be the
business

# The UK's Technology Moment – why 2020 can be the year that changed our trajectory

# Foreword
## by Sir Charlie Mayfield, Chairman Be the Business

Robert Solow famously said that the computer age was everywhere except for in the productivity statistics. The UK's flatlining productivity has coincided with continued high performance at the high end of innovation and yet a wholesale lack of technology adoption has slowed us down. Government now plans a new era of advanced technological discovery. But if we don't crack adoption, we won't see productivity grow.

In the UK to date we have rushed to solutions. More broadband infrastructure, more R&D expenditure and better STEM education. All of these are necessary for success. But in our interactions with SME business owners and technology providers, they rarely come up as the barriers to adoption. No-one seems to have got under the skin of why well-known productivity technologies are not adopted in the UK unlike elsewhere.

*Until now.*

We gathered an advisory board of leading technology CEOs alongside a panel of SME owners to explore why the market doesn't work. McKinsey & Company also provided support through data gathering and analysis. We discovered that the market opportunity is real but the barriers faced by buyers and sellers are also real – and will need some unlocking to realise the gains.

We also discovered that there is a once-in-a-generation opportunity to change the game. Covid-19 has had tragic consequences for our society and our economy. But one silver lining is an unprecedented engagement with and deployment of technology in our businesses. This presents us with one of those inflection point opportunities to utilise a shock for economic renewal. Many firms have experimented with greater digitisation and want to do more. But this will not happen regardless. The market barriers are structural and this report exposes them and how to fix them to ensure that 2020 becomes the year when the UK's technology trajectory began to change.

In short, this report sets out how we can realise the benefits of technology in our firms, our regional economies, and finally – in our productivity statistics.

# Foreword
## from Andy Haldane and Vivian Hunt DBE, Industrial Strategy Council

*Much of the story of productivity in the UK is a story about the use of technology.*

The UK hosts some of the most innovative businesses in the world. We have appeared in the top 5 of the Global Innovation Index for each of the past five years, ahead of France and Germany. In 2020, the European Innovation Scorecard rated the UK as a "strong innovator".

But these accolades disguise a deeper problem. Rates of technological adoption and penetration among UK companies are low by international standards. While our 'upper-tail' companies are fast adopters of new technology, there are many more companies, in particular small to medium-sized enterprises, where technological adoption has been slow or non-existent.

It is no coincidence that there is also a materially larger proportion of low-productivity companies in the UK than in other advanced economies. Almost 70% of people employed in the UK work in low-productivity businesses, while the same figure for Germany and France is 60% and 65%, respectively. The majority of these companies are SMEs that lack the resources and capacity to adopt technology at scale.

This is why improved technology adoption has been a priority for the UK's Industrial Strategy Council, on which we sit. It was also a focus for the McKinsey Global Institute, which identified it as one of the key reasons for the United Kingdom's poor productivity performance. In the UK, the R and the D in R&D have become disconnected.

As Be the Business's new research suggests, the Covid-19 crisis, with all its terrible human consequences, has accelerated the adoption of new technology across UK SMEs - a trend that reaches far beyond the much-vaunted 'Zoom boom'. It represents a clear opportunity to tackle the UK's tech-adoption problem, and associated productivity crisis, once and for all.

The Government is right to support cutting edge R&D investment in our most innovative sectors. That is a necessary condition for boosting productivity and growth. But without wider adoption of this innovation, it will not be sufficient to deliver lasting productivity gains and inclusive growth across all businesses, sectors, and regions. That is why we support the work that Be the Business is doing to give businesses the resources, support and training they need for success - and with it success for the economy as a whole.

**Andy Haldane**
**Chief Economist, Bank of England**
Chair, Industrial Strategy Council

**Vivian Hunt DBE**
**Managing Partner, McKinsey & Company, UK and Ireland**
Member, Industrial Strategy Council

# 1.  Context

## We all know technology drives productivity; but the UK lags our competitors, particularly among SMEs

The implementation of technology by business has been proven to drive productivity. The CBI has estimated that adoption of key technologies by firms could add £100 bn to UK GVA[1]. The benefit is not just felt at a macro-economic level but also at the level of individual firms using well-established systems. The introduction of technology such as Enterprise Resource Planning (ERP) or Customer Relationship Management (CRM) have been shown to create a productivity premium of around 25%[2].

The UK underperforms other developed countries in technology adoption. This is not related to our capacity and appetite for innovation but rather the diffusion and adoption of technology; in a study by WEF[3] the UK ranked 8th globally for innovation but only 31st in the world and 16th in Europe for ICT adoption.

The challenge in the UK is particularly acute among smaller businesses where not only are smaller businesses less likely to adopt technology than larger UK firms, but they are significantly less likely than the smaller firms in other European countries. For example, while 62% of large UK firms and 68% of German large firms use CRMs, the gap is much larger amongst small (10-49) businesses: 26% to 40%[4].

The UK has had a long-recognised productivity gap. Technology adoption, particularly among the long tail of lower productivity firms, is one of the key causes of the gap and one of the key opportunities to close it.

## The Covid-19 crisis has, among the harm, accelerated SME technology adoption and created a moment of urgent opportunity

The Coronavirus and lockdown forced huge disruption and change on British businesses. Be the Business (BtB) research has shown that it created three years of innovation in just three months[5]. That innovation went way beyond the ubiquitous Zoom; 29% of businesses started using virtual collaboration software and 25% cloud-based back office systems. The sudden changes to business practices and acute restriction in trading  forced businesses and entrepreneurs  to adopt new technology and to experience its potential to reform and transform their business. That change has created a new appetite and openness for and to technology among SMEs that represents a once in a generation opportunity to close the productivity gap and capture the revenue, growth and jobs that we need in the recovery to come. This is a moment of inflection, when we can step up to a steeper path of technology adoption that fuels growth and competitiveness or we lapse back to the slow, uneven progress of the last decade.

However this opportunity depends on businesses continuing to adopt and invest in technology beyond the restrictions and forced conditions of the Covid lockdown. The market conditions, barriers, concerns and constraints that led to the poor adoption of technology are still present and could reassert their influence to hold business back. Research shows that the difficulties in adopting technology successfully mean that micro businesses that have adopted technology are less likely to do so again[6].

## The current SME technology market has delivered poor adoption and results. Our research identified the drivers of those poor outcomes

BtB research[7] shows that SMEs find searching, purchasing and integrating technology into their businesses challenging and that technology providers find the SME market difficult to serve effectively and profitably.

The potential prize of increased technology adoption is huge, however it is dependent on a market with both a functioning demand and supply side. If buyers are struggling to buy and sellers struggling to sell and serve, is there a market at all?

Be the Business partnered with McKinsey to conduct the largest ever in-depth study of the UK SME technology market, looking at both demand and supply-sides, across sectors and use cases. The research looked at the experience and performance of adopting technology in different sizes and sectors of business. It also explored the supply side of the market, from both a user and supplier point of view to create a holistic view of the market, the value of the sector and use case opportunities for both user and supplier.

1    CBI, From Ostrich to Magpie, Increasing business take up of proven ideas and technologies, 2017
2    ONS, Information and communication technology intensity and productivity, 2018
3    World Economic Forum, Global Competitiveness Report, 2019
4    OECD database, 2019 data
5    Be the Business, Opinium, June 2020
6    ERC Research Paper 72, "Industry 4.0 is coming: Is digital adoption a new mechanism linking entrepreneurial ambition to business performance", Roper and Bourke 2018
7    Be the Business interviews and SME workshops, 2019-20

## The Be the Business & McKinsey SME technology study methodology

- Quantitative study: 1,500 SMEs surveyed
- Qualitative Be the Business Tech Adoption Lab: Created a tech adoption support lab, with on-call CTO to offer advice and followed10 SMEs in their adoption journey, testing 20 solutions and gathering insights from 40+ hours of interactions
- 35 structured interviews with a range of companies that serve SMEs – fast-growth disruptors, established incumbents and 'breakout' companies
- Catalogue of 100+ B2B technology solutions broken down by use case and sector
- Profile of 20 B2B tech companies and their products / go-to-market approach.

## The research confirmed the scale of the opportunity for tech adoption and the urgency of action to seize it

SMEs are in financial distress, with 40% stating they will likely be out of business by the end of the year if current economic conditions continue[8]. As they seek ways to remain in business and increase resilience as they adapt to the new normal, they have become highly motivated to implement technology. 2 in 3 believe that technology can improve business performance, and 60% of medium-sized businesses (50-250 employees) expressed willingness to invest in technology post-Covid (45% overall)[9].

SMEs are looking to technology to improve all areas of the business. A large share (55%) of them are searching for digital solutions to serve customers under social distancing rules as 52% of sales were in-person pre-Covid. In other parts of the business, SMEs are experiencing rapid changes in demand and supply requiring more visibility into financials and improved process efficiency. All this while adapting to new internal practices such as working from home has led to SMEs spending too much time on manual administrative tasks and less time on the business.

Yet many may well be engaged with the opportunity but that doesn't mean they will complete the journey. Some are yet to commit. Meanwhile those that have committed are beginning to confront the adoption barriers we identified in our research. The margin pressure on businesses in the year ahead is so pressing that unless technology adoption is made easier and the gains realisable quickly, this could be a significant missed opportunity.

