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Two years down the line – how intelligent automation continues to support business leaders through and beyond the pandemic

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Introduction

Significant shifts in the external environment meant enlightened businesses have turned to digital and automation to mitigate recent challenges, including Brexit, the COVID-19 pandemic, and disruption to the global supply chain. Some businesses had to adopt entirely new technology, whereas others had to operate faster, digitalise their operations and pivot their business model to ensure continuity and maturity. While many organisations had digital transformation in the works for years, the pandemic accelerated the pace of change – in many instances to days or weeks rather than months or years.

Two years on, the majority of companies are making a conscious effort to adapt to evolving changes in the world. Many are introducing intelligent automation into the workplace to future-proof operations and introduce the possibility for new, differentiated services such as a faster speed of customer service and support. With the increased reliance on remote work, hybrid working models, and the need to store and process large volumes of digital information, automation facilitates improvements in efficiency and continuity.

This report looks at responses from a cross-section of leaders of UK businesses: what have they found to be the biggest factors behind organisational change? And what sustainable measures should be taken to maximise a business's longevity?

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Section 1

Pivot!

There is no doubt the pandemic had a profound effect on business operations:

Alchemmy data showed 90% of UK businesses pivoted their operating model, with a third transforming their entire business.

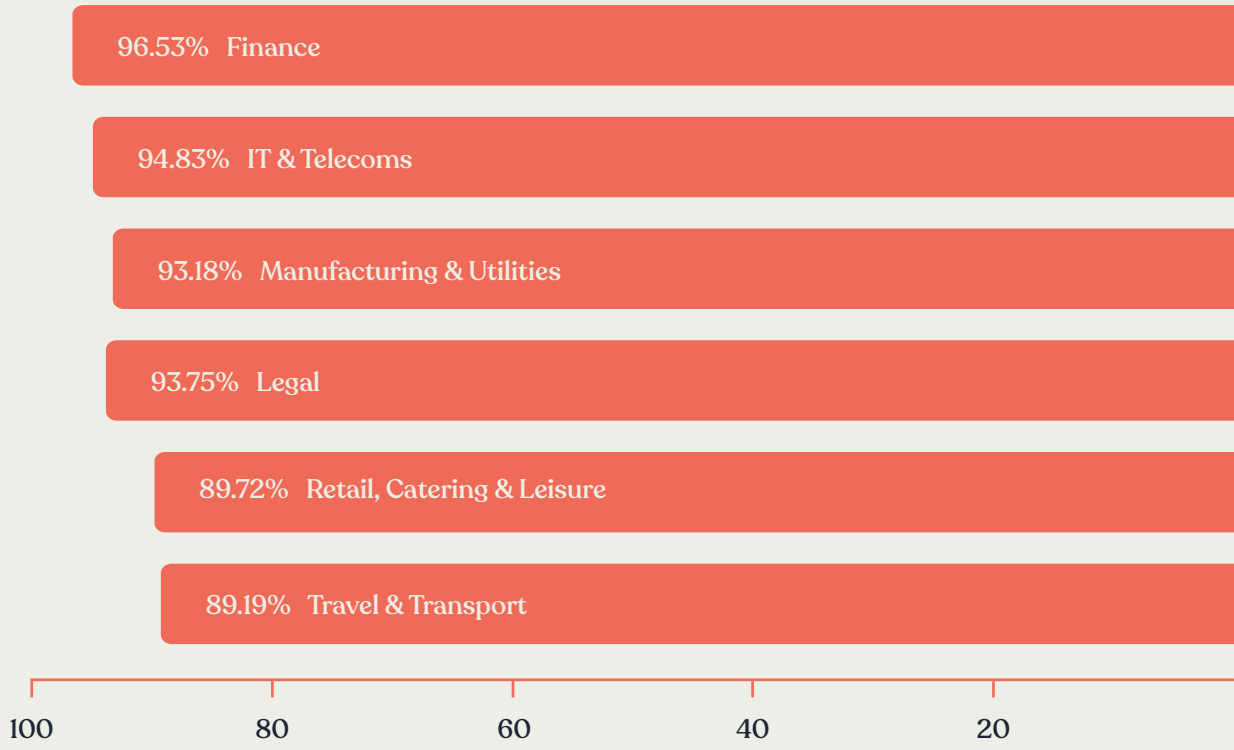
The majority of the industries surveyed saw the virus as the key obstacle to efficient operations, beyond Brexit or any other massive change item – with industries that rely on face-to-face interactions ranking highest, such as retail, catering & leisure (40%), IT & telecoms (47%), and manufacturing & utilities (48%).

