ERC
Enterprise Research Centre

10 YEAR ANNIVERSARY

The State of Small Business Britain

A manifesto for small business growth and productivity

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UKRI Economic and Social Research Council

The Enterprise Research Centre (ERC) is an independent research centre which focuses on growth, innovation and productivity in small and medium-sized enterprises.

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Foreword

The State of Small Business Britain report is the Enterprise Research Centre's annual review of trends and issues affecting small businesses in the UK. The report draws together the Centre's research to give a picture of the current landscape for the UK's small businesses.

This year, to coincide with the 10th anniversary of the ERC, we have drawn together the insights from a decade of research on small business growth and productivity. We have used these insights to produce a manifesto which sets out where attention is needed to improve the prospects for the UK's small businesses as well as identifying some priority actions.

Since its inception, the ERC has focused on delivering high quality research and analysis and enabling informed discussion on a range of issues affecting the growth and productivity of small enterprises. We have always placed a strong focus on working in partnership with stakeholders, and many areas of our work have gone on to have an impact on policy thinking, development and implementation.

A lot has changed for small businesses in the last decade. Back in 2013, the ERC research agenda was focused on issues around access to finance and how to encourage business growth, which was often viewed through the lens of job creation. As the events of the next ten years unfolded, a range of new priorities emerged around productivity, business resilience, international trade, digitalisation, sustainability and workplace mental health.

At the time of writing - the end of 2023 - the situation for the UK's small business community remains challenging, but there are opportunities for positive change. It is often stated that small businesses are the backbone of the UK's economy – and for good reason. Small businesses make up over 99 per cent of the business population, and around 50 per cent of employment. With a General Election due in 2024, it is a perfect time to set out what action needs to be taken to enable the UK's small businesses to survive and thrive.

We hope that you find this report informative and useful. Please do get in touch with the ERC team if you would like to provide feedback, have a conversation, or if you'd just like to find out more about our research. You can find our contact details on the ERC website at: www.enterpriseresearch.ac.uk/

Jane Galsworthy
ERC Steering Group Chair

The ERC team

Contact information

Name	Area of expertise	Contact details
Professor Stephen Roper	Innovation, innovation policy, policy evaluation	Stephen.Roper@wbs.ac.uk
Professor Mark Hart	Business growth, productivity, management and leadership, entrepreneurship, policy evaluation	mark.hart@aston.ac.uk
Dr Vicki Belt	Achieving policy impact through research, management and leadership, gender	vicki.belt@wbs.ac.uk
Dr Halima Jibril	Innovation, diffusion, productivity, econometrics	Halima.Jibril@wbs.ac.uk
Dr Joanne Turner	Innovation, productivity, intellectual property protection	Joanne.E.Turner@wbs.ac.uk
Dr Maria Wishart	Workplace mental health, management and leadership, business ethics	Maria.Wishart@wbs.ac.uk
Dr Serdal Ozusaglam	Innovation, sustainability, business growth	serdal.ozusaglam@wbs.ac.uk
Dr Anastasia Ri	Entrepreneurship, finance, productivity, sustainability	a.ri@aston.ac.uk
Dr Hoang Minh Luong	Innovation, business growth, econometrics	H.Luong@qub.ac.uk
Eugenie Golubova	Business support, policy evaluation	e.golubova@aston.ac.uk
Dr Panagiotis Kyriakopoulos	International management, social entrepreneurship, management and leadership	Panagiotis.Kyriakopoulos@wbs.ac.uk
Dr Rita Nana-Cheraa	Innovation, finance	phd18rn@mail.wbs.ac.uk
Dr Amy (Siqiao) Luan	Innovation, technology adoption, international business	s.luan@qub.ac.uk
Dr Hamisu Salihu	Industrial policy, firm learning	Hamisu.Salihu@wbs.ac.uk
Professor Nola Hewitt-Dundas (ERC Associate)	Innovation, innovation policy, technology adoption	NM.Hewitt@qub.ac.uk
Dr Kevin Mole (ERC Associate)	Business support, innovation, sustainability	Kevin.Mole@wbs.ac.uk
Dr Neha Prashar (ERC Associate)	Productivity, local growth, gender	n.prashar@aston.ac.uk
Professor Effie Kesidou (ERC Associate)	Innovation, sustainability, productivity	E.Kesidou@leeds.ac.uk
Dr Jane Bourke (ERC Associate)	Innovation, digital technologies, micro-business	Jane.Bourke@ucc.ie
Professor Jun Du (ERC Associate)	Internationalisation, productivity, innovation	j.du@aston.ac.uk
Dr Karen Bonner (ERC Associate)	Entrepreneurship, business demography, innovation	KA.bonner@ulster.ac.uk

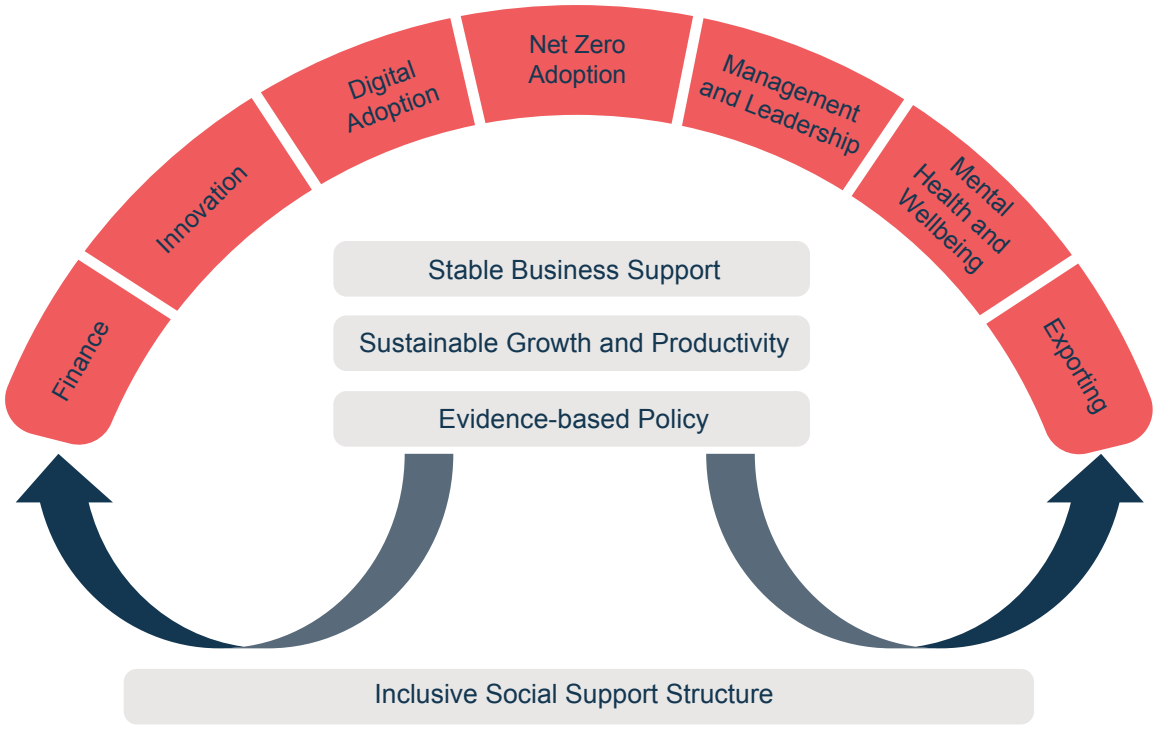
A manifesto for small business growth and productivity

Since the ERC was launched in 2013 with a focus on business growth, we have seen some dramatic changes in the issues faced by the UK's small business community. The decade has been marked by rapid developments in digital technology, growing concerns about the impacts of climate change and the lack of productivity growth, increasing awareness of issues of diversity and inclusion, and of course, in 2020, the massive shockwaves associated with the Covid-19 pandemic.

The ERC's research has shown that the drivers of small business growth and productivity are complex. Our research has also demonstrated clearly that smaller firms experience distinct challenges when compared to larger firms, and that their needs are often not fully understood or properly reflected in enterprise policy. Given the crucial role they play in the UK economy – making up over 99 per cent of the business population, it is vital that going forward small firms receive more coherent and stable policy support that is more tailored to their needs.

Drawing on insights from a decade of enterprise research and insights, we set out in this manifesto the key areas where attention is needed to ensure that the UK's small business community can survive and thrive. These are summarised in the diagram below. The themes we have highlighted do not amount to an exhaustive list, but they are all areas where the evidence indicates that more activity is justified. The themes are interdependent, linked together in an ecosystem that is sensitive to the needs of small businesses and focused on building sustainable growth and improved productivity.

The small business support ecosystem



The small business support ecosystem needs to be focused on nurturing the ambition, confidence, capabilities, resilience, and innovation of the UK's diverse community of small businesses. It also should be built upon existing collaborations between a range of stakeholders, including national and local government, business support providers, educational organisations, business representative groups and professional bodies, as well as small business leaders themselves.

It is of crucial importance too that the ecosystem is well-funded and constructed for the long-term to avoid being affected by political expediency. Importantly, to work effectively for all, it is vital that the small business support ecosystem should be underpinned by inclusive social support structures that provide a level playing field for entrepreneurs and small business leaders from all backgrounds and social groups, including improved access to childcare support.

We give more detail about the different elements of our small business support ecosystem below, also setting out some priority actions.

Evidence-based policy

We need to develop a small business support ecosystem that is firmly based on the evidence about what small businesses need and what works. Evidence-based policy is one of three foundations of our ecosystem. There are several aspects to this. First, the need for more high-quality evaluation of interventions is now more important than ever, as is the need to publicly share findings, building on the good work done over recent years by the What Works Network and Innovation Growth Lab. Second, we need to make better use of the full and growing range of data sources available to drive more intelligent policymaking. Third, we also need to make sure that there are systems in place to monitor and track the multiple sources of support received by small businesses. Fourth, we need to ensure that enterprise policies and strategies are grounded in the real-world experiences of small business leaders themselves.

Actions needed:

- Ensure that all major enterprise support initiatives are properly evaluated, and the results shared publicly in an enterprise policy insights hub.
- Develop better systems to monitor and evaluate the multiple sources of public support received by small firms over time and ensure good practice is identified in the UK nations and beyond.
- Create a step-change in the use of longitudinal business register data in the development of small business policy.
- Embed stronger stakeholder engagement structures that allow a diverse range of small business leaders to feed into policy development and generate more meaningful policies, including developing a Small Business Council.

Sustainable growth and productivity

We need to develop a small business support ecosystem that is focused on creating the conditions for creating sustainable growth and improving productivity. This is the second foundation of our small business support ecosystem, and it builds on ERC evidence which has identified many of the key drivers of growth and productivity. We know that there are complex patterns of start-up, survival and growth which have tended to be ignored when developing policy. Success is not all about business size or high growth, and it is important to understand the key relationship between age and size when developing policies related to scaling. The local economic context is also crucial to understanding this relationship and how this can vary over time in response to wider economic influences. ERC research has identified a very

small group of firms that increase their productivity over time by increasing both revenue and jobs, but the former at a significantly faster rate. Similarly, there are a small number of micro-enterprises that grow exponentially over time to become significant businesses in the economy.

Actions needed:

- Policy needs to recognise that growth in the minds of small business leaders takes on many definitions and is not solely related to jobs and revenues. Embracing Sustainable Development Goals (SDGs) is a sign of ambition alongside profitable growth and needs to be embedded in any policy initiatives on scaling.
- Initiatives are needed to boost the number of small businesses increasing their productivity, and it is imperative that the recent call for a National Productivity Commission made by the Productivity Institute has a clear focus on small firms.
- Policy needs to focus on the process of scaling and avoid the simple categorisation of firms as 'high growth' on the basis of erroneous definitions which can lead to misleading policy conclusions and actions.
- Micro-enterprises are an important source of jobs and revenues for individuals and local communities and should not be excluded from policy initiatives.
- Start-up policy needs to be more focused on the initial scaling process rather than simply celebrating increased numbers of start-ups on an annual basis.

Stable business support

The UK needs a coherent, joined-up, stable government-funded business support system tailored for small businesses. ERC research has shown the positive impact that well-designed business support and advice can have on business survival and growth. The support needs of small firms are not static and change over time. Running a small business is also inherently risky, and threats to business survival are common and varied. But many small firms do not seek business advice, and many only do so when they are already in a position of crisis.

At the present time, business support provision in the UK is highly fragmented and patchy, by both geography and sector. Recent funding changes associated with the UK's exit from the European Union have made the landscape even more complex and uncertain which the UK Shared Prosperity Fund (SPF) is struggling to address. There is also marked variation in the way that under-represented groups of entrepreneurs (e.g., women and ethnic minorities) are engaged by existing support services, indicating a need for more tailored and accessible support that addresses the needs of these entrepreneurs. Business support schemes should not be biased towards an exclusive and elusive group of pre-defined 'high growth' firms, but inclusive and focused on creating a pipeline of micro and small businesses ready to receive and action support with the potential for sustained growth. The UK spends a significant amount of money on business support, and it is important that this is based on evidence on what works.

Actions needed:

- Ensure there is a stable, coherent support service available that is accessible to all types of small businesses, built on existing relationships, personalised support and responsive to local context.
- Professionalise business support roles through improving qualifications and career development routes that better recognise the pivotal role played by teams of good advisers and stops the loss of talent in the sector.
- Develop a UK-wide policy on inclusive entrepreneurship alongside new business support services dedicated to underserved groups (especially female, ethnic minority and disabled entrepreneurs) that are focused on realising their growth potential.

Finance

We need to ensure that the UK's small businesses are better informed about the finance options available to them, that finance is more inclusive, and that the enduring late payment problem is properly tackled. Research by ERC and others shows that access to external finance (both debt and equity) is positively associated with faster growth and productivity in small businesses. The range of finance options has never been so plentiful and sophisticated, yet many areas are a mystery to most small business leaders. As a result, most small firms are permanent 'non-borrowers'. Private and public sector policy interventions are not just a simple matter of 'matching' demand with supply – providers need to understand the business leader's mindset and ambition, and recognise that awareness will drive demand, and that this will be based on previous experience in seeking and raising external finance. Start-ups and smaller businesses tend to find it more difficult to access finance compared to their larger counterparts. The underlying issues for this are varied and complex, but there is evidence that business leaders from disadvantaged groups are particularly affected, which has been exacerbated by the post-pandemic economic context. It is important that these issues around uneven access to finance are addressed, building on the success of existing schemes. Recent years have seen substantial rises in the costs of doing business, which have affected smaller firms particularly badly, and in this context tackling issues around late payment are more important than ever.

Actions needed:

- Raise awareness of the full range of external finance options amongst small businesses and improve the financial literacy of entrepreneurs at all stages of the business development journey.
- Address financial discouragement amongst female and ethnic minority entrepreneurs by ensuring providers put into place more inclusive practices, such as those set out in the Investing in Women Code.
- Understand whether/how the range of products available are addressing the needs of a widely diverse small business population – especially from an EDI perspective.
- Make improvements to the all-round financing ecosystem, integrating leadership and management support with a full range of suitable financing along the finance escalator.
- Continue to address the stark geographical disparities in terms of the availability of growth finance particularly for firms in rural areas and those located in less well-served communities by understanding the factors underlying these outcomes.
- Tackle the late payment problem for small firms by collecting more robust data to expose poor practices and imposing penalties accordingly.

Innovation

We need to enable more innovation activity in small firms and address the disparities in innovation between places. One of the threads running though the ERC's research has been the importance of innovation activity for business dynamism, growth and sustainability. There are many positive aspects of current and recent approaches to policy support for innovation in the UK. Our research has shown that public support measures have had significant benefits for business growth. Innovation grants, loans and measures such as R&D tax credits can all help to de-risk innovation decisions for smaller firms, enabling innovative activity to take place. Promoting collaboration can also support knowledge sharing between firms, and help further to de-risk innovation, something which is particularly important for small firms. However, during the past few years small firms have lost ground in terms of innovation relative to larger firms, and there are marked, enduring geographical disparities in terms of the extent of innovation activity across the UK. Redressing this imbalance in innovation activity needs to be a key policy objective.

Actions needed:

- Promote the uptake of support available for innovation among smaller firms and re-consider the accessibility of innovation incentives to smaller firms.
- More strongly support innovation partnerships by requiring collaboration in publicly supported innovation projects.
- Make university facilities/resources and partnerships more accessible through collective gateways such as the Scottish Interface programme.
- Empower devolved innovation strategies and clusters which can capitalise on local technology strengths and address spatial disparities.
- Re-consider the activities eligible for R&D tax credits to better support innovation related investments in creative industries.

Net zero adoption

The UK's small businesses urgently need access to information and advice to help them adopt net zero practices and measure their effectiveness. Small and medium sized businesses are estimated to account for around half of all UK business emissions, and as such they will play a crucial part in the net zero transition. ERC research has shown, however, that there is much room for improvement when it comes to the adoption of net zero practices in small firms in the UK, especially amongst the smallest firms. The evidence shows that the problem with adoption is not around intentions when it comes to sustainability – but more around bandwidth, prioritisation and capability. At present the net zero support landscape is fragmented, with only a small minority of firms receiving support. Access to trusted and actionable information is vital in supporting firms to implement sustainability practices, with government, professional and industry associations all playing potentially important roles. There are also potential advantages in designing future policy support that grasps the complementary benefits of net zero and digital adoption.

Actions needed:

- Set out more clearly the benefits to small businesses of their adoption of more sustainable business models.
- Develop a standard recognised approach to measuring environmental impacts and monitoring progress towards net zero for small businesses.
- Make a step change in the availability and quality of information for small firms at each phase in the net zero journey.
- Create a more coherent national system of net zero support for small businesses.

Digital adoption

We need more UK businesses to adopt digital technologies that can in turn improve their productivity. ERC research has shown that digital adoption is important for improving productivity in small firms. Targeted support programmes and peer networking have been shown to be helpful in raising the confidence of business leaders in terms of technology adoption. However, digital readiness is key to adoption, and creating more 'digitally ready' firms should be a policy focus. There are potential productivity benefits in targeting those firms that do not currently recognise the benefits of digital transformation for their businesses.

Actions needed:

- Improve digital literacy amongst small firms so firms are more digitally ready and able to take advantage of the technologies best suited to them.
- Develop more peer networking opportunities for small firms to share learning of digital technology adoption.
- Expand bespoke support to enable the digital transformation of the most engaged firms along the lines of the successful 'Made Smarter' programme.
- Improve the quality of broadband and digital infrastructure in more remote rural areas to counter the digital divide.

Management and leadership

We need to challenge the mindsets of small business leaders, developing their growth ambitions and enhancing management and leadership skills. A consistent finding of ERC research over the decade has been the important role played by management and leadership capabilities and practices in business survival, productivity, and growth. It is now recognised that one of the keys to raising productivity within firms is the adoption of good management practices. In the post-pandemic context, good management and leadership takes on an even higher importance. The events of recent years have demonstrated more than ever the need to ensure that small business leaders are equipped with the management and leadership skills and support to steer their businesses through periods of turbulence. Not enough small businesses are using the management practices that we know are associated with higher productivity. Training programmes tailored to small businesses that involve an element of peer learning play an important role in challenging the mindsets of business leaders, raising ambition and confidence.

Actions needed:

- Raise aspirations amongst entrepreneurs and small business leaders to create well-managed and led businesses.
- Improve awareness and knowledge amongst small firms about what constitutes good management and leadership practices and how to measure and evaluate their own practices.
- Increase the use of good management practices through increasing the take up of recognised and tested management standards and training (such as that provided by the Chartered Management Institute) amongst small businesses.
- Continue the investment in publicly funded leadership and management programmes such as Help to Grow: Management that involve peer learning and coaching elements and seek solutions to ensure all small businesses can access the expertise of UK's leading business schools.
- Provide small firms with free access to tools and advice to help build better business resilience.

Mental health and wellbeing

We need to transform understanding amongst small business leaders of the importance of good mental health and wellbeing for productivity and improve management behaviour in this area. The pandemic and subsequent cost of living crisis has had major implications for the mental health and wellbeing of the workforce and for business leaders, with serious implications for business performance. ERC research has shown that presenteeism has increased and has now surpassed pre-pandemic levels, and that new working practices have brought new challenges. Although awareness of mental health issues amongst employers has increased and more initiatives to improve support for employees have been introduced, there is still considerable room for improvement, particularly amongst the smallest firms. Looking ahead, firms will need to be more engaged with the range of initiatives, advice and support available and more carefully consider the wellbeing impacts of their management practices. More attention needs to be paid specifically to the training and support of line managers, who are often in the front-line in dealing with the mental health issues experienced by employees. Small business leaders and entrepreneurs themselves also need access to support in dealing with the mental health challenges associated with running a business in times of financial uncertainty and insecurity.

Actions needed:

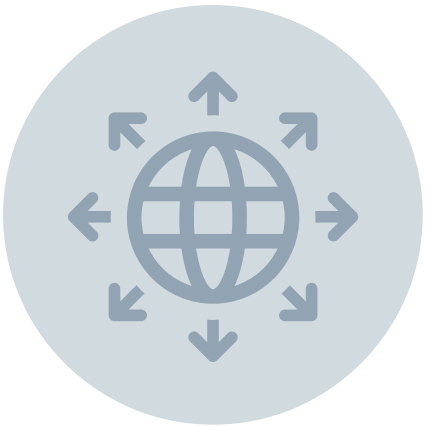
- Provide more incentives for small businesses to regularly review and monitor the mental health and wellbeing of their workplaces and improve access to expert advice on how to improve management practices and ways of working.
- Increase the availability of dedicated training for line managers on how to manage mental health and wellbeing issues at work, for example by expanding the Managing Minds at Work training programme.
- Develop mental health peer support networks for entrepreneurs to help them better navigate the mental health challenges associated with running a small business.
- Set up a new centre for excellence/research hub on workplace mental health wellbeing and productivity to share best practice with businesses and policymakers, building on the work already done by the Mental Health and Productivity Pilot Programme.

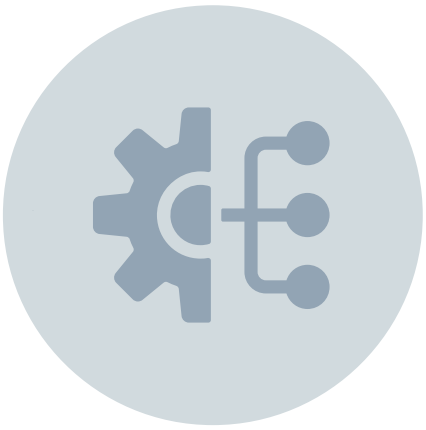
Internationalisation

We need to encourage and support more small firms to export. The external shocks and crises of Brexit and Covid-19 have had a negative impact on export activity that has hit smaller firms the hardest, and there is an urgent need for policy action here, given the magnitude of the impacts on businesses and the wider economy. ERC research has shown that there are close links between international trade, growth ambition and innovation activity. There is a clear rationale going forward for policy action to jointly promote exporting and innovation in UK firms, targeting firms at different points in their export journey. This will involve action on a range of fronts, including government, education and business representative associations.

Actions needed:

- Extend the reach of trade support organisations and provide more targeted promotion of support to small firms alongside monitoring support uptake.
- Provide tailored advice that aids firms in evaluating the feasibility of exports, exploring new export markets, delivering timely and consistent market intelligence and advice.
- Develop and promote specialised support to help firms grappling with multifaceted challenges, including support for small creative industry firms exporting to the EU. This could include advice and grants offered to alleviate administrative burdens.
- Revive support for firms that have ceased exporting, developing digital resources and advisory programs to stimulate and assist previous exporters in resuming their international trade operations.
- Inspire innovation in exporting by showcasing inspiring case studies of firms delving into new export markets and approaches and fostering new platforms for industry insights and best practices.
- Ensure continued alignment between the UK and the EU on intellectual property protections, product standards, sustainability measures, and data protection and strengthen alignment on professional qualifications between the UK and EU member states.





1. The Small Business Landscape 2013-2023

In this section we set the context by presenting evidence on how the UK small business landscape has changed in the decade since the ERC was first established in 2013 and profile the current situation. We draw on a mix of findings from ERC research and secondary data sources.

1.1 Trends in business activity

1.1.1 Changes in the small business population

Looking at the Business Population Estimates,[1] back in 2013 there were an estimated 4.9 million private sector businesses in the UK.[2] The vast majority, or 99.9 per cent, of these private sector businesses were classified as SMEs (defined as organisations with fewer than 250 employees), and they employed an estimated 14.4 million people, accounting for 59.3 per cent of private sector employment.

Since 2013 there has been a general growth in the size of the UK business population, with the growth driven particularly by the smallest businesses (although there was a fall in the business population during the years of the Covid-19 pandemic). The number of private sector businesses in the UK at the start of 2023 was 5.6 million. Of these businesses, 5.54 million were classified as SMEs, with 5.51 million of these being small firms (with 0 to 49 employees). Total employment in UK SMEs was 16.7 million (61% of the total), with small businesses employing 13.1 million people (48% of the total). SMEs therefore play a crucial, and growing, role in the UK economy, also accounting for 53 per cent of turnover at the start of 2023.

After the shock of the Covid-19 pandemic, which saw a decrease in the overall business population, the latest figures show an increase in the numbers of private sector businesses in the UK (although with some differences between nations and regions). Between 2022 and 2023 the total UK business population increased by 46,000 (0.8%). This growth is being driven disproportionately by the smallest, non-employing businesses (i.e., operated by a single individual or by partners not employing anyone else in the business).

1.1.2 Changes in entrepreneurial activity

The most up-to-date, reliable information on trends in entrepreneurial activity is found in the UK Global Entrepreneurship Monitor (GEM) survey.[3] GEM data is available on an annual basis from 1999 when the project was launched and is the most authoritative source of data on entrepreneurial attitudes, activity and aspiration over the last quarter of a century. We summarise here a number of the most notable trends over the last 10 years.

The findings from the most recent GEM survey in 2022 confirm that the UK is a nation of entrepreneurs, with around one in three adults in the UK now either running a business or looking at starting one within the next three years. This proportion has doubled in the last ten years.

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1 This source is the only official estimate of the private sector business population including businesses not registered for VAT or PAYE, as at the start of each year.
2 https://assets.publishing.service.gov.uk/media/5a7c250ee5274a25a9140bc1/13-92-business-population-estimates-2013-stats-release-4.pdf
3 https://www.gemconsortium.org/

According to the latest data, the number of individuals stating that they intend to start a business in the next three years is approaching 12 per cent, which is double what it was a decade earlier. The number of individuals in the early stages of setting up a new business is at the highest level since the GEM Global project started in 1999 and is a clear indicator of the entrepreneurial creativity and resilience of the UK. Total early-stage Entrepreneurial Activity or TEA (the sum of the nascent entrepreneurship rate and the new business owner-manager rate) in the UK in 2022 was 11 per cent compared to around 5 per cent in 2002. There have been significant changes in various sub-groups of the adult population over the last 10 years:

- There has been a significant and consistent rise in female early-stage entrepreneurial activity since 2002 when it was 3 per cent compared to around 10 per cent in 2022 with a noticeable step change after the GFC.
- Similarly, youth entrepreneurship has also increased over the last 20 years. In 2022 the survey found that individuals aged less than 35 were significantly more likely to be involved in early-stage entrepreneurial activity compared to older people.
- A consistent finding over the last 10 years is that immigrant TEA levels are also significantly above that of UK born life-long residents. In 2022 the TEA rate for immigrants was 13.7 per cent compared to 8.7 per cent for life-long residents. Also, the TEA rate of the white ethnic population in the UK in 2022 was significantly lower than that of the non-white population.

However, these positive long-term trends in the number of adults setting up their own business sits alongside a decline in the number of new and established entrepreneurs engaging in combinations of high job expectation, new product markets and exporting activities. Nearly one in two early-stage entrepreneurs and almost three in five established business owners were not engaged in any high value activities in the UK in 2022. This has been a feature of the UK SME population for many years now as the inability to scale new business ventures sits uneasily against record numbers setting up their business for the first time. For example, ERC research has consistently shown that only two per cent of surviving start-ups reach a minimum of £1m revenue after three years of trading.[4]

The GEM survey also explores the nature of the entrepreneurial ecosystem in the countries included in the study, evaluating it against a range of dimensions, or Entrepreneurial Framework Conditions (EFCs). The picture for the UK identifies some challenges ahead. According to the 2022 report, a 'worrying tendency has emerged over the last three years with entrepreneurial finance, government policies in relation to support and relevance for new and growing firms, and physical infrastructure weakening progressively', with the UK comparing unfavourably to France and Germany in these areas.

In this context, the resilience of small businesses and entrepreneurs in the UK over recent years is especially impressive, and this will be crucial for ongoing recovery after the pandemic, the challenges associated with the cost-of-living crisis, as well as the on-going effects of Brexit and geo-political crises.

1.2 Trends in SME performance

1.2.1 Growth-related behaviours

Up until 2015, the Small Business Survey (SBS)[5] collected data on various dimensions of the performance of UK SMEs, looking at specific growth-related behaviours. These include plans for growth, perceptions of capability, access to finance, and use of business support.[6] The SBS was replaced by the UK Longitudinal Small Business Survey (LSBS) in 2015. The LSBS is broader in scope and larger in size than the SBS, asking small businesses about a wide range of topics relating to performance and the factors that affect it, and, importantly, it also includes a panel element, which allows the same employers to be interviewed on repeated occasions over several years.

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4 https://www.enterpriseresearch.ac.uk/uk-local-growth-dashboard-2019-start-ups-slump-as-entrepreneurs-brace-for-brexit/
5 https://www.gov.uk/government/collections/small-business-survey-reports
6 https://assets.publishing.service.gov.uk/media/5ef5c51c86650c12a0c778bf/LSBS_2019_panel_rev.pdf

The LSBS panel sample allows us to see how business attitudes, behaviours and performance change over time. The 2019 LSBS panel report included findings from firms interviewed in 2015, 2016, 2017 and 2018 on growth-related behaviours around innovation, training, using external finance and business support. It showed some interesting trends, including a general decrease in firms seeking external finance. This decline in was consistent across sectors and size-bands, with uncertainty and risk identified as the most important factor driving decisions not to seek external finance, with fear of rejection becoming more prevalent. There was also a downward trend in firms seeking business support, and a mixed picture in terms of innovation and exporting.

The LSBS panel report 2022 sheds light on more recent trends in performance as it presents findings from businesses that participated in the survey in 2019, 2020, 2021 and 2022.[7] The findings show how businesses' attitudes, behaviours and performance have changed over this (very eventful) four-year period. Overall, we see that the proportion of businesses undertaking growth-related behaviours was generally lower in 2022 than it was in 2019. For example, we see the proportion of firms reporting either product or service innovation has fallen from 33.1 per cent in 2019 to 29.5 per cent in 2022. In terms of exporting, in 2019, 22.8 per cent of firms in the panel reported exporting either goods or services, but this proportion fell to 18.9 per cent in 2022. There was a fall in firms seeking external finance (excluding Covid-19 related support) during the pandemic years, with this recovering somewhat to 10.4 per cent in 2022.

The panel data also confirm that the expectations businesses have around sales growth frequently do not align to what is achieved the following year, and that sustained growth is unusual. For example, of the original group of panel businesses reporting growth in the year prior to the 2019 survey, only 18.1 per cent experienced employment growth throughout the four years.

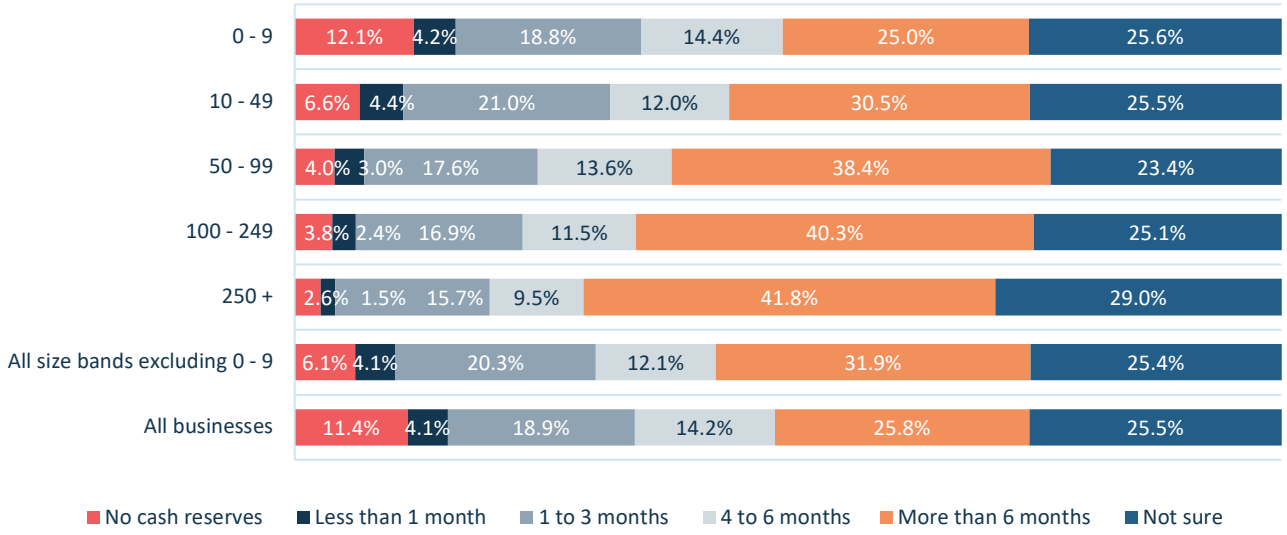
1.2.2 SME financial health

Since 2020, the Office for National Statistics (ONS) Business Insights and Conditions Survey (BICS) provides a valuable source of up-to-date information on a range of trends in UK SMEs.[8] BICS is a voluntary fortnightly survey asking a range of questions about financial performance, workforce, prices, trade, and business resilience.

Waves 93 (live from 2 October 2023 to 15 October 2023) and 92 (18 September 2023 to 1 October 2023) of the BICS provide recent data (at the time of writing) on the financial health of UK businesses. One key measure here is cash reserves, or the money firms keep aside to meet their short-term and emergency funding needs. Figure 1 shows how long businesses think their cash reserves will last by size. Around 49 per cent of currently trading business report that they only expect their cash reserves to last for up to six months. When looking at the breakdown by business size, the highest percentage of firms with no cash reserves is observed among micro-businesses employing 0-9 employees (12.1%) and small businesses with 10 to 49 employees (6.6%). One in four micro-businesses and less than one in three small businesses estimated that their cash reserves would last more than six months, compared to around 40 per cent of medium and large businesses, reflecting the financial challenges the smallest businesses face.

[7] https://www.gov.uk/government/statistics/small-business-survey-2022-panel-report
[8] https://www.ons.gov.uk/economy/economicoutputandproductivity/output/datasets/businessinsightsandimpactontheukeconomy

Figure 1: Businesses cash reserves by firm size

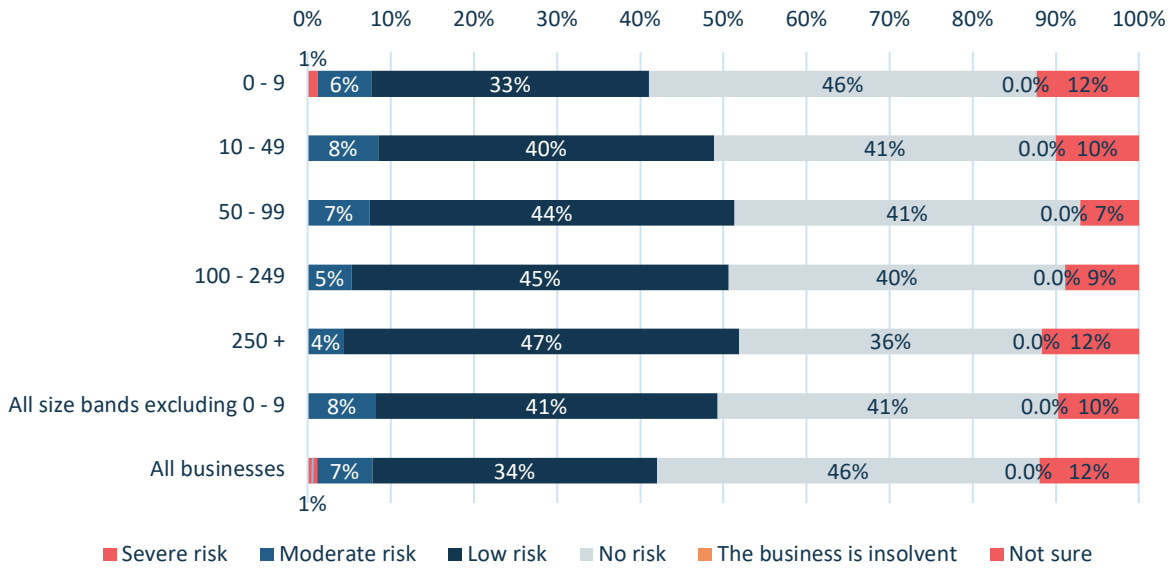


Source: ONS Business Insights and Conditions Survey data, Wave 93

Notes: Question: 'How long do you think your business's cash reserves will last?'; as percentage of currently trading businesses, weighted count, UK.

Another measure of financial health is insolvency risk. Figure 2 below shows the perceived risk of insolvency by size. When looking at the breakdown by firm size, the highest proportion of businesses evaluating the risk of insolvency as severe or moderate is observed among micro (7.6%) and small firms (8.4%), although most firms feel there is low or no risk.

Figure 2: Risk of insolvency by firm size



Source: ONS Business Insights and Conditions Survey data, Wave 93 (2 October 2023 to 15 October 2023)

Notes: Question: 'What is your business's risk of insolvency?'; as a percentage of businesses not permanently stopped trading, weighted by count, UK.

'Severe risk' is excluded because of low counts for confidentiality reasons for businesses with over 10 employees; same for 'the business is insolvent' for all size categories.