The research exposed these adoption barriers. It also illustrated how difficult they have been to tackle for technology providers. Yet there remains real market opportunity if we can get the market going. Profiling how much technology deployment there is across typical business use cases and across UK sectors shows real economic potential.

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8    McKinsey, survey of 500 SMEs conducted in April & August 2020
9    Be the Business & McKinsey, Survey of 1,500 SMEs, April 2020

# 2. Barriers to technology demand and supply

The quantitative research has highlighted the barriers and difficulties that SMEs face in adopting technology and that technology providers face in serving the SME market. The survey quantified the problems faced by micro and small/medium firms and the different reasons why previous attempts at adopting technology had failed.
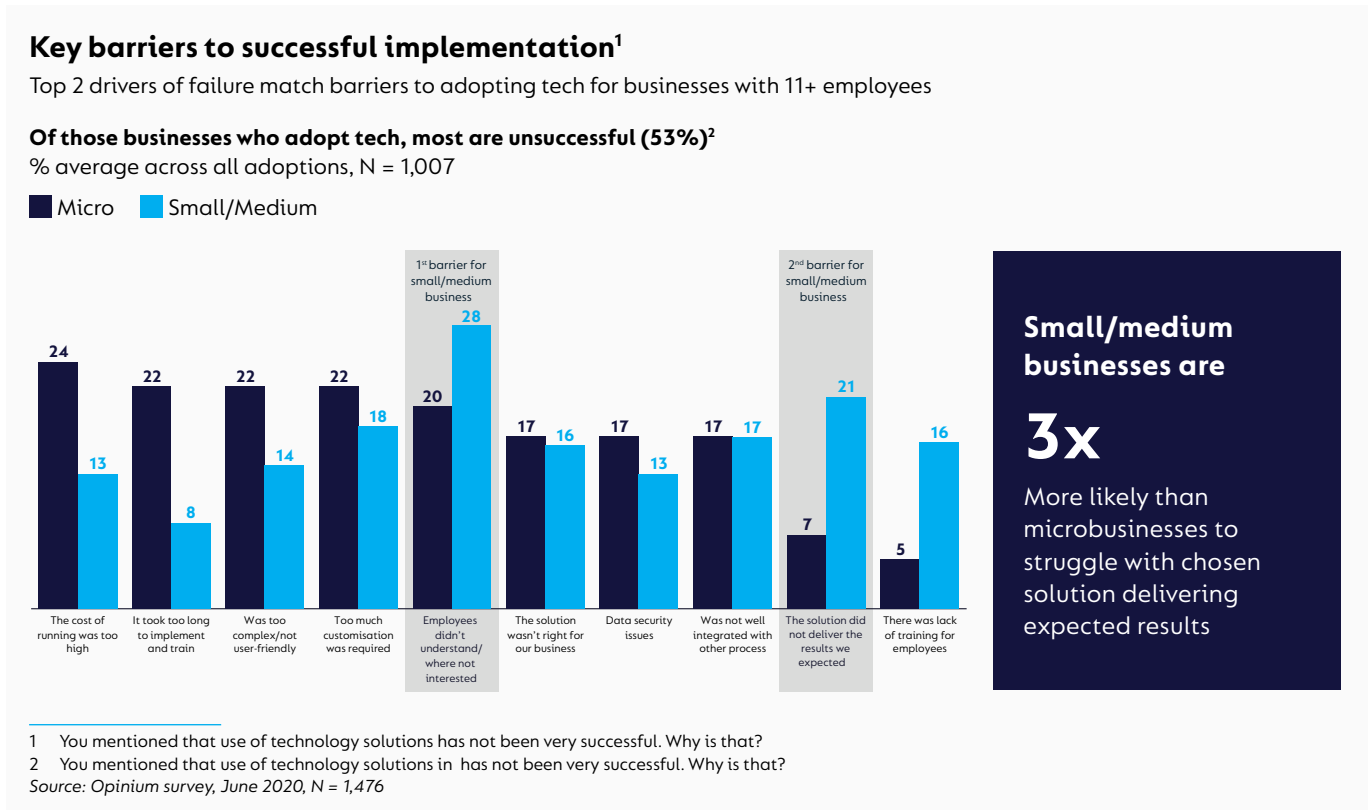
## Key barriers to successful implementation[1]

Top 2 drivers of failure match barriers to adopting tech for businesses with 11+ employees

### Of those businesses who adopt tech, most are unsuccessful (53%)[2]
% average across all adoptions, N = 1,007

■ Micro   ■ Small/Medium

| | 1st barrier for small/medium business | | 2nd barrier for small/medium business | |
|---|---|---|---|---|

Micro / Small/Medium values by category:
- The cost of running was too high: 24 / 13
- It took too long to implement and train: 22 / 8
- Was too complex/not user-friendly: 22 / 14
- Too much customisation was required: 22 / 18
- Employees didn't understand/ where not interested: 20 / 28
- The solution wasn't right for our business: 17 / 16
- Data security issues: 17 / 13
- Was not well integrated with other process: 17 / 17
- The solution did not deliver the results we expected: 7 / 21
- There was lack of training for employees: 5 / 16

**Small/medium businesses are**

**3x**

More likely than microbusinesses to struggle with chosen solution delivering expected results

1    You mentioned that use of technology solutions has not been very successful. Why is that?
2    You mentioned that use of technology solutions in  has not been very successful. Why is that?
*Source: Opinium survey, June 2020, N = 1,476*

**Figure 1 - Barriers to successful implementation of technology by SMEs**

The problem areas quantified in the survey were then explored further in our custom Be the Business Tech Adoption Lab methodology. The Adoption Labs allowed us to explore the problem areas in greater depth and understand the underlying barriers that led to their experience. We have synthesised this data into 5 Barriers to Technology Adoption and 3 Barriers to Technology Supply. The synthesis reveals a very behavioural and human set of challenges, so the barriers are not mutually exclusive and collectively exhaustive, but instead overlap. Nonetheless they each contain important and distinctive findings from all stages of the research that prevent the market flourishing and ensuring that technology plays a leading role in driving growth and recovery.

## 2.1    5 Barriers to technology adoption

### Barrier 1 – Products built for enterprise, not SME customers

#### 'I can't find the technology to meet my needs''

Many technology products and services are multi-capable solutions built for larger enterprises or tech-savvy customers. This means that they are not simple enough, easily adjustable enough or tailored to the use cases of small businesses, leading to a loss of control for the SME. Small business leaders look for technology providers whose products address their needs and who explain the benefits in an easy, jargon-free way that inspires them. In fact, they rank 'ability to fit with needs' as both an important decision factor and one that they are least satisfied with when reflecting on prior technology adoption experiences.[10] This can be down to jargon and language, lack of sector-specific support or cases and general lack of clarity on functions, benefits and what it can do for them.

*"Looking at [an enterprise software website] I have heard of them before. The style of the website instantly says 'this is not for small businesses'. Where is it trying to understand who I am as a business? They know their product inside out and I know nothing about it."*
*- Hydraulics distributor*

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10  See Figure 9 in appendix for SME Decision Factors: Importance vs. Satisfaction

## Barrier 2 – Adoption looks too hard and too costly

### 'I'm not sure I want it enough to go through the pain of adoption'

SMEs struggle to justify the cost of new tech solutions. 2 in 3 SMEs do not measure the quantitative impact of a technology on their business, and a large share of SMEs state that the main driver of failure in technology adoption is that a solution did not deliver the expected results. This barrier is strengthened when adopting technology would mean changing many business processes at once in order to maximise a technology's full potential. SMEs want a solution to a specific use case not to re-engineer major parts of the business.

*"...we would need a full time IT team working on it. I saw a bottomless drain of cash just to implement it. We would be completely at their mercy to bill and bill until it works for us...and it would take months before you can even start using it..."*

*- Food distributor*

## Barrier 3 – Switching feels too high risk

### 'I worry about losing control and losing critical data'

Switching from one system to another is the most difficult and stressful part of technology adoption. 41% of SMEs say that switching could disrupt their business. In addition to the complexity, stress and disruption of migration there is also the specific fear of data loss. The desire to limit these risks reinforces the desire for simpler products that the business is in control of rather than the technology provider. Many SMEs feel powerless and locked in with large complex systems. There is a preference for simpler, off the shelf products designed for clear use-cases over complex and potentially more powerful solutions. A second element of fear of loss of control is around data. The migration from one system to another brings with it a fear of losing data and of complexity that brings with it unexpected and uncontrolled costs and overspend around integration.

*"In 2000 we migrated from Product X to Product Y - such a headache, we lost so much data. You get your fingers burned when switching, but now many years after I think it was worth it."*

*- Fire protection provider*

## Barrier 4 – Lack of expertise and execution support

### 'I don't have the expertise to manage the adoption and execution'

Adopting new technology can feel daunting and like a step into the unknown for any business owner. Larger businesses have access to greater support during the transition and specialists with the skills to implement and lead the introduction of new systems. In SMEs this role often falls to the owner or leader who does not have the expertise that a dedicated specialist in a larger business will have. These leaders tend to crowdsource knowledge about technology from their own networks.[11]

*"I'm very wary of implementing new systems - if they don't link to my current system then you won't get consistency, detail, accountability. [Solution] on the other hand integrated instantly. We gave them our data file and in 2 hours they had already built and fully integrated it into [CRM solution]."*

*- Outdoor equipment manufacturer*

## Barrier 5 – End-user adoption problems

### 'My employees don't want to change how they do things'

SMEs are more than twice as likely to fail at technology adoption if employees are resistant.[12] A clear path to SMEs extracting the maximum value from a solution is in end users (employees) using it consistently and in the right ways. Deeply understanding end-user pain points, developing solutions that clearly address them, and providing support to SMEs in training and upskilling their employees enable SMEs to maximise value capture by creating end user 'champions' within the business. When providers and managers achieve this there is a large impact on adoption.

