PETROC TECHKNOWLEDGEY TRANSFER PROJECT

A Final Evaluation Report for Petroc
March 2022

PETROC™ TECHKNOWLEDGEY TRANSFER

KADA™ RESEARCH

UKRI Innovate UK

Department for Business, Energy & Industrial Strategy

Contents

Acknowledgements: Kada Research Limited would like to thank the Petroc and Business Basics client team for their advice and support. We would also like to thank all of the businesses, stakeholders and students who gave their time to tell us about their experiences. The project was supported by the Business Basics Programme (3) led by the Department for Business, Energy and Industrial Strategy (BEIS) in partnership with Innovate UK and the Innovation Growth Lab at Nesta. This competition funded trials to test different approaches to encouraging micro, small and medium-sized enterprises (SMEs) to adopt existing technologies.

EXECUTIVE SUMMARY

This is the executive summary of the final report for the Techknowledgey Transfer project for Petroc College of Further and Higher Education. It is part of a research trial supported by the Business Basics Programme (Round 3) and funded by the Department for Business, Energy and Industrial Strategy (BEIS), working with Innovate UK and the Innovation Growth Lab at Nesta. The programme funded trials to test different approaches to encouraging micro, small and medium-sized enterprises (SMEs) to adopt existing business administration technologies.

BACKGROUND

Chapter 1.0 of this report describes the background for the study and outlines the rationale for the project, which was exploring a model of Knowledge Transfer Partnerships (KTPs) in the context of business administration technology. The trial was aimed at low-productivity SMEs, which are a feature of the North Devon economy where the trial was held. Petroc believed (see trial protocol section 2.1) that a more experimental approach to understanding the effects of innovation and growth policy was required.

There are several barriers to the adoption of technology by low-productivity SMEs, including cost and risk aversion, as well as local challenges such as the lack of access to fast broadband in rural areas (see section 1.3). The purpose of the BEIS Business Basics Programme was to identify and test the most effective and scalable interventions that encourage SMEs to adopt both the existing technology and management practices that drive productivity improvements.

The main research question for the trial was as follows:

For SMEs that do not use existing technologies extensively in key business and administrative functions, does the delivery of a dedicated student project aimed at developing and embedding specific technology usage improve adoption rates when compared to less interactive levels of support?

The trial coincided with the outbreak of coronavirus, which severely affected recruitment and the capacity of the project to deliver the intended activities. Based on the likely statistical power to detect an impact being lower than originally planned, it was agreed by all parties that it was best to drop the randomised component of the study and move to a before-and-after comparison instead. This report presents the findings and insights from the survey and qualitative research undertaken with a range of stakeholders, including Petroc staff, delivery partners and their mentors, and the participating business and students.

INITIAL TRIAL DESIGN AND TRANSITION TO A BEFORE AND AFTER STUDY

Two treatment levels were intended to be compared for the randomised control trial (referred to as treatment groups or cohorts within the report):

- Masterclass: a 1-to-1 diagnostic, followed by participation in up to two masterclasses.
- Business Techknowledgey Transfer: as above, plus a co-designed project to embed technology use, delivered by a student, with support from a lecturer and/or business mentor.

The two treatment levels above were chosen to be compared to assess the impact of a student project on the technology adoption rates of an SME and whether it is less or more impactful in comparison to less interactive/intensive levels of support such as masterclasses.

The design of the trial is discussed briefly in section 2.6, including the assignment of participants and the randomisation process. The primary and secondary outcome measures for the study are discussed in section 2.6.2 (we have still looked at these in the before and after comparison), and sample sizes in section 2.6.2. The study involved a baseline diagnostic, a midterm process review (a separate report) and this final evaluation. Before the project started, a trial protocol was agreed upon, but this was adjusted to a more qualitative before and after assessment. Quantitative measures of adoption and technology behaviour have also been provided for the before and after assessment, but we have been very cautious in drawing inferences from these findings, given the low sample sizes and lack of statistical robustness. All quantitative comparisons should therefore be treated with caution. That said, some interesting patterns emerge, and the study provides useful insights for the delivery of technology adoption programmes of this nature. In fact, Petroc has used experience from the Techknowledgey Transfer project to deliver a follow-on technology transfer programme funded by the Government's Community Renewal Fund.

PARTICIPANTS

Analysis of the baseline diagnostic shows that just over half of business participants had an annual turnover of less than £50,000. Non-employers and micro-businesses (1-9 employees) have comprised 94% of project recruits. The project was aimed at SMEs that do not use existing technologies extensively, so the proliferation of micros was perhaps not surprising. This does raise some questions about the potential impact of interventions, which is discussed in Chapter 7.0 (section 7.3). Recruitment was drawn from various industrial sectors, although it has been especially popular within the service sector (Entertainment, Health/Beauty and Food Services Sectors). Reaching this cohort has required a combination of direct and indirect approaches. A passive approach alone would not have attracted as many participants even though the numbers were below target. In terms of the masterclasses, there was most interest in masterclasses on marketing/business development, managing information and finance and accounting. Concerning student tasks completed, there was a bias towards social media development and business marketing.

COMPARISON OF BASELINE AND FINAL RESULTS

All participants completed a baseline survey (diagnostic) upon joining the programme. Final surveys were expected to be conducted with at least 50% of the baseline survey to get a statistically viable before-and-after analysis.

Although the randomised trial was dropped, we still managed to speak to thirty-six of the sixty-seven recruited businesses. The characteristics of the final survey sample (36) were very similar to the baseline sample (67). For instance, 50% of them had a turnover of less than £50,000. Only four of the final sample had a turnover of over £250,000. Twenty-eight of the respondents had one to four staff members, and five were non-employers.

The headlines for technology usage across the five identified areas were as follows:

- Finance and Accounting: At the baseline stage, internet and mobile banking for transactions, online purchases and some finance and accounting functions were far more prevalent than online sales channels linked to an accounts package. At the final interview stage, the respondents recorded increases in all areas of finance and accounting, with the exception of some finance and accountancy

functions that had no net change. Following the end of the programme, the largest change in adoption was in buying goods and services online, which showed a 23% adoption increase.

- Marketing and Business Development: Most businesses had a web or social media presence at the baseline stage, and adoption levels at the baseline stage were already quite high. The final adoption levels here were even higher, with four over 90% (and higher than, say, finance and accounting). The biggest area of change was having a social media marketing strategy (+53%).
- Communication: Emailing and video conferencing facilities were widely used to engage with customers and suppliers at the baseline stage. Customer Relationship Management (CRM) systems and online booking systems were less common. Petroc recruits claimed that procurement tools and software were not relevant for them, and very few used these (we noted in the midterm that there was minimal take-up in the counterfactual sample too). This is an area of technology where the findings were most similar at the baseline position, and after the interventions, with the exception of online booking systems (which increased by 31%), the project made the least progress.
- Managing Information: Remote working and digital storage were common and collaboration tools were used by over half the sample at the baseline stage. Post programme responses indicated largely positive uptake in technology uptake with the exception of remote working, which did not change (already high at 83%). Two areas which stand out in terms of managing information are using data to improve website performance (+31% adoption) and the use of digital IT systems to manage or store information (+23%).
- Cyber Security: Most businesses had their software up to date, and critical business data backed up at the baseline stage. Post programme, nearly all areas of cyber security had adoption levels of over 80%, with the exception of cyber training, which is less prevalent, and some interviewees did not know what security measures they had in place.

The propensity or likelihood to adopt score was an average of 38% across the five technology areas. The area with the highest propensity to adopt was that of cyber security (50%). The area least likely to see adoption was communications (26%).

The overall findings show a higher level of reported technology adoption across all business areas. The most significant change in technology adoption was in the area of cyber security functions (an 18% increase). The lowest change was in communication functions (+10%). On average, adoption percentages across the five business areas were 65% post programme, having been at 52% at the baseline stage (+13% difference).

Looking at behaviours and barriers:

- Technology Adoption Actions: Since engaging with the support from Petroc, the most highly cited technology adoption action already taken was browsing/considering different technology options, cited by 75% of respondents. Developing new ways of working and/or company systems, integrating technology into company culture, trialled or piloted the use of technology and automation of key parts of the business have already been taken by 50%, 44%, 44% and 39% of firms respectively.
- Integration of Technology Systems: 42% of firms have changed how technology systems integrate with each other since engaging with Petroc.
- Time and Resources Invested: In terms of investing time, 22% of respondents stated they had spent no time at all (0hours/days) on technology development before the support. 14% of respondents stated this in the final survey. Following the support, to date, 44% of firms have invested in new

technology, and 64% of firms intend to invest resources in new technology within the next 12 months.

- Commercial Impact: Since engaging with support from Petroc, 33% of businesses cited they had experienced time/resource savings to date, and 53% predict increased time/resource savings within the next 12 months. Equally, 25% of firms have experienced increased profitability to date since engaging with Petroc, and 42% predict increased profitability within the next 12 months.
- Barriers to Adopting Technology: Time remains the key barrier to implementing technology solutions (81% of respondents cited 'Time' in the baseline survey, 75% at the final survey).
- Willingness to Adopt New Technology: Since engaging with Petroc, 85% of respondents are either very willing or willing to adopt new technologies within their business.
- Applying learning: Following the support, 72% of firms have fully or partially applied learning, and 14% will do so at a later date.
- Understanding of Technology, Capacity to Manage it and Covid: 78% of firms have increased their understanding of technology on productivity, and 58% have increased their internal capacity to manage digital technology. 47% noted that the Covid-19 pandemic affected their ability to engage in support from the Petroc programme.

BUSINESS PERSPECTIVES

The qualitative headlines from the businesses are as follows:

- Initial Application Stage and Masterclasses: The professionalism and explanation of the support were rated as excellent. The diagnostic was long but useful in terms of identifying requirements and assessing technology maturity and opportunities. The masterclasses were rated highly and described as highly tailored and interactive, offering relevant advice in an accessible format. The online format, a change from that which was anticipated, offered flexibility but was not as personal. The masterclasses provided a good grounding in key areas of technology and hints and tips on where to go to find further information. Some would have welcomed a follow-up session to deepen understanding. Delivery partners were disappointed with the lower than anticipated recruitment and sometimes patchy attendance at masterclasses.
- Rating the Student Project and Mentors: There was perhaps less receptivity to receiving a student than had been anticipated, and there were initial teething problems with the process and lack of student/business contact due to Covid-19. The final evaluation shows that those that had a student, apart from a few instances where there was a poor fit, really benefitted from it. Some businesses that were not offered a student whilst the trial was live would have liked one.
- Outcomes: Many of the businesses have adopted new processes or software as a result of participating in the programme. Those with a student and mentor welcomed the hands-on support they received.
- Satisfaction: Those consulted were satisfied or very satisfied with the delivery and relevance of the support and the ease of the process. The advice they received highlighted the potential of new technologies.
- Suggested Improvements: Some minor refinements were suggested to the diagnostic and the delivery of some workshops, including follow-up appointments. Steps could be taken to enhance the take-up of student projects for future projects and offer a clearer placement structure clarifying the role of the student.
- Future Priorities: Case study - Kimono My House, an online retail company, accelerates technology adoption within the company. Social media and digital marketing adoption were commonplace, followed by the development of online payment functions, accountancy and finance functions, CRM system development and PR are other areas of focus.

PROCESS REVIEW STAKEHOLDER PERSPECTIVES

The project has the potential to help businesses improve their productivity. It is thought to be well suited to early-stage businesses and those left behind by the recent acceleration in technology adoption. Businesses, many of which were time-constrained rural micro-businesses starting from a low base, were most receptive to a tailored approach and general advice on using technology effectively to boost their business resilience.

The general acceleration of technology has meant that competition for online classes has increased since the project was conceived. Other projects run by Cosmic and the libraries emerged, competing for the attentions of SMEs. Cosmic, a social enterprise, helped people identify their digital needs and offered digital skills training and services. Furthermore, once the restrictions eased, North Devon was very busy, and it was a popular UK staycation market. Businesses in this sector were focused on reopening and making up lost ground.

The diagnostic provided a good measure of technology usage and adoption. The project has succeeded in targeting smaller, lower productivity businesses. Some of these were thought to be too small or early-stage to have the capacity to engage effectively and/or realise their growth ambitions.

The target SMEs are, by definition, hard to reach, and this factor, combined with the effects of the pandemic, has made the initial target of two hundred far more difficult to achieve than anticipated.

Petroc students studying in the Faculty of Management and Business Studies at Level 2 or 3 were given a presentation about the placement opportunity. There was an application form for students to complete if they were interested. Much work was done to prepare students for placements, including a series of masterclasses set up by the Enterprise Academy.

The virtual format for the placements during restrictions was not ideal. The students have good knowledge of new technologies, especially social media (though they have less understanding of customer-facing activities).

There has been an honest and open dialogue between the staff at Petroc and the delivery team, who have cooperated well together. The project has been well managed and administered, with regular team and partner meetings, and the team has been flexible and approachable.

The project was branded effectively within Petroc's wider activities and has been able to draw on marketing resources within the college. More dedicated promotion for what is a fairly complex offer to convey could perhaps have been used more effectively alongside existing outreach work (though local contacts, etc.).

Covid-19 was a mixed blessing for the project. There was a plethora of business support available at the start of the pandemic, so it was a crowded marketplace. For some firms and individuals, the shift online opened up new business and personal development opportunities, but for others, their circumstances meant they could not commit to the project masterclasses and/or student placement.

The expertise of the delivery partners, the quality of the masterclasses and the calibre of the students are project highlights. There have also been wider unanticipated benefits for delivery partners, mentors and participants (such as new skills and networking). Some mentors developed an explicit placement plan with activities, expectations and expected outcomes. Student confidence has improved as they have realised their potential, and Petroc has made new connections with businesses.

There was a real hope that recruitment and masterclass attendance would have been better than it was. Reframing or simplifying the benefits of the project and adjusting the timing of masterclasses might stimulate more interest or engagement in the future. Mentors welcomed clarity in terms of the expectations of them and an up-front discussion about students' needs, requirements and ambitions.

There is evidence of businesses applying learning and adopting technologies, especially those that are 'quick and easy' to implement.

Although it has not been an easy time for many students, they have, with hands-on support, gained valuable employability and personal development skills as a result of becoming engaged in the project. There were some unintended benefits for mentors who really welcomed the experience as a career opportunity. The enthusiastic engagement and commitment from the students were a key success factor.

The online format of the project has evident potential for scale-up, and greater numbers could reduce the unit cost. A modest fee might reduce attrition rates among SMEs. Students need hands-on support to benefit from the learning opportunities available, and it would be possible to engage technology-savvy university students.

Despite the trial not proceeding as anticipated, many aspects of this project could inform future projects and activities in technology adoption and business support and placements more generally. The lessons could not have been achieved without a high calibre project manager and support team at Petroc and the dedication of the delivery partners, mentors and placement students.

1. INTRODUCTION

This is the final report for the Techknowledgey Transfer project for Petroc College of Further and Higher Education. It is part of a research trial supported by the Business Basics programme (Round 3) and funded by the Department for Business, Energy and Industrial Strategy (BEIS), working with UK Research and Innovation. The Innovation Growth Lab at Nesta provided evaluation expertise.

1.1 BACKGROUND AND RATIONALE

The Businesses Basics programme (Round 3) funded research trials to test the concept of offering support to small businesses so that they might increase their use of technology within their business administration processes. Petroc wanted to explore this through technology knowledge transfer, embedding expert knowledge through student-led projects. This is described in detail in Chapter Two.

The North Devon district is a rural economy with high levels of agriculture (with a Location Quotient (LQ) of 4.59), tourism (LQ 1.66) and manufacturing (LQ 1.58). A location quotient (LQ) measures an area's industrial specialisation or concentration relative to a larger geographic unit (in this case, England). An LQ of 1.0 in tourism means that the sub-region and the nation are equally specialized in tourism; an LQ of 1.66 means that the sub-region has a higher concentration in tourism than the nation.

SMEs represent a significant majority of businesses in the UK and are thought to be the source of much of the growth in all developed economies. Although 98.4% of North Devon enterprises employ fewer than 50 people, similar to those in the UK overall (98.1%), new business growth is well behind the national average. In the five years up to 2019, the number of micro-businesses (0-9 employees) in the UK grew by 21.7%, compared to just 8.1% in North Devon.

The productivity of workers in North Devon is estimated to be £58,600 per full-time equivalent (FTE) job, compared to a GB figure of £71,000 and a South West regional figure of £64,800. This means there is a gap of 17%, or £465m, in the GVA (Gross Value Added) contribution compared to the national average. The Covid-19 outbreak has become an additional threat to an already vulnerable economy. Hatch, an international consultancy, analysed ten indicators from official published statistics to estimate which districts in the UK were most exposed to Covid-19 based on their characteristics (they defined the 'Most Exposed' to Covid-19 as the top 25% of districts, 'Exposed' as the middle 50%, and 'Least Exposed' as the bottom 25%). The results indicate that half the indicators for North Devon, including employment, self-employment and poor broadband speeds, were 'Most Exposed' to the coronavirus. We explore the effects of coronavirus on recruitment and delivery throughout the report; see section 7.1 and the end of section 5.2 in particular.

The evidence reviewed within the trial protocol developed for the study (Section 2.1 and the following section) supported the view that engaging technology-savvy students to help introduce and embed administrative technology applications to the workplace of under-performing SMEs could enhance the ability of such businesses to grow and develop.

The rationale is that by adapting the existing, proven model of Knowledge Transfer Partnerships (KTPs) to the context of business administration technology for low-productivity SMEs, the project will enable the target group to develop and embed the effective use of business administration technology within their businesses, which will improve the efficiency of their practices and improve productivity.