Although most SMEs may not view insolvency as a risk, there is evidence that after the pandemic there has been a substantial rise in the costs of doing business, mirroring the rise in the cost of living. The Small Business Price Index (SBPI) is a measure that was put together by the ERC to monitor the costs of doing business in small firms.[9] Similar to the Consumer Price Index for consumers, the SBPI uses a basket of 20 cost items purchased by small firms to provide an indication of how changes in individual input prices are impacting costs overall. Our analysis shows that due to energy price rises, cost increases during the first half of 2022 were higher than at any time since 2008. Although there have been falls in the SBPI since, the fact remains that there has been a steady increase in the costs of doing business in the post-pandemic years that have 'locked in' price rises.

The financial pressures on small businesses was the focus of an ERC podcast in 2022, which also drew attention to the long-standing problem for small businesses of late payment.[10] Late payment issues - which include delays to invoices being paid and long payment terms have been recognised as causing serious cashflow issues and major barriers to small business growth.[11] The Government launched a comprehensive review of late payments for small businesses in 2022, which was published in November 2023.[12] The Payment and Cashflow Review set out a range of actions for government including extending the scope of regulations, improving public awareness, providing more information for businesses and introducing an enforcement programme. Action is urgently needed given the challenging economic context small businesses find themselves in, and the fact that according to data from the Xero Small Business Index, late payments hit a three-year high in Autumn of 2023.

1.2.3 Business concerns

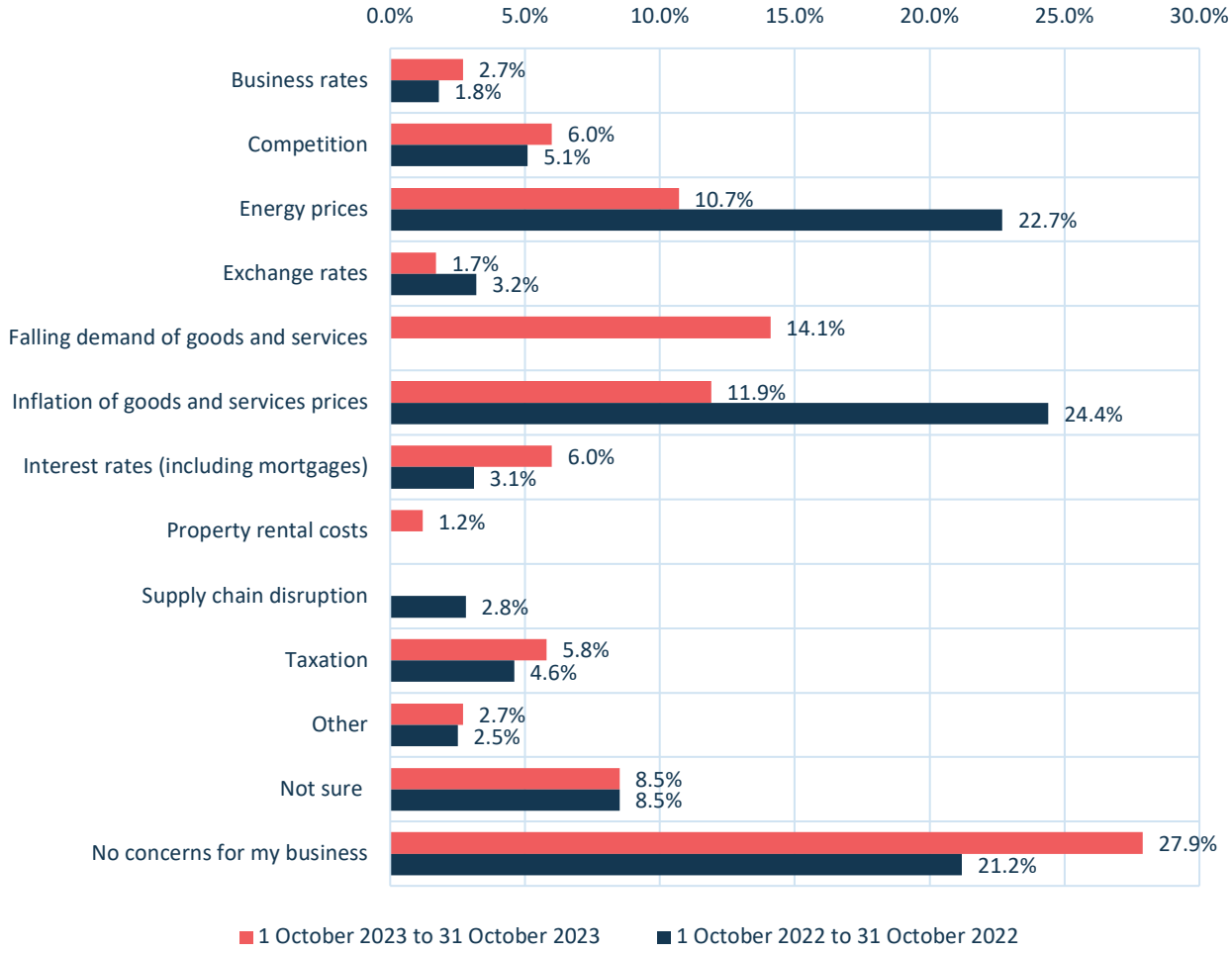
As well as covering financial health, the BICs survey also provides useful information on other concerns that are affecting businesses. There have been some marked changes and fluctuations here over the past few years, reflecting the rapidly changing economic context businesses are operating in.

The highest concern for businesses in October 2023 was falling demand for goods and services, with 14.1 per cent of businesses highlighting this. Inflation and energy prices are still important preoccupations too, although the share of businesses saying they were concerned by energy prices dropped from 23 to 11 per cent compared to the same period last year. The percentage of businesses concerned by inflation of goods and services decreased from 24 per cent to 12 per cent.

An increasing number of businesses say they are concerned by competition (6% in October 2023) and interest rates (6%) compared to 5.1 per cent and 3.1 per cent respectively last year. Overall, over the whole period February 2022 – October 2023 when the business concerns question was asked, business concerns about inflation and energy prices reached their respective peaks in Autumn 2022 (26.8% of businesses concerned by inflation and 22.7% concerned by energy prices). Concern about supply chain disruptions progressively decreased from 6 per cent in March-April 2022 to 1 per cent in September 2023, while concerns about interest rates increased from 2 per cent to 6 per cent. Concerns about taxation remained relatively stable over the period oscillating around 6 per cent. On the positive side, 27.9 per cent of businesses reported they had 'no concerns' for their business in October 2023, which is back to the same level as in Spring 2022.

[9] https://www.enterpriseresearch.ac.uk/publications/the-cost-of-doing-business-2022q2-data-from-the-small-business-price-index/
[10] https://www.enterpriseresearch.ac.uk/podcast/episode-12-small-businesses-in-financial-crisis/
[11] https://www.smallbusinesscommissioner.gov.uk/ppc/
[12] https://www.gov.uk/government/publications/publication-of-the-prompt-payment-and-cash-flow-review

Figure 3: Business concerns

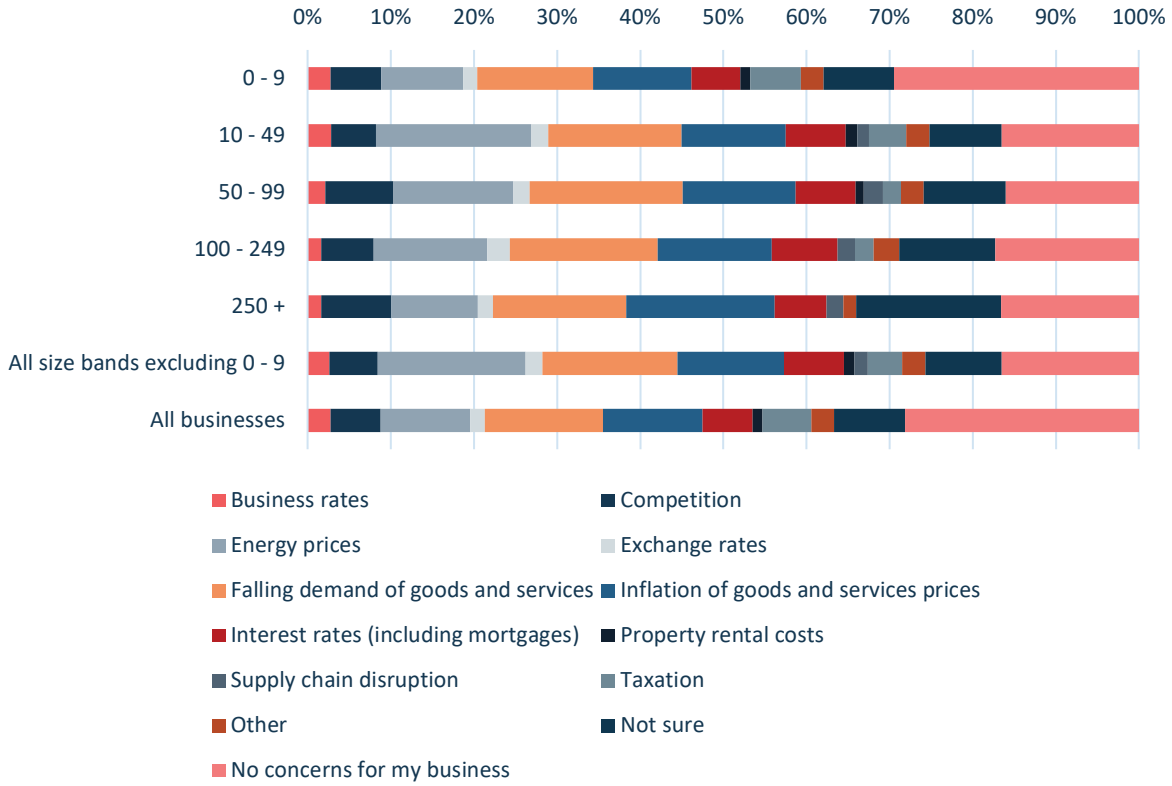


Source: ONS Business Insights and Conditions Survey data, Waves 66 (1 October 2022 to 31 October 2022) and 92 (1 October 2023 to 31 October 2023)

Notes: Question: 'Which of the following, if any, will be the main concern for your business in October 2022 /October 2023?'; as a percentage of businesses not permanently stopped trading, weighted by count, UK.

Figure 4 shows that falling demand, energy prices and inflation are the main concerns for businesses across all size categories, with small businesses 10 – 49 employees showing the highest concern with energy prices (18.7%).

Figure 4: Business concerns by firm size

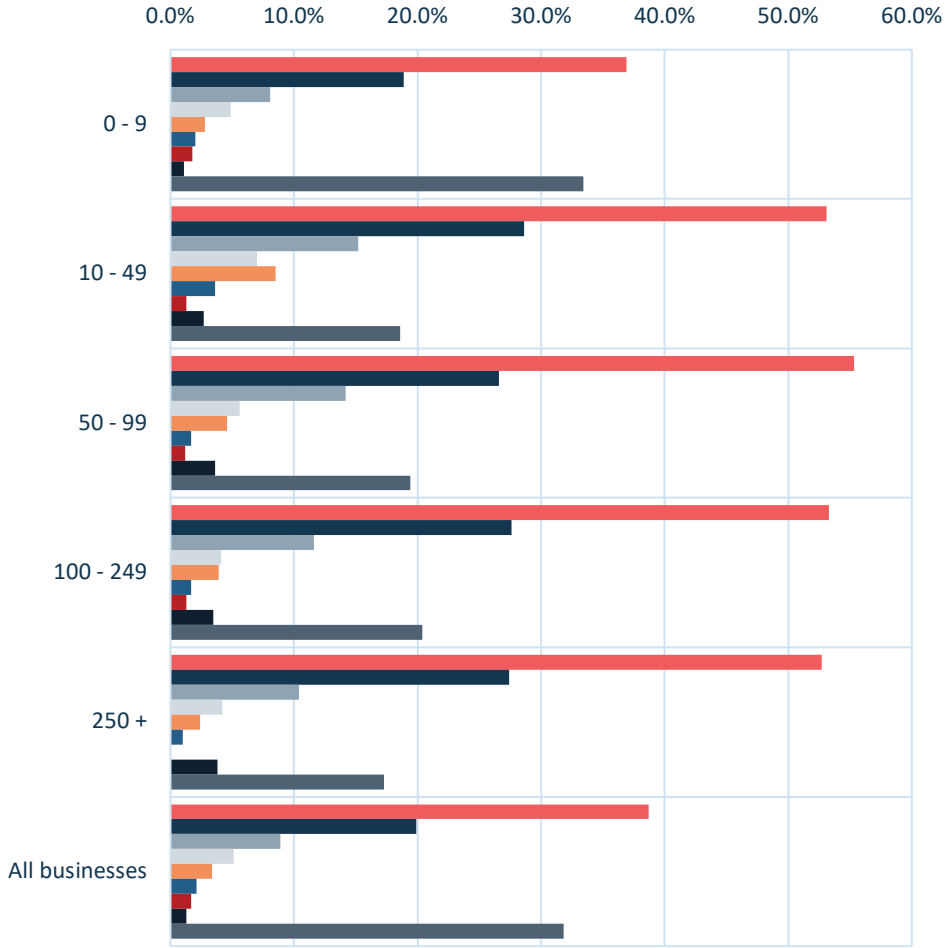


Source: ONS Business Insights and Conditions Survey data, Wave 92

Notes: Question: 'Which of the following, if any, will be the main concern for your business in October 2023?'; as a percentage of businesses not permanently stopped trading, weighted by count, UK.

Figure 5 shows the implications of the recent price rises more generally (beyond energy costs) on UK SMEs and large businesses. Just under two in five businesses reported that they had to absorb costs (38.7%), one in five said they had to pass on price increases to customers (19.9%), and one in ten had to change suppliers (8.9%). Other implications included the necessity to seek financial support (5.1%), the reduction of staff work hours (3.4%), the discontinuation of lines of sale (2.1%), or reduction of workspaces (1.7%). When looking at the split by size, there is not much variation between SMEs and large businesses, while the percentages of micro firms reporting different implications was slightly lower compared to other size categories. One in three micro-businesses (33.4 per cent) reported that price rises did not affect the business compared to around one in five small (18.6 per cent) and medium-sized businesses (19.4 – 20.4 per cent).

Figure 5: Effects of price rises by firm size



	All businesses	250 +	100 - 249	50 - 99	10 - 49	0 - 9
Had to absorb costs	38.7%	52.7%	53.3%	55.3%	53.1%	36.9%
Had to pass on price increases to customers	19.9%	27.4%	27.6%	26.6%	28.6%	18.9%
Had to change suppliers	8.9%	10.4%	11.6%	14.2%	15.2%	8.1%
Had to access more financial support	5.1%	4.2%	4.1%	5.6%	7.0%	4.9%
Had to reduce staff work hours	3.4%	2.4%	3.9%	4.6%	8.5%	2.8%
Discontinued lines of sale	2.1%	1.0%	1.7%	1.7%	3.6%	2.0%
Unable to maintain workspaces	1.7%		1.3%	1.2%	1.3%	1.8%
Had to make redundancies	1.3%	3.8%	3.5%	3.6%	2.7%	1.1%
The business has not been affected by price rises	31.8%	17.3%	20.4%	19.4%	18.6%	33.4%

Source: ONS Business Insights and Conditions Survey data, Wave 93 (2 October 2023 to 15 October 2023)

Notes: Question: 'In which of the following ways, if any, has your business been affected by price rises?'; as a percentage of businesses not permanently stopped trading, weighted by count, UK. 'Unable to maintain workplaces' responses were excluded for large businesses because of low counts for confidentiality reasons.

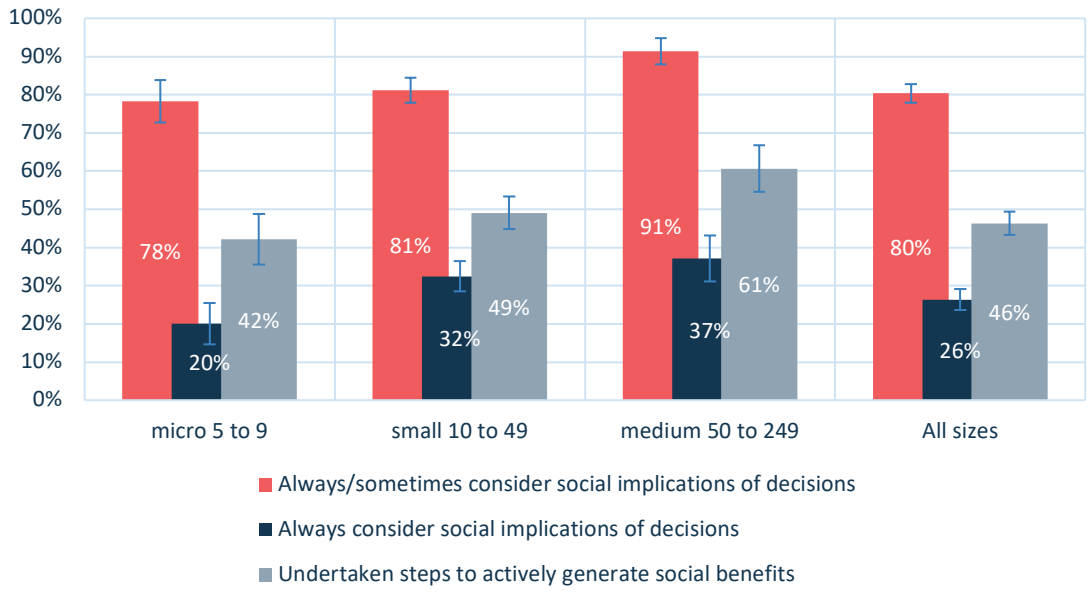
1.3 Trends in SME attitudes and behaviours

The last decade has brought about many changes amongst small businesses in terms of attitudes and behaviours, prompted by wider shifts in society and the economy, including climate, demographic and technological change. The Covid-19 pandemic in particular brought with it many extreme challenges for small businesses, many of whom had to pivot their activities and business models. During this period, many small business leaders rethought the relationships between their businesses and their stakeholders, including employees, customers, local communities, and society in general.

The ERC's Business Futures (2022) survey explored some of these issues in more depth, looking at the extent to which businesses think about how their decisions might affect society. Firms were asked how likely they were to consider the social implications of the business decisions they make. Figure 6 shows that the vast majority, or four in five UK SMEs surveyed said that they 'always' or 'sometimes' take into account social factors when making business decisions, with one in four answering 'always'. This varies slightly by firm size, with medium-sized businesses being more likely consider social implications (91%) than small (81%) and micro (78%) firms.

However, not all the firms who say they consider the social implications of their business decision-making are also actively engaged in socially responsible practices. The survey also found that less than half, or 46 per cent of UK SMEs said that they 'undertook steps to actively generate social benefits for people and communities' over the last year. Again, medium-sized firms were more likely to undertake these 'pro-social' actions (61 per cent) when compared to small (49 per cent) and micro firms (42 per cent).

Figure 6: Considering social implications of business decisions and active steps to generate social benefits, by firm size

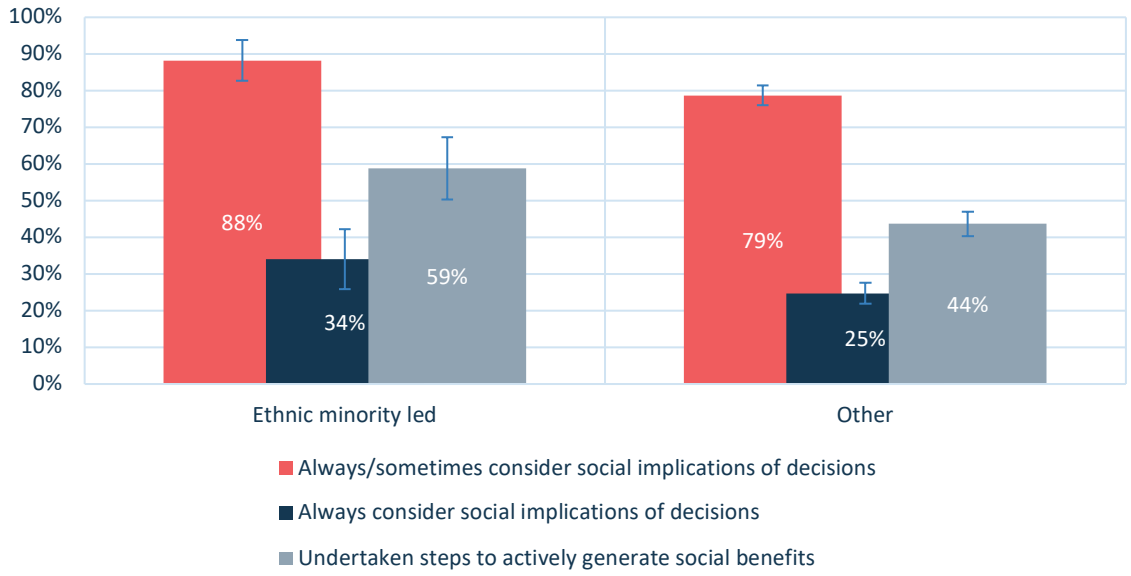


Source: ERC Business Futures 2022

Base: all firms (1,003), 213 micro (5 to 9 employees), 537 small (10 to 49 employees), 253 medium (50 to 249 employees); blue bars indicate 95% confidence intervals.

Interestingly, ethnic minority-led enterprises were markedly more likely than non-ethnic-minority-led businesses to take proactive measures to create social benefits for individuals and communities (59%) and to consider social concerns when making business choices (88%) (figure 7).

Figure 7: Considering social implications of business decisions and active steps to generate social benefits, ethnic minority led firms vs other



Source: ERC Business Futures 2022

Base: All firms (1,003); ethnic minority-led (131), other (872); blue bars indicate 95% confidence intervals; ethnic minority-led firm is defined as a firm with 50% or more of people managing the business on a day-to-day basis being from ethnic minority groups.

The ERC Business Futures Survey also asked questions on seven practices to help better understand which pro-social behaviours SMEs are adopting. The results are shown in Table 1. Overall, behaviours that may potentially increase productivity and wellbeing were the most frequently embraced. About one in four businesses reported paying their workers the Real Living Wage, implementing programmes to promote mental health and wellness, and promoting gender and ethnic equality in the workplace.

Around one-in-four businesses also reported supporting community organisations and participating in a variety of volunteer activities. Medium-sized businesses reported this support more frequently (35%) than microbusinesses (23%) or small businesses (27%) did. Medium-sized businesses were also more likely than micro or small businesses to provide disadvantaged individuals with employment or training opportunities, with 30 per cent doing so. Just under one in five businesses claimed to have given priority to suppliers who prioritise social responsibility and ethical employment practices, while 15 per cent of businesses said they kept track of how their goods and services affected community well-being over the previous 12 months.

Overall, firms tend to generate social benefits by adopting a portfolio of socially responsible practices, with those having practices in place on average implementing more than three different activities.

Table 1. Adoption rates of pro-social practices by firm size

	micro 5 to 9	small 10 to 49	medium 50 to 249	all sizes
Offered employment or training opportunities to disadvantaged people (e.g., long-term unemployed)	14%	20%	30%	17%
Paid the Real Living Wage to your employees	28%	27%	25%	27%
Introduced initiatives to promote good mental health and wellbeing at work	24%	29%	26%	26%
Made steps to support gender and ethnic equality in the workplace	22%	23%	31%	23%
Supported community organisations (e.g. volunteering/engagement with local schools)	23%	27%	35%	25%
Monitored the impact of your products or services on community wellbeing	14%	15%	22%	15%
Prioritised suppliers that value social responsibility and ethical employment practices (e.g. respect human rights)	16%	22%	24%	19%
Other	2%	1%	0%	2%
Did not undertake any steps to generate social benefits for people and communities	58%	51%	39%	54%
Number of practices (Base: all firms)	1.41	1.63	1.93	1.54
Number of practices (Base: those who undertook active steps)	3.34	3.31	3.18	3.32

Source: ERC Business Futures 2022

Base: All firms (1,003), 213 micro (5 to 9 employees), 537 small (10 to 49 employees), 253 medium (50 to 249).

Businesses were also generally positive about the effects of their pro-social activities. Approximately three out of four businesses that took action to assist the community and society claimed that doing so not only enhanced their own identity and reputation but also had a good effect on the community (figure 8).

Other internal performance benefits were also significant, with 62 per cent of businesses indicating that these pro-social practices assisted with employee recruitment and retention, and 65 per cent citing employee skill development. Additionally, more than half of enterprises that actively participated in prosocial activities said that doing so led to new product or service innovation (51%) and the creation of new business possibilities (54%).

Figure 8: Outcomes of business activities to generate social and community benefits

Source: ERC Business Futures 2022

Base: firms undertaking steps to generate social and community benefits (485); black bars indicate 95% confidence intervals.

There were clear disparities though in the benefits by firm size. The development of new goods or services, the creation of new jobs along the supply chain, and the emergence of new, lucrative business prospects were all more likely to be reported by medium-sized businesses than smaller firms.

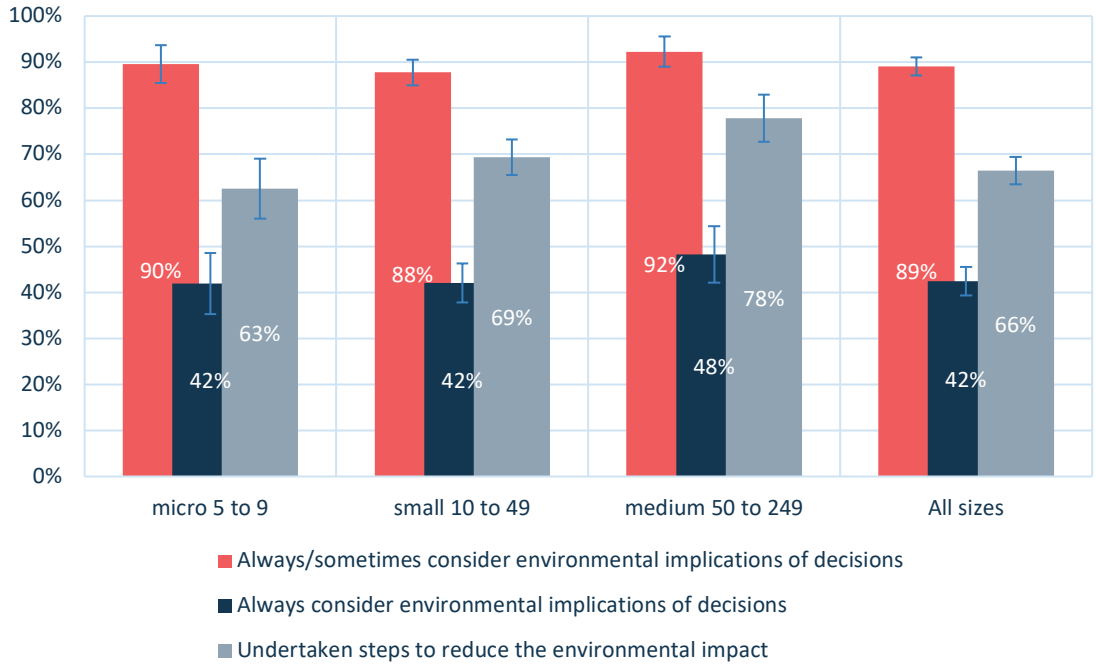
Research from the GEM survey shows that when looking to the future of their businesses, social impact is a particular consideration for early-stage entrepreneurs compared with established businesses, indicating that this is a trend that may continue to grow.

The ERC Business Futures Survey (2020 and 2022) also examined the extent to which businesses take into account environmental considerations when making business decisions, to get a measure of the extent of the impact of climate change on SME attitudes and behaviours.

The latest survey found that nine in every ten SMEs said that they considered environmental implications when taking business decisions (89% of all firms). This is slightly higher than in the 2020 survey (83%) (figure 9). At the same time, however, the evidence suggests, as was the case with social practices, that this consideration is not always transformed into action, with 66 per cent of firms saying that they have undertaken actions to minimise environmental impact.

Whether a firm takes pro-environmental action does vary by business size, with smaller firms being less likely to have undertaken steps to reduce environmental impact than larger SMEs, an issue we explore in more detail in Chapter 6. Adding to the evidence here, the GEM survey also finds that new ventures are more likely to consider the environmental consequences of their decisions than established businesses are, although they are no more likely to act on them, indicating that barriers to action exist.

Figure 9: Environmental impact – gap between considering environmental implications and environmental action



Source: ERC Business Futures 2022, Ri and Mole (2022)

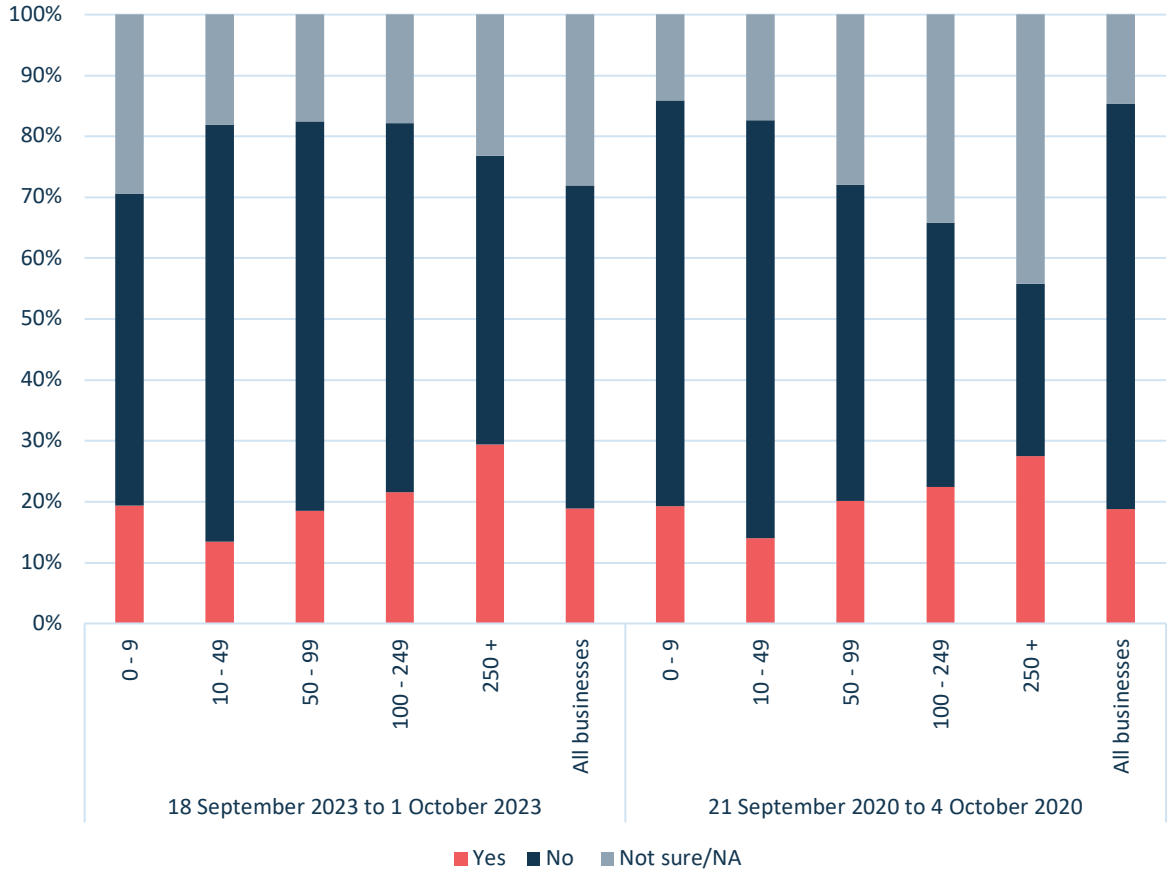
Base: all firms (1,003), 213 micro (5 to 9 employees), 537 small (10 to 49 employees), 253 medium (50 to 249 employees); blue bars indicate 95% confidence intervals.

1.4 Trends in work organisation

Alongside these changes in business attitudes and behaviours, the past decade has seen considerable changes in the way that work is organised in businesses, with many workplaces looking markedly different now compared to 2013. A number of these trend in work organisation were accelerated during the Covid-19 pandemic.

One trend that has received much attention is the growth of remote and hybrid working. According to data from the BICs survey (figure 10), just under one in five businesses (18.9%) in the UK say they are using or are intending to use increased homeworking as a permanent business model. Large businesses were more likely to implement homeworking (29.4%) compared to micro (19.4%), small (13.5%) and medium-sized businesses (18.5 - 21.6%). There is evidence that homeworking has become more widespread since the pandemic. The proportion of businesses replying 'No' to the question "Is your business using or intending to use increased homeworking as a permanent business model going forward?" decreased from 66.5 per cent in 2020 to 53 per cent in 2023.

Figure 10: Using or intending to use homeworking as a business model

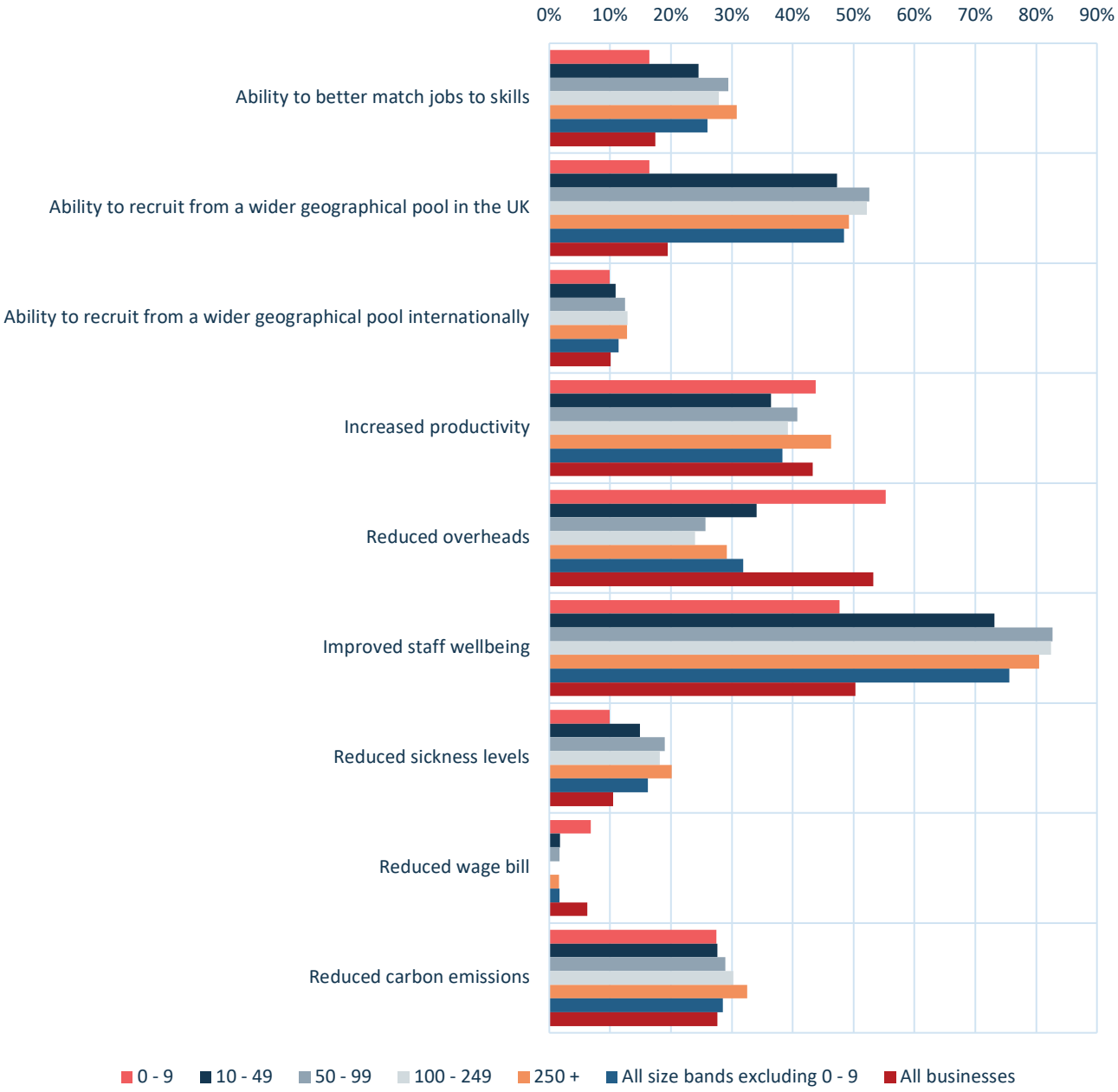


Source: ONS Business Insights and Conditions Survey data, Waves 92 (18 September October 2023 to 1 October 2023) and 14 (21 September 2020 to 4 October 2020)

Notes: Question: 'Is your business using, or intending to use increased homeworking as a permanent business model going forward?'; as a percentage of businesses not permanently stopped trading, weighted by count, UK.

When asked about the reasons for using homeworking, it is striking that SMEs and large businesses most frequently cited improved staff wellbeing (on average 75%) compared to only 48 per cent of micro businesses, which were more likely to cite reduced overheads as the main reason to use a homeworking model (55 per cent of micro-businesses compared to 32 per cent of SMEs and large businesses). Increased productivity (43 per cent) and reduced carbon emissions (28 per cent) were also frequently cited across all size ranges. For SMEs employing 10 employees or more and large businesses, the opportunity to recruit from a wider geographical pool in the UK was also an important reason for adopting homeworking, with about half of businesses citing this reason.