*"[Tech provider] staff has a conversation with our marketing team on a constant basis – not only for things related to their product, but they recommend other tools and answer any questions we have"*

*- LED equipment supplier*

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11   See Figure 10 in appendix. Only 20% of SMEs look to business support or tech advocacy organisations for information or support on technology.
12   See Figure 11 in appendix. Employee openness to technology is the biggest predictor of implementation success
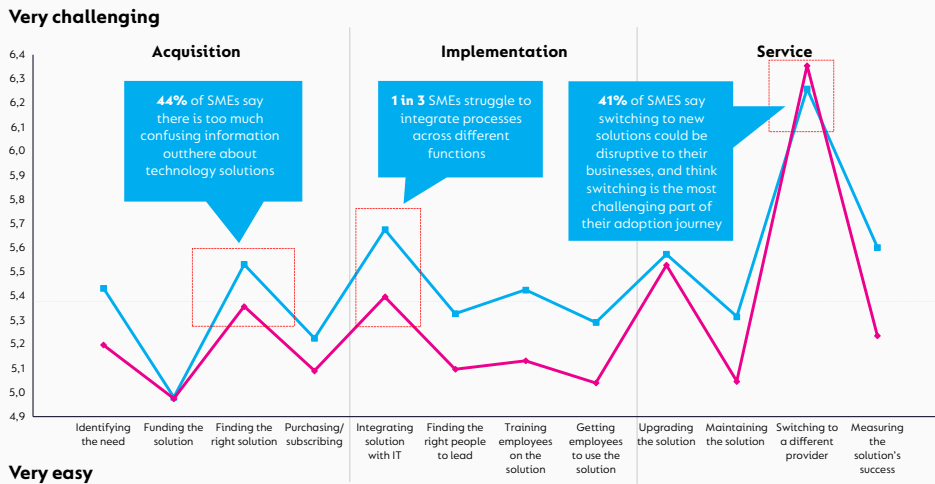
Taken together, these barriers make for a stressful and time-consuming user journey for many SMEs. Indeed, many large companies have the same experience however they have in-house capability and expert support to assist them.

**Every stage of the adoption journey is at least somewhat challenging for SMEs, with switching providers being the toughest step**

How easy/difficult are the following elements of the journey?[1]

Difference vs average, N = 1,476

Successful experience — Unsuccessful experience — Toughest pain points



**44%** of SMEs say there is too much confusing information out there about technology solutions

**1 in 3** SMEs struggle to integrate processes across different functions

**41%** of SMES say switching to new solutions could be disruptive to their businesses, and think switching is the most challenging part of their adoption journey

**Across all SMES**

**30%**

Find the entire customer journey moderately to very challenging

SMEs have to put in more effort at almost every step of the journey to have a successful adoption experience

1. Please indicate how strongly you agree or disagree with each of these statements
Source: Be the Business Opinium survey, June 2020, N = 1,476

**Figure 2 - Key barriers at stages of the adoption journey**

Analysis of the adoption journey showed the difficultly that businesses faced in adopting technology, with those who were successful finding it just as difficult, sometimes more so, than firms that were ultimately unsuccessful in adopting technology. It is a long process with many stages, any of which could make adoption fail. The most challenging element of adoption is switching between systems, at a time when change is urgent this migration challenge is particularly important. The other most commonly found stages of difficulty are around integration with other systems and getting through the large amount of confusing information.

The 5 Barriers to technology adoption hold back SMEs from acting on their interest and, unless addressed, will mean that the opportunity for mass adoption following the Covid disruption is squandered. Without intervention there is no sign that the market will shift to tailoring solutions to SMEs, nor will SME owners and leaders develop the skills and expertise to identify the right technologies for their business, manage the adoption by their employees and measure its ROI. The UK recovery cannot afford to wait for a new generation of more digitally literate entrepreneurs and leaders to emerge; the window of opportunity will close well before they become the majority of UK business leaders.

## 2.2  3 Barriers to serving the SME market

Before conducting our research, we gathered a steering group of technology leaders from leading global and UK companies. There was unanimity among them that serving the SME segment was a well known and longstanding challenge. Everyone wanted to try but two fundamental commercial challenges kept coming up: the cost to acquire SME customers and the cost to serve them.

To unpack that further, our research with 35 technology providers of differing sizes and approaches has both highlighted success models and deep-seated challenges. In combination with our audit of the market from specific use cases and sectors we have been able to identify 3 endemic and powerful barriers that prevent a large, dynamic sector from successfully serving the significant value of the SME market.

### Supplier Barrier 1 – Economics of product development for SMEs

SMEs look for and prefer products that are tailored not just to their use case but often, their sector, further they want simplicity but also modularity. Technology providers' current business model when serving SMEs is often focused on making at most, small tweaks to existing products often developed for broad use. The costs of developing or customising products for SMEs can be prohibitive for large scale, often global, technology providers.

**Supplier Barrier 2 – The costs of customer acquisition are too high**

SMEs are looking to quickly find, trial for free, and adopt easily accessible solutions that fit with their sector and specific needs. Unfortunately, the economics of individual SME sales make tailoring the sales and marketing approach unattractive. The current sales model for enterprise-focused technology providers is too expensive to apply to a fragmented SME market.

**Supplier Barrier 3 – Smaller ticket size of SME sales challenges service model**

SME customers generate a high volume of inbound queries that require investment in customer service if they are handled through the same channels and models as enterprise customers. Instead of trying to handle this flow of queries with a system built for enterprise, providers need to evolve to a self-serve model at scale.  Finally, most technology providers are global or globalising and many headquartered elsewhere. There is little country by country product customisation.

The 3 Supplier Barriers are strongest among  enterprise focused technology providers. However in our research we uncovered several 'breakout companies' – often newer entrants who have built profitable, fast-growing SME businesses while delivering a great experience for SMEs. These breakouts have proven that it is profitable – if not yet scalable - to serve SMEs by redefining the go-to-market model in a way that avoids or overcomes the 3 Barriers. The huge challenge for the overall technology sector is how to build and scale self-serve platforms and models that work for the needs and use-cases of SMEs and deliver economics that work for the provider.

If large suppliers followed this approach, we could take fast and large steps toward closing the productivity gap. Although there is a clear path forward for the market to improve, it will likely take many years for digital entrants to scale, or for established companies to transform their SME strategy and business as described above, particularly while they lack the proof of the value of doing so. The UK and its SMEs cannot afford to wait for this happen by itself. To respond at the pace needed will require intervention in the market to kick start the adoption rate we need – and now have a time bound opportunity to realise.

## 2.3 The consequences: a fragmented market with demand opportunity and insufficient penetration of technology solutions

As part of the research we conducted a user centric audit of the SME technology supply market. This audit started, as SMEs do, with a sector specific "use case". Small businesses tend not to think about or look for "products" as the market defines them. They are less likely than larger firms may be to search for an ERP or CRM system, and instead often search for tools to address specific needs that they are experiencing, in their particular sector – that is what we mean by "use case".

Our research identifies four functional areas into which these use cases typically fall:

- Marketing, sales and customer relationships, which includes needs such as finding new ways to grow revenues, improving customer service, or increasing value per customer
- Financial management and intelligence, which includes use cases such as getting a better understanding of sales performance, forecasting and managing cash flow, profitability and other key financial metrics, and paying employees and tracking their hours
- Operations and productivity, which covers activity such as improving process efficiency, managing supply chains, and data security and storage
- Administrative, which includes use cases such as managing staff performance, managing legal processes, and managing employee satisfaction and engagement

We conducted a market scan across all sectors and use cases to assess the level of technology provision. This identified sectors and use cases relatively underserved by use case and sector specific solutions. This does not mean that there are not more general solutions that include the functionality, but rather that an SME looking for a use case specific product  would not find one to help them.

This analysis created a heatmap which maps the relative provision of specific solutions across the four use case areas, and 40 specific use cases and 17 distinct business sectors. The analysis went on to further evaluate the likely value and openness of sectors to technology adoption.

The image below is an extract from the heatmap analysis and illustrates the findings for just three key sectors (construction, wholesale retail and advanced manufacturing) and four use cases in the marketing, sales and customer relationships category. It shows that particularly the construction sector is relatively underserved by sector-specific solutions.