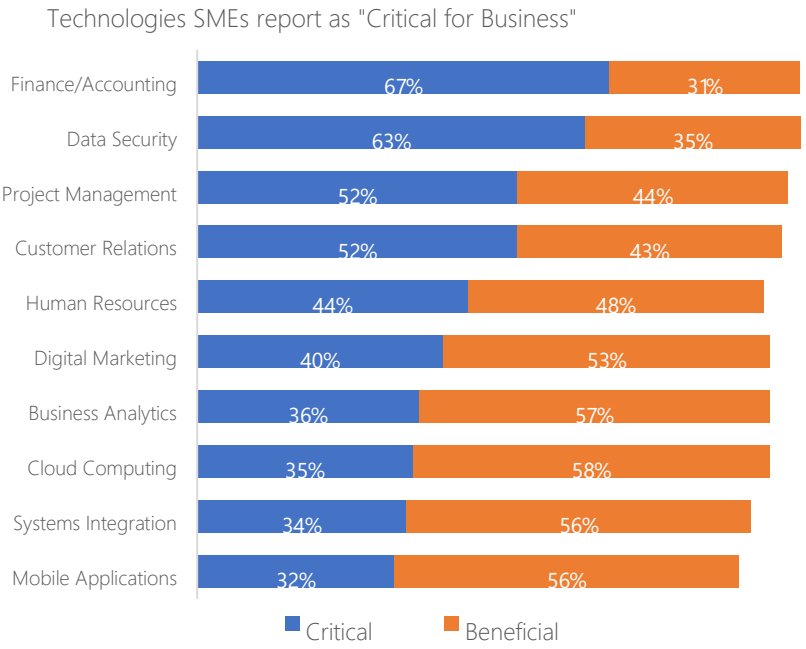
1.2 WHY THE INTERVENTION AND/OR TRIAL IS INNOVATIVE

The IGL (Innovation Growth Lab) Introductory Guide to running randomised controlled trials in innovation, entrepreneurship and growth states that 'despite the importance of innovation and high growth

entrepreneurship for economic growth, there is still too little reliable evidence on how best to achieve this.' In many fields, there has been a growing understanding of the value of randomised controlled trials (RCTs, or 'trials') as an effective research method to determine 'what works,' but they are still not as widely understood or used as they should be, particularly in innovation, entrepreneurship and growth (IEG) policy.

Petroc agrees (See trial protocol section 2.1) that a more experimental approach to innovation and growth policy is required, both through trialling new interventions and evaluating their impact more rigorously. This involves making far greater use of RCTs to determine what works and what does not while learning from the successful experience of conducting RCTs in other fields, such as development economics, health and education. Unfortunately, we failed to achieve sufficient statistical robustness to pursue an RCT for reasons explored later, so what follows is a before and after study.

1.3 BARRIERS INTENDED TO BE ADDRESSED BY THE INTERVENTION



Source: Capterra, 2019 Top Technology Trends Survey. (n=539)

TomTom Telematics' Senior Managers Study 2017 in UK companies found that 31% were risk-averse and 'not quick' to adopt new technology, often waiting until it became mainstream before considering it. The main reported barriers to adoption, especially for SMEs, were cost (36%) followed by the difficulty of introducing new systems (16%). A 2019 Capterra survey found that the software applications that SMEs believed were most critical to their business were finance, accounting and data security.

Poor access to fast broadband is a significant local barrier to growth. Maximum fibre broadband speeds in North Devon are 67Mb (in Barnstable and Lynton), while, according to Uswitch, speeds of up to 516Mb are available in most London boroughs and large cities like Sheffield. Although demand for the internet is the same as the rest of the UK, with 90% defined as regular users (ONS), the lack of access to fast broadband for small businesses hampers their growth.

A 2019 Deloitte survey of 1000 SMEs in the US reported that 85% of small business owners believed that the use of technology aids success. There was a clear correlation between high-performing businesses and high levels of digitisation. These were five times more likely to export, three times more likely to create new products and services and twice as likely to create jobs. The survey found that the main uses of digitisation are communication (90%), internal management (80%), business emails (75%), company websites (68%), social media (53%) and sales (40%). The main barriers to adoption were reported to be the lack of qualified staff to implement change (45%), cost (38%) and cyber security concerns (31%).

An AT&T Survey - Technology Trends for National Small Business Week April 2018) of 4,000 companies found that although 75% of small businesses wanted to embrace new technology, 30% found it hard to adopt. The reasons given for the 'late adoption' of new technology were:

- Lack of resources or cost
- Fear of being dependent on a system that can impact the business negatively
- Lack of exposure or knowledge of the plethora of available technologies
- Integration concerns such as workflow disruption and system maintenance requirements, and that the adoption of technology would only be implemented where it was necessary

1.4 STUDY OBJECTIVES

The purpose of the BEIS Business Basics programme is to identify and test the most effective, scalable interventions that encourage SMEs to adopt existing technology and management practices that drive productivity improvements. The underlying hypothesis of the Business Basics programme is that poorly performing SMEs are less likely to adopt business and administrative systems. The research evidence to test this view is based on statistical analysis, largely drawn from official sources and published business surveys.

The main research question for this study is:

For SMEs that do not extensively use existing technologies in key business and administrative functions, does the delivery of a dedicated student project aimed at developing and embedding specific technology usage improve adoption rates when compared to less interactive levels of support?

The next section outlines the methodology.

2. METHODOLOGY AND RCT DESIGN

This Chapter discusses the interventions delivered under the Techknowledgey Transfer project, the methodology and the research design.

2.1 THE INTERVENTION

Two treatment groups were delivered (Masterclass and Business Techknowledgey Transfer):

- Masterclass, comprising a 1:1 diagnostic, followed by participation in up to two masterclasses.
- Business Techknowledgey Transfer: as above, plus a co-designed project to embed technology use, delivered by a student with support from a lecturer and/or business mentor (see section 2.3).

Petroc wanted to change the approach to business administration within SMEs that did not use technology in at least one administrative activity. In these firms, it set out to stimulate the use of business administration technology sustainably within their administration processes. There was also a counterfactual arm which received no treatment. This was used to sense check the baseline findings.

A diagnostic toolkit was designed and integrated into a baseline survey that was completed by Petroc's Project Delivery Manager once initial contact had been made with the SME and they had signed up.

This was delivered by Petroc as an impartial broker. This avoided bias towards any one area of technology, and any conflict of interest that might have arisen had one of the delivery partners administered the survey. The diagnostic identified business characteristics and areas where the introduction of business administration technology might improve overall productivity. The outcome is a record of recommendations (captured on an online survey tool) of the technologies SMEs use or may be open to using. The project is platform-agnostic and does not recommend specific products. We review some of the findings later on and use this as our 'before' intervention position.

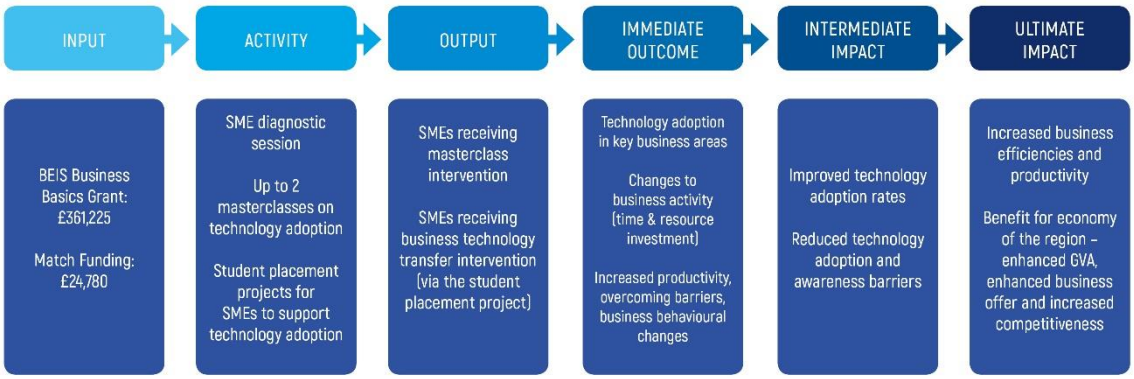
Using the outcome of the diagnostic, each SME was then able to participate in up to two masterclasses delivered by one of four delivery partners. The masterclasses lasted up to two hours and gave an overview of the technologies available to address specific issues. This was followed by worked-through examples applying the technology, with hints and tips about how to maximise their benefit. The masterclasses were live and interactive, which enabled participants to ask questions. The low recruitment numbers that were achieved meant, in reality, that the sessions were often very tailored to the needs of the participants.

Intervention level 2 (Business Techknowledgey Transfer) tested its effectiveness by addressing the issue(s) identified. It included the activities identified in intervention level 1 (with attendance at a minimum of one mandatory masterclass prior to accessing the supplementary element). This was then supplemented by a KTP-style student project to establish and embed the use of the technology identified through the diagnostic.

Firstly, the student and mentor were selected and matched. The student was chosen through a mini job application/interview process involving the SME, whereas, for the mentor, this was a simple allocation based on their area of expertise, workload and business location. The student project was co-designed by the SME, the student and the mentor, with the support of one of the Deputy Project Delivery Managers. While it aimed to respond flexibly to the needs of each business, fixed parameters (duration and inputs) were agreed upon in each case to secure consistency and quality and aid comparison. A project plan was agreed upon with the SME, using a template that captured the specific technology involved, dates, inputs, responsibilities and practical details. All students received training before the projects commenced. This included a clear explanation of the nature of the trial and the protocol requirements, a briefing regarding behaviour expectations and training related to the specific project being delivered. Naturally, once the trial was dropped, the emphasis changed slightly as there no longer was a need to describe this element.

There was also a non-intervention group: the counterfactual arm. These participants were drawn from primarily mid- to low-productivity SMEs with fewer than 50 employees within the geographical comparator areas of Mid Devon, Exeter and North Cornwall.

2.2 LOGIC MODEL



The logic model below sets out the planned activities against their anticipated immediate and longer-term effects (technology adoption leading to impacts on productivity and growth). This remains valid even though the trial was not pursued.

2.3 ABOUT THE DELIVERY PARTNERS

The Enterprise Academy, one of the delivery partners, assisted in enabling students to become part of the project. Students were skill-matched to the business participants to help them embed technology solutions within their day-to-day business processes.

Petroc also worked closely with several businesses that are experts in Business Administration Technology. These businesses were;

- Applegate Marketplace Ltd.
- Maynard Johns Chartered Accountants
- Lineal Software Solutions Ltd.
- Barr Media

These businesses assisted in supporting the initial engagement with business participants, co-designing and delivering masterclasses for businesses. They also provided mentoring for businesses and students during the student placement element of the project. All the delivery partners are based in the local North Devon area. The four businesses already had a good relationship with Petroc, so when the opportunity arose, they were offered the chance to collaborate.

The delivery partners were spoken to as part of the evaluation study (individually at the interim stage and in a workshop format for the final stage).

2.4 WAYS IN WHICH DELIVERY OF THE INTERVENTION DIFFERED FROM THE ORIGINAL PLAN

The intention before Covid-19 was that the masterclasses would be delivered in person, as the target group was less likely or possibly unable to engage in online masterclasses. However, due to Government restrictions put in place because of the pandemic, the delivery of the project had to be moved entirely online. This was also considered the safest option by the programme management team. It had turned out to be far more efficient and sustainable as participants did not have to travel to the venue using transport

that could harm the environment. The population had become more experienced in accessing and participating in online events during this period.

The student projects were initially delivered virtually, latterly in person or via a blended approach as restrictions eased. Once the randomised trial was dropped, companies in the masterclass treatment group were also offered the opportunity to take on a student.

2.5 MEASURES TO ENSURE CONSISTENT DELIVERY

Delivery partners were given guidance on Petroc's expectations in relation to the delivery of masterclasses.

Students completed a student project logbook. This was used for partners to offer practical advice and for students to document and reflect on the work placement. The logbook included a project placement agreement, details of the project placement and advice, as well as space for learning reflections to be recorded during and after the placement. We found that those with a very clear plan with their mentor tended to have a successful placement (more on this in Chapter 7.0).

The logbook also acted as evidence for those who were to sign off the work experience aspect of the programme, which was needed as part of the student's completion of their course requirements.

2.6 BUSINESSES OFFERED EACH INTERVENTION

The Techknowledgey Transfer project was initially delivered as an RCT using a blocked randomisation approach. Firms signed up on a rolling basis, giving a trickle sample effect, with the randomisation being applied to blocks of a minimum of 4 firms. 67 businesses have been recruited, of which 33 took up the offer of a student project. During the recruitment stage, businesses were told about the possibility of a student placement project through the programme publicity. This could have affected their decision to attend masterclasses. Recruitment is discussed in Section 7.3.

There was also a counterfactual arm that experienced no intervention and was used as an external control group for comparison against the treatment groups. 32 counterfactual businesses were interviewed. The counterfactual sample was matched to the treatment group by an eligibility check and according to the similarity of baseline characteristics.

The interim report noted that the study was intended to be closer to a pragmatic trial than an explanatory one (A guide to RCTs, IGL. Pages 25-26). It was conducted in a 'real-life' environment, so it features a degree of flexibility and variation. For instance, students have different characteristics and areas of study, and the masterclasses and their trainers cover different aspects of technology. The SMEs vary by size (those with fewer than 50 employees were targeted), sector and maturity, and they can leave the trial if they choose to. There are further details on the randomisation trial design in the interim report.

With 67 SMEs being recruited rather than 200, the trial would have failed to generate sufficient statistical power to detect an impact on the treatment group. For instance, for outcome measure one, the treatment group would have to be using over ten times the number of technologies than the control group by the time of the final survey for us to be confident that the data would detect any noticeable impacts. We also have to factor in that (a) not all of the treatment group have taken up the offer of a student project, and (b) not everyone has responded to the survey. Both of these factors will reduce the statistical power available, meaning that the minimum effect we would be able to detect would be even larger. All stakeholders agreed in October 2021 that it was best to drop the randomised component of this study and move to a before-and-after comparison instead. As it was dropped, this report does not dwell on the trial features. However, it is perhaps worth mentioning that the randomisation process, research design and planning went well.

OUTCOME MEASURES

Several measures have been designed to trace and understand the technology adoption journeys of participants and to capture changes in technology adoption in specific business areas, as well as the actions taken. Measures one and two are the primary outcomes and are designed to answer the research question by closely assessing differences in technology adoption.

- Outcome Measure One: investigates the adoption of specific technologies within key business administration areas that can influence business and administrative functions in an organisation. This outcome measure will determine the extent of technology use before (baseline survey) and after (final survey) receiving support. This forms part of the diagnostic process.
- Outcome Measure Two: investigates the technology actions taken by the businesses and actions that will be undertaken following the support.

For the primary comparison of outcome measures one and two, we used a straightforward before and after assessment informed by qualitative insights. The aim is to look at the differences in overall technology adoption rates resulting from the different levels of support offered to SMEs within each intervention arm.

- Measure Three aims to capture impacts on business and administrative activities as a result of different intervention levels and the consequent adoption of technology. This consists of two measurement variables used to understand the level of change in a participant's business activity (time and resources invested). To compare the extent of the changes, we will ask questions in the baseline and final surveys.

Several additional secondary outcome measures are also listed below, covering productivity-related changes, changes to business behaviours, and barriers faced. These measures will not be analysed or used to answer the research question but will contribute to wider conclusions and observations.

The secondary exploratory measures include:

- Productivity-related changes: two measurement variables were captured during the final survey, relating to changes to profitability and time/resources savings made, each a direct result of the support received and any technology adopted. Given the time needed for impacts to come to fruition, we did not expect major changes, and this was not a primary impact measure.
- Changes to business behaviours linked to technology adoption: a series of baseline and final survey questions were used to understand how behavioural changes link to technology adoption. These explored attitudes to new technology developments and the application of learning within the company. These questions explored changes that have occurred by the end of the project in terms of receptivity (baseline and final), the application of learning, understanding and capacity.
- Barriers: within baseline and final surveys. Interviewees confirmed that they either faced or did not face each one, and any changes over the course of the intervention were explored.

We have continued to track these outcomes even though the RCT was dropped. Instead of using the statistical tests, we have presented the outcomes as percentages. We caution against making any inferences from the data and suggest that given the small sample sizes, not too much weight is given to the quantitative results. Whilst we can't make definitive conclusions about the quantitative findings, they are still interesting in terms of the patterns revealed and behaviours adopted.

SAMPLE SIZE

The intention was to recruit approximately 200 SMEs to the treatment group, divided equally and with a 1:1 allocation ratio of businesses placed in intervention level 1 (the masterclass group) or intervention level 2 (Techknowledgey Transfer).

Due to various factors, including the outbreak of the Covid-19 pandemic shortly before the trial, the programme recruited 67 SMEs. These 67 SMEs completed a baseline survey and were then given the opportunity to attend 1 or 2 masterclasses each. 35 SMEs attended 2 masterclasses, and 14 attended 1 masterclass. 18 SMEs declined both masterclasses. 29 masterclasses ran for 'masterclass 1' and the same number for 'masterclass 2'. There were 42 masterclasses where there were no attendees. Masterclasses were cancelled if there were no attendees; however, this was not always possible if SMEs did not show up at the last minute. The titles and number of attendees of the masterclasses are shown in Annex Four.

33 of the 67 SMEs completed a student placement and attended masterclasses. During the RCT process, 6 SMEs declined the student placement opportunity. When the RCT was abandoned, a further 17 SMEs were offered a student placement from the original control group. From this, 10 accepted, and 7 declined. When the SMEs were no longer randomised, 3 accepted a placement, 1 declined, and another was not followed up (the reasons for declining a student are explored in section 6.3).

WHO WE SPOKE TO

All 67 SMEs recruited completed a baseline survey at the beginning of the programme. 36 completed a final survey. 22 of the 33 businesses that took on a student placement completed a final survey. 8 of the 9 businesses who answered qualitative questions at the end of their final survey had taken on a student placement. All 5 businesses who had further in-depth discussions about their experience on the programme had completed a student placement. The data collected from the surveys and discussions are presented from Chapter 4 onwards.

3 businesses and their respective students they took on for the placement were approached. These discussions led to the creation of 3 blended case studies with both the business and the student's perspectives.

9 one-to-one interviews were conducted with the 4 members of the internal delivery team at the midterm point. These were Deputy Project Managers, the Project Delivery Manager and a Project Lead. Kada decided to hold discussions with major players in the role of project delivery and management. One-to-one interviews were also conducted with members of all 4 external delivery partner companies at the midterm point. It was decided to speak one-to-one with all external delivery partners to gain a clear understanding of the project management and delivery impact.

Further consultations were held with the Petroc team in a workshop/focus group format conducted face-to-face at Petroc when Covid-19 restrictions were no longer in place. This was conducted in the final stage of the programme. A list of consultees is provided in Annex One. Kada also attended project and delivery partner meetings and held regular project evaluation meetings every three weeks.

DESIGN OF THE IMPLEMENTATION AND PROCESS EVALUATION

Further qualitative exploration was undertaken, and the midterm and final stages survey focused on the support received and reviewed the delivery approaches and wider achievements. The qualitative assessments with mentors, partners, the delivery team, students and businesses give impressions of the beneficiaries' experience of the treatment interventions. It provides a delivery-focused exploration of satisfaction levels, the strengths and weaknesses of the treatment and areas for improvement. The review captures qualitative responses describing the impacts and outcomes achieved and the wider benefits of the support. During the interviews, the delivery and strategy team looked at strengths, challenges and lessons.