Figure 11: Reasons for using the homeworking model

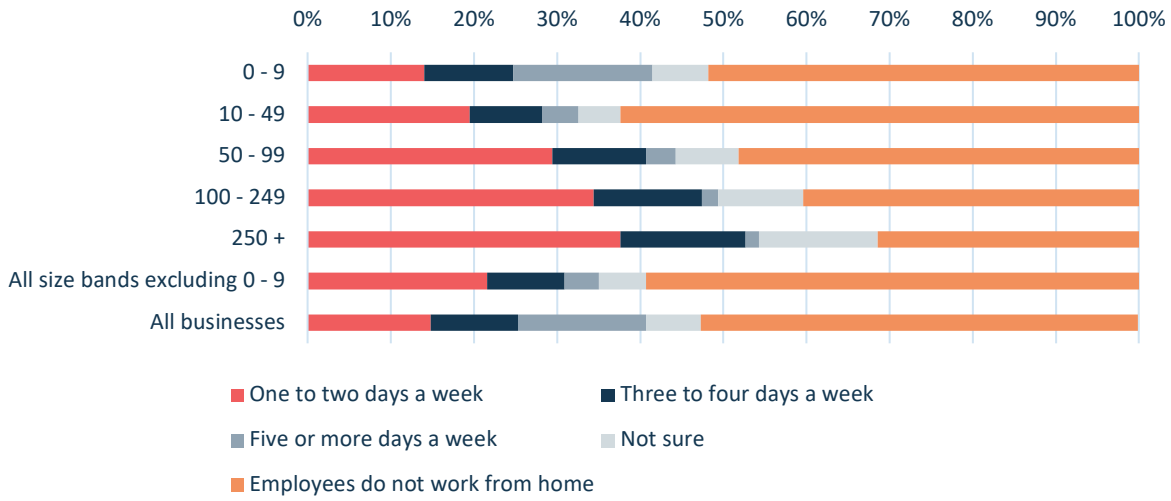


Source: ONS Business Insights and Conditions Survey data, Waves 92 (18 September October 2023 to 1 October 2023).

Notes: Question: 'Why is your business using, or intending to use, increased homeworking as a permanent business model going forward?'; as a percentage of businesses not permanently stopped trading, weighted by count, UK.

Hybrid working is more widely used than complete home-based working, with the most frequently cited pattern in SMEs and large businesses to have staff working from home one to two days per week (22 per cent) followed by three to four days a week (9 per cent). Micro businesses have a more even distribution of homeworking patterns with lengthier periods of '5 days and more' cited by 17 per cent of businesses.

Figure 12: Number of days per week employees work from home by size



Source: ONS Business Insights and Conditions Survey data, Wave 92 (18 September October 2023 to 1 October 2023).

Notes: Question: 'On average, how many days a week do your business's employees currently work from home?'; as a percentage of businesses not permanently stopped trading, weighted by count, UK.

As we might expect, the average number of working from home days reported vary greatly across sectors. For example, in manufacturing and construction the most frequent pattern is one to two days per week (14 and 8 per cent respectively), while in the information and communication sector, 40 per cent of firms said that their employees work from home five or more days per week.

These changes in work organisation, and the increase in adoption of new technologies more broadly have brought a range of new opportunities and challenges for businesses in terms of management and leadership practices. A concern for workplace wellbeing has also risen higher up the agenda, with increasing recognition amongst the business community of the impact of rapid technological change on the employee experience.

1.5 Summary

The last decade has brought many changes for the UK's small businesses, with rapid technological change, growing concerns about climate change, rises in the cost of living, Brexit and of course the Covid-19 pandemic all bringing challenges and uncertainties as well as new opportunities. As we look towards 2024, the road ahead still looks bumpy.

The resilience of many small businesses during the decade, and particularly over the past three years, has been inspiring. However, with many businesses and families remaining under sustained financial pressure, there will be important implications for growth, productivity and wellbeing which will require attention from policymakers and practitioners. In the next chapters we turn to look more in-depth at the findings from a decade of ERC research to explore what they tell us about where policy attention is needed.

2. Understanding Small Business Growth

Firm growth is a subject that attracted a large amount of attention throughout the 2010s as the UK economy emerged from a period of deep recession which provoked a renewed interest amongst policymakers in job creation. The ERC was first established in this post-recession context, with a focus on understanding what encourages and what discourages small business growth. Over the subsequent decade our research explored how we should define and measure growth, and created new insights into patterns of firm growth and what underpins them.

2.1 Measuring small business growth

ERC research has drawn attention to the multi-faceted, complex nature of small business growth. It has shown that business growth can be defined and measured in different ways, and can include increases in business creation, turnover, revenue, productivity and job creation. As such it can be measured using a range of different indicators.

The ERC's UK Local Growth Dashboard reports, the first of which was published in 2014, have made a valuable contribution to knowledge on small business growth, developing a range of metrics to measure and monitor it, and looking at how growth varies by geography across the UK. We have used all these metrics to provide a nuanced picture of small business growth in the UK.[13]

The growth metrics developed and used in the Local Growth Dashboard analysis are:

- Three-year survival rates of start-ups;
- The proportion of start-ups that reach £1m+ turnover in three years;
- The proportion of £1-2m turnover businesses which grow to £3m+ turnover in three years;
- The High-Growth Firm (as defined by the OECD) incidence rate;
- Small High-Growth incidence rate (avoiding the exclusion of firms with less than 10 employees);
- Productivity growth metric - firms that growth both in terms of jobs and revenues but have a faster rate of growth in revenues.

The number of start-ups in an economy has often been seen as a headline metric of business growth. Although numbers of start-ups are often widely reported as a good news story, what is less well known is the proportion that survive, and then go on to create healthy revenues. For this reason, we developed the three-year survival metric, alongside some additional measures in an attempt to capture sustained growth.
The first of these metrics captures those start-ups that survive and then go on and generate at least £1m in revenues after three years. This figure was selected as it reflects the ambitions of many entrepreneurs as they strive to sustain and growth their businesses – getting a business to the 'first million' is an often-stated ambition. The second captures scaling firms, or £1-2m turnover businesses which grow to £3m+ turnover in three years.

The concept of the High Growth Firm (HGF) is a measure developed by the OECD that has been used and referred to widely by policymakers.[14] It was designed to assist policymakers in identifying the small group of firms which contribute disproportionately to job creation. The measure refers to firms that have 10 employees or more, and have achieved average growth of either sales or employment of 20 per cent per year for the last three years. These firms, whether start-ups, scaling firms or more established businesses, growing rapidly for the first or second time, have a disproportionate impact on job creation, hence attracting strong

[13] The next ERC Local Growth Dashboard will be published in the Spring of 2024.
[14] https://www.oecd.org/publications/high-growth-enterprises-9789264048782-en.htm

policymaker attention. The ERC additionally developed the Small High Growth incidence rate as a variation of the OECD HGF measure that includes firms with less than 10 employees. However, while we continue to measure this growth metric in our various research projects we have since written a detailed critique of the OECD HGF metric to demonstrate its fundamental weakness by rendering invisible those firms whose rapid growth was not consistent year on year and took place in discrete one or two-year episodes over the decade.[15]

Finally, we devised the productivity growth metric as a result of previous research which showed that there was a very poor correlation between jobs growth, increases in revenues and productivity gains.[16] This metric identifies a small group of firms who increased their productivity (defined as turnover per employee) by increasing both turnover and employment but revenue at a faster rate than employment. Recent ERC analysis using the latest version of the ONS BSD for 2021-22 has identified that there are 36,298 of these firms in the SME population that are at least 3 years of age (1.2 million) or 8 per cent of those firms that has increased turnover (n=453,231). They employed 607,106 persons in 2022 and recorded £268.6bn in revenues, are mostly involved in manufacturing and business and professional services, and around a third of them are located in London and the South East. In 12 months, they had grown employment by 29 per cent but revenues by 196 per cent. We have labelled these firms 'Productivity Heroes' and will be undertaking more work on these firms in 2024.

2.2 Patterns of small business growth

ERC research has explored small business growth in the UK and internationally using the above metrics through the Local Growth Dashboard as well as a range of other studies. This research has revealed patterns that have challenged many pre-existing assumptions about firm growth, and has shaped the understanding of policymakers.

One main overall finding from this body of research is the low proportion of the business population that grow in the UK compared to international competitors.[17] Looking first at business creation, the UK has a high proportion of start-ups that do not survive. The 2019 Local Growth Dashboard report for example found that in the pre-pandemic years, almost half of all start-ups in the UK did not make it to their third year, and this was the case also for all the previous cohorts of start-ups analysed since 1998, indicating a long-established pattern.[18]

Other ERC research focusing on business dynamics has demonstrated the interplay that exists in the UK economy between small business growth and survival. An early ERC study published in 2013 uncovered 'five brutal facts of UK business demography',[19] namely:

1. Every year a large number of private sector firms are born in the UK, typically between 200,000 and 250,000.
2. Most new born firms are very small. Around 90 per cent have less than five employees.
3. A decade later, between 70 and 80 per cent of those new born firms will be dead.
4. A cohort is born with about one million jobs. A decade later the survivors employ just half a million.
5. Of those which have survived to age 10, around 75 per cent of those born with less than five employees will still have less than five employees.

These facts illustrate clearly the dynamics underpinning shifts in the stock of firms in the UK economy over time: as each new 'wave' of firms is born, firms from earlier waves die away. This dynamic picture has not always been recognised in enterprise policy.

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[15] See Hart, M., Prashar, N., & Ri, A. (2021). From the Cabinet of Curiosities: The misdirection of research and policy debates on small firm growth. International Small Business Journal, 39(1), 3-17 https://research.aston.ac.uk/en/publications/from-the-cabinet-of-curiosities-the-mis-direction-of-research-and-

[17] See page 45 in Section 2.2 on High Growth Firms in British Business Bank Small Business Finance Markets 2018 report https://www.british-business-bank.co.uk/wp-content/uploads/2018/02/Small-Business-Finance-Markets-2018-Report-web.pdf

[17] https://www.enterpriseresearch.ac.uk/publications/high-performing-firms-job-creation-longitudinal-analysis-1998-2013/

[18] https://www.enterpriseresearch.ac.uk/publications/uk-local-growth-dashboard-2019/#:~:text=The%20Local%20Growth%20Dashboard%20can,updated%20on%20an%20annual%20basis.

[19] https://www.enterpriseresearch.ac.uk/publications/firm-dynamics-job-creation-uk-taking-stock-developing-new-perspectives/

A further ERC study, this time with an international focus, provided further evidence to support some of these facts, reporting that in the six countries studied, newly born firms were typically very small, with more than three-quarters having less than five employees and relatively few surviving 10 years (and fewer still of the smallest).[20] However, it also showed that the firms born smallest which managed to survive, did grow faster. This illustrates the extent of the contribution to job growth made by the smallest surviving firms: a very small proportion of them accounted for a disproportionate amount of overall job growth.

A more recent study based on analysis of 1998-2018 data from the Business Structure Database (BSD) also sheds light on the nature of business dynamics more recently in the UK.[21] This research reported a worrying trend of falling start-up rates in the UK over time and an overall decline in the job reallocation rate (JAR) – the headline measure by economists of business dynamism.

When the Covid-19 pandemic hit in 2020, ERC research turned to explore the effect this had on business dynamism in the UK.[22] We provided an early assessment of trends by comparing company incorporations and dissolutions in the first quarter of 2020 with the same period in 2019 using data from the FAME dataset. As might be expected, we observed a drop in incorporations and an increase in dissolutions, with a 70 per cent increase in the number of company dissolutions in March 2020 compared to March 2019, with variation by region and sector. The increase in company dissolutions was driven by young firms which emerged as the most vulnerable when it came to the unprecedented challenges brought by the pandemic.

The most recent (forthcoming) analysis of the 2020-22 period using the ONS BSD has shown another fall in the job reallocation rate to its lowest level since just after the 2008 financial crisis. The fall in the job reallocation rate may be attributed to the effects of the pandemic and the formal exit from the EU. Furthermore, the proportion of firms expanding in terms of jobs has declined over time from 20 per cent in 2012 to 12 per cent in 2022.

Turning to look at trends in business scaling, ERC research has shown that only a small proportion of firms reach significant scaling milestones. The 2019 UK Local Growth Dashboard found for example that the proportion of UK-owned start-ups that achieved our metric of reaching £1m+ turnover in three years was very small indeed (2% nationally in 2019), although there was a great deal of variation between the Home Nations and across local economic areas or Local Enterprise Partnership (LEP) areas in England on this measure. When it comes to the growth of existing businesses – the proportions were higher than for early scaling, but still only a minority of existing firms with turnover of £1-2m per year grew to at least £3m turnover over three years (7.6% in 2019). Again, this metric varied greatly across the UK with the three Home Nations of Scotland, Wales and Northern Ireland having lower proportions of these businesses than most areas in England.

Policymakers have often emphasised the potential of high and fast-growing businesses (sometimes referred to as 'scale ups') as catalysts for change, helping economies to recover from shocks and recession. According to the 2019 Growth Dashboard report, the number of high-growth firms (HGFs) in the UK declined to 10,968 (covering the 2015/18 period), making the overall incidence rate of these firms just 6.2 per cent. Again, there was variation by geography, with the incidence rate of HGFs in England ranging from 4.3 per cent in the Black Country to 7.9 per cent in London. The spatial pattern within this range showed a clear concentration of these firms around the arc from Cambridge to Bristol and along the M4 and M3 corridors. In terms of Small High Growth Firms (SHGFs) – which as noted above focuses on firms with less than 10 employees, the overall UK incidence rate was 1.3 per cent for the 2015-18 period.

In recent years the OECD have relaxed their 20 per cent growth threshold for the definition of a HGF to 10 per cent. Even with the more relaxed criteria the 2019 Local Growth Dashboard found that only 15 per cent of firms in the UK fit this criteria, with London having the highest rates in the UK at 17 per cent. The LEP areas in the south generally was not found to have higher incidence rates, with the pattern portrayed by a southern 'triangle' connecting Cambridge, Bristol and London.

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[20] https://www.enterpriseresearch.ac.uk/publications/accounting-job-growth-disentangling-size-age-effects-international-cohort-comparison/
[21] https://www.enterpriseresearch.ac.uk/publications/39495/
[22] https://www.enterpriseresearch.ac.uk/publications/business-dynamism-and-covid-19-an-early-assessment/

Other ERC research has explored growth patterns in HGFs, revealing some interesting findings. One study for example explored the resilience of these firms over the Great Recession using a measurement framework designed to track the population of these firms between 1998 and 2015.[23] The study found the average age at which a firm becomes categorised as a HGF is about six years old. Importantly, it also found that these firms don't stay in a state of constant growth, but they tend to experience repeated 'episodes' of growth over time. This creates problems in terms of the accurate measurement of the prevalence of these firms, and it also has implications for the design of policy support.

Another study explored the performance of HGFs over a 15-year period, alongside two other groups of high growth firms – Small HGFs (including firms with less than ten employees if the firm added eight or more employees during their three-year growth period), and Extraordinarily Prolific Job Creating firms (EPJCs) – firms that are born very small (less than five employees) which reach 20+ jobs after 10 or 15 years. The study found that the OECD defined HGFs actually grew more slowly and had a lower survival rate than one or both of the comparator groups of high performing firms. It also found that in all of the three groups of firms, the bulk of the job growth took place in the first five years after start-up.[24]

Turning back to the metrics reported in the Local Growth Dashboard reports, the evidence gathered on the productivity growth metric also shows that only a minority of UK firms achieve this. The 2019 Growth Dashboard report found that only 8.3 per cent of all job-creating employer enterprises in the UK achieved positive productivity gains (revenue per employee) while still increasing jobs over the period 2015-18. Again, there were national and regional variations that followed the trends in previous editions of the Local Growth Dashboard.

In summary, the growth metrics reported in the Local Growth Dashboard and other ERC research over the past decade have demonstrated that there are only actually a minority of firms in the UK that are engaged in growth, whether this be in terms of increasing jobs, revenues or productivity. Furthermore, it has also challenged many preconceptions about where the UK's business growth 'hotspots' are, as well as showing that there are many areas of the UK where, irrespective of the growth metrics used, there has been a persistent absence of firms growing rapidly.

The research also highlights the fact that definitions really do matter when it comes to small business growth, and to understanding the true nature of the challenges and opportunities across the different regions and nations of the UK. A further valuable insight has been the observation that a distinction needs to be made between high-growth firms and high-growth episodes.[25] When we explore the growth trajectories of small business in more detail, we see that growth is often episodic and not sustained over time. Even the most successful businesses won't always maintain their growth. A focus, therefore, on growth trajectories rather than 'high growth firms' enables us to better capture the interplay between growth and survival.[26]

This more nuanced appreciation of growth points to the fact that too much focus on rigidly defined HGFs is not a sensible focus for policymakers. Not only is the measure itself somewhat artificially defined, it also does not reflect the reality of growth for most businesses. Instead, ERC research has highlighted that it is more informative to concentrate on creating an effective 'growth pipeline' at local level and monitoring its development over time by tracking cohorts of start-ups and other groups of established firms.

2.3 Factors affecting growth

As well as measuring and tracking business growth in the UK, ERC research has shed light on the factors that affect, or are associated with small business growth. The question of what drives business growth has been a focus of research for several decades now and has been the subject of much debate. The lack of clarity and agreement on the answer to this question has had serious implications for the design of effective

[23] https://www.enterpriseresearch.ac.uk/publications/uks-high-growth-firms-resilience-great-recession-research-paper-no-62/
[24] https://www.enterpriseresearch.ac.uk/publications/high-performing-firms-job-creation-longitudinal-analysis-1998-2013/
[25] https://www.enterpriseresearch.ac.uk/publications/supporting-sustained-growth-among-smes-policy-models-guidelines/
[26] https://journals.sagepub.com/doi/10.1177/0266242620951718

policy support in this area.[27] The ERC has moved forward this debate, sharpening the focus on a range of thematic areas, including entrepreneurial growth intentions/ambition, finance, innovation, management and leadership.

One area on which we have provided insights is on the impact of entrepreneurial growth intentions on subsequent performance. The very first paper published by the ERC focused on the connection between the growth intentions of entrepreneurs and realised enterprise growth.[28] This meta-analysis concluded that entrepreneurial growth intentions matter when it comes to growth, and the effect they have is not small. This analysis also explored the factors that influence growth intentions, and found several interesting links. For example, in terms of individual characteristics, education levels generally showed a small but robust positive effect on growth intention. Risk-taking propensity, the need for achievement and innovativeness all had small but positive and robust effects. Individuals' age and gender, however, showed no consistent effect on growth intention.

In terms of firm characteristics, the analysis found a wide variation in results on whether the age, size or technology level of businesses were associated with growth intentions. This does not mean that these factors have no effect, but if they do, the evidence suggests that they are influenced by other factors. There was limited evidence of a positive effect between export propensity and growth intention. Perceived 'burdensome regulations' affecting the entry, growth and exit of businesses had a large negative effect on the prevalence of growth-oriented entrepreneurs.

Although this particular study did not explore the impact of ethnicity, other ERC research has drawn attention to the higher levels of growth intentions and ambition found in ethnic minority-led businesses.[29] Research undertaken with CREME analysing the LSBS in 2015 and 2018 found for example that ethnic minority-led firms were more ambitious than their white British counterparts. In 2018, 69 per cent of ethnic minority-led firms reported an ambition to grow sales in the following three years, compared with 56 per cent of nonethnic minority-led firms. This pattern also held up in terms of realised sales growth.[30]

ERC research has also pointed to the links between finance and small business growth. Access to finance can enable business expansion and is therefore associated with growth. However, as an early ERC evidence review noted, the issues and dynamics here are complex and not completely understood.[31] It is well known that larger and established firms are more likely to get the external funding they need to grow while start-ups and smaller firms are less likely to do so. However, the evidence shows that there are a range of underlying issues associated with this situation that go well beyond failures in finance markets. These include for example to differences in the objectives and motivations of entrepreneurs and firm life-cycle stages. ERC research has emphasised the importance of understanding the entire 'journey' over the lifecycle of a firm from the initial decision to seek external finance, the challenges faced along the way, changing needs over time and the performance outcomes. In addition, it has also explored the influence of entrepreneurial decision-making processes, and biases in decision-making experienced by small businesses. We will return to the theme of finance in Chapter 3.

A further theme explored in ERC research has been the link between innovation and business growth. Again, this relationship is complex. Innovation - or the development of new products, services, business models or strategies is linked to business growth as it can open up new market opportunities, as well as create more efficient and effective ways of working. ERC research has drawn attention to the links between innovation and business performance with a substantial body of research, and this is a theme we will return to in more detail in Chapter 4.

ERC research has explored the effects of leadership and management profiles and capabilities on business growth behaviours and decision-making.[32] This work found that prior industry knowledge and entrepreneurial

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27 https://www.researchgate.net/publication/276255082_Joining_the_dots_Building_the_evidence_base_for_SME_growth_policy
28 https://www.enterpriseresearch.ac.uk/publications/growth-growth-intentions-meta-analysis-existing-evidence/
29 https://www.enterpriseresearch.ac.uk/publications/entrepreneurship-ethinic-minority-liberation/
30 https://www.enterpriseresearch.ac.uk/growth-and-diversity-an-opportunity/
31 https://www.enterpriseresearch.ac.uk/publications/know-relationship-entrepreneurial-finance-growth/
32 https://www.enterpriseresearch.ac.uk/publications/entrepreneurial-leadership-capabilities-growth-review-existing-evidence/

experience have a strong positive influence on growth behaviours in terms of the numbers of market opportunities identified, and on the development of a broader outlook and understanding of the risks and consequences of failure. A diversity of knowledge within leadership teams can also have a positive effect on growth behaviours (provided there is team cohesion). Growth motivation, however, as reflected in growth intentions and goal setting, is important to realise the full performance benefits. The evidence shows that having specific challenging goals results in higher performance than vague and/or easier goals. We return to our wider research on management and leadership skills in Chapter 7.

2.4 A wider view of business growth

As well as refining definitions and measurements of business growth, ERC research has also raised questions about whether an emphasis on achieving high growth is in fact a wise choice for enterprise policy. There are a number of aspects to this.

First, it is important to recognise that not all business leaders define their success in terms of the kinds of growth metrics that have been valued and pursued by policymakers. As one paper notes, if we take a global perspective, then "tens of millions of small business founders and owners have, as their objectives, anything but growth in terms of employment and turnover". Instead, there are a range of other motivations at play, including individual and firm survival, financial independence, as well as other household and personal motivations. Returning to the GEM UK survey evidence we find that just over 50 per cent of early-stage entrepreneurs in 2022 cite wanting to make a difference in the world as their motivation for starting a new business venture.[33] These aspirations for firm survival and growth were particularly brought to the forefront of attention during the Covid-19 pandemic.[34]

Even when we look at the UK level, ERC evidence tells us that many small business leaders are not orientated to high growth aspirations. In the ERC's ground-breaking Micro-business Britain survey, published in 2018,[35] we used a new set of ambition questions asking respondents to reflect on their aspirations for the future of their business and separately not at their own individual aspirations for the future. The findings were revealing.

Looking at business aspirations, the survey found that 73.7 per cent of all respondents said that they were aiming to 'keep their business similar to how it operates now', with a more ambitious 22.1 per cent saying that they were aiming to build a 'national or international business'. Other more operational aspirations – including employee engagement, HR practices, social benefits – also fell between these two extremes. Breaking down by gender, we found very similar profiles of business objectives for male and female micro-business owners. There were larger regional differences in the proportions of micro-business owners aiming to grow their business. In terms of this metric, London stands out with 35.9 per cent of business owners here aiming to achieve national and/or international recognition. Levels of growth ambition among micro-businesses were markedly lower in other regions.

When it comes to personal aspirations, the findings suggested a different set of priorities, with a marked emphasis on 'freedom' and 'flexibility'. This is consistent with much of the research literature on self-employment and entrepreneurship which stresses the financial as well as the non-financial benefits of running your own business. The financial aspect of running a business proves important for some, however, with 41.3 per cent of all respondents regarding it as important 'to build great wealth or a very high income'. Again, in terms of individuals' personal ambitions we saw a marked similarity between male and female micro-business owners. Given that a substantial proportion of the UK's business population is made up by micro-businesses, it is important to acknowledge that most business owners do not display the sorts of growth ambitions that might be valued by policymakers but value a range of other factors related to wider quality of life benefits.

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[33] https://www.enterpriseresearch.ac.uk/wp-content/uploads/2023/06/105637_GEM_Report_UK_2023_AW.pdf
[34] See Hart, M., Prashar, N., & Ri, A. (2021). From the Cabinet of Curiosities: The misdirection of research and policy debates on small firm growth. International Small Business Journal, 39(1), 3-17
[35] https://www.enterpriseresearch.ac.uk/publications/state-small-business-britain-report-2018/

In addition, it is also the case that some entrepreneurs have wider goals that go beyond the standard measures of business growth. For example, research indicates the wider value many ethnic minority-led businesses play in terms of community-building, integration, providing conduits for transnational trading links and regeneration.[36] [37] [38] ERC work has also drawn attention to the ways in which family-owned businesses have goals that are driven by complex socio-emotional preferences.[39] This might involve them seeking to build strong, stable businesses to pass onto family members, being guided by loyalty or tradition, or investing in their local communities to achieve societal impact through their businesses.[40] Research drawing on data from the LSBS has found that family effects have a significant effect on behaviour related to small business growth, with family-owned firms more conservative when it comes to pursuing business growth and expansion.[41] However, at the same time, there is also evidence that family businesses survive longer than non-family run businesses, with this resilience linked to them taking a longer-term outlook and 'stewardship' approach to running their businesses rather than a focus on fast growth.[42] Recent years have also seen a growth in social enterprises, organisations with social/environmental aims at their core which offer an alternative model to the traditional commercial profit-maximising firm.[43]

Finally, ERC research has also provided insights into understanding the impact fast growth firms have for jobs and productivity within wider regions or sectors. There is evidence that some aspects of growth are not necessarily positive. In the manufacturing sector, for example, our analysis has found a higher incidence of fast employment growth firms has an overall negative effect on the employment growth of other firms in the same industry and region.[44]

2.5 Summary

The UK has historically performed poorly in terms of the proportion of the business population that grow when compared to its international competitors. From the outset, ERC research has explored the issues that underpin this situation, aiming to inform policymakers about the barriers to small business growth and how they might best be addressed. Our research has provided a nuanced understanding of the complex patterns of small business growth.

In particular, we have pointed to the dangers of policy focusing on a single, narrow, definition of a 'high growth firm' or 'scale-up'. This approach, which is very much focused on 'picking winners' is not the most effective way of delivering business support schemes and initiatives. Our evidence leads to the conclusion that it is not only a small group of high growth firms that matter. Instead, developing a pipeline of ambitious business leaders with the potential for sustained growth is the best approach.

This approach would involve reaching a broader and larger, inclusive group of business leaders, ranging from nascent entrepreneurs, new business owners to established businesses. These leaders need to be both willing and able to grow their firms - motivation, ambition and skills are all crucial. The focus should be on developing frameworks that encourage and support more business leaders to identify and realise their growth opportunities, whilst also recognising that episodes of growth will come and go over time and embracing wider definitions of inclusive growth.

At the same time, we also know that small business leaders are often unable to invest in growth for a range of reasons. These issues are more significant now given the severe impact of the pandemic and subsequent cost of living crisis. Therefore, additional underpinning support also should be directed towards assisting small firms in accumulating both the financial and intellectual capital required for growth.

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36 https://www.enterpriseresearch.ac.uk/publications/diversity-smes-existing-evidence-policy-tensions/
37 https://www.aston.ac.uk/latest-news/new-aston-university-report-sets-out-blueprint-advancing-growth-potential-ethnic
38 https://www.smf.co.uk/wp-content/uploads/2021/11/Unlocking-the-potential-of-ethnic-minority-businesses-Nov-2021.pdf
39 https://www.enterpriseresearch.ac.uk/publications/resources-and-innovation-in-family-businesses-the-janus-face-of-family-socio-emotional-preferences/
40 https://www.enterpriseresearch.ac.uk/publications/social-economic-contribution-of-family-firms-in-uk-review-of-the-evidence-sota-review-no-45/
41 https://www.enterpriseresearch.ac.uk/publications/actual-intended-growth-family-firms-non-family-owned-firms-different-research-paper-no-60/
42 https://www.enterpriseresearch.ac.uk/publications/stewardship-and-survival-what-can-we-learn-from-longstanding-family-businesses/
43 https://www.enterpriseresearch.ac.uk/publications/what-can-social-enterprises-contribute-to-the-levelling-up-agenda/
44 https://www.enterpriseresearch.ac.uk/wp-content/uploads/2019/01/ERC-ResPap73-Policy-Briefing-Final-1.pdf

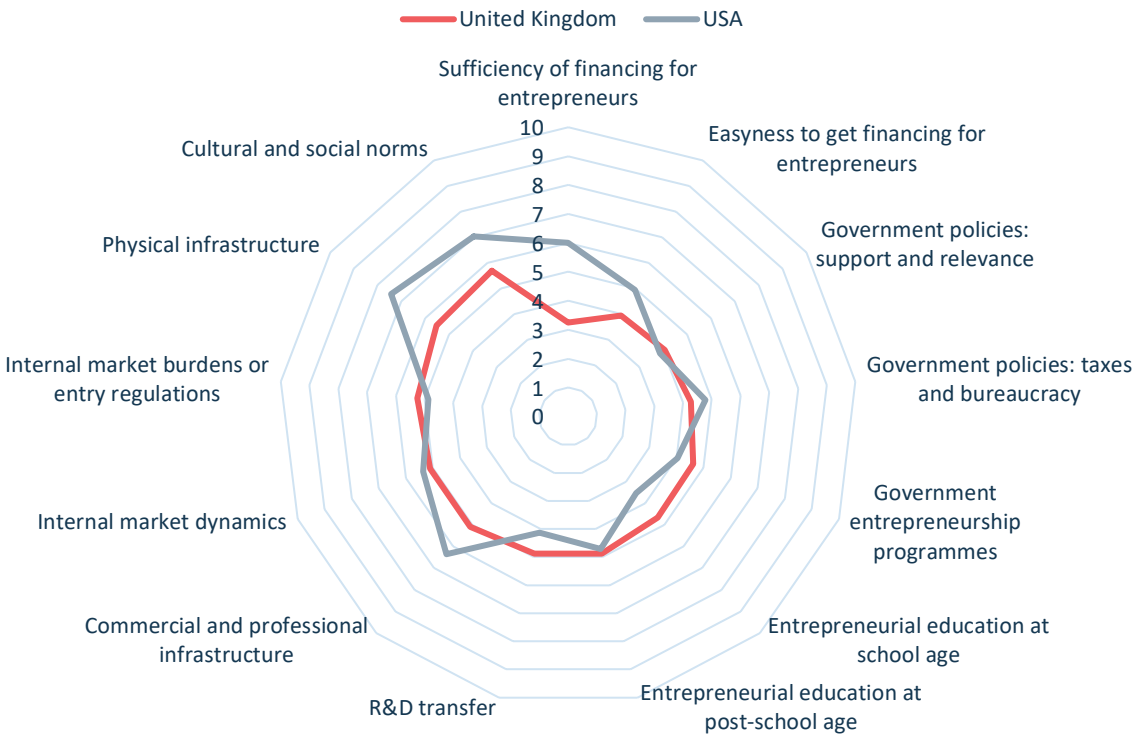
3. The Small Business Ecosystem

A key theme of ERC research over the past decade has been understanding the wider social and economic context within which small firms operate and how this impacts on their creation, survival and performance. Entrepreneurs and small businesses can only thrive when they are able to operate in an environment that is underpinned by supportive policies and an appropriate network of institutions, or an effective small business 'ecosystem'. Our work has explored a variety of aspects of this, focusing in particular on financial and business support.

3.1 Entrepreneurship framework conditions

The GEM Global study has created a useful tool to assess an economy's entrepreneurial ecosystem against nine so-called Entrepreneurship Framework Conditions (EFCs), based on more than twenty years of research and experience. To provide an overall view of how favourable an environment is for entrepreneurial activity across countries, GEM introduced the National Entrepreneurship Context Index (NECI) in 2018. Typically, the UK framework conditions mirror relatively closely those found in the US (figure 13), although the UK is rated lower in terms of cultural and social norms around the support of new and growing firms, entrepreneurial finance, physical and professional infrastructure.

Figure 13: Entrepreneurship Framework Conditions, UK and USA



Compared to the Netherlands, the country with the second highest NECI in the world in 2019, 2020 and 2021, and the highest NECI among European countries for the last few years, the UK had a similar score for internal market dynamics. For all other entrepreneurial framework conditions, the Netherlands reported much higher scores. In 2022, the gap is particularly notable for sufficiency of financing for entrepreneurs, the easiness to obtain entrepreneurial finance, the relevance of government policies, government policies related to taxes and regulation, and government entrepreneurship programmes.

3.2 Finance

Seeking and obtaining external finance (debt and equity) is positively associated with faster growth and productivity in SMEs. Yet, ERC research shows that most small business leaders in the UK are permanent 'non-borrowers'.[45]

Early ERC research pointed to a very complex interplay between attitudes, awareness and appropriate forms of private and public debt and equity finance products in the UK.[46] As we noted in Chapter 2, it is well known that larger businesses tend to be more likely to be able to obtain finance, but start-ups and smaller businesses tend to find it more difficult. ERC research has indicated that the underlying issues for this are varied and go well beyond failures in finance markets to include other factors related to differences in the objectives of entrepreneurs, the ownership types of firms and business life-cycle stages. Entrepreneurs may feel discouraged from applying for finance for a range of reasons including inadequate information on different sources of finance, fear of rejection, and lack of interest in business growth. The individual psychology of entrepreneurs with can also play a role, with some more risk-averse whilst others being over-optimistic about the potential of their business, with some of these characteristics linked with different social groups (e.g., male and female, and ethnic minority entrepreneurs). Although this research was published in 2014, these issues remain relevant, and particularly in the current post-pandemic economic context.

More recent research has pointed to the problems smaller firms confront obtaining finance in different parts of the UK, examining the effects of self-exclusion from the credit market, particularly focusing on banks.[47] The study found that around quarter of a million smaller firms have dropped out of the UK capital market, reducing job creation and sales income growth in many local areas, with negative implications for future growth outcomes. The research provides evidence of a distinct shift in the willingness of small firms to seek external capital in the UK since the Global Financial Crisis (GFC). ERC research has also drawn attention to the issues faced by disadvantaged groups in accessing finance, with a particular focus on ethnic minority firms – an issue which we pick up again in Section 3.4.

Other recently published research has explored access to finance amongst social enterprises.[48] This work has found that social enterprises use a range of different sources of finance, but that relative to commercial SMEs, they are likely to use banks but are more likely to rely on grant funding provided by government and local authorities. The results suggest that that a mismatch in funding exists, with the authors arguing that the social enterprise business model appears to exacerbate many of the access barriers experienced by SMEs more widely. These barriers are also related to differences in gender and ethnicity-based leadership characteristics, as social enterprises have a more diverse leadership than commercial SMEs. However, this study also found that when they do apply for funding, social enterprises are actually more likely to receive some types of funding from mainstream financial institutions when compared to commercial SMEs. This indicates that more support is needed to address knowledge gaps about sources of finance amongst social enterprises so that they can access the full range of finance options appropriate to them.

Bank finance is the dominant form of funding used by SMEs, accounting for 85 per cent of all outstanding debt owed by UK SMEs.[49] However, there are of course other forms of finance available. ERC research has

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[45] https://www.enterpriseresearch.ac.uk/wp-content/uploads/2018/07/Under-represented-entrepreneurs-Revised-10.18.pdf
[46] https://www.enterpriseresearch.ac.uk/publications/know-relationship-entrepreneurial-finance-growth/
[47] https://www.enterpriseresearch.ac.uk/wp-content/uploads/2022/06/ERC-ResPap100-the-Uneven-Spatial-Nature-of-Access-to-External-Finance-in-UK-SMEs-BrownCowling.pdf
[48] https://www.enterpriseresearch.ac.uk/publications/gender-ethnicity-and-access-to-finance-evidence-for-uk-social-enterprises-2/
[49] https://www.enterpriseresearch.ac.uk/publications/the-uneven-spatial-nature-of-access-to-external-finance-in-uk-smes-determinants-impacts-and-the-levelling-up-agenda/

looked for example at the development of online marketplace P2P business lending which emerged in the aftermath of the Great Financial Crisis.[50] Until the beginning of the pandemic, these platforms performed quite well. Small businesses, feeling that traditional banks were disinterested in them, turned to P2P platforms attracted by the speed and ease of the loan application process. The Covid-19 pandemic brought an unexpected change, and P2P platforms faced serious liquidity problems, yet at the same time there was an increase in demand from SMEs who were looking for different solutions for their cash flow problems.

Another form of funding that has been the subject of ERC research is Venture Capital (VC), a form of private equity investment that focuses on early stage, high growth businesses. The wider evidence here shows that diversity in venture capital investment in the UK remains extremely low.[51] ERC research has shown that although the participation of women in entrepreneurship has increased in recent years, women's access to venture capital (VC) has not moved at the same pace.[52] The gender gap in VC funding persists, as is also the case in other equity financing markets. The gap is associated with gender biases, which affect whether and how women entrepreneurs seek funding and how decision-makers evaluate business opportunities. From the demand side, this relates to some women's tolerance for risk and their perceptions about external equity capital, which can lead to lower aspirations to seek business growth and to apply for VC funds. From the supply perspective, gendered beliefs about what makes a successful business founder, and lack of female role models may impact negatively on the evaluation of businesses led by women. These barriers require interventions that go beyond a focus on just improving women's financial or technical skills.

More recently ERC research provided evidence on the impacts of publicly funded financial support through an examination of the emergency public support measures introduced in the UK during the Covid-19 pandemic, namely furlough funding and loan guarantees.[53] This analysis looked at how these schemes had influenced firms' future investment intentions and employee wellbeing. Both provided an early indication of potential effects on future productivity of the measures. Overall, we found widespread positive short-term impacts of the government support schemes on investment planning and smaller impacts on employee wellbeing. For example, firms which received a combination of furlough and loans were 17.2 percentage points more likely to plan investments in capital equipment than firms with no pandemic support. The same group of firms were 9.2 per cent less likely to report mental health absences and 9.9 per cent less likely to report sickness absences. The results suggested that publicly funded business support during the pandemic was contributing to more positive investment intentions and wellbeing and potentially to sustaining or growing productivity.