Dark blue represents use cases/sectors with good solution availability while light blue indicates very few or no solutions identifiable and the medium blue a use case with some provision.
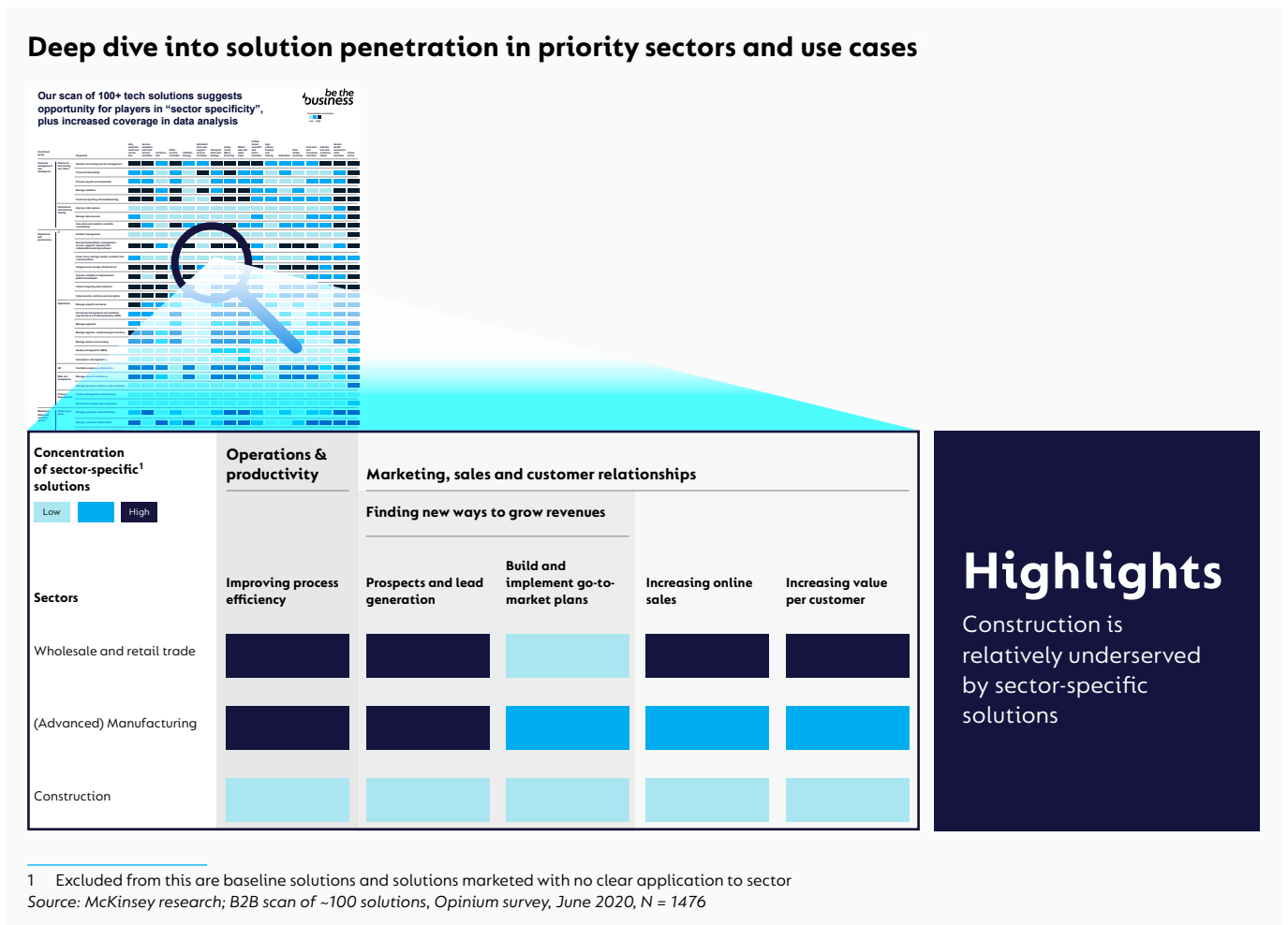
## Deep dive into solution penetration in priority sectors and use cases



1     Excluded from this are baseline solutions and solutions marketed with no clear application to sector
*Source: McKinsey research; B2B scan of ~100 solutions, Opinium survey, June 2020, N = 1476*

**Figure 3 - Extract from use case heatmap analysis - marketing/sales/relationships category**

The heatmap analysis showed the scale of the market failure. There are very few well served sectors, while too many use cases have no clear, identifiable, tailored or suitable solutions.

# 3. 6 Recommendations to seize the post-Covid technology adoption moment

The 5 barriers to tech adoption combined with the 3 supplier barriers explain the market failure visualised in the multicolour mosaic of the heatmap. The key imperatives for reform are based therefore on three simple principles. First, we must tackle the demand side of the market to grow the confidence and capability of SMEs to adopt technology. Second, we must engage suppliers to prioritise this market and better serve it. And third, we must intervene to kick start these improvements immediately as, without them, this will take far too long to change. If delayed, we will miss the technology imperative and the moment of opportunity that has emerged in the most difficult and unexpected of circumstances. Waiting for the market means wasting the moment.

We have six major recommendations – two on the demand side; two on the supply side; and two where Government can play a unique role in accelerating impact:

## 1. Create a demand-side platform and advisory arm for SME technology buyers to build their confidence and capability: a moneysavingexpert for the technology market

Build an independent source of free, on demand, tailored support for SMEs that engages business leaders, helps them identify opportunities for technology in their business, and guides them through the process of specifying, purchasing and implementing that technology.

It should provide online support as well as a route to access free, more intensive interventions including one to one mechanisms such as a technology adoption support helpline and access to "CTO-style" mentoring support, as well as peer to peer measures such as online communities where technology challenges and solutions can be discussed.

## 2. Prioritise owner/manager digital skills interventions

Design and scale a new technology and digital skills programme for SME owners and leaders focused on building the high-level skills leaders need to identify the technology opportunity in their business and then to lead their organisations in the purchase and adoption of that technology. The programme will need Government support to ensure that it is not tied to a particular solution or provider and therefore acknowledges the skepticism which exists among SMEs when it comes to the technology sector. This is an essential complement to broader workforce skills provision.

More specific technology or use case skills can be provided by crowding-in existing training offerings from the major technology companies such as Facebook, Google, Amazon, Cisco and others. Feedback from those companies to us is that their collective efforts need to be better structured and coordinated to ensure the right use cases are covered, the training is user friendly and that every region of the UK benefits.

## 3. Rapidly create sector strategies for better sector-level adoption

Convene sector and technology leaders to devise action plans for sector technology diffusion and adoption based on the learning from Made Smarter's work with manufacturing.[13] The 2017 Made Smarter Review sets out the opportunities for UK manufacturing from the development and adoption of Industrial Digital Technology[14] as well as the barriers preventing the sector from maximising the benefits from it. The Made Smarter programme is developing both advanced "deep tech" solutions for the future of the sector through its support for innovation but also an adoption programme for firms to benefit from these technologies. The support for adoption being piloted in the North West reveals many of the barriers we describe in this report and a need for leadership and management skills, and basic digital capabilities as a precursor to adoption of more advanced technologies.

The sector technology plans will propagate the Made Smarter approach first in sectors that the heat map analysis showed as high potential for both impact and commercial opportunity such as Construction and Retail & Wholesale trade and then to all the sectors of the wider SME market. These sector plans should also engage the business support ecosystem to reflect regional priorities, differences and opportunities.

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13  https://www.madesmarter.uk/about/what-is-made-smarter/
14  Industrial Digital Technology includes robotics and autonomous systems; AI and data analytics; additive manufacturing; Industrial internet of Things; Virtual Reality and Digital Twin

## 4. Make switching between technology solutions easier

Urge the industry to embrace self-regulation and design in greater data portability across platforms and technologies into their products to make it easier for SMEs to adopt new technologies. Switching from an existing technology to a new provider is the most difficult and stressful of any stage of technology adoption so new data portability standards will create a larger SME market for all.

## 5. Accelerate adoption through Government incentives

Incentivise technology investment by exploring greater reliefs for businesses to adopt productivity software, particularly among the 72% of firms which have seen a drop in revenue due to Covid[15]. This could be direct through relief of employers' tax, or via vouchers linked to training. Alternatively, it could be levied indirectly, where the relief is given to the vendors of technology conditionally that it be passed on to customers. The Made Smarter North West Pilot[16] uses small, match-funded subsidies from Government to encourage firms to engage and adopt and pairs these with expert advice and wraparound support, access to leadership and management training and access to STEM talent through student placements. These were critical as a stimulus, even when firms could afford the purchase. Any such incentive should be time bound and well-marketed as being in response to the economic impact from Covid.[17]

## 6. Make technology adoption the flagship endeavour of the Business Support ecosystem

Place tech adoption at the heart of the regional business support system. The Government has the opportunity to reform the business support ecosystem and put technology and innovation at the heart of that reform. By creating regional diffusion hubs Government can create a network of convening organisations with the expertise, connections and funding to mobilise and localise the business support ecosystem in the way that is right for each regions needs and opportunities. These diffusion hubs would deliver new capabilities to the business support ecosystem, particularly at the existing Growth Hub and LEP level. In short, regions are well placed to engage the demand side, crowd-in the improved supply side, and facilitate and incentivise faster adoption to realise local renewal and GVA growth.

We believe these policy recommendations build on the foundations which Government has already laid with efforts on the key enablers of SME technology adoption: connectivity, allowing firms to unlock the opportunities presented by tech adoption; confidence, giving SMEs guidance on cyber security and data; and capabilities, investing in building digital literacy in the workforce. Those are all necessary conditions for the adoption we now need to stimulate faster.