The discussions centred on:

- The advice sought/received, and the satisfaction/experiences of the SMEs, students and mentors.
- The nature, depth and impact of support; the quality of services (professionalism, understanding of the business/markets/requirements); and student fit (where appropriate).
- The indirect impacts and perceived wider benefits.

- Wider elements of SME productivity that have improved as a consequence of technology development, for instance, leadership and management benefits and technology adoption.
- Improved business practices and new efficiencies.
- Improvements to the programme and future priorities.

The stakeholder discussions looked at the local context, SME and student recruitment, project administration, brand profile and the impact of Covid-19. It concluded with a discussion of what has worked well and less well, the benefits, the degree to which expectations were met, and the scale-up potential.

3. PARTICIPANTS

This section summarises the findings of the baseline diagnostic conducted with the 67 businesses that had joined the Techknowledgey Transfer Programme. The survey results are compared with those of a smaller counterfactual sample of 32 businesses from a similar geographical area with no involvement in the Petroc programme.

3.1 RECRUITMENT AND ELIGIBILITY

A total of 67 businesses signed up to the Techknowledgey Transfer programme at Petroc. Until the trial was dropped, they were allocated through the agreed randomisation process to one of two groups of equal size; 34 businesses were assigned to the control group, and 33 were assigned to the treatment group (32 took up the offer of a student placement). The first group received technology masterclasses, while the second group received masterclasses and worked with a student intern to develop technology use within the company.

The last randomisation window was 26/10/2021 – 9/11/2021. All businesses were randomised despite the abandonment of the Randomised Control Trial process in late October 2021. Since the Trial was dropped, 5 more businesses were put through the randomisation process, and a further 17 businesses were offered a student.

The North Devon and Torridge area economy comprises mostly SMEs with fewer than 50 employees. We targeted low-productivity SMEs rather than a specific sector for recruitment to the project, although ONS data suggests firms in some sectors are more likely than others to appear within this group.

The counterfactual sample consisted of 32 local companies, primarily mid- to low-productivity SMEs with fewer than 50 employees, based in Mid Devon, Exeter and North Cornwall. These businesses were randomly selected from company lists of SMEs with fewer than 50 employees and contacted via telephone.

Regarding recruitment, various channels were used by the Petroc team to connect with potential participants, including social media, email and telephone. The team engaged with many networking groups and presented the project at online and in-person networking events/business group meetings. Press releases were sent out via local newspapers and community newsletters. When COVID restrictions eased, businesses were visited with informative flyers. In an online form, specific business sectors were sent personalised emails.

The team also shared information with the Bideford and Barnstaple Chamber of Commerce and contacted local councils to share marketing material. The project was promoted through business development officers at Barnstaple and Torridge Council.

The internal team at Petroc used their already established business connections and networks to promote the project. A free breakfast event was held to allow businesses to learn more about the project and what it entails.

The team found that word of mouth, one to one direct targeting and sharing information with business groups proved the most effective recruitment methods. During Covid restrictions, many businesses did not want the team to leave leaflets at their sites.

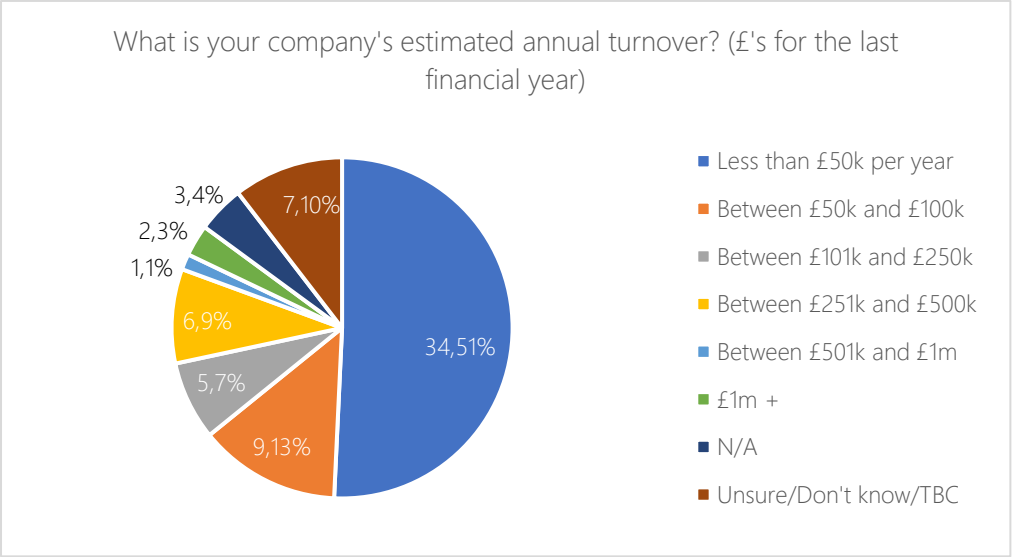
3.2 BASELINE CHARACTERISTICS

ANNUAL TURNOVER

Key Finding: Just over half of business participants had an annual turnover of less than £50,000. A number of businesses were unsure, some of whom were pre-revenue.

Most businesses recruited to the project reported low annual turnovers, suggesting the team had successfully recruited from the target SMEs. 51% had a turnover of less than £50,000, and 3% had a turnover exceeding £1m. 7 businesses were unsure or were yet to confirm their turnover figures (10%). This included some businesses in their first year of trading that did not yet have a figure to report.

The counterfactual sample contained slightly larger businesses. 12 businesses (38%) had a turnover of between £101,000 and £500,000 a year, whereas only 3 (9%) businesses had a turnover of between £50,000 and £100,000. However, similarly to the baseline sample, there were a number of respondents (12, 38%) who were unsure of their annual turnover, reflecting the number of businesses who were in their first year of trading. Most of the counterfactual sample were SMEs.

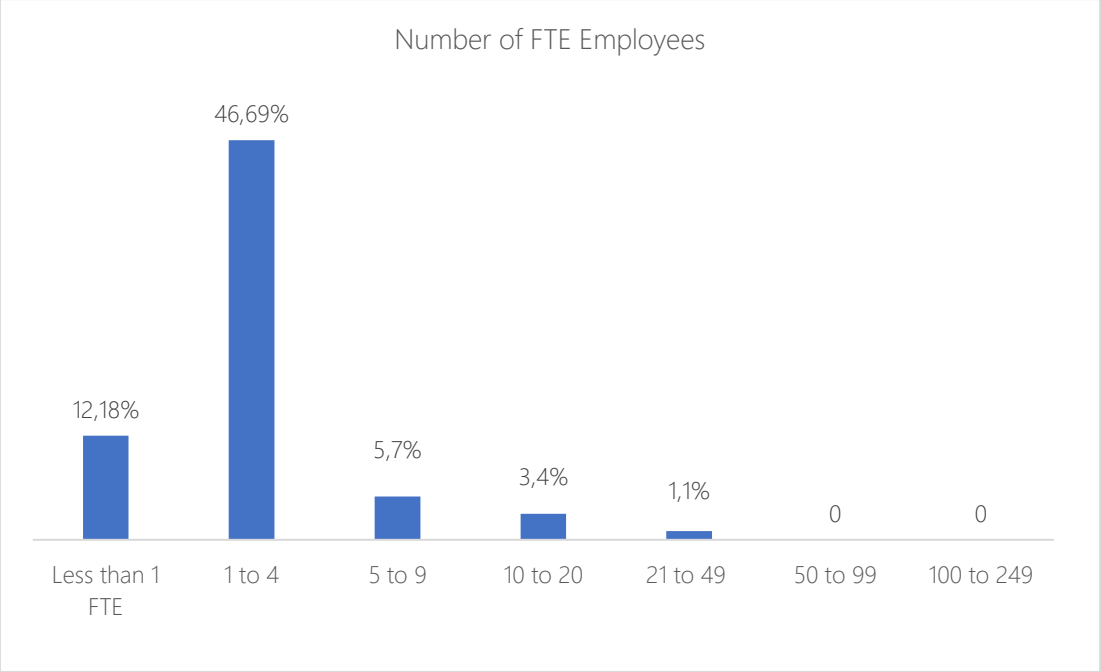


Source: Kada Research, Baseline Survey, 2020-2021, n=67

NUMBER OF EMPLOYEES

Key Finding: The prevalence of businesses with a smaller turnover is reflected in the number of FTE employees. Non-employers and micro-businesses (1-9) comprise 95% of project recruits.

The vast majority (69%) of companies recruited had between 1 and 4 FTE employees, while 18% were non-employers. It is interesting to note that the project has been more popular with smaller micro-businesses than with non-employers. The largest business had between 21 and 49 employees, while no business had more than 50. The number of employees was similar in the counterfactual sample, with 63% of companies having between 1 and 4 employees.



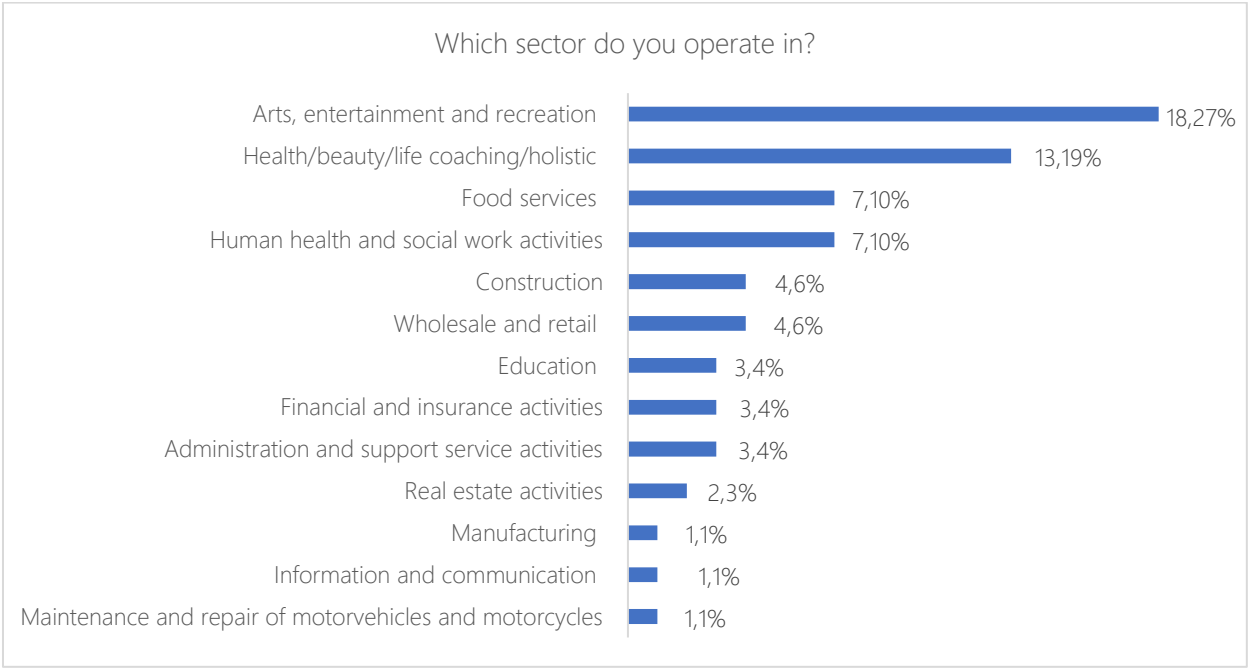
Source: Kada Research, Baseline Survey, 2020-2021, n=67

SECTOR

Key Finding: A wide range of sectors were recruited onto the programme, although it has been most popular with the Entertainment, Health/Beauty and Food Services Sectors.

The top three sectors were Arts, Entertainment and Recreation (27%), Health/Beauty/Life Coaching/Holistic (19%), Food Services (10%) and Human Health and Social Work Activities (10%). There are also businesses within the Construction (6%), Wholesale and Retail (6%).

The counterfactual sample was made up of different sectors. 31% were construction businesses, and 22% were in the Wholesale and Retail Trade sector. There were no businesses in the Health/Beauty/Life Coaching/Holistic Sector and only 2 businesses in the Arts, Entertainment and Recreation sector.

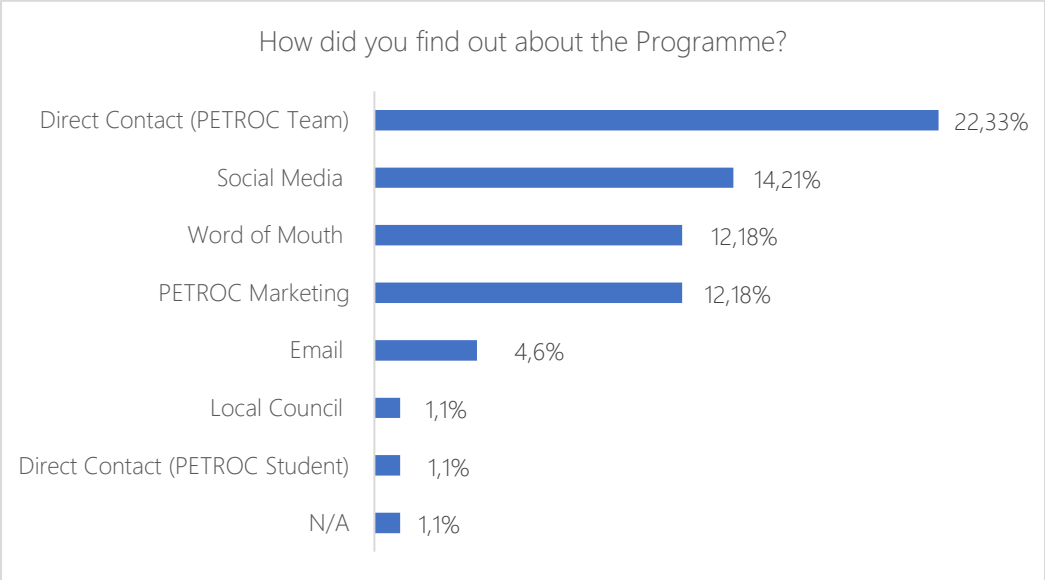


Source: Kada Research, Baseline Survey, 2020-2021, n=67

HOW THE PARTICIPANTS FOUND OUT ABOUT THE PROJECT

Key Finding: Participants found out about the project through a combination of direct and indirect marketing activities, including direct approaches by the team (33%) and social media (21%).

A third of businesses (33%) found out about the Petroc Techknowledgey Transfer project through direct contact from members of the Petroc Team, and 21% found out via Social Media. Word of Mouth was also common, as well as Petroc's marketing campaign (both receiving citations of 18%).



Source: Kada Research, Baseline Survey, 2020-2021, n=67

DEMAND FOR MASTERCLASSES

Key Finding: There was most interest in masterclasses on marketing/business development, managing information and finance and accounting.

Business Function	Application/Activity	Interest count
Marketing and business development	Social media marketing strategy	51
	Analytical tools to inform marketing activities	35
	Deliver advertising targeted at specific audiences	32
Managing information	Using data to improve website performance	29
Finance and accounting	Automation of bills, invoices, statements	26
	Accounting software programmes	23
Communication	Online bookings for appointments and meetings	21
Cyber security	Training in cyber security processes	12

Businesses were offered a masterclass for each technology-related activity they reported not to engage in their baseline survey responses.

There was most interest in masterclasses on marketing and business development, with 51 respondents interested in adopting social media marketing strategies, 35 in analytical tools to inform marketing, and 32

interested in delivering targeted advertising. There was also some interest in website optimisation, finance and accounting automation, online bookings and training in cyber security.

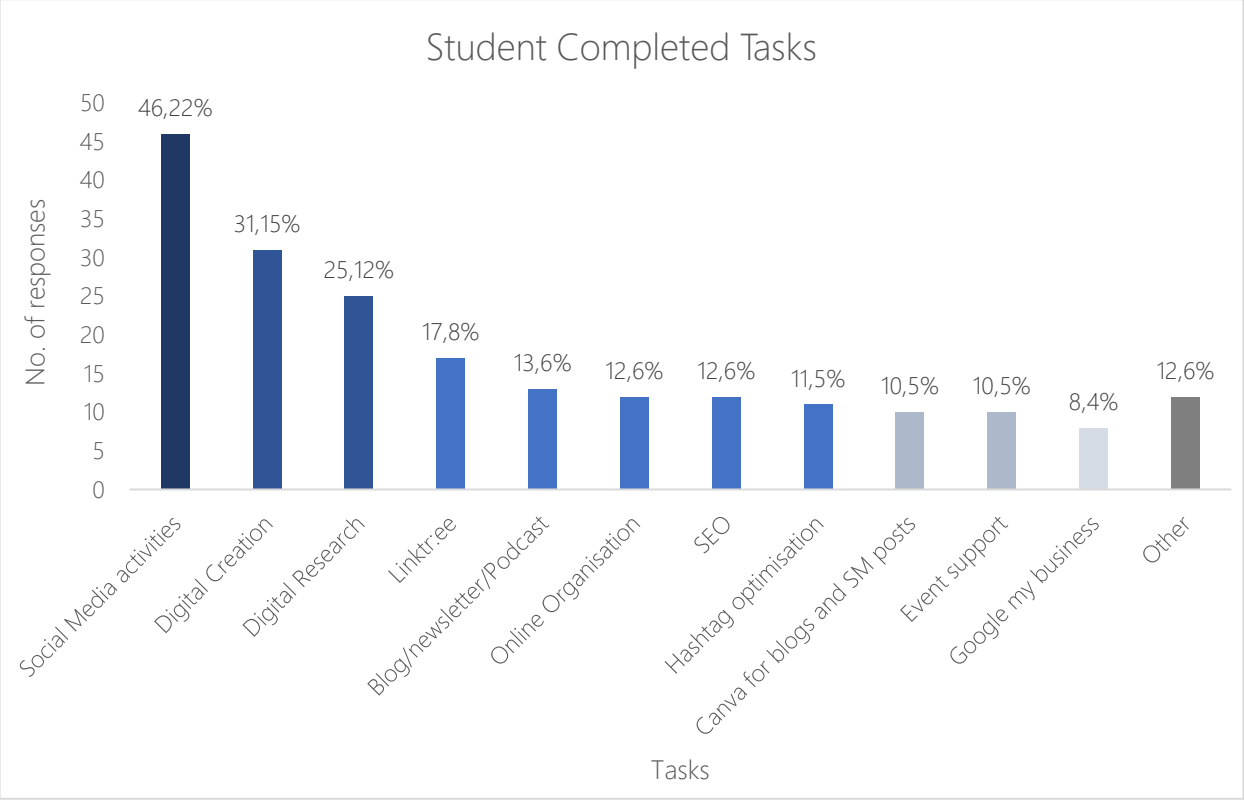
Interest among the counterfactual sample was generally lower; they appeared to have a slightly higher take-up rate of technology applications and, therefore, less interest in attending masterclasses. There was no interest in masterclasses for five of the eight functions, including accounting software programmes, internet/mobile transactions and buying goods and services online.