The manufacturing and utilities sector was particularly hard hit by supply chain challenges, which touched everything from turbines to microchips. Firms had to scrutinise their supply chains and shift importance from speed and cost to reliability – and particularly savvy companies used intelligent automation to model possible bottlenecks and high-risk parts of the supply chain. This allowed them to develop workarounds and overcome issues.

In the retail industry, the pandemic accelerated the trend towards e-commerce: almost half of non-food retail sales in the UK (46.9%) took place online during 2021. Consumer behaviours changed, and the sector raced to catch up accordingly – relying even more on complex data and insights to facilitate this shift.

Around 90% of organisations in the retail, legal, financial and travel sectors changed aspects of their operations. Examples of these shifts abound, from restaurants offering DIY meal kits to banks digitising operations on a larger scale and improving machine learning solutions to further protect customers from the increased risk of fraud or financial crime.

% of leaders that pivoted their business models during the pandemic, per industry



Supporting the theory that COVID-19 was a catalyst for effecting necessary change,

just 5% of businesses surveyed are not going to keep the changes in response to the pandemic.

Meanwhile, 49% are only keeping some of the adjustments while 19% will make tweaks.

Although the pandemic was cited as the biggest factor in affecting business structures, it certainly wasn't the only impetus. It also rapidly increased a change in digital behaviours, supply chain issues and a global shortage of talent. These factors now required serious rethinking – and action. Companies across all sectors responded accordingly.

"In recent years, so many people have not only realised the immense value that digital transformation can bring to their business – they've witnessed the change first-hand. The pandemic expedited change that many mulled over for a long time, and showed many organisations that it is possible and even essential to be agile. However, the rapid and immensely stressful nature of this change meant some adjustments were turbulent, and it is important to review them and be strategic about what should stay"
(Rob Price, Director of Alchemmy)

Remote working necessitated the shift of many work processes and business models online, from in person transactions to online, meaning new ways of working with digital information became critical for everyday operations as well as strategic decision-making. Organisations wanted to keep pace with a digital landscape that is infiltrating all areas of our lives – and many smart businesses used intelligent automation to support this transformation.

> ...people have not only realised the immense value that digital transformation can bring to their business - they've witnessed the change first-hand."

Automation powered many new methods to respond to a massive influx of data, such as using cloud systems to make analysis more efficient. However, in many cases, the roll-out of technology didn't involve the necessary due diligence or understanding that typically comes before significant structural changes. It follows that many businesses require support to know which changes to keep and what to discard.

The key question is: are these changes here to stay? Some sectors are already retracting recent shifts:

13% of leaders surveyed in the legal sector said they either plan to or have already removed their pivots.

This indicates the majority of businesses have embraced the changes, and just a few are reconsidering. Some industries may need more time to put in place the best structures for efficient operations, including the right type of intelligent automation to support the almost inescapable shift to digital.

Many will be surprised to hear that 61% of CEOs say they don't have the right data to confidently know which sections of their business are making them money.

A third (32%) are adding new revenue streams to existing operations and almost half (48%) are altering their entire business model. It suggests these CEOs don't currently have access to the right information at present. This isn't a concern exclusive to CEOs;

63% of all respondents don't recognize which section of their business has the biggest profit margin.