## Be the Business' role

The 6 recommendations above represent a major intervention by Government, suppliers and the wider ecosystem to address a critical market failure. BtB wants to play our part and to that end we are taking a holistic view to this huge productivity opportunity: we are building partnerships across the ecosystem and working on solutions to all of the demand and supply side recommendations above.

## Demand side

We have already built a new platform: Be the Business Digital (https://bethebusiness.tools/) which can be the foundation for the demand side platform to support SMEs. The platform already houses tools, advice and how-to guides. We are adding access to independent, expert advice and Peer to Peer forums where businesses can share experience and learn from each other, delivering help and advice in the channels that they already prefer to use. It will become more powerful and provide the basis for access to mentoring and the CTO on-demand helpline. To inform the development of the platform we are extending the use of our Tech Adoption Labs used in this research, to give us deeper insight on barriers and solutions by engaging dozens of SME owners as they go through their journey of technology adoption.

We are mobilising CTO-on-demand mentoring and working with other organisations such as Tech UK and Digital Boost to test, develop and deploy technology specific mentoring to SMEs when they need it.

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15   Be the Business & McKinsey, Survey of 1,500 SMEs, April 2020
16   https://www.MadeSmarter.uk
17   There are indications that funding will become an increasingly important barrier to tech adoption in the near term. See Figure 6 in Appendix Funding Challenges for SMEs

We want to put technology adoption skills at the heart of leadership training. The barriers and drivers identified through this research and the Tech Adoption Labs provide granular insight into the specific areas where managers struggle and where improved skills can have the greatest impact. We will be working with training partners to develop this offer and scale it.

We are already working with several regions and combined authorities to devise technology adoption strategies tailored to the needs of businesses in those regions. These strategies focus on the specific needs of the main sectors in those regions.

## Supply side

We have formed a Technology CEO Advisory Board chaired by Phil Smith CBE, former Chair of Cisco and Innovate UK, and comprising leaders from Amazon, Facebook, Openreach, Oracle, SAP, Cisco and Sage. We will be adding more partners from a range of large and small technology providers including a number of breakout players.

We have already developed sector networks and Sector Steercos in two large and valuable sectors: Construction and Hospitality. We will combine these existing assets with our technology partnerships to convene sector technology steercos to confront the market failures in technology adoption and provision for key use cases and sectors. In this process we are working closely with Made Smarter, adopting the learnings from their work with manufacturing and extending and deepening it across different sectors and regions.
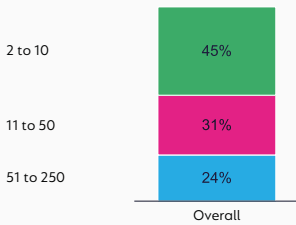
Finally, we are working with policy organisations such as the CBI and Tech UK to align around the best way Government can stimulate accelerated technology adoption strategies for Britain.
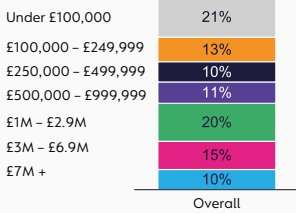
# APPENDIX:

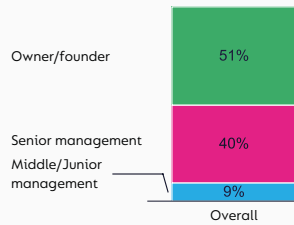## We surveyed ~1,500 SMEs across the UK in May 2020
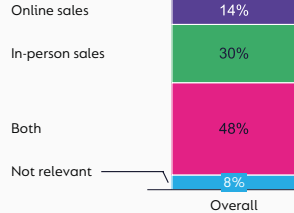
**% of respondents**

### Size

| | Overall |
|---|---|
| 2 to 10 | 45% |
| 11 to 50 | 31% |
| 51 to 250 | 24% |

### Role

| | Overall |
|---|---|
| Owner/founder | 51% |
| Senior management | 40% |
| Middle/Junior management | 9% |

### Industry

| | |
|---|---|
| Retail & Wholesale | 15 |
| Business consulting | 12 |
| Information/communication | 11 |
| Construction | 11 |
| Manufacturing | 10 |
| Finance and insurance | 6 |
| Arts/entertainment | 5 |
| Property | 5 |
| Hospitality | 5 |
| Education | 4 |
| Health | 4 |
| Administrative services | 3 |
| Logistics | 3 |
| Scientific | 3 |
| Agriculture | 1 |

### Type of Business

| | Overall |
|---|---|
| B2C | 29% |
| B2B | 24% |
| Both | 45% |
| Not applicable | 1% |

### Revenue

| | Overall |
|---|---|
| Under £100,000 | 21% |
| £100,000 – £249,999 | 13% |
| £250,000 – £499,999 | 10% |
| £500,000 – £999,999 | 11% |
| £1M – £2.9M | 20% |
| £3M – £6.9M | 15% |
| £7M + | 10% |

### % Sales

| | Overall |
|---|---|
| Online sales | 14% |
| In-person sales | 30% |
| Both | 48% |
| Not relevant | 8% |

### % Geographical coverage

| | Overall |
|---|---|
| UK only | 90% |
| Globally | 10% |

Source: Be the Business Opinium survey, June 2020, N = 1,476

**Figure 4 - Details of survey**

## Small and medium businesses struggle more with complex processes, driving their interest in technology

**How strongly do you agree with each of these statements?[1]**
[% SMEs who strongly agree / agree]

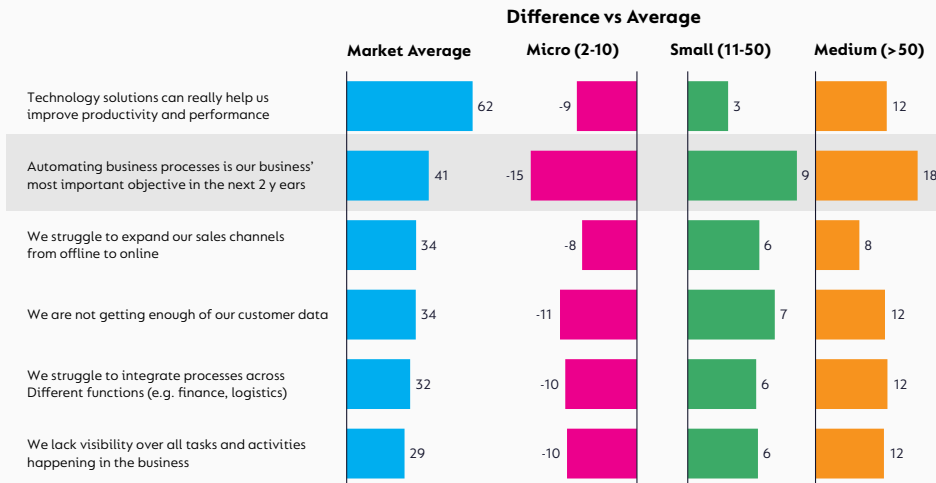| | Market Average | Difference vs Average | | |
|---|---|---|---|---|
| | | Micro (2-10) | Small (11-50) | Medium (>50) |
| Technology solutions can really help us improve productivity and performance | 62 | -9 | 3 | 12 |
| Automating business processes is our business' most important objective in the next 2 years | 41 | -15 | 9 | 18 |
| We struggle to expand our sales channels from offline to online | 34 | -8 | 6 | 8 |
| We are not getting enough of our customer data | 34 | -11 | 7 | 12 |
| We struggle to integrate processes across Different functions (e.g. finance, logistics) | 32 | -10 | 6 | 12 |
| We lack visibility over all tasks and activities happening in the business | 29 | -10 | 6 | 12 |

**59%**

Of businesses with 50+ employees identify automating processes as their most important objective in the next two years
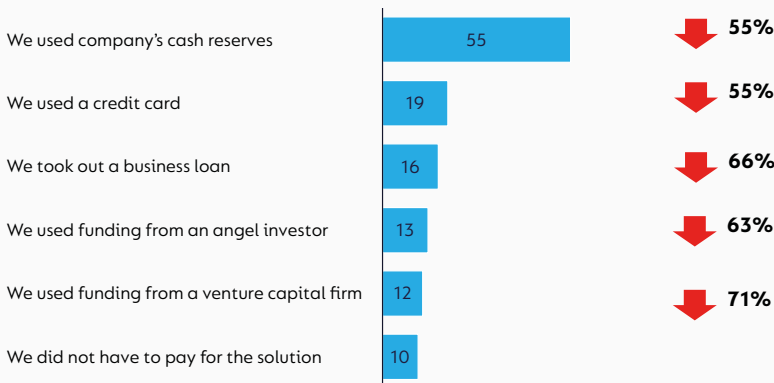
1. Please indicate how strongly you agree or disagree with each of these statements
Source: Be the Business Opinium survey, June 2020, N = 1,476