There was very little interest in finance and accounting, with interest in automation of finance and accounting, online sales channels, and online payment functions, all receiving interest from one business each. Interest in communication functions was also very low, with no businesses interested in support for communicating with and maintaining relationships with customers online.

As with the Petroc sample, the most common area of interest for marketing and business masterclasses was adopting a social media marketing strategy. Within managing information, the most common areas of interest were in developing an IT system and inventory/stock systems (both receiving 4 citations each). In line with the Petroc sample, the most common area of interest in cyber security was training.

STUDENT PROJECTS UNDERTAKEN

Key Finding: In terms of student tasks completed, there was a heavy bias towards social media development and business marketing. This suggests that these were the key areas in which businesses needed support.



Source: Kada Research, Baseline Survey, 2020-2021, n=67

The students were engaged in a broad range of tasks. The most common was the development of social media posts and other digital creation (22% and 15%, respectively), followed by market research on competitors and Linktree (8%). Other tasks completed included the creation of online booking systems and diaries, social media analytics/Facebook testing, and QR code, database and leaflet creation.

4. BEFORE AND AFTER SURVEY: TECHNOLOGY ADOPTION, BARRIERS, INVESTMENT AND DEMAND

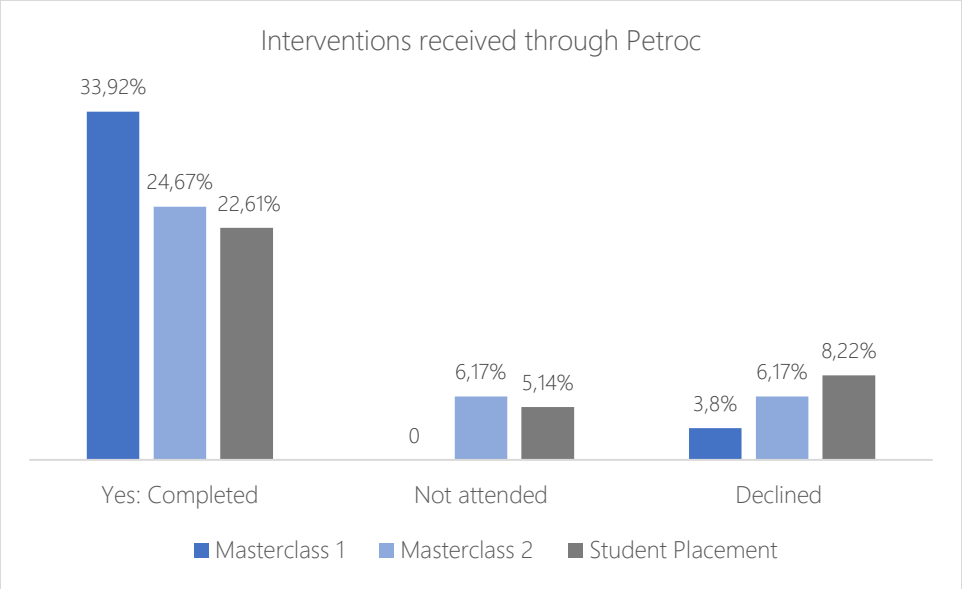
This chapter describes the breakdown of characteristics and interventions within the final survey sample. It then summarises current technology usage in key business areas and applications. It concludes with an assessment of the time and resources invested in technology, the barriers faced, and the propensity of SMEs to adopt the technology.

Final surveys were intended to be conducted with at least 50% of the baseline survey to get a statistically viable before-and-after analysis. Although the trial was dropped, we still managed to speak to 36 of the 67 recruited businesses. The final survey was conducted as a telephone survey. It took interviewers approximately 20-30 minutes to complete.

Some 16 businesses were difficult to reach. This may have been due to the fact that they only attended one masterclass or none at all. The focus was on surveying businesses who had taken at least one masterclass on the programme so that the impacts of the programme could be realised. 9 businesses did not respond to survey completion requests. 2 businesses said they were too busy, and another 2 declined, giving no reason. One business said their lack of participation would not prove a useful input. A further business had been sold since the beginning of the programme.

The characteristics of the final survey sample (36) were very similar to the baseline sample (67). For instance, 50% of the final survey sample had a turnover of less than £50,000. Only 4 of the final sample have a turnover of over £250,000. 28 of the 36 respondents had 1-4 full-time equivalent (FTE) employees, and 5 had fewer than 1 FTE.

Of those who completed the final survey, a majority (92%) of businesses took at least one masterclass and 67% of businesses completed two masterclasses. Originally, of the businesses in the baseline sample, 50% of participants were offered a student placement. When the trial was dropped, programme management decided to offer more participants a student placement as trial protocol conventions were no longer needed. Of the 36 businesses in the final sample, 31 were offered a student placement. 22 (61%) completed a student placement, 5 (14%) businesses did not complete it, and 8 (22%) declined a student placement (reasons for declining a student placement are mentioned in section 6.3).



Source: Kada Research, Final Survey, 2020-2021, n=36

3 of the 36 respondents mentioned they received another form of business support since taking part in the 'Diagnostic Survey' with Petroc. Only 2 of those disclosed the support, citing council funding and business courses (specifically marketing-related).

4.1 TECHNOLOGY USAGE

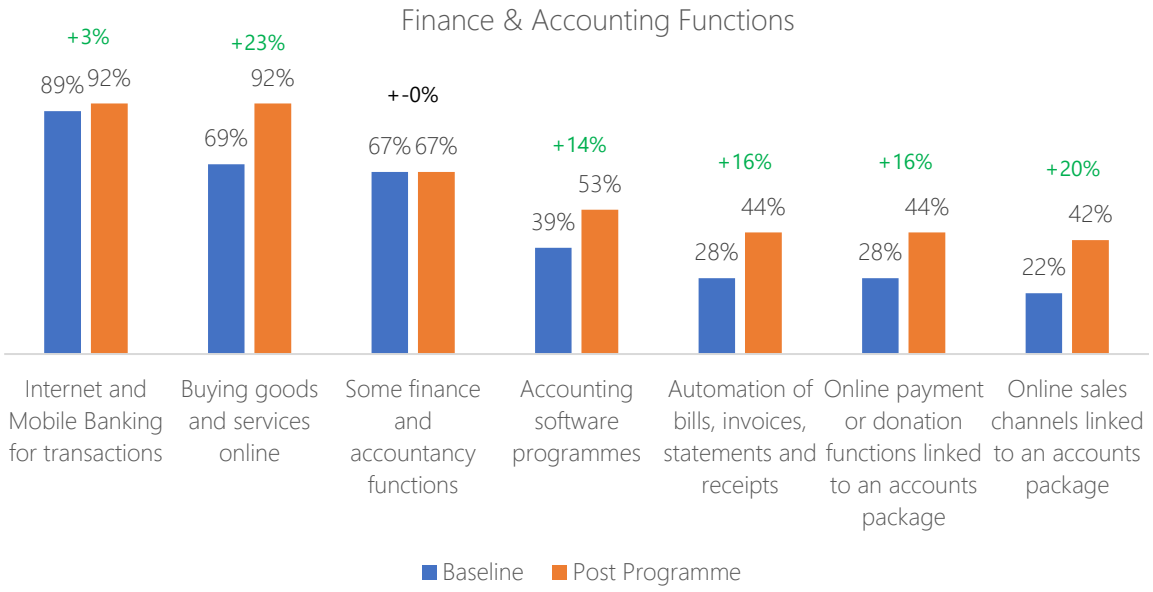
To study technology use, the before and after surveys examined the following agreed business functions:

- Finance and Accounting
- Marketing and Business Development
- Communication
- Information Management
- Cyber Security

The following tables compare the baseline position (pre masterclass) with the final survey position (post masterclass and student placement) for the respondents. The charts compare 36 baseline surveys with their final surveys to ensure the responses and numbers are comparable and the distance travelled can be assessed. The numbers are smaller than anticipated, so please treat the findings with caution.

FINANCE AND ACCOUNTING

Key Finding: At the baseline stage, internet and mobile banking for transactions, online purchases, and some finance and accounting functions were far more prevalent than online sales channels linked to an accounts package. At the final interview stage, the respondents' recorded increases in all areas of finance and accounting, with the exception of some finance and accountancy functions that had no net change. The largest change in adoption following the end of the programme was in buying goods and services online, which showed an adoption increase of 23%.



Source: Baseline survey n=36, final survey n=36. Note: some may not sum to 100% due to 'don't knows'/'unsure'.

The finance and accounting headlines are as follows:

- Looking at the whole sample at the baseline stage, internet and mobile banking for transactions, online purchases and some finance and accountancy functions were far more prevalent than automation of bills, statements and receipts and online sales channels and donation functions.
- The top two areas of technology use for finance and accounting functions post programme were internet and mobile banking transactions (92%) and buying goods and services online (92%).
- Comparing the change, the biggest areas of difference from pre and post programme were buying goods and services online (+23%) and Online sales channels linked to an accounts package (+20%).

Case Study: Community interest company, Family Compass, develops digital system to flag child safeguarding issues quickly and efficiently

Founded in 2017, Family Compass deliver therapeutic mental health support services in the form of creative therapies such as art and drama therapy. Other services include counselling and mentoring for those aged between four and twenty-five. The services are mainly funded through local government and various other social funds.

The need for mental health support has increased since the pandemic, and people are finding it increasingly difficult to access the support they need. Through the Inhale/Exhale Fund, parents can directly contact Family Compass and get the support they need but can't get elsewhere as they fall short of meeting the threshold needed to acquire support from NHS social care facilities. The Fund also allowed Family Compass to provide Well-Being Kit Boxes during the height of the pandemic.

Keda – the manager – has interacted with Petroc students previously on a Health and Social Care Programme. She had found out about the Techknowledgey Transfer Programme through word of mouth at the college. Keda joined the programme to gain a better understanding of the potential technology might bring to the community interest setting in which she works.

"Jenny asked if we would be interested in joining the Programme. As a business, we're always interested in anything that involved collaborations or partnerships in the local area, so we were really keen to get involved."

Keda found the workshop on Mailchimp to be *"valuable"*. The workshops outlined specific gaps in knowledge and the application of technology within the company. Keda feels that time is a barrier to adopting technology within her company. As the manager of a community interest company, she believes that her time commitments for organisational projects like adopting technology are restricted and secondary to her core business. The workshop helped her save time by realising her gaps in knowledge so that she could take a more targeted approach. Karen said she applied the learning from the workshops to her company.

The student placement aspect of the programme was considered helpful in flagging up the areas of technology support from which the business would benefit. Keda, the manager of Family Compass, found the placement process was managed well, and the level of communication between the programme management, the student and herself was *"really good"*. There were regular meetings throughout the duration of the placement, as well as an initial introduction meeting which set out the process and agreement of commitments the student would take on.

"I felt very supported."

However, Keda felt there was a misconception that the student would have a lot of knowledge and expertise around technology, whereas, in reality, the student was 'learning on the job'.

Despite this, she found the student to be very *"reliable and proactive in her role"*. The student carried out a number of tasks during their placement, including updating the company's client database, setting up additional Mailchimp actions, and developing leaflets and images for company use. Keda was pleased with the support she received through the placement:

"We were really keen for her [the student] to continue to work with us if she was able to and if it did not conflict with her college work."

The student on placement at Family Compass – had the opportunity to find a placement (which is to be completed as part of her studies) through the Techknowledgey Transfer Programme. She

found this opportunity to be *"easier"* than the usual process of connecting with a company to carry out a more conventional placement.

"I didn't have to go through the stress of having to find a company to carry out a placement with. It was a trusted company, having already gone through all the necessary checks as part of college policy."

The student also gave positive feedback on the process of connecting with the company.

"I had an initial meeting with the programme team to see what fits best for me, they got in contact with a company for me, and I then met with the company owner to get to know one another. It allowed me to connect and figure out whether this is what I actually wanted, so it was pretty good."

The student completed a number of tasks during her placement, including setting up an online shop, assisting with the imaging on the marketing materials for the Inhale/Exhale campaign and assisting with the development of a database for therapists to ease communication around child safeguarding issues.

She felt that she developed many skills during her placement, such as her communication, IT/computer skills and time management skills. She felt that the placement *"absolutely"* had a positive impact on her career.

The pandemic caused some difficulties during the placement. Having to self-isolate when she and a family member tested positive for Covid meant that she had to work from home. However, this proved difficult, as she was unable to use her personal laptop for placement purposes due to safety reasons, which resulted in her having to catch up at a later date.

The student felt that the most significant part of the placement was having the experience of working with a business which has made her consider her future career options.

Before joining the programme, Karen considered the principal barriers to adopting technology were a lack of expert knowledge and time. She still considers time to be a barrier but feels the lack of knowledge has been overcome to a certain extent.

In terms of technology adoption, a major action Keda has taken is the development of an online safeguarding software system. This can potentially save much time in child-care meetings. Previously safeguarding logs were typed up manually, but now with a system, important information is flagged automatically rather than emailing back and forth to relay information.

Overall, Keda said she had a positive experience on the programme, and the outcomes of the experience will improve the way things are run within the company.

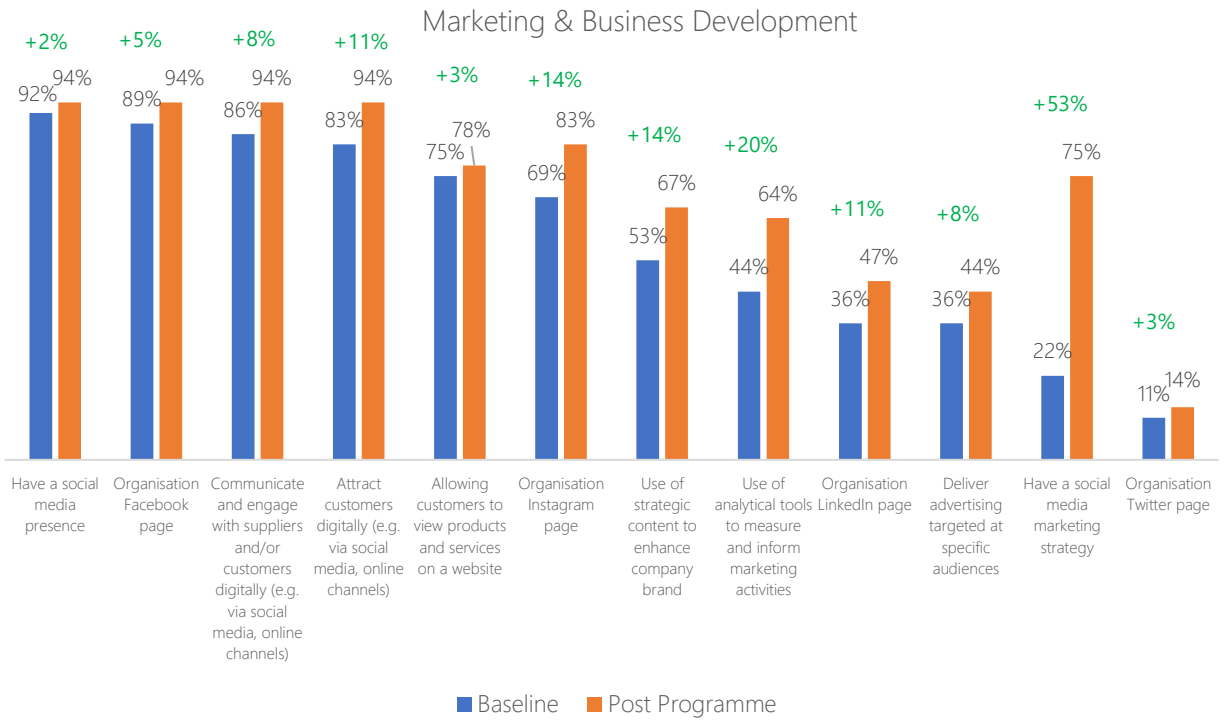
"The placement allowed me to take the time out to specifically focus on carrying out my technology adoption plans. Plans that were just ideas before the programme have now come to fruition."

Looking to the future, Family Compass would like to see steady and stable growth by building their team of therapists and moving to larger premises.

The Well-Being Kit Box has received good feedback from the children and parents' Family Compass support. The boxes contain a number of activities for young people to support good mental health. The company would like to focus on being able to continue the sale of these boxes and adapt their product so people of all ages can make use of it.

MARKETING AND BUSINESS DEVELOPMENT

Key Finding: Most businesses had a web or social media presence at the baseline stage, and adoption levels at the baseline stage were already quite high. Final adoption levels here were even higher, with four over 90% (and higher than finance and accounting). The biggest area of change was having a social media marketing strategy (+53%).



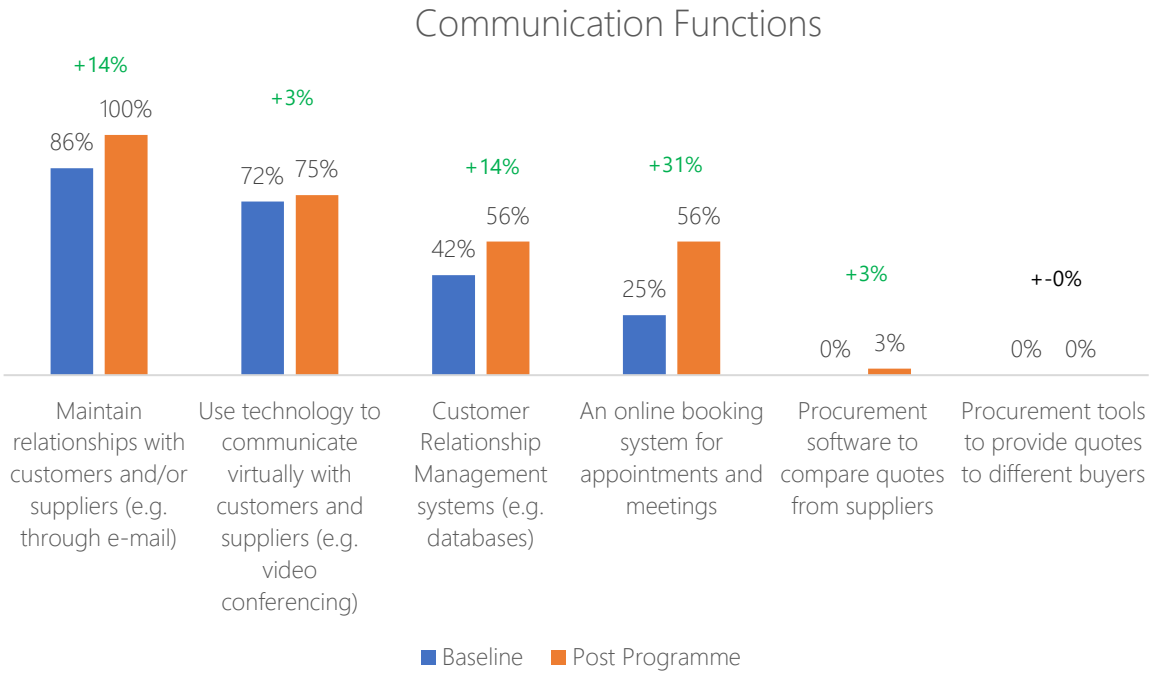
Source: Baseline survey n=36, final survey n=36. Note: some don't' add up to 100% due to 'don't knows'/'unsure'.

