The Digital Board

Has the elephant finally left the room?

Is "talking tech" no longer taboo in UK Boardrooms? UK

An article by The Digital Board
May 2023

Executive Summary

This paper is one of two major studies that we have recently carried out in both the UK as well as the US (S&P 500). In this paper, we focus on the results of the FTSE 100 and FTSE 250.

The objective of our research in both studies was to gain a greater understanding of how digital and technology was being represented at Board level by some of the world's biggest, most influential companies.

The first cut was to break this down into one simple equation: companies **with** technology representation on the Board versus those **without.** We created four categories of technology leader: Corporate IT leader (CIO/CTO), GM/CEO of a technology firm (SI, Consulting, Software/Services), CDOs and lastly business leaders with a technical (non-IT) background.

While understanding how these companies fared in appointing Technology leaders onto their Boards was part of our aim, importantly, we also wanted to understand if this had any bearing on financial performance. To get more insight on this, we also examined studies by a number of leading authorities including MIT, Harvard, McKinsey and Deloitte who have all published findings on this topic – all of which pointed to significant evidence that having technology representation at Board level was having a major impact on their competitiveness, whether that was revenue growth, margin point improvement or share price growth. (Links to all of the external research can be found in the bibliography section at the end of the paper).
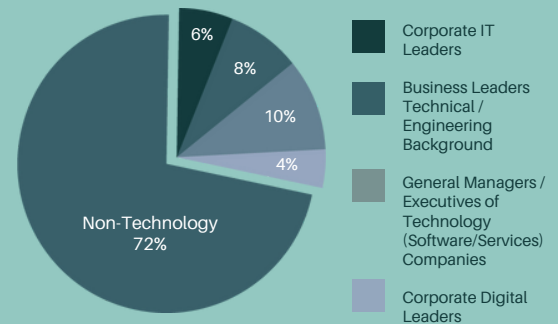
Consistent across all of the research are four key questions:

- Do Boards understand the implications of digital and technology well enough to provide valuable guidance?
- Do Boards know if their digital transformation efforts are fundamentally changing how the business creates value?
- How does the Board know if the digital transformation is working?
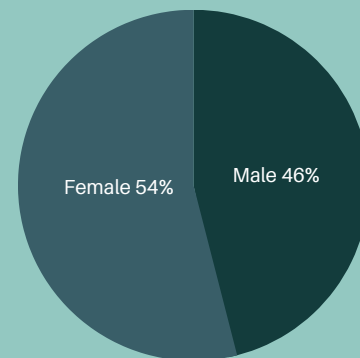- Does the Board have a clear view of emerging threats? (Especially in regard to cybersecurity)

We researched which sectors were the most advanced (by the level of technology representation at Board level) and which sectors were catching up fastest. We looked at the trajectory of hiring over the last 5 years, examining the appointments across all 7 sectors over this period. We also researched the diversity make up of Board members with a Technology background versus those without.

The overall results are fascinating. What we can see is that compared to five years ago there has been tremendous improvement in the number of companies appointing NEDs with a technology background, but there is a long way to go if we are to continue to innovate.

## Breakdown of FTSE 100 & FTSE 250 with/without Technology Leaders on the Board

- Corporate IT Leaders — 6%
- Business Leaders Technical / Engineering Background — 8%
- General Managers / Executives of Technology (Software/Services) Companies — 10%
- Corporate Digital Leaders — 4%
- Non-Technology — 72%

Gender Split on FTSE 100 & FTSE 250 Boards

Female 54% Male 46%

Breakdown of Technology Leader Appointments on FTSE 100 & FTSE 250 Boards since 2018
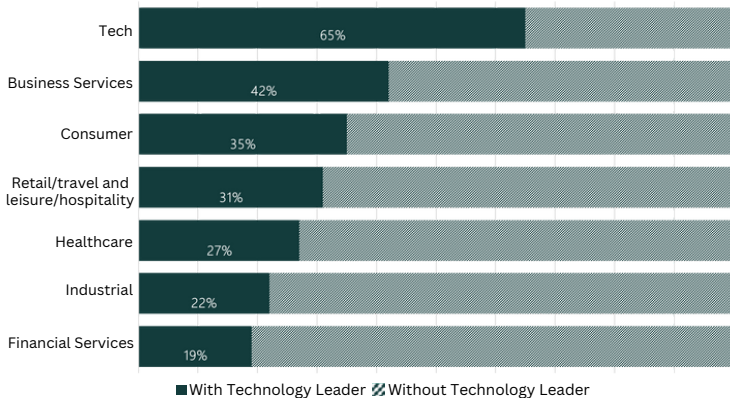

2018: 6
2019: 12
2020: 16
2021: 26
2022: 23
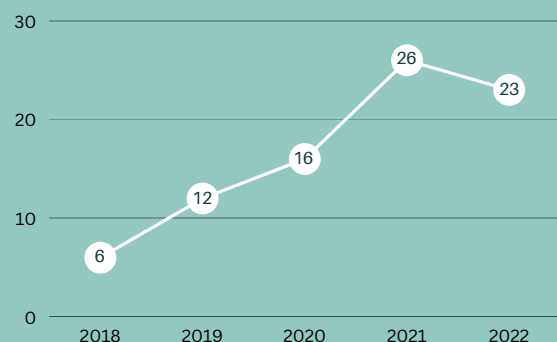
"For every 1 Corporate IT leader on a Board...
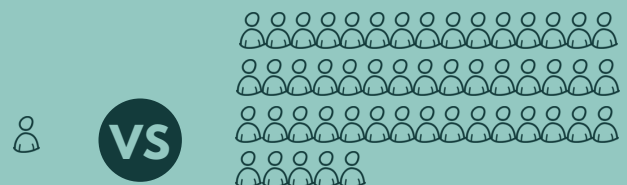
...there are 50x more from a finance background!"

Executive Summary Cont.

% of Companies with Technology Leaders on their Boards (by Sector)

Sector	With Technology Leader
Tech	65%
Business Services	42%
Consumer	35%
Retail/travel and leisure/hospitality	31%
Healthcare	27%
Industrial	22%
Financial Services	19%

■ With Technology Leader   ▨ Without Technology Leader

Appointments made over the last 5 years (by Sector)

■ Technology   ■ Financial Services   ■ Industrial   ■ Consumer   ■ Healthcare
■ Retail/travel and leisure/hospitality   ■ Business Services

Breakdown of FTSE 100 with/without Technology Leaders on the Board

- 9% — Corporate IT Leaders
- 15% — Business Leaders Technical / Engineering Background
- 10% — General Managers / Executives of Technology (Software/Services) Companies
- 6% — Corporate Digital Leaders
- Non-Technology 60%

Breakdown of FTSE 250 with/without Technology Leaders on the Board

- 5% — Corporate IT Leaders
- 6% — Business Leaders Technical / Engineering Background
- 10% — General Managers / Executives of Technology (Software/Services) Companies
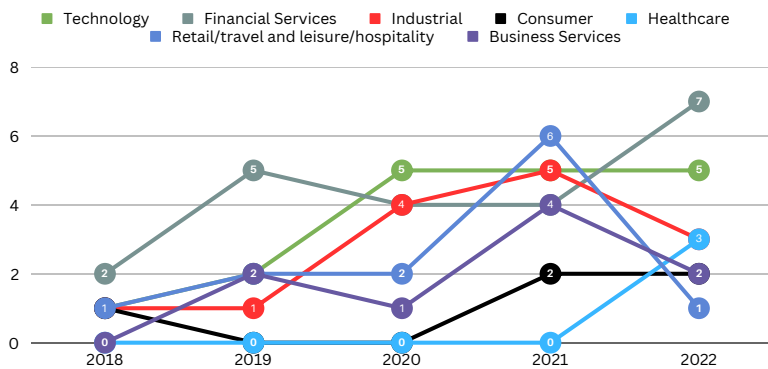- 2% — Corporate Digital Leaders
- Non-Technology 77%

Some surprising results came out of the sector breakdown. Perhaps the biggest surprise was in Financial Services. Only 19% of Financial Services companies have appointed a technology leader onto their Board (the lowest percentage of any industry). This is in stark contrast to the picture in the US, where 67% of S&P 500 companies in the Financial Services sector have a technology leader NED. Financial Services companies are (of course) highly regulated but, moreover, are essentially data businesses that are heavily technology dependent, therefore it is quite surprising that more Financial Services companies have not followed suit.
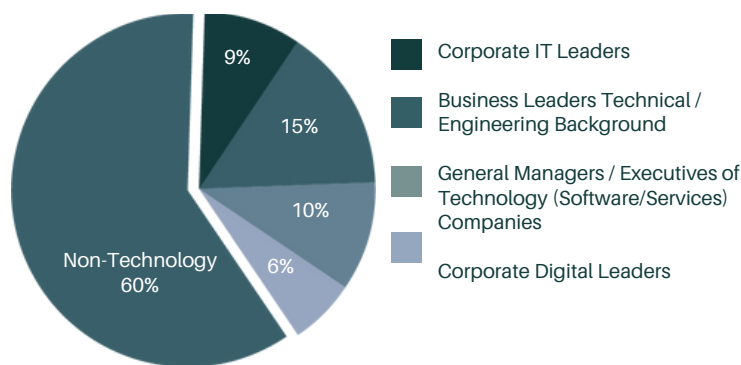
CONCLUSION:

While the article offers some great insights into the levels of Technology Representation on UK Boards, the purpose of the paper was to really focus on the advantages of hiring a Technology Leader. We offer evidence of how this helps connect the Board with the Executive team on digital transformation; probing to see if the organisation has the right capabilities, culture, and infrastructure to succeed. We also highlight the role that Technology leaders play in engaging the Board around the broader business issues.

If you were only to read this far, below are six compelling arguments outlining why we think you should consider hiring a Technology Leader onto your Board. Each of these arguments is backed up with evidence throughout the paper.
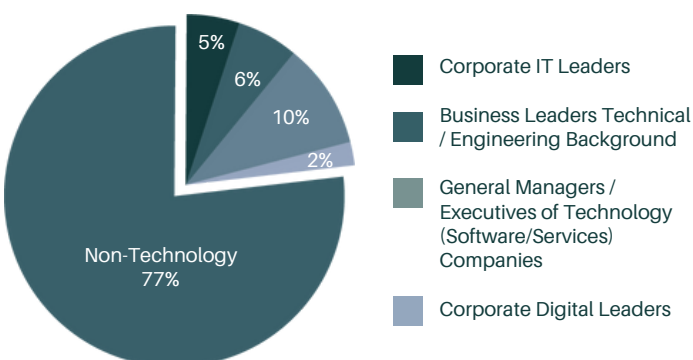
1   Technology Leadership on Boards = improved revenue and share price growth

2   Tech-savvy Boards help probe the executive committee to see if Digital Transformation is actually working

3   Appointing a Technology leader onto the Board signals that Digital and Data strategy is at the heart of the Board agenda

4   Tech-savvy Boards help build a Digital Mindset

5   Appointing Tech-savvy NEDs can actually improve D&I in the Boardroom

6   Having Technology representation gives the board a clearer view of emerging threats
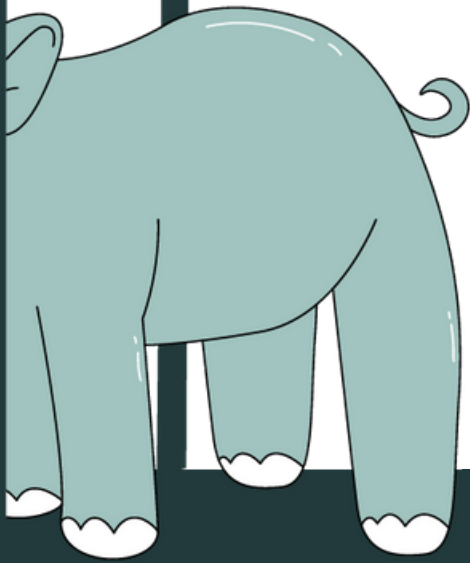
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- Closing Thoughts

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Do Boards really reflect the reality of their company's digital ambition

Let's start with an undeniable fact: there is not a single company on the planet currently planning their growth strategy without giving serious consideration to the technology, digital and data & analytics capabilities available to them to help accelerate that plan. In fact, I would go further, I'd say it was beyond comprehension to think that digital and driving greater data insights is not at the very core of most companies' growth strategies. Yet, despite all of this, it's striking how few Boards are made up of people with a deep technology or digital background to steer them through the complex road ahead.