**Figure 5 - How strongly do you agree with each of these statements?**

## While SMEs want to invest in technology, they may be constrained by funding challenges exacerbated by Covid

**How did you fund technology (prior to Covid-19?[1]**
% Respondents, N = 1,007

**Likelihood to use after Covid-19 ?[2]**
% Respondents, N = 1,007

| | | |
|---|---|---|
| We used company's cash reserves | 55 | ⬇ **55%** |
| We used a credit card | 19 | ⬇ **55%** |
| We took out a business loan | 16 | ⬇ **66%** |
| We used funding from an angel investor | 13 | ⬇ **63%** |
| We used funding from a venture capital firm | 12 | ⬇ **71%** |
| We did not have to pay for the solution | 10 | |

**72%**
of SMEs report a reduction in revenues due to Covid

**44%**
of SMEs are likely to struggle to fund technology due to Covid-19

**1/3**
of SMEs had to postpone/ will postpone technology acquisition during Covid-19

1    How did you fund this technology solution in?
2    Based on % of SMEs who Agree/Strongly agree they will struggle funding for technology adoption post Covid-19 cut by their primary source of funding.
Source: Be the Business Opinium survey, June 2020, N = 1,476

**Figure 6 - Funding challenges**

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## SMEs do not always realise that technology has the potential to improve business performance
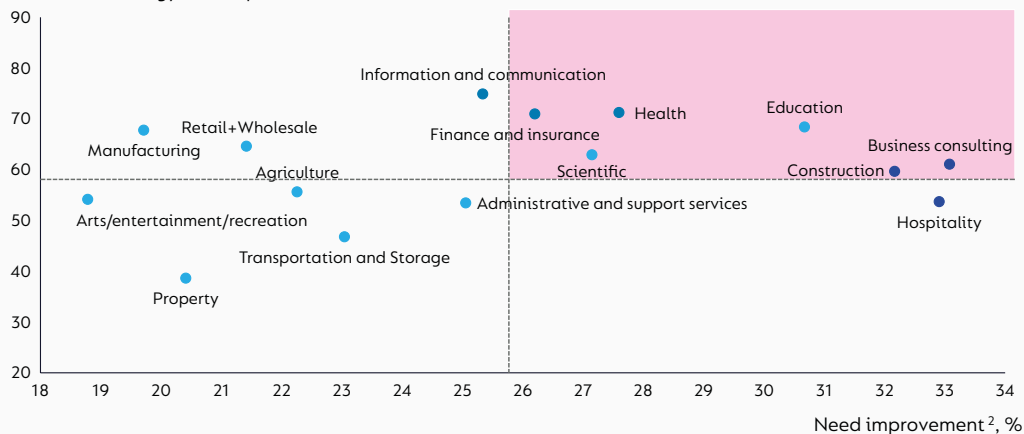
Sectors perceiving most improvement need do not also show the strongest belief that tech can help

------ Market Average    ● Sectors who perceive most opportunity for improvement
                          ● Sectors with most SMEs who believe technology can help

High potential

**Productivity improvement needs and belief in technology by sector,** % Respondents, N = 1,476

Believe technology can help [1], %

Information and communication
Retail+Wholesale
Manufacturing
Agriculture
Finance and insurance
Health
Education
Business consulting
Scientific
Construction
Arts/entertainment/recreation
Administrative and support services
Hospitality
Transportation and Storage
Property

Need improvement [2], %

This mapping uses **perceived opportunity for improvement and technology adoption,** it does not consider **technology penetration and economic contribution**
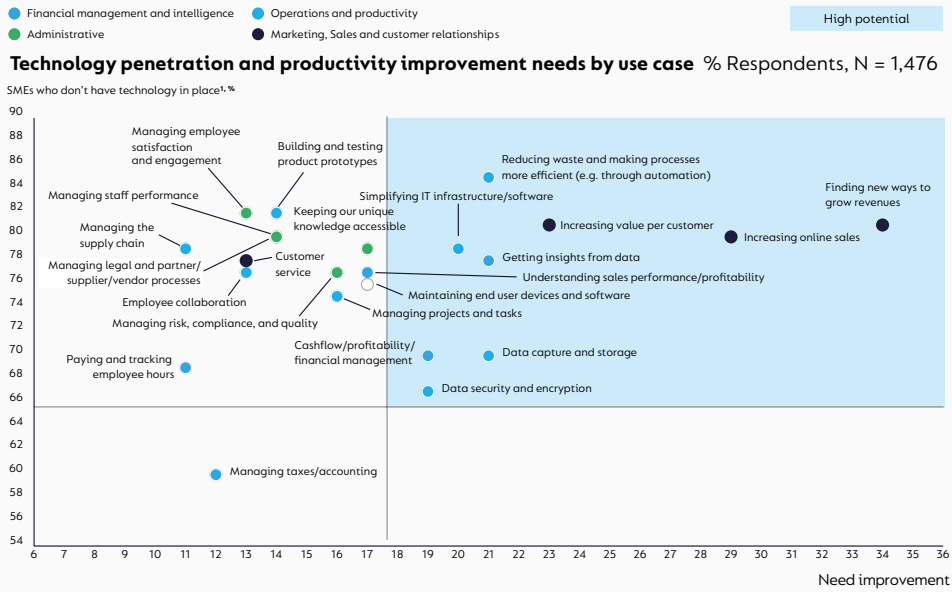
1    And how important would be the role of technology in reaching your objectives in the next 3-6 months?
2    Which of the following areas of your business could use some/a lot of improvement?
Source: Be the Business Opinium survey, June 2020, N = 1,476

**Figure 7 - Productivity improvement needs and belief in technology by sector**

## Marketing & sales use cases need most improvement and have low tech penetration

- ● Financial management and intelligence
- ● Administrative
- ● Operations and productivity
- ● Marketing, Sales and customer relationships

High potential

**Technology penetration and productivity improvement needs by use case** % Respondents, N = 1,476

SMEs who don't have technology in place[1], %



Need improvement

1  In which of the following areas of your business do you fully use technology?
2  Which of the following areas of your business could use some/a lot of improvement?
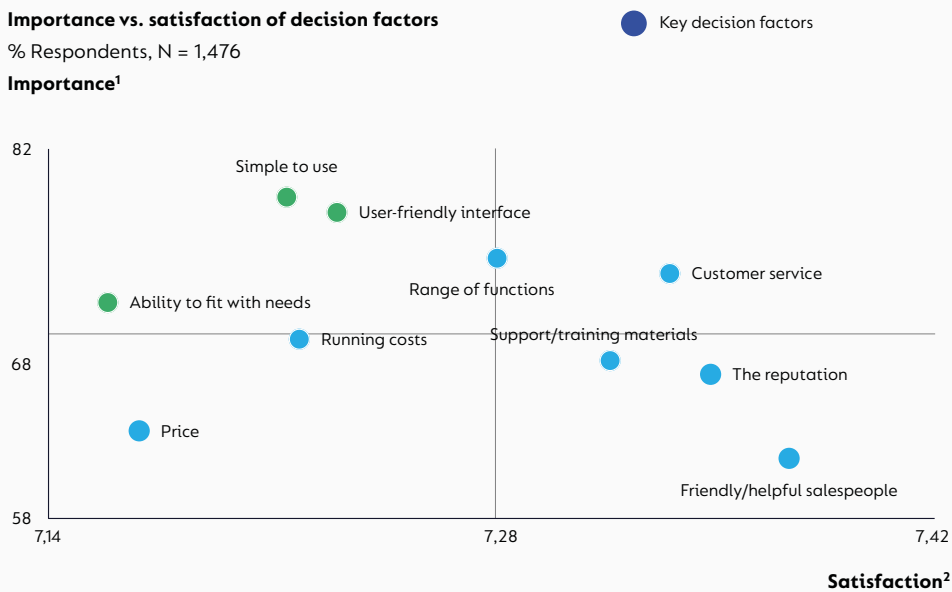Source: Be the Business Opinium survey, June 2020, N = 1,476

There is **low tech penetration (16-20% vs. 25% on avg.)** in the use cases where SMEs see most opportunity for improvement

Though data security is a major concern for SMEs (61%) and data related use cases are high improvement areas, sharing sensitive business data is not one of the top barriers to adoption

**Figure 8 - Technology penetration and productivity improvement needs by use case**

## The three most important decision factors for SMEs are also areas of least satisfaction

**Importance vs. satisfaction of decision factors**
% Respondents, N = 1,476

● Key decision factors

**Importance**[1]



Satisfaction[2]

1  How important were the following factors in helping you choose?
2  On a scale from 1 to 10, how satisfied are you with the solution on the following parameters?
Source: Be the Business Opinium survey, June 2020, N = 1,476

**At least**

# 60%

of the SME market considers each decision factor as important – suggesting that solutions must be at least satisfactory across all factors

