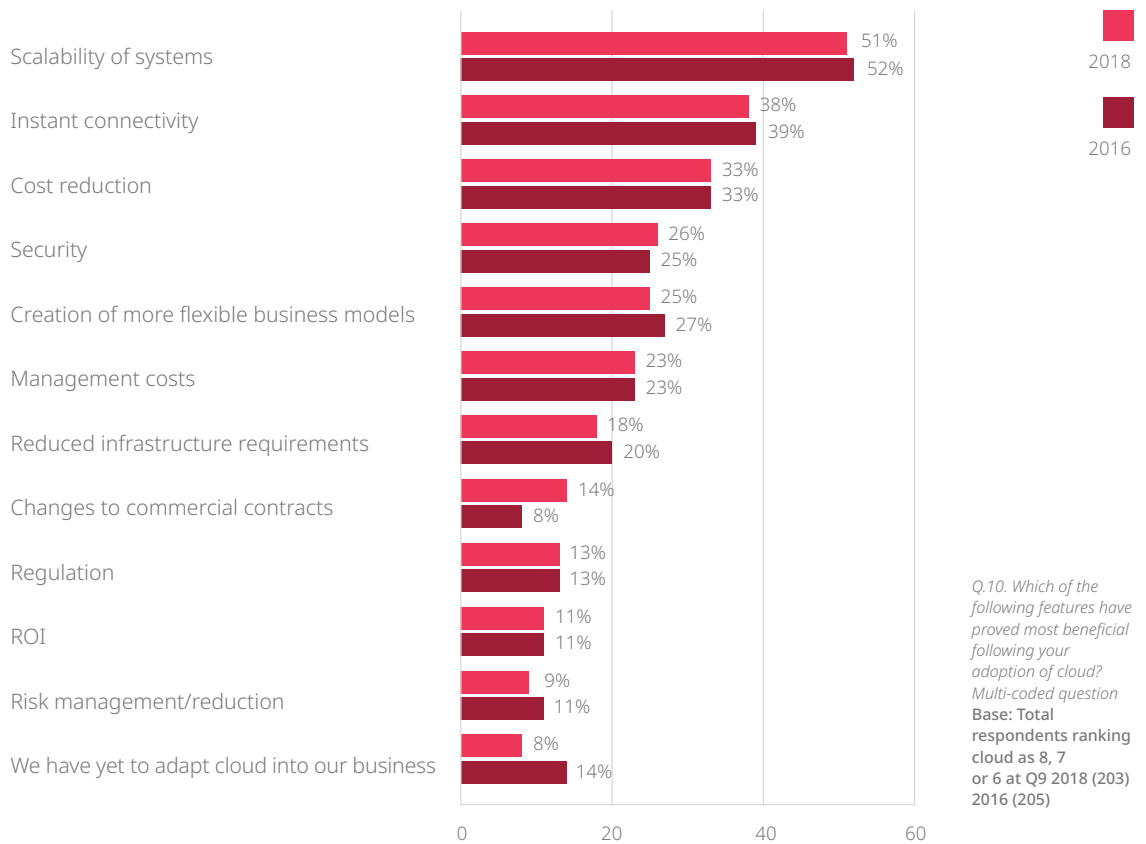
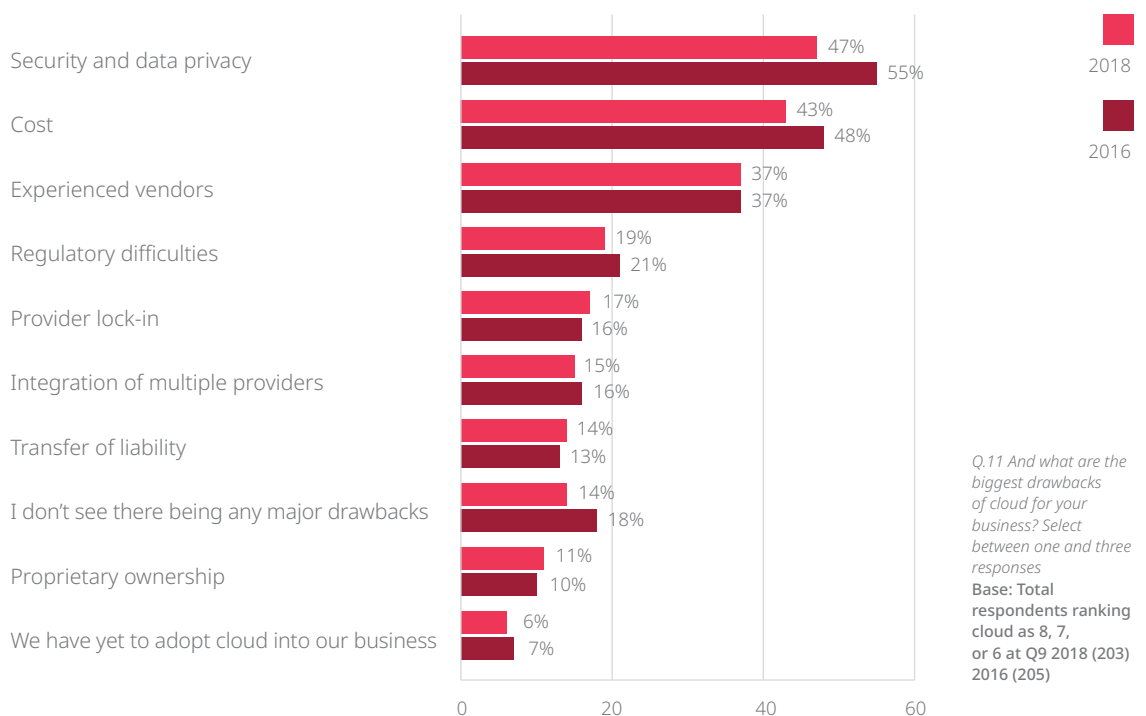


Fig 4.

Drawbacks of cloud



Recruitment and retention

Talent scarcity as pressing an issue as ever

As existing technologies mature, new technologies appear (e.g. blockchain) and the scarcity of people with the required skills and experience to exploit the technology can become acute. So, while the underlying technologies change over time, the challenge of attracting and retaining staff with the requisite skills features more than ever in our Index. For example, a lack of staff expertise/availability in robotics remains the key barrier to the adoption of AI across all businesses (52 percent of respondents).

Each of the six factors presented as having an impact on recruitment was given a higher score in 2018 versus 2016, with job-market flexibility remaining the most prominent (62 percent of respondents selecting recruitment of quality talent as the highest potential for business growth in 2018, versus 55 percent in 2016) (Fig 5.).

The impact of education on recruitment was markedly higher in the public sector, 67 percent, than in financial services, 34 percent.

Compared to 2016, however, there is a clear sense that businesses have been making more targeted efforts to raise staff skills and abilities. Fewer businesses overall felt the need to improve on their current efforts, with the biggest falls in emphasis being company sponsorship (down from 52 percent to 45 percent); education (down from 46 percent to 38 percent); and the level of technology/technological advancement in the company (down from 43 percent to 32 percent) (Fig 6.).

Having clear progression plans remains the most positively-viewed method of retaining talented staff (mentioned by 59 percent of respondents in 2018), along with training generally (48 percent overall, with particular prominence among financial services, 58 percent) and an improved work/life balance (41 percent overall, with particular prominence in the public sector, 48 percent) (Fig 7.). It is notable though that remuneration, having been mentioned by 42 percent of respondents as a favored recruitment tool in 2016, was mentioned by only 32 percent of respondents in 2018. For technology companies, remuneration was actually the third-lowest retention method mentioned (out of eight), only ahead of share incentives and restrictive covenants. Restrictive covenants themselves were the lowest favored method for all sectors, with just 8 percent of respondents citing them as one of the best retention methods, down from 11 percent in 2016 and 20 percent in 2012.

With regard to encouraging an entrepreneurial spirit among talented staff, all methods either remained the same or achieved fewer mentions in 2018 compared to 2016 (Fig 8.). A positive view of this may be that generally in 2018 organizations believe they have already attained a more entrepreneurial culture than those surveyed in 2016, since new technology can foster more entrepreneurial flair. So, the various means through which such a culture could be engendered (leadership, training and incentivization remaining the most popular – with training scoring 72 percent in the public sector) were seen as less important now than they were two years ago. Interestingly, flexible working as a retention tool was mentioned by less than half as many Benelux respondents (13 percent) compared to all respondents (27 percent) and those in Western Europe (32 percent).

The DLA Piper view:

“It’s fascinating that businesses are increasingly of the view that positive retention strategies are more valued than contractual restrictions – such as covenants – which are sometimes viewed as ineffective. This needn’t be the case, however – particularly for the most senior executive contracts – and we have wide experience in constructing equitable employment agreements that protect the employer’s interests as well as the employee’s.”

– Clare Gregory, partner, DLA Piper

Fig 5.

Areas that impact recruitment

Q.26 Which of the following will impact on the recruitment of talented staff? Single-coded question
Base: Total respondents ranking recruitment of quality talent as 8, 7 or 6 at Q9 2018 (222) 2016 (220)

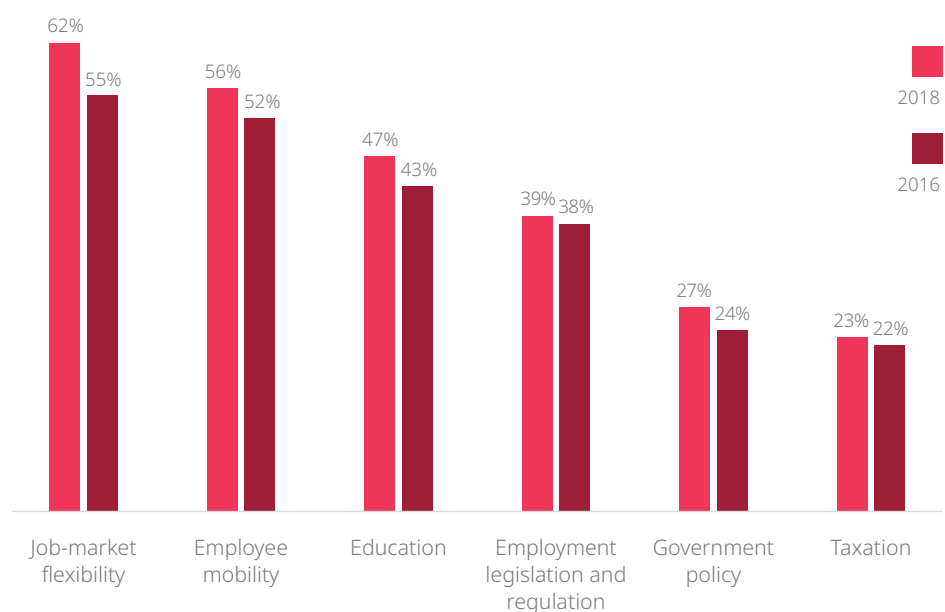


Fig 6.