It is clear there is a knowledge gap in many organisations: the data suggests many senior leaders do not know exactly what data is available to their organisation and as a result, which products are the most profitable. Intelligent automation models can address this concern: they help provide timely access to performance data in real-time, and also reveal and improve the profitability of particular lines of the business.

As leaders and colleagues alike reflect on recent pivots and plan for the future, there needs to be better conversation and collaboration between departments – to find out exactly what worked, what didn't, and how strategic use of data and technology can inform next steps.

> **61%**
>
> of CEOs say they don't have the right data to confidently know which sections of their business are making them money

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Section 2

Intelligent automation

35%

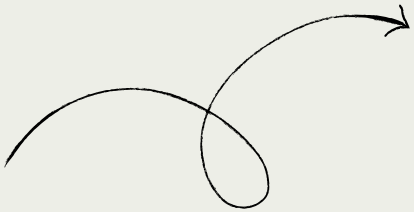
of COOs think customer experience will benefit the most from automation technology

Intelligent automation (IA) is the integration of various emergent technologies and robotics, such as Robotic Process Automation, Artificial Intelligence, and Machine Learning, to empower business automation and boost digital transformation. When incorporating intelligent autonomous systems, organisations are able to accelerate and disrupt end-to-end operational processes and improve operational resilience.

Interestingly, a quarter of all businesses (25%) felt that intelligent automation was a "game changer",

showing there is a great base level awareness of the combined technologies' potential.

As automation capabilities innovate and advance, the opportunity to apply them to various industries also grows. The convergence of automated processes and emergent robotic technologies means that businesses that deal with large datasets are able to streamline this data and reduce the potential for human errors. Those familiar with the technology are already aware of its time saving potential: in fact,



46% of COOs think that operational effectiveness would benefit the most from IA,

elevating the automation process, increasing efficiency and interpreting large volumes of data. When it comes to the area where this technology can make the biggest impact, 35% of COOs think customer experience will benefit the most.

Intriguingly, 2 in 5 (40%) respondents from the travel & transport industry believe that intelligent automation is foundational for innovation and effectiveness of businesses, suggesting awareness is already embedded within this sector. This compares to the across-the-board average of 33%.

Take for example the rail industry, intelligent automation is accelerating core business processes such as effective timetable planning. This is wholly dependent on aggregating and automating data at massive scale. This process enables step change improvement – and it's a process that can be applied to the whole gamut of businesses, industries and sectors.

Even with the realisation that digital information harnesses immense value, it was made clear that 'technological resources and automating tasks' was one of the top three challenges preventing respondents from working as efficiently as possible (17%). While the nationwide average was 15%, this rose to 21% in London and 24% in North West. This was a surprising finding: London and North West cities such as Manchester are seen as technology hubs, and yet there is still a lack of widespread awareness and knowledge of IA in these areas.

Some respondents explained that the biggest hurdle in automating tasks and adopting intelligent automation into business operations is that they believe some work and tasks simply cannot be automated. For example, one respondent explained

"Automation is not possible as my business is personal beauty services."

While this is true to an extent – not everything can or should be automated, it is a typical perception about the technology. In this case, automation could help match individuals for specific beauty treatments based on data they input, or help visualise the impact of potential treatment, thereby accelerating the decision making process.

Even employees expected to have an understanding struggle to actualise the technology:

1 in 3 people (34.5%) within the IT industry believe that their biggest challenge is the lack of knowledge of how to implement the variety of technologies into their business.

Other factors that may be barriers to its implementation include funding, particular skills, and lack of strategic knowledge and understanding of how it can be rolled out.