This combination of high importance and dissatisfaction could be driving the high adoption rates of B2C solutions amongst SMEs, which they cite as easier to implement and more user friendly
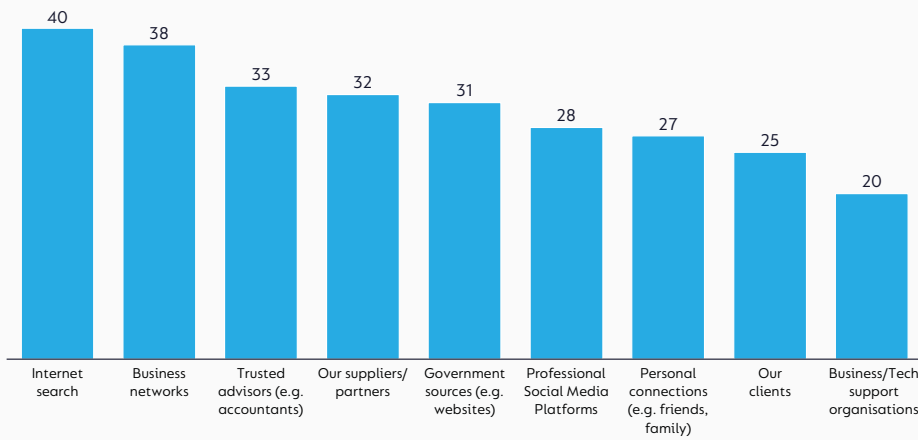
**Figure 9 - Importance vs. satisfaction of decision factors**

## SMEs lack a 'go-to' source on technology, crowdsourcing from multiple sources

**Which sources of information have you used to learn about how technology can help your company to cope better with coronavirus?**

% Respondents, N = 420



| Internet search | Business networks | Trusted advisors (e.g. accountants) | Our suppliers/ partners | Government sources (e.g. websites) | Professional Social Media Platforms | Personal connections (e.g. friends, family) | Our clients | Business/Tech support organisations |
|---|---|---|---|---|---|---|---|---|
| 40 | 38 | 33 | 32 | 31 | 28 | 27 | 25 | 20 |

Source: Be the Business Opinium survey, June 2020, N = 1,476

**Only**

# 20%

of SMEs look to business support or tech advocacy organisations to learn about how technology can help them remain resilient given the Covid crisis

This suggests a need for a 'go-to' impartial adviser for SME tech

**Figure 10 - Which sources of information have you used to learn about how technology can help your company to cope better with coronavirus**

## Employee openness to technology is the biggest predictor of implementation success

**Success factors[1]**

Correlation analysis results

**SMEs are more likely to succeed with tech adoptions IF**

⬆ Their employees are open to using new technology

⬆ Their employees are tech savvy

⬆ Believe technology can improve productivity

⬆ Have quantitative measures in place to measure success

⬆ Also work with suppliers/vendors that use technology

**SMEs are more likely to fail with tech adoptions IF**

⬇ They lack visibility of the tasks happening in the business

⬇ They struggle to convince employees to adapt new technology

⬇ Their employees feel overwhelmed by tech

⬇ Business lacks capabilities to implement the solution

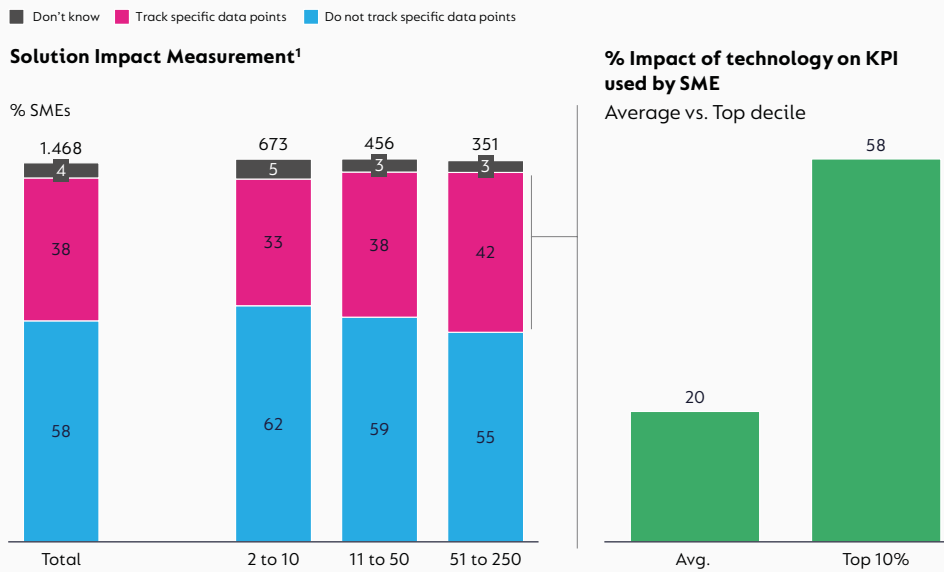**Small/medium businesses (11+) are**

# 20x

More likely to fail in tech adoption due to employee resistance

1    Correlation of average success score across all tech solutions with SMEs attitudes and capabilities
Source: Be the Business Opinium survey, June 2020, N = 1,476

**Figure 11 - Success factors**

## Only 38% of SMEs measure impact of technology, and self-report a ~20% productivity uplift on average

Legend: ■ Don't know ■ Track specific data points ■ Do not track specific data points

**Solution Impact Measurement[1]**

% SMEs

| | Total | 2 to 10 | 11 to 50 | 51 to 250 |
|---|---|---|---|---|
| N | 1.468 | 673 | 456 | 351 |
| Don't know | 4 | 5 | 3 | 3 |
| Track specific data points | 38 | 33 | 38 | 42 |
| Do not track specific data points | 58 | 62 | 59 | 55 |

**% Impact of technology on KPI used by SME**
Average vs. Top decile

| Avg. | Top 10% |
|---|---|
| 20 | 58 |

SMEs who experience successful tech adoption also measure a productivity uplift that is up to

# 2x

More than unsuccessful SMEs

SMEs use a range of quantitative and qualitative impact measures, including
- Reduction in headcount (FTE)
- Sales growth
- Profitability growth
- Customer/Supplier satisfaction
- Employee satisfaction

1  Generally, which statement best describes how you measure the impact of technology solutions you are using in these areas?
2  What was the impact of introducing new technology solutions in each of these areas?
Source: Be the Business Opinium survey, June 2020, N = 1,476

**Figure 12 - Technology impact measurement**

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## Be the Business Technology Adoption Labs – Methodology June 2020

The Be the Business Technology Adoption Lab offered a "kick starter" for SMEs looking for support with their adoption journey whilst providing unique and deep insights to suppliers on SME barriers. This generated real, actionable insight into the adoption barriers facing SMEs and challenges for suppliers.

**10** SMEs observed in their trialing of 20 different tech solutions

**40** touchpoints per SME, in the form of interviews, observations, surveys, to accompany them along their tech adoption journey

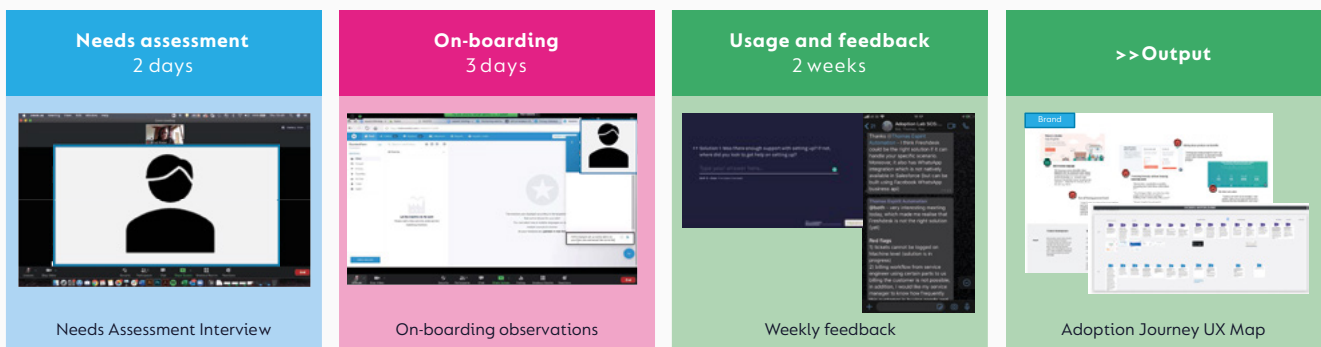**3** tech experts involved across 10 "SOS" Whatsapp channels to provide support to SMEs in the Adoption Lab

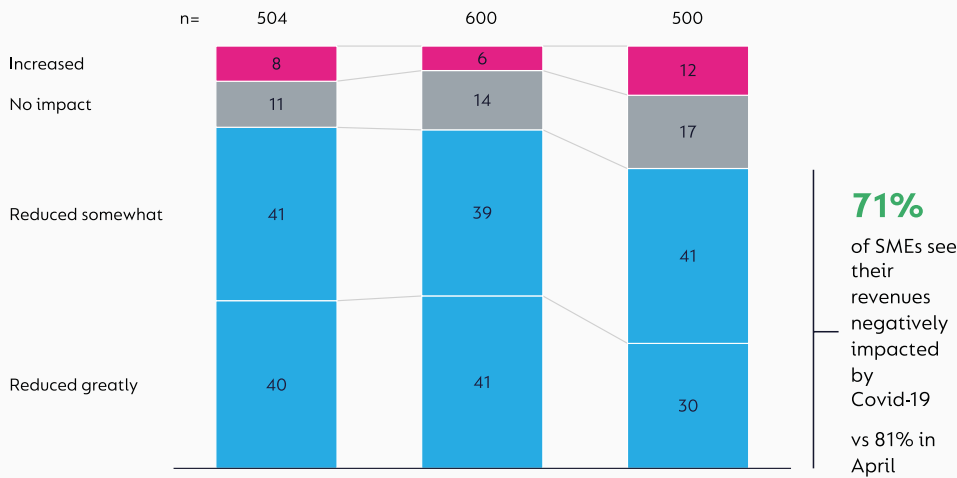| Needs assessment<br>2 days | On-boarding<br>3 days | Usage and feedback<br>2 weeks | >>Output |
|---|---|---|---|
| Needs Assessment Interview | On-boarding observations | Weekly feedback | Adoption Journey UX Map |