Areas that need to be improved to raise quality of talented staff

Q.27. What areas need to be improved in order to raise the quality of talented staff? Multi-coded question
Base: Total respondents ranking recruitment of quality talent as 8, 7 and 6 at Q9 2018 (222) 2016 (220)

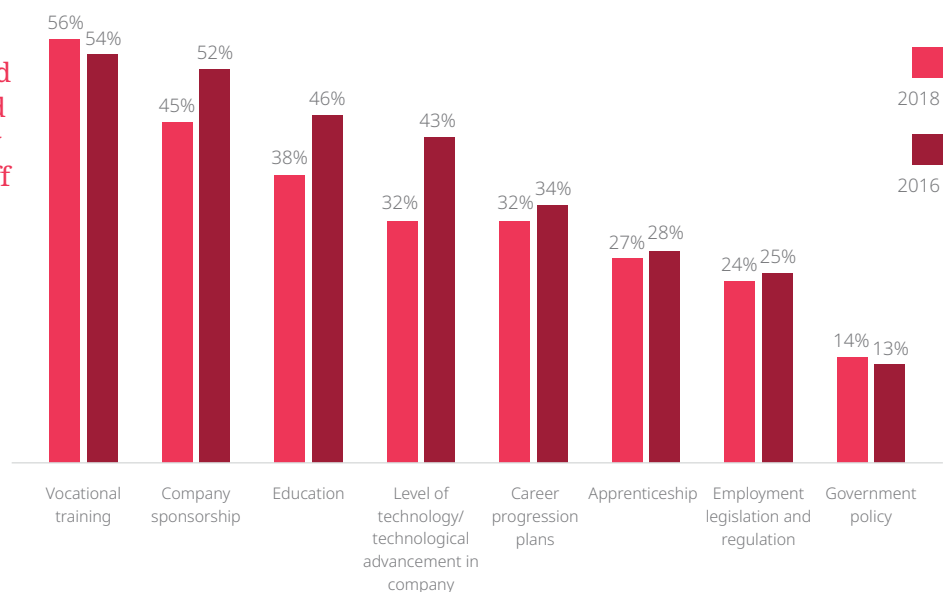


Fig 7.

Best method of retaining talented staff

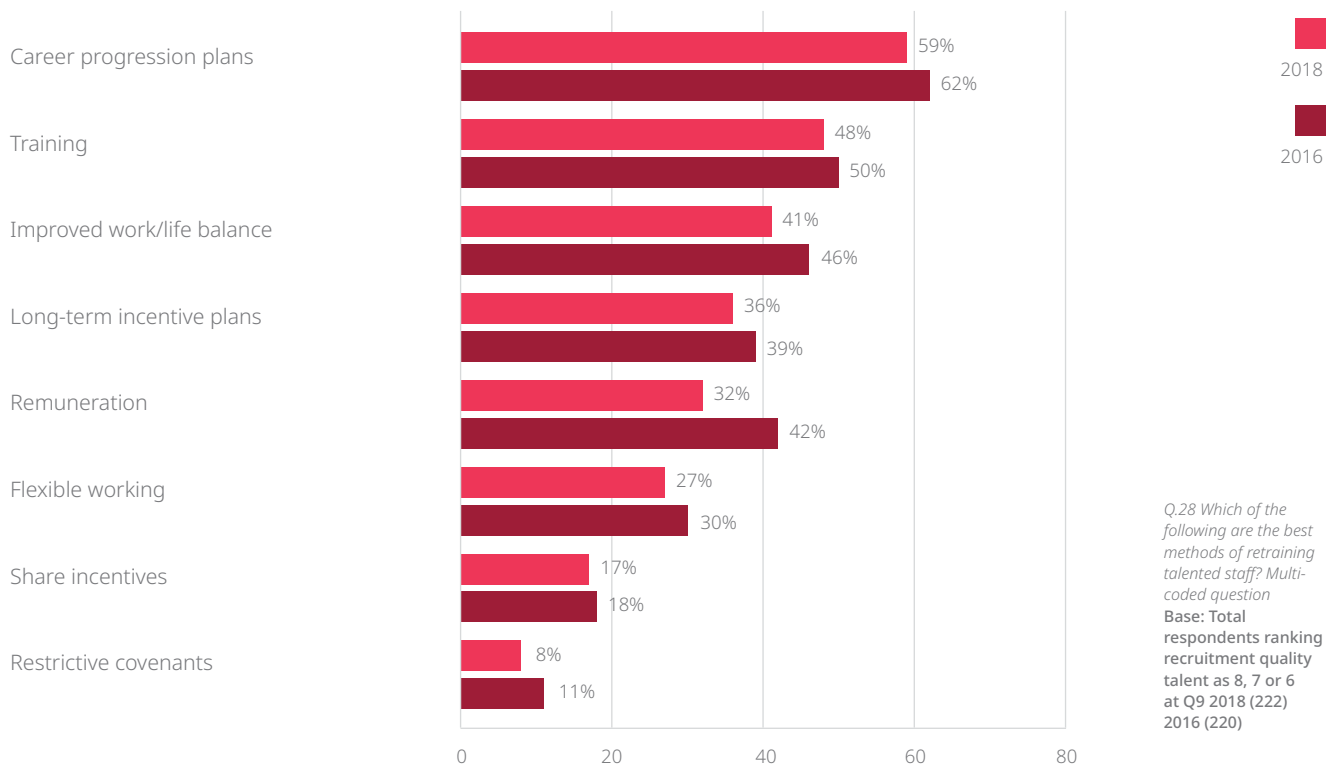
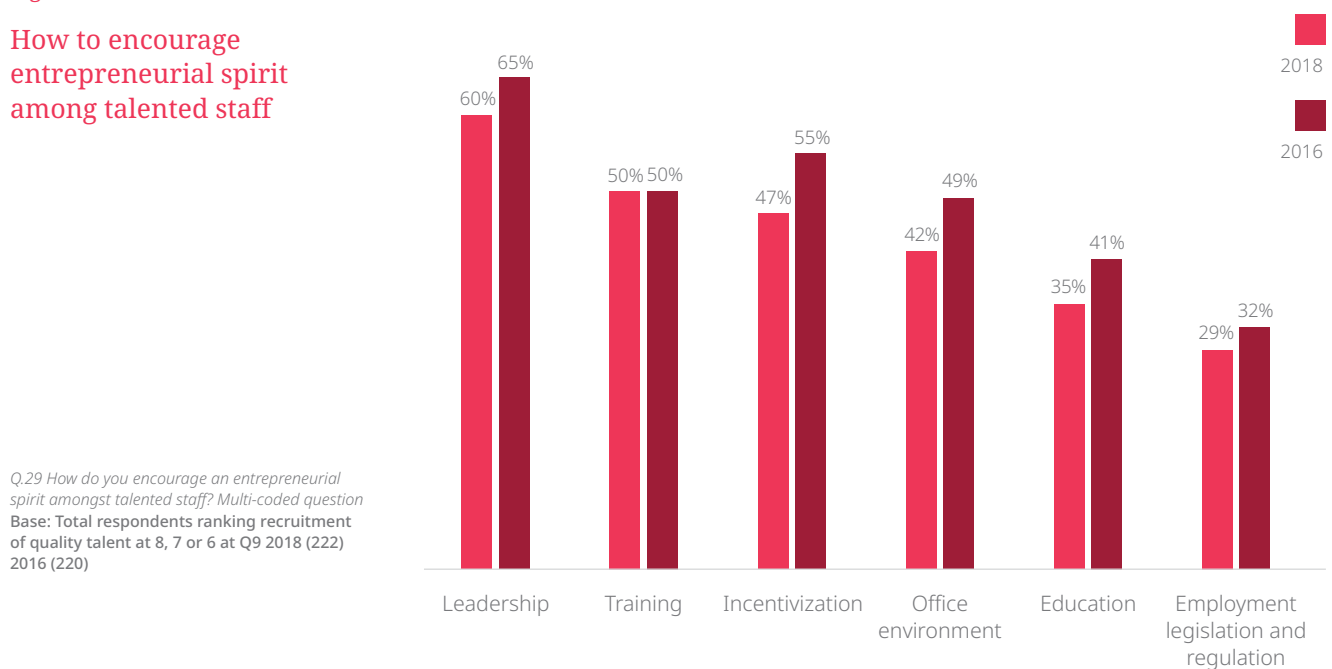


Fig 8.

How to encourage entrepreneurial spirit among talented staff



Cybersecurity

Stable despite high-profile attacks

Although we live in an age of increased awareness of high-profile security attacks such as NotPetya and WannaCry, it is salutary to learn that the proportion of respondents feeling their company is extremely secure (23 percent) or fairly secure (73 percent) are largely unchanged from our 2016 Tech Index survey. This suggests that while the dangers of ransomware attacks and the like are very real, most businesses have not been spooked by them, and have taken clear steps to ensure that their businesses are as well protected as they reasonably can be (or need to be to meet regulatory needs) (Fig 9.).