The marketing and business development headlines were as follows:

- Most businesses had some form of social media presence, most often a Facebook page (89%) at the baseline stage. The least popular social media platform was LinkedIn.
- Despite businesses having a social media presence, few had a marketing strategy at the baseline stage (22%). But this was the area that recorded the highest level of adoption (75%).
- Another noticeable area of adoption was the use of analytical tools to inform marketing activity or targeted advertising (this increased by 20%).
- All areas of Marketing and Business development saw increases in adoption from the baseline to post programme, with an average adoption rate of 13%.

COMMUNICATION

Key Findings: Emailing and video conferencing facilities were widely used to engage with customers and suppliers at the baseline stage. Customer Relationship Management (CRM) systems and online booking systems were less common. SMEs claimed that procurement tools and software were not relevant for them, and very few used these (we noted in the midterm that there was minimal take-up in the counterfactual sample too). This is an area of technology where the findings were most similar at the baseline position and after the interventions and where, with the exception of online booking systems (+31%), the project made the least progress.



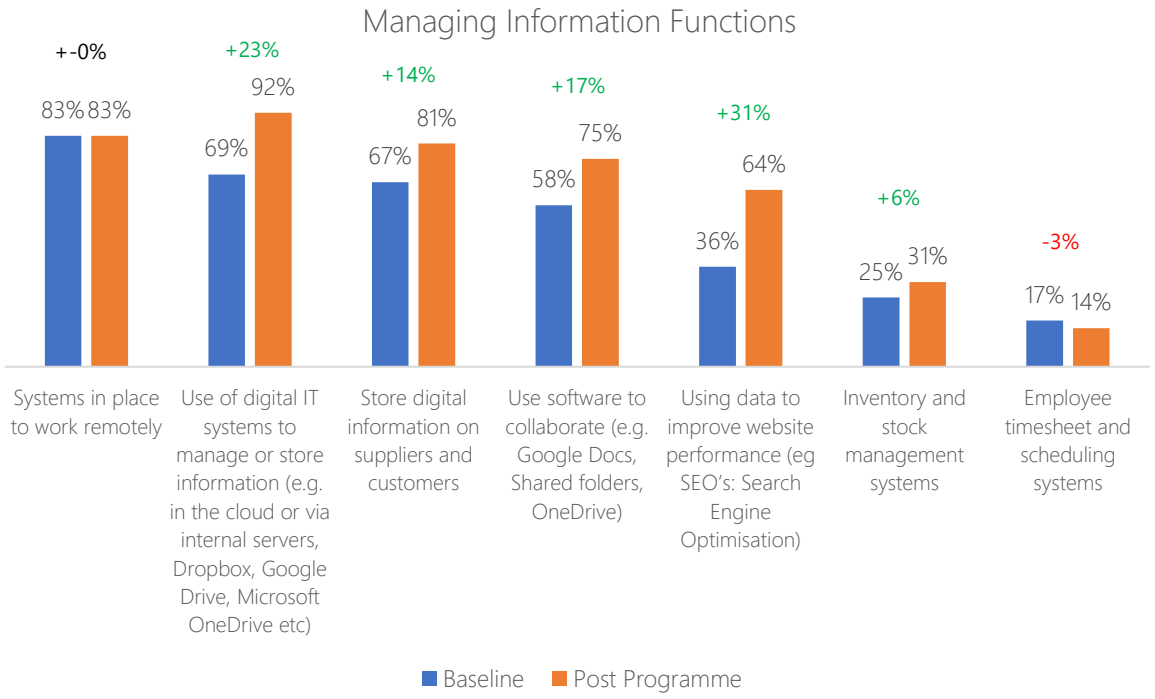
Source: Baseline survey n=36, final survey n=36. Note: some don't' add up to 100% due to 'don't knows'/'unsure'.

For communication functions:

- E-mail was frequently used for engaging with customers (86%), as was virtual communication such as video conferencing (72%). Less than half of businesses (42%) had a CRM system, and 25% had some form of online booking system. Very few used or adopted procurement tools to compare or provide quotes, which many considered inapplicable.
- It is also an area where the fewest gains were made – partly because more routine functions were widespread and perhaps widely adopted due to Covid and because of the inapplicability of the lack of adoption of more sophisticated tools.
- Online booking systems for appointments and meetings is the area that had the most success in relation to adoption post programme (+31%).

MANAGING INFORMATION

Key Finding: Remote working and digital storage were common and collaboration tools used by over half the sample at the baseline. Post programme responses indicated largely positive uptake in technology uptake with the exception of remote working, which did not change (which was already high at 83%).



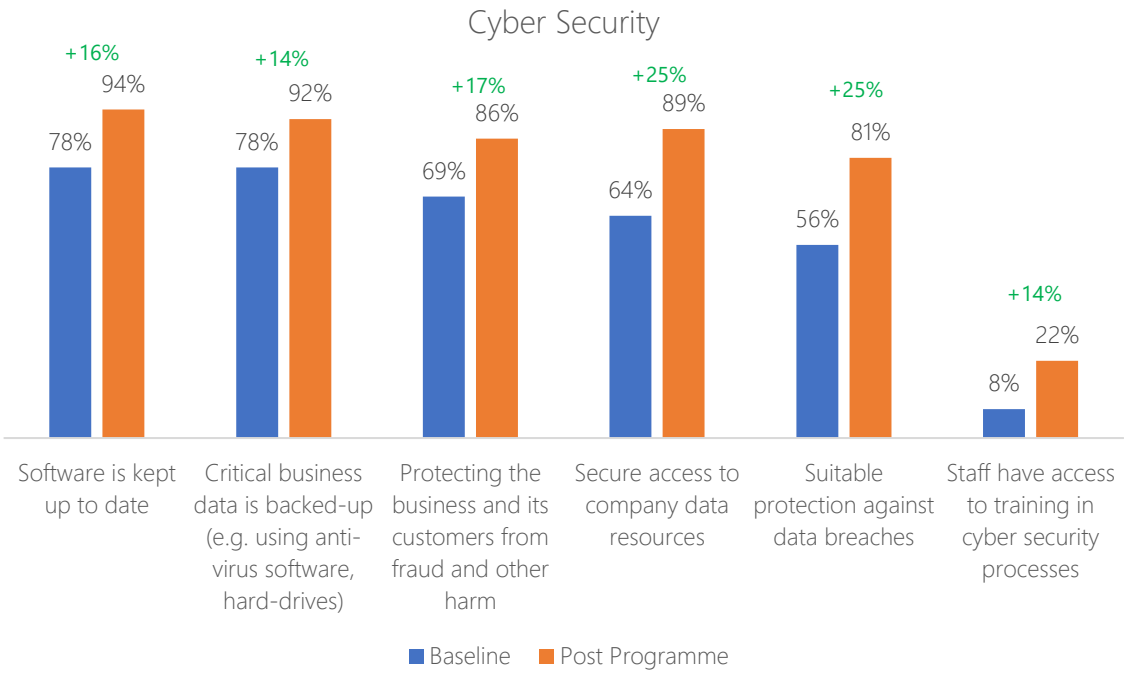
Source: Baseline survey n=36, final survey n=36. Note; may not sum to 100% due to 'don't knows'/'unsure'.

Looking at managing information:

- Most businesses (83%) had systems in place for working remotely 69% used IT systems to manage or store data, and 67% stored digital information on suppliers and customers.
- Few had inventory or stock management systems in place and/or an employee timesheet/scheduling system. This is reflective of the number of small businesses and non-employers who joined the programme.
- In terms of adoption, the two areas which stand out in terms of managing information are using data to improve website performance (+31% adoption) and the use of digital IT systems to manage or store information (+23%).
- 5 of the 7 sub-areas of managing information functions post programme had uptake levels above 60%.

CYBER SECURITY

Key Finding: Most businesses had their software up to date, and critical business data backed up at the baseline stage. Post programme, nearly all areas of cyber security had adoption levels of over 80%, with the exception of cyber training, which is less prevalent, and some interviewees did not know what security measures they had in place. There were improvements in every area of cyber security. The improvements took the overall 'adoption average' to 77%, up from 59%.



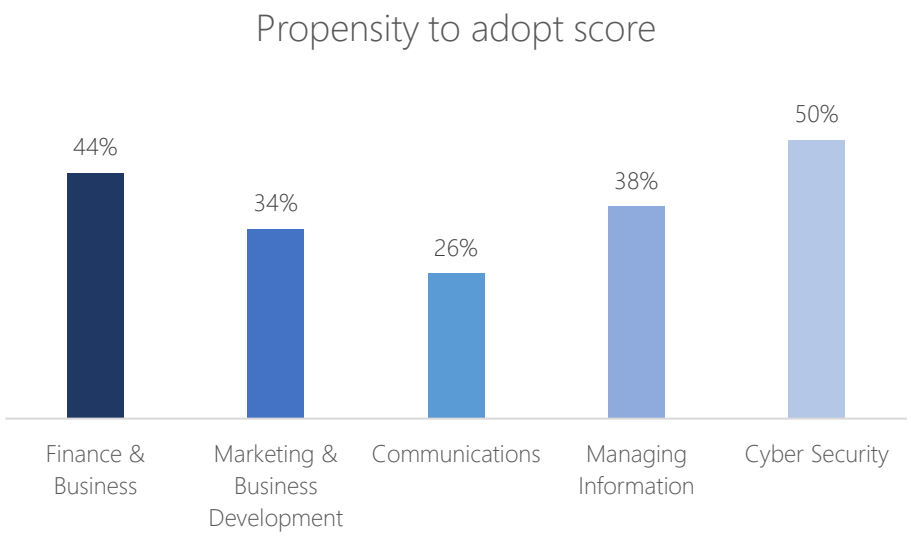
Source: Baseline survey n=36, final survey n=36. Note: some don't' add up to 100% due to 'don't knows'/'unsure'.

Looking at the cyber headlines:

- At the baseline, most businesses advised that they keep their software up to date (78%) and their critical business data backed up (78%). Post programme these numbers rose to 94% and 92% respectively.
- There were more non-responses and not applicable answers given here. Certain businesses did not have staff, so staff access to cyber security training was not applicable to them.
- Training in cyber security processes was very low at the baseline and, despite moderate uptake, was still only 22% post programme.
- There were improvements in every area of cyber security. The improvements took the overall 'adoption average' to 77%, up from 59%.

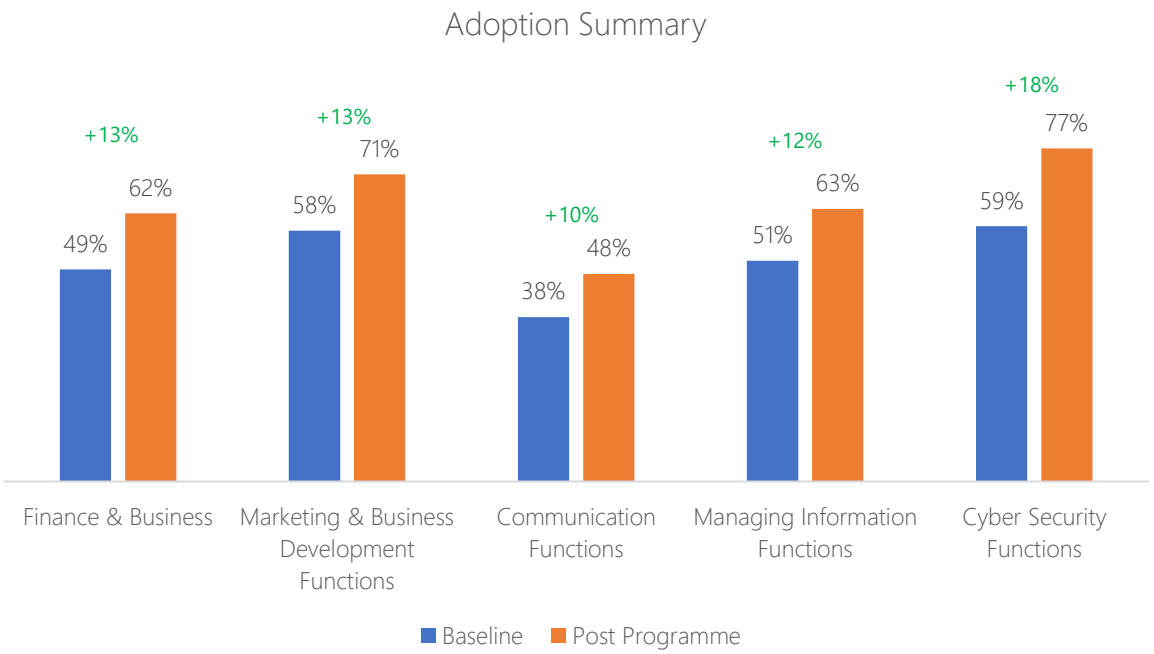
PROPENSITY TO ADOPT

Key Finding: The propensity or likelihood to adopt score was an average of 38% across the five technology areas. The area with the highest propensity to adopt was that of cyber security (50%). The area that was least likely to see adoption was communications (26%).



Those respondents who said they had not adopted technology in a specific area were then asked about their likelihood of adopting technology in this area on a scale of 1-100 to get a sense of their intentions. For those that had not adopted technology in an area, the likelihood they will in the future was highest for cyber security (50%), followed by finance and business (44%). Businesses that had not adopted communications technology were least likely to do in the future (though 26% still might).

ADOPTION SUMMARY



Source: Baseline survey n=36, final survey n=36. Note: some don't' add up to 100% due to 'don't knows'/'unsure'.

The overall findings show a higher level of reported technology adoption across all business areas.

The most significant change in technology adoption was in the area of cyber security functions (an 18% increase). The lowest change was in communication functions (+10%).

On average, adoption percentages across the five business areas were 65% post programme, having been at 52% at the baseline stage (+13% difference).

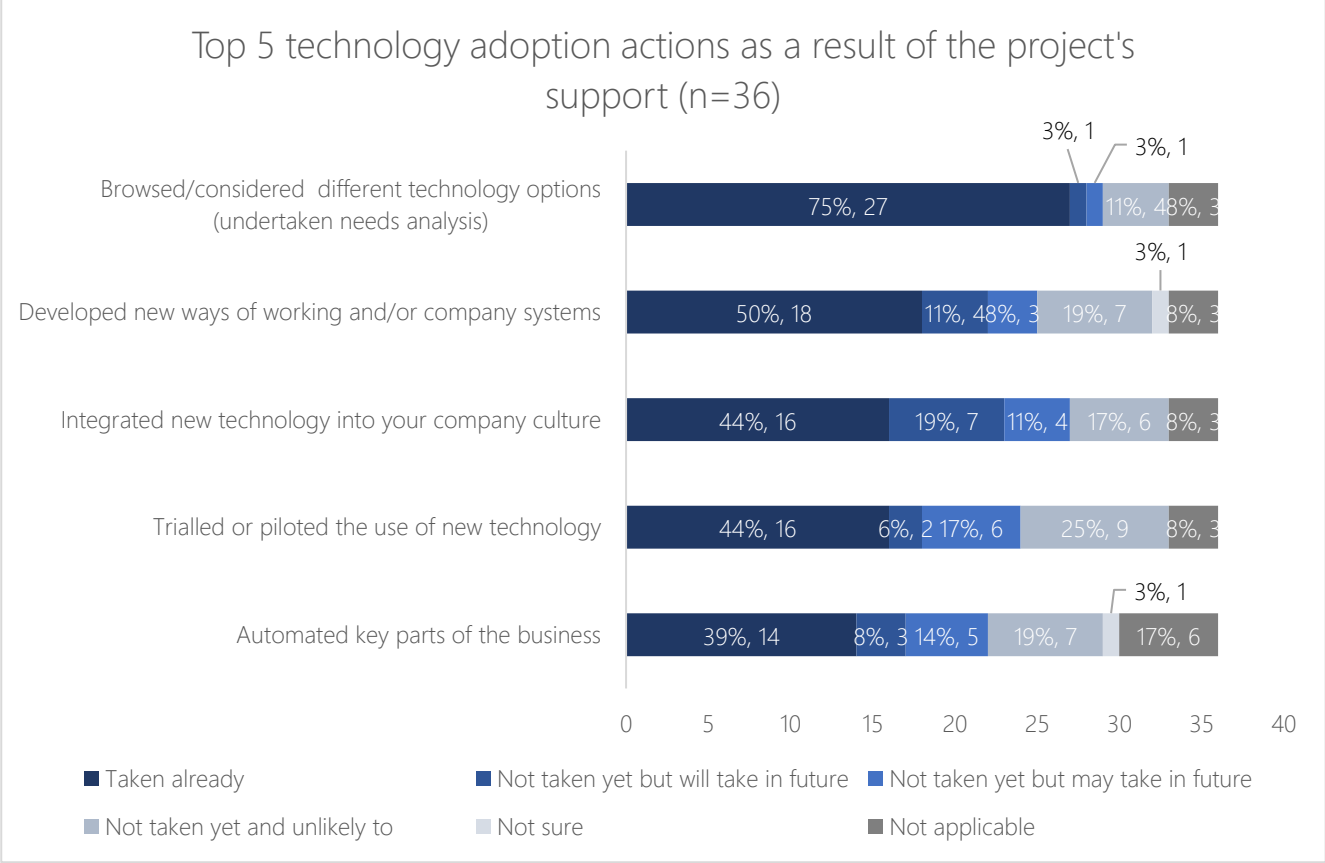
A combined table from each sub-area can be found in Annex Three.