> Thankfully, all the challenges business leaders shared around intelligent automation, while valid, are surmountable. Businesses simply require support, ongoing help and informed advice to empower their understanding of intelligent automation. Alchemmy, a digital transformation advisory business that helps simplify complexity, approaches digital transformation with analytics and business change capabilities, surmounting these concerns, allowing organisations to equip their existing data and technology to gain a competitive advantage in the market."
>
> Sandy Nijjar, Intelligent Automation Lead at Alchemmy

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Section 3

The increasing skills gap

42%

CTOs see “shortage of talent” as the main obstacle to implementing intelligent automation in their business

A recent report from the ONS highlighted the urgent demand for talent in technology related jobs. Among a record 1.2 million UK job vacancies in the three months to November 2021, more than half of businesses who reported a worker shortage said they were unable to find people who could meet demands, and nowhere is this as prominent as in technology adjacent functions.

While artificial intelligence and machine learning are seen as ‘essential’ for 80% of CEOs, talent shortage and upskilling are still among the major concerns across a range of sectors.

Any technology transformation must align with the overall business strategy defining where your business is and wants to go. And with the rate of progress in technology, a gap analysis is more important than ever to achieve common understanding: what skills do we have, and what skills do we need? Having the right people does not mean you will have a successful transformation, but without the right people, your transformation will fail.

Before being able to attract the right people, you must know what they look like. This is why we use our knowledge and insight to identify the right skills that can deliver against holistic business goals rather than point technology solutions. And it is why we take the time to upskill and train our clients so they can continue to automate and innovate in a sustainable way, long after we have gone.”
(Ben Middleton, Managing Director of Alchemmy)

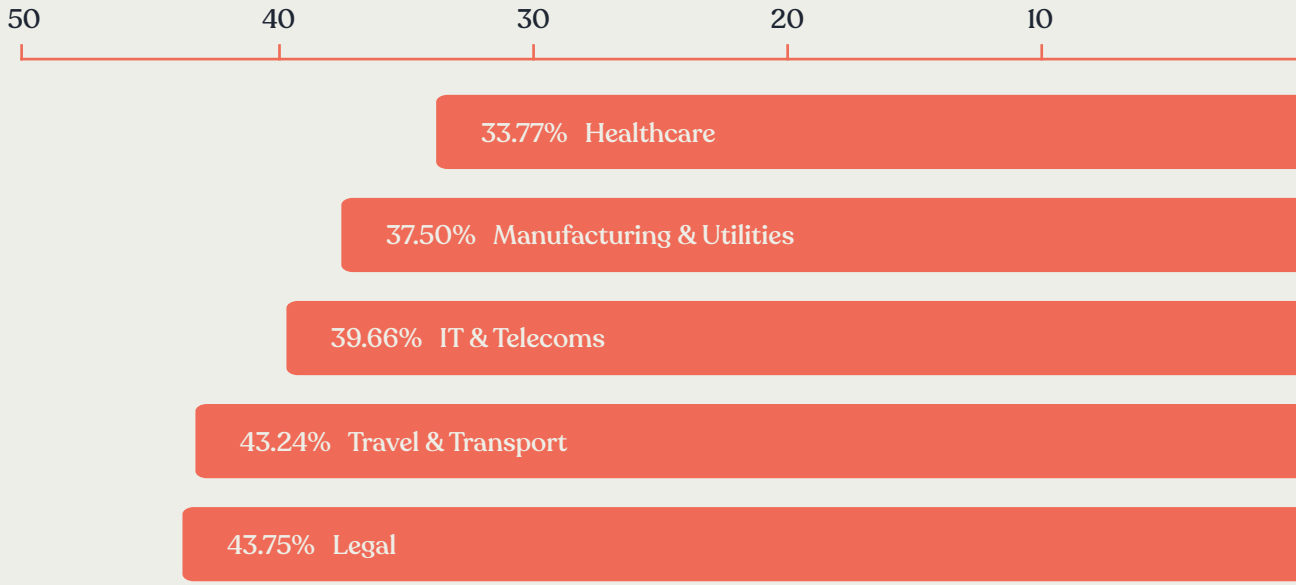
The pandemic changed businesses forever and at unprecedented pace, but did the workforce's skills keep up? The data points to a significant mismatch – and one that needs to be urgently addressed.