This isn't to say that businesses are complacent about the threat: when asked "How worried are you about the possibility of a cyberattack/breach on your company?", 44 percent of businesses overall scored 8, 9 or 10 (where 10 is extremely worried). Though perhaps of more concern should be that this number rose to 60 percent in the public sector and 61 percent in businesses employing over 10,000 staff.

Perhaps the confidence about being ready to face off a cyberattack is borne out by the finding that 75 percent of all companies surveyed claimed to have a cybersecurity incident-response plan in place for their business, rising to 87 percent for the largest businesses (Fig 10.).

Fig 9.

Level of security against cyberattack

Q. 30 How secure or unsecure do you think your company is in terms of cybersecurity measures?
Single-coded question
Q.32 On a scale of 1-10, where 10 is extremely worried and 1 is not worried at all, how worried are you about the possibility of a cyberattack/breach on your company?
Single-coded question
Base: Total respondents ranking cybersecurity as 8, 7 or 6 at Q9 2018 (218) 2016 (220)

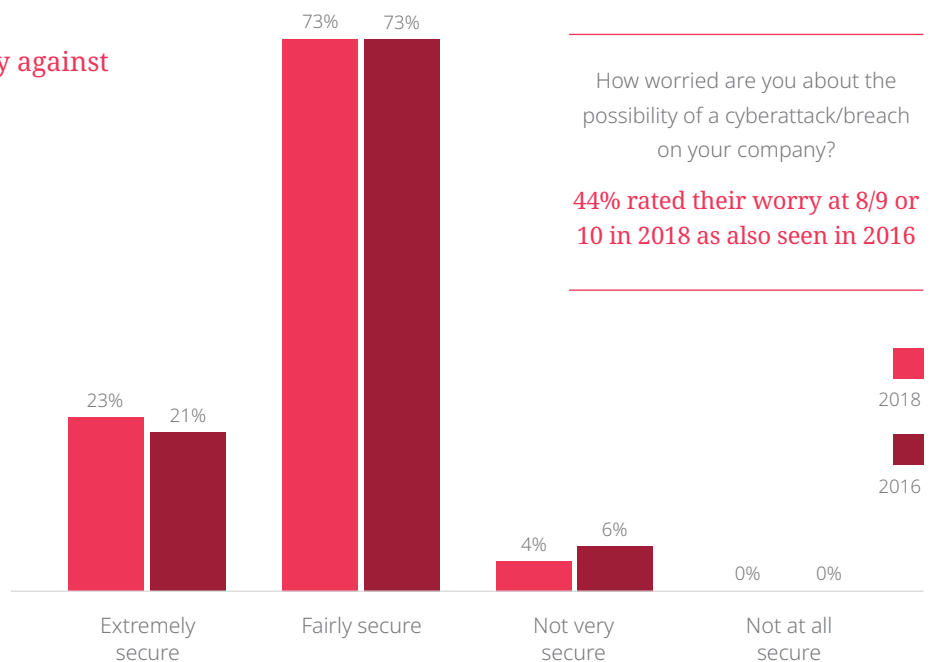
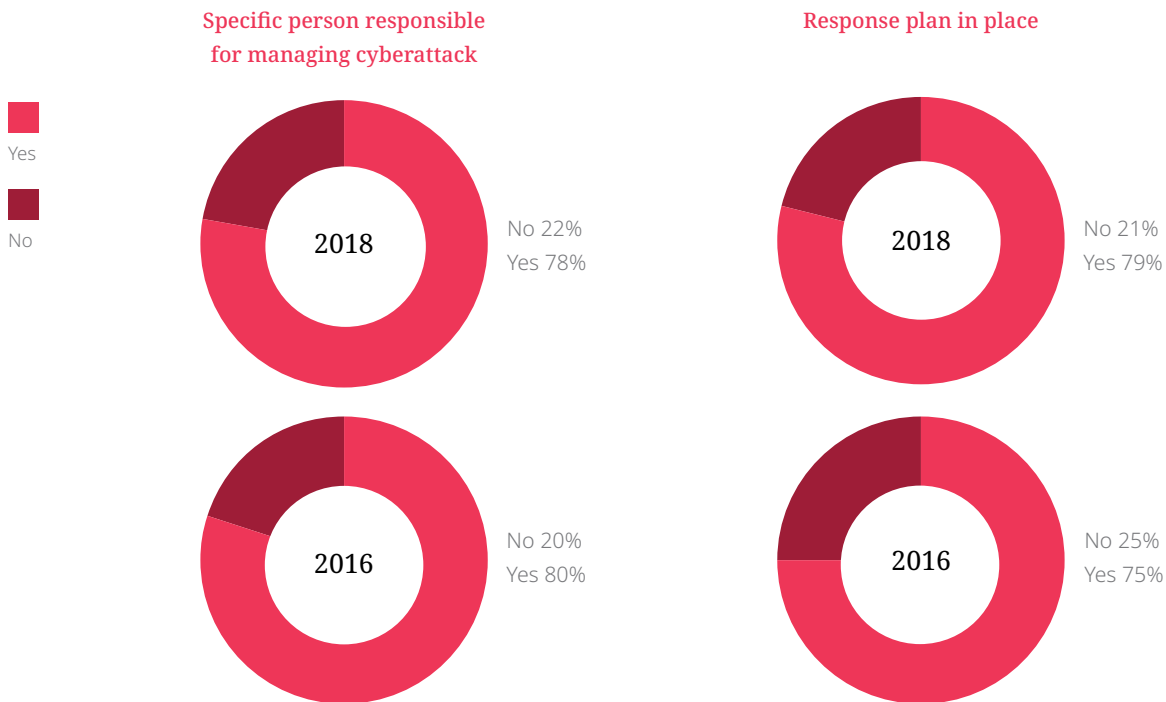


Fig 10.

Procedures in place for managing cyberattack



Q.33 Do you have a person charged with the specific responsibility for managing the response to a cyberattack and communicating with all stakeholders? Single-coded question.

Q.34 Do you have a specific cyberincident response plan in place for your company? Single-coded question

Base: Total respondents ranking cybersecurity as 8, 7 or 6 at Q9 2018 (218) 2015 (220)

The DLA Piper view:

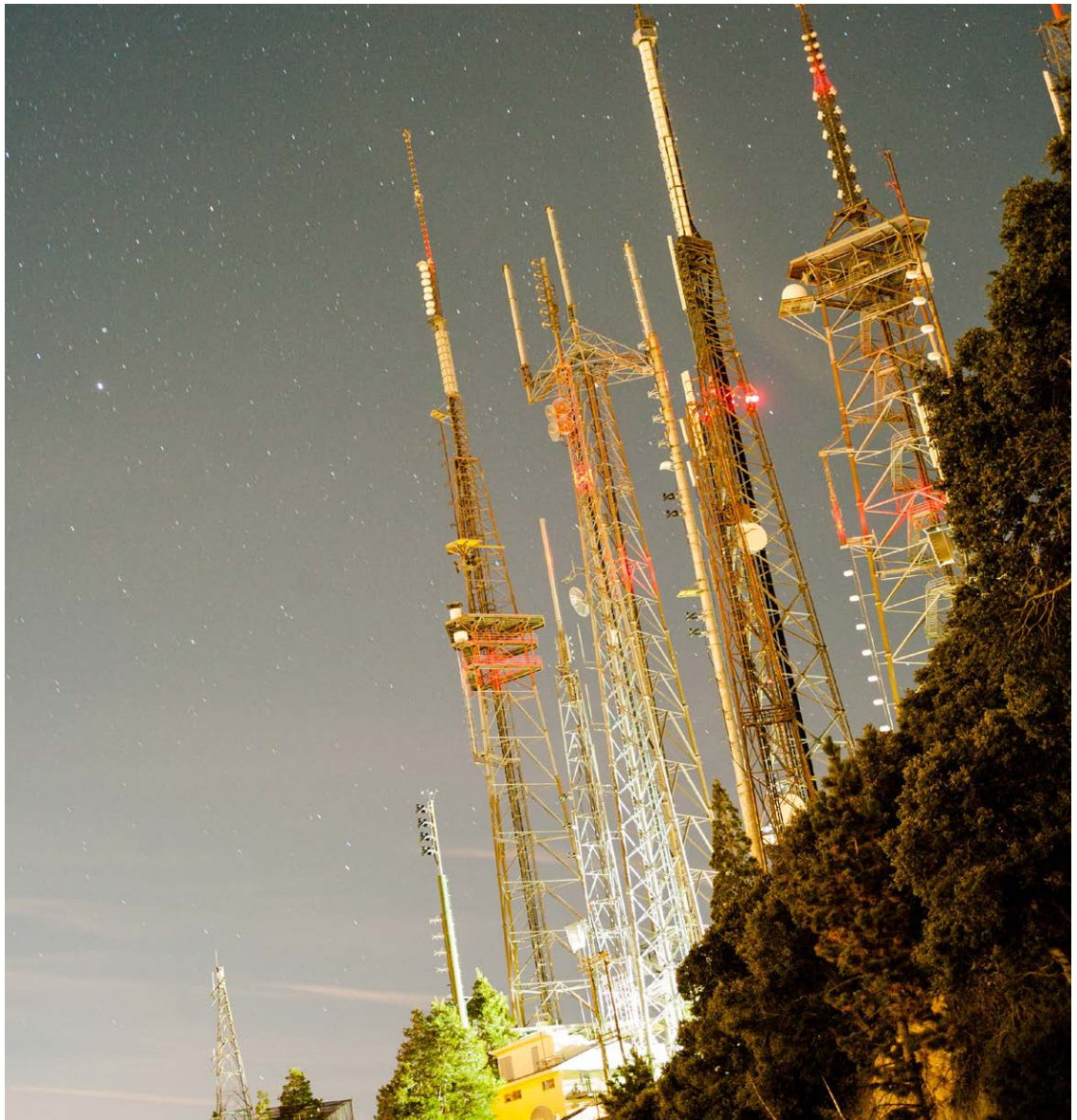
“While the overall picture is encouraging, the fact that a small cohort of respondents were candid enough to admit that they felt their organization was ‘not very secure’ should set some alarm bells ringing, and that despite the readiness of even the best-prepared businesses to see off an attack, those threats remain very real. Limiting a business’s legal liability in such an attack is an important mitigant should the worst occur, and we have deep experience in setting up contracts that ensure a client’s liability in such an event is not disproportionate.”