3.3 Business support

The provision of business support and advice is a key part of the small business ecosystem, which is reflected in the fact that significant resources are dedicated to it by governments across the world. Business support has a potential role in business survival and growth, and can diffuse new methods, knowledge and best practice to small businesses. ERC research has filled several evidence gaps on the nature and value of business support and the relationship with firm performance.

An early ERC paper explored the take up of business advice in the UK amongst SMEs, modelling whether small firms took advice from formal sources, including public and private suppliers, and looking at the push and pull factors involved. The study found that firm size affected the take-up of formal advice.[54] Furthermore, the threshold of around ten employees was a more important factor influencing the take up of advance compared to other factors such as the age of the business, the region in which it was located, or the age of the owner-manager. This suggests that when new firms reach the threshold of ten employees, they frequently search for help for some reason. Growth to this size, therefore, looks to be an indication of

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49 https://www.enterpriseresearch.ac.uk/publications/the-uneven-spatial-nature-of-access-to-external-finance-in-uk-smes-determinants-impacts-and-the-levelling-up-agenda/
50 https://www.enterpriseresearch.ac.uk/publications/online-peer-to-peer-lending-what-do-we-know-and-where-are-the-gapssota-no39/
51 https://www.british-business-bank.co.uk/wp-content/uploads/2023/07/BBB_What_Works_in_VC_Report.pdf
52 https://www.enterpriseresearch.ac.uk/wp-content/uploads/2019/01/No16-SOTA-Access-to-Venture-Capital-Amongst-Female-led-Firms-Martinez-and-Hart.pdf
53 https://www.enterpriseresearch.ac.uk/publications/covid-19-business-support-and-sme-productivity-in-the-uk/
54 https://www.enterpriseresearch.ac.uk/publications/takes-advice-firm-size-threshold-competence-concerns-informality-contingency-approach/

business success, but it is also a harbinger of new challenges. The evidence suggested that a need to raise finance to support growth was a possible catalyst for advice-seeking at this point, as well a need to hire first managers. The study also found that informal advice acts as an indication of a willingness to take advice, which then acts as a stepping stone to seeking more formal sources of advice either public or private.

A later ERC publication reviewed the existing literature on taking business advice and combined this with interviews with business advisers to explore: what stimulates entrepreneurs and SME owners to search for external assistance; what encourages entrepreneurs and SME owners to act on advice; and the results of receiving assistance.[55] The study showed that more educated managers and those facing greater challenges were the most likely to seek assistance, and that in general it was a trigger event that had encouraged them to actively seek assistance. It also found that building good relationships between advisers and firms was important for the delivery of quality advice. In terms of the benefits and results for firms, the value of advisers giving legitimacy to the business's approach was acknowledged, and advice was credited as imparting more confidence in owner-managers. Contact with advisers was also observed to impose accountability for decisions that then improved future prospects for the businesses.

In terms of the benefits, this study found that advice does provide positive economic benefits to the recipients. This is true even accounting for the fact that the people who take advice often represent better managed businesses. The benefits of taking advice were shown to be more varied than previously considered: advice can have economic benefits, but it can also add to the social and psychological capacity within small businesses.

In 2020 the ERC published the findings of a major two-year study exploring resilience in small firms, focusing on firms led by two groups of underserved entrepreneurs - females and those from ethnic minorities.[56] This international study explored the links between seeking external advice (formal and informal) and business resilience, and it revealed some interesting findings. First, the study found that survival-threatening business crises were commonplace amongst small businesses, but only a minority had any sort of crisis plan in place to deal with them. Firms run by women and ethnic minorities were at greater risk of crisis, whilst at the same time they were also less likely to undertake crisis planning and to use external business support. Overall, when they did seek business advice, ethnic leaders were more likely to consult informal sources such as family members than their non-ethnic counterparts.

Follow up research has explored the links between firms experiencing crises within their businesses and advice-seeking.[57] Conceptualising a business crisis as a trigger for advice seeking, and using survey data from 2,089 small firms, the study finds a strong and significant relationship between firms experiencing a crisis and seeking external business advice for up to five years after the crisis takes place. This sustained effect on advice seeking is particularly strong for firms who also sought advice at the time of the crisis.

ERC research has also provided insights into what works in terms of the delivery of business support. An early paper reviewed international support measures directed at enabling SME growth, drawing on evidence from an international benchmarking exercise undertaken with the OECD-LEED programme.[58] The review suggested seven design and implementation guidelines for support:

1. Enabling effective self-selection - a strong element of self-selection is inevitable in the provision of support for sustained growth. Enabling effective self-selection by firms requires a clear proposition from the scheme as well as a clear statement of required commitments. The proposition needs to be both ambitious and emotionally engaging.
2. Selecting participants - a strong element of selectivity by the scheme itself is also necessary as programmes are typically intensive and often involve peer-group and shared-learning activities.

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55 https://www.enterpriseresearch.ac.uk/publications/seeking-acting-appreciating-value-business-advice/
56 https://www.enterpriseresearch.ac.uk/publications/building-resilience-in-under-represented-entrepreneurs-a-european-comparative-study-summary-report/
57 https://journals.sagepub.com/doi/full/10.1177/02662426221105004
58 https://www.enterpriseresearch.ac.uk/publications/supporting-sustained-growth-among-smes-policy-models-guidelines/

3. Recognising spillovers - selectivity should include the notion of 'national benefits', positive spillovers which may be stronger from some SMEs than others.
4. Sustained engagement - schemes to support sustained growth are likely to involve continued engagement with a business over a period of years.
5. Holistic approaches - supporting sustained growth is likely to require a holistic rather than thematic support model, with a dual focus on the development of the business and the capabilities of the firm's leadership team.
6. Partnership-based - measures to support sustained growth should be partnership-based drawing on the expertise and networks of a range of support organisations.
7. Regionally organised - a regional model has proved valuable in facilitating attendance by firms at scheme events and sessions and making face-to-face mentoring and peer group sessions more feasible.

An ERC State of the Art (SOTA) Review published in 2023 gives an up-to-date overview of the evidence on the effectiveness of business advice at the firm level.[59] The review notes that small business advice is a very fragmented, opaque industry. Under certain circumstances advice can be a cheap and effective way to boost growth. If a small business manager can find a quality adviser and develop a good relationship, then advice can be part of firm development, and more advice can enable the adviser and business to work together effectively. However, it remains the case that many firms do not use external advice. A key reason underpinning whether firms take up advice relates to how 'coachable' a business, is and whether leaders are open and willing to engage with suggestions from outside of the firm. How feasible the advice is for the firm is also a key consideration, as for a variety of reasons businesses may find it difficult to implement advice they may be given. A final factor relates to the ambition of the leader to make firm development a priority. The review concludes, therefore, that for advice to be successful, small firms need to be 'ready, willing and able' to take on board the advice available to them.

3.4 Inclusive entrepreneurial ecosystems

Although a strong entrepreneurial ecosystem is of course desirable, it is also important to acknowledge that it also needs to be inclusive. ERC research has contributed to knowledge here about the issues faced, and gaps in support for underserved groups, particularly female and ethnic minority entrepreneurs.

A recent ERC paper reviewed of 30 years of research and policy on women's entrepreneurship and concluded that although there is a sizeable body of clear, good quality evidence on the issues and barriers they face, female entrepreneurs continue to report actual or perceived difficulties working within the business ecosystem.[60] The review asserts that there is an overwhelming body of evidence making it clear that women face an array of distinct challenges that span the early days of start-up to maturity. The challenges women face tend to be clustered in four broad areas: finance, internal and external relationships, networks, and domestic arrangements.

Although these challenges are longstanding, the paper also raises concerns that they have deepened recently, noting the weight of evidence that women entrepreneurs were more seriously affected by the Covid-19 pandemic than male entrepreneurs. Women are over-represented in many of the sectors most affected by the pandemic restrictions and aftermath such as retail, personal care, and hospitality for example. During lockdown periods the government also closed nurseries, schools, and other childcare facilities, with women undertaking most of the associated home education and childcare work. Further, many women were excluded from income protection during the pandemic due to the gaps in coverage in government schemes, as noted in another ERC research report.[61]

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[59] https://www.enterpriseresearch.ac.uk/publications/what-do-we-know-about-the-effectiveness-of-business-advice/
[60] https://www.enterpriseresearch.ac.uk/publications/women-as-entrepreneurs-lessons-unlearned/
[61] https://www.enterpriseresearch.ac.uk/publications/covid19-critique-and-proposals-to-develop-more-comprehensive-and-inclusive-support-for-the-selfemployed/

The GEM UK Report 2021/22[62] also notes these challenges and goes on to rank the UK Government's efforts at mitigating the negative impact of the pandemic on women as entrepreneurs in 2021 at 26th out of 50 countries studied. Although the report identified positive features of the UK Government's packages of financial support provided to businesses via furlough, grant and loan schemes, the expert panel emphasised the need for a better system of post-pandemic business support, underpinned by a clear entrepreneurship-centred government policy for women as entrepreneurs.

In 2020 we published a set of ERC SOTA Reviews on the theme of women and enterprise.[63] The reviews highlighted some of the ways in which the UK needs to reshape enterprise ecosystems so that they better support women to develop successful and sustainable businesses. These studies criticised previous policy for its focus on 'fixing' individual women rather than addressing the wider context and drew attention to the poor quality of much women's self-employment and the need to ensure ecosystems are also focused on building 'good work' for women rather than simply increasing the number of female entrepreneurs. One paper noted the need to build a diverse enterprise ecosystem, noting that this would also depend on actors not usually included in enterprise ecosystems (e.g. families; STEM education; care, housing, transport). This broader context would provide the foundations to better enable and support women to act entrepreneurially.[64] One key element of this is the provision of childcare support. Another SOTA Review explored the evidence here and concluded that a lack of appropriate childcare provision is a significant factor underpinning gender performance gaps and women's wellbeing in entrepreneurship.[65]

Entrepreneurs from ethnic minority groups also face significant challenges setting up, sustaining and growing businesses within the wider ecosystem, despite the evidence that this group are more ambitious about business growth when compared to the population of SMEs in general.[66] ERC research has documented the challenges facing ethnic minority businesses when it comes to access to finance, particularly highlighting issues related to discouragement and low levels of trust in financial institutions which acts to prevent ethnic minority leaders receiving the finance they need to develop their businesses.[67] The ERC worked with The Centre for Research in Ethnic Minority Entrepreneurship (CREME) on its influential *Time to Change* report which sets out recommendations to promote greater success and inclusion for ethnic minority led businesses in finance and business support in the UK. This report notes that "the contribution and ambition of ethnic minority-led businesses is often constrained by multiple barriers throughout their entrepreneurial journey, particularly in accessing financial resources, wider markets and appropriate support." [68]

An early ERC paper pointed to the existence of an 'implicit narrative of ethnic minority enterprise as a catalyst for social mobility' within academic and policy discourse.[69] However, the paper also noted that much of the apparent entrepreneurial success in this group has come from their 'intensive utilisation of group specific social capital rather than support from public sector interventions'. This observation is strengthened by more recent CRÈME/ERC research that has looked at the engagement of ethnic minority business owners with business advice. This analysis, as noted above, points to a persistent trust-deficit, and has shown that ethnic minority business owners are much less commonly involved in formal training and advice networks and much more likely to rely on family and friends and informal advice. These findings echo earlier ERC research focused on firms in London, which found that although ethnic minority-led businesses were significantly more likely to say that they had experienced a threat to the survival of their business, they were less likely to have used formal sources of advice - such as through an accountant or legal adviser.[70]

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62 See: https://www.gemconsortium.org/report
63 See: ERC SOTA Reviews no. 34-38 https://www.enterpriseresearch.ac.uk/our-work/publications/?type=sota-review
64 https://www.enterpriseresearch.ac.uk/publications/a-review-of-assumptions-underlying-womens-enterprise-policy-initiatives-sota-review-no-38/
65 https://www.enterpriseresearch.ac.uk/publications/family-policy-and-womens-entrepreneurship-no-56/
66 file:///C:/Users/ERCVB/Downloads/CREME-NWG-Time-to-change-report%20(1).pdf
67 https://www.enterpriseresearch.ac.uk/publications/diversity-smes-existing-evidence-policy-tensions/
68 https://www.aston.ac.uk/research/bss/abs/centres-hubs/creme/time-to-change#:~:text=The%20Time%20to%20Change%20Report,policy%20and%20support%20targeting%20EMBs
69 https://www.enterpriseresearch.ac.uk/publications/entrepreneurship-ethinic-minority-liberation/
70 https://www.enterpriseresearch.ac.uk/publications/understanding-business-resilience-among-represented-groups-london/

Of course, as has been well documented, and as is the case with women, the Covid-19 pandemic also had disproportionate effects on ethnic minority communities in the UK, which are likely to have significant implications for the sustainability of ethnic minority businesses in years ahead.[71]

Although there are some core areas where the issues faced by underserved groups overlap – including for example access to money, networks and advice, ERC research has also emphasised the importance of acknowledging that individuals can be a part of more than one underserved group at the same time. Individuals in underrepresented groups may therefore experience multiple sources of disadvantage - so-called double or even more disadvantage.[72] [73] The confluence of these challenges has complex and varied impacts on entrepreneurs and the potential for the sustainability and growth of their businesses, calling for an ecosystem that recognises these complexities.

3.5 Summary

Although there are aspects of the UK business ecosystem that are strong, there are also some areas of weakness and elements that could be improved around access to finance and business support. ERC research has provided a useful body of evidence here that is of practical use for policymakers.

Our research has shown that it is commonplace for small businesses to experience difficulties and threats to survival, and that these can happen at lots of different points in the evolution of a business. The constantly shifting context in which small firms operate throws up new challenges, many of which are unexpected and unanticipated. In recent years the Covid-19 pandemic has starkly demonstrated this dynamic, with the small business community reacting in a range of ways to the pressures this brought to bear, positive and negative. But although change and challenge are the reality of running a small business, many businesses do not seek external advice, and it seems many are most likely to seek external advice only when they are already in the face of a crisis situation, with obvious consequences.

ERC research has shown the positive impact that well-designed business support and advice can have on small business survival and growth. However, the system of business support and advice in the UK at the current time is fragmented, imbalanced and patchy. This is of particular concern given that we have only recently experienced a major external economic shock in the form of the Covid-19 pandemic and subsequent cost of living crisis.

The evidence also shows that the current financial and business support system also does not reflect the diversity of the entrepreneurial experience. Although entrepreneurs from underserved groups often demonstrate remarkable resilience, they deserve a system that better suits their needs. Our research highlights marked variation in the way that different kinds of entrepreneurs are currently engaged by existing support services and networks and indicates that there is a need for change and the creation of more and targeted forms of support from specialists who understand the specific challenges different groups face, tailored to local circumstances. This isn't about leaving mainstream support the same and providing small new niche programmes but re-orienting the ecosystem to recognise the diverse needs of the small business community across the entire entrepreneurial journey, from intention to scale-up.

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[71] https://www.enterpriseresearch.ac.uk/growth-and-diversity-an-opportunity/

[72] https://www.enterpriseresearch.ac.uk/publications/what-are-the-main-barriers-to-entrepreneurship-in-underrepresented-groups-sota-review-no-40/

[73] https://www.enterpriseresearch.ac.uk/publications/what-do-we-know-about-ethnic-and-migrant-women-entrepreneurs-a-review-of-evidence-sota-review-no-36/

4. Innovation

Innovation, broadly defined as the introduction of new products, services, and ways of doing business, is often linked to increased business survival, enhanced performance and growth. It has also been a central research theme at the ERC, with a focus on several areas, including trends in innovation activity in SMEs, the drivers and barriers to innovation behaviour, the links between innovation and performance, the relationship between innovation and exporting, and the effectiveness of different types of policy support for innovation. This amounts to a substantial body of work that has filled several important knowledge gaps.

4.1 Trends in innovation activity

ERC research has developed methods for the robust measurement of innovation activity, and this has deepened understanding about the trends and patterns in innovation activity in the UK and in an international context.

Looking at the broader picture, the UK has a consistently low level of investment in R&D relative to our international competitors. A recent ERC paper analysing the capabilities of the UK's national innovation system shows that the proportion of innovation active firms in the UK has fallen sharply in recent years, and that the UK has lost ground internationally. Looking at the global picture, it also shows that levels of R&D investment have increased sharply over the last decade, with some countries rapidly developing their innovation capabilities, with some seeing increases in R&D spend as a central and sustained element of national policy agendas. Static levels of investment in R&D in the UK over the last decade mean that there is now a large and increasing gap in R&D investment between the UK and its international competitors. In policy terms, however, the UK provides relatively high levels of support for innovation among OECD economies despite relatively low levels of overall R&D spend.[74]

Looking in detail at the UK picture, in 2013, the ERC undertook the first Innovation Benchmarking study, which for the first time provided a 'geography of innovation' across the UK based on a set of innovation benchmarks mapped onto Local Enterprise Partnership (LEP) areas.[75] These benchmarks were based on analysis of data from firms which responded to the UK Innovation Survey. Six benchmarks were reported, which covered product or service innovation; new-to-the-market innovation; process innovation; strategic or marketing innovation; R&D activity; and collaboration for innovation. This study showed some clear patterns, highlighting areas of strength and weaker performance.

The analysis showed that the UK's innovation heartland was found in a cluster of local economic areas in an arc from the Greater Cambridge and Greater Peterborough LEP areas, through the South-East Midlands to Oxfordshire and West along the M4 corridor. Across the six measures, firms in the Oxfordshire LEP area reported the most innovation activity followed closely by Greater Cambridge and Greater Peterborough. The Tees Valley was the best performing of the Northern local economic areas. Eastern Scotland, Northern Ireland and Cumbria reported the weakest innovation performance.

Innovation Benchmarking reports were published again by the ERC in 2017, 2019 and most recently in 2021.[76] The most recent report covered the 2016-2018 period and provided some historical comparisons with earlier reports. Reflecting the findings from the earlier reports, the analysis again found a concentration of relatively high levels of innovation activity in the local economic areas in the South and East Midlands and along the M4 corridor. This 'arc of innovation' stands out particularly strongly – and consistently through time – in terms of novel or new-to-the-market innovation. Although there is some local variation, these areas are generally characterised by high proportions of innovating firms.

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[74] https://www.enterpriseresearch.ac.uk/publications/learning-from-the-best-national-innovation-systems/
[75] https://www.enterpriseresearch.ac.uk/publications/benchmarking-local-innovation-the-innovation-geography-of-the-uk/
[76] https://www.enterpriseresearch.ac.uk/publications/benchmarking-local-innovation-the-innovation-geography-of-england-2016-18/

However, the study shows there is variation when we look in more detail at innovation type. A different geography emerged for example in terms of process innovation, with higher levels of process innovation activity in some northern and peripheral areas where product/service innovation is less common. The benchmarks for organisational innovation suggested a less clear geographical pattern with a range of different local areas performing relatively strongly. Overall, the Innovation Benchmarks analysis highlights the diversity of innovation activity across local areas in the UK, with some areas marked by strengths in organisational innovation but weaker elsewhere and others exhibiting higher levels of collaborative behaviour and R&D.

More recent ERC analysis, this time of Intellectual Property (IP) protection data (patents, trade marks and registered designs), also sheds light on the geography of innovation in the UK.[77] This work has uncovered geographical concentrations of IP protection activity. The analysis shows that IP protection intensity varies markedly across space in the UK, suggesting marked differences in the ability of different areas to generate and protect innovations. Specifically, the research has found that firms in many rural areas have little or no engagement with the IP system, although it should be noted that there is a somewhat dynamic nature to the IP protection landscape, with evidence of changes in intensity of rankings over time. Our IP intensity maps reveal the probable knowledge bases that exist across Local Authority Districts in the UK and suggest likely differences in the types of innovation being undertaken locally. Overall, the research findings highlight the potential value of locally attuned innovation policies.

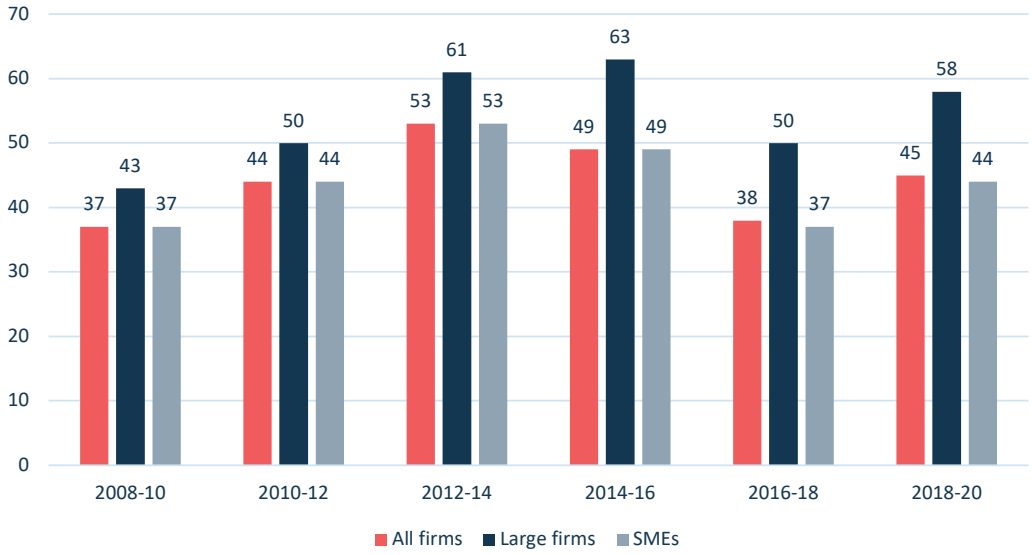
Further work has explored the 'micro-geography' of innovation activity in Local Enterprise Partnership areas in England.[78] This work emphasised the importance of local interactions for innovation outcomes and found that sparsely populated and less accessible areas faced two re-enforcing disadvantages for innovation related to population density and accessibility.

As well as looking at the geography of innovation, ERC analysis has also explored how innovation activity in SMEs has changed over time, and the impact that economic shocks can have on innovation. For example, analysis of the UK Innovation Survey showed that there was a steady increase in the proportion of UK firms undertaking new-to-the-market innovation before the financial crisis of 2008, with the proportion of UK firms engaging in this form of innovation more than doubling between 1998-2000 and 2006-08. In the recession of 2008-10, however, the proportion of firms engaging in new-to-the-market innovation fell back, whilst at the same time the proportion engaging in 'imitation' (or new-to-the-firm innovation) increased sharply. This suggests that when the uncertainty in the business environment increases firms tend to engage in more conservative forms of innovation behaviour.[79]

One major economic shock experienced in recent years has of course been the Covid-19 pandemic, and ERC research and analysis has explored the impacts of this on innovation behaviour. In May 2022, the results of the UK Innovation Survey, covering firms' innovation activity during 2018-20 were published, providing useful evidence on the pre-pandemic innovation baseline. This survey suggested that there had been a welcome increase in the overall proportion of UK firms which were classed as 'innovation active' before the pandemic struck (figure 14). However, levels of innovation activity still remained significantly below the levels seen in 2012-14 and 2014-16. This was the case both for large firms and for those SMEs (with 10-249 employees) covered by the survey.

[77] https://www.enterpriseresearch.ac.uk/publications/the-geography-of-intellectual-property-protection-in-the-uk-2011-to-2016/
[78] https://www.enterpriseresearch.ac.uk/publications/exploring-the-micro-geography-of-innovation-in-england-population-density-accessibility-and-innovation-revisited-2/
[79] https://www.enterpriseresearch.ac.uk/publications/innovation-imitation/

Figure 14: Percentage of innovation active firms: UK Innovation Survey data



Source: UK Innovation Survey, Data Tables, May 2022

At the time of writing, the post-pandemic survey data is not yet available for the UK Innovation Survey. However, ERC studies provide us with some insights. In 2020 the ERC and the Innovation Caucus were commissioned by Innovate UK to undertake a large-scale longitudinal survey assessing the impact of Covid-19 for current and future innovation behaviour amongst Innovate UK award holders. Five waves of this survey were undertaken, with the most recent published in 2022.[80]

So, how did these firms change their innovation behaviour in response to the pandemic? The earlier surveys in this series, carried out in 2020 and 2021, suggested that the pandemic had had a significant short-term negative impact on R&D and innovation. The 2022 survey (carried out in May/June 2022) found that these innovating firms were continuing to experience significant disruption due to Covid-19. Notably, 82 per cent reported experiencing supply chain issues and half of all firms said they remained 'under pressure'. Over half of the firms had sought to reduce costs over the last three months, and cash flow issues were impacting on firms' investments in R&D and innovation, and on their collaboration with universities. There was a slight increase in the percentage of firms stopping or reducing their R&D spend, with 46 per cent of firms stating they were doing this - marginally higher than found in the earlier surveys. However, on the positive side, around half of the firms said they were still planning to increase their investment in R&D and innovation over the next year, suggesting there may be potential for recovery.

Looking at the wider population of SMEs, a recently published analysis of the LSBS waves 2017, 2019, and 2021 finds a decline in innovation activity between 2017 and 2021. UK small businesses innovated less.[81] It reports that the likelihood that a UK small business will innovate has decreased from 48 per cent in 2017 to 35 per cent in 2021. Radical innovation has also decreased during this time from 15 per cent in 2017 to 11 per cent in 2021. The authors conclude that these trends are likely to be due to economic shocks during the period and the slowdown in the UK economy.

Between November 2022 and February 2023, the ERC undertook a major new survey - the Innovation State of the Nation Survey, which collected information from over 2,000 companies with 5 or more employees to

[80] https://www.enterpriseresearch.ac.uk/publications/assessing-the-impact-of-covid-19-on-innovate-uk-award-holders-wave-5-august-2022/
[81] https://www.enterpriseresearch.ac.uk/publications/mapping-schumpeterian-outcomes-in-the-uk-small-business-population-over-time-the-effect-of-social-and-environmental-orientation-on-innovation-exporting-growth/

provide a detailed view of firms' current innovation activity.[82] The aim was to provide a representative view of UK firms' R&D and innovation activity which could help to identify particular challenges and opportunities for policy development and support. The survey again emphasises that innovation is strongly associated with both higher sales and employment growth. The average sales growth of innovating firms was 9.7 per cent compared to 2.6 per cent for non-innovators, a difference which was consistent across sectors, size bands and regions. Among innovators across the UK, investments in R&D, digital technologies and other aspects of intangibles are significant. Collaboration, particularly with supply chain partners and other businesses, also drives much innovation, involving around 40 per cent of innovating companies. Collaboration with universities and other non-corporate partners is much less common - involving only around 7-15 per cent of innovators. Just over half of all innovating firms in the survey reported factors which had constrained their innovation activities. Perhaps unsurprisingly the after-effects of the Covid-19 pandemic (53.8 per cent) and the cost of doing business crisis (51.0 per cent) were the most common barriers experienced by innovating firms. Other factors playing a significant role in constraining innovation were: regulations and legislation (39.5 per cent); uncertain demand (38.2 per cent); lack of skills (35.4 per cent); lack of government support (30.9 per cent); and, lack of finance (30.4 per cent). Among those firms experiencing recruitment issues it was difficulties recruiting technicians (31.2 per cent), engineering staff (20.9 per cent) and graduate-level technicians (18.6 per cent) which were most common.

Among those firms planning R&D investment over the next 12 months, investment intentions were relatively strong with the majority of firms intending to increase their R&D investments. Overall, 52.1 per cent of firms were planning to increase their level of R&D investment, compared to only 5.8 per cent who were planning to reduce investment, and 42.2% who planned to maintain current levels of R&D investment. Slightly less than half of all firms (44.9 per cent) indicated that they were likely to seek external support either for business development or product and service innovation. Frontier firms, larger businesses, and those in the finance sector were most likely to be in the group of firms seeking such support.

4.2 What influences innovation in SMEs?

ERC research has explored what inhibits and drives successful innovation in SMEs, identifying the range of factors involved, both in terms of internal enablers – such as the use of R&D and intellectual property protection, management and leadership, business orientation, workforce diversity and other firm characteristics such as family ownership, and external enablers, such as collaboration and 'openness' – or the purposive links formed between SMEs and their partners - and other ecosystem factors.

In terms of internal enabling factors, one stream of ERC research has focused on the role played by intellectual property (IP) protection in driving innovation in SMEs. Although IP protection has benefits for innovation, the resource and capability barriers in small firms means they face challenges in relation to using it. They may for example find the IP protection process too complex and time-consuming and may perceive the costs to be too high.

Analysis of UK IP protection data (patents, trade marks and registered designs) for the 1995-2018 period and the UK Community Innovation Survey (UKIS) covering the 2012-2018 period found that across all firms (including small firms), a firm's stock of registered designs was positively related to the probability of innovation. Patents and trade marks had no statistically robust direct effect on the probability of innovating. However, when firms' holdings of patents increased, there was an indirect effect with patents enhancing the impact of registered designs on the probability of innovating. In small firms, registered designs also enhanced the impact of patents on the probability of innovating. There was no similar indirect effect from trade marks. The evidence suggests that registered designs combined with patents promote product or service innovation by protecting intellectual assets during the exploration and development stages of an innovation. Both effects prove similar for smaller firms as they are to the general population of businesses. ERC research has also explored the influence of business orientation on innovation activity. Unpublished

[82] The Innovation State of the Nation report will be published in early 2024

analysis of the Micro-business Britain survey conducted in 2018 showed that businesses that emphasise sustainability goals are more likely to generate new products and processes, especially where firms also adopt particular digital technologies.

One recent focus of research for example, has been on the impact of the social orientation of firms on innovation behaviour. As we noted in Chapter 1, a growing number of small businesses are now socially orientated, placing a high importance on making contributions to societal wellbeing. One study published in 2023 based on analysis of the LSBS waves 2017, 2019, and 2021 finds that the combined social and financial goals SMEs have are both beneficial for innovation.[83] More specifically, it finds that goal alignment, i.e., businesses prioritising both social and financial goals, benefits innovation. UK SMEs with strong social and financial goals showed the highest levels of innovation, both cross sectionally and over time, although this was not the case for radical or new-to-the-market innovation, possibly due to the higher resource constraints socially orientated businesses face. The analysis also found that the positive effect of social and financial goals on innovation was no longer significant when businesses were negatively impacted by the pandemic.

Another factor influencing innovation relates to the population make-up of firms. Here research has helped better understand the relationship between diversity and innovation. A 2018 ERC SOTA Review explored the theme of diversity in innovation teams and concluded that there are ambiguous results.[84] Whilst some theories have pointed to the dangers of conflict in diverse teams, others have theorised that diversity will positively impact group performance since there is access to a wider range of opinions, skills and perspectives. The picture is more complex in reality, and the evidence increasingly points to the importance of understanding the moderators that influence innovation outcomes in diverse teams, including communication and the role of team leaders and managers. More recent ERC research points to a strong positive link between workforce diversity and innovation outcomes as well as a positive relationship between measures to support employee well-being and innovation.[85]

Looking at external factors, a stream of ERC research has explored the effects of a firm's 'openness' to outside influence on innovation. Research has found that the influence of the 'breadth' of openness (i.e., having a variety of innovation linkages) on innovation is stronger for small firms than for larger firms, with results suggesting that small firms can gain significantly from adopting an open innovation strategy. Other ERC research suggests some limits to openness depending on the 'newness' of the innovation and on the stage of the innovation process at which external partners are involved. Analysis of a 2018 survey of Professional Services firms in the UK suggests that businesses introducing truly novel services benefit from fewer collaborations early on in the innovation process to help generate ideas, but very little collaboration later on at the commercialisation stage where it becomes important to protect value capture. On the other hand, businesses introducing less novel services benefit from a wide range of collaborations across the early and later stages of the innovation process. This highlights the potential risks and complexities of collaborating for radical innovators.[86]

A further area of research has provided evidence on the benefits of collaborating specifically with universities for innovation. ERC research has provided evidence of the value of university collaboration for new-to-the-market innovation in firms, and particularly for smaller companies. Looking in more detail, our research has also shown that collaboration with a national university increases the probability of new-to-the-market innovation, whilst collaboration with local and international universities have smaller effects. However, local university collaboration benefits only small and medium firms, increasing their probability of new-to-the-market innovation.[87]

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83 https://www.enterpriseresearch.ac.uk/publications/mapping-schumpeterian-outcomes-in-the-uk-small-business-population-over-time-the-effect-of-social-and-environmental-orientation-on-innovation-exporting-growth/

84 https://www.enterpriseresearch.ac.uk/publications/diversity-in-innovation-teams-sota-no-8/

85 Bourke, J and Roper, S (2024) 'Do more inclusive workplaces lead to more innovation? Evidence from survey data for firms in England', ERC Research Report (forthcoming).

86 https://www.enterpriseresearch.ac.uk/publications/getting-the-right-recipe-collaboration-strategies-for-radical-and-incremental-innovators-in-services/

87 https://www.enterpriseresearch.ac.uk/publications/accessibility-utility-learning-effects-university-business-collaboration-research-paper-no-57/

Research has also explored the importance of 'absorptive capacity' for innovation – a concept that captures the ability of innovating firms to not only capture, draw on and use external relationships and knowledge, but also to have strong internal learning capabilities. These capabilities include being able to assimilate and apply new knowledge. Whilst the concept of absorptive capacity is widely used and recognised as important for innovation, there has been little or no agreement on how it should be measured, so evidence has been patchy.

Ground-breaking research by the ERC published in 2023 involved a comparison of absorptive capacity in 60 UK sectors based on 10 indicators representing sector level knowledge investments, skills, management capabilities and inter-firm linkages compiled from a range of data sources.[88] Overall, the picture from this study suggests that absorptive capacity may be strongest in a range of professional service sectors in the UK, with some R&D intensive manufacturing sectors also suggesting relatively high levels of absorptive capacity. Other manufacturing sectors, particularly those reflecting low technology industries, appear to have lower levels of absorptive capacity. These initial results provide indications of where the UK might target help to support firms to develop absorptive capacity at sector level.

4.3 Innovation and performance

ERC research has established that innovation is an important dimension of SME performance and has explored several aspects of this.

Research has explored, for example, the relationship between investment in R&D and innovation activity, and how this in turn relates to business growth and productivity in both SMEs and micro-enterprises. Using data from successive waves of the UK Innovation Survey, an ERC Research Paper investigated the links between R&D, innovation of different types and their subsequent links to efficiency (sales per employee) growth, turnover growth and employment growth. Analysis suggests that R&D has a strong positive effect on the probability that SMEs will engage in product/service, process or organisational innovation, and subsequently, that product/service innovation has a significant positive relationship to employment growth, but a significant negative effect on efficiency growth and turnover growth two years after innovation is measured. Process innovation, however, raises both efficiency and sales growth, whilst organisational innovation has a positive relationship to efficiency growth and turnover growth, but a negative relationship to employment growth. Over the longer term, four years after innovation is measured, these significant positive and negative effects are not sustained. These research findings highlight the dynamics of the relationship between innovation and firm performance.[89]

Analysing the data from the ERC Micro-business Britain Survey of 10,000 micro-enterprises in three countries: the UK, Ireland and the US, one ERC study found that investing in R&D had a strong and positive effect on enhancing the contribution of innovation to productivity and turnover growth. This result was consistent throughout all estimations, even though the actual effect varied across different types of industry. The results indicated that investing in R&D activity is important not only for product/service innovation in micro-enterprises, but also for process innovation. The study findings emphasise how important R&D investment is, even in the smallest of enterprises, in strengthening the innovation-productivity/growth relationship.[90]

A further strand of ERC research has explored the links between innovation, exporting and performance. An ERC evidence review published in 2013 noted that for firms of all sizes a strong positive association exists between innovation, exporting and productivity and/or growth.[91] In other words, we know that innovation and exporting work jointly to improve business performance. The review also noted that SMEs which have a track

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88 https://www.enterpriseresearch.ac.uk/publications/understanding-sectoral-absorptive-capacity-in-the-uk-a-new-analysis/
89 https://www.enterpriseresearch.ac.uk/publications/pathways-to-efficiency-pathways-to-growth-evidence-from-the-uk-innovation-survey-research-paper-no-83/
90 https://www.enterpriseresearch.ac.uk/publications/the-interrelationship-between-rd-innovation-and-productivity-evidence-for-micro-enterprises/
91 https://www.enterpriseresearch.ac.uk/publications/sme-innovation-exporting-growth-review-existing-evidence/

record of innovation are more likely to export, more likely to export successfully, and more likely to generate growth from exporting than non-innovating firms. European SMEs that export grow more than twice as fast as those that do not, while 'internationally active' SMEs are three times more likely to introduce products or services that are new to their sector than those which are entirely domestic in orientation. The evidence also suggests that exposure to export markets is important in realising the potential of innovative and high growth firms in the UK.

More recent research has looked in more detail at the relationships and linkages between innovation, exporting and performance, looking at different types of innovation and their effects.[92] The findings, based on analysis of the longitudinal element of the UK Innovation Survey, suggest that innovations that are truly novel and new-to-the-market or industry drive exports, but innovations that are only new-to-the-business do not. This suggests that it is invention that drives exports. Exporting, in turn, drives both forms of innovations, encouraging both invention and adoption. However, importantly, not all exporting firms experience these positive interlinkages between innovation and exporting - only those that export persistently over time do so. This suggests that consistent exposure to foreign markets is crucial for learning effects from exporting, and firms that export more intermittently lose out.