Diving into each sector,

the shortage of skilled workforce is particularly a strong concern in the sectors of Travel & Transport (43%); IT & Telecoms (40%); and Manufacturing (38%).

Additionally, the majority of respondents from these sectors all claimed to either pivot their entire operating mode (31%), or add new revenue streams (39%) in response to the pandemic. While our new normal added business opportunities for these industries, it also increased the skills gap within businesses.

Looking at specific job roles, upskilling is seen as a higher priority and, therefore, concern among those in IT roles: 42% of CTOs and 40% of Senior IT Managers thought "Shortage of suitable talent with experience of similar transformation" was the biggest hurdle to automating tasks, while only 1 in 5 (20%) business owners agreed.



% of leaders finding "Shortage of talent" as the main obstacle to automating tasks and sections within the business, per industry

So what about the staff they already have?

Over a third (36%) of CEOs see 'upskilling and professional development of existing workforce' as the most significant adoption barrier.

When asked which element of their business would intelligence automation improve the most, 35% of respondents stated "operational effectiveness" – a term that is likely to be perceived differently among frontline employees versus top management. This highlights the need for a holistic and people-focused change strategy, where the technology, the people, and the process are all closely aligned.

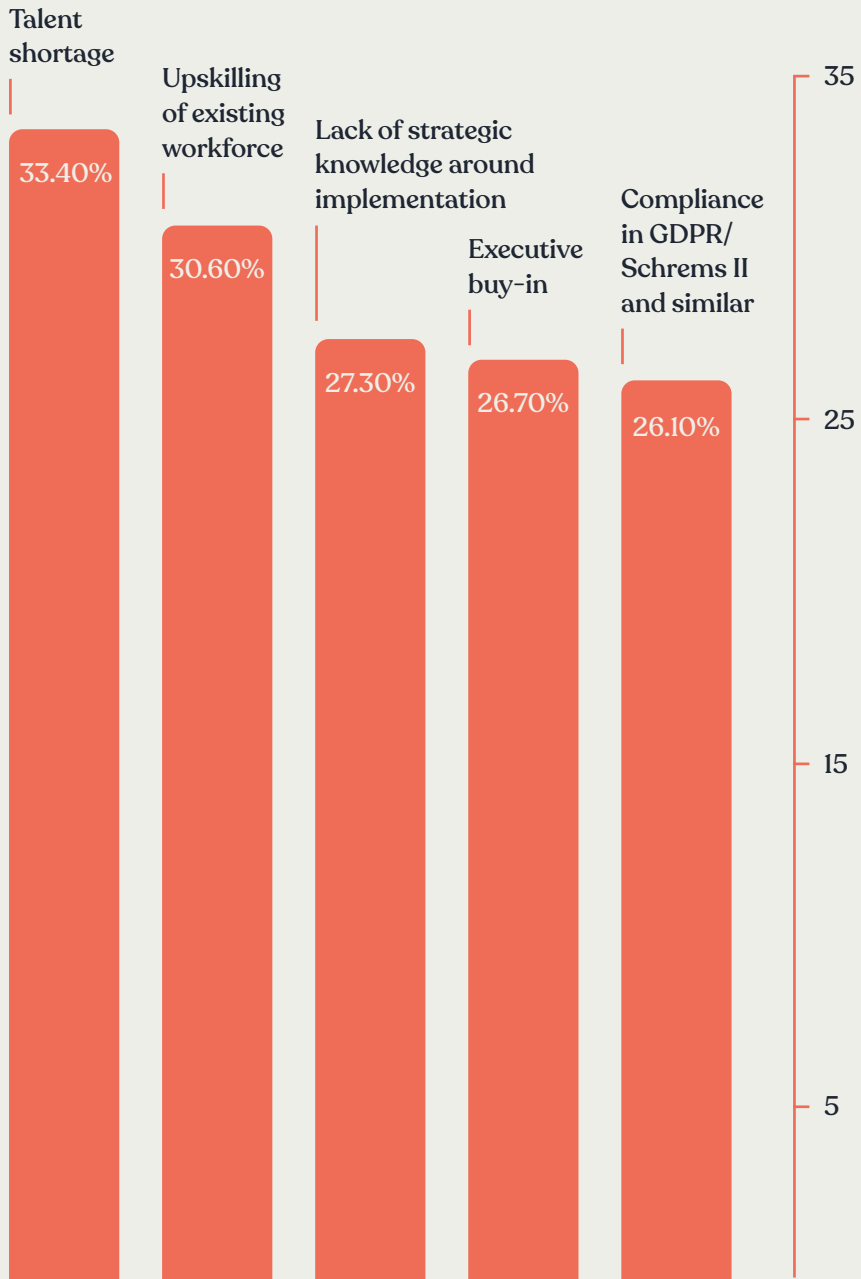
Organisations don't change; people change.