– Andrew Dyson, partner, DLA Piper

“Over the past year, company boards have increased their understanding of the impacts of cyberincidents within their organizations. A major benefit of this is increased investment and a maturing of incident-response plans and procedures.

“However, when responding to breaches we are finding the maturity level varies. In particular, (1) many companies fail to make a holistic plan to protect the organization’s assets, and (2) inadequate implementation of the most basic security controls. The area will continue to need high levels of investment and management attention.”

– Bill Hau, vice president, Cylance Security Consulting and author of *Born 2 Hack* (www.born2hack.life)



Artificial intelligence

Businesses – and employees – more sanguine about the impact of AI

Another support to the hypothesis that the Wild West days of tech are ending is the increased acceptance of AI. Our research suggests that as AI increases its reach across businesses in all sectors, the fear factor that initially inhibited its growth seems to be declining.

This is evidenced by the fact that in our 2016 Index, almost half (47 percent) of respondents agreed that a key drawback of AI was potential job losses. In our 2018 Index, this sentiment had dropped to just over a third (36 percent) (Fig 11.).

Other perceived drawbacks such as incompatibility (33 percent in 2016, 26 percent in 2018) and security (35 percent in 2016, 31 percent in 2018) are now less prevalent. However, that's not to say there aren't still challenges with the adoption of AI; indeed, those perceiving the level of investment required as a barrier actually increased slightly (from 46 percent to 50 percent).

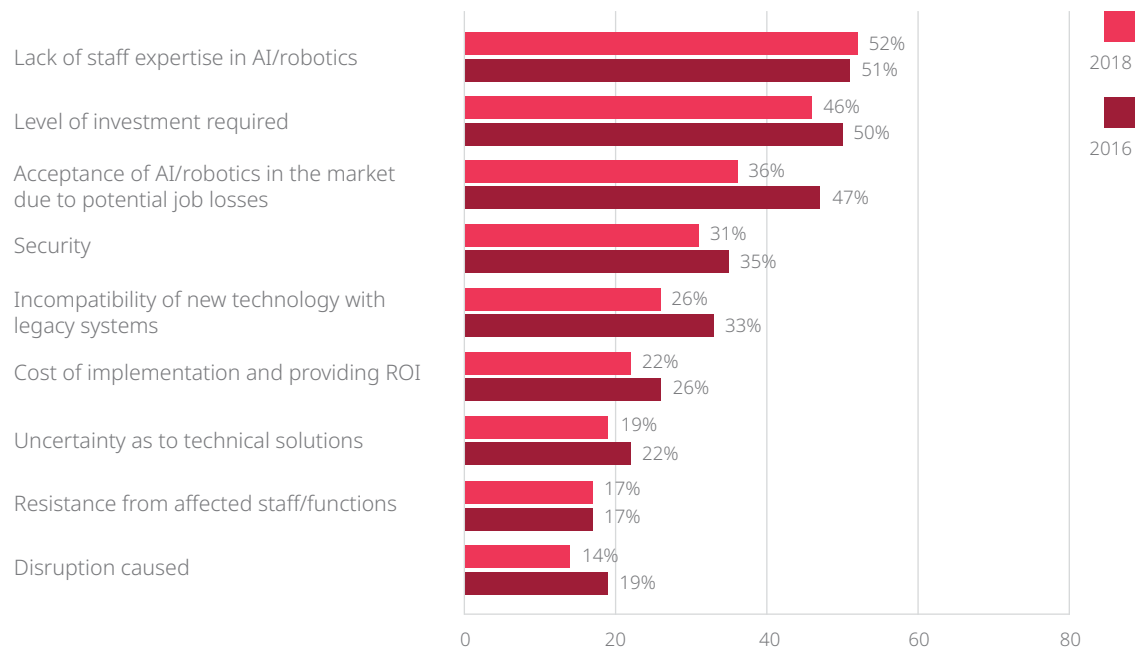


“AI has an image problem, created by Hollywood and worsened by mass media. In reality, the prospect of sentient AI (hard AI) is as remote as ever and, notwithstanding the warnings from Musk and Hawking, the AI toolkit can be a serious force for good. Key to this will be to avoid creating a system of law and regulation for the machine-intelligence world that sits alongside the existing system of law and regulation for humans. Instead, as the recent House of Lords Select Committee Report in the UK has shown (‘AI in the UK: ready willing and able?’), the business opportunities arising from AI, combined with an ethical framework running to the core of the narrative, will truly herald the Fourth Industrial Revolution.”

– Mark O’Conor, DLA Piper London and chair of the Society for Computers and Law

Fig 11.

Drawbacks of AI/robotics



Q.36 What are the drawbacks of the implementation of AI/robotics in your company? Multi-coded question
 Base: Total respondents ranking AI/robotics as 8, 7, or 6 at Q9 2018 (145) 2016 (139)

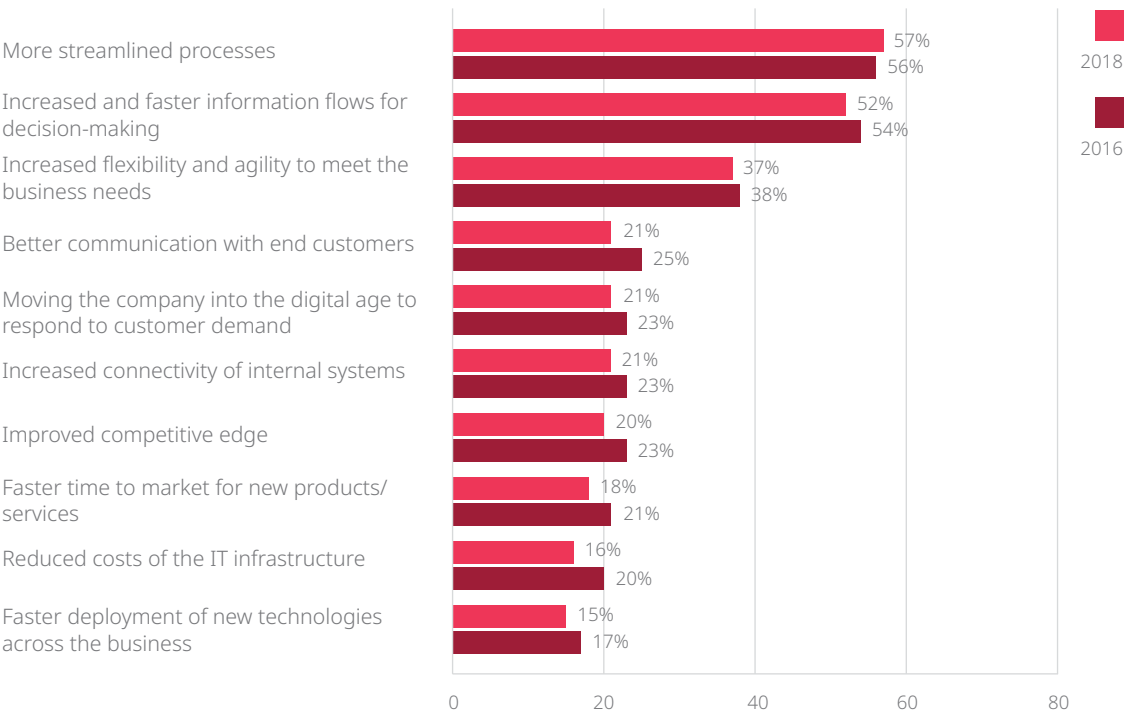


Digital transformation

The perils of digital transformation have not gone away

The key benefits of digital transformation are still widely seen as having more streamlined processes (57 percent of respondents overall, and especially in Benelux where it scored 69 percent) and increased and faster information flows for improved decision-making (52 percent overall, and especially in the public sector where it scored 82 percent) (Fig 12).

Fig 12.
Benefits of digital transformation



Q.46 What are the greatest benefits driving digital transformation within the company? Multi-colored question
Base: Total respondents ranking digital transformation as 8, 7 or 6 at Q9 2018 (214) 2016 (211)

Conversely, the various drawbacks of digital transformation in 2018 all seem more prominent among respondents than in 2016 – suggesting that as management’s experience of digital transformation deepens, and planned programs from 2016 are rolled out, there is more widespread skepticism about ease of implementation.