**Figure 13 - Methodology Table**

## While ~70% of SMEs see a negative impact of Covid-19 on their revenues, this is an improvement from ~80% in spring

**How has Covid-19 impacted your company's revenues?,** %



| n= | 504 | 600 | 500 |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Increased | 8 | 6 | 12 |
| No impact | 11 | 14 | 17 |
| Reduced somewhat | 41 | 39 | 41 |
| Reduced greatly | 40 | 41 | 30 |

**71%** of SMEs see their revenues negatively impacted by Covid-19

vs 81% in April

**10pp less** business owners see their revenues reduced greatly compared to April

Retail and manufacturing SMEs were most able to maintain or increase revenues, though the majority of them still experienced decreased revenues

Source: Survey of 500 SMEs conducted in August 2020

**Figure 14 - How has Covid-19 impacted your company's revenues?**

## UK firms' adoption of digital technology lags behind Denmark and the Netherlands in all size categories, with a large share of small enterprises with very low digital intensity

**Share of enterprises with very low, and high, digital intensity by size category, 2018**
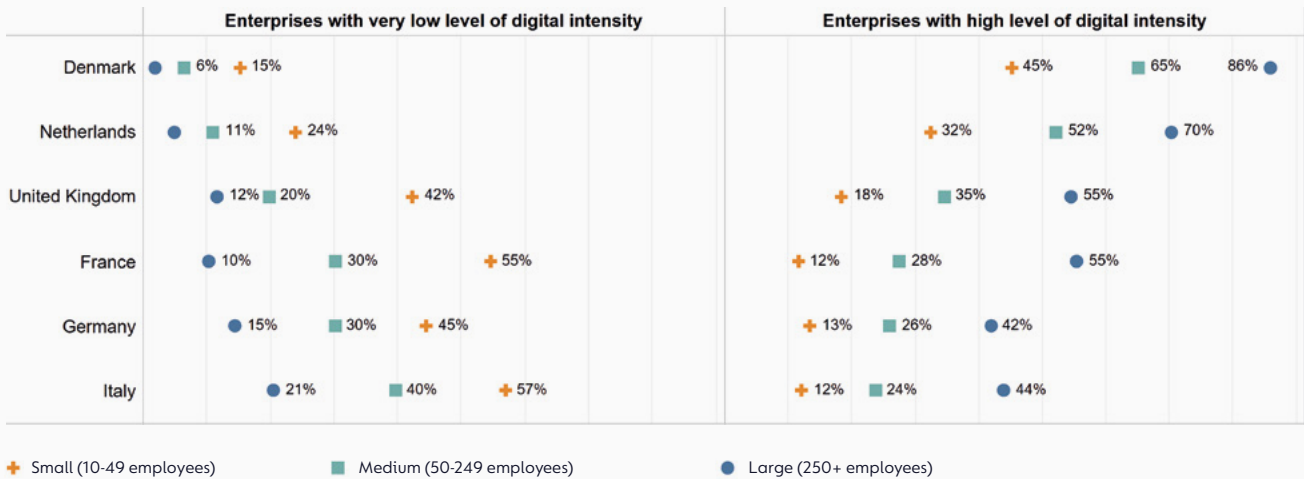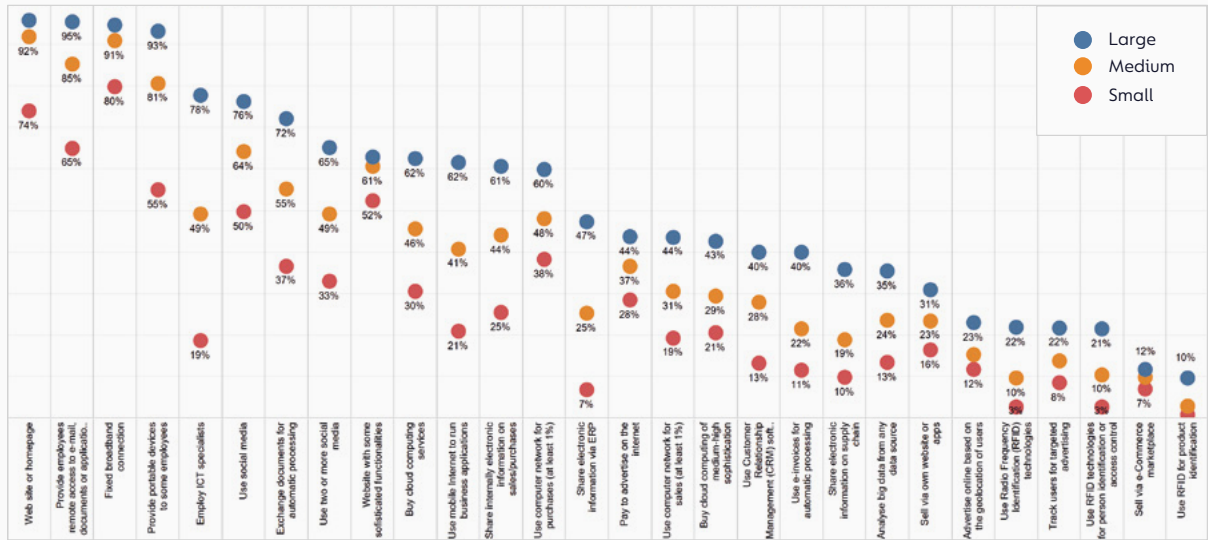% of all enterprises



Enterprises with very low level of digital intensity | Enterprises with high level of digital intensity

| | Very low | | | High | | |
|---|---|---|---|---|---|---|
| Denmark | ● | 6% ■ | 15% ✚ | 45% ✚ | 65% ■ | 86% ● |
| Netherlands | ● | 11% ■ | 24% ✚ | 32% ✚ | 52% ■ | 70% ● |
| United Kingdom | 12% ● | 20% ■ | 42% ✚ | 18% ✚ | 35% ■ | 55% ● |
| France | 10% ● | 30% ■ | 55% ✚ | 12% ✚ | 28% ■ | 55% ● |
| Germany | 15% ● | 30% ■ | 45% ✚ | 13% ✚ | 26% ■ | 42% ● |
| Italy | 21% ● | 40% ■ | 57% ✚ | 12% ✚ | 24% ■ | 44% ● |

✚ Small (10-49 employees)   ■ Medium (50-249 employees)   ● Large (250+ employees)

**Figure 15 - Share of enterprises with very low, and high, digital intensity by size category, 2018**

## While ~70% of SMEs see a negative impact of Covid-19 on their revenues, this is an improvement from ~80% in spring

**UK enterprises that have adopted digital technologies or practices by size category, 2018**
%



Source: European Commission Digital Economy and Society Index (DESI)

**Figure 16 - UK enterprises that have adopted digital technologies or practices by size category, 2018**

## Large companies are significantly more likely to have adopted digital technologies than small and medium sized firms

Employee resistance is the top barrier for SMEs with 11+ employees
**Barriers to increasing technology adoption among SMEs[1]**
%, N = 1,001
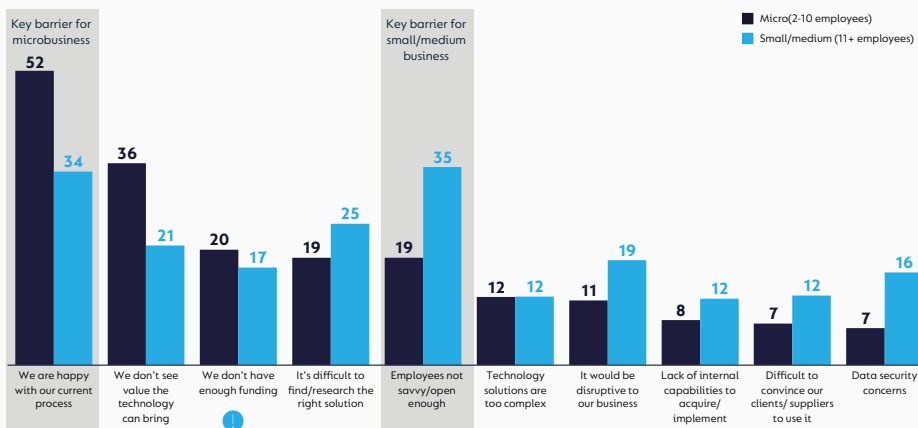


**Among small/medium sized businesses (11+ employees)**

**Every 1 in 4 businesses**

Have difficulty finding the right solution, whilst 1 in 5 fear that technology adoption could be disruptive

⚠ Whilst seeking funding is not a top barrier to adopting technology, being able to see the potential value it could bring is

*Deep-dive on tech-impact measurement to follow later*

1. You mentioned that you are not planning to implement any technology solutions in in the near future. Why is that? Please, select up to 3 responses.
Source: Opinium survey, June 2020, N = 1,476

**Figure 17 - Barriers to increasing technology adoption among SMEs1**