Other ERC research has shown that innovation has a positive link with firm survival. An early paper published in 2014 noted that innovation has a recognised effect on survival, but that there are a number of moderating factors involved.[93] This analysis looked at how the innovation strategy choices made by firms influence innovation-survival relationship. One key finding of this study was that firms receiving public support for innovation derived more persistent benefits from innovation than firms which did not receive public support. Specifically, firms which received public support for innovation were 2.7 per cent more likely to survive for eight years than firms which innovated without using public support. A more recent study published in 2023 based on analysis of the LSBS concluded that innovation had proved to be an 'effective hedge for survival' for firms during the pandemic years, being associated with greater resilience and agility.[94]

Maximising the benefits of innovation and new technologies requires their effective diffusion through the population of firms. However, both international evidence and recent UK experience suggests that knowledge spillovers and diffusion may have weakened in recent years.[95] Moreover, as noted above, recent ERC analysis suggests that UK sectors differ significantly in their absorptive capacity and therefore their potential to rapidly diffuse innovations.[96] Investment in R&D and other intangibles are an important influence here as are levels of connectivity and collaboration between firms and firms and other organisations such as universities. Some of the highest levels of sectoral absorptive capacity occur in high-tech manufacturing sectors and knowledge-based services, with the latter potentially playing an important role in wider knowledge diffusion.

Overall, ERC research has demonstrated clear linkages between innovation and performance. However, it is important to emphasise that policymakers and firms need to recognise that these are often longer-term performance benefits. In fact, innovation can initially cause short-term disruption effects leading to an initial fall in efficiency as firms invest in building innovation capabilities; firms often reap performance benefits, such as increases in productivity, in the medium to longer-term.[97]

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92 https://www.enterpriseresearch.ac.uk/publications/of-chickens-and-eggs-exporting-innovation-novelty-and-productivity/
93 https://www.enterpriseresearch.ac.uk/publications/innovation-innovation-strategy-survival/
94 https://www.enterpriseresearch.ac.uk/publications/sme-performance-in-core-and-peripheral-uk-regions-exploring-the-role-of-innovation-and-firm-networks-during-times-of-financial-distress/
95 See Chapter 3 in https://www.productivity.ac.uk/wp-content/uploads/2023/11/TPI-Agenda-for-Productivity-2023-FINAL.pdf.
96 https://www.enterpriseresearch.ac.uk/wp-content/uploads/2023/03/ERC-Report-Understanding-sectoral-absorptive-capacity-in-the-UK-Roper-Nana-Cheraa.pdf
97 https://www.enterpriseresearch.ac.uk/publications/pathways-to-efficiency-pathways-to-growth-evidence-from-the-uk-innovation-survey/

4.4 Supporting innovation in SMEs

ERC research has made a significant contribution to knowledge on the effectiveness of policy support for innovation.

In a systematic review published in 2014 we explored the evidence on the effectiveness of major public R&D policies in increasing private R&D investment.[98] The public policies considered in this review were R&D tax credits and direct subsidies; support from the university research system and the formation of high-skilled human capital; and support for formal R&D cooperation. This review observed that there had been a shift away from the earlier view that public subsidies often crowd-out private R&D, with more recent studies finding that these subsidies typically stimulate private R&D. Tax credits were much more unanimously than previously found to have positive effects. University research, high-skilled human capital, and R&D cooperation also typically increase private R&D.

An ERC SOTA Review published in 2022 updated this analysis, reviewing studies examining R&D policy instruments published over the past decade.[99] Overall, the review concludes that the evidence points to R&D grants, R&D tax credits, and academic-industry collaborations, having significant impacts on firm-level R&D, across many country contexts. However, it is important to acknowledge the concept of policy instrument 'mix'. Firms often receive multiple R&D policy instruments rather than single policies in isolation. Understanding how these interact is important to understanding firm-level R&D impacts. However, recent studies do reveal that a mix of these policy instruments can be the most effective way to stimulate firms' R&D. A policy instrument mix of R&D grants and R&D tax credits can have a greater impact on firm-level R&D, than each policy instrument individually.

A paper published this year using data from the UK innovation survey explores further the additionality of policy-mix allowing for potentially different effects for different groups of firms.[100] The study found strong evidence of heterogeneity in effects suggesting that 'average' estimates of additionality effects may provide a misleading indication of additionality profiles for different types of firms. The results suggest that policy evaluation or targeting based on input additionality alone (such as additions to R&D or innovation investment) may significantly over-estimate or misrepresent long-term policy benefits (which may also be different for alternative groups of firms). And, finally interactions between policy measures also suggest the difficulty of evaluations based on single policy instruments.

In 2017 the ERC published a ground-breaking comprehensive assessment of the impacts of public research grants from UK Research Councils including Innovate UK on the performance of participating UK firms.[101] Using data on funding and partnership from Gateway to Research on all funded projects by the UK Research Councils over the 2004 to 2016 period and business performance data from the Business Structures Database, the study evaluated the performance of participants. The study found that firms who participated in research projects funded by UK Research Councils grew their turnover and employment 5.8-6.0 per cent faster in the three years after the project, and 22.5-28.0 per cent faster in the six years after the project, than similar firms which did not receive support. The effects were stronger for firms in the high-tech and knowledge-intensive sectors. There was also evidence that the impact of participating in projects was larger for small firms and those with lower starting productivity (turnover per employee). By contrast, the growth impacts on those firms in the top quartile of the productivity (turnover per employee) distribution were small.

In a report published in 2022 we examined the business growth impact of R&D and innovation support provided to firms in Northern Ireland by Invest NI and UKRI over the period 2006-16.[102] The results provide evidence of the effectiveness of regional support measures and positive synergies between local and national support policies for R&D and innovation.

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98 https://www.enterpriseresearch.ac.uk/publications/public-rd-policies-private-rd-investment-survey-empirical-evidence/
99 https://www.enterpriseresearch.ac.uk/publications/policy-instruments-and-private-rd-investment/
100 https://www.enterpriseresearch.ac.uk/wp-content/uploads/2023/10/ERC-ResPap110-Policy-Briefing-Estimating-policy-mix-effects-NanaCheraa-Roper-Mole.pdf
101 https://www.enterpriseresearch.ac.uk/publications/accessing-business-performance-effects-receiving-publicly-funded-science-research-innovation-grants-research-paper-no-61/
102 https://www.enterpriseresearch.ac.uk/publications/assessing-the-business-growth-and-productivity-effects-of-invest-ni-and-ukri-grant-support-for-rd-and-innovation/

Building on earlier analysis, we published a study this year evaluating the business performance effects of engaging with Catapults during 2011 and 2016.[103] Catapults are a network of organisations funded by Innovate UK to help innovative businesses turn ideas into reality, and over the last decade they have played an increasingly important role in the UK innovation system in relation to a number of critical technological areas.[104] The analysis was based on data on business engagements provided by Catapults and longitudinal data for the whole population of UK firms. Our results show that there is a strong positive effect on the employment and turnover growth of firms engaging with Catapults. In general, there is a stronger impact in terms of employment, which grew by almost 16 per cent faster in six years after the start of the intervention. These growth effects were particularly strong for services and high-tech companies and micro and smaller enterprises, while the effect on growth was smaller and statistically weaker for medium and large firms.

Other research has explored the impact of support for IP protection. This study involved in-depth interviews with a group of 15 small firms which had recent access to intellectual property (IP) related diagnostic and planning support (specifically the Intellectual Property Office's (IPO) IP Audit and IP Access schemes), and a closely matched group of small firms which did not have access to support. The study found that IPO supported firms were more aware of the applicability of IP instruments to their business and their potential value. They were also more confident in implementing IP Protection (IPP) mechanisms, particularly where respondents had less personal, previous experience with IP protection.[105]

Two recent ERC studies have contributed to a more detailed understanding of the support challenges faced by deep-tech companies. Research undertaken for the Institute of Physics highlighted that deep-tech firms often have difficulty navigating the complex support landscape in the UK and the variable quality of services available.[106] In another study of chemistry-based 'deep-tech' firms conducted with the Royal Society of Chemistry, we identified a range of ecosystem gaps which are constraining development.[107] For example, firms reported a significant equity gap which means that deep-tech chemistry SMEs often struggle to secure intermediate levels of funding to enable scale up and the commercialisation of new technologies. Firms also identified challenges in accessing suitable premises for scaling, in terms of management and leadership, and advice around IP issues. There was a widespread acceptance amongst the SMEs involved in this research that initiatives that aim to develop entrepreneurial, innovation management and leadership skills are necessary and would be useful.

4.5 Summary

We know that innovation has long-term performance benefits for SMEs, and that there are many moderating factors involved in this relationship. UK firms have historically tended to under-invest in innovation compared to their international competitors, and innovation activity varies by geography and has fluctuated over time, being responsive to wider economic shocks. Recent evidence shows that the Covid-19 pandemic had a negative effect on investment in innovation in the UK. This is a key policy concern, given that innovation contributes to productivity and growth, and is also linked to business resilience and survival.

The strong evidence base that the ERC has built on innovation and SMEs allows us to make some clear recommendations for targeting future support. Our research has found that the UK provides relatively high levels of innovation support, and that much of this support has been successful in improving innovation activity and firm performance. But going forward there are several areas where targeted support would be effective.

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[103] https://www.enterpriseresearch.ac.uk/publications/evaluating-the-medium-term-business-performance-effects-of-engaging-with-catapults-a-propensity-score-matching-difference-in-difference-study/
[104] https://www.ukri.org/blog/empowering-business-growth-catapults-are-fueling-economic-growth/
[105] https://www.enterpriseresearch.ac.uk/publications/attitudinal-and-behavioural-influences-on-small-firms-engagement-with-intellectual-property-protection/
[106] https://www.iop.org/sites/default/files/2021-09/ERC-profiling-report-v3.pdf
[107] https://www.enterpriseresearch.ac.uk/publications/what-works-for-innovation-supporting-rd-and-innovation-in-deep-tech-chemistry-smes/

More locally attuned innovation strategies, which can build on existing strengths and remedy weaknesses would be valuable. There is evidence to suggest that improving networking and collaboration channels and practices in more peripheral regions would be especially beneficial for example, addressing wider inequalities. There is also evidence that more socially oriented businesses – which are often based in more disadvantaged areas - are an important source of new ideas and may benefit from more innovation support that could have wider social impacts.

Our research indicates in smaller businesses that the effect of innovation on performance remains small in the absence of R&D but is substantial where R&D is present. This suggests that policy efforts would be best targeted at encouraging micro-enterprises to undertake R&D as integral to innovation. Policy efforts directed towards building capability (specifically R&D capability) in SMEs are likely to be impactful on growth and productivity. This is likely to be most effective in low-tech and manufacturing sectors.

The synergies that exist between SME innovation and exporting highlighted by ERC research suggest the value of coordinated support mechanisms here. First, export support should target technologically leading firms in the UK market, as these are more likely to have internationally competitive products. Second, enhancing innovation through exporting will require the development of firm's learning opportunities, for example through incentivising sustained and persistent exposure to export markets. Third, to improve productivity, product innovation support should be tied strongly to export support; exporting facilitates access to a larger market base which allows firms to increase sales and spread the costs of their innovations.

5. Digital Adoption in Small Businesses

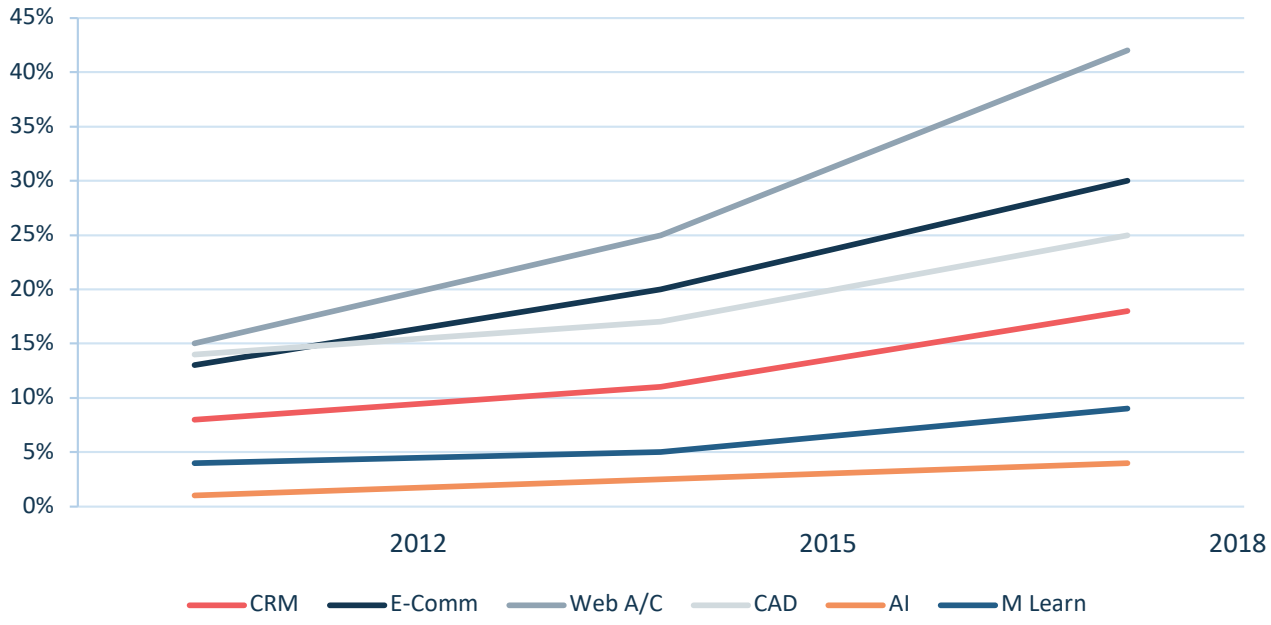
The adoption of digital technologies is often associated with performance improvements in firms. It is widely recognised, however, that for small businesses, the potential to reap the benefits offered by technology adoption may be limited. This is the case for a range of reasons, with existing research pointing to financial constraints, short-term mindsets and a lack of digital skills and managerial capabilities.

However, there has been surprisingly little detailed research into where the UK's small firms are in terms of their digital journeys. ERC research has addressed this research gap and examined the facilitators and barriers to technology adoption. It has also provided some much-needed evidence on the digital adoption-performance link.

5.1 Recent trends in digital adoption

It is often noted that the pandemic accelerated digitalisation within businesses, a trend associated with the increase in home and hybrid working and growth in online transactions. Prior to the pandemic, however, the speed of change, and the extent of digital adoption, were already increasing sharply. ERC research in 2018 explored this looking specifically at the extent of digital adoption within microbusinesses in the UK in our Micro-business Britain Survey. The findings reported sharply increasing levels of adoption of a range of digital technologies within microbusinesses, with a particularly sharp increase in from 2015 to 2017 (figure 15).

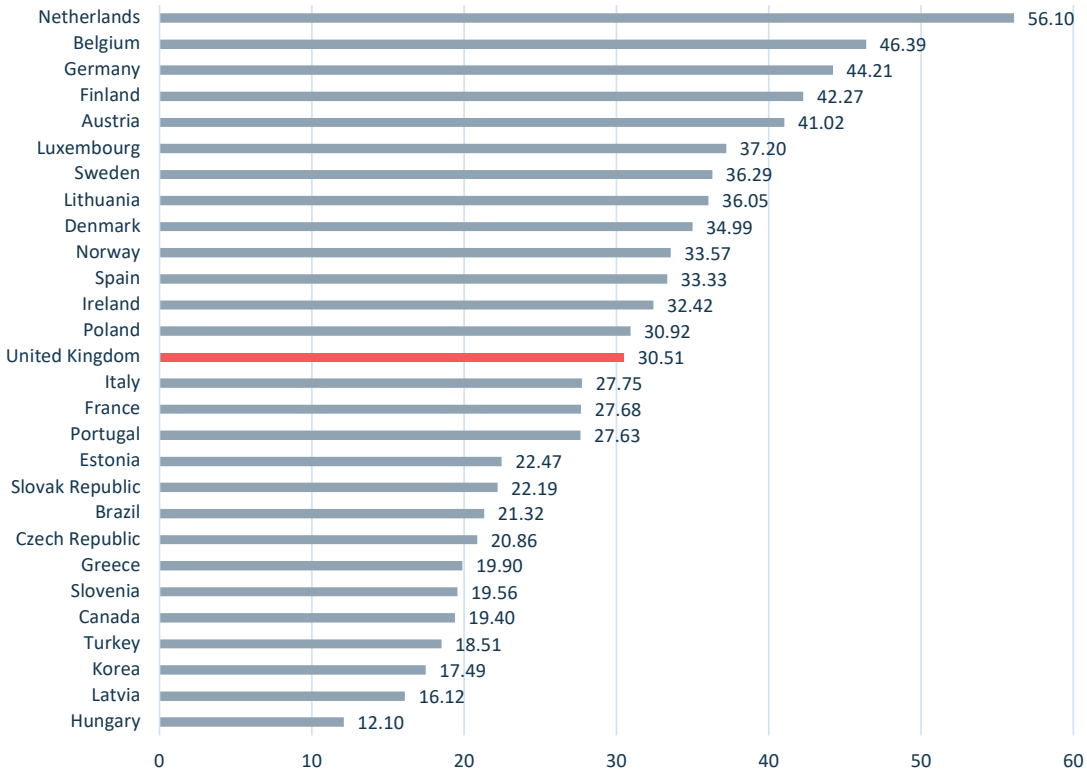
Figure 15: Digital adoption among UK micro-businesses prior to the pandemic



Source: ERC Microbusiness Britain Survey, SSBB report 2018, Figure 5.4

Despite evidence of rapid adoption of digital technologies in the UK at this time, OECD statistics in 2019 suggested that UK firms had been slower adopters of key digital technologies than those in other competitor countries. For example, in the adoption of CRM software, levels of pre-pandemic adoption in the UK were only middling by international standards (figure 16). Levels of adoption of other types of digital applications captured in the OECD data (e.g. robotics, EDI) suggested a similar picture.

Figure 16: Adoption of Customer Relationship Management (CRM) software: 2019



Source: OECD Statbase

A recently published paper has also explored the impact of the Brexit referendum on digital technology adoption by SMEs in the UK between 2013-2019.[108] Combining existing survey measures from the Longitudinal Small Business Survey with new data on digital technology adoption from firms' own websites, the study found evidence that SMEs scaled back their adoption of e-commerce-related technologies in response to the shock of Brexit. These effects were found across a range of sectors, including those typically linked to the trade of goods but. In addition, the study found a significant decrease in other digital technologies not classified as e-commerce related.

In 2020 we continued to explore the adoption of digital technology, this time looking at all sizes of SMEs in the ERC Business Futures Survey. This survey indicated a major positive shift in both attitudes to digital technologies and adoption amongst SMEs during the pandemic period, with many businesses introducing digital technologies they had never used before or increasing the use of previously adopted technologies. Only one per cent of firms responding to the Business Futures survey in 2020 reported that they did not use any digital technologies, indicating that the use of digital technologies was widespread in UK SMEs. From a list of ten specific digital technologies covered by the survey, more than 95 per cent of SMEs said they used at least two technologies. Fifty per cent of firms surveyed said that they currently used between four and seven of the digital technologies covered by the survey.

[108] https://www.enterpriseresearch.ac.uk/publications/brexit-and-digital-technology-adoption-of-uk-smes/

Around half of the SMEs we surveyed in 2020 said they had introducing new digital technologies in the previous 12 months (55 per cent of medium-sized businesses and 49 per cent of small businesses). For over three-fifths of these businesses, introducing new digital technologies had become a higher priority because of the pandemic. Overall, just over three-fifths of firms surveyed (62 per cent) said that they had made some changes in their use of digital technologies in response to the pandemic, giving an indication of the extent of the change that occurred during this time.

When looking to the future, the main concern for lower and higher technology adopters surveyed in 2020 was the presence of digital skills: 39 per cent of more digitalised businesses said that they considered the lack of digital skills as an obstacle to future technology adoption, and 19 per cent of less digitalised businesses said that better digital skills in the workforce would encourage them to use more digital technologies.

In 2022 we continued to track the digital adoption behaviour of UK SMEs through the Business Futures survey. As we can see in figure 17, HR or accounting software, online marketing and cloud computing were the most common technologies used by SMEs, with some variation in the rates of adoption by firm size. Just over 3 per cent of businesses reported using none of the 10 digital technologies. More than 77 per cent of businesses used at least two different categories of digital technologies among the ten prompted in the survey, with the typical number being 3. Almost 35 per cent of businesses use between 4 and 7 of the digital technologies, and just under 2 per cent of businesses use 8 or more.

As we might expect, larger businesses take the lead in the adoption of more advanced emerging technologies. For example, 20 per cent of medium sized businesses reported using AI and machine learning in 2022, while the percentage was much lower among small and micro-firms. There was also some sectoral variation, with manufacturing SMEs demonstrating higher uptake rates of Internet of Things, automated machinery and Enterprise Resource Planning (ERP), while SMEs in services had higher rates of adoption of web sales tools, online marketing, cloud computing and AI.

Interestingly, where comparison is possible, we found that the rates of digital adoption in the 2022 Business Futures survey were lower than in reported in our 2020 survey, indicating that the increase in adoption seen in the pandemic may not have been sustained. Although it is important to note that this may be explained in part by differences in the sampling frames used, and the fact that the 2020 survey was conducted in the midst of the pandemic - which may have skewed the sample to better performing/innovative businesses with higher likelihood of digital technology adoption. A significantly smaller proportion of businesses reported that the introduction of new digital technologies was a priority for the business in 2022 (39%) compared to 2020 (49%).

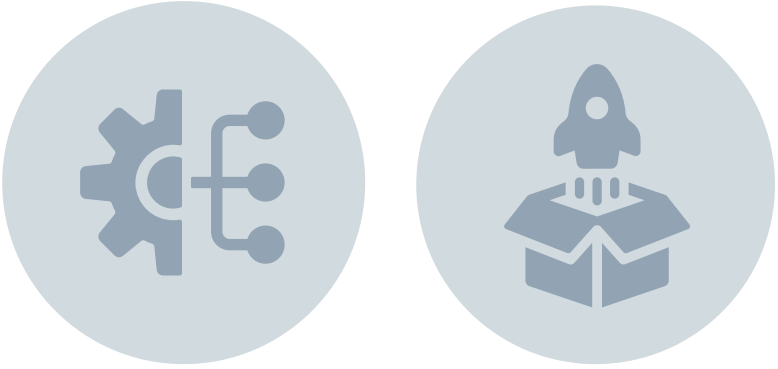
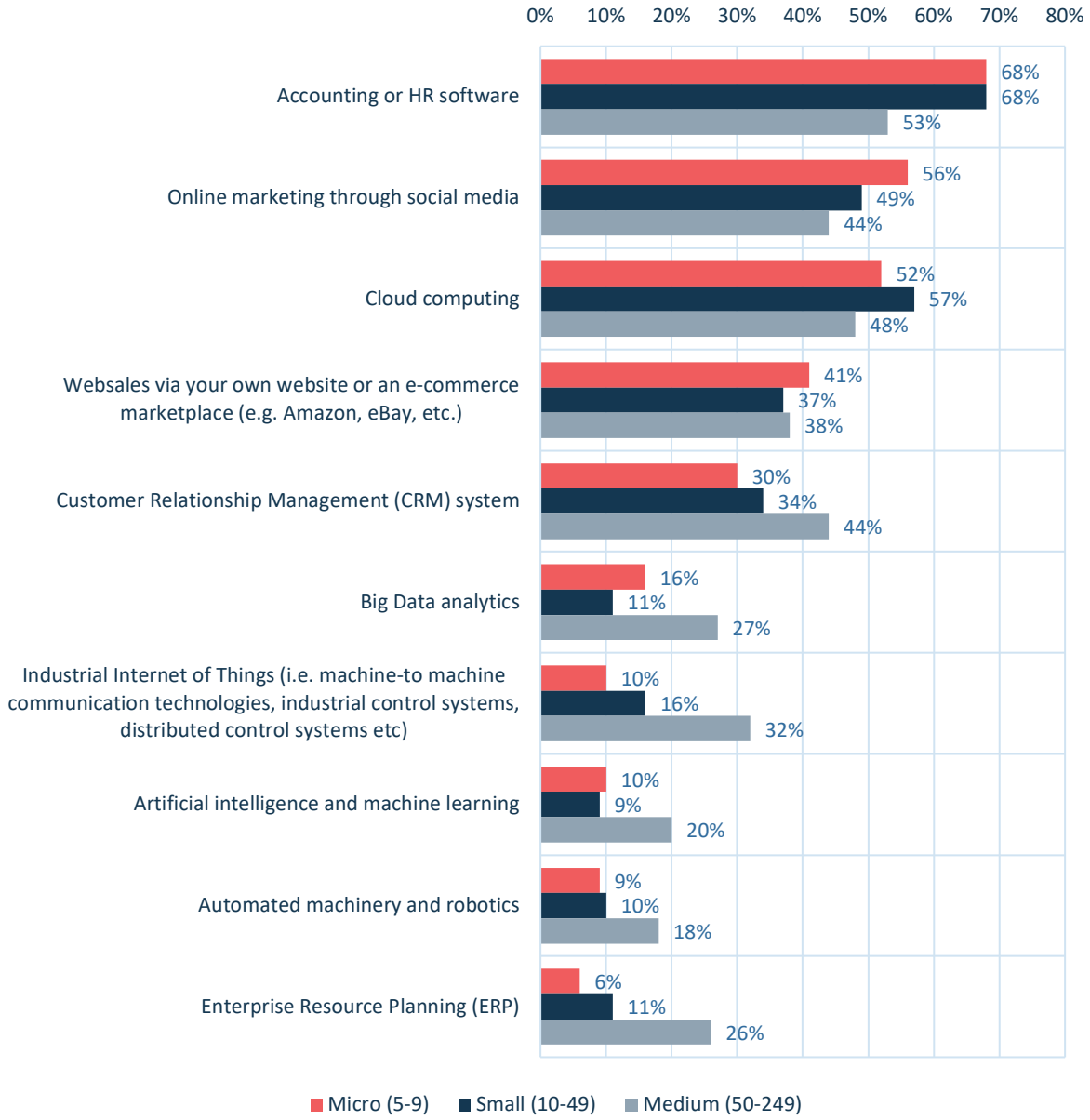


Figure 17: Proportion of firms using digital technologies by size



Source: ERC Business Futures 2022
Base: all firms (micro – 213; small - 537; medium - 253), weighted to be representative of the UK SME population

5.2 What influences digital adoption?

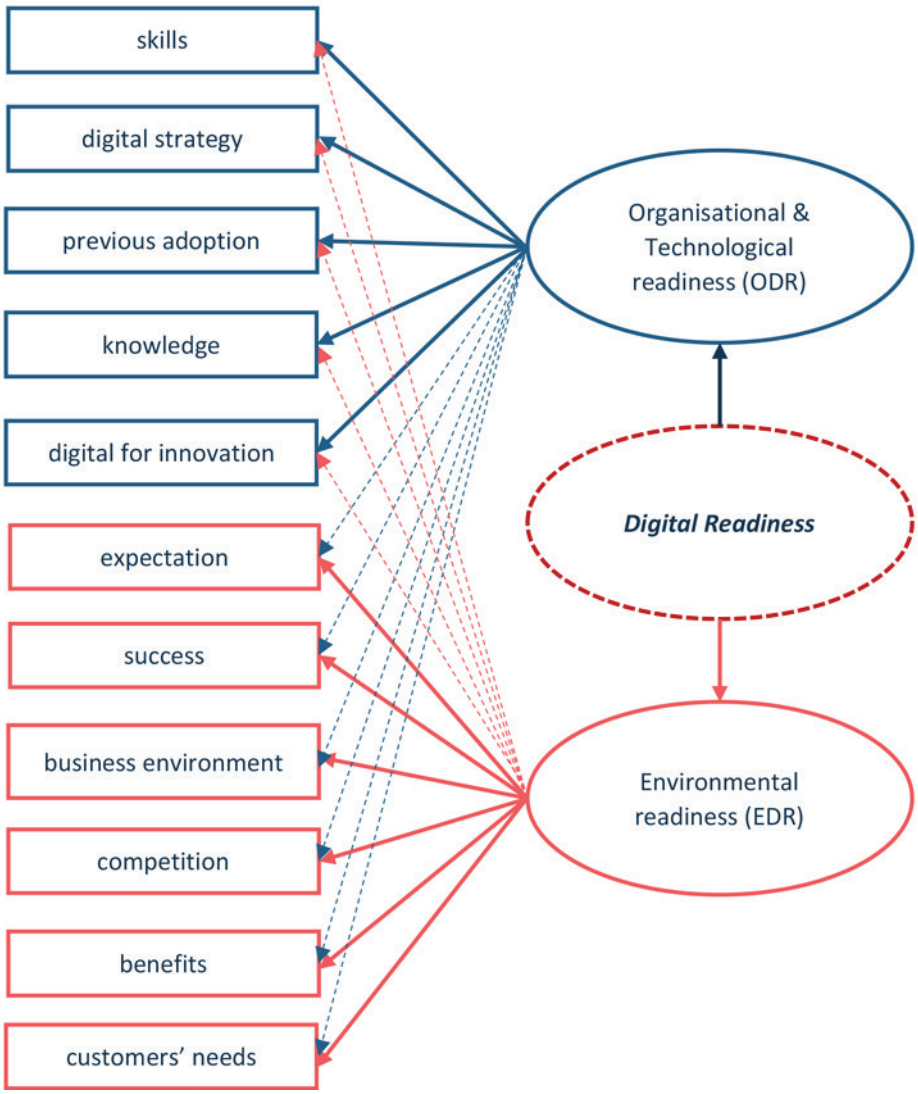
The decision to adopt a new, potentially disruptive digital technology doesn't come easily for a small business. It can involve risky investment, often necessitate organisational change, and sometimes it can require deep modifications to be made to the business model itself. On the other hand, the benefits of adoption may open new opportunities for growth and productivity, so it is important to understand more about what influences firms to adopt digital technologies.

ERC analysis has explored the factors influencing digital technology adoption in SMEs going beyond the usual discussion of 'barriers'. To do this we developed a new measure of 'digital technology readiness' which refers to the propensity of a firm to embrace new digital technologies and captures internal and external

enablers and motivators. This concept builds on an earlier 'technology readiness' concept, which was developed to measure consumers' readiness to use new technologies, described as 'an overall state of mind resulting from a gestalt of mental enablers and inhibitors that collectively determine a person's predisposition to use new technologies' (Parasuraman, 2000, p.308).[109]

Digital technology readiness, then, is a pre-disposition that can be measured at a particular moment in time but can evolve alongside changes in business goals and organisational development, as well as in the wider environment of a firm, rather than being a dichotomous state of being 'ready' or 'not ready'. One important implication of this is that digital technology readiness may be influenced by the wider economic environment and the SME ecosystem. Digital technology readiness depends on two broad groups of factors: mainly internal – referring to organisational context – on one side, and mainly external – driven principally by perceptions of environmental context – on the other side. The detailed elements are shown in figure 18.

Figure 18: Digital readiness - measurement



[109] https://www.researchgate.net/publication/240274124_Technology_Readiness_Index_Tri_A_Multiple-Item_Scale_to_Measure_Readiness_to_Embrace_New_Technologies

Using data from the Business Futures Survey 2020, we analysed the relationship between digital readiness and digital adoption. The results demonstrated a that digital readiness is a good predictor that a small firm will adopt digital technology. Organisational and environmental dimensions had different effects on the probability of adoption depending on the technology. For instance, organisational readiness proved to be more important for emerging technologies such as AI/ML and AR/VR.

Surprisingly, this study found only little evidence that factors identified as barriers to digital adoption affected the actual probability of technology adoption. This is not to suggest that UK SMEs do not encounter any barriers on their digital journey - issues such as digital infrastructure, skills and financial constraints are widely identified and experienced as barriers - but the point is that they do not necessarily prevent adoption. Furthermore, firms reporting 'no obstacles' to adoption were not more likely to adopt technologies. Instead, they were found to be less likely to adopt emerging digital technologies. This indicates that some firms may be behind in the digitalisation process not so much because of barriers they encounter, but more so because of intrinsic factors, reinforcing the importance of the digital readiness concept in explaining adoption behaviour. Also, digitalised SMEs tended to have different perceptions of the barriers to adoption to less digitalised firms. While lack of digital skills and access to finance were equally important for both groups, broadband capacity, compatibility with existing equipment, workforce engagement and cyber risk were more frequently cited by digital firms than by their counterparts. compared to less digitalised firms were more likely to see no obstacles to their digital transformation. This suggests that SMEs lagging in their digital journey may be not sufficiently aware of, or underestimate, the obstacles to implementation.

A study undertaken by ERC with Ipsos MORI for the CDEI as part of the AI Barometer also found differences in perceptions of barriers.[110] Based on survey information from around 1,000 UK businesses, this study suggested that perceptions of barriers varied depending on whether a firm did or did not have plans to introduce technologies in the future. Firms that did not have plans to introduce AI were significantly more likely to say that they saw limited benefits of using it in their business (62% of respondents) compared to firms with plans to introduce AI (32%).

In another ERC study undertaken for NICRE, we compared the attitudes and practices of rural and urban-based SMEs around digital technologies.[111] Using data collected from 804 small firms in England, Wales, Scotland and Northern Ireland the study identified three key differences. Firstly, rural firms approached digital technologies differently from urban firms, being ten per cent less likely to have a digital strategy in place, less likely to say that they keep up with the latest technologies, and more likely to say that their businesses could be successful without digital technologies. Secondly, rural firms had lower levels of digital adoption than urban firms, and this was the case across a range of technologies. Thirdly, rural firms experienced different barriers to digital adoption compared to urban firms. Specifically, 42 per cent of rural firms compared to 31 per cent of urban firms cited broadband capacity as a major obstacle to digital adoption. Rural firms were also ten per cent more likely to identify internal resistance to change as an obstacle to digital adoption (39% vs 29%).

In a mixed-methods study carried out in 2022, we explored digital adoption patterns, barriers and enablers in more depth, focusing on SMEs in the West Midlands region. The SMEs surveyed here reported widespread digital technology adoption: every surveyed firm reported using at least one digital technology (with five being used on average). The most used technologies were online marketing through social media, accounting and remote working (used by over 80 percent of SMEs), while the Industrial Internet of Things and AI/ML were the least used.

Supporting our earlier research, while nearly 9 in 10 firms said they experienced barriers to using digital technologies, these barriers hadn't prevented adoption, and the reported impacts of barriers were limited, with a small number of firms reporting efficiency losses at most. The most commonly reported barriers were a lack of in-house digital skills/knowledge (61 percent), lack of funding (57 per cent), and a lack of external

[110] https://www.gov.uk/government/publications/ai-barometer-2021
[111] https://nicre.co.uk/media/q3tp2oqu/nicre-research-report-no-3-june-2021-digital-adoption-in-rural-smes.pdf

advice/guidance (42 percent). The most common enabler of adoption by far was usefulness of digital technologies (60 per cent) – other enablers varied.

With some variation by specific digital technology type, firms differing in their business characteristics showed remarkable similarities in their digital technology adoption over time. This allowed the study to identify five digital technology adoption profiles:

- Starters (those implementing some or all their digital technologies at business launch based on their business model, perception of business needs or advice, often external)
- Gradual adopters (who implement new digital technology gradually as business grows, e.g., in staff or stock)
- Users (for these SMEs, current digital technologies meet business needs, but they are regularly maximising value, e.g., by switching/upgrading software)
- Advanced users (like users, these SMEs use a sufficient number of digital technologies, though they add advanced improvements such as automation or integration)
- Super users (SMEs especially in IT-related sectors that exhibit advanced use patterns such as building bespoke digital technology).

In nearly every case SMEs used non-digital technology processes or tools before adopting, which were replaced by digital technologies in most of the cases. Furthermore, no interviewed SMEs stopped using any of their digital technologies. Despite high reported usage and intensity, 79 percent of SMEs said they were interested in using new digital technologies, often related to an interest in AI/machine learning technologies, and a need to better utilise and integrate current digital technologies.

Other ERC research has highlighted the importance of the outlook and expectations of SME leaders in digital adoption (and innovation more generally). Research for NICRE comparing digital innovation in urban and rural micro-businesses found strong positive associations between the business ambitions of firms and digital innovation - the more ambitious the micro-business, the higher the likelihood of them innovating. Digital innovation was 6.4-7.0 percentage points more likely among micro-businesses which had the aspiration to create a national or international business. The size of the ambition effect was found to be significantly larger than the effect of any locational influence, suggesting that it is not where firms are located which matters for digital innovation - the aspirations of owner-managers are more important.

5.3 Digitalisation and performance

ERC research has also found some evidence that the use of digital technologies is linked to performance benefits in some SMEs. Analysis of the 2018 Micro-business Britain Survey found that the adoption of digital technologies was strongly linked to sales per employee, one measure of productivity in micro-enterprises.[112] For example, cloud-based computing leads to an increase of 13.5 per cent in sales per employee after three or more years, while using CRM adds 18.4 per cent to sales per employee over three years. E-commerce adds 7.5 per cent to sales per employee over three years while web-based accounting software leads to an increase in sales per employee of 11.8 per cent over three years. Computer aided design has a slightly smaller impact, increasing sales per employee by 7.1 per cent.

Analysis of the 2020 Business Futures Survey also found evidence that more digitalised SMEs of all sizes were better equipped to weather the storms of the Covid-19 pandemic. The survey findings suggested that those businesses that had adopted digital technologies before the pandemic were armed with appropriate tools that helped them to overcome some of the challenges associated with the lockdown period. These respondents noted that digital solutions were already part of their “working normal” before the pandemic, which made it easy for them to adapt to new ways of working. Other SME leaders by contrast said that

[112] https://www.enterpriseresearch.ac.uk/publications/state-small-business-britain-report-2018/

they had quickly needed to further develop and reinforce their IT systems during the pandemic, which had involved increased costs. More digitalised SMEs were more likely to maintain the same turnover or grow, if the digital technology they introduced resulted in increased innovative activity. [113]

Another ERC research strand also found that more digitalised firms are also more likely to be more active in adopting environmentally sustainable practices, with digital technologies contributing to improve business environmental performance.