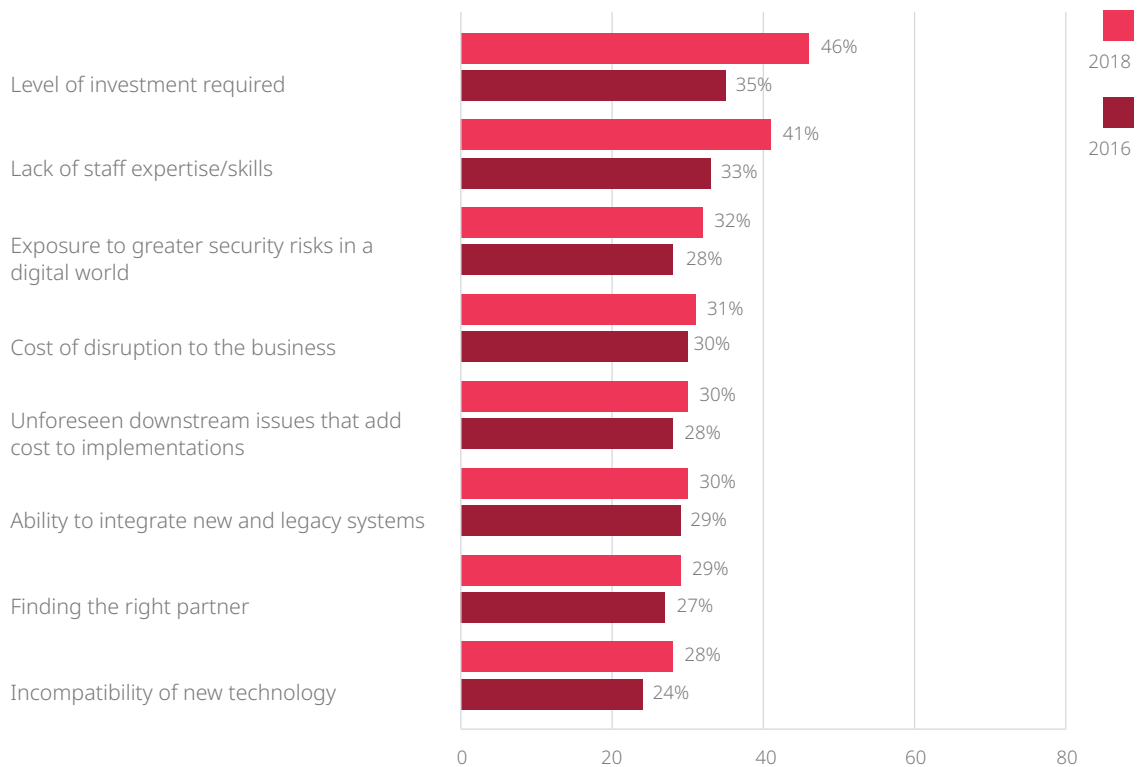
Prominent issues in this regard (Fig 13.) are the level of investment required (cited by 46 percent of respondents in 2018 v 35 percent in 2016), and the lack of staff expertise/ skills to deliver it (cited by 41 percent of respondents in 2018 v 33 percent in 2016). These finance and resource issues present a challenge for IT implementers, potentially exposing

them to past perceptions of poor planning and difficulty delivering programs on time and to budget.

As a further consideration, as well as the level of investment required, over 30 percent of respondents cited the cost of disruption to the business as a drawback, and the cost of unforeseen downstream issues.

Fig 13.

Drawbacks of digital transformation



Q.47 What are the drawbacks of the implementation of digital transformation in your company? Multi-coded
 Base: Total respondents ranking digital transformation as 8, 7 or 6 at Q9 2018 (214) 2016 (211)

Nevertheless, the imperative for digital transformation remains as strong in 2018 as it was in 2016, with over 60 percent of respondents again agreeing they need to transform (Fig 14.). But the challenge is to ensure

that a currently poor process is not simply digitized, as the time should be taken to review the process first, redesign it and then digitized the newly formed activity.

Fig 14.

Importance of digital transformation

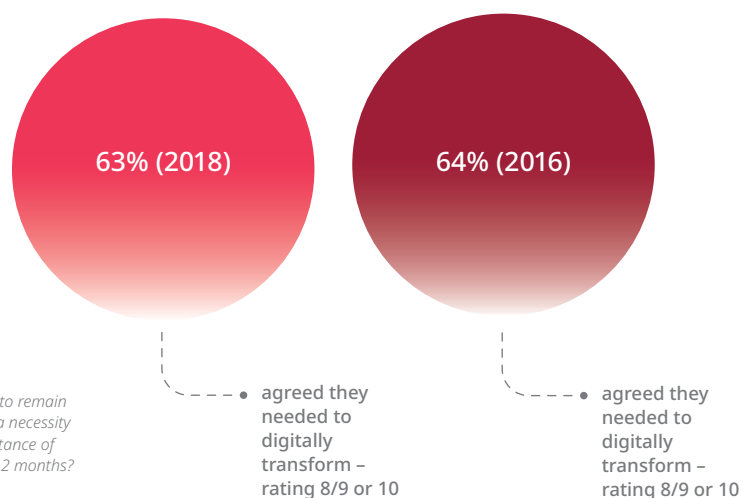
Scale:

1 – Not a necessity

10 – We need to digitally transform to remain competitive

Q.49 On a scale of 10, (we need to digitally transform to remain competitive) down to 1, (digital transformation is not a necessity at all for our business), how would you rate the importance of digital transformation for the business over the next 12 months?
 Single-coded question

Base: Total respondents ranking digital transformation as 8, 7 or 6 at Q9 2018 (214) 2016 (211)

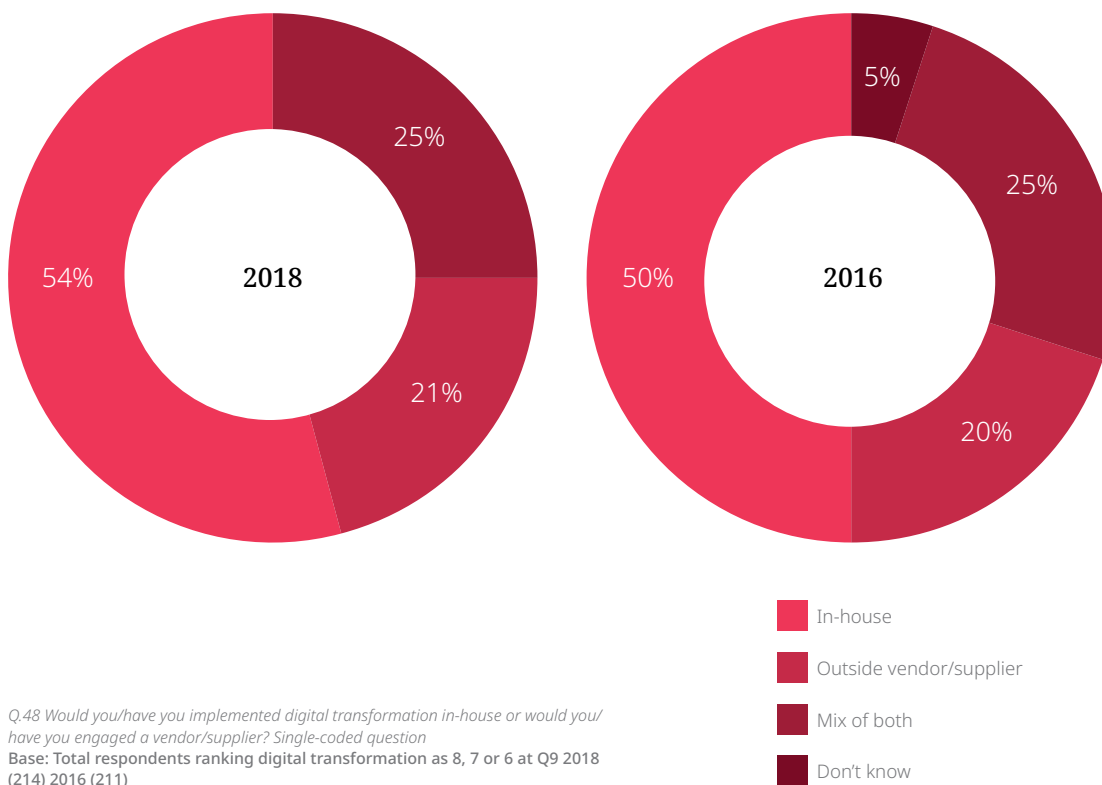


It's interesting to note that three-quarters of the businesses surveyed claimed to be using outsourced suppliers to some extent to implement their digital transformation program (Fig 15.). Clearly, finding the necessary resource in-house it remains a challenge,

but this also requires good project management from the client company to avoid unnecessary project overruns and to ensure that outcomes remain true to organizational objectives.

Fig 15.

Source of implementation of digital transformation



The DLA Piper view:

“It is perhaps surprising that the percentage of organizations who think they need to digitally transform has not moved much between 2016 and 2018 (64 percent to 63 percent). The demise of so many names on the high street, and disappearance of well-known product and brand names from the past who failed to see how technology was disrupting their business models, suggests to us that the number should be far higher, as even those organizations who have started to transform will in all likelihood still have some considerable way to go.”

– Kit Burden, partner and global co-head of Technology sector, DLA Piper

FinTech

What holds the most potential for progress?

Of those ranking FinTech in the top three for highest potential business growth, better functionality (55 percent) and more flexibility (43 percent) remain the top two benefits among respondents in 2018 (Fig 16.).

Indeed, better functionality was cited as a key benefit by 76 percent of respondents in Eastern Europe, suggesting system functionality may be a lingering issue for the region's financial services generally.

For financial services companies themselves though, faster company growth was viewed as the key benefit overall (42 percent of financial services respondents across Europe).

Overall, there were significant declines in those citing disruption caused (down to 31 percent in 2018 from 45 percent in 2016) and integration with legacy systems (down to 24 percent from 32 percent) as key drawbacks of FinTech, suggesting that businesses are now integrating new FinTech systems and processes with greater ease, perhaps due to greater experience (Fig 17.).

Nevertheless, meeting regulatory requirements (cited by 53 percent of 2018 respondents) remains the key challenge.

This year, for the first time, we asked respondents ranking FinTech in the top three for highest potential business growth, which areas they see having the most potential real value for customers being unleashed. The answers are an interesting mix, with cybersecurity (33 percent), blockchain (26 percent) and data analytics (24 percent) being cited most often (Fig 18.).

Given cybercurrency uses blockchain technology, it is interesting to note that only 14 percent of respondents to this question cited initial coin offerings (ICOs) as an area with the most potential across FinTech.

The DLA Piper view:

“It’s clear from the findings that while businesses are keen to leverage FinTech as a source of business growth, there are very real concerns about how this can be achieved in a way that complies with current legislation. DLA Piper is advising clients across the FinTech ecosystem on how to launch new products and services without falling foul of the regulatory regimes in the countries in which they operate.”