5. TECHNOLOGY OUTCOMES AND BEHAVIOURS

This section examines the results of the final survey of 36 business participants in the Techknowledgey Transfer programme and, in some cases, compares it to the same cohort of 36 businesses who completed the baseline survey. It explores technology adoption actions and the integration of technology systems. The time and resources spent and planned are summarised and commercial impacts considered. Barriers to technology adoption are reviewed as well as the willingness to adopt new technologies. It concludes with an assessment of technology understanding, the capacity to manage technology adoption and the effects of covid on adoption.

5.1 TECHNOLOGY USE

TECHNOLOGY ADOPTION ACTIONS



Source: Kada Research, Final Survey, 2020-2022, n=36

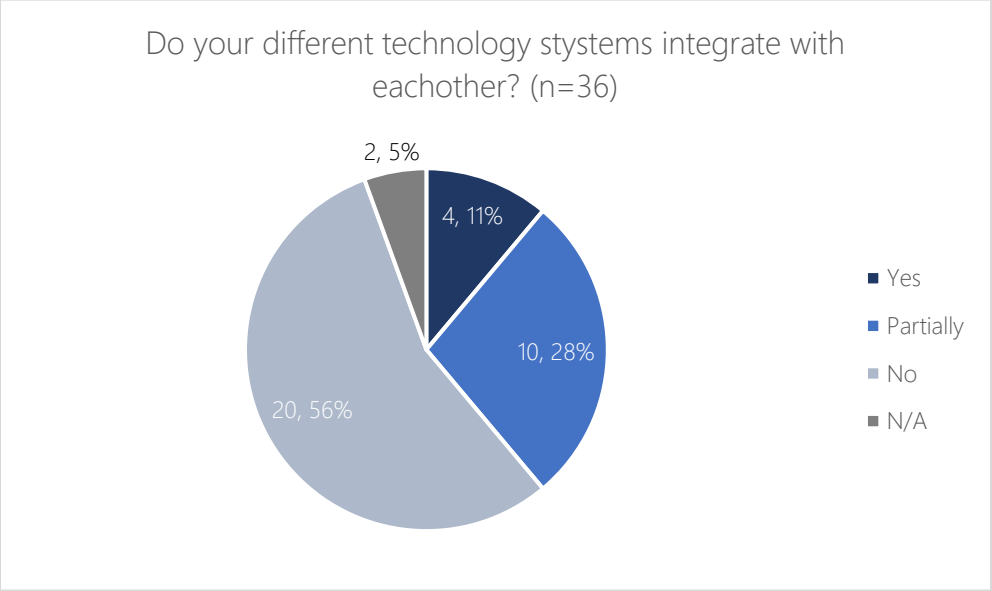
Since engaging with the support, the most common technology adoption action taken since the programme by 27 of the 36 respondents (75%) was browsing/considering different technology options, followed by new ways of working (50%) and/or company systems (44%). The graph below outlines the top 5 technology

adoption actions following the support. All technology adoption actions can be found in Annex Five. The least prevalent technology adoption action was hiring new staff members, as stated by just 5 respondents (14%) and looking for technology capacity when hiring staff (4 citations, 11%).

It is important to note that this question was asked just after the programme ended, so the data reflects technology adoption actions taken from the start of the programme until the end. Some businesses will consider technology adoption actions at a later date. Some businesses needed time to take in the new information they had learnt on the programme or were planning to adopt technology when their business had further grown.

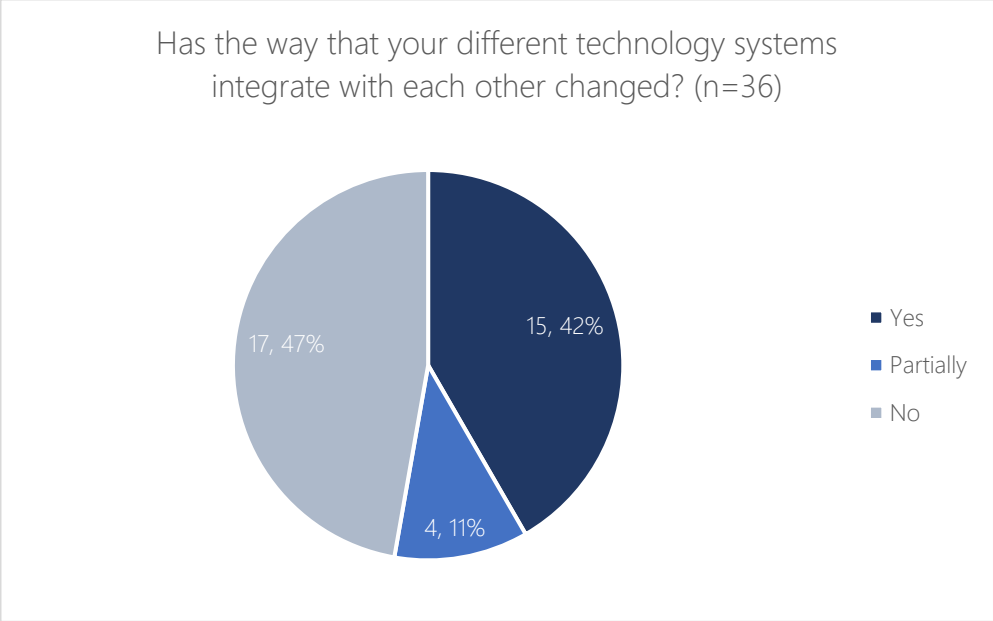
INTEGRATION OF TECHNOLOGY SYSTEMS

At the baseline survey, 11% (4 respondents) explained that technology systems within their firm were already integrated. 28% (10 citations) had partially integrated their technology systems. 56% of respondents (20 citations) stated that there was no integration.



Source: Kada Research, Baseline Survey 2020-2021, n=36

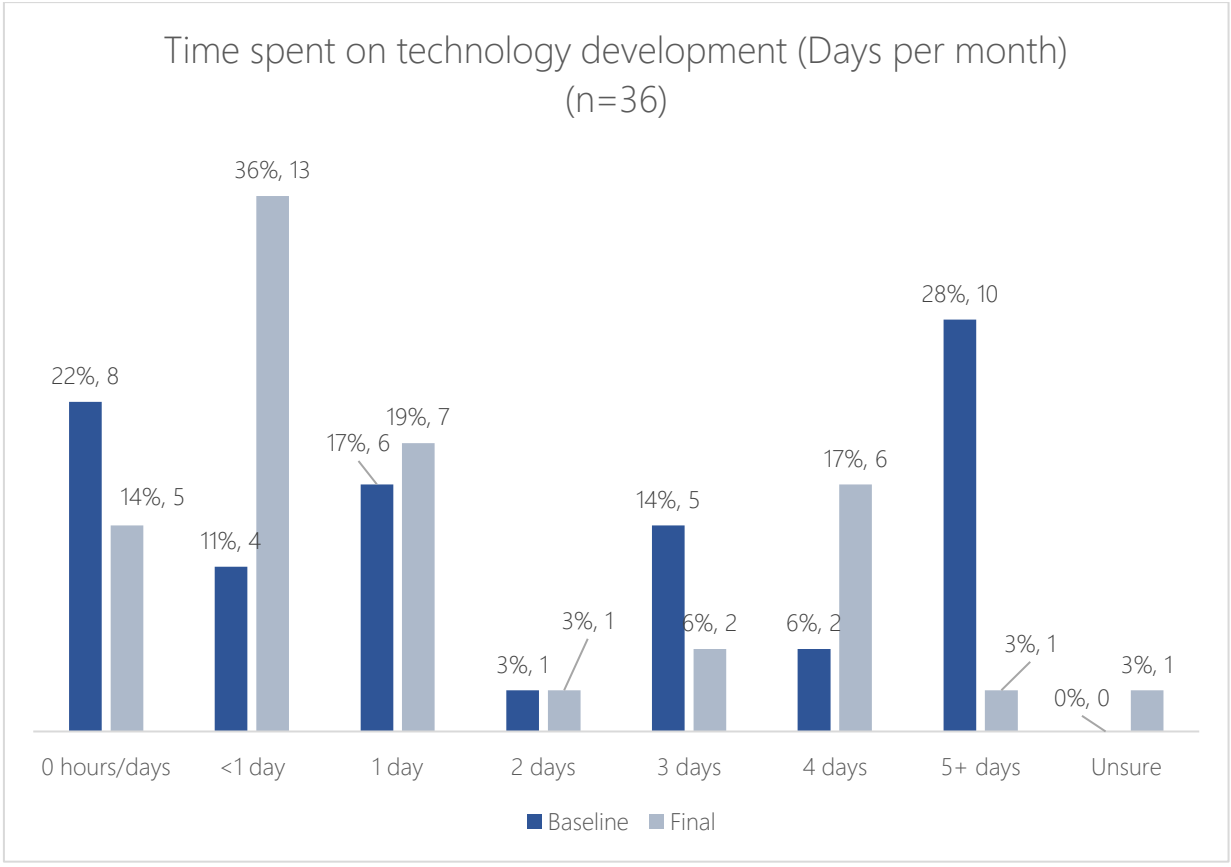
Of the same cohort, since engaging with the support from the Petroc programme, 42% and 11% of firms, respectively, said the way different technology systems integrate had either completely or partially changed. 17 respondents stated that the integration of technology systems had not changed.



Source: Kada Research, Final Survey, 2020-2022, n=36

TIME AND RESOURCES INVESTED

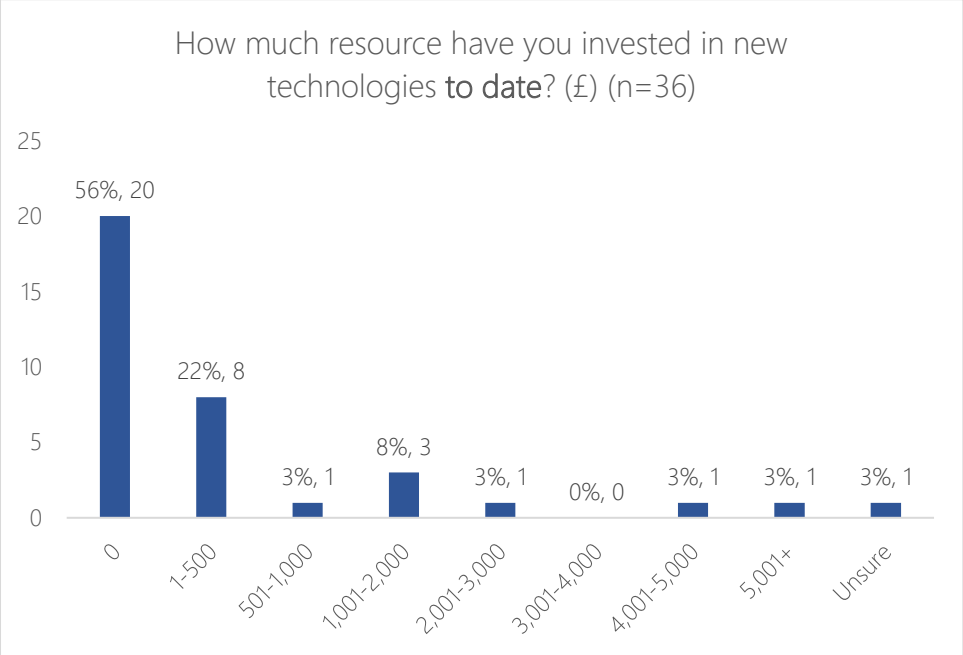
Time invested: At the baseline survey, 22% of respondents (8 citations) stated they had spent no time at all (0 hours/days) on technology development. 14% of respondents stated this at the final survey. Respondents spending less than one day on technology development increased by 25%.



Source: Kada Research, Baseline Survey 2020-2021 and Final Survey, 2020-2022, n=36

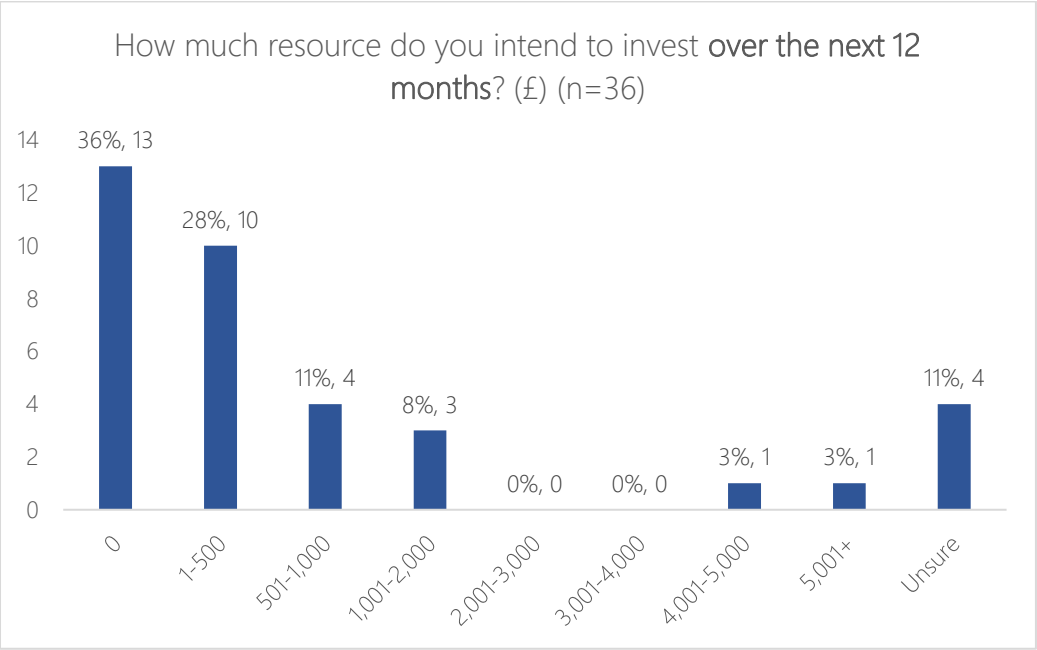
Resource invested in new technologies: At the baseline survey, of those who were able to quantify what resource they have invested in new technologies (30 of the 36 respondents), the average was £610.80 per annum. Those who hadn't invested in new technologies outlined that they were in the process of researching what to invest in with several outlining time as a constraint.

Resource invested to date: Since engaging with the support, 16 of the 36 respondents (44%) have invested resource in new technologies. 9 of the 16 respondents have invested between £1-1,000; 4 of the 16 respondents have invested between £1,001-2,000; one firm has invested between £4,001-5,000, and another has invested over £5,001. One firm cited 'Unsure'.



Source: Kada Research, Final Survey, 2020-2022, n=36

Intended investment in resource over the next 12 months: Since engaging with the support, 23 of the 36 respondents (64%) intend to invest resources in new technologies over the next 12 months. 10 respondents intend to invest under £500; 7 intend to invest between £501-2,000; one firm, intends to invest between £4,001-5,000 and one intends to invest over £5,001.



Source: Kada Research, Final Survey, 2020-2022, n=36

COMMERCIAL IMPACT

	After Support
	Increase
Time/resource savings (to date)	33%
Time/resource savings (next 12 months)	53%
Profitability (to date)	25%
Profitability (next 12 months)	42%
Average	38%

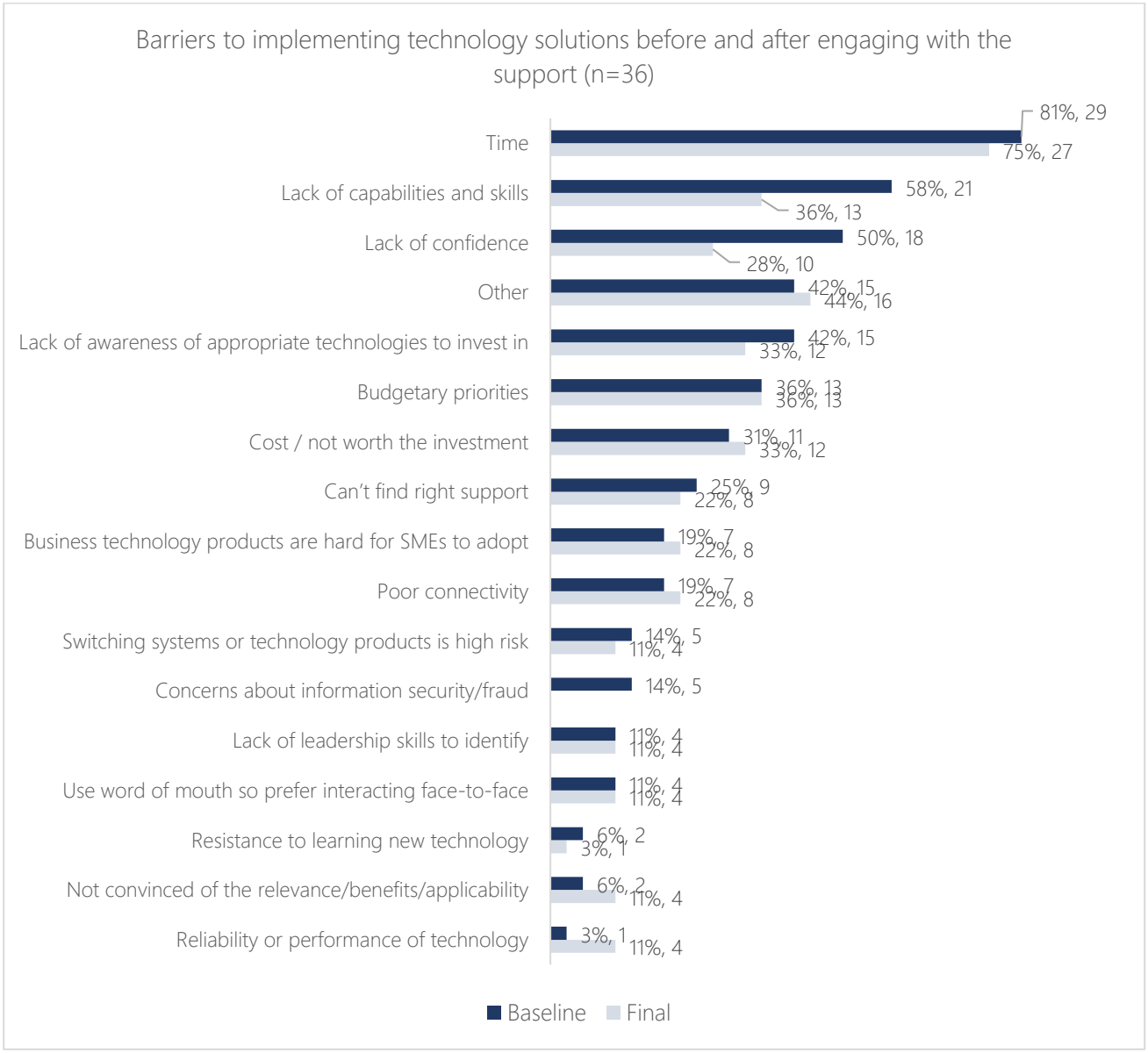
Source: Kada Research, Final Survey, 2020-2022, n=36

The table above shows the average percentage of businesses that noted an increase in time/resource savings and profitability.