In a recent article from McKinsey, they wrote "An inconvenient truth for businesses undertaking digital transformations is that without focused and active CEO commitment, there is almost no chance of success. That's because a digital transformation is a business-model reinvention that requires different functions across the organization to work together in new ways and can happen only through large-scale investments in building an entirely new set of capabilities. The only person who can make that level of sustained change happen is the CEO." While I would wholeheartedly agree with this, why stop at the CEO? Shouldn't Boards also have oversight capabilities and experience to help steward this?

Within the current landscape of geopolitical instability, it is critical for Boards to be agile, data-driven, digitally enabled and technology-literate. Change has occurred further down the business, but if, as the old saying goes, 'the fish rots from the head', surely it also leads from the head of the organisation, the question then becomes: "is sufficient change currently happening at the Board level to cope with the broader exposure to the tailwinds of digital technology and digital in general?" Differentiating through digital technology requires having the right capabilities, culture, and infrastructure. Where better to start than the very top of the organisation?

Let's be clear, using digital technology to innovate products, services, and business models is now seen as critical. In some cases this even involves getting software into the core of their business model / go-to-market approach. In other situations, it means building new digital platforms inside the confines of traditional legacy corporations, as you have seen in some industries (offering a digital version of itself). As technology and digital become increasingly important enablers for business-model innovation and productivity improvement, companies that are focusing more of their capital investment on technology and digital assets are outperforming their competitors, surely the people at the very top of the organisation should reflect this?

More strategically and further out, differentiation may require looking beyond the boundaries of the organization, to digitally enabled ecosystems with interconnected services that fulfil a variety of users' cross-sectoral needs in one integrated experience. Leveraging the public cloud and accessing large-scale data sets is accelerating productivity in many industries.

Yet, why do so many Boards lack technology or Digital knowledge?

> **No company on the planet is planning their growth strategy without giving serious consideration to the digital capabilities available to them.**

> **There is now extensive evidence that companies with digital and technology representation at the Board level are outperforming their peers.**

Where are we today?

In 2021, an HBR article found that demand for digital or technology-oriented Board directors had more than doubled in the previous five years, whilst a Deloitte study highlighted that the percentage of public companies that had appointed technology-focused Board members grew from 10% to 17% from 2011-2017. Tellingly, this figure doubles to 32% for high performing companies (businesses that outperformed the S&P index by 10% or more), demonstrating the substantial positive impact of NEDs with a technology background. This growth of technology representation in the Boardroom has been further accelerated because the COVID-19 pandemic has had a lasting impact on the technology landscape; according to further research, digital transformation increased by more than 10% over the period of COVID-19, consequently impacting Board composition (source: Deloitte). However, whilst this demand may have risen, there is still a lot of progress to be made, as the actual level of technology representation in the Boardroom remains incredibly low.

We examined the Boards of FTSE 100 and FTSE 250 companies in order to understand what (if any) technical or digital capability they had on the Board. We decided to break those NEDs down into four categories:

- **NEDs who were currently/previously Corporate IT leaders (CIOs/CTOs)**
- **NEDs who were currently/previously Digitals leaders (CDOs/Ecomm Directors)**
- **NEDs who were currently/previously Business leaders with a strong technical/engineering background (non-IT)**
- **NEDs who were currently/previously General managers/Executives of technology (software/services) companies**

Our study reveals that only 28% of the Boards at FTSE 100 and FTSE 250 companies combined have technology representation, whilst only 23% of those digital / technology specialists are corporate IT leaders. Crucially, when looking at the overall number of NEDs across these companies, corporate IT leaders make up just 1% of the total population.

Breakdown of FTSE 100 & FTSE 250 with/without Technology Leaders on the Board

6%
8%
10%
4%
Non-Technology
72%

- Corporate IT Leaders
- Business Leaders Technical / Engineering Background
- General Managers / Executives of Technology (Software/Services) Companies
- Corporate Digital Leaders
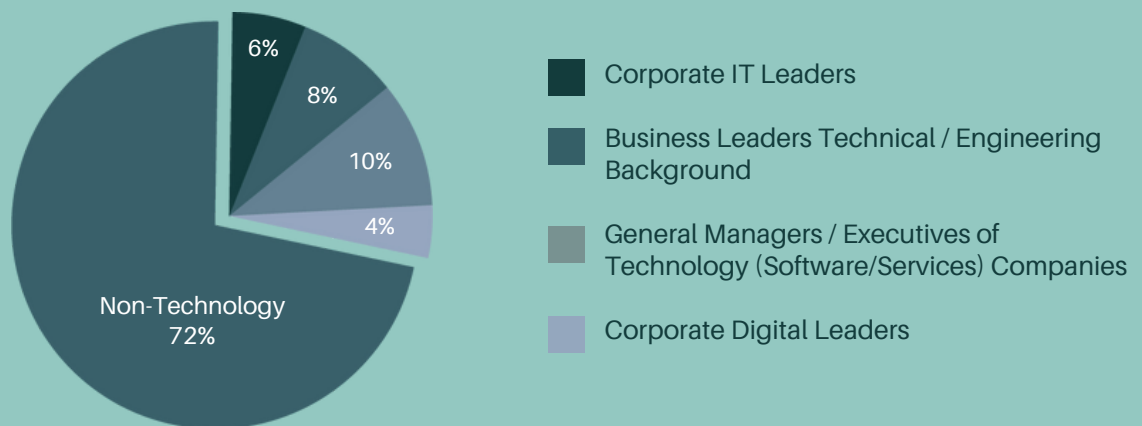
There are approximately 2,800 NEDs on the FTSE 100 and FTSE 250

Corporate IT Leaders (CIO/CTOs) as % of Overall FTSE 100 and FTSE 250 NEDs

c.1%
99%

- Corporate IT Leaders
- Rest of FTSE 100 and FTSE 250 NEDs
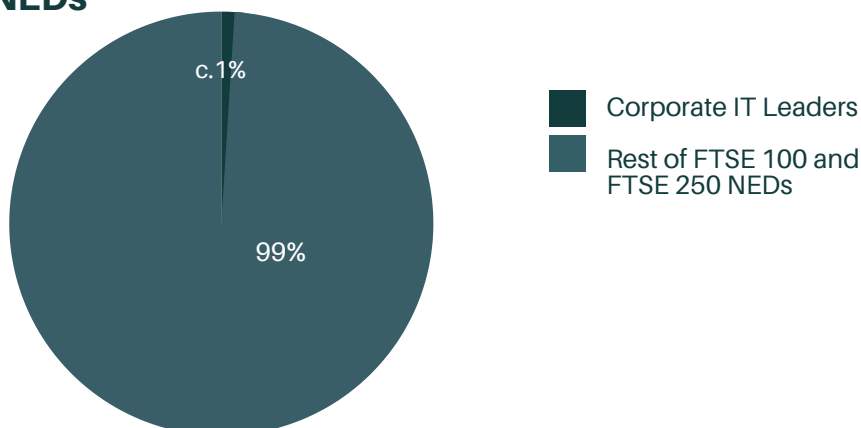
The backstory...

14 years ago, and at the height of the global financial crisis, I was in a meeting as part of the "extended Board practice" at Heidrick & Struggles, sitting amongst some of the smartest/most experienced minds in the UK debating what had gone so wrong with Board governance that allowed this crisis to happen, and what changes were required to avoid this happening again. While I understood it was important that we had a POV on this at the time, I wondered if we were not being a bit lazy by joining the crowds of other firms looking retrospectively and appearing clever for pointing these out "after the fact". I decided to ask a different question: "Why don't we spend a bit less time looking backwards and focus more of our attention on what might be at the heart of the next crisis, and what we, as a firm, can do to help avoid it?"

My thesis back then was simple: Boards clearly didn't understand the complexity of the financial instruments that ultimately led to this crisis that brought the financial world to its knees. If we used the same argument looking forward, they certainly didn't understand the sheer force and importance that digital was going to have on their business's future competitiveness. I simply asked, "Why don't we get on the front foot of this by forming a "Digital Board" practice and use our influence to help change this?" My argument was relatively straight forward: "Building up the Board's digital aptitude wasn't about turning their directors into proficient technologists; rather, the goal was for the Board to understand the implications of technology and digital on the business and sources of revenue." When thoughtfully applied, I argued that technology could enable a huge leap over standard approaches in terms of delivery speeds, costs, and quality – maybe even by a factor of 10. This would allow companies to test new markets, products, and business models at much greater speeds and at lower costs.

I did have the advantage of heading up the Chief Information Officers practice, spending a lot of time with people who understood these arguments. However, most people in that meeting looked at me as if I was mad. With one exception! The head of the Board practice at the time saw it differently, he was interested but saw this as marketing material, not a practice and not something the Boards of our clients would have much interest in. In hindsight, he was both right and wrong. Right in that he predicted Boards had little appetite for this (threat/lack of interest/self-preservation/other), but (in my opinion) he was wrong not to leverage the power of a brand as important as H&S to help bring Digital competence in the Boardroom. Had we have done that back in 2010, Digital transformation could have easily turned out differently.

Cutting a long story short, I decided to leave H&S with a single mission: start a company with the sole ambition of bringing greater awareness of the advantages of Technology and Digital into the boardroom. And, with that, The Digital Board was born.