5.4 Supporting digital adoption

ERC research has explored how we might best support SMEs in their digital adoption journey. In 2019 we began work on an evaluation of the 'Evolve Digital' programme, funded as a part of the Government-funded Business Basics Programme.[114] It has often been suggested that smaller firms - especially more risk averse family-owned firms - may be particularly reluctant to invest in new technologies or innovation. The Evolve Digital scheme, a business support programme for family run businesses, was developed to address this issue. It was implemented as a Randomised Controlled Trial (RCT) to robustly test the effectiveness of the scheme, which involved six peer-learning sessions and facilitated access to a range of on-line materials relating to digital technologies and their value to businesses.

Through facilitated peer-learning, Evolve Digital aimed to strengthen firms' intention to adopt digital technologies and increase their confidence in adopting new technologies. Planned before the pandemic, the programme was originally designed as a face-to-face, cohort-based programme, but it moved on-line during the pandemic, although with strong facilitation and an attempt to build peer relationships.

Evolve Digital targeted small family businesses with relatively low adoption of digital technologies. To conduct the experiment, businesses were randomly allocated to a 'Treatment' or 'Control' group, with each group having around 100 businesses. Businesses in the Treatment group were then offered 42 hours of facilitated cohort-based learning focused on digital technology adoption. This comprised a series of online sessions supported by access to a library of digital materials, and the use of social media groups to encourage further peer interactions. By contrast, businesses in the Control group received only low intensity electronic learning materials for self-study; they had neither peer interactions nor expert facilitation.

All firms were surveyed before the implementation of the programme and again six months after the programme. We found that businesses in the Treatment group had greater confidence in their ability to use new digital technologies. This included confidence in their ability to identify the digital technologies that were relevant to their business, and to create the conditions necessary for using them, for example through convincing or training other members of the business to use technologies. In addition, businesses in the Treatment group had more positive perceptions of the usefulness of technologies, better attitudes towards using them, and greater intentions to adopt new technologies within six months. Qualitative feedback indicated that these businesses also valued the reflective and participatory aspects of the programme, underlining the importance of peer interactions and expert facilitation. For some firms the programme was transformational, leading to radical changes in their business model and ways of doing business. In other cases, it helped improve operations and flexibility with positive implications for productivity.

ERC research has also explored whether supply chains might play an important role in supporting small firms to make digital transitions, through a qualitative study.[115] The evidence from this research suggests the lived experience of mid-chain firms in their supply chains is not generally conducive to facilitating digital adoption. While goodwill and trust with suppliers was not uncommon, trust-based relationships with customers were less evident, and they were often complicated by commercial pressures, short-term or

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[113] https://www.enterpriseresearch.ac.uk/publications/digital-readiness-digital-adoption-and-digitalisation-of-uk-smes-amidst-the-covid-19-crisis-2/
[114] https://www.gov.uk/government/collections/business-basics-programme
[115] https://www.enterpriseresearch.ac.uk/publications/interactive-adaption-in-mid-chain-firms-how-are-supply-chains-enabling-digital-and-net-zero-transitions/

intermittent contracts and power imbalances. Often mid-chain firms' supply chain partners seemed unable or unwilling to appreciate the potential value of new technologies. This limited knowledge sharing between supply chain partners. Indeed, the analysis showed little or no significant collaboration on digital diffusion, suggesting a significant gap between the ideal world scenario and reality. Although many of the mid-chain firms in this research were innovative and using digital technologies, these activities owed little to their supply chains, instead being resourced and delivered from within the business themselves.

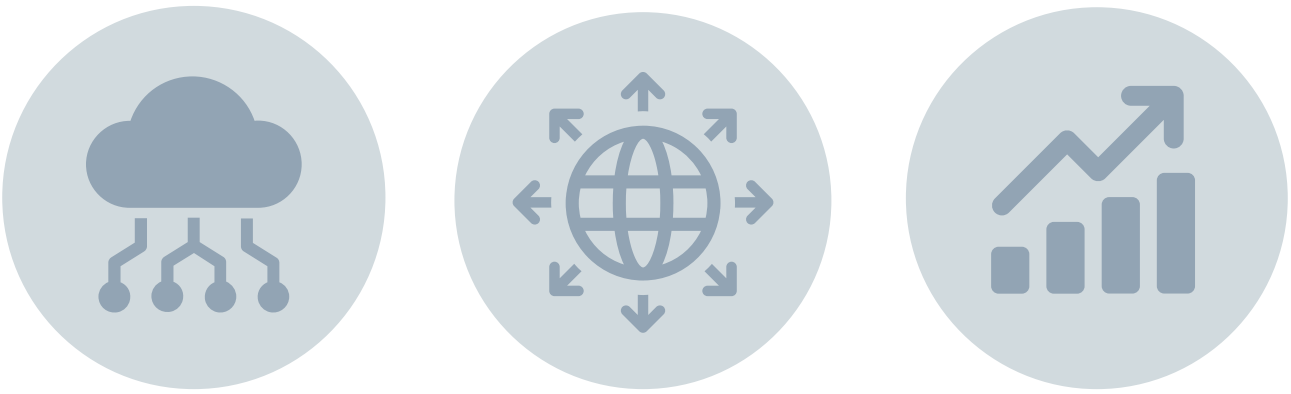
5.5 Summary

ERC research has provided valuable insights into the adoption of digital technologies in SMEs. The evidence highlights the complexity of digital adoption behaviour, which depends both on factors intrinsic to firms, as well as perceptions of external environment by owner-mangers. Furthermore, it has shown too that firms have differing digital technology needs at various points in their business journeys, and digital readiness as well as digitalisation should not be seen as a static state.

Although SMEs do experience several important barriers to adoption, in particular related to infrastructure (particularly in rural areas), finance and skills, these barriers do not necessarily prevent firms from adopting new technologies provided they have strong levels of digital readiness. In terms of policy, this suggests that as well as addressing the key barriers, there would be value in focusing reaching those firms that are not 'digitally ready', i.e., those firms that do not currently see the benefits of digital transformation for their business and do not feel the pressure from their immediate business environment.

In this sense, networking, information sharing, and business support may be effective in altering the perception these firms have of the wider environment. These activities may also enable the showcasing of the benefits of adoption, as well as providing ways of facilitating increased knowledge of emerging technologies and better understanding of barriers to implementation. However, it is also important to note that firms' business journey continues once they start using digital technologies. We can expect many SMEs to require support when expanding their digital technology use and maximising its value, especially if that includes advanced functionality such as integration or automation.

The positive impact of the Evolve Digital programme provides strong evidence for the potential value of short online training courses involving peer support to improve digital adoption in small firms. The success of the programme lends support to the use of online delivery formats as credible, accessible and cost-effective alternatives to face-to-face delivery, especially where the latter is infeasible or costly. However, there are also informational and trust failures limiting knowledge sharing and collaboration in terms of digital innovation within supply-chains. Policy intervention in supply chains could also enable greater information sharing and promote the adoption of digital technologies in smaller firms.



6. Small Businesses and Net Zero

Evidence of the growing climate crisis has raised awareness of the need for businesses to move towards more sustainable low carbon ways of operating. The UK has set an ambition to reach net zero emissions by 2050, and it is widely recognised that the actions of businesses will be crucial in meeting this target. However, most research to date has focussed on the environmental practices of large corporations because large firms, rather than SMEs, are the prime polluters. However, it is increasingly recognised that smaller businesses have a vital role to play in the net zero transition too.

The adoption of net zero practices involves a different set of considerations when compared to other investments a firm might make such as in human capital or digital technologies, where the performance or potential efficiency benefits might be clearer or more direct. ERC research has filled some important research gaps here, exploring the extent to which UK SMEs are adopting net zero practices, what motivates them to introduce them, the links with business performance, and the state of the net zero support landscape.

6.1 SMEs and net zero practices

Recent research, both from the ERC and others, has shown that most UK SMEs are at an early stage in their transitions to net zero.

A 2021 study by the British Business Bank[116] for example provides some useful insights into attitudes towards net zero practices amongst SMEs. The report includes findings from a survey of around 1,200 UK SMEs. It found that nearly 60 per cent of firms reported reasonable awareness of key net zero concepts, but around half (53%) said that they were not yet ready to prioritise decarbonisation. Most SMEs (94%) had taken at least one physical action to reduce emissions, although these tended to be relatively simple, such as installing a smart meter, rather than more complex actions such as introducing very-low-emissions vehicles. Eleven per cent of UK small businesses said they had already accessed external finance to support net zero actions, and twenty-two per cent said they were prepared to do so in the next five years. The research highlighted the complexity of the picture, with SMEs having varying levels of awareness and different degrees of engagement with the net zero transition, but most at the early stages of the journey.

In a recently published paper for the ERC based on analysis of the 2021 Longitudinal Small Business Survey (LSBS), Gottschalk and Owen (2023) note that more UK SMEs became green between 2017-2021.[117] According to the data, only 10 per cent of all SMEs said they had no environmental objective in 2021, against 30 per cent in 2017, showing the extent of the shift. The proportion of firms with what the authors define as a ‘minor’ green mission increased significantly between 2017 and 2021 (from 56.3% in 2017 to 72% in 2021). The ERC’s Business Futures Survey in 2020 and 2022 also included questions on net zero adoption in SMEs, and again found evidence pointing to widening awareness of environmental concerns within the small business community. As already noted in Chapter 1, the 2022 Business Futures Survey found that nine in every ten SMEs surveyed said that they considered environmental implications when taking business decisions. This is slightly higher than we found in the 2020 survey (83 per cent), again suggesting increasing awareness over time, and this was true for all firms irrespective of their size.

At the same time, however, a lower proportion - 66 per cent - of firms said that they had actually undertaken actions to minimise the environmental impact of their businesses. This means that around 23 per cent of UK

[116] https://www.british-business-bank.co.uk/research/smaller-businesses-and-the-transition-to-net-zero/
[117] https://www.enterpriseresearch.ac.uk/publications/demand-for-external-finance-by-environmentally-motivated-smes-an-exploration-of-geographical-disparities-and-potential-in-relation-to-net-zero/

SMEs, despite paying attention to environmental impacts when making business decisions, have not yet introduced any practices to reduce this impact. Furthermore, the Business Futures 2022 Survey reveals that the adoption rates of net zero practices in 2022 are broadly in line with those we found in 2020[118] (table 2), suggesting that adoption rates are remaining stable, even if attitudes are changing. Just over a third of UK SMEs were not engaged in undertaking any active steps to reduce their business's carbon footprint. Drilling down into the nature of the practices that firms are introducing, the Business Futures Survey 2022 found that the most frequently introduced type of net zero practice introduced by SMEs was recycling (45% of respondents). The next most used practice was the use of renewable energy (22 per cent), followed by training on environmental matters (21 per cent), and the introduction of new low carbon products and services (21 per cent). Twenty per cent of SMEs said that they had introduced new or improved production processes with environmental benefits. Around one in ten of the surveyed firms said they conducted low carbon market research (11 per cent) and invested in R&D on environmental matters (9 per cent).

Table 2. Net zero practices adoption rates by firm size

	2022				2020
	micro 5 to 9	small 10 to 49	medium 50 to 249	all sizes	7 to 249
No net zero steps	39%	31%	22%	35%	34%
Undertaken environmental reports or audits	11%	18%	24%	15%	22%
Introduced new or improved production processes with environmental benefits	19%	20%	24%	20%	39% [119]
Introduced new or improved delivery, transport, or distribution systems	17%	17%	27%	17%	
Invested in research and development related to the environment	7%	10%	19%	9%	14%
Introduced air pollution monitoring and filtering	5%	12%	17%	9%	19%
Conducted training on environmental matters	17%	24%	27%	21%	26%
Conducted market research related to low carbon products or services	8%	12%	20%	11%	16%
Introduced new low carbon products or services	20%	20%	31%	21%	25%
Switched to more renewable energy	20%	24%	28%	22%	30%
Recycled waste, water, or materials (circular economy)	44%	46%	46%	45%	
Other	4%	4%	1%	4%	4%

Source: ERC Business Futures 2022, Ri and Mole (2022), ERC Business Futures 2020.Base: all firms (1,003), 213 micro (5 to 9 employees), 537 small (10 to 49 employees), 253 medium (50 to 249 employees); in 2020 – all firms (1,019).

[118] The same as for digital technologies, this slight drop in adoption rates is likely to be explained by differences in the sample frame (which in 2022 includes micro-firms from 5 to 9 employees) rather than an actual decrease in of the net zero uptake.
[119] In Business Futures 2020, these two practices were aggregated in one "Changed processes or transport/logistics to reduce carbon emissions".

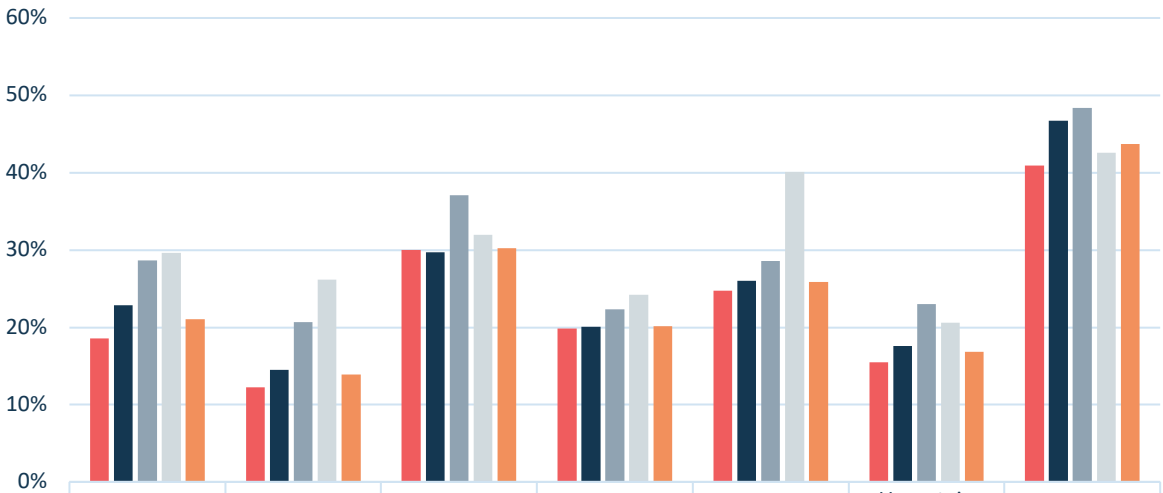
6.2 What drives net zero adoption?

So, what do we know about the factors which influence whether SMEs adopt net zero practices?

The Business Futures 2022 Survey provides insights on the key barriers to action on decarbonisation. The top three barriers to emerge from the survey were: (1) uncertainty related to the Covid-19 pandemic; (2) the costs involved in meeting regulations and standards, and (3) a lack of information on low carbon technologies (see figure 19). These barriers vary depending on firm size, with smaller firms being slightly more likely to be concerned with cost barriers, and larger firms with information barriers. Medium-sized SMEs were also more likely to cite the lack of relevant skills and the administrative burden as barriers.

It is striking from these findings that the impacts of the pandemic have negatively impacted environmental action amongst firms of all sizes, but this is especially so for small and medium-sized firms. Costs were also cited as a significant barrier to adopting net zero practices across firms of all sizes, but particularly in the small to medium sized category, with upfront costs being the most frequently noted element. We found nearly twice as many firms who had already started on their net zero journey reported costs as a barrier (35%) compared with those who had not considered environmental practices (18%),[120] which suggests that firms may become stalled in the net zero journey by the cost barrier.

Figure 19. Barriers to decarbonisation by firm size



	Lack of relevant skills	Administrative or legal procedures	Cost of meeting regulations or standards	Difficulties in accessing finance	Lack of information on low carbon technologies	Uncertain demand for low carbon products or services	The Coronavirus pandemic
5 to 9	19%	12%	30%	20%	25%	16%	41%
10 to 49	23%	14%	30%	20%	26%	18%	47%
50 to 99	29%	21%	37%	22%	29%	23%	48%
100 to 249	30%	26%	32%	24%	40%	21%	43%
All sizes	21%	14%	30%	20%	26%	17%	44%

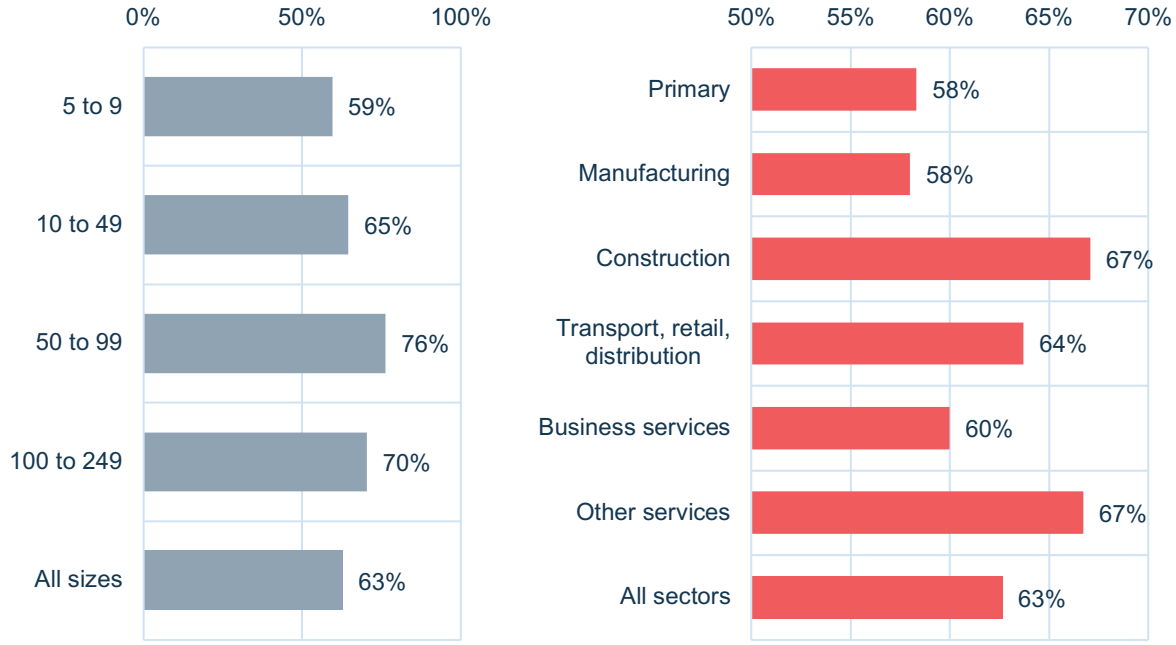
Source: ERC Business Futures 2022
Base: all firms (1,003), 213 micro (5 to 9 employees), 537 small (10 to 49 employees), 253 medium (50 to 249 employees).

[120] https://www.enterpriseresearch.ac.uk/wp-content/uploads/2022/07/ERC-Report-Taking-Small-Steps-ARKM.pdf

The information barrier is one of the most important obstacles preventing firms to adopt net zero practices, and ERC research has explored this further. Although the overall proportion of firms saying that they know where to find reliable information is generally encouraging (nearly two-in-every-three firms believes that they know where to find information), there are clear differences by size and sector.

As shown in figure 20, fewer micro and smaller businesses say that they know where to find reliable information on environmental solutions than medium and large firms. Also, businesses in the primary, manufacturing and business services sectors were less likely than those in other sectors to know where to find good information, with around three fifths of firms in these sectors facing a lack of information on environmental solutions.

Figure 20: Percentage of firms knowing where to find reliable information on environmental solutions: by size and sector



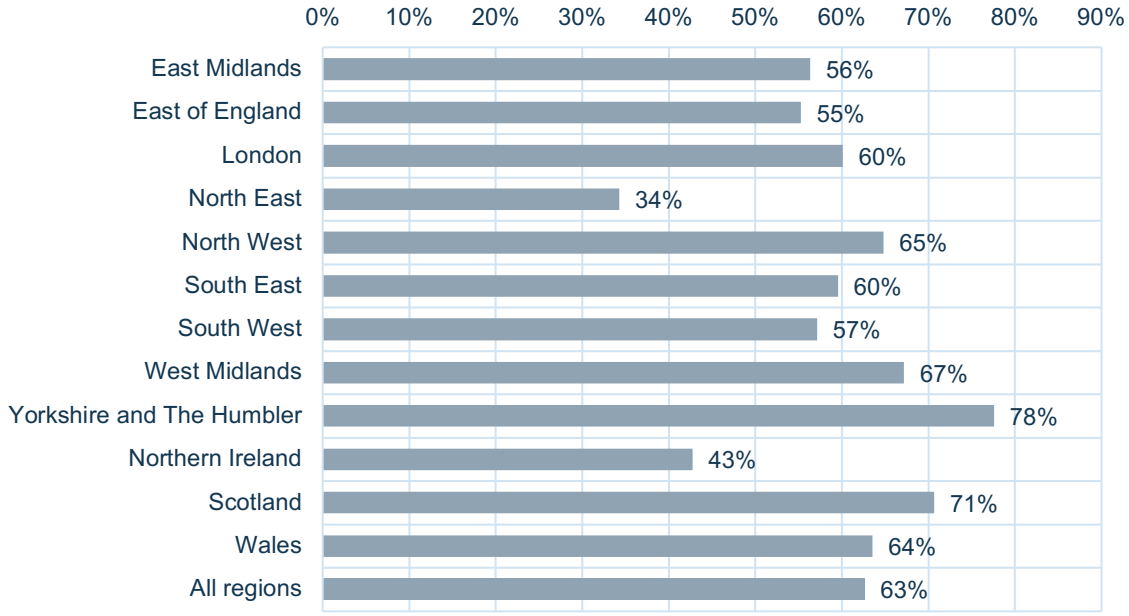
Source: ERC Business Futures 2022
Base: all firms who replied to the question (952), 201 micro (5 to 9 employees), 511 small (10 to 49 employees), 151 medium (50 to 99 employees), 89 medium large (100 to 249); 44 primary, 177 manufacturing, 83 construction, 259 transport, retail, distribution, 290 business services, 99 other services.

The findings of the Business Futures Survey 2022 suggest there are also variations in firms knowing where to find information by geography. For example, the survey found that the proportion of firms that said that they knew where to find reliable information on environmental solutions was particularly low in the North East of England and in Northern Ireland, but highest in Yorkshire and the Humber and Scotland (figure 21).

Other ERC research for NICRE found significant differences between firms located in urban and rural areas when it comes to net zero adoption.[121] Rural firms were more likely than urban firms to approach environmental issues positively, were more engaged with, and invested in, environmental practices, and were ahead when it came to integrating environmental priorities into their business models. This suggests that firm location (e.g., urban or rural context) matters when it comes to the adoption of net zero practices.

[121] https://www.enterpriseresearch.ac.uk/wp-content/uploads/2022/07/ERC-Report-Taking-Small-Steps-ARKM.pdf
https://nicre.co.uk/research-and-evidence/rural-smes-and-the-net-zero-agenda/

Figure 21: Percentage of firms knowing where to find reliable information on environmental solutions: by region



Source: ERC Business Futures 2022
Base: all firms who replied to the question (952)

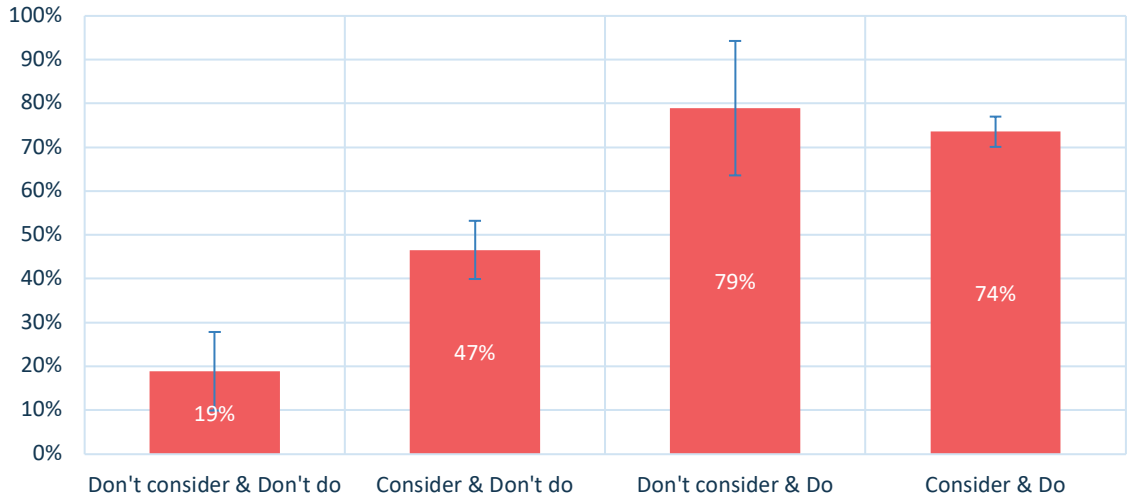
Knowing where to find reliable information emerged as a key characteristic of firms that are acting on climate change. Nearly three-quarters of firms who said they considered the environmental impact of their decisions and took action to address them reported that they knew where to find reliable information. Further, four fifths of firms who did not consider the environmental impact of their business decisions yet still took action reported that they knew where to find reliable information. It seems, therefore, that a key difference between those SMEs who take action on the environment and those who do not is whether they are able to access reliable information (figure 22).

These findings on access to reliable information are important, especially when there is emerging evidence that there are poor levels of awareness amongst UK SMEs about the support that is available to them.

For example, according to Gottschalk and Owen's (2023) analysis of the 2021 LSBS, only about 60 per cent of UK SMEs with environmental objectives said they knew about UK SME energy efficiency related programmes, and most were only aware of two schemes.[122] More than half of those SMEs without any green objective had no awareness of energy saving schemes.

[122] https://www.enterpriseresearch.ac.uk/publications/demand-for-external-finance-by-environmentally-motivated-smes-an-exploration-of-geographical-disparities-and-potential-in-relation-to-net-zero/

Figure 22: Percentage of firms in each category knowing where to find reliable information



Source: ERC Business Futures 2022
Base: All firms (1003 non missing obs); 'Don't consider & Don't do' (81); Consider & Don't do (237); Don't consider & Do (29); Consider & Do (656).

Further analysis finds that although access to reliable information is important, it is also crucial that this is seen by firms as *actionable* information, or in other words, that it is seen to be pertinent to the particular firm and setting if it is to result in net zero actions being taken.[123]

Another important finding is that the intensity of the engagement of SMEs with the net zero transition is also strongly driven by the individual attitudes of business owner-mangers towards the environment. This finding is consistent with other evidence which suggests that in the case of smaller firms, the beliefs, values and personal goals of entrepreneur have an important influence on business goals. We found most firms had a priority to reduce their environmental impact, which was a greater priority for rural firms (62% of rural firms vs 51% of urban firms).[124] ERC Business Futures 2020 also showed rural firms more likely to have pro-environment priorities than urban firms.[125]

The importance of the attitudes and beliefs of business leaders as a driver for action has also emerged in some qualitative work undertaken this year with the business support organisation Wenta.[126] Most of the business leaders interviewed in this study displayed a positive attitude towards net zero. Several noted that the net zero goal was aligned with their own personal values, and some were driven by the aspiration to be an active part of the solution to net zero, offering goods and services that could significantly reduce environmental impact. They also expressed a strong desire to embrace the net zero journey because it aligned with the core values and principles of their businesses. For these businesses, sustainability and environmental responsibility were fundamental drivers. One participant put it succinctly: "morally it's the right thing to do, regardless of whether it's because we're going to have to."

However, ERC analysis also finds that the pro-environment motivations of business owner-managers tends to drive the adoption of mainly low-cost and easier to implement practices (e.g., environmental reports and audits, market research on low carbon and environmental training and switching to renewable energy). It is the external drivers – related to market or regulatory changes - that prove important in driving adoption of more costly practices. Here, the Business Futures Survey results show that customer demand for low carbon products and services appears to be one of the most important drivers of environmentally friendly behaviour in firms by stimulating the adoption of the whole range of environmental practices except for air pollution

[123] https://www.enterpriseresearch.ac.uk/publications/actionable-information-enables-smes-to-journey-towards-net-zero/
[124] https://www.enterpriseresearch.ac.uk/wp-content/uploads/2022/07/ERC-Report-Taking-Small-Steps-ARKM.pdf
[125] Wishart et al. (2021)
[126] https://www.enterpriseresearch.ac.uk/publications/action-zero-the-wenta-experience-of-guiding-small-firms-on-their-net-zero-journey/

monitoring and filtering which is driven mostly by internal motivations related to improvement of business image and reputation and by environmental regulations and taxes.

Among other external factors, we found evidence that government grants and subsidies drive changes in production and distribution processes, but we did not find they had any statistically significant effect on other practices. We also find that *environmental regulations or taxes* drive SMEs to commit to organisational net zero practices. Specifically, they increase the probability that firms undertake environmental reports by 5.2 percentage points. Additionally, we find evidence that *environmental regulations or taxes* induce investments on environmental R&D. Interestingly, in a report focusing on rural firms 1 per cent of rural firms reported that environmental regulations were a barrier to Net Zero adoption.[127] Our qualitative research with Wenta also points to the influence of a push towards net zero within some supply chains. Some businesses noted that tenders now incorporated net zero considerations. Again, this reflects a growing demand from customers for environmentally conscious practices, requiring businesses to integrate sustainable approaches throughout their operations.

ERC analysis of the Business Futures Survey has also found that organisations with higher digital intensity, self-efficacy, formal knowledge sources, and an emphasis on innovation are more likely to engage in net zero activities. This is in line with the body of knowledge on sustainable business practices.

6.3 The net zero-digital link

ERC research has taken forward understanding of how the digital transition in particular is helping support moves towards more sustainable business models in SMEs.[128] The evidence here suggests there are links between the adoption of some digital technologies and moves towards net zero.

Using data from the ERC Business Futures Survey (2020) this research finds that synergies exist between use of CRM technology and the undertaking of environmental reports and audits, switching to renewable energy, and introducing low carbon products and services. The analysis also finds evidence suggesting synergies between digitalisation (use of ecommerce, accountancy and HR software, video conferencing and collaboration tools) and changes in production/processes to reduce carbon emissions. Synergies were also found between advanced digital technologies such as AR/VR and AI/ML and undertaking investment in R&D related to the environment. Although the intensity of the synergetic effects is relatively low, this result is still very important because it showcases potential benefits and future development of digitally enabled eco-innovation in UK SMEs. The results also point to synergies between AR/VR and organisational net zero practices, such as training on environmental matters and low carbon market research.

Additionally, econometric analysis also shows a positive association between businesses' digital intensity and the level of advancement on net zero journey, pointing out that more advanced digital adopters are also more likely to be more advanced net zero adopters. This positive evidence of 'twin green and digital transition' has important implications in terms of business support. Thus, it suggests that digital laggards may be also become net zero laggards, meaning that digital divide will be translating into net zero divide. This implies that business support may benefit from a greater focus on long-term relationships of change agents in order to improve absorptive capacity which would benefit both digital and green transformation of lagging firms.[129]

6.4 Net zero and performance

To date the evidence on the extent to which net zero adoption can bring performance benefits in SMEs is limited. ERC research has contributed to understanding on the links between net zero adoption and business performance.

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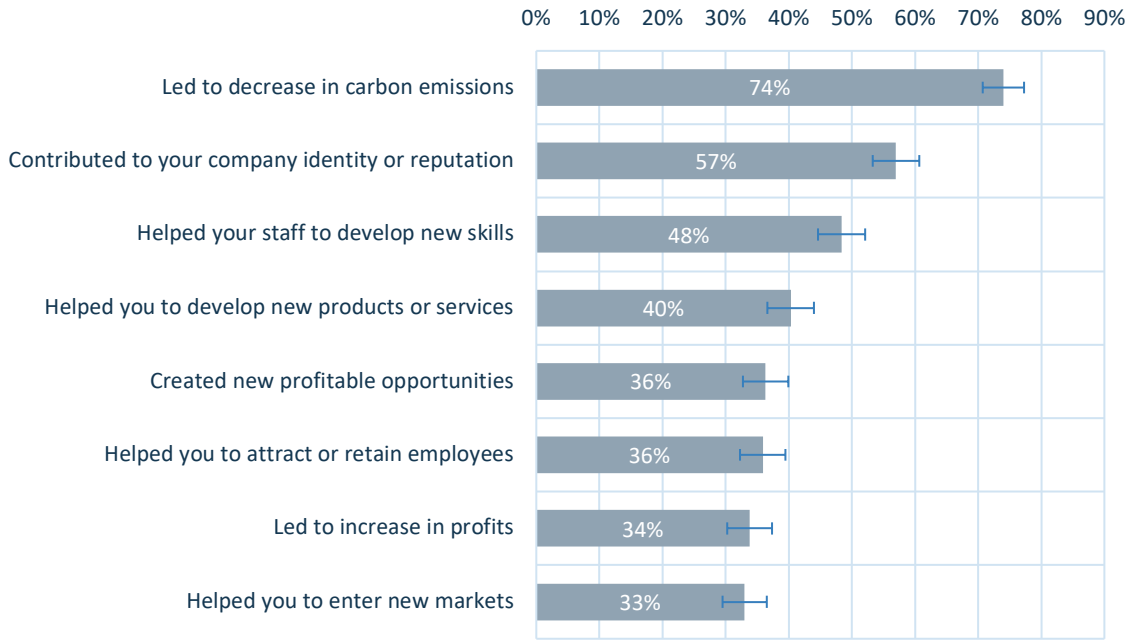
[127] https://nicre.co.uk/news/2023/december/rural-businesses-consider-the-environment-in-decision-making-but-barriers-exist/
[128] https://www.enterpriseresearch.ac.uk/publications/twin-green-and-digital-transitions-joint-adoption-of-net-zero-and-digital-practices-by-uk-smes/
[129] Kesidou, E., Ri A., Roper, S. (2023) Twin Net Zero and Digital transition - Myth or Reality? Evidence from UK SMEs. (forthcoming, available on request)

Analysis of the ERC Micro-business Britain Survey carried out in 2018 provides evidence suggesting that established microbusinesses that have sustainability goals are more likely to undertake innovation than similar firms with no sustainability goals. In this way, having sustainability goals can itself be a source of competitive advantage, due to the innovation link.

The Business Futures 2022 survey also asked firms to report the outcomes they had seen due to adopting steps to reduce the environmental impact of their businesses. Encouragingly, three in four firms who had taken steps to reduce their environmental impact said that they found these measures resulted in an actual decrease in carbon emissions. But these were not the only benefits. The second most cited benefit related to the improvement of firm's identity and reputation, with around three in five firms citing this (57 per cent). Responses from around four-in-ten firms suggested benefits that would increase revenue, including 40 per cent of firms who reported that adopting net zero practices helped them to develop new products and services. Further, 36 per cent stated that adopting net zero practices created new profitable opportunities, and 33 per cent stated that this had helped the firm to enter new markets (see figure 23).

Figure 23: Outcomes of net zero practices



Source: ERC Business Futures 2022
Base: all firms who have undertaken steps to reduce environmental impact (685); blue bars indicate 95% confidence intervals.

Econometric analysis based on Business Futures 2020 found a strong statistically significant relationship between net zero practices and business performance, proxied by employment growth. This suggests that a 'win-win scenario' is feasible in the UK: SMEs can adopt net zero practices that ease the trade-offs between environmental and business performance. For instance, our findings highlight that technological net zero practices (such as changes in production or distribution processes) are able to reduce carbon emissions and to stimulate firm growth. Although organisational net zero practices do not seem to affect environmental performance directly, they are nevertheless important as we detected indirect mechanisms where organisational practices spur more advanced technological changes leading to better performance.[130] There is therefore some evidence that net zero practices are having positive impacts both on firm innovation and performance.

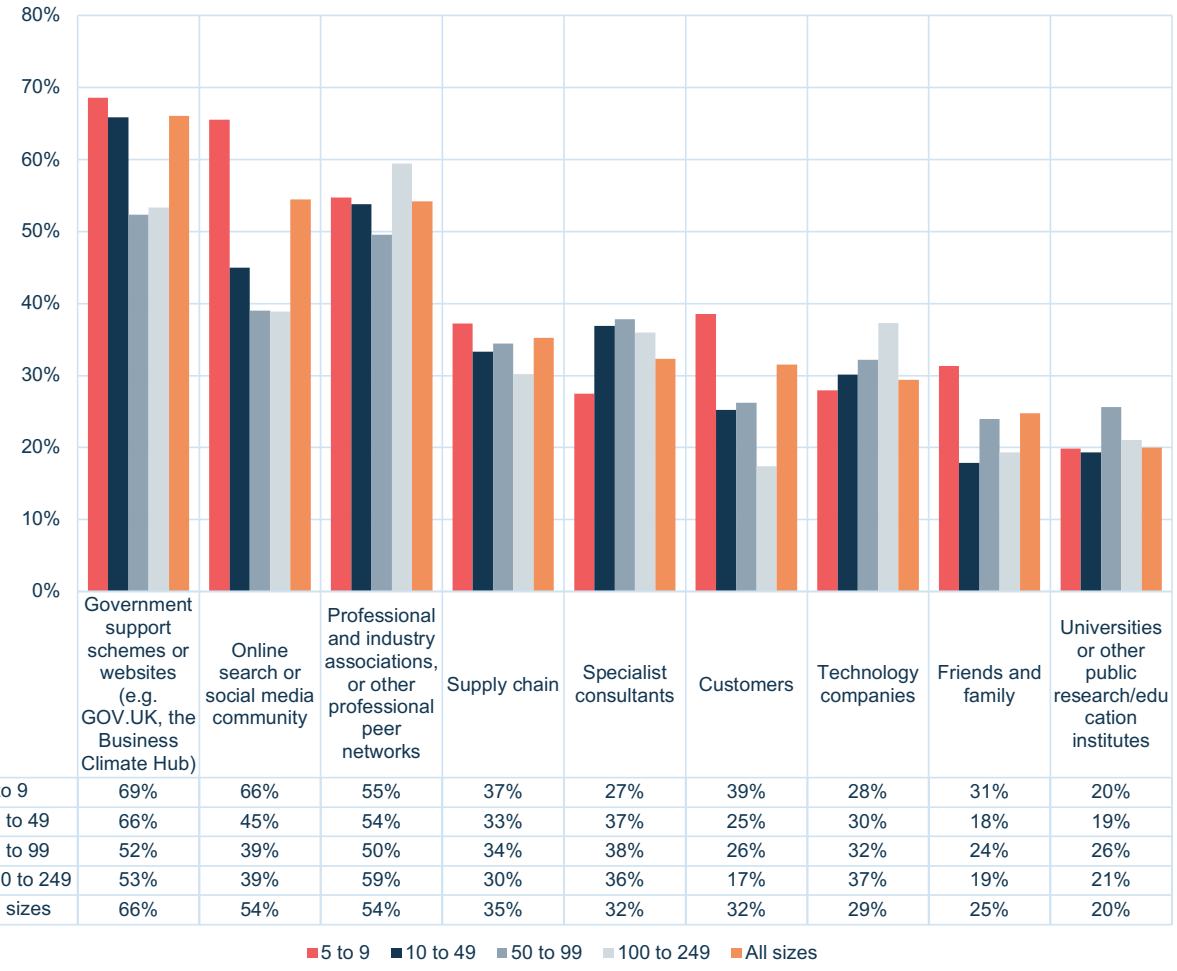
[130] https://www.enterpriseresearch.ac.uk/publications/drivers-and-performance-outcomes-of-net-zero-practices-evidence-from-uk-smes/

6.5 Net zero business support

Another key theme of ERC research on net zero has been the nature and provision of net zero business support for SMEs.