– Steven Krivinskas, partner, DLA Piper

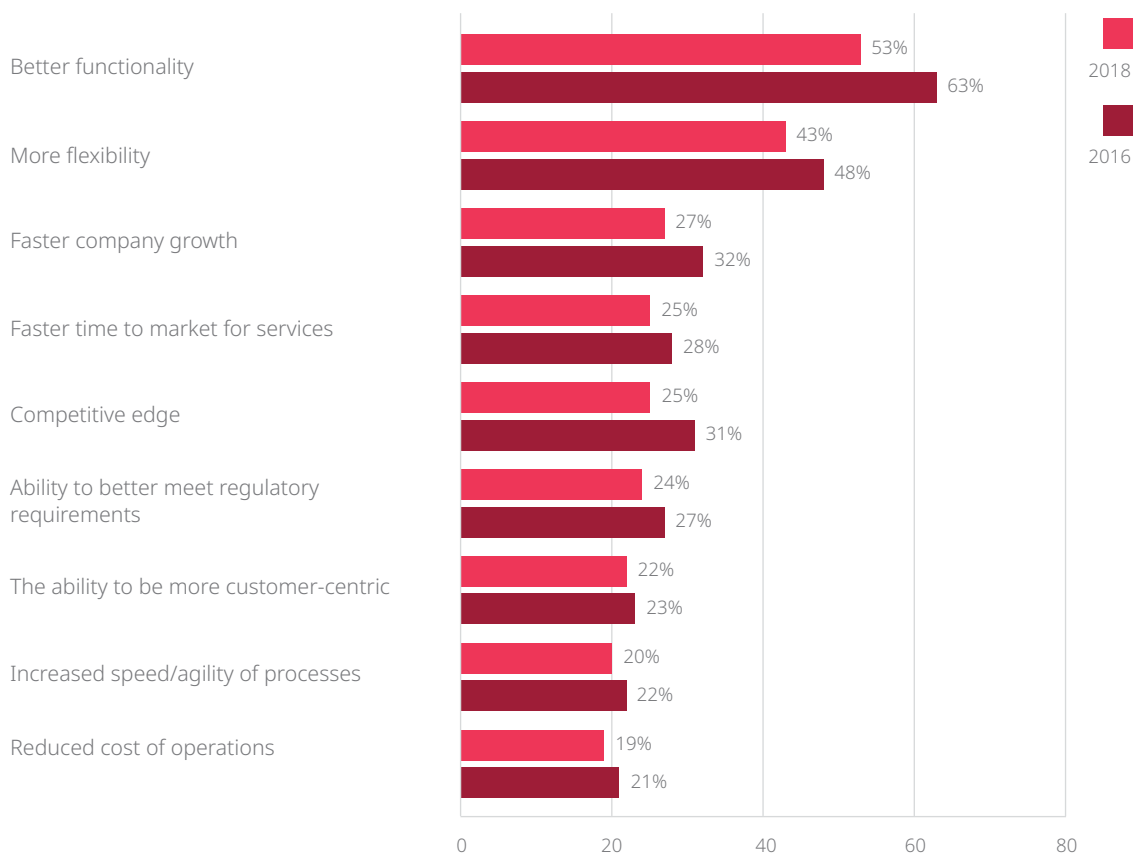
The DLA Piper view:

“Financial services providers are seeing and seizing the opportunities that open banking will bring – enabling innovation and competition with propositions that will ultimately help people move, manage and make the most of their money. This will play a significant part in benefiting the entire ecosystem, with the UK leading the way in setting these standards.”

– Imran Gulamhuseinwala OBE, trustee, Open Banking Implementation Entity, set up by the Competition and Markets Authority (CMA)

Fig 16.

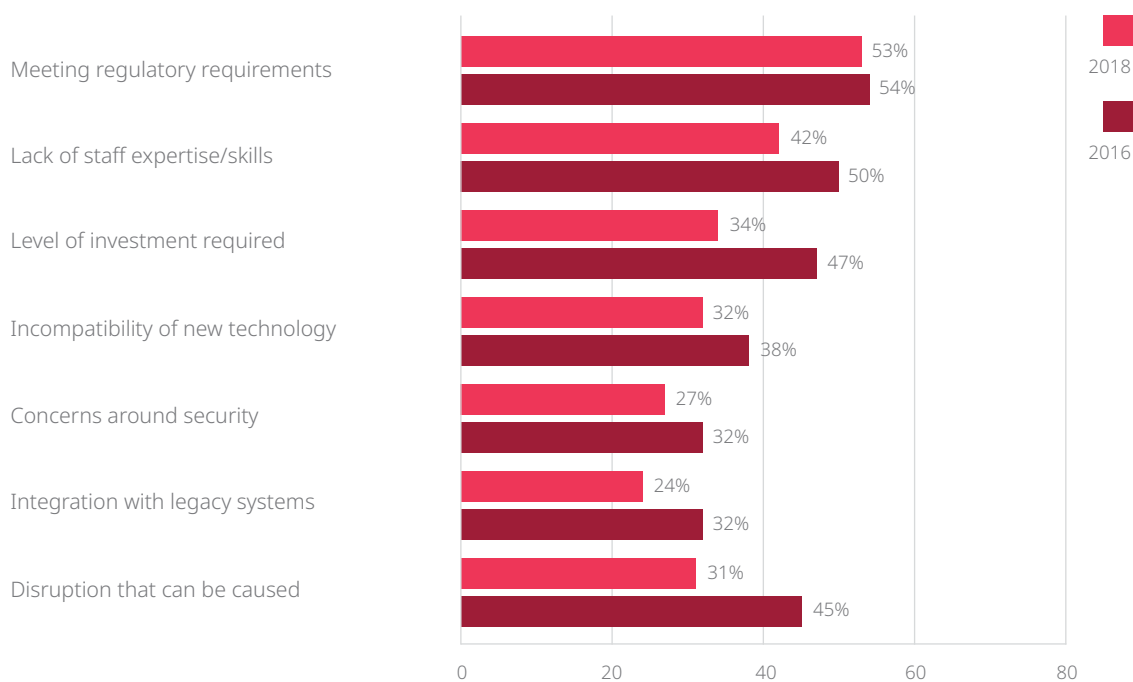
Benefits of FinTech



Q.39 What are the greatest benefits FinTech could offer your company? Multi-coded question
Base: Total respondents ranking FinTech as 8, 7 or 6 at Q9 2018 (116) 2016 (113)

Fig 17.

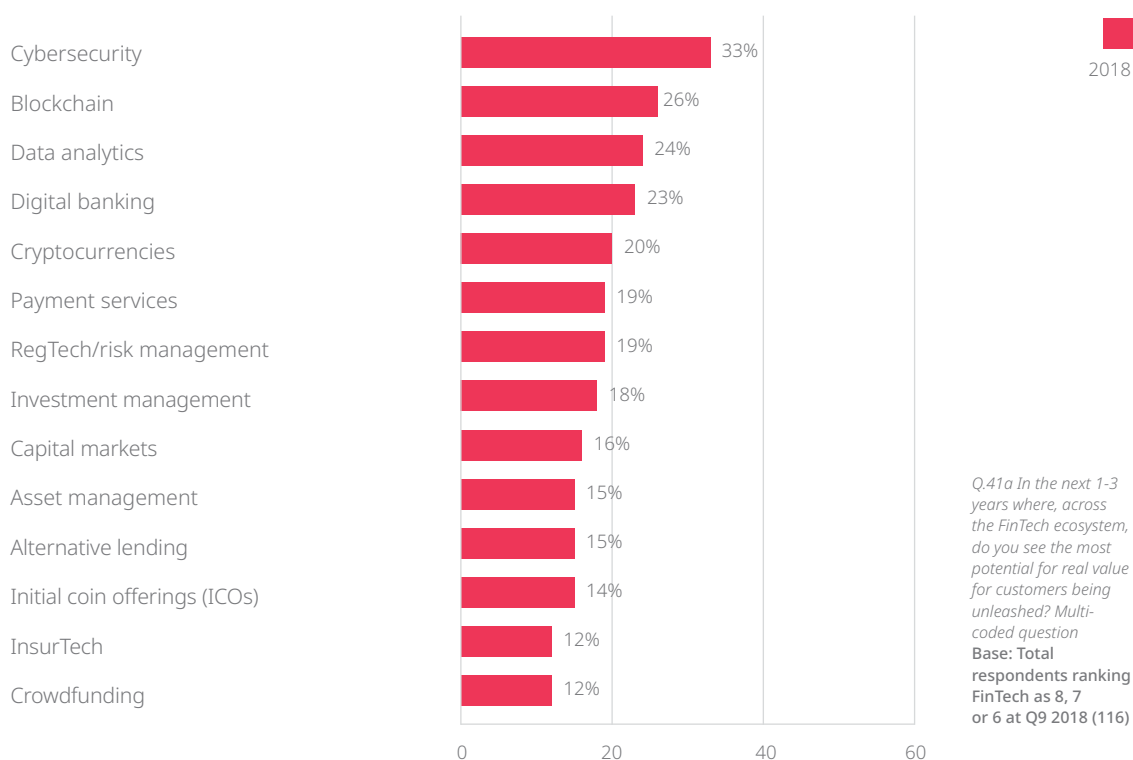
Drawbacks of FinTech



Q.40 What are the drawbacks of the implementation of FinTech in your company? Multi-coded question
 Base: Total respondents ranking FinTech as 8, 7 or 6 at Q9 2018 (116) 2016 (113)

Fig 18.

Area with most potential across the FinTech ecosystem



Big data / analytics

Finance and sales set to benefit

While IT remains the department cited as benefiting most from advances in big data / analytics (70 percent of 2018 respondents v 68 percent in 2016), there has been a significant increase in the percentage of respondents citing finance (22 percent in 2018, up from just 4 percent in 2016) and sales (21 percent in 2018, up from just 1 percent in 2016) as being set to benefit from these advances – with 32 percent of respondents in financial services institutions who answered this question citing sales (Fig 19.). This may reflect a much greater focus on the needs of the customer, having witnessed a drive for improved customer experience across all sectors over the last couple of years.