> **Companies with digitally-savvy boards outperformed their competitors, with revenue growth of 30% or more.** (MIT Study)

> **In 2023, perhaps the question shouldn't still be: "Do you have a technology or digital leader on your Board?" surely the question is, "Does your Board really understand digital?"**
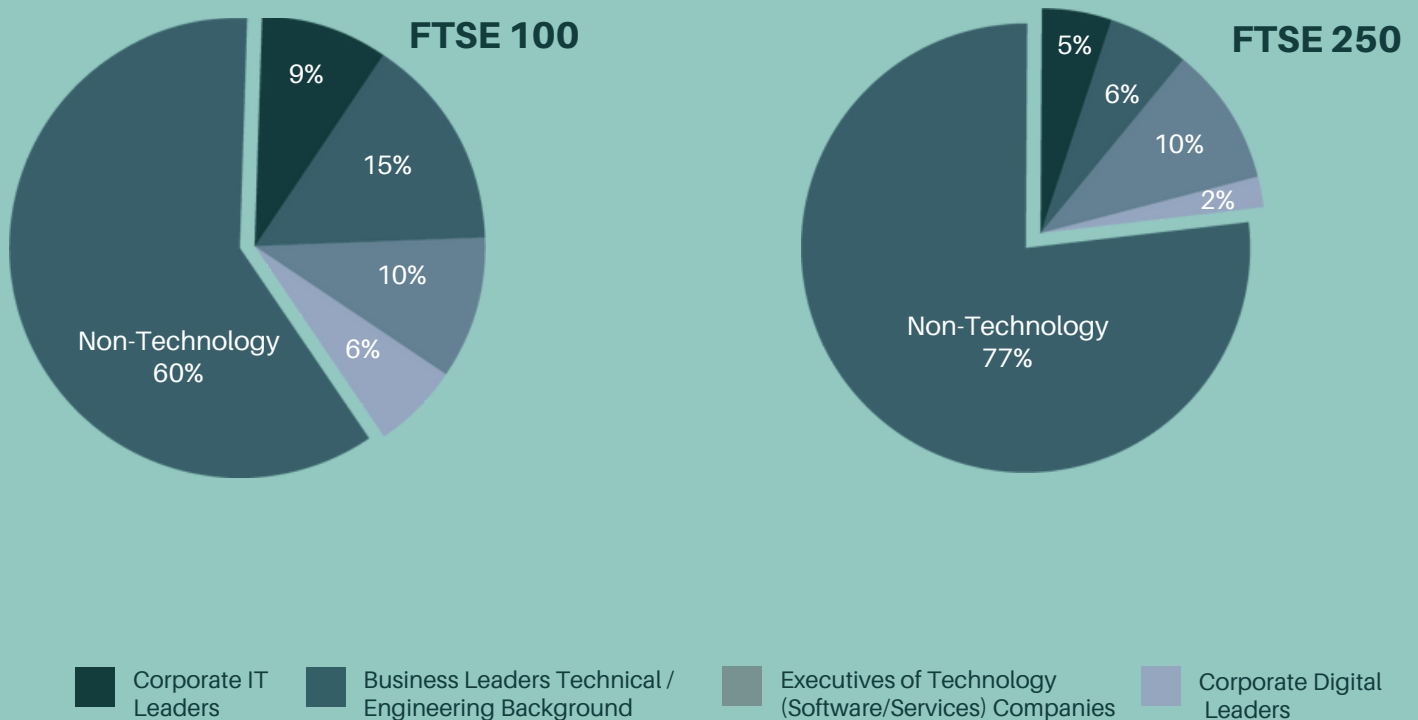
> **Surprisingly, only 19% of Financial Services companies across the combined FTSE100/FTSE250 have appointed a technology leader onto the Board. Contrast that with the US, where it's 67% (S&P 500).**

Breakdown of FTSE 100 v FTSE 250 with/without Technology Leaders on the Board.

As you can see from the charts below, there is far better Technology representation on FTSE 100 Boards (almost double) than on FTSE 250 Boards.

FTSE 100

9%
15%
10%
6%
Non-Technology
60%

FTSE 250

5%
6%
10%
2%
Non-Technology
77%

- Corporate IT Leaders
- Business Leaders Technical / Engineering Background
- Executives of Technology (Software/Services) Companies
- Corporate Digital Leaders

When it comes to the role of a Board, digital oversight should include:

- **Strategy (business model disruption & opportunities)**
- **Oversight of digital / technology projects (to ensure value)**
- **Defence- data privacy and regulations (typically a risk committee)**

To best leverage Digital opportunities, input and oversight from the very top of the company is necessary.
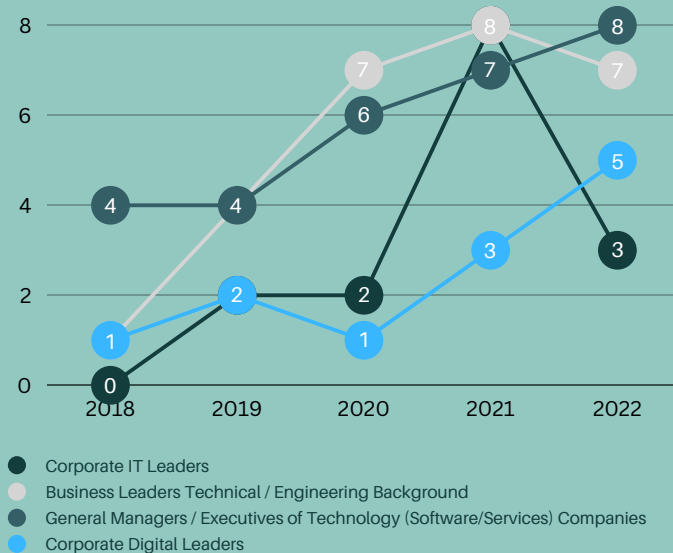
How did we get here?

Let's survey the progress that has been made. In 2016, a McKinsey global survey argued that businesses which viewed and collaborated with IT as a strategic business partner performed better and enjoyed healthier cultures. Since then, this upwards trajectory has continued. Rather than viewing digital and technology as a mere delivery engine, most forward-thinking businesses began to recognise the importance of viewing it as a critical component of an operating model, which plays a crucial role within both the customer experience and the employee experience. By extension, companies have started to recognise the importance of having greater technology representation on the Board.

These graphs illustrate the number of technology leaders appointed to FTSE 100 and FTSE 250 boards each year since 2018.

Overall Technology Appointments across the FTSE 100 and FTSE 250 Boards over the last 5 years
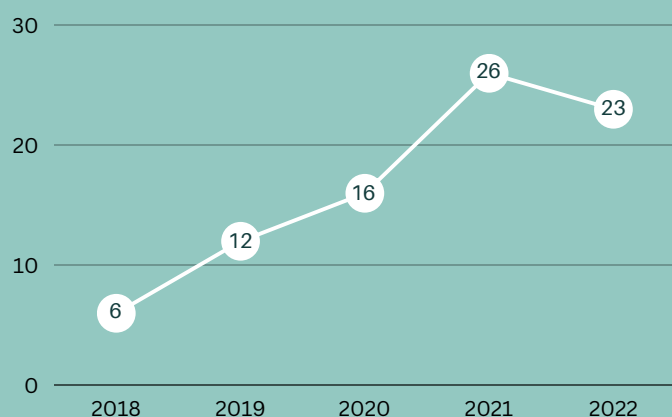
Year	Appointments
2018	6
2019	12
2020	16
2021	26
2022	23

Breakdown of Technology Appointments across the FTSE 100 and FTSE 250 Boards over the last 5 years

	2018	2019	2020	2021	2022
Corporate IT Leaders	0	2	2	7	3
Business Leaders Technical / Engineering Background	1	4	7	8	7
General Managers / Executives of Technology (Software/Services) Companies	4	4	6	8	8
Corporate Digital Leaders	1	2	1	3	5

- Corporate IT Leaders
- Business Leaders Technical / Engineering Background
- General Managers / Executives of Technology (Software/Services) Companies
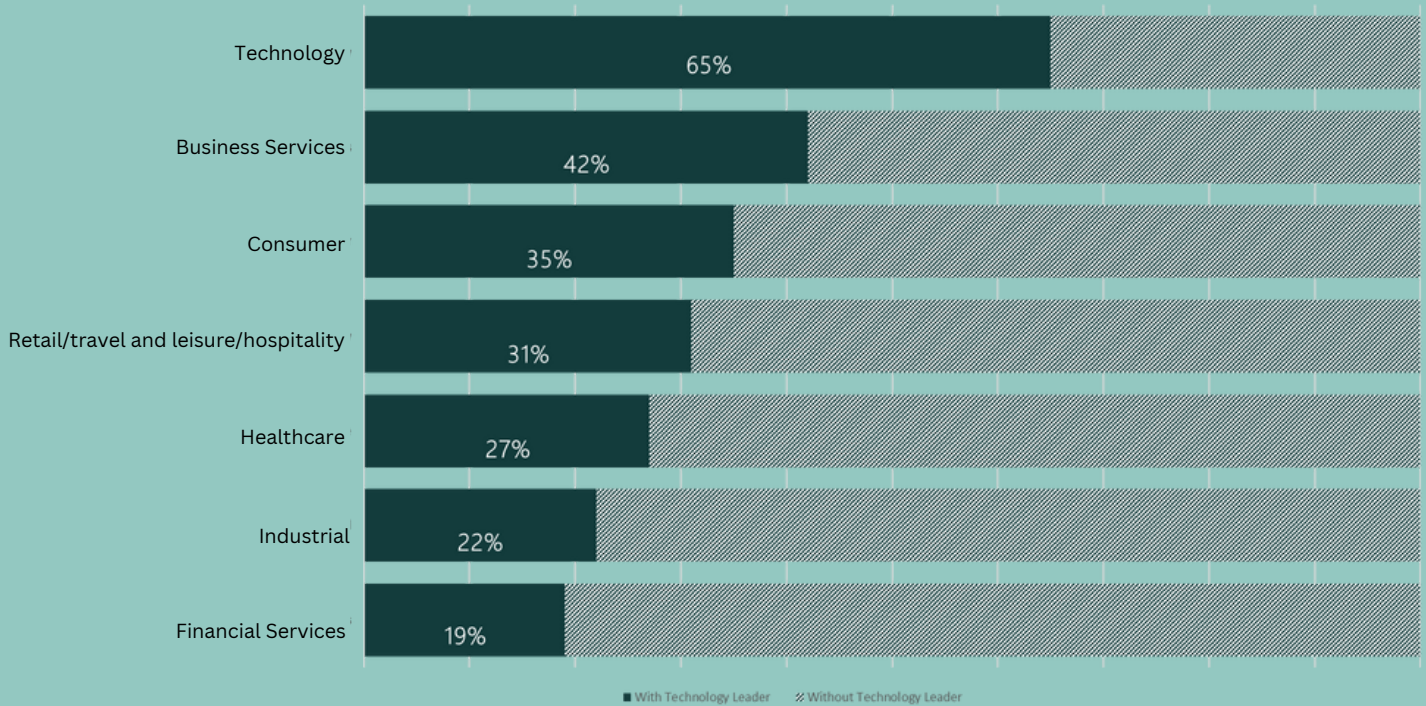- Corporate Digital Leaders

The graphs above demonstrate our study's findings on when technology experts were appointed to Boards, it is clear that the trajectory of technology appointments on FTSE 100 and FTSE 250 Boards is positive; it is important to note however, that these numbers are low when observed on a macro level. Take 2021 for example, whilst the 26 tech-savvy NED appointments are much higher than the previous year, they are a minute proportion of the total of 384 NED appointments made across the FTSE 100 and FTSE 250 in 2021 (source: the Savannah 2021 Board Review). This means that during 2021, technology made up only 6.8% of Board appointments across the UKs largest 350 Plcs.