The Business Futures Survey 2022 sets some context here, shedding light on where SMEs currently find information on net zero. The findings show that most SMEs tend to use government websites and support schemes. Professional bodies and networks were also widely used, along with online searches and social media, although the latter is driven by micro-businesses (figure 24). Supply chains, customers and universities were less frequently used as sources of information by firms.

Figure 24: Percentage of firms relying on the following sources of information by firm size



	Government support schemes or websites (e.g. GOV.UK, the Business Climate Hub)	Online search or social media community	Professional and industry associations, or other professional peer networks	Supply chain	Specialist consultants	Customers	Technology companies	Friends and family	Universities or other public research/education institutes
5 to 9	69%	66%	55%	37%	27%	39%	28%	31%	20%
10 to 49	66%	45%	54%	33%	37%	25%	30%	18%	19%
50 to 99	52%	39%	50%	34%	38%	26%	32%	24%	26%
100 to 249	53%	39%	59%	30%	36%	17%	37%	19%	21%
All sizes	66%	54%	54%	35%	32%	32%	29%	25%	20%

Source: ERC Business Futures 2022
Base: all firms knowing where to find reliable information (604), 108 micro (5 to 9 employees), 323 small (10 to 49 employees), 114 medium (50 to 99 employees), 59 medium large (100 to 249).

As a part of a research project done in partnership with the Federation of Small Businesses (FSB) in 2023, the ERC undertook a mapping exercise of the net zero business support available for small businesses in England to ascertain the availability and reach of support.[131] The research identified a total of 282 net zero support programmes across England, offering 719 interventions. These encompassed various types of support, such as grants, audits and mentoring. In terms of intervention types, online tools, grants, audits, events, training, and one-on-one advice were among the most common forms of support found.

[131] hhttps://www.enterpriseresearch.ac.uk/publications/the-less-than-1-club-mapping-net-zero-support-for-small-businesses-across-england/

The research found that the net zero support landscape in the UK is a fragmented ecosystem. Multiple initiatives are operating independently with a lack of centralisation and coordination. Although programmes exist in all regions, there are significant concerns about accessibility and reach. The study estimated that the number of recipients of net zero support comprise less than 1 per cent of the total SME population. Furthermore, funding for programmes primarily relies on statutory sources, with local authorities and the European Regional Development Fund (ERDF) playing significant roles. The future availability of funds, including from the UK Shared Prosperity Fund, may impact the continuation of programmes.

As noted above, the ERC has also been working with Wenta, a business support organisation to shed more light on the net zero journeys being taken by SMEs and their support needs, tracking sets of firms as they engaged in a support scheme called the 'Action Zero' programme.[132] This study explored what influences the progress of firms through the programme and with their net zero journey more broadly. A number of themes have emerged:

- **Making support relevant**. Even those leaders strongly committed to net zero principles did not always see how this applied to their own businesses, and this affected their progress from the early stages. This points to the importance of tailoring programmes to suit different types of businesses, ensuring that all participants can derive maximum value from the support provided.
- **Employee engagement is crucial.** Having the confidence to talk about net zero within the business enables more of the workforce to get on board with the net zero journey, which influences progress.
- **Quality interactions.** Participants found value in quality interactions with support staff, particularly one-to-one support. They also highly valued opportunities for peer interaction.
- **Taking small steps.** Businesses valued taking a step-by-step approach to net zero adoption. By breaking down the process into manageable steps and providing clear explanations, the participants explained that the programme empowered them to make informed decisions and take practical actions towards carbon footprint reduction.
- **Making a public commitment.** The study also highlighted the importance of businesses publicly demonstrating their net zero commitment to clients and stakeholders as a part of the programme to motivate action.

6.6 Summary

The benefits of the net zero transition impact on the whole of society, and whilst the actions of businesses will play a crucial role in bringing it about, there are significant challenges for resource-constrained SMEs.

As with digital adoption, the journey towards net zero will involve significant changes in business models and working practices for SMEs, and they will need varying levels of support that will change as they move through different stages. At the moment, the current landscape of support is fragmented, and only a small minority of firms are receiving support. While existing net zero support initiatives have made commendable strides in assisting SMEs on their sustainability path, it is evident that a yawning gap remains between the current level of engagement and the broader imperative of achieving net zero across all sectors of the economy. To bridge this gap, it will be crucial to accelerate efforts to encourage the widespread adoption of sustainable practices so net zero becomes the norm rather than the exception.

ERC research shows that awareness of net zero has increased within the UK SME community, which is positive, but this is not matched in terms of the proportion that are actually taking action. To shift the dial here, the evidence shows that improvements in the quantity and the quality of actionable, usable information available to SMEs could make a real difference. There also needs to be a more comprehensive and coordinated approach to net zero support, with more tailored support programmes that empower businesses to embark and progress on their net zero journeys, underpinned by robust evaluation. ERC research suggests there is a positive link between digital adoption and the move towards net zero, so there would be advantages to designing future policy instruments that take advantage of these complementarities rather than focusing on net zero practices in isolation.

[132] https://wenta.co.uk/action-zero-landing-page

7. Management and Leadership

It is now widely acknowledged that leadership and management practices are directly connected to business performance. Links have also been made between the poorer performance of SMEs and deficits in management and leadership skills. ERC research has added to this body of research, delving deeper into the nature of the management-performance link, most recently with a specific focus on workplace mental health and wellbeing.

7.1 Management capabilities and motivations

As we noted in Chapter 2, one of the ERC's earliest publications explored the link between SME growth and management and leadership capabilities.[133] This paper argued that business growth is supported by a set of 'growth-oriented' actions and management processes. These processes are those that support market penetration, innovation, new product development, new market development and internationalisation. Growth is further supported by a foundation of solid general management processes. Without these foundational practices in place, viable growth is less likely to occur. On top of this, the paper argued that management processes that support alliances and joint ventures serve to further accelerate growth. Key resources are needed to underpin and support these growth practices and capabilities in small businesses. These include financial and intellectual capital, both of which support greater exploration, innovation, exploitation of new knowledge and risk taking.

Acknowledging the importance of risk taking and innovation to growth, further early ERC research explored the specific issue of 'fear of failure', which has been observed as a barrier to entrepreneurial behaviour and business growth.[134] This work found, contrary to common perceptions, that a fear of failure is not always an inhibitor of growth but can in fact act as a motivator for entrepreneurs in some cases or situations. However, the motivating value of fear may have negative consequences for the reactions and decisions made by leaders, as well as the broader wellbeing of the entrepreneur. Based on qualitative research with entrepreneurs, this study explored the experience of fear of failure and its link with entrepreneurial activity, arguing it is a multi-faceted process. It observed that although fears do influence how entrepreneurs behave, this does not always result in avoidance behaviours. Those who experience fear may in fact dedicate more effort to engaging with and achieving their goals, but the implications of this for entrepreneurs are not fully understood.

These insights into entrepreneurial motivation are also connected to wider discussions about which personality types most suited to entrepreneurship. This issue was explored in an ERC SOTA Review bringing the evidence together on the role of biology in entrepreneurship.[135] This review noted that the past few years have witnessed a significant increase in research on the role of biology in explaining the entrepreneurial tendencies of individuals. The authors note that evidence shows that genetic factors explain almost half of the variance in people's tendencies towards entrepreneurship. There are several ways in which biological characteristics have an influence. Biological factors may affect individuals' propensity to engage in entrepreneurship through differences in psychological characteristics such as openness to experience, creativity, and extraversion as well as opportunity recognition. The evidence shows that these biological factors interact and are moderated by wider environmental factors, such as education, financial status and public support.

[133] https://www.enterpriseresearch.ac.uk/publications/entrepreneurial-leadership-capabilities-growth-review-existing-evidence/
[134] https://www.enterpriseresearch.ac.uk/publications/understanding-fear-failure-enterpreneurship-cognitive-process-framework/
[135] https://www.enterpriseresearch.ac.uk/publications/the-biology-of-entrepreneurship-sota-review-no-27/

ERC research has also explored the extent to which cultural context influences entrepreneurial motivations.[136] This evidence review noted that national differences in levels of entrepreneurial activity have been widely observed, but that 'the evidence of predictable associations between culture and entrepreneurial outcomes at regional and national levels is remarkably mixed'. Looking at the relationship between national culture and entrepreneurial characteristics, the evidence shows that motives and traits vary considerably across countries, and research does not yet explain the process through which culture influences intentions to behave entrepreneurially. The evidence does suggest some common traits across cultures that entrepreneurs share as a group including higher individualism and low uncertainty avoidance, although these traits are not always positively associated with entrepreneurial behaviour. The review argues that is therefore essential to look beyond these generalisations, instead considering local economic context, examining how elements such as rates of inward investment, national innovation strategies and entrepreneurship policies interact with cultural factors.

Turning to look at the organisational level, another ERC study explored the role of organisational culture and Human Resource Management (HRM) in the development of entrepreneurial capabilities within firms. The study notes that entrepreneurial organisations are those that are able to discover, evaluate and exploit opportunities. They tend to be proactive, risk taking and innovative. To do this, these organisations rely on two 'knowledge flows' – the continual acquisition of new knowledge, and the integration of new and existing knowledge and capabilities. The study explored these processes in a set of small and medium-sized manufacturing firms, and found connections between organisational culture and HRM practices, and the ability to acquire and integrate new knowledge, ultimately resulting in the creation of new products or services.

7.2 Management practices and performance

ERC research has explored the links between management practices and SME performance through a number of studies.

One study investigated the link between HRM practices, innovation, firm growth and productivity growth, looking at firms in five service sectors in the UK.[137] This study found no direct relationship between HRM practices and firm growth or productivity growth. It did, however, find a positive link between HRM practices and innovation, and between innovation and firms' sales and productivity growth. The study concludes, therefore, that HRM practices are positively associated with firm growth and productivity growth, but this relationship is an indirect one, working through – or mediated by – innovation. In other words, HRM practices are related to innovation, and innovation is related to growth and productivity improvement.

Another ERC study explored the link between HRM and business growth through an exploratory analysis of the 2011 Employer Skills Survey (ESS), a large-scale survey providing detailed information on so-called High-Performance Working (HPW) practices adopted in individual workplaces in the UK.[138] The ESS data were matched to establishment data derived from the longitudinal Business Structure Database (BSD) which provides time-series information on employment and turnover for all UK firms and establishments registered for VAT and/or PAYE. Focusing on the period from 2011 to 2014 for UK-owned small firms, the analysis found that looking at all firms, high performance work practices as defined in the survey were a poor predictor of future growth. Skills gaps, however, proved more consistently important for growth: where there were higher proportions of staff experiencing skill gaps this created a negative growth impact. Where firms took action to improve the proficiency of such staff, both employment growth and productivity levels increased.

[136] https://www.enterpriseresearch.ac.uk/publications/entrepreneurial-culture-review-empirical-research/
[137] https://www.enterpriseresearch.ac.uk/publications/innovation-hr-practices-five-professional-service-sectors-report-uk-commission-employment-skills/
[138] https://www.enterpriseresearch.ac.uk/publications/human-resource-practices-firm-growth-exploratory-analysis-matched-employer-skills-survey-ons-business-structure-database-statistical-report-produced-enterprise-resear/

However, this research also explored the correlation of HPW and wider HR practices with the incidence of *high* growth (defined as >20 per cent per annum) over the 2011-14 period. Here, in this more concentrated group of firms, several practices associated with skill development were strongly correlated with high growth, namely: training with induction, supervisory, management and new technology training, learning through watching others, off-the-job training and having an annual performance review. In terms of other HPW practices - again several variables were strongly correlated with high growth, namely employees knowing the financial position of the firm, the creation of project teams or problem-solving groups and having regular team meetings. A variable to capture the number of HPW practices utilised by the firm was also highly significant, providing support for the idea that 'bundles' of practices are effective.

In another study we explored the leadership behaviours and HPW practices used in the small minority of UK SMEs that experience sustainable growth over an extended period of time, with the aim of exploring what might lie behind this sustained high performance.[139] This mixed methods study found that this group of SMEs embraced informal practices that impact key HR outcomes. These practices were related to ensuring the wellbeing of employees and a concern for creating a positive working environment, as well as financial sustainability. The paper notes that by creating a positive company culture, these types of practices engender more loyalty and commitment from employees which have benefits for performance by creating the conditions for more positive discretionary behaviours. Alongside these informal practices, formal HRM practices also emerged as important to long-term growth. In particular, strong recruitment processes were seen as paramount to securing growth. Senior team development and training alongside internal promotion were also seen as an effective avenue for creating a strong management team. In addition, coaching and mentoring practices were quite prevalent in these firms. Overall, the study found that several formal and informal HRM practices are used in an interconnecting way in this group of firms to support high performance.

A more recent ERC study explored what determines productivity growth based on an analysis of accounts data and in-depth interviews with SMEs in manufacturing and services sectors which were achieving high productivity growth.[140] This analysis suggested there were weak links between productivity growth and a range of observable general business characteristics such as investment, ownership, etc., but there was a strong link between productivity growth and aspects of management and leadership. In particular, the in-depth interviews with leaders of high productivity SMEs with sustained growth revealed that, irrespective of sector, these SMEs were implementing effective leadership and management practices. This finding was robust across twelve manufacturing and service sectors. The analysis suggested several factors which characterise high performing SMEs: inspirational leadership, strong people management, data-driven operational management processes, strategic investments, and product, market and tactical innovation.

One clear finding that emerges from ERC research is the value of formal and informal HPW practices and skills development, alongside innovation behaviours, to performance in firms that experience sustained growth. However, it is also the case that these practices are not widely adopted in the wider SME population. An ERC SOTA Review explored this issue, asking the question of why adoption of HPW practices is low amongst UK firms given its record of positive performance impacts.[141] The research evidence indicates several barriers to the adoption of HPW practices. There is a lack of clarity over which practices work, as well as on which constitute a coherent 'system' and on how the practices work to deliver productivity gains. There are also issues around capability of managers and whether they are willing and able to introduce HPW practices. The review concludes that more consensus is needed around what actually constitutes HPW, backed up by research. Managers also need to be educated in the benefits of HPW practices and supported to introduce them.

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[139] https://www.enterpriseresearch.ac.uk/publications/sustaining-growth-hr-dimension-hr-practices-management-leadership-skills-high-growth-smes/

[140] https://www.enterpriseresearch.ac.uk/publications/what-drives-productivity-growth-behind-the-frontier-a-mixed-methods-investigation-into-uk-smes-research-paper-no-89/

[141] https://www.enterpriseresearch.ac.uk/publications/high-performance-working-delivers-productivity-gains-isnt-common-sense-common-practice-amongst-uk-firms-sota-no-14/

Alongside the use of HPW practices, there is also increasing recognition in policy circles that job quality is important when it comes to achieving high performance. An ERC SOTA Review recently set out the key trends in the emergence of the so-called 'good work' agenda.[142] The concept of good work includes a range of elements including terms of employment, pay and benefits, job design, health and wellbeing practices, work-life balance, and employee voice and representation. Although these practices are often associated with higher performance, the review notes that there remains a lack of empirical evidence on their impacts, especially in SMEs. Current ERC research is exploring one aspect of this – the performance impacts of workplace mental health and wellbeing practices.

7.3 Managing workplace mental health

The Covid-19 pandemic raised the profile of mental health and wellbeing (MH&W) issues, with increasing levels of mental health issues impacting on individuals, families and workplaces. The evidence indicates that workplace mental health issues are widespread and serious in the UK. This was an issue before the pandemic struck, with one key study in 2017 estimating that 300,000 UK employees were leaving their jobs annually due to mental health issues (Stevenson and Farmer, 2017)[143]. Another study carried out pre-pandemic in 2019 noted the huge annual productivity cost to UK firms associated with mental health issues, estimating this to amount to between £42bn and £45bn, attributable to sickness absence, presenteeism and staff turnover (Deloitte, 2020). This estimate was updated after the pandemic for 2020-21, with the cost UK employers increasing to between £53 and 56 billion a year – an increase of 25 per cent compared to 2019 (Deloitte, 2022). [144] [145]

In 2020, just before the first Covid-19 lockdown was announced in the UK, the ERC carried out a survey of around 1,900 UK firms (based in the Midlands region), exploring their mental health and wellbeing attitudes and practices. The survey aimed to probe the links between mental health and wellbeing and productivity.[146] The survey has since been repeated as part of a larger programme of research, and data collected from firms in four consecutive years (2020 - pre-pandemic, then in 2021, 2022 and 2023), providing valuable insights into employer experiences and businesses impacts during this turbulent period.

In terms of the performance impacts of mental health sickness absence, regression analysis of the survey data from the first survey in 2020 found that sickness absence related to mental health was associated with productivity which was lower by 18.3 per cent. For those firms which reported an impact, it was associated with productivity which was lower by 24.5 per cent. However, the study suggested that these significant associations between mental health sickness and productivity are not recognised by many employers, who tend to focus more on other impacts of mental health sickness absence.[147]

Our longitudinal survey data shows some interesting and concerning patterns. The first survey found that 30 per cent of firms reported mental health related sickness absence. This dropped during the pandemic years in 2021 and 2022 (to 25 and 26% respectively). In the 2023 survey, mental health sickness absence is up slightly compared to 2022, with 27 per cent of firms reporting it, but is still below pre-pandemic levels. However, more firms are reporting that mental health related absence impacts on their operations with 58 per cent of all firms experiencing mental health sickness absence now reporting this (figure 25). This increase in the recognition of impact is consistent across firms of all sizes. Overall, the proportion of firms identifying impacts of their mental health sickness absence has surpassed pre-pandemic levels. The most frequently identified impact is the need to recruit or find cover for those absent, followed by productivity or efficiency effects.

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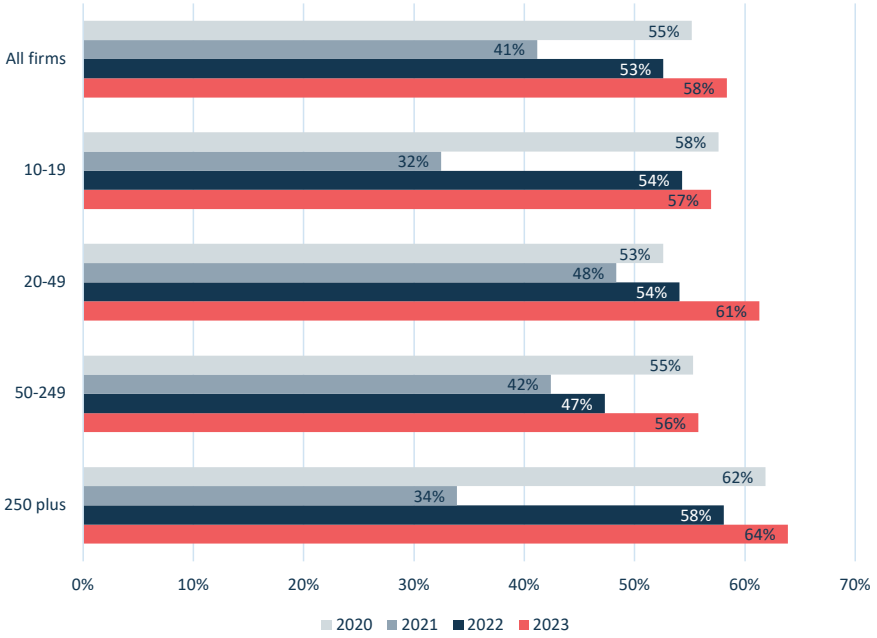
142 https://www.enterpriseresearch.ac.uk/publications/what-is-good-work-and-why-does-it-matter-sota-review-no-26/
143 https://assets.publishing.service.gov.uk/media/5a82180e40f0b6230269acdb/thriving-at-work-stevenson-farmer-review.pdf
144 https://www2.deloitte.com/uk/en/pages/consulting/articles/mental-health-and-employers-refreshing-the-case-for-investment.html
145 https://www2.deloitte.com/content/dam/Deloitte/uk/Documents/consultancy/deloitte-uk-mental-health-report-2022.pdf
146 https://www.enterpriseresearch.ac.uk/publications/employee-well-being-mental-health-and-productivity-in-midlands-firms-the-employer-perspective/
147 https://www.enterpriseresearch.ac.uk/esrc-mental-health-well-being-practices-outcomes-productivity-project/

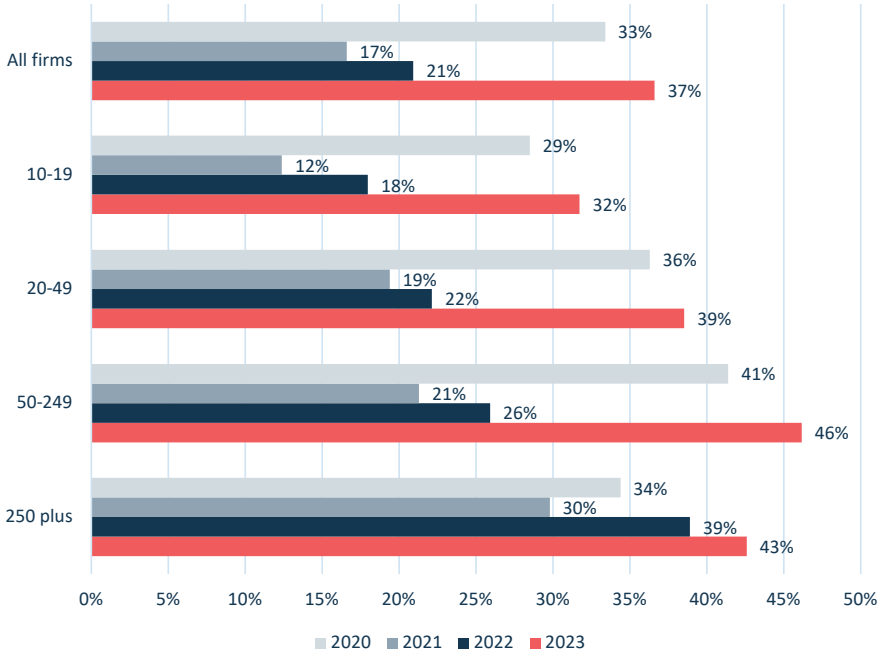
Figure 25: Proportion of firms reporting that mental health sickness absence had an impact on their operations, 2020 to 2023, by firm size



Base: 556 firms in 2020, 338 in 2021, 480 in 2022, 471 in 2023

The findings also show that the proportion of firms reporting 'presenteeism' has increased since the pandemic and is now surpassing pre-pandemic levels, rising sharply in 2023 compared to 2022. 37 per cent of firms surveyed in 2023 said that they had experienced presenteeism, compared to 21 per cent in 2022 (figure 26). The proportion of firms reporting it has risen in firms of all sizes and in all sectors.

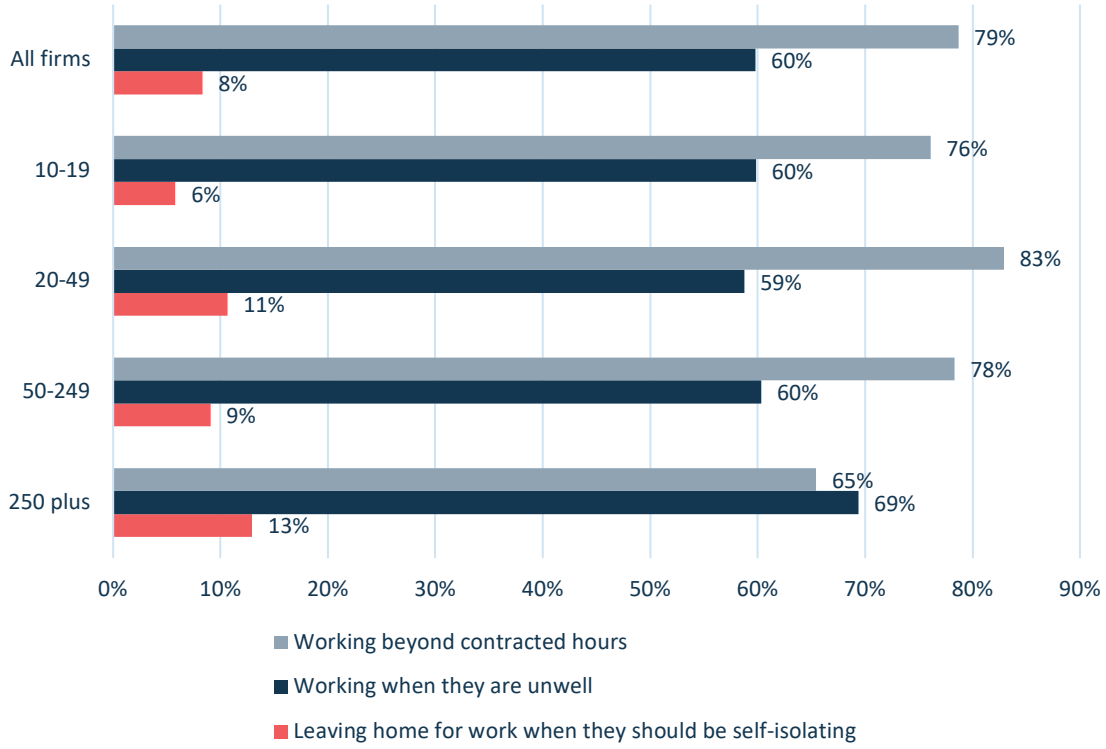
Figure 26: Firms reporting that they had experienced presenteeism, 2020 to 2023, by firm size



Base: 1899 firms in 2020, 1551 in 2021, 1904 in 2022, 1902 in 2023

More firms are reporting that employees are working when ill, and working beyond their contracted hours (figure 27), with little variation by firm size or sector. Working beyond contracted hours is a more widespread issues and one that seems to particularly affect smaller firms. The most common reasons given for presenteeism by employers are the need to meet business deadlines and employees' need earn more money. Nearly 70 per cent of firms experiencing presenteeism say that they are taking steps to address it, with the most common approach being to send home staff who are unwell.

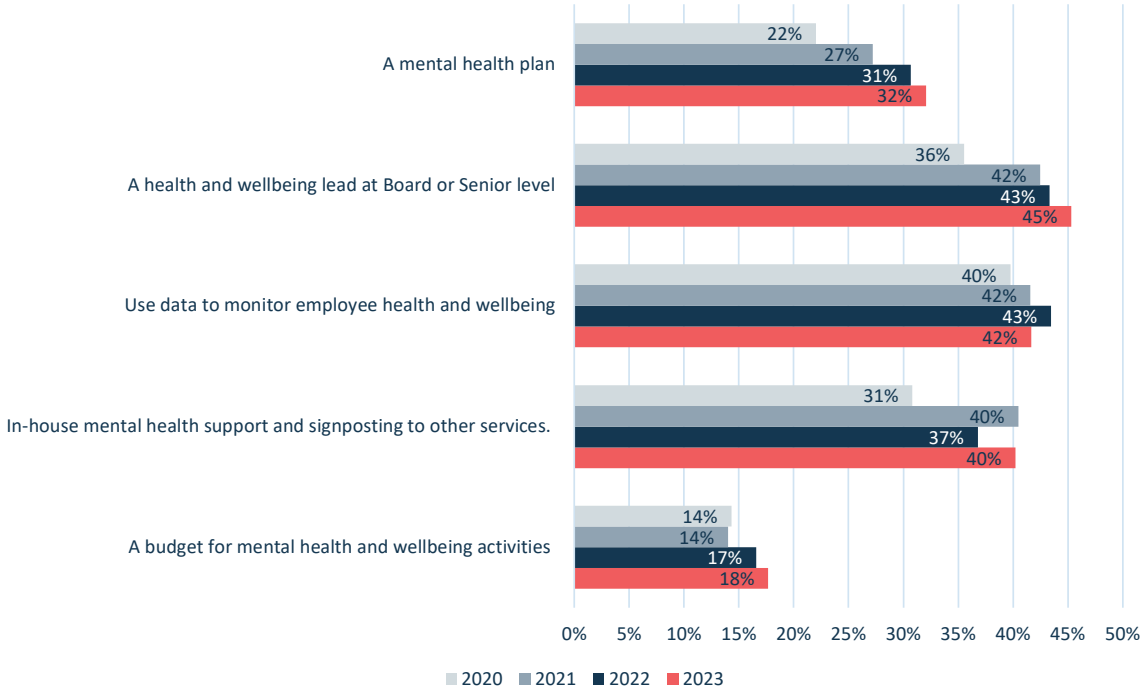
Figure 27: Types of presenteeism reported, 2020 to 2023, by firm size



Base: 692 firms

The longitudinal evidence also points to some more positive trends in terms of employer adoption of initiatives. First, there has been an increase in the adoption of strategic initiatives to promote good mental health in the workplace (figure 28). The most common strategic initiative adopted is the presence of a health and wellbeing lead at board level, reported by 45 per cent of firms, followed by the use of data to monitor employee wellbeing, which is reported by 42 per cent. However, in 2023 only 40 per cent of firms offered in-house mental health support or signposting to other services, only 32 per cent had a mental health plan, and only 18 per cent had a budget for mental health activities. There are also stark differences here in terms of business size.

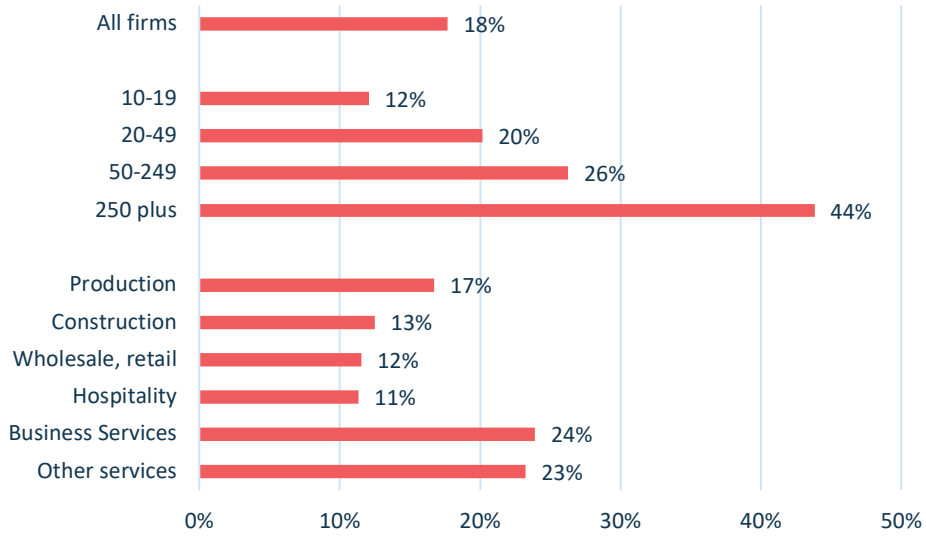
Figure 28: Reported presence of strategic initiatives to promote good mental health, 2020 to 2023, all firms



Base: 1899 firms in 2020, 1551 in 2021, 1904 in 2022, 1902 in 2023

Larger firms were far more likely than smaller ones to report the presence of these strategic initiatives. The difference is particularly pronounced when it comes to firms having a defined budget for mental health activities (figure 29).

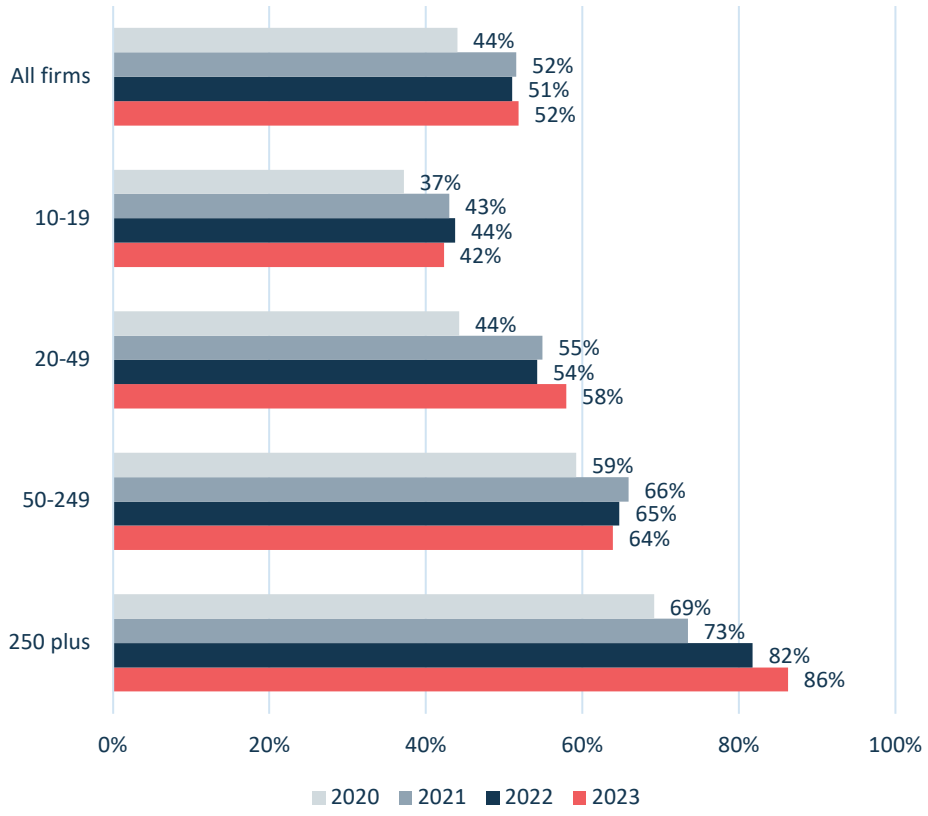
Figure 29: Proportion of firms reporting that they have a budget for mental health initiatives, 2023, by firm size and sector



Base: 1902 firms

The survey evidence also shows positive trends in terms of an increase in the proportion of employers offering wider mental health-related initiatives (including awareness raising activities, management training in dealing with mental health issues, and mental health champions). In 2023, 52 per cent of firms told us that they offered these initiatives compared to 44 per cent pre-pandemic (figure 30). The data indicates that there was a behaviour change here during the pandemic, but that this spike in adoption of initiatives may now be levelling off. It is also noticeable that adoption of mental health initiatives varies considerably by size, with smaller employers much less likely to be offering these than larger firms.

Figure 30: Proportion of firms reporting that they offer mental health initiatives, 2020 to 2023, by firm size



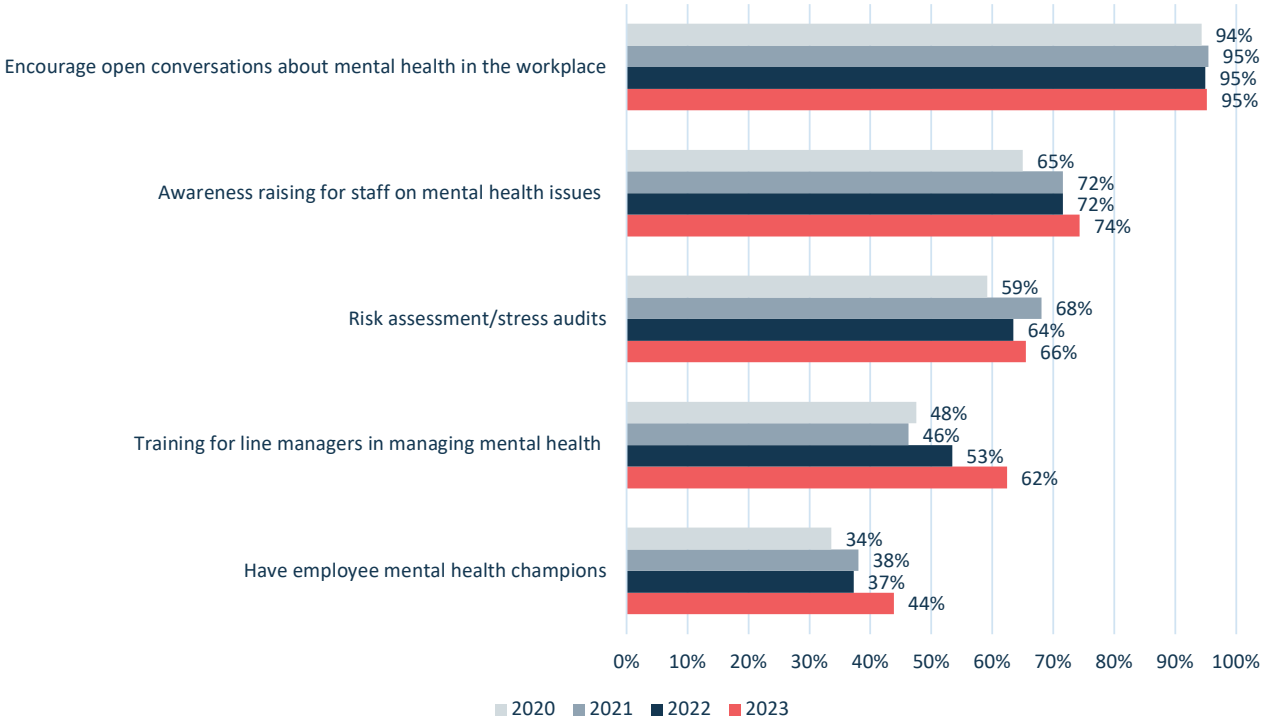
Base: 1899 firms in 2020, 1551 in 2021, 1904 in 2022, 1902 in 2023

As well as differences by size, other follow-up research has shown differences in the take-up of initiatives between family and non-family firms. This research has found that mental health initiatives are notably less common among family firms, and that this appears to be linked to financial constraints.[148]

In terms of the types of mental health initiatives being offered by firms across the board, the data shows that the bias is towards less formal and less costly practices, such as encouraging open conversations and awareness-raising, although there has also been a noticeable increase in the provision of training for line managers in managing mental health issues.