Optimizing business processes (54 percent in 2018) and encouraging innovation (52 percent in 2018) remain the most cited benefits of big data / analytics by respondents to this question (Fig 20.).

Overall, it would seem that the key challenges to implementing big data / analytics programs are starting

to decline as companies gain in experience, with marked decreases in those citing lack of skills/resources (down from 56 percent in 2016 to 46 percent in 2018) and collection and mining of data (down from 52 percent in 2016 to 41 percent in 2018). Yet protecting data itself remains the key challenge (58 percent of respondents in 2018) (Fig 21.).

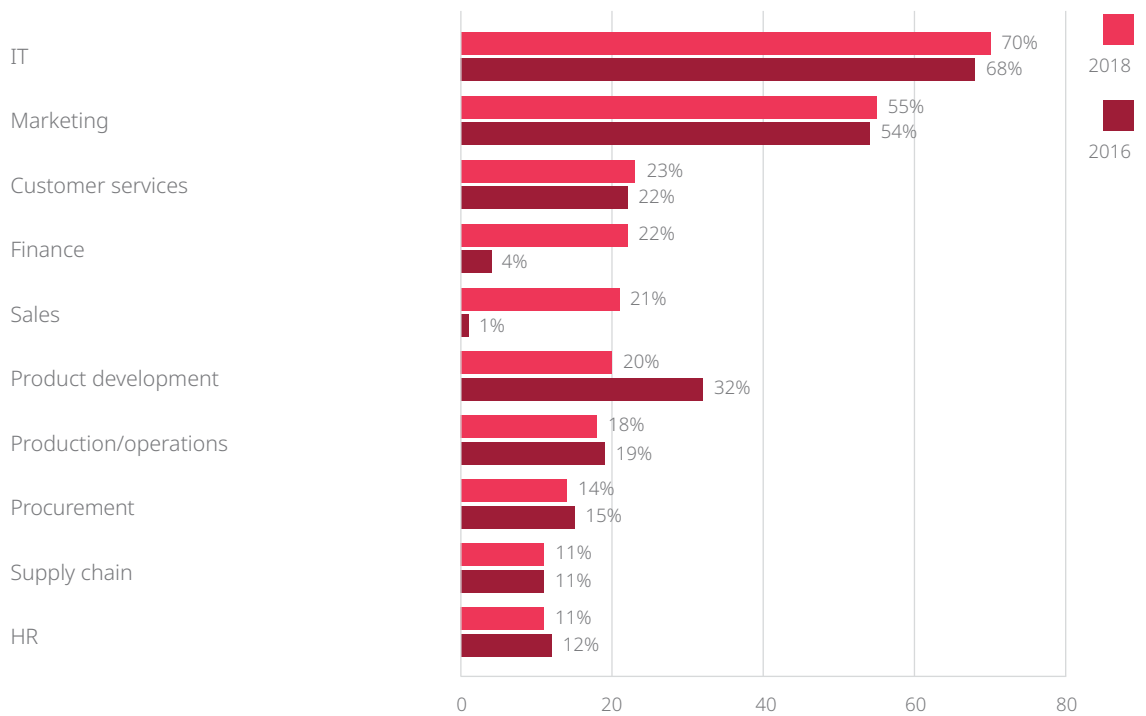
The DLA Piper view:

“Data security again comes up as a theme that is potentially holding back some businesses from maximizing their leverage from the big data / analytics landscape – which is a shame, as there are considerable competitive gains to be made, especially in the drive to be more customer-centric. If you are uncertain about how to mitigate your business’s position with regard to data security, please do talk to us.”

Ross McKean, partner, DLA Piper

Fig 19.

Department to benefit the most from big data

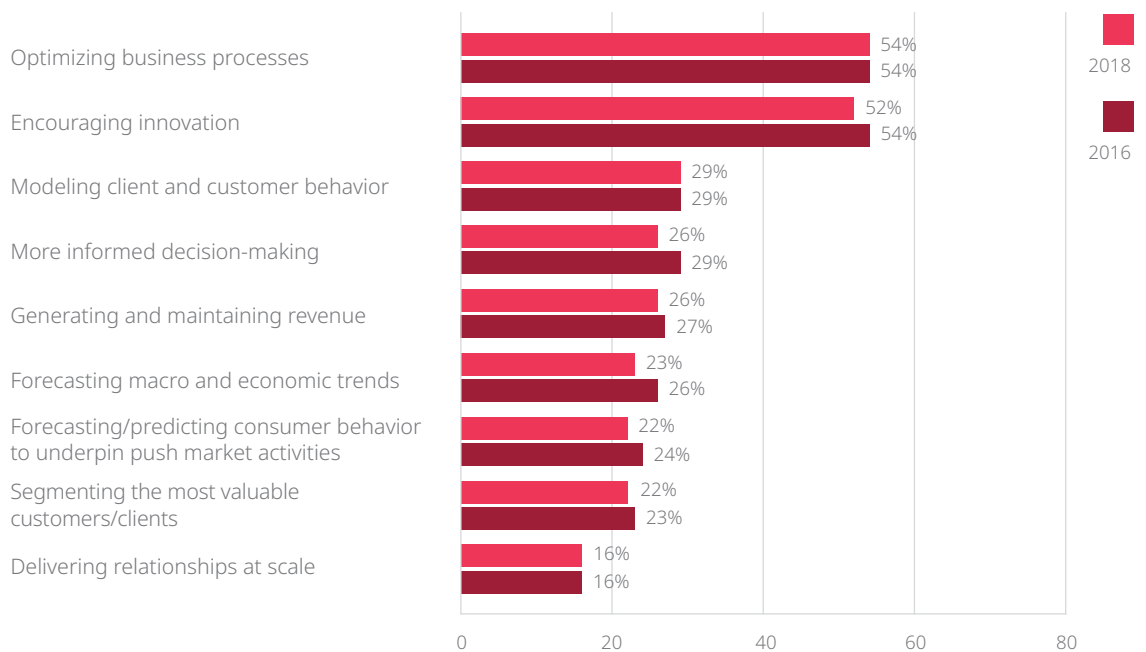


Q.22 Which department in your organization will benefit the most from the opportunities provided by big data and analytics? Multi-coded question

Base: Total respondents ranking big data as 8, 7 or 6 at Q9 2018 (198) 2016 (195)

Fig 20.

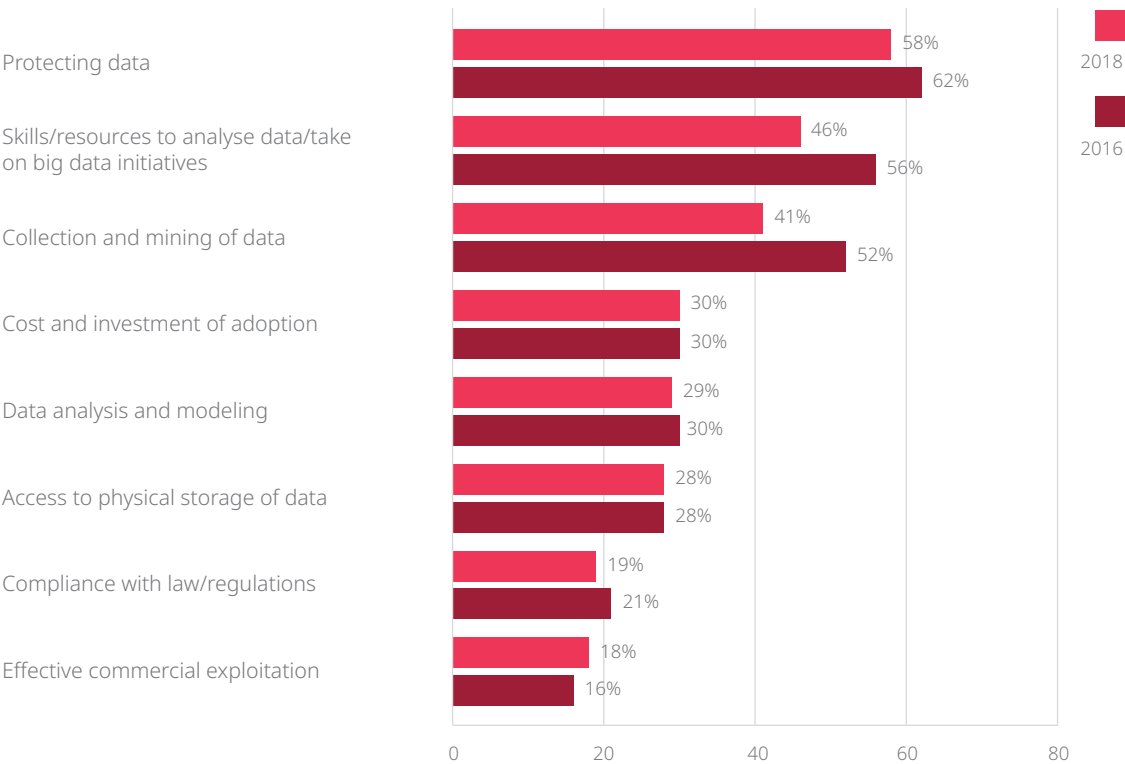
Key benefits of big data



Q.23 What are the key benefits of big data to your business? Multi-coded question

Base: Total respondents ranking big data as 8, 7 or 6 at Q9 2018 (198) 2016 (195)

Fig 21.
Biggest challenges of big data



Q. 24 What are the biggest challenges of big data for your business? Multi-coded question
Base: Total respondents ranking big data as 8, 7 or 6 at Q9 2018 (198) 2016 (195)



Coda

Dynamics in the macropolitical environment

As an additional question in our 2018 survey, we sought to understand some of the macropolitical issues businesses are being presented with, and the extent to which they are having an impact on technology-related investment and growth in their company (Fig 22.).