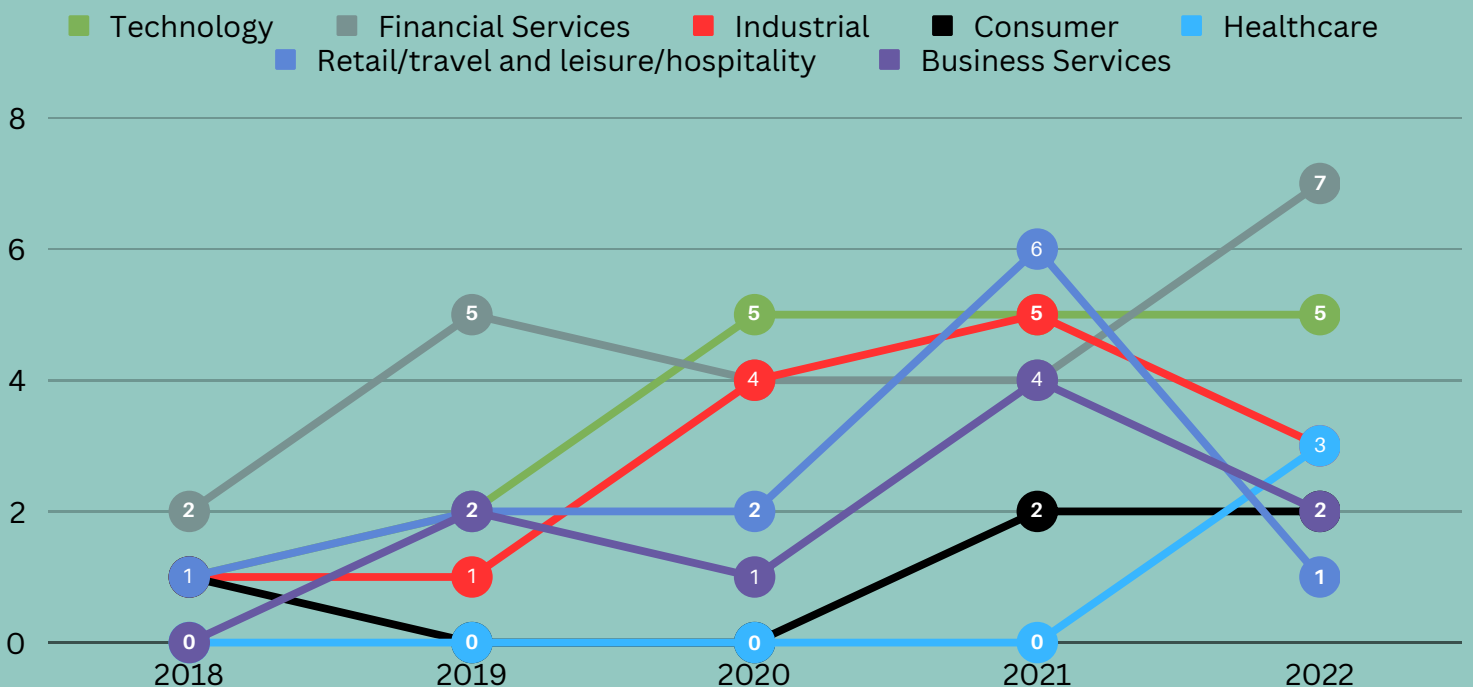# Technology representation on Boards (by sector)

We split the FTSE 100 and FTSE 250 across seven sectors (see charts below) with the largest sector being Financial Services (the FTSE 250 includes several asset management companies that fall within this sector, this does skew the numbers, especially when compared to other indexes such as the S&P 500) and the smallest sector being Healthcare. We separated Retail/travel and leisure/hospitality from the Consumer sector due to the higher Direct to Consumer element of the companies in these industries. The chart below illustrates the percentage of Boards with at least one tech-savvy NED across each sector. Despite being the largest sector, we found that just 19% of the Boards within the Financial Services sector had a tech-savvy NED. Unsurprisingly, the Technology sector leads the way with 65% of boards having at least one tech-savvy NED, Business Services follows with 42%.

FTSE 100/FTSE 250 Sector breakdown (high-low) with Technology Leaders on their Boards
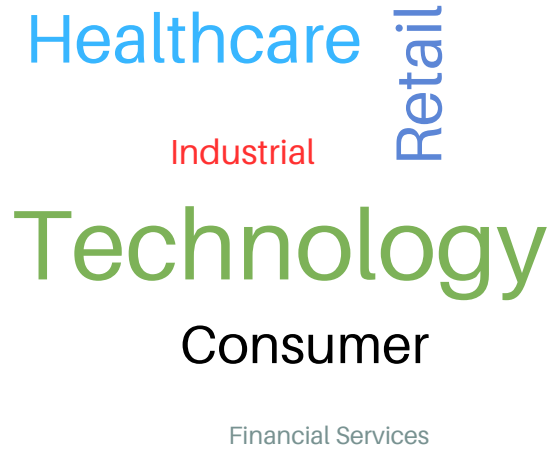

Horizontal bar chart — "With Technology Leader" (dark) vs "Without Technology Leader" (hatched):
- Technology: 65%
- Business Services: 42%
- Consumer: 35%
- Retail/travel and leisure/hospitality: 31%
- Healthcare: 27%
- Industrial: 22%
- Financial Services: 19%

Rate of hiring activity (by sector) over the last 5 years

Technology NED Appointments made over the last 5 years (by Sector)

Legend: Technology · Financial Services · Industrial · Consumer · Healthcare · Retail/travel and leisure/hospitality · Business Services

Line chart data points:

Sector	2018	2019	2020	2021	2022
Technology		2	5	5	5
Financial Services	2	5	4	4	7
Industrial	1	1	4	5	3
Consumer	1	0	1	2	2
Healthcare	0	0	0	0	1
Retail/travel and leisure/hospitality	1	2	2	6	3
Business Services	1	2	1	4	2

Business Services

Healthcare

Retail

Industrial

Technology

Consumer

Financial Services

- The **Technology** industry (software, hardware, telecoms, broadcast/media, tech services, internet) has 31 companies on the FTSE 100 and FTSE 250 combined. 16 of these (52%) have hired a technology leader to their board in the last 5 years, the highest percentage of any industry.

- The **Financial Services** sector (which includes many wealth/asset management and investment funds) has 151 companies on the FTSE 100 and FTSE 250 combined, the most of any industry on the indices. Only 21 of these (14%) have hired a technology leader NED in the last 5 years, the lowest percentage of any industry.

- The **Business Services** (logistics, packaging and other similar services) sector has 24 companies on the FTSE 100 and FTSE 250 combined. 8 of these (33%) have hired a technology leader to their board in the last 5 years.

- The **Healthcare** sector has 11 companies on the FTSE 100 and FTSE 250 combined. 3 of these (27%) have hired a technology leader to their Board in the last 5 years.

- The **Retail/travel and leisure/hospitality** industry has 42 companies on the FTSE 100 and FTSE 250 combined. 11 of these (26%) have hired a technology leader to their board in the last 5 years.

- The **Consumer** sector (consumer goods/services) has 23 companies on the FTSE 100 and FTSE 250 combined. 5 of these (22%) have hired a technology leader to their board in the last 5 years.

- The **Industrial** (heavy manufacturing, mining, oil & gas, utilities, construction) sector has 68 companies on the FTSE 100 and FTSE 250 combined. 13 of these (19%) have hired a technology leader to their board in the last 5 years.

The biggest opportunity appears to be in the Financial Services sector, as only 14% of Financial Services Boards have appointed a technology leader in the last 5 years, the lowest percentage of any industry. This is a stark contrast from the picture in the US, where companies from the sector have the second highest overall percentage of technology NEDs (67% of Boards have a technology leader). Moreover, Financial Services companies are (of course) highly regulated but are essentially data businesses that are heavily technology dependent. The fact that more of these companies haven't appointed a Technology leader onto their Board is quite surprising.

The low number of Retail/travel and leisure/hospitality Boards (27%) that have hired technology leaders in recent years is also surprising given the strong Direct to Consumer nature of these businesses and the high level of customer demand for a seamless digital experience.

Looking at how 2023 has started

Despite being over a quarter of the way through 2023, only 4 technology leaders have been appointed to Boards across the FTSE 100 and FTSE 250, these appointments are split 50:50 between the Technology sector and the Financial Services sector. The appointments made so far this year make up 22% of all the appointments made in 2022, showing on average a slightly slower start to this year for tech-savvy NED appointments than last.

If we look across the pond and compare this data to the S&P 500, there have been 3 times the amount of tech-savvy NEDs appointed to Boards so far this year. Whilst it's important to note that the S&P 500 has 150 more companies than the combined FTSE indexes, it has still appointed more than double the amount of technology leaders to Boards when measured as a proportion of companies within each index.

The increased rate of tech-savvy NEDs being appointed to Boards on the S&P 500 when compared to the FTSE 100 and FTSE 250, shows the greater sense of urgency to incorporate technology leaders to the Board. The Technology sector is at the forefront of this within the UK, and although the Financial Services sector has the smallest share of tech-savvy NEDs, they are the only other sector to appoint one so far this year.

Technology leaders that have been appointed to Boards so far in 2023 have been evenly split across the Technology and Financial Services sectors. Companies in other sectors have yet to announce any appointments.

6

advantages of appointing a technology leader onto your Board

Below, we have outlined six advantages of appointing a technology leader onto your Board.

While this section is going to focus on the benefits of bringing in outside expertise to improve the digital competence at Board level, it's not without its detractors. There are many who still view digital representation on Boards as a risk rather than an opportunity. During periods of economic instability, the average age of Board members tends to rise, demonstrating how an attitude of playing it safe prevails. Boards are starting to realise that playing it safe is a risk in itself and that investing in digital, whilst still a risk, is more intuitive because of its potential benefits.

1. Improved revenue and share price growth

- A recent Deloitte study found that companies with a tech-savvy Board member performed better than those that didn't, with an average of 5% greater revenue growth over 3 years. Meanwhile, McKinsey research highlights that, in 2020 and 2021, companies with a Board technology committee had operating margins 100–600 basis points higher than their peers that did not have one. There are therefore clear fiscal benefits being enjoyed by those companies that have made a commitment to having technology representation on their Boards, so let's dive into why that is the case.

- A further study from Deloitte found that the gap in stock performance widened substantially during the pandemic, and companies with tech-savvy Boards experienced 26% better stock performance during the first nine months of 2020. This illustrates that technology expertise at the Board level can better prepare businesses to deal with disruption, particularly through digital and technology-enabled solutions, which many companies depended on at the height of the pandemic.

- In a recent podcast, MIT Professor Peter Weill discussed a study carried out with his colleagues in which they used machine learning to measure the 'digital-savviness' of each NED at all US listed companies with over \$1b revenue (over 3000 companies were studied). Only 24% were found to have digitally-savvy Boards, yet these companies outperformed their competitors, with 30% or more higher revenue growth, return on assets and market cap growth. These stats are well-supported by similar recent studies. Weill outlines three substantial opportunities that digital brings to an organisation:

o Improvement of overall customer experience
o Reduction of cost to serve customers
o Reduction of friction in both customer experience and the experience of employees who serve those customers.

- Why stop at one tech-savvy NED? MIT's Peter Weill claims 'it takes three to tango', observing that companies with three tech-savvy NEDs perform significantly better than those with just one. Whilst it's a good step for Boards to hire one tech-savvy NED, in this instance three is not a crowd, having multiple technology NEDs prevents the isolation of digital ideas, allowing the Board fluency in its enterprise strategy.