It's important to constantly involve and engage a team during periods of considerable tumult. Offer colleagues support on their professional development so they not only understand how the technology works, but how it can be made better to support their roles and the wider enterprise. Doing so means your operations will naturally become more agile and cost efficient – while also building a motivated and loyal workforce.

At Alchemmy, we always ensure any people and process changes are planned, inclusive, and utilising the current workforce's experience and knowledge so new behaviours are adopted and benefits realised."

Sally Jenner, Director at Alchemmy

Main obstacles to automating tasks and sections within your business, all respondents



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Section 4

Just because you can, doesn't mean you should:

The growing importance of Corporate Digital Responsibility

The impact of machine learning and automation is a topic that garners much attention,

touching upon social, technological, cultural and even ethical topics. Among the 1,000 senior management professionals we surveyed, 39% saw the use of artificial intelligence as "very essential" for their technical strategy, with another 36% responding "somewhat essential",

highlighting the importance of AI for more than two thirds of decision makers.

Corporate Digital Responsibility (CDR) refers to the "set of practices and behaviours that help an organisation use data and digital technologies in ways that are perceived as socially, economically, and environmentally responsible".

In the context of automation and machine learning, this refers to anything from transparency in regard to organisational use of algorithms and data, via tech's impact on the climate, to ensuring that data management is compliant with GDPR and Schrems–II and protects users.

More than ever, CDR is now a priority among senior management:

82% of respondents stated that digital responsibility and ethics are "essential to their firm's technology strategy",

highlighting that this ethical aspect is now a key consideration and success factor among business leaders.

On a similar topic, 84% of respondents valued ethics around data as "essential" for their strategy operations, which on its own might be explained by stricter compliance laws such as Schrems II and GDPR. However, three quarters (75%) of respondents also thought AI ethics are essential – the same number who noted AI and ML is at the core of their technology strategy – which highlights a strong and reassuring trend of digital responsibility.

Is prioritising ethics in relation to data a question of age and experience? According to our survey data, 82% of 24–35-year-olds and 81% of 35 – 44-year-olds confirmed that AI ethics was an essential part of their firm's technology strategy, but among 18–24-year-olds, this figure was down to 58%. While new technology can seem exciting, and the journey for rapid and agile growth a clear goal, failing to consider ethics will not only damage company reputation, but might result in compliance failure.
This reiterates the need for clear, structured and unbiased consultancy on how to navigate, and make sure that any AI initiatives are always implemented with digital responsibility in mind.

"The fact that 82% of respondents see digital responsibility and ethics as essential suggests businesses are developing a corporate conscience.

As companies and their employees are becoming increasingly purpose-driven, CDR is rapidly becoming a market differentiator in relation to both attracting the best talent, and the bottom line.

It's clear that CDR is going the same route as digital transformation has in the recent years: from a technology luxury to business necessity, Organisations that realise this, using intelligent automation to drive the needed changes in the most cost-efficient way, will thrive in the next ten years, while others will be lagging behind."