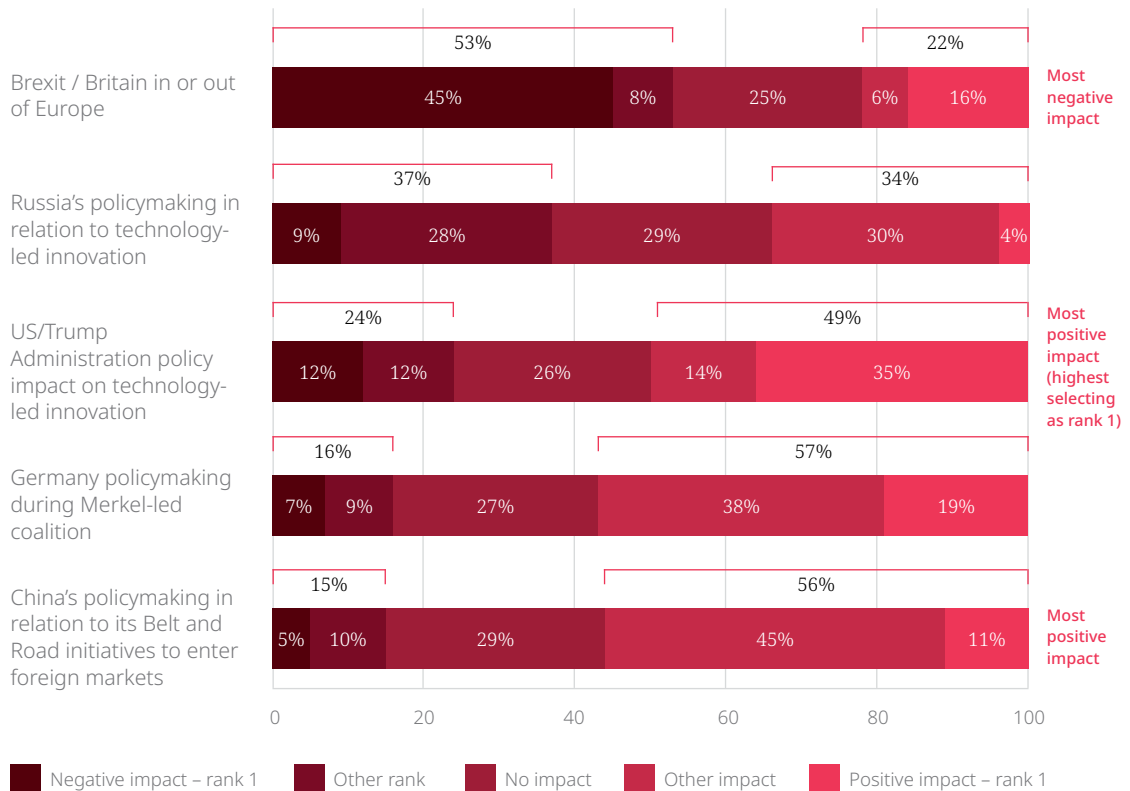
Brexit showed the biggest net negative impact (net negative score of -31 percent), whereas the impact of Russia's policymaking with respect to technology-led innovation was viewed far more neutrally (net negative score of -3 percent).

Germany's policymaking during the Merkel-led coalition had the most positive overall net score (+41 percent net).

However, the Trump administration's policy on technology investment had the highest score of the five regimes cited for those rating it as having the most positive impact (35 percent).

Fig 22.

Dynamics in the macro-political environment



Q.8a For each of the following aspects of the shifting dynamics in the macro-political environment please indicate how you think they impact the European technology-related investments and growth in your company?
Q.8b For each of the following aspects of the shifting dynamics in the macro-political environment please indicate how you think they impact the European

technology-related investments and growth in your company?
Q.8c For all those aspects you have been chosen as having a positive impact, please rank them in order from first – having the biggest positive impact on your company.

Base: Total respondents 2018 (350)

Conclusions

As the technology Wild West fades, organizations face new frontiers in technology, trade and talent.

Our 2018 European Tech Index shows that the adoption of technology and attitudes towards it have markedly matured, yet concerns remain about cost and security and the resources to maximize its potential.

The shifting macropolitical landscape – most vividly in Europe itself as Brexit unfolds – continues to bear strong influence on technology investment and growth. In whatever way the UK-EU relationship is resolved, the negative effects expressed in our survey may also compound job market flexibility and talent scarcity issues, despite organizations' increased efforts in training, progression and retention.

It is interesting to note that job-loss fears regarding AI have waned, though concerns about cost have slightly risen and lack of staff expertise/availability remains the key barrier to adoption. However,

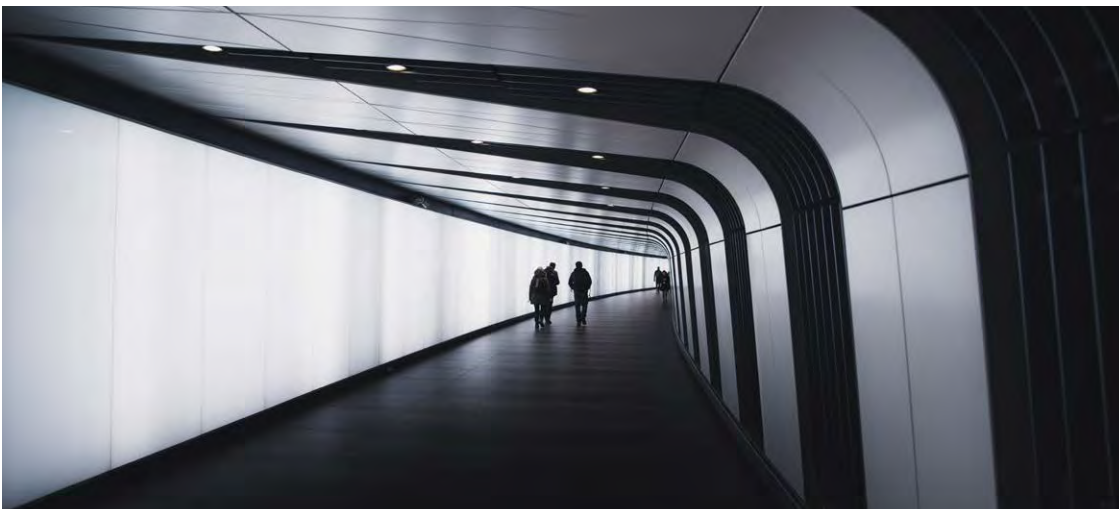
we expect exponential growth and stand ready to advise clients on legal and ethical implications.

Having dispelled many doubts, organizations have increasingly put their money and faith into cloud computing. This is also true for digital transformation, though despite the enthusiasm for streamlined processes and faster information flows, the required levels of investment and expertise are again cited as drawbacks. Our surveys have shown this to be a common pattern, and we anticipate a similar evolution with AI and other emergent tech such as IoT, blockchain and FinTech, as the advantages gradually outweigh barriers to adoption and as more participants find ways to harness the strong growth potential.

While organizations are still naturally concerned about cyberattacks, the widespread adoption of security

measures and response plans ensures relative confidence about protection and preparedness. There are alarming exceptions, however, leaving some firms perilously exposed – not only to cyberattacks but the consequent legal liabilities.

In the field of big data and analytics, where we have reported a huge spike in sales and finance applications, concerns about data security are undoubtedly – and in our view unnecessarily – hindering growth. As the digital transformation journey continues, our findings indicate that enthusiasm for new technologies, and the investment and growth opportunities they present, are often tempered by prudent caution about regulation and ethics. Yet with due diligence on compliance requirements, and robust mitigation strategies in place, we can help organizations to fully embrace the potential of emergent technology.



Appendix

METHODOLOGY AND RESPONDENT PROFILE

DLA Piper again commissioned Coleman Parkes Research to conduct this study, in May/June 2018, using our experience to examine views on the current climate across core business and future growth areas within European organizations.

RESPONDENT BASE

350 interviews were conducted online with executives from key European technology firms, members of the investment community with a technology focus and, finally, government officials focused on technology policymaking.

All interviews were carried out in the respondent's local language, within organizations with more than €10 million annual turnover.

METHOD

All surveys were conducted under the MRS code of conduct using an online data collection approach that may have been supplemented by telephone-based research as required. The results were then collated and provided a weighting to align them to create DLA Piper's Tech Index for 2018.

Tech Index Methodology

HOW DO WE GET THE SCORE?

The results of the survey have been collated and weighted to provide DLA Piper's Tech Index score. This is based on a diffusion index which weights the percentage of respondents' answers that are positive, negative and neutral, with the results presented as a scorecard next to each of the areas monitored. The scorecard is designed to demonstrate degrees of positive feedback, where 50 represents a neutral score, 100 represents the maximum positive score and 0 represents an entirely negative score. This score then gives an overall view of the sentiment of the respondents, and therefore the Index.

Respondents were also invited to consider the specific areas within their industry that offered the greatest opportunity for growth.

A score for each of the first seven technology index questions (focused on regulation, tax, financing, talent and IP) was generated using the calculation below.

$$\text{INDEX} = (P1 * 1) + (P2 * 0.5) + (P3 * 0)$$

P1 = Percentage of answers that reported an improvement.

P2 = Percentage of answers that reported no change.

P3 = Percentage of answers that reported a deterioration.

Thus, if 100 percent of the panel reported an improvement the index would be 100.

If 100 percent reported deterioration, then the index would be zero. If 100 percent of the panel saw no change the index would be 50 ($P2 * 0.5$).

Therefore, an index reading of 50 means that the variable is unchanged, a number over 50 indicates an improvement, while anything below 50 suggests a decline. The higher above 50 the index is, the stronger the sentiment, for example, a reading of 55 points to a stronger increase in a variable than a reading of 52.5.

As each factor (regulation, tax, financing, talent and IP) has a different level of impact upon the growth of the technology sector, once each individual score has been calculated, the following weighting is applied:

- Regulatory = (10% + 10%) 20%
- Tax = (10% + 10%) 20%
- Financing = (15% + 10%) 25%
- Talent = 10%
- IP = 25%