[148] https://www.enterpriseresearch.ac.uk/publications/an-exploration-of-mental-health-and-well-being-workplace-practices-within-family-firms/

Figure 31: Initiatives offered, 2020 to 2023, all firms



Base: 833 firms in 2020, 841 in 2021, 952 in 2022, 970 in 2022

This increase in line management training is particularly encouraging in the light of additional qualitative evidence gathered in follow up research involving in-depth interviews with line managers which indicated that managing employees with mental health issues can provoke significant 'emotional labour' and can lead to stress, burnout and alienation. However, there are clear differences in the provision of line management training by firm size, with 80 per cent of large firms offering this training compared to 55 per cent of the smallest firms (10-19 employees).

The challenges faced by line managers have also been heightened with the changes in working practices since the pandemic. In 2023 our survey findings indicate that 27 per cent of Midlands firms had employees working remotely. Although 70 per cent of employers believed that employees working from home were happier, 59 per cent said that it made teamworking more difficult and 47 per cent said that employees who work remotely can struggle because they lack interaction with others. Our research also shows that remote working can make it more difficult for line managers to identify employees experiencing mental health issues.

ERC research has also explored team working effects of workplace mental health issues. Narrative data derived from interviews with employees suggests that individuals experiencing, and trying to deal with, their own mental health issues are not always ready or able to disclose these issues to their colleagues. When accompanied by declining workplace performance, this can impact on team trust and cohesion, and can have serious impacts on team performance. In addition, our data indicates that co-workers may feel pressure to remain empathetic and tolerant in the face of these issues, which can necessitate emotional labour, and may lead to feelings of resentment, burnout or exhaustion. This suggests that training for a wider group (beyond line managers) in identifying and managing mental health issues may be appropriate. As well as individual employees and line managers, entrepreneurs and business owners are of course themselves also affected by workplace mental health issues, although this is an area that has tended to receive less research attention. An ERC SOTA Review published in 2019 reviewed the evidence on entrepreneurial wellbeing.[149] This review noted that although previous research has recognised that entrepreneurship can be a stressful experience, less attention has been paid to exploring entrepreneurial wellbeing and the causes of mental and physical ill-health in this group. The specific nature of working life for entrepreneurs brings different mental health and wellbeing implications compared to employees or managers. Whilst some aspects can be positive, others are harmful

[149] https://www.enterpriseresearch.ac.uk/publications/entrepreneurial-health-and-wellbeing-sota-review-no-29/

to overall wellbeing, and the 'dark side' of entrepreneurship needs to be more widely acknowledged. Wider research more recently has shown that the pandemic experience and national lockdowns diminished the health and wellbeing of entrepreneurs.[150] An ERC podcast explored this issue in 2022, and pointed to the need for a more honest conversation about this to aid future policy support.[151]

7.4 Summary

A consistent theme running through ERC research over the last decade has been the importance of management and leadership capabilities and practices for business performance. Our research has shown that, although the management-performance link is complex, higher performing SMEs that have experienced sustainable growth tend to value and use a range of recognised formal and informal management practices. These practices focus on maximising the potential of employees, creating the right conditions to enable discretionary effort and innovation. However, it is also the case, as the Chartered Management Institute have observed, that investment in management and leadership in the UK is at an historic low, with most managers being 'accidental managers', reflecting the lack of formal management and leadership training.[152]

In recent years, particularly since the Covid-19 pandemic struck, the importance of employee wellbeing and a positive working environment for business performance has also increasingly been recognised. ERC research has highlighted the increasing awareness of mental wellbeing issues within UK firms and a growing uptake of employee mental health-related initiatives, which look to be having positive impacts. However, it is also the case that these practices are not evenly spread amongst workplaces, with smaller firms still considerably less likely to offer such initiatives when compared to larger businesses. Our research has also highlighted that many firms are relying on untrained line managers to deal with mental health issues amongst their employees, and these managers face considerable pressures from the significant emotional labour they undertake. Mental health issues can also have a serious impact on co-workers and on team effectiveness. Business leaders and entrepreneurs too also often experience high levels of stress that often go unacknowledged but are heightened during periods of crisis such as the Covid-19 pandemic.

When employees, managers and entrepreneurs feel well, they are more likely to be productive and innovative, with knock-on effects on business performance. There is a great deal of evidence now suggesting that one legacy of the Covid-19 pandemic will be a substantial increase in mental health and wellbeing issues, and these could have potentially drastic effects for future productivity. In this context, good management and leadership skills and practices take on an even higher importance.

Our research shows that whilst signposting employers and entrepreneurs towards the external resources and experts available is undoubtedly useful, the magnitude of these issues means that it is time for a more concerted approach from policymakers. This would include embedding wellbeing awareness and management into entrepreneurship training and education, enabling better access to support and peer learning networks for entrepreneurs, financial incentives for SMEs to take up recognised mental health and wellbeing initiatives and training for line managers, and access to support that helps employers to develop mental health activities and provision tailored for their own environments. Employers have a key role to play in addressing workplace mental health issues. Employers need to be able to provide those experiencing the issues, and their managers and colleagues, with the right support to effectively navigate the problem in the workplace. Firm leaders may also need clear advice on how to create and maintain a culture of psychological safety that gives mental health the same standing as physical health, to reduce the stigma associated with mental health issues, to encourage disclosure and to promote peer support for employees experiencing these challenges.

As remote working becomes a fact of life for many, finding effective ways to encourage a good work-life balance for those working remotely will be increasingly important. To address the recent upsurge in presenteeism, employers will also need to ensure that their employees feel able to take sick leave when necessary, and that they don't feel pressured into routinely working additional hours. Understanding the underlying causes of this increase should also undoubtedly be a focus for research in this area, to inform policy and practice.

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[150] https://uu.diva-portal.org/smash/get/diva2:1659888/FULLTEXT02.pdf
[151] https://www.enterpriseresearch.ac.uk/podcast/episode-13-the-mental-health-and-wellbeing-of-entrepreneurs/
[152] https://www.managers.org.uk/wp-content/uploads/2023/10/CMI_BMB_GoodManagment_Report.pdf

8. Internationalisation

The globalisation of markets offers opportunities for economic growth, and boosting international trade is widely seen to be a crucial element of the solution to the UK's productivity gap.[153] SMEs are underrepresented in international trade when compared with large firms, and they account for a small proportion of exports relative to their share of businesses and employment.[154] ERC research has provided useful insights into SMEs and internationalisation, drawing attention to its importance in addressing the UK's productivity gap, adding to the knowledge base on the barriers and enablers of exporting, and exploring the impacts of recent economic shocks.

8.1 Barriers and enablers of internationalisation

An early ERC evidence review published in 2013 noted that, when it comes to exporting there was considerable scope for improving the performance of UK SMEs. It noted that a survey of internationalisation among SMEs in 33 European countries carried out in 2009, for example, placed UK SMEs 19th out of the EU27 in terms of the proportion of SMEs engaging in exporting activity.[155] It also highlighted the strong positive relationship between exporting and growth, and noted that European SMEs that exported grew more than twice as fast as those that did not.

A further paper published in 2014, drawing on evidence from the 2012 Small Business Survey noted that only around a quarter of UK SMEs were exporters, and that a very small group – only around 6 per cent of SMEs - exported more than 50 per cent of their sales, concluding that the potential opportunities provided by exporting remained unexploited for most SMEs.[156] This paper also explored the question of whether it was possible to identify SMEs that might have the potential to move up the exporting ladder – or in other words, to switch from being non-exporters to being exporters. It estimated that between 9 and 12 per cent of currently non-exporting SMEs were potential exporters, and just over half of SMEs that do export could become persistent exporters, suggesting considerable scope for change. A later ERC report noted that if these SMEs were successfully encouraged to export or export persistently, an additional £1.15 billion Gross Value Added (GVA) could be added to the UK economy within the first year.[157]

These early ERC studies also provided evidence and insights on the barriers and enablers of exporting in SMEs. Key factors which emerged as enablers were the presence of high-level skills, access to finance alongside specialist business advice, skills development, and R&D activity. A key cross-cutting barrier identified was the resource and information constrained nature of many small firms, and their dependence on the broader eco-system in which they are based.

The synergies between SME exporting and innovation is a theme that has also been particularly highlighted. ERC research has showed that SMEs which have engaged in prior innovation activity are more likely to export, more likely to export successfully, and more likely to generate growth from exporting than non-innovating firms. Analysis has also showed that exposure to export markets is important in realising the full potential of innovative and high growth firms.[158]

Early ERC research also found that when SMEs had taken advantage of external support for exporting, the results were generally positive. Publicly funded export support typically aims to help firms overcome information asymmetries or the costs of entering export markets. One of the key roles is for government to act as a trusted intermediary here, bridging gaps in private-sector networks. However, awareness of support services among many SMEs tends to be limited, reducing advice take-up. As such, an early recommendation made in ERC research was for better targeting/marketing of support to those SMEs with export potential,

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153 https://www.lbpresearch.ac.uk/wp-content/uploads/2019/10/P1-UK-Trade-in-the-New-Era-of-Globalished-World-Full.pdf
154 https://www.oecd.org/trade/topics/small-and-medium-enterprises-and-trade/
155 https://www.enterpriseresearch.ac.uk/publications/sme-innovation-exporting-growth-review-existing-evidence/
156 https://www.enterpriseresearch.ac.uk/publications/growing-global-moving-exporting-ladder/
157 https://www.enterpriseresearch.ac.uk/publications/unlocking-uk-productivity/
158 https://www.enterpriseresearch.ac.uk/publications/sme-innovation-exporting-growth-review-existing-evidence/

with innovation activity used as one key marker or identifier of this potential - particularly where this was radical or new-to-the-market innovation.

Another ERC study further explored the determinants of SME exporting using evidence from a survey of internationally engaged UK SMEs.[159] The analysis again showed that innovation has positive exporting effects, with more radical new-to-industry innovation most strongly linked to inter-regional exports. The study also identified the important role played by learned knowledge in exporting activity. The research found positive effects from prior internationalisation experience on exporting, as well as from 'grafted knowledge' - acquired by the recruitment of management with prior international experience. In addition, early internationalisation was also linked positively to the number of countries to which firms exported and to the intensity of their export activity.

This study also explored the impact of firm age on exporting. Here the analysis found more variation, but there was evidence that firm age has a negative effect on the extent of SMEs' international activities, suggesting that a 'liability of ageing' is also evident in terms of SMEs' exporting activities. In policy terms this suggests a need for policymakers and support organisations to recognise that starting or expanding exports may present greater challenges for older firms.

A further ERC study looked at the issue of learning through an examination of persistence in exporting, recognising that continuous exposure to export markets brings greater benefits than sporadic exporting.[160] This research showed how cumulative previous exporting can help lengthen subsequent exporting spells. However, firms with episodic or sporadic exporting were found to exhibit different learning patterns compared to continuous exporters and were less likely to develop the deep routine-based learning that comes from constant exposure to managing export markets. This study also found that 'learning from export' effects were more important for SMEs than for larger firms. It observed that SMEs also react differently and more strongly to changes in overseas demand than large firms in terms of export persistence. This points to the need for more policy support directed at helping SMEs to sustain an export presence to maximise performance benefits and learning effects.

ERC research has also shown that in order to better understand the barriers and motivators of export behaviour in SMEs, there is value in segmenting different groups of non-exporting firms rather than regarding them as one homogenous group.[161] This report notes the lack of previous evidence acknowledging the heterogeneity of non-exporters. Instead, academics and policymakers have tended to assume that all non-exporting firms are 'export wannabes' and would engage in exporting activities had they the means and opportunity to do so. Using data from the LSBS in 2015 and 2016 this research differentiated non-exporting firms based on their willingness and (in)ability to export, and then investigated the impact of engagement, willingness and ability to export on firm performance. The study produced a number of findings, including the fact that businesses planning to export are not necessarily better performing compared to firms able but not willing to export, or firms neither willing nor able to export. The analysis showed there is potential value for policymakers in targeting different groups of non-exporting firms with export support, particularly during the crucial pre-export phase.

A further ERC study explored the differences between non-exporting firms, examining the differences between 'export capable' firms (those who stated that they had products or services suitable for exporting but had no intention to export) and 'domestically-focused' firms (firms that stated they did not have products/services suitable for exporting).[162] This study looked at the impact of different learning effects on firms, revealing several findings, including the strong direct effect of product innovation on the probability of exporting.

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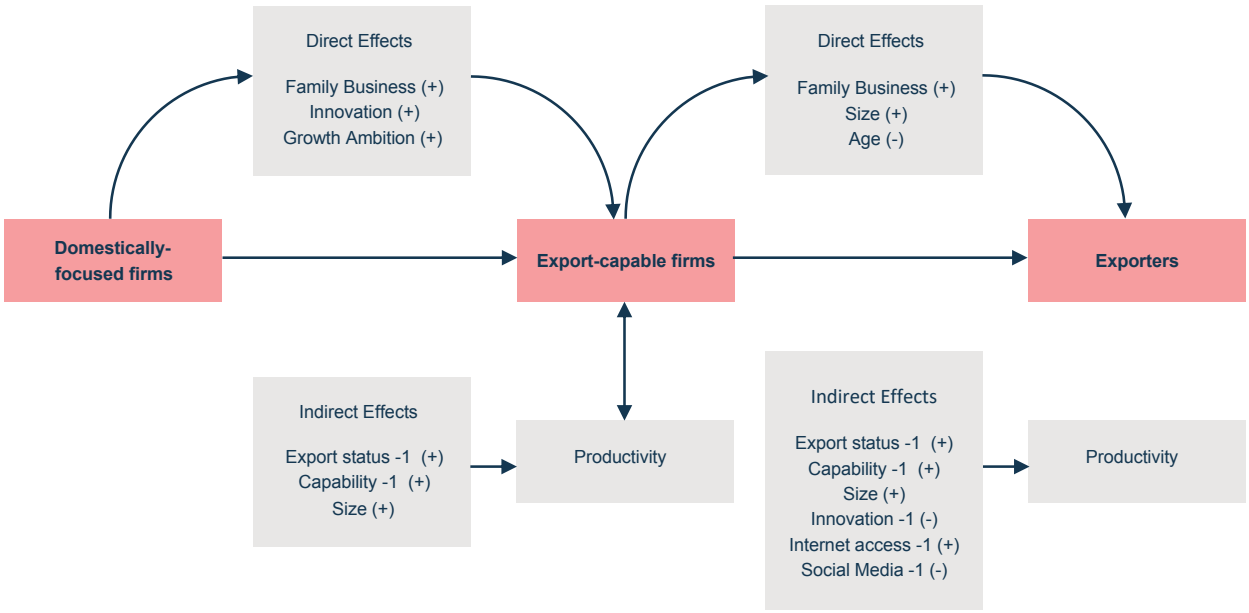
[159] https://www.enterpriseresearch.ac.uk/publications/experience-age-and-exporting-performance-in-uk-smes-research-paper-no-28/
[160] https://www.enterpriseresearch.ac.uk/publications/persistence-exporting-cumulative-punctuated-learning-effects/
[161] https://www.enterpriseresearch.ac.uk/publications/exporting-ambition-finance-sme-performance-exploratory-analysis-longitudinal-small-business-survey-2015-2016/
[162] https://www.enterpriseresearch.ac.uk/publications/export-status-and-sme-productivity-learning-to-export-versus-learning-by-exporting/

However, the study also found that the key influence of product innovation was on helping firms to become export-capable rather than on moving from export capability to actually exporting. In other words, the study showed that innovation is important in the lead up to export capability, or in the learning-to-export process.

Alongside product innovation, sales growth ambition also proved an important driver of firms' transitions towards export-capability although not the subsequent transition from export-capability to exporting. The results of this study help to identify the factors which shape SMEs' transitions from non-exporter, through export-capability, to exporter - a transitional process that it is important for policymakers to understand when designing export support interventions (figure 32).

Figure 32: From domestic focus to exporting



Again, this study also points to the limitations of the standard binary categorisation of firms as exporters or non-exporters, arguing that a more useful distinction for policy design and targeting is between exporters, export-capable and domestically focussed firms. Developing export-ready products/services requires capability improvement and innovation among non-exporting firms; export-capable firms may then benefit from more traditional export promotion initiatives. The analysis also highlighted the specific capabilities of family firms which are more likely to be export-capable, but less likely to be exporting than non-family-firms.

8.2 Recent economic shocks and their impacts on trade

More recent ERC research on internationalisation has focused on the impacts of recent shocks on trade activity. UK SMEs trading internationally have encountered unprecedented challenges over recent years due to the joint impacts of Brexit and the Covid-19 pandemic.

An ERC paper based on analysis of the LSBS between 2017 and 2021 found that UK small businesses exported less, innovated less and stagnated in terms of employment during this period.[163] Although SME exports were relatively stable across these years, there has been a slight downward trend with 23 per cent of firms exporting in 2021 compared to 25 per cent in 2017 and 2019.

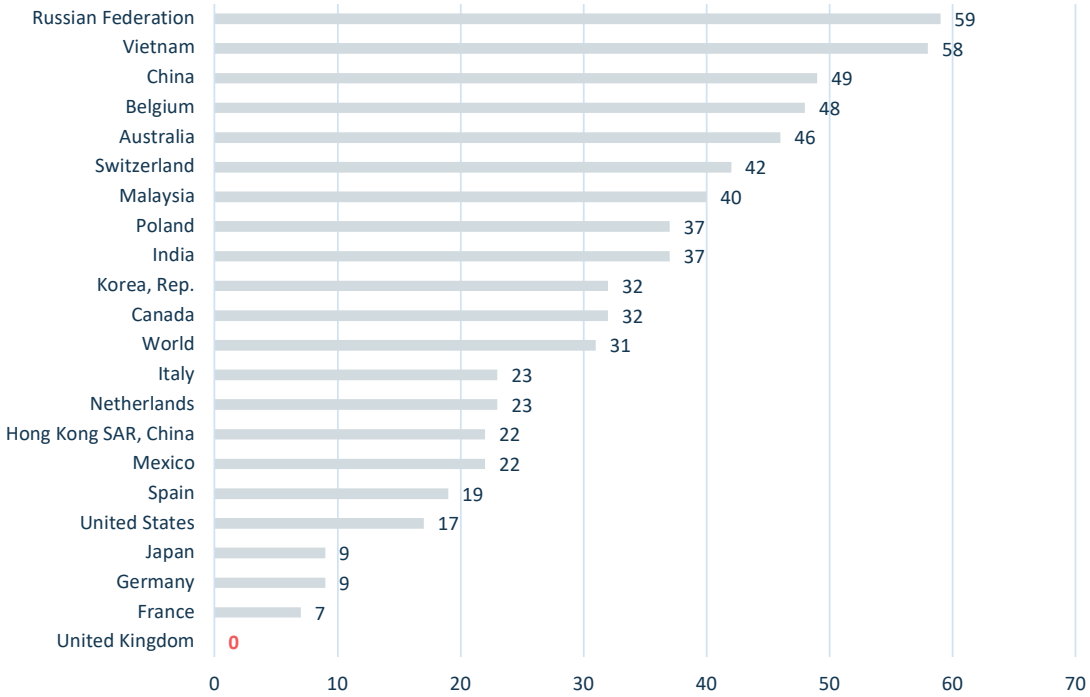
[163] https://www.enterpriseresearch.ac.uk/publications/mapping-schumpeterian-outcomes-in-the-uk-small-business-population-over-time-the-effect-of-social-and-environmental-orientation-on-innovation-exporting-growth/

In our State of Small Business Britain Report in 2020, we noted the severe disruption experienced by SMEs in terms of trade due to the Covid-19 pandemic.[163] When the pandemic first broke out, disruption was heavily clustered on importers due to frozen supply chains of some goods, following the virus outbreak in China. However, later lockdown measures and social distancing practices in the UK and globally brought a series of supply and demand shocks. Economic activities and the movement of people were restricted, impacting upon the trade of goods and services, and the UK was one of the most affected European countries. The report also noted that trade disruptions to businesses tend to be disproportionally more severe for SMEs compared to larger businesses. Many SMEs faced new challenges and had to find ways to adapt quickly, for example working to find alternative sources of imports.

Our State of Small Business Britain 2021 report reported that the impact of the pandemic had been particularly severe for the UK, as the rest of the world did not witness the same extent of decline in exports.[164] These trade challenges were the results of pandemic disruption combined with the UK's exit from the European Union. The report noted that, according to monthly trade data from the ONS, the first 10 months of 2021 saw a reduction of the total UK trade in goods with the EU countries by 17 per cent relative to the same period of 2019.[165] Whilst other countries recovered in terms of trade during in 2021, the UK struggled to bounce back. The Business Insights and Conditions Survey (BICS) reported that 64 per cent of exporters and 75 per cent of importers said that they faced challenges in late October to early November 2021.[166]

In our State of Small Business Britain report 2022 we reported that global trade had continued to make a strong comeback following its pandemic-triggered collapse and decline.[167] The trade boom, however, had continued to bypass the UK. Between the period 2019 to 2022, the UK economy performed less well than the economies of most of its peers. Its GDP growth was lower than the average growth of the OECD, the G7, and the EU27. Among exporting countries, the UK was an outlier, with zero export growth during 2019Q1–2022Q1 (figure 33).

Figure 33: Trade in goods of leading trading countries in 2019-2022



[163] https://www.enterpriseresearch.ac.uk/publications/state-of-small-business-britain-2020/
[164] https://www.enterpriseresearch.ac.uk/publications/the-state-of-small-business-britain-2021/
[165] Reported in the ONS Statistical Bulletin UK trade: October 2021, https://www.ons.gov.uk/economy/nationalaccounts/balanceofpayments/datasets/uktradegoodsandservicespublicationtables.
[166] Reported in the ONS Statistical Bulletin UK trade: October 2021, https://www.ons.gov.uk/economy/nationalaccounts/balanceofpayments/datasets/uktradegoodsandservicespublicationtables.
[167] https://www.enterpriseresearch.ac.uk/publications/the-state-of-small-business-britain-2022-from-crisis-to-crisis/

Ground-breaking ERC research published in 2022 has explored the impact of the UK's exit from the European Union, looking particularly the impact of new trade barriers.[168] Trade barriers can be divided broadly into two categories, measures associated by policy (tariffs and quotas) and other non-tariff measures (relating to paperwork, administration, border check, etc.). EU exit has generated additional trade costs for businesses, which are largely non-tariff related. An ERC study calculated the impact of these non-tariff measures (NTMs) on UK trade in 2021 after the end of the Brexit transition period. The study used a Synthetic Difference in Differences (SDID) estimator to construct a counterfactual of the UK had it not exited the EU, to compare its trading performance. This was done by comparing the actual performance of the UK with the modelled performance in 2021 with the same periods of 2018-2020.

The study found that the EU-UK Trade and Cooperation Agreement (TCA) had a strong, negative, and significant impact on UK bilateral trade with EU countries, leading to a 22 per cent reduction in exports and a 26 per cent reduction in imports over the first half of 2021, relative to the counterfactual scenario of the UK remaining in the EU. UK trade with non-EU countries was not significantly affected. The study concluded that increased trade frictions due to sanitary and phytosanitary (SPS) and technical barriers to trade (TBT) measures as a result of entering the TCA played an important role in the decline of UK exports to the EU and calculated a substantial reduction of UK exports by £12.4 billion over the first six months of 2021. This equals to 15.6 per cent of UK total exports in the first half of 2019, and 70 per cent of the documented total reduction in the EU exports in the same period. These effects were spread across a range of industrial sectors and EU countries/export destinations.

Follow up research has shown that due to the TCA, the UK has experienced a significant contraction of trading capacity in terms of the varieties of goods exported to the EU over 2021 to Q12022.[169] Our estimate suggests that as many as 42.3 per cent of the product varieties previously exported to the EU have disappeared during the 15 months following January 2021. We argue that this decline has unfolded in three ways: (1) some exporters have ceased to export to the EU, (2) continuing exporters have streamlined their product lines, focusing on their core products, and (3) fewer new exporters are entering the EU market. This decline has been accompanied by an increased concentration of export values to fewer products and by larger exporters. Many of the negatively affected exporters are likely to be small, resource-constrained firms who exported single products or a limited range of products, and who exported less intensively relative to the overall sales. Losing these exporters could break the pipeline for future export growth.

A further ERC paper has explored business confidence in the international trade process, specifically measured by firms' reported confidence in managing the shipping process using data from the British Chamber of Commerce's Trade Survey conducted during July and August 2022.[170] This study - which used a sample mainly comprising of micro, small, and medium firms found that there was a large variance amongst firms in terms of adaptation to the TCA rules, suggesting that while some firms were fairly confident, others were less certain. The findings on international trade performance indicated that firms in the sample performed reasonably well during the examined period, although it should be noted that the sample contained only exporters who had been able to remain in the market. There was evidence too that UK firms were pivoting towards domestic market sales as a response to export weakening. 71 per cent of firms said that they had experienced shortages of goods and services during the sample period, and only nine per cent of firms in the sample said that they had used the UK government's Export Support Services (ESS).

In terms of adaptation to the TCA, the study found that size was important. Medium and large firms were advantaged when it came to coping with changes in trading requirements. They were more likely to report that making adaptations for goods, services, and recognition of qualification was "Quite easy" or "Very easy" than micro firms and small firms. In terms of performance, the level of ease of adapting to new rules for buying and selling goods was strongly associated with trade performance. Those firms that found it more difficult to adapt tended to report significantly lower growth or higher decline in export values. Again, firm size was important here. Larger firms performed better than smaller firms and had the best export and import performance.

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[168] https://www.enterpriseresearch.ac.uk/publications/tca-non-tariff-measures-and-uk-trade/
[169] https://www.tandfonline.com/doi/full/10.1080/21582041.2023.2192043
[170] https://www.enterpriseresearch.ac.uk/publications/business-confidence-tca-adaptation-and-export-performance/

In summary, the study found evidence suggesting that business confidence impacts on firms' experience of adapting to the new TCA rules, which in turn impacts on their international trade performance. Furthermore, it suggests too that business confidence shapes the ability of firms to adapt to changes in the conditions for exporting, and adaptation and preparedness help explain more successful trade performance. Firm size emerged as a consistent predictor of ability to adapt to the TCA and trading performance.

Analysis of LSBS longitudinal data sheds light on the heterogeneous nature of Brexit impacts on UK SMEs.[171] A recent ERC research paper shows that between 20.3 and 24.5 per cent of UK SMEs perceived Brexit as a major business obstacle from 2018 to 2021, with considerable sectoral variation. The impacts of Brexit, which included increased import/export costs and curtailed investment, also differed widely across sectors. Approximately one-third of SMEs considered Brexit to be a contributing factor in projected turnover reductions, varying by geography as well as sector. This study also found that Brexit's influence on the export/market expansion plans of SMEs decreased from 30.2 per cent in 2018 to 25.7 per cent in 2020 but increased again to 34.7 per cent in 2021, with the production and construction sector experiencing the most significant impact. Furthermore, innovative SMEs perceived greater challenges due to Brexit, which included decreased investment, and shifts in import/export costs.

Recent ERC research involving a survey of exporters in Scotland 2023 also sheds light on some of the challenges firms are experiencing in terms of trade.[172] This survey found that 84 per cent of exporters reported experiencing challenges with exporting goods and/or services in 2018-2021. The most commonly experienced challenges that affected over half of exporters were additional paperwork (63%), change in transportation costs (61%), customs duties or levies (57%), and disruption at UK borders (51%). Firms reported experiencing multiple challenges at the same time: seven on average. Over 9 in 10 firms considered that the COVID-19 pandemic and end of EU-exit transition, together or separately, were the main causes of challenged they experienced.

8.3 Summary

Exporting matters for SMEs, and SME exports matter for the UK economy. However, The role of internationalisation in boosting SME and wider economic performance has often been underacknowledged despite strong evidence that businesses that engage in international activity and innovation are more likely to have better performance.

SMEs have historically tended to be less well represented than larger firms in international trade. This is because smaller firms face higher resource and informational constraints which bring challenges in navigating foreign markets. ERC research has shown that there is considerable scope to increase export activity amongst SMEs, that SME engagement in international trade is closely linked to innovation activity and growth ambition, and that public support is useful, but SMEs are often not making use of it. There is a clear rationale for policy action to jointly promote exporting and innovation in UK SMEs, targeting firms at different points in the export journey.

Action is particularly urgent in this space given that recent years have thrown many new challenges the way of the UK's SMEs when it comes to international trade. The external shocks and crises of Brexit and Covid-19 have a negative impact on export activity that has hit smaller firms the hardest. This is of real concern, as an impaired ability to export is detrimental to productivity and competitiveness at firm and also economy-wide level. There is a need to reduce exporting frictions, to improve firms' confidence, capabilities and ambitions in international trade. This will involve multi-faceted support from government, education and business representative associations.

[171] https://www.enterpriseresearch.ac.uk/publications/the-impact-of-brexit-on-the-internationalisation-innovation-and-turnover-of-uk-smes-implications-for-the-uks-industrial-strategy-and-the-levelling-up-agenda/
[172] https://www.enterpriseresearch.ac.uk/wp-content/uploads/2023/12/evaluation-scottish-governments-export-promotion-support-erc-report.pdf

9. Building a Stronger Future for Small Businesses

9.1 Reflections and policy implications

This report has given an overview of the wide and diverse range of research and analysis on small business growth and productivity conducted and/or published by the ERC over the past decade. Covering this rich and varied body of research was an ambitious task, and some areas have inevitably received less focus in the commentary than others. A full set of references to ERC publications can be found in the Annex.

The ERC's research has shown that the drivers of small business growth and performance are complex. Our research over the years has demonstrated clearly that smaller firms experience distinct challenges, and that they require better support from an ecosystem that is more tailored to their needs. Given that small businesses account for over 99 per cent of the UK's business population, and for around 50 per cent of employment, addressing this issue is vitally important.

The outlook for small businesses is now very different to a decade ago when the ERC was first established. The focus of our research has changed over time as policy priorities have shifted from an initial focus on how to promote growth in the aftermath of the financial crisis to embrace wider issues around the 'triple transition' - or digital, net zero and productivity upgrading in firms. The Covid-19 pandemic and subsequent economic challenges have brought to the fore our research insights on the importance of business sustainability and resilience and have prompted us to engage in new avenues of research on workplace mental health and wellbeing.

The events and crises of recent years have clearly had a huge effect on all businesses across the UK, but smaller firms have undoubtedly been hit the hardest, and particularly those led by underserved groups. Although there is much to celebrate about the many examples of entrepreneurial innovation, creativity and resilience we have seen, the UK's small businesses still face multiple challenges. The changes brought forward by the pandemic and the scars it has left behind, alongside the impacts of Brexit, will continue to have important knock-on implications for business behaviour and investment in the coming years.

As we look towards what 2024 might hold, the indications are that small businesses are facing another bumpy road ahead. But, with a general election on the horizon, there are also important opportunities for change. The UK government spends a significant amount of money on interventions to help small businesses each year, and it is important that funding decisions should be based on solid evidence. In this context, it is vital that stakeholders in the small business support landscape come together and share their knowledge, ideas and insights on how to create an environment that supports and nurtures the ambition, confidence, capabilities, resilience and innovation of the UK's diverse community of small businesses. ERC research provides a rich body of evidence-based insights that highlights several priority areas for focus and action:

- We need to develop an evidence-based small business support ecosystem that is firmly based on intelligence about what small businesses need and what works, and that makes use of the full range of data sources available as well as drawing on the perspectives of small businesses themselves.
- We need to develop a small business support ecosystem that is focused on creating the conditions for sustainable growth and improving productivity amongst the UK's diverse population of small businesses. This needs to based on an understanding of the complex patterns of start-up, survival and growth that exist rather than focused on rigid definitions of high growth firms.

- The UK needs a coherent, joined-up, stable government-funded business support system that draws on existing expertise, recognises the valuable role played by advisers and provides support tailored to advancing the potential of underserved groups including women and ethnic minority entrepreneurs.
- We need to ensure that the UK's small businesses are better informed about the range of finance options available to them, that finance is more inclusive and accessible to underserved groups, and that the enduring late payment problem is tackled.
- We need to encourage and enable more innovation activity in small businesses and address the disparities that exist in innovation activity between places through locally based strategies.
- The UK's small businesses urgently need access to quality, actionable information and advice to help them adopt net zero practices and measure their effectiveness.
- We need more UK businesses to adopt digital technologies that have the potential to improve their productivity through improving digital understanding and literacy amongst small businesses and providing training support.
- We need to challenge the mindsets of the UK's small business leaders, encouraging sustainable growth ambitions and enhancing management and leadership skills.
- We need to transform understanding amongst small business leaders of the importance of good mental health and wellbeing for productivity and improve management behaviour in this area.
- The export performance of the UK's small businesses needs attention. We need to encourage more small firms to export, and support them to do so at different points in their export journeys, maximising the links between exporting and innovation.

9.2 Forward look through 2024 and beyond

Many of the key themes which have run through the chapters of this report remain important and will inform ERC's research agenda through 2024 in projects co-created with policy colleagues.

Research on business dynamism and entrepreneurship will continue through the Global Entrepreneurship Monitor and a new Panel Survey of Entrepreneurial Dynamics. Challenges around the investment strategies of UK businesses will be examined in a new survey of investment mindsets undertaken in partnership with the Productivity Institute. This relates strongly to another project on export mindsets and decision-making currently being undertaken in partnership with the Department of Business and trade. Environmental sustainability will also be a key focus of ERC research through 2024 as we continue work on the twin transition, comparing developments in the UK to those elsewhere in the OECD. Finally, ERC research on workplace mental health and well-being and its impacts on productivity will also continue through 2024 supported by the ESRC.

Annex

Annex: Complete list of ERC publications 2013-2023

All publications are available at
https://www.enterpriseresearch.ac.uk/our-work/publications/

Research papers and policy briefings

2023

110	**Estimating policy mix effects: Grants and tax credit complementarities for R&D and innovation outcomes** Rita Nana-Cheraa, Stephen Roper and Kevin Mole, October 2023
109	**Actionable Information enables SMEs to Journey towards Net Zero** Anastasia Ri and Kevin Mole, September 2023
108	**Demand for external finance by environmentally motivated SMEs: an exploration of geographical disparities and potential in relation to Net Zero** Sylvia Gottschalk and Robyn Owen, July 2023
107	**SME performance in core and peripheral UK regions: Exploring the role of innovation and firm networks during times of financial distress** G. Saridakis, Y. Abdullahi et al July 2023
106	**Brexit and Digital Technology Adoption of UK SMEs** Martina Pardy and David Ampudia, July 2023
105	**The impact of Brexit on the internationalisation, innovation and turnover of UK SMEs: Implications for the UK's industrial strategy and the 'levelling up' agenda** John Wilson and Jose Linares-Zegarra, July 2023
104	**Mapping Schumpeterian Outcomes in the UK Small Business Population over Time – The Effect of Social and Environmental Orientation on Innovation, Exporting & Growth** Ines Alvarez-Boulton, Saul Estrin et al., July 2023
103	**Doing innovation. Creating value from innovation: How does IP protection help? A UK analysis with a focus on smaller firms** Joanne Turner and Stephen Roper, February 2023

2022

102	**Gender, Ethnicity, and Access to Finance: Evidence for UK Social Enterprises** Jose Liñares-Zegarra, and John Wilson, October 2022
101	**Of chickens and eggs: Exporting, innovation novelty and productivity** Halima Jibril and Stephen Roper, September 2022
100	**The Uneven Spatial Nature of Access to External Finance in UK SMEs: Determinants, Impacts and the "Levelling Up" Agenda** Ross Brown and Marc Cowling, June 2022
99	**Exploring External Finance links to Build Back Better a Green UK SME Economy** Robin Owen, Suman Lodh, Osman Anwar and Sergei Plekhanov, June 2022
98	**TCA, Non-tariff Measures and UK Trade** Jun Du and Oleksandr Shepotylo, June 2022
97	**SMEs as Social Enterprises: Regional Disparities, Access to Finance, Strategic Intentions, and the COVID-19 Pandemic** Jose Liñares-Zegarra and John Wilson, May 2022

2021

96	**Digital readiness, Digital adoption and Digitalisation of UK SMEs Amidst the Covid-19 crisis** Anastasia Ri and Hoang Minh Luong, July 2021
95	**Drivers and Performance Outcomes of Net Zero practices: Evidence from UK SMEs** Effie Kesidou and Anastasia Ri, June 2021
94	**COVID-19, business support and SME productivity in the UK** Halima Jibril, Stephen Roper and Mark Hart, June 2021
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