Rob Price, Director of Alchemmy

Conclusion

Few UK businesses remained untouched by the corporate fallout of the pandemic. However, it was one external factor of many – an extreme, distressing version of a necessary shift to digital that has been on the horizon for a long time. It is interesting to see a snapshot of different sectors' approaches to maintaining the changes made in the immediate aftermath of COVID-19. What is clear is there is still much to be done to raise awareness of how technology can support and sustain a business' longevity – as this is the second biggest factor that has affected businesses over the last two years.

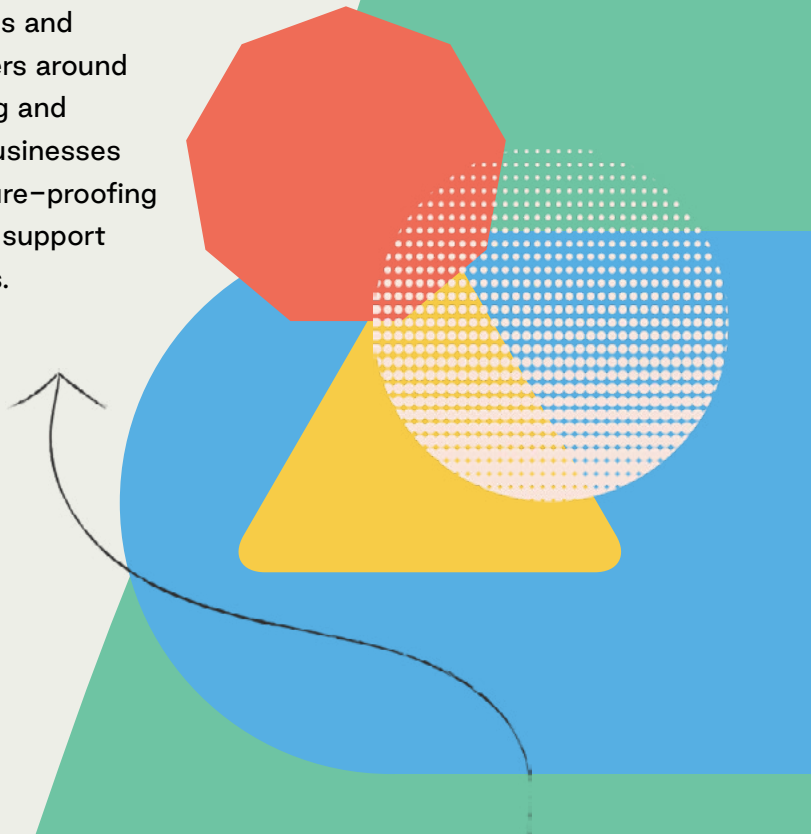
The most surprising finding in this research is the robust awareness of intelligent automation's game changing abilities: an impressive 25% of business leaders we surveyed recognised its huge potential.

While there is a substantial awareness around intelligent automation, there is a lot more work to be done to increase the knowledge of professionals and organisations of its adoption. It is worth noting there are still many businesses that simply cannot automate processes due to the variation of tasks.

However, the past years have seen countless fantastic examples of how intelligent automation can be implemented in innovative ways to speed up performance and productivity, at much lower cost. In the UK, a group of farming students took thousands of photos of lettuce, which helped train their system to detect lettuce ready for harvesting. By training its automation tool, the students managed to build a harvesting device that only cut the crop when it was ready and therefore maximised yield per acre (Birell et. al., 2019).

It shows that barriers to implementing the strategy might not strictly be technical but even creative. With the right consultancy and mindset, intelligent automation can help solve problems of any size, at any company.

We at Alchemmy are encouraged and galvanised by the report's findings around the vital importance of ethics and corporate digital responsibility. It is clear that the vast majority of businesses, across all sectors, are prioritising purpose and a code of conduct in their online behaviours.

Ultimately, all the results point to an urgent need for there to be clear guidelines and consultancy to help business leaders around the UK navigate the ever-changing and evolving online landscape. Many businesses are keen to effect sustainable, future-proofing changes – and asking for help and support is a sign of strength, not weakness.

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