Since engaging with support from Petroc, 33% of businesses cited they had experienced time/resource savings to date, and 53% predict increased time/resource savings within the next 12 months. Equally, 25% of firms have experienced increased profitability to date since engaging with Petroc, and 42% predict increased profitability within the next 12 months.

BARRIERS TO ADOPTING TECHNOLOGY

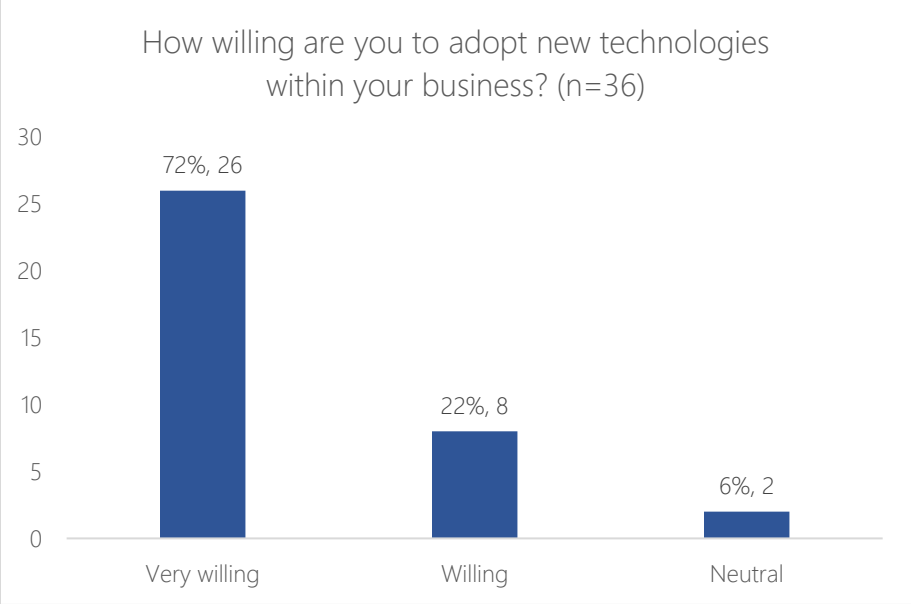
Time was the most highly cited barrier in the baseline and final survey, 81% (29 citations) and 75% (27 citations), respectively. The chart below displays the barriers firms faced before and after engaging with support.



Source: Kada Research, Baseline Survey 2020-2021 and Final Survey 2020-2022, n=36

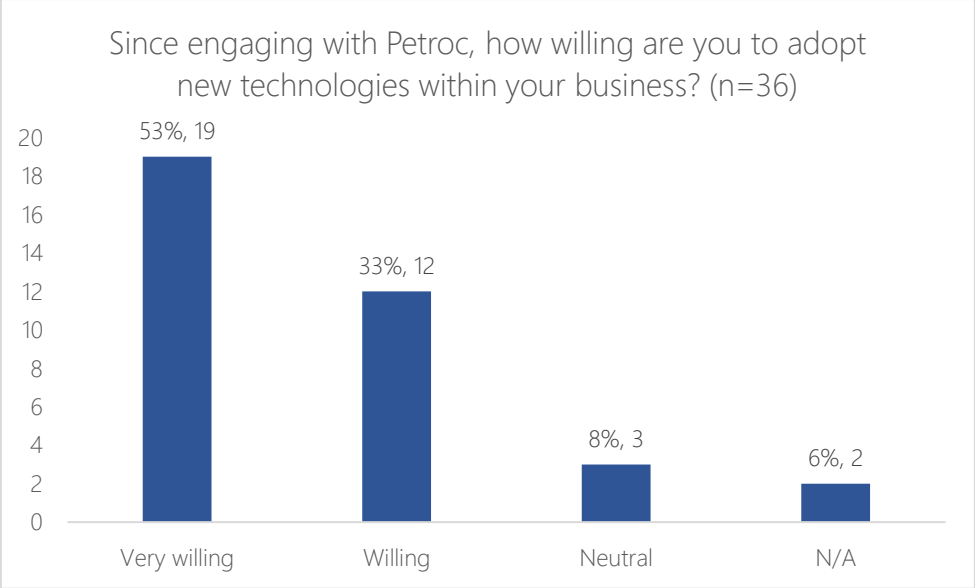
WILLINGNESS TO ADOPT NEW TECHNOLOGY AND APPLY LEARNING

At the baseline survey, 72% and 22% of respondents were very willing and willing, respectively, to adopt new technologies within their business, and 6% (2 citations) were indifferent.



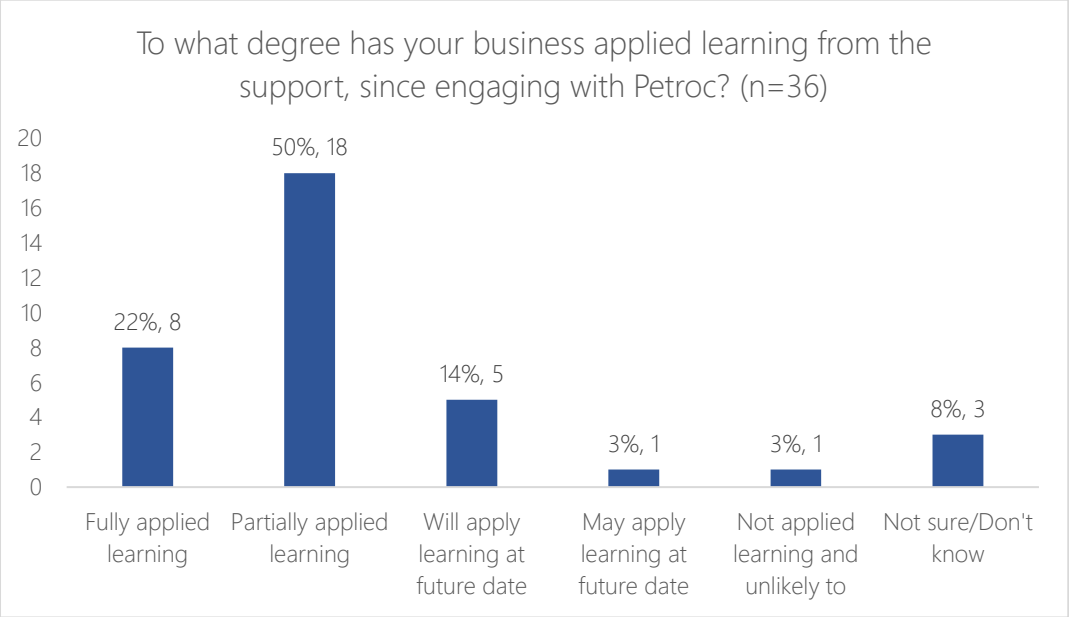
Source: Kada Research, Baseline Survey 2020-2021, n=36

Since engaging with Petroc, 85% of respondents are either very willing or willing to adopt new technologies within their business.



Source: Kada Research, Final Survey, 2020-2022, n=36

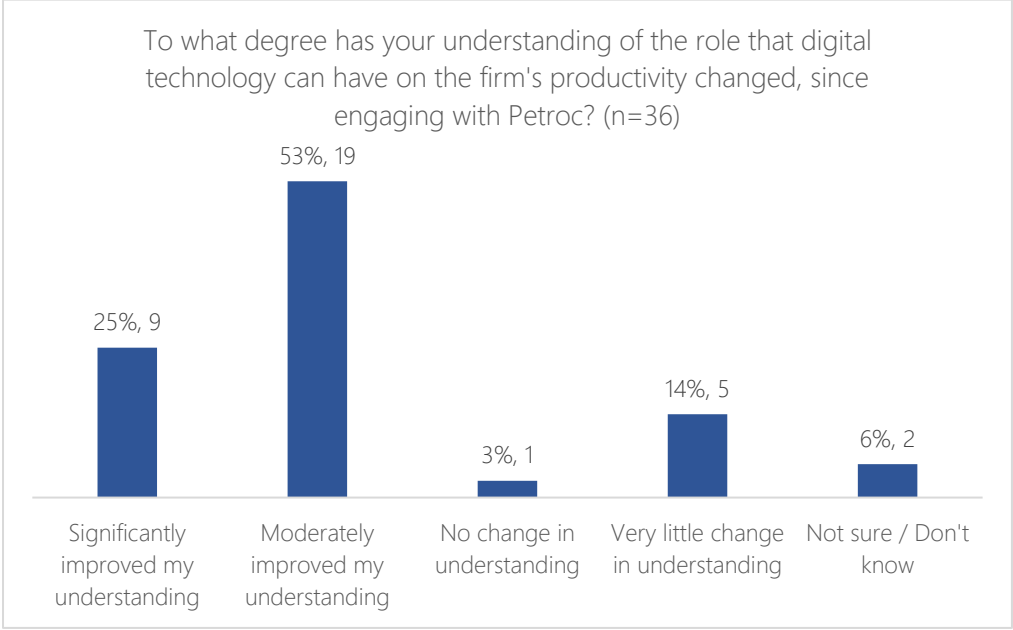
22% and 50% of respondents have fully or partially applied learning from the support since engaging with Petroc, and 14% will do so at a later date.



Source: Kada Research, Final Survey, 2020-2022, n=36

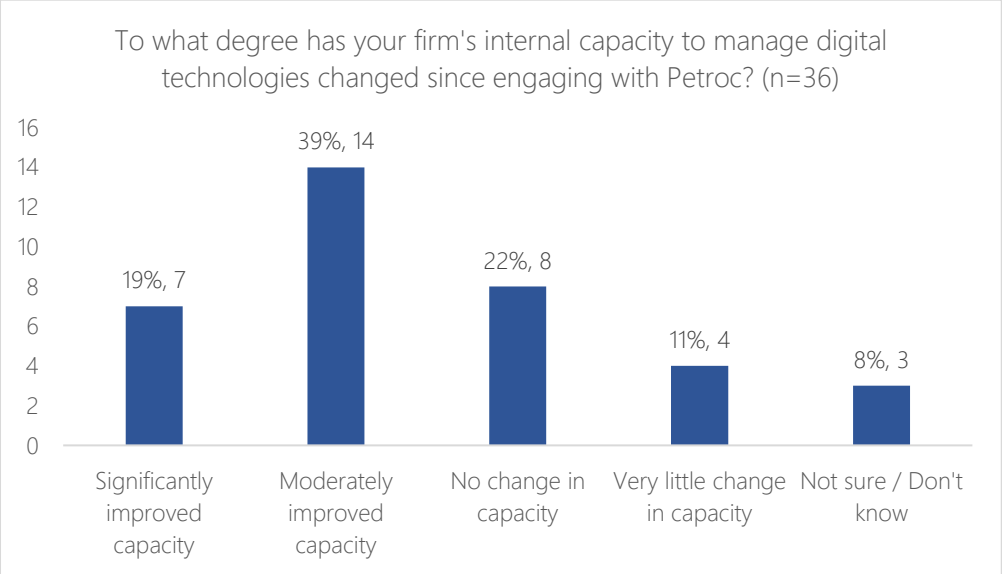
UNDERSTANDING OF TECHNOLOGY, CAPACITY TO MANAGE IT AND COVID

Understanding digital technology: 25% of respondents had significantly (25%) or moderately (53%) improved their understanding of the role that digital technology could have on a firm's productivity.



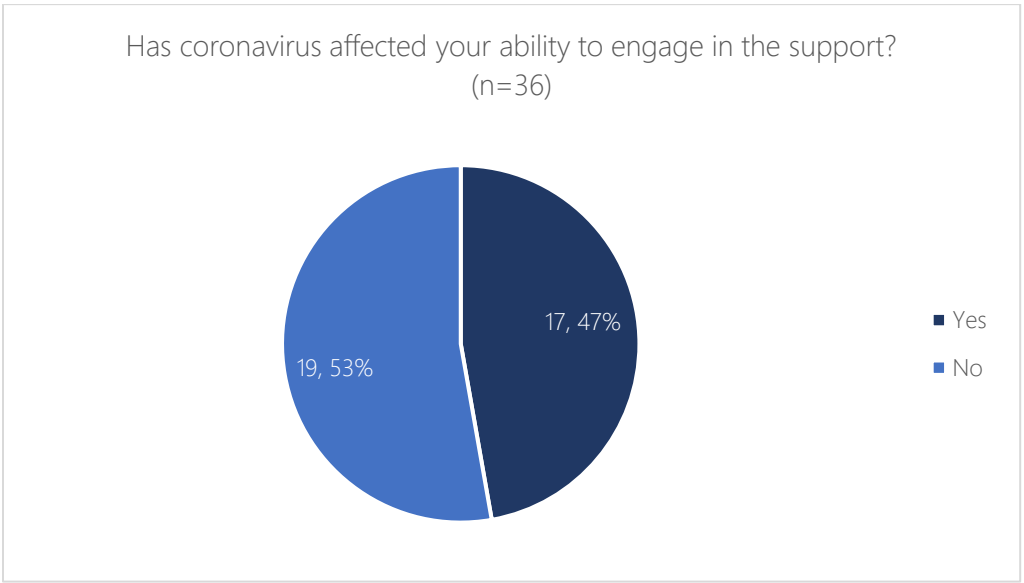
Source: Kada Research, Final Survey, 2020-2022, n=36

Internal capacity: 19% and 39% of respondents, respectively, said their internal capacity to manage digital technologies had significantly or moderately increased since engaging with Petroc.



Source: Kada Research, Final Survey, 2020-2022, n=36

Covid-19: 47% of respondents stated that the Covid-19 pandemic affected their ability to engage in the support from the Petroc programme.



Source: Kada Research, Final Survey, 2020-2022, n=36

Case Study - Piano teacher grows business as a result of digital marketing actions

Karen Guy – a piano teacher – established her teaching business in 2020, a month before the implementation of pandemic restrictions. She continued her business during this period by moving her lessons online.

Karen was recommended to join the programme by the Petroc management team with whom she had previous contact. The team knew she had recently started her business and thought the programme might be useful. Karen joined the programme to learn more about social media marketing and to be able to link her different technology systems together.

During her time on the programme, Karen took on a student to help her adopt technology within her business. Karen found the quality and appropriateness of the process of taking on a student to be *"really good"*. She felt listened to and supported at the meetings with the programme management team and the student's lecturer. She added, *"the meetings were a good opportunity to express my wishes for the outcomes of the placement"*.

The student found the initial meeting with the business a good opportunity to clarify what they wanted during their time on placement.

"It was a very back and forth discussion, bouncing ideas off each other, to begin with."

This allowed him to do some preparatory research before the placement began as to what actions could be taken. For example, one idea was to identify and use other social media platforms in addition to Facebook.

From the student's perspective, the programme provided an opportunity to secure a suitable placement (a requirement of his Level 3 Business Studies Extended Diploma). He found the process straightforward.

"It seemed more of an interesting way of completing a placement. Going out to find one ourselves, we tend to get stuck with boring stuff like making coffee or filing, but this placement had a focus of actually working with small businesses to implement technology."

The student helped Karen learn how to make the most of Instagram for the promotion and advertising of her business. He also set up Mailchimp and Gmail accounts to link her social media platforms. The student helped Karen design a logo for her business and showed her how to upload it to various online platforms.

"The logo helped my business look much more professional. I went from a woman teaching the piano in her house to actually being a proper business, and all the advertising has really worked."

The student said the best part of the placement was the freedom they enjoyed to try out new ideas, which aligned well with the initial brief.

Being a small, fairly new business, Karen felt that the placement offered a good opportunity for the student to practice their skills *"on a blank canvas"*.

The student believed he also gained from the real-world experience during his time on the placement. Having the responsibility of supporting a business in developing the use of technology was a good addition to his CV and helped him hone his personal development skills, such as teamwork and collaboration.

One difficulty the student faced was a perceived lack of clarity during the initial stages of the placement, but this was quickly resolved with guidance from the programme managers and maintaining good communication with the business. The student noted, *"I had good support from the project managers to overcome any issues"*.

Before the programme, Karen's main barrier to adopting technology was a lack of knowledge which was *"definitely"* overcome as a result of the student placement.

"I didn't understand how you could use Instagram for your business. I didn't really know what it was all about."

Karen says if she had not engaged with the programme, she would not have joined Instagram and would not have made a logo because she had neither the skills nor the knowledge to do so. Since the support from the student, more potential customers are now contacting her for information about her services.

Her understanding of the role that technology can play in a business setting has certainly changed, particularly since the student taught her about SEO (Search Engine Optimisation) for her website and how to use keywords to get more searches on the internet. Her online platforms are now all linked to her website as a result of the student placement.

Future priorities for Karen include maintaining her presence on the new online platforms created during the placement. She also plans to continue with lesson planning as she now has more pupils due to the technology adoption actions made during the placement.

The student hopes the concept will expand to other colleges as he feels it is a good way of supporting local businesses and giving back to the community. He also liked the fact that there was a wide range of business sectors available for placement from which students could choose.

6. BUSINESS PERSPECTIVES

This section summarises the experience of business participants in the Techknowledgey Transfer programme. It draws on five midterm surveys, five final surveys and nine companies that were asked additional qualitative questions at the final interview stage (a mix of those with and without a student). These nineteen firms provide insights into the participants' experience, including some firms with student placements. The five midterm surveys were undertaken during Covid-19 restrictions, and fourteen final ones were undertaken early in 2022 as restrictions were lifted.

The interviews explored the application stage, the masterclasses and, for those that had them, the student placements. They explored any outcomes achieved and technology adoption plans, how satisfied they were, and suggested improvements and future priorities.

6.1 INITIAL APPLICATION STAGE AND MASTERCLASSES

Key Finding: The professionalism and explanation of the support was rated as excellent. The diagnostic was long but useful in terms of identifying requirements and assessing technology maturity and opportunities. The masterclasses were rated highly and described as highly tailored and interactive, offering relevant advice in an accessible format. The online format, a change to that which was anticipated, offered flexibility but was not as personal. The masterclasses provided a good grounding in key areas of technology and hints and tips on where to go to find further information. Some would have welcomed a follow-up session to deepen understanding.