2. Helps probe (and advise) both the executive committee as well as the technology function
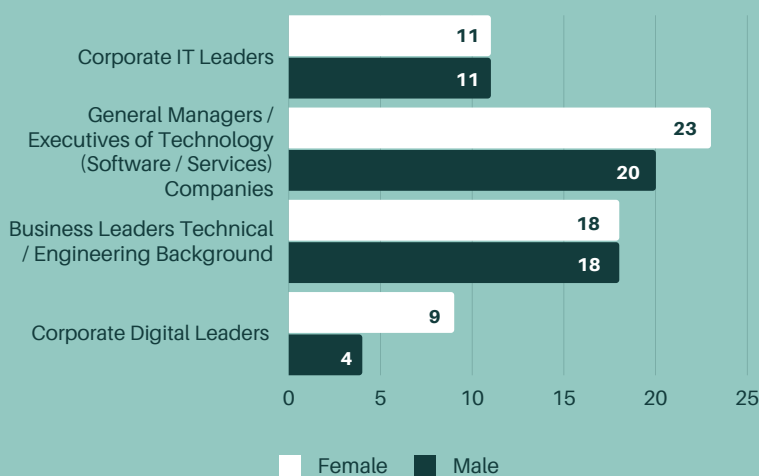
- How does the board know if the digital transformation is really working? Digital transformations are complex programs with multiple projects intersecting across the enterprise and wider eco-system. While this clearly shows an ambition to both compete and outperform competition, knowing whether your digital transformation is on track is a big challenge. Boards can start with a rigorous assessment of their strategy and road map to gain a common understanding of the business' digital strategy.

- To best leverage these opportunities, input and oversight from the very top of the company is necessary. Appointing a tech-savvy NED better equips the Board to reap these rewards, by providing effective guidance around digital and technology initiatives, and helping the Board to probe and advise the executive committee and technology department on these issues. Having this expertise on the Board can allow NEDs to ask crucial questions around the digital and IT initiatives undertaken by a business. It can help them to assess the job that the technology teams are doing and ultimately ensure that these projects are driving value for their end-users.

- Having technology representation on the Board also allows them a better understanding of how to efficiently formulate a technology spending budget. This knowledge can be useful in the event management teams approach Boards with an investment strategy for emerging technologies such as AI or machine learning. In these ever-increasing situations, Boards can use the technology knowledge they have to assess the plans put forward and determine whether it is the most suitable approach for the industry the organisation is in, and can consider if there are any cost-effective alternatives to the ones put forward.

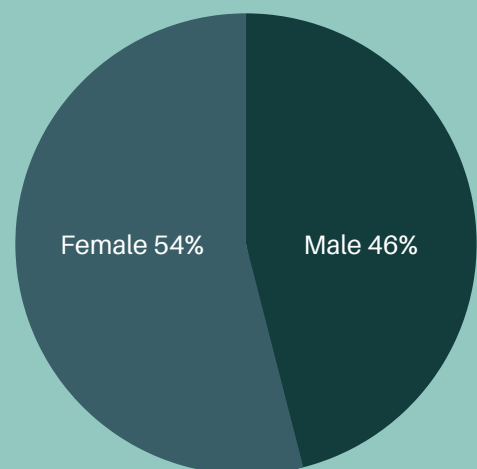## 3. Can actually improve D&I in the Boardroom

One of the biggest challenges of our generation is bringing greater diversity into the Boardroom. In April 2022, the FCA published new measures on diversity and inclusion, requiring Boards to explain why they haven't met targets such as: having at least one member of the Board from a minority ethnic background and having the Board made up of at least 40% women.

These charts illustrate the gender divide of technology leaders on the Boards of FTSE 100 and FTSE 250 companies.

Technology Leader Gender Split on FTSE 100 and FTSE 250

Category	Female	Male
Corporate IT Leaders	11	11
General Managers / Executives of Technology (Software / Services) Companies	23	20
Business Leaders Technical / Engineering Background	18	18
Corporate Digital Leaders	9	4

Technology Leader Gender Split on FTSE 100 and FTSE 250


Female 54%   Male 46%

A somewhat unexpected revelation of our research is that there is a higher percentage of female NEDs with a technology background than men; additionally, 35% of FTSE 100 and FTSE 250 Boards had technology representation from a minority ethnic background. Although this is a smaller percentage than that of women, it is more than double the percentage of directors on the biggest 150 FTSE companies from minority ethnic backgrounds c. 15% (source: 2022 Spencer Stuart Index). There is therefore a disproportionately high number of diverse Board members with a technology background. While the explanation for these numbers may not be obvious, they do imply that companies can look to tech-savvy individuals when addressing the critical need to improve gender and ethnic diversity.

These charts illustrate the number of technology leaders from a minority ethnic background at FTSE 100 and FTSE 250 companies.

FTSE 100 and FTSE 250 Boards with Technology Representation From a Minority Ethnic Background

Corporate IT Leaders: 13 / 9
General Managers / Executives of Technology (Software / Services) Companies: 29 / 14
Business Leaders Technical / Engineering Background: 24 / 12
Corporate Digital Leaders: 8 / 5

☐ Not from a Minority Ethnic Background ■ From a Minority Ethnic Background

FTSE 100 and FTSE 250 Boards with Technology Representation From a Minority Ethnic Background
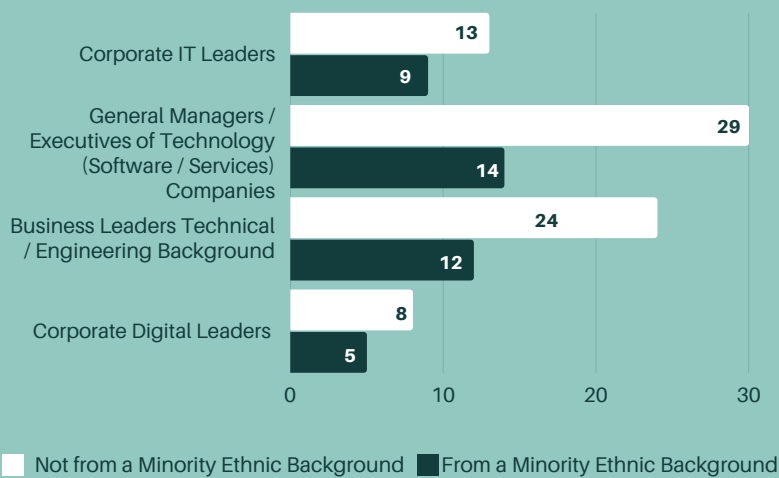
From a Minority Ethnic Background 35%

Not From a Minority Ethnic Background 65%
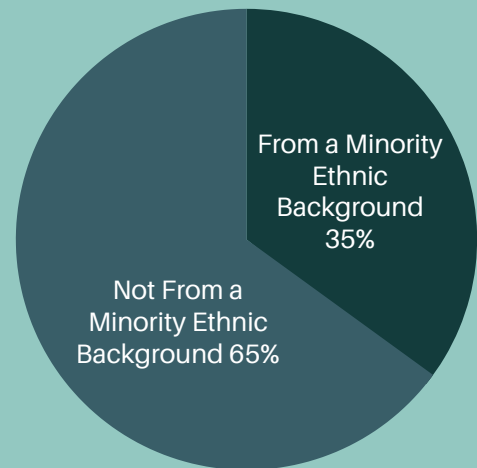
4. Signals that Digital and Data is at the heart of the Board agenda

The role of a Board when it comes to digital also extends beyond purely governing initiatives. The MIT research identified three key roles of the Board when it comes to digital:

- Strategy (business model disruption & opportunities)
- Oversight of digital / technology projects (to ensure value)
- Defence- data privacy and regulations (typically a risk committee)

Of these, strategy was identified as by far the most important concern, to which they argue around 50% of the time should be spent. A robust digital strategy will bring the most long-term growth and revenue to the company and facilitate the overall transformation into a more digitally-enabled business. Digital discussion on Boards should increase from twice a year to 5 or 6 times, these discussions should also go beyond the risk of cybersecurity and focus on the growth that effective digital strategy can provide.

Effective use of data is also becoming increasingly important in today's rapidly evolving landscape, with more options for consumers and greater challenges to retain loyalty. Board members may not be aware of the latest trends in data management such as Customer Data Platforms (CDPs), which can inform organisations about their customers, as well as Data Management Platforms (DMPs), which can educate organisations about the potential customers they should target. Implementing these digital systems is expensive; however, the ROI and subsequent growth it delivers make them important investments. This is just one example of how greater technology representation at the Board level allows an organisation to better leverage data and technology and make more informed decisions on the latest trends.

5. Helps build a Digital Mindset

In an era of constant change, an agile, resilient mindset and approach is necessary to succeed and keep up with the pace of disruption. As established in a recent WestMonroe article, the traditional model of quarterly Board meetings and reports isn't fit for the challenges of today, and a more digital mindset is required to rise up to the tests. Appointing a Board member with digital expertise will help to instill this kind of mindset from the top. The COVID-19 pandemic is the most recent and severe example of a global-scale event that has forced businesses to adapt to fundamental changes in ways of working and consumer behaviour.

The Boardroom itself is also experiencing its own digital transformation; corporate governance has changed significantly since the pandemic, with many Board meetings now taking place virtually. Boards have begun to adopt 'Board portal' software to organise their documents, meetings and to track objectives. technology experts on Boards can harness these programmes and educate other Board members on how to effectively use them, thus improving the general function of the Board. This example shows that digital representation on Boards is an invaluable asset that not only provides benefits for the executive team, but for other Board members as well.

Board members that have doubts on the success and effectiveness of digital transformation can be offered an experiential education by either the technology leaders within their organisation, or if they have them, their digitally equipped Board colleagues.

6. Gives the board a clearer view of emerging threats

The startling numbers of security incidents in recent years have caused the SEC in the US to take action, with regulations expected to come into force in the coming weeks. These regulations will require Boards to disclose information regarding the way in which (and how frequently) the board is informed about cyber risks and whether/how cyber is viewed as a part of the Board's business strategy, risk management and financial oversight. Boards will also need to disclose information about who is responsible for oversight of cybersecurity, whether this is a specific Board member, a Board committee, or the entire Board collectively. That has led to a significant number of Cyber experts being appointed onto Boards. In a number of cases, these have been in addition to broader Technology Leaders. This has caused quite a hiring frenzy.

Given the criticality of cybersecurity, it would be surprising if similar legislation was not eventually adopted within the UK. Our study observed how the US has prepared for the SEC's regulations, by examining the information that S&P 500 Boards currently make publicly available around the cyber-expertise of their directors - we made a number of interesting observations:

- 100 companies within the S&P 500 have a cyber expert on their Board.
- 61% of cyber experts on S&P 500 Boards have a technology background.
- Nearly half the number of cyber expert appointments made in 2022 have already been made in just the first quarter of 2023, suggesting a flurry of cyber NED appointments in anticipation of the new SEC legislation.

The UK appears to be lagging behind the US in respect to cybersecurity, with our study revealing that there are just 3 former CISOs on Boards across the FTSE 100 and FTSE 250. Despite being small in number, these CISOs were all appointed within the past 3 years and with the legislation in the US stirring up cyber awareness across Europe, Boards in the UK should be prepared for a potential uptick of NED appointments of this nature.

> The traditional model of quarterly Board meetings and reports isn't fit for the challenges of today, and a more digital mindset is required to rise up to the tests. (WestMonroe)

> Companies with a tech-savvy Board member performed better than those that didn't, with an average of 5% greater revenue growth over 3 years. (Deloitte)

Bringing balance to the argument:

Q. Do technology leaders really make good NEDs?

No article would be fair without some objectivity. Despite the clear benefits being argued in this paper of having a tech-savvy NED on a Board, there is still a perception gap to overcome. Fairly, or otherwise, Corporate IT leaders (CIOs/CTOs) are still perceived to lack the commercial acumen (as well as some of the broader leadership skills) to operate at this level.
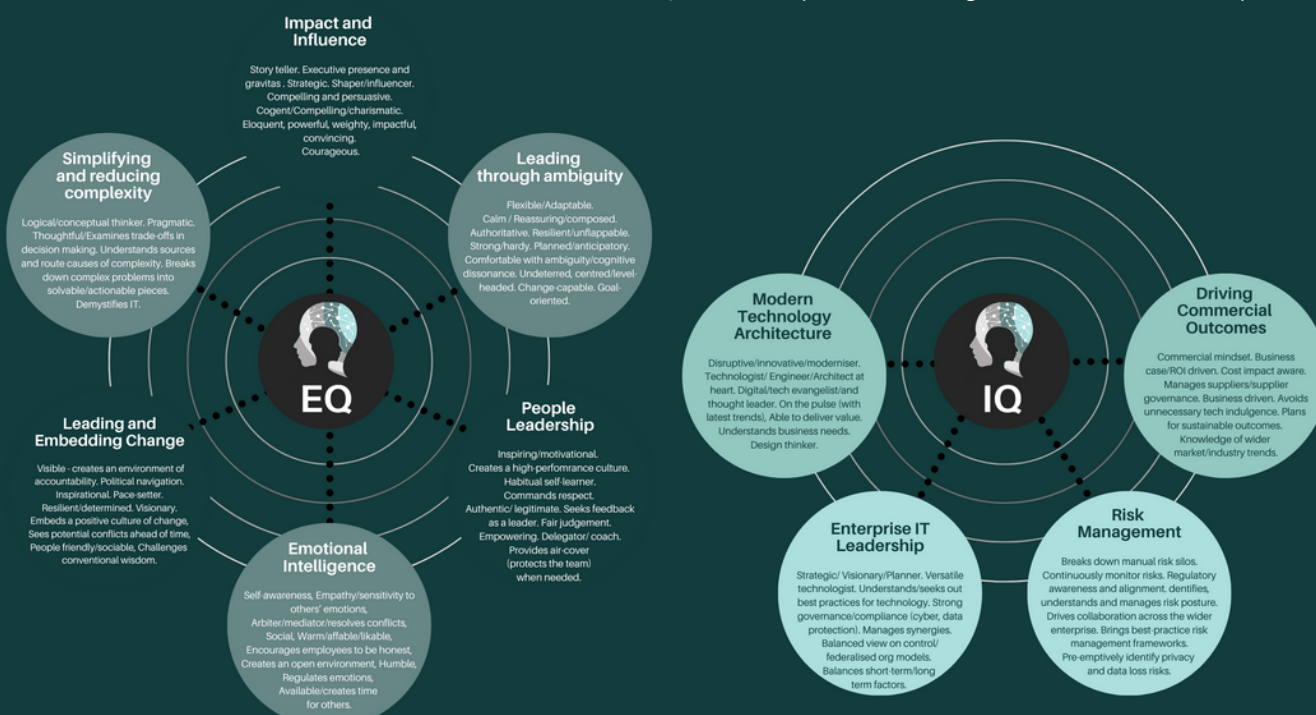
There are also other criticisms. There's a sense that their IQ still outweighs their EQ (problem solvers not appreciate inquirers) rushing for solutions without understanding the full business context; still too detail-oriented, often adding complexity rather than reducing it.

Perhaps they do have most of the required skills, but they lack the charisma and the people skills (EQ) to bring these arguments forward and strategically influence the Board.

Regardless of whether this is perception or reality, even the most impactful Global Technology leaders still need to hone their broader commercial and influencing skills if they are to make it onto a Board. At The Digital Board, we have interviewed over 7000 Global Technology leaders and have developed a framework (below) for what we consider the right balance of EQ/IQ skills and behaviours for successful leaders (see below).

To help strengthen your leadership skills, we have built a global leadership learning library with over 1000 curated pieces of learning content - all focused on helping technology leaders create more impact. These resources are made up of various media from: Articles, case studies, podcasts, videos, books/e-books as well as both online and classroom development courses.

See: https://www.thedigital-board.com/leadership-resources

Impact and Influence
Story teller. Executive presence and gravitas . Strategic. Shaper/influencer. Compelling and persuasive. Cogent/Compelling/charismatic. Eloquent, powerful, weighty, impactful, convincing. Courageous.

Simplifying and reducing complexity
Logical/conceptual thinker. Pragmatic. Thoughtful/Examines trade-offs in decision making. Understands sources and route causes of complexity. Breaks down complex problems into solvable/actionable pieces. Demystifies IT.

Leading through ambiguity
Flexible/Adaptable. Calm / Reassuring/composed. Authoritative. Resilient/unflappable. Strong/hardy. Planned/anticipatory. Comfortable with ambiguity/cognitive dissonance. Undeterred, centred/level-headed. Change-capable. Goal-oriented.

EQ

Leading and Embedding Change
Visible - creates an environment of accountability. Political navigation. Inspirational. Pace-setter. Resilient/determined. Visionary. Embeds a positive culture of change, Sees potential conflicts ahead of time, People friendly/sociable, Challenges conventional wisdom.

People Leadership
Inspiring/motivational. Creates a high-performance culture. Habitual self-learner. Commands respect. Authentic/ legitimate. Seeks feedback as a leader. Fair judgement. Empowering. Delegator/ coach. Provides air-cover (protects the team) when needed.

Emotional Intelligence
Self-awareness, Empathy/sensitivity to others' emotions, Arbiter/mediator/resolves conflicts, Social, Warm/affable/likable, Encourages employees to be honest, Creates an open environment, Humble, Regulates emotions, Available/creates time for others.

Modern Technology Architecture
Disruptive/innovative/moderniser. Technologist/ Engineer/Architect at heart. Digital/tech evangelist/and thought leader. On the pulse (with latest trends), Able to deliver value. Understands business needs. Design thinker.

IQ

Driving Commercial Outcomes
Commercial mindset. Business case/ROI driven. Cost impact aware. Manages suppliers/supplier governance. Business driven. Avoids unnecessary tech indulgence. Plans for sustainable outcomes. Knowledge of wider market/industry trends.

Enterprise IT Leadership
Strategic/ Visionary/Planner. Versatile technologist. Understands/seeks out best practices for technology. Strong governance/compliance (cyber, data protection). Manages synergies. Balanced view on control/ federalised org models. Balances short-term/long term factors.

Risk Management
Breaks down manual risk silos. Continuously monitor risks. Regulatory awareness and alignment. Identifies, understands and manages risk posture. Drives collaboration across the wider enterprise. Brings best-practice risk management frameworks. Pre-emptively identify privacy and data loss risks.

And, are there really enough Technology Leaders who are "ready now?"

Another fair criticism would be that there is a lack of "ready-now" talent and that head-hunters are fishing in a small pool of talent: Our research has found that many companies consider there to be a lack of Board-ready leaders from a digital and technology background. Tech-savvy leaders with the desire to sit on a Board, should view the small array of talent in their area as an opportunity.

One approach Boards can consider is scanning the vast amount of technology leaders on advisory Boards; these will likely be technology leaders that through their time on advisory Boards have acquired many of the skills required to transition to an NED.

To stand out amongst the relatively small talent pool of technology leaders and to compete against others whose Board representation is lacking, the technology NEDs of the future should consider using the free "NEDTech Hub" from The Digital Board. Within it, we have assembled some insightful resources on topics including articles on the skills required to be an effective Board member and the advantages your digital prowess can bring to the Board.

See: https://www.thedigital-board.com/nedtech-hub

Closing thoughts

Thank you for taking the time to read this article in full. If you got this far, then this is clearly a topic you are deeply passionate about. We would simply conclude by saying that there has clearly been a lot of positive change in this space over the last few years. The necessity of a digitally and technologically literate Board has started to be acknowledged, and those companies that have appointed tech-savvy NEDs have reaped visible rewards. However, the raw numbers of tech-savvy NEDs remain low.

For companies making new Board appointments, the considerable competitive advantages established by those companies that do have digital and technology representation on their Boards should be recognised.

For those technology leaders who want to make it to the Boardroom, the substantial opportunity that lies ahead should be encouraging; however, they should also consider the fact that many companies currently view the majority of technology leaders as lacking in Board-readiness, and think about the ways in which they can develop in this area and demonstrate their aptitude for the Boardroom.

Lastly, a big thank you to the team at The Digital Board (you know who you are) for the many hours spent researching and making sense of this data.

Bryan MacDonald
CEO/Founder
The Digital Board

About Bryan and The Digital Board

Bryan has dedicated over 25 years to understanding the role and leadership characteristics of successful technology executives. He founded The Digital Board in 2013, with a vision to change the way that business leaders and IT leaders cohabit in this changing world, connecting them through NED appointments, Advisory Boards, forums and other networking events.

Formerly the Regional Managing Partner (Europe) of Heidrick & Struggles Chief Information Officer practice, where he managed numerous high-profile assignments. Prior to Heidrick & Struggles, Bryan worked under the Chief Information Officer of BP Plc, helping to define a culture of leadership within their global technology function. This involved working with some of the world`s most respected academic institutions, including Harvard, MIT and Kellogg.

Throughout his 25 years, Bryan has developed an impressive network of thought leaders, connectors and contacts all of whom have helped shape his understanding of the role and leadership characteristics of successful technology executives.
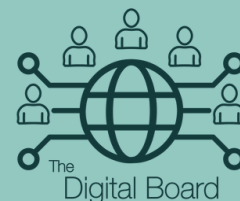
As an Executive Recruiter he has conducted over:
- 7000 CIO/Senior IT leader interviews
- 600 CEO and Exec team briefings

Founded in 2013, The Digital Board works with some of the world's most admired brands across several different disciplines.

• Board Advisory
• Executive search
• Leadership diagnostic and assessment

The team specialises in Senior Technology Recruiting and Assessment and has significant experience working across a wide spectrum of business sectors: Retail, Consumer Products, Financial Services, Life Sciences, Oil & Gas, Heavy manufacturing, Automotive, Defence, Mobile, and beyond.

You can find more information on The Digital Board at: www.thedigital-board.com

Addendum:

10

**Interesting comparisons between the
UK FTSE 100/FTSE 250 and the S&P 500**

The following pages compare the UK's leading public traded companies with the S&P 500, across a number of categories:
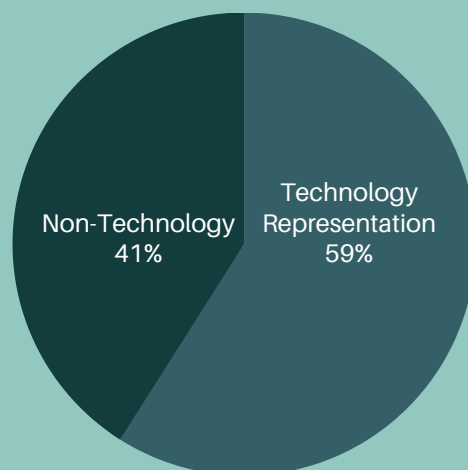
1.   % of companies with/without Tech NEDs (UK v US)

FTSE 100 & FTSE 250 Boards with/without Technology Leaders

Technology Representation 28%
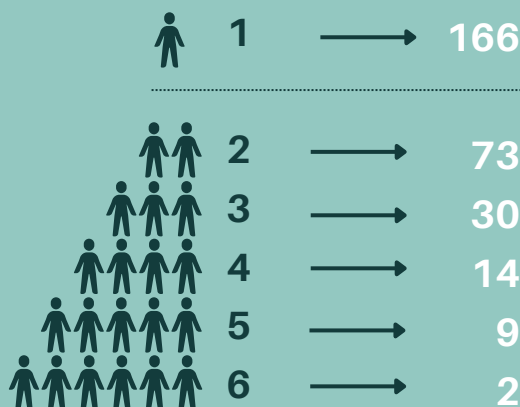
Non-Technology 72%

S&P 500 Boards with/without Technology Leaders

Non-Technology 41%

Technology Representation 59%
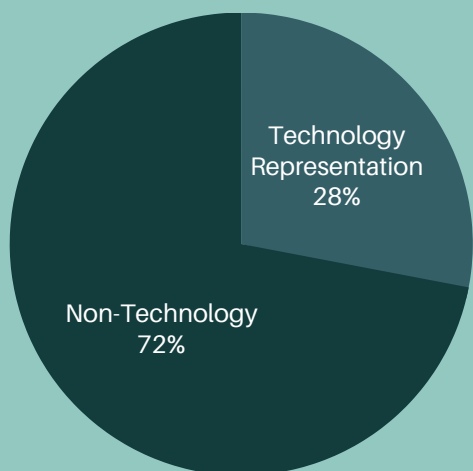
2.   Number of companies with multiple Tech NEDs (UK v US)

Tech NEDs   **FTSE 350**

1 → 83

2 → 11

3 → 3
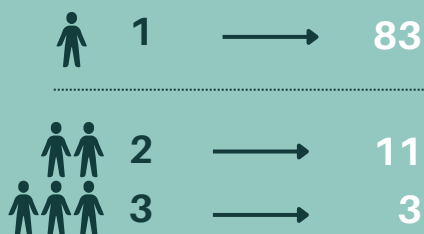
Note: 253 FTSE 350 companies have no Tech NEDs

Tech NEDs   **S&P 500**

1 → 166

2 → 73

3 → 30

4 → 14

5 → 9

6 → 2

Note: 206 S&P 500 companies have no Tech NEDs

3. Breakdown of Tech NEDs (UK v US)

Breakdown of FTSE 100/FTSE 250 with/without Technology Leaders on the Board

- 6%
- 8%
- 10%
- 4%
- Non-Tech 72%
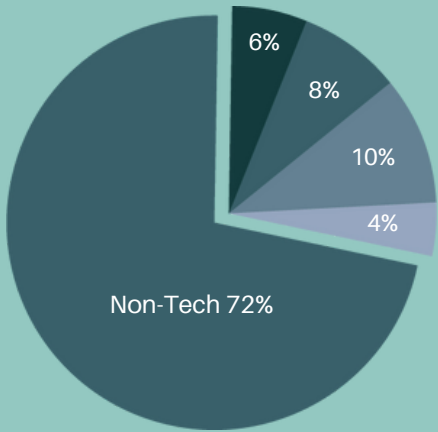
Breakdown of S&P 500 with/without Technology Leaders on the Board

- 25%
- 14%
- 17%
- 3%
- Non-Tech 41%

- ■ Corporate IT Leaders
- ■ Business Leaders Technical / Engineering Background
- ■ Executives of Technology (Software/Services) Companies
- ■ Corporate Digital Leaders

4. Tech NED appointments since 2018

US **UK**

	2018	2019	2020	2021	2022
US	42	59	56	59	66
UK	6	12	16	26	23
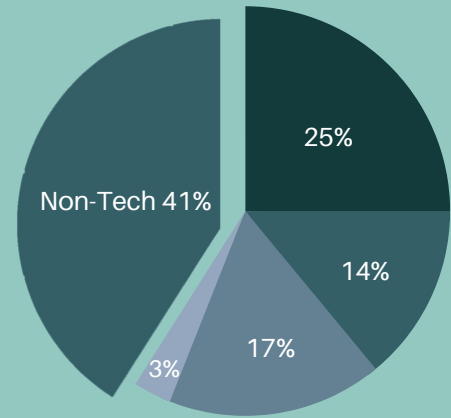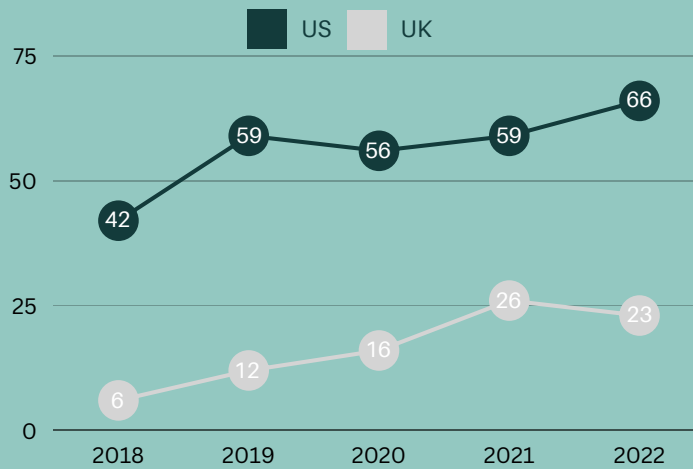
5. Breakdown of the different categories of Tech NEDS (UK v US)

Breakdown of the different types of Technology Leaders on FTSE 100 and FTSE 250 Boards

- 13
- 22
- 43
- 36

Total (114)
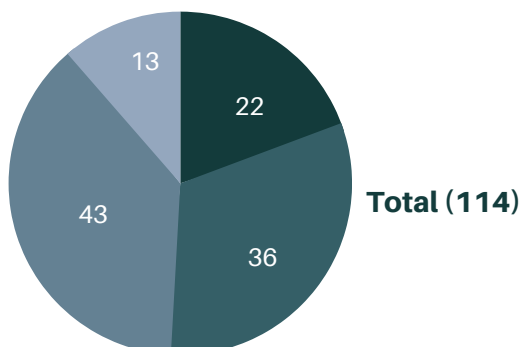
Breakdown of the different types of Technology Leaders on S&P 500 Boards

- 146
- 218
- 138

Total (514)

- ■ Corporate IT Leaders
- ■ Business Leaders Technical / Engineering Background
- ■ Executives of Technology (Software/Services) Companies
- ■ Corporate Digital Leaders
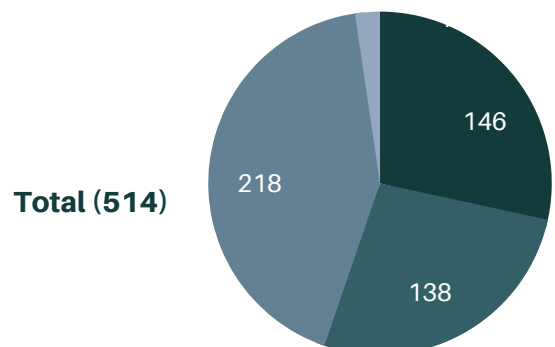
6. Tech NEDs as a percentage of overall NEDs (UK V US)

There are approximately 2800 NEDs across the FTSE 100 and 250, of these 4% are technology leaders (114).

**4%
(114)**

There are approximately 4600 NEDs across the S&P 500, of these 11.2% are technology leaders (514).
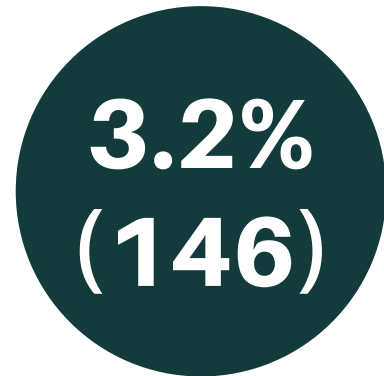
**11.2%
(514)**

Corporate IT leaders as a percentage of overall NEDs (UK V US)

There are approximately 2800 NEDs across the FTSE 100 and 250, of these 0.8% are corporate IT leaders (22).

**0.8%
(22)**
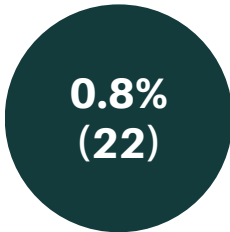
There are approximately 4600 NEDs across the S&P 500, of these 3.2% are corporate IT leaders (146).

**3.2%
(146)**

7. 11% of Tech NEDs on the FTSE 100 % FTSE 250 are digital leaders (CDOs), compared to 2% on the S&P 500

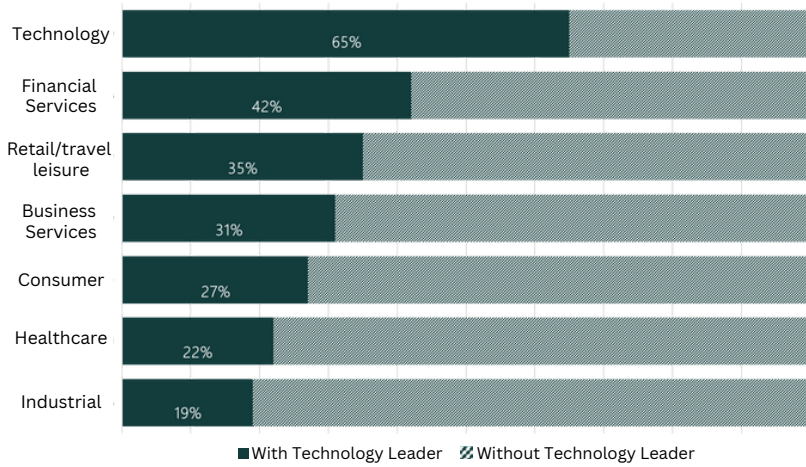**CDO Appointments across FTSE 100 and FTSE 250 Boards over the last 5 years**

Year	Value
2018	1
2019	2
2020	1
2021	3
2022	5
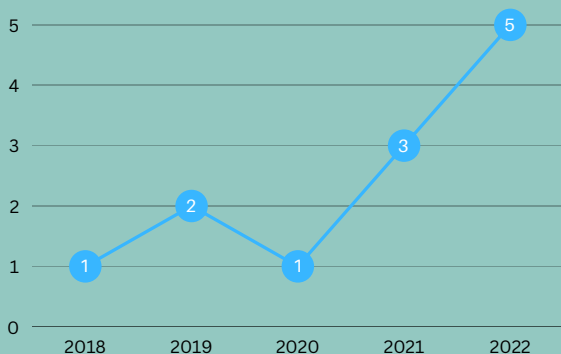
CDO Appointments across S&P 500 Boards over the last 5 years

Year	Value
2018	2
2019	3
2020	2
2021	2
2022	0
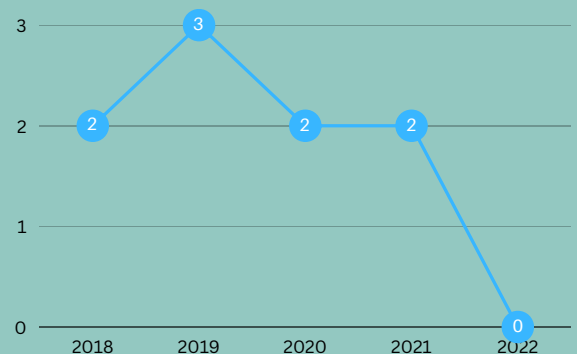
Breakdown of Tech NEDs by sector (UK v US)

% of FTSE 100 and 250 Boards (by Sector) with Tech NEDs

Sector	With Technology Leader
Technology	65%
Financial Services	42%
Retail/travel leisure	35%
Business Services	31%
Consumer	27%
Healthcare	22%
Industrial	19%

■ With Technology Leader ▨ Without Technology Leader

Tech NED Appointments made over the last 5 years on FTSE 100 and FTSE 250 Boards (by Sector)

Legend: Technology, Financial Services, Industrial, Consumer, Healthcare, Retail/travel and leisure/hospitality, Business Services

% of S&P 500 Boards (by Sector) with Tech NEDs

Sector	With Technology Leader
Technology	81%
Financial Services	67%
Retail/travel leisure	61%
Business Services	58%
Consumer	54%
Healthcare	51%
Industrial	43%

■ With Technology Leader ▨ Without Technology Leader
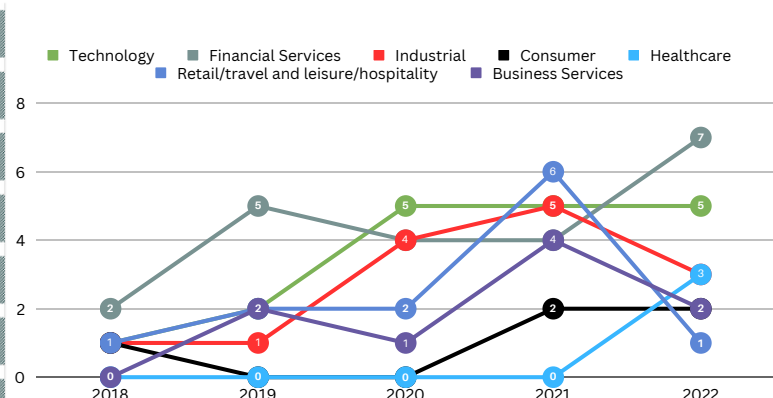
Tech NED Appointments made over the last 5 years on S&P 500 Boards (by Sector)

Legend: Technology, Financial Services, Industrial, Consumer, Healthcare, Retail/travel and leisure/hospitality, Business Services
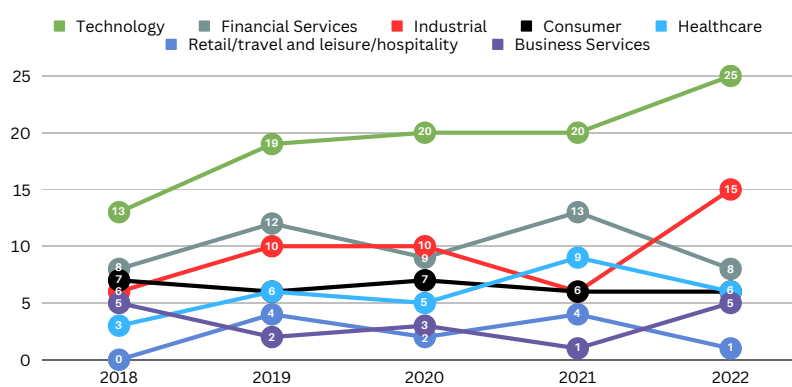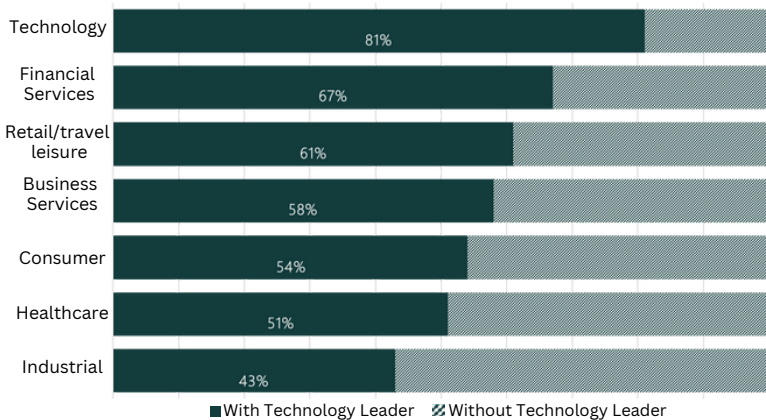
Financial Services (UK v US): An unexpected surprise

Financial Services Boards with Tech NEDs (S&P 500 and FTSE 100/FTSE 250)

	With Technology Leader
US	67%
UK	19%

■ With Technology Leader ▨ Without Technology Leader

Financial Services Technology Leader Board Appointments Since 2018

■ US ■ UK
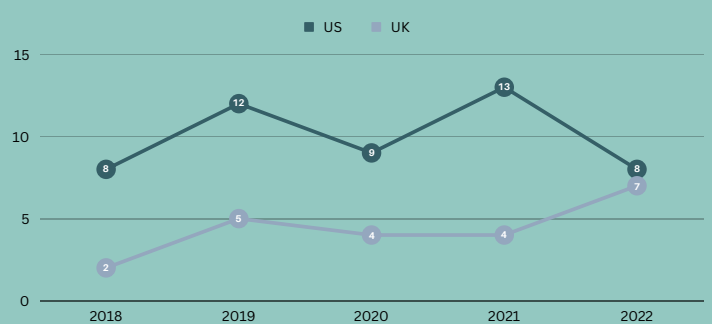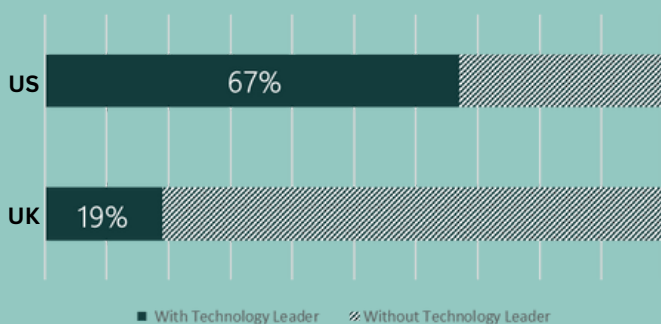
D&I - Tech NEDs v Overall NEDS (by Gender)

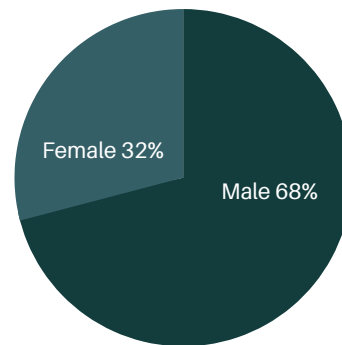## Tech NEDs (by gender) across UK FTSE 100/FTSE 250

Female 54%
Male 46%

Across UK FTSE 100/FTSE 250

Female 39%
Male 61%
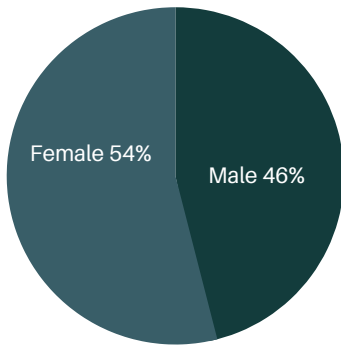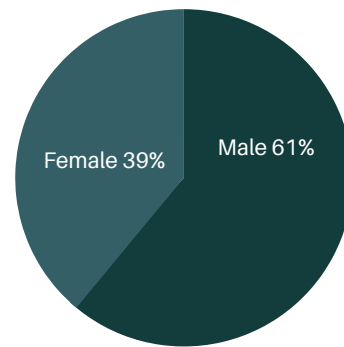
Tech NEDs (by gender) on S&P 500

Female 45%
Male 55%

Across all S&P 500 Boards

Female 32%
Male 68%
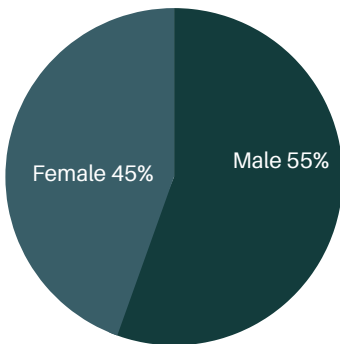
D&I - Tech NEDs v Overall NEDS (by ethnicity)

Tech NEDs (by ethnicity) across UK FTSE 100/FTSE 250

Minority Ethnic Background 35%
Non Minority Ethnic Background 65%

Across UK FTSE 100/FTSE 250

Minority Ethnic Background 22%
Non Minority Ethnic Background 78%
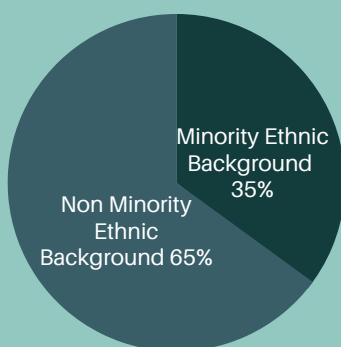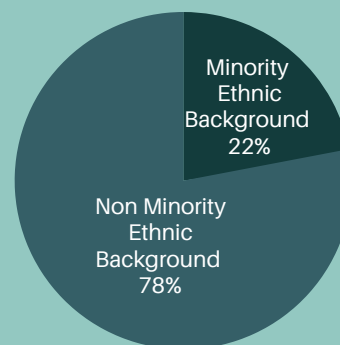
*in the 150 largest UK plcs (Spencer Stuart)

Tech NEDs (by ethnicity) on S&P 500
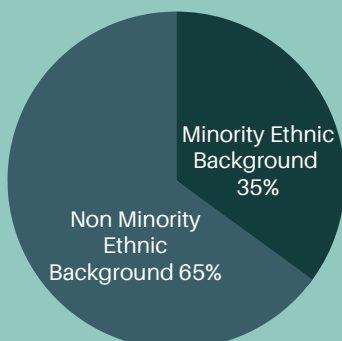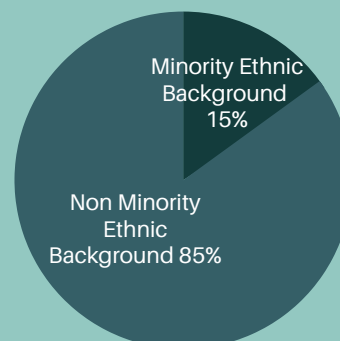
Minority Ethnic Background 35%
Non Minority Ethnic Background 65%

Across all S&P 500 Boards

Minority Ethnic Background 15%
Non Minority Ethnic Background 85%

FTSE 100 and FTSE 250 Boards with a Recognised Cyber Expert

Has a Cyber Expert 1%

Does Not Have a Cyber Expert 99%

S&P 500 Boards with a Recognised Cyber Expert

Has a Cyber Expert 20%

Does Not Have a Cyber Expert 80%

Addendum: Bibliography

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