On average, businesses rated the quality of Petroc marketing materials as 'good', the explanations given to them of available support as 'excellent', the relevance of the available support as 'good' and the professionalism of the Petroc team as 'excellent'. The process of joining the programme was a 'straightforward' and 'good' process.

"The college supported us well. Petroc [was] good at guiding me through the process and what I could get out of it"

Several interviewees considered the baseline diagnostic survey a little long but thought it useful for exploring technology options and stimulating discussion on potential development opportunities.

"The initial diagnosis stage brought out a lot of discussion that helped us start the conversation around [the] support we needed. It was very useful."

Businesses generally rated the masterclasses highly, especially the accounting and marketing and social media masterclass. Businesses felt the support was highly tailored. They welcomed the opportunity to ask follow-up questions and access wider resources from the delivery providers. The advice was felt to be *"relevant"* and *"valuable"*. *"The support provided exactly what we were looking for"*, commented one firm. The online delivery format was felt to be accessible, and as not many businesses took part in most of the workshops, there was ample time for individual questions.

"The masterclasses have given me the confidence to do some things I wouldn't have done otherwise and motivated me to do the things I've been putting off. The masterclass for accounting software was really helpful. I am keeping tabs on things better now. I can see what is going in and out. I have got a better

handle on the financial side of things. I wouldn't have done this without the masterclass. The marketing strategies for social media masterclass was helpful too. I intend to apply the learning on this."

Several businesses said the masterclasses helped provide a good initial understanding of what technologies were available so that they could *"pick things up and take them forward"*. Some would have liked more advanced classes; one area mentioned was marketing automation software. Others would have welcomed a follow-on meeting or masterclass to embed learning and deepen understanding.

"Masterclasses were informative and highlighted [the[need for technical development in the businesses with social media marketing in particular."

"There were some really helpful tips and information about where I could go online to find information that I wouldn't have known about."

While the Covid-19 pandemic shifted the masterclasses to an online format, this did have some benefits. One respondent felt they would not have been able to participate in the masterclasses had they not been locked down at home with more time available to focus on growing their business and developing their skills.

"Even though it was delivered on Zoom, it felt personal. The resources have been great."

"Brilliant, packed with information. It was all relevant and provided advice that I wasn't aware of."

"They got it spot on. All the information was valuable, and they explained everything so perfectly, so I now feel really confident in implementing the advice."

One participant interviewed at the midterm stage found the virtual format somewhat impersonal, particularly as there were not many participants and the presenters did not always have their cameras on (this was done to improve connectivity). The workshops took place during working hours, which was difficult for participants working from home while looking after children. One business felt that the workshops would have been easier to accommodate if they were shorter. There were connection issues with workshops presented by the college, causing videos to cut out. The attendees liked it when they could ask questions, and there was a more conversational approach. One business was signposted to individual pre-recorded clips.

"I would have quite liked to see the presenter in person; she had [her] camera off, [so it] felt less personal."

"It was difficult to find the time to do the support."

Overall, the programme had a positive impact on the businesses consulted. They gained knowledge and understanding of the potential of technology within their business.

6.3 RATING THE STUDENT PROJECT AND MENTORS

Key Finding: There was perhaps less receptiveness to receiving a student than had been anticipated, and there were initial teething problems with the process and a lack of student/business contact due to Covid-19. The final evaluation shows that those that had a student, apart from a few instances where there was a poor fit, really benefitted from it.

The student placements have helped some businesses adopt technology to promote themselves much better than previously. This is perhaps one of the greatest achievements of the placements. Businesses mentioned support in blogs, social media, emails, hashtags, Linktree, Mailchimp and Google Docs. One company learnt by watching how the student carried out these activities.

The student placement gave businesses a clearer idea of practical actions they could take to adopt technology, enhancing their business systems and processes. This included the development of appointment and meeting booking systems and websites, improving their social media presence and linking online platforms.

The support from students was described as *"really helpful"* by several businesses. The placement allowed both students and businesses to dedicate time to technology development. One business mentioned that the student and mentor meetings encouraged them to take action to embed technology which, given other business priorities, they might not otherwise have taken the time to do.

"The good thing is when you have somebody working literally alongside you, with the expertise and knowledge, I don't have to research what I need to do. If I didn't have the student, the podcasts would still be on my to-do list."

During the RCT process, six businesses declined a student placement. The most common reasons for declining the opportunity were time constraints due to the extra job roles of the business owners or childcare and business management issues due to the onset of Covid-19 at the time the resulting change to typical business processes.

When the RCT process was abandoned, of the 17 offered, the seven businesses that declined mainly cited time management issues. The 17 businesses were given this opportunity quite late in the programme. One of the businesses was a seasonal trader, so would have preferred taking up the opportunity when they were in season.

"I didn't have the time due to the pandemic."

"At [this] point, we are very busy with the business, and I don't think it would be fair to take on the student."

One business owner who did take on a student had to ensure their insurance policy had sufficient cover (as mentioned elsewhere, appropriate insurance cover was quite a challenge). This delayed the student project, limiting the amount of time the student was able to spend on the project and making it hard to engage effectively with them. They were also unable to meet the student in person. Had they been able to build a more personal relationship, this business felt they would have been able to get more out of the project. In another business, supervisors and staff had to self-isolate, which meant the student was not as closely supported as they could have been.

Many projects mentioned the positive effects their mentors and students had.

"I liked the fact we had a mentor. It was handy because they had the know-how. They helped the student expand their knowledge business-wise and guided me. It gave me and the student more qualified knowledge."

"I liked the involvement of a younger person. The knowledge they had of social media will open up different markets. They developed my knowledge with their knowledge and vice versa."

"I found the process of taking on a student easy. I had a good idea of what I wanted beforehand. The tutor was helpful in helping to decide which student would be best for what I wanted. It was a brilliant level of support. The programme recommended me to [an appropriate provider]. Overall, it was really good. I enjoyed working with the student."

"It's had a substantial impact on business. Without student placement, I would not be going forward as well equipped as I am now."

There are, of course, benefits for the student too.

"Business technology covers a wide area. It's a wonderful programme. Students interacting with working businesses is beneficial for them. Seeing how businesses are run is valuable for them. The concept is amazing."

Case study – Online retailer Kimono My House accelerates technology adoption.

Kimono My House is an e-Commerce start-up formed in 2020 and based in North Devon. The company sells sustainable cotton kimonos for artists, gardeners, and home wear.

Business owner Olivia learned about the Techknowledgey Transfer programme by word of mouth. She joined to focus on the continued growth of her business. Being a sole trader, Olivia says it was nice to work with other people.

"It helped motivate me to get things done that I needed to do but was putting off."

Olivia said the masterclasses were very useful. She has already applied learning from the accountancy masterclass and took insights from the social media marketing masterclass.

"It was reassuring that I was going along the right lines and doing things the right way."

Olivia found the student placement to be *"a great addition to the programme of support"*. She could put into practice new innovations that would positively impact the company. Olivia wrote a brief for the student to which she added tasks every week. For example, adding alt text to website images and researching various Facebook groups to target for advertising. The student helped develop her website and improve her SEO (Search engine optimisation) capabilities.

"Having someone to implement some of the technology adoption work also stimulates you to get things done, for instance, in preparation for the next meeting."

The student chose to join the programme because she had not yet secured a placement elsewhere, which was needed as part of her studies. Her motivation for joining the programme was to learn something new. She carried out tasks to develop the company's website, such as meta-tagging and alt text.

"It [the experience] was really fantastic…I learnt lots of new things to do with digital marketing."

Lineal, a business technology support company, delivered the mentorship aspect of the placement. They answered any questions the business or the student had. Olivia, the business owner, found the support from Lineal to be *"great"*. The student was also heavily supported by Lineal.

"Some of the tasks were quite hard, but then one of the people from Lineal helped me".

Olivia was *"very satisfied"* with the programme. She said it would have taken her a lot longer to do what she had accomplished during the programme without the support.

The main barrier for technology adoption to overcome was a lack of knowledge. The programme has increased her understanding of technology and the role it can play in a business setting. She still finds lack of time a barrier.

The experience of working with a company and the positive impact this has on future career prospects was significant for the student. She felt that a longer placement would have been better and would have liked some feedback from the management team about how she was doing on the placement. Although overall, she gave positive feedback on the experience she had.

Olivia says she would have liked a few meetings with the management team without the student to get some feedback *"to see whether I was tasking the student with the right things. I had no idea if it was enough work or too much work for [her]."*

Looking to the future, Olivia would like to focus on developing her PR and marketing skills, for instance, producing articles for magazines. She would be happy to receive support in this area.

6.4 OUTCOMES

Key Finding: Many of the businesses have adopted new processes or software as a result of participating in the programme. Those with a student and mentor welcomed the hands-on support they received.

All five of the businesses at the midterm stage have decided to adopt at least one new process or software as a result of participating in the programme. For instance, two businesses intended to purchase accounting automation software suggested in a masterclass. They had a much greater understanding of how to maximise their existing technologies and how to link their systems to save time and minimise errors. The remaining three businesses consulted at the midterm stage all had plans to use social media, adding video functions to their Instagram accounts, setting up business pages on platforms such as LinkedIn and linking their social media sites more closely with their websites. One respondent found a social media app to automate and plan all their posts and now wants to set up an online booking system.

"I want to automate my website flows, e.g. [with] automated emails and subscribe button so that customers can subscribe to updates from me. I am building an email list that will back up my Instagram marketing. I am now using Instagram much more strategically and linking this to my Facebook and website."

In terms of barriers overcome, all businesses who had completed a final survey felt they had made progress since their initial baseline diagnostic (see also Section 5.2). Four businesses interviewed at the midterm stage mentioned feeling more aware of the technology available for businesses to use and having more understanding of what technology might be relevant to them. One business mentioned improved confidence. The knowledge they gained helped them feel able and willing to implement their technology plans. However, time and financial resources were mentioned by two businesses as persistent barriers.

"We now have a good knowledge of what we can do, but the challenge is finding the time to implement this."

At the final stage, businesses were asked what difference the programme made overall. One business felt that the support had helped them overcome challenges faced due to Covid-19 by increasing their resilience and ability to solve problems. Another business did not feel that the support helped them overcome challenges related to Covid-19 but noted that there was not much anyone could have done to help their very specific circumstances.

"I have overcome knowledge and understanding barriers and now have the confidence to build and drive marketing."

Several companies said their confidence had improved in terms of adopting new technology, e.g. marketing platforms (*"technology was very scary for me initially"*). The support provided firms with a *"clearer idea of what [we need] to do"* and had a *"substantial impact on business."* Investment in social media and marketing enhanced links to businesses' customer bases. This, in turn, helped them raise the profile of participating companies and save them time and resources in implementing new technologies (time and resource invested is explored in more detail in Section 5.2).

"[The support] has made me think I could do this myself; it gave me the confidence to know what I would want out of a website and how to put it together."

Business participants were asked how support received helped them gain new knowledge and understanding.

"It made it easier for people to book appointments on Calendly, and we used Mailchimp ready to start marketing a new product launch. The support has given avenues to market products. Hopefully, that will generate sales and revenue."

"[The placement] helped set up a social media presence and a posting calendar for both those platforms. Introduced to Linktree. Easier for customers to link to certain things, i.e., going to the website from

Instagram, Facebook, or specific pages like contact us. We have had valuable information on the use of hashtags and marketing in general."

"Our student helped me decide what help I needed during the placement. She helped with social media, creating posts and hashtags, and created FAQs for the website. Created a social media calendar for awareness. Showed me how to use Google Docs and Linktree."

"They set up a Mailchimp and standard emails. Images for marketing. Research [to interact with] on Facebook groups. Set up Calendly and a Linktree account."

"Having someone here to show me how to do things was hugely beneficial (social media, linking to Facebook and Instagram and Scheduling media posts)."

6.5 SATISFACTION

Key Finding: Those consulted were satisfied or very satisfied with the delivery and relevance of the support, and ease of the process. The advice they received highlighted the potential of new technologies.

Businesses consulted at the midterm and final stage were nearly all satisfied or very satisfied with the support, citing effective delivery, useful and relevant information, and a relatively straightforward process. One business with a student project was neither satisfied nor dissatisfied, citing issues with insurance leading to challenges that they felt would have been best resolved before the programme began (see earlier).

"My business was really taking off [….], and I felt like I was drowning, [so] as free support, it has been great. It was an amazing opportunity, and I have found it invaluable!"

"I can't fault the project; the whole team have been really approachable, and if I had a question, I felt I could ask anyone."

Several businesses at the final stage reiterated the high quality of support from the Petroc team.

"The staff were positive and worked well with the student to help build their confidence."

The businesses were also asked about the most important aspect of the advice and support they received. Several agreed that the idea of developing an overall technology strategy was useful and that advice on how to accelerate their businesses through technology was *"eye-opening"*. As most businesses were fairly small and had received no previous formal business support before, the masterclass recommendations were well received. Suggestions for finding target markets and making business efficiencies were claimed to be *"invaluable"*.

"[I received] specific marketing advice on who exactly I should be aiming my services at to support business development."

"[I want to] be clear with my marketing strategy and develop a strategy on what direction my business is going."

"The accounting support came at a perfect time for me and has been invaluable for my business."

"I think looking at the business as a whole [is important] in terms of what does and doesn't work [in terms of technology adoption] and concentrating on important aspects of the business."

Businesses praised the Petroc staff. Those with a student project welcomed new insights and knowledge from the mentors, and the experience improved their confidence. They also noticed improvements in the student's confidence levels.

"[The programme has] given [me] confidence to do some things I wouldn't have done otherwise".

Social media, finance and accounting were key areas where knowledge had improved since the support (Section 4.1 looks more forensically at technology adoption uptake by area). In the final interviews, eight of

the nine business responses referenced the general support as very satisfying, citing friendly staff, fresh perspectives, clear communication, and a controlled environment.

"I was very satisfied; we've implemented some ideas, and they [the masterclasses] have helped to look at my business differently. They have provided training on some of the things suggested [in the diagnostic]. It was useful to brainstorm with people who didn't know my business and have a fresh pair of eyes."

"Really good, useful masterclasses. I have used the learning from it."

"I was very satisfied. If I had queries, I was able to communicate with [the] student or lecturer. I was given clear instructions on how to proceed."

"Very; help was there and was done well in a controlled environment."

Two businesses did note issues surrounding the student placement: students not showing up or lacking the ability and diverting resources to supporting them during the programme rather than the business itself. The wrap-around support offered to students was recognised as an important feature of the project.

"Very satisfied with the staff, they were able to give appropriate suggestions. To an extent, if I went in and did the website stuff myself without the student, it would have taken less time. But the focus was on the student and helping him move things forward. It took longer to work things out. I was turning up to help him rather than the other way around."

"The student placement was poor. I had one student, but they stopped showing up. Maybe there was a misunderstanding of the level of commitment needed."

6.6 SUGGESTED IMPROVEMENTS

Key Finding: Some minor refinements were suggested to the diagnostic and the delivery of some workshops, including follow-up appointments. Steps could be taken to enhance the take-up of student projects for future projects and offer a clearer placement structure clarifying the role of the student.

Businesses were asked for suggestions for improving the individual steps within the process. As mentioned earlier, one business felt the diagnostic check (baseline survey) should be more succinct and tailored to business types. Another felt that all workshop presenters should keep their cameras on and that the content should be better tailored. Two businesses suggested follow-up appointments with the presenters to support implementation. Another business felt that the portal style of delivery could be improved if the information was laid out more clearly.

"It would have been great to go one step further to get additional support to allow you to continue to implement and understand any challenges on the way. I don't always have the time to understand everything, so extra help would be great."

"Working 1-2-1 with the delivery trainers [would] help tailor and implement the technology into your business."

One business, which took on a student placement, felt that the project should not have been started until all relevant insurance policies were in place (steps were taken to resolve this issue). They also felt that the student matching process could be refined to ensure a closer fit. One business would have been very interested in taking on a student, as they did need more support and struggled to understand technology. However, the timing was not suitable, as the student project had been offered in the run-up to Christmas when the business was too busy. Had they been offered the support again once the timing was better, they would have been *"keen to take part"*. They felt more flexibility around timings would have benefited them.

Businesses would welcome a clearer placement structure clarifying the role of the student and more contact time with them. One business would have appreciated more information on the student project in terms of the expectations of the businesses. A student was offered to the business relatively quickly, and *"they weren't overly clear on what was happening"*, so they panicked and rejected the support.

"It needs to be more structured in terms [of] what the student needs to get out of it."

"It was unclear what the role of the student was. He didn't know what he was supposed to do, and I didn't know what I could ask him to do. Define [the] role a bit more."

"The amount of time you spend communicating with [the] student could be increased. The placement felt rushed towards the end."

"In normal times, more 1-2-1 time would be beneficial."

In one instance, the mentor and business were focused more on the student experience than the company technology activities. One firm would like additional masterclasses to build on the initial learning. Building on an earlier observation, two businesses would like systems in place to support the development of a good student/business relationship before the placement. Another area of improvement suggested was a longer student placement (this was also suggested by the previous case study).

Businesses requested ongoing mentoring or support in the form of a helpline or a point of contact where they could ask questions in the few months following the end of the programme. Some respondents didn't have any suggested improvements.

"All the support I was given was good. Nothing needs to be added to it. It covered everything we needed to do."

6.7 FUTURE PRIORITIES

Key Finding: The businesses seem receptive to future support, and many have adopted new technologies or are taking steps towards adoption. Social media and digital marketing adoptions were commonly followed by the development of online payment functions, accountancy and finance functions. CRM system development and PR are other areas of focus.

Businesses consulted were able to identify future technology adoption priorities. Many of the businesses intend to keep in touch with Petroc and would be keen to engage with them again in the future, making use of any potential future support. Many had future plans in social media marketing, development and general digital marketing. The development of online payment functions, accountancy and finance functions, CRM system development, and PR were other technology areas identified.

One business was looking for someone to offer advice and mentoring support to help implement new technologies. One business said they intended to implement what they had learnt on the programme at their own pace now that they have a better understanding of how technologies might be applied. Two businesses were hoping to grow their businesses with the support of technology, for instance, by integrating online card payment systems into their shop. Several businesses intend to keep in touch with Petroc and make use of any potential future support.

"I would like to develop a proper social media marketing strategy."

"I will be looking at wider business support in the area of start-up support, as everything has moved quite quickly over the last six months."

"As I am small and just starting, I haven't been looking for support really, [but] it found me at the right time."

"All the student work was good. Would be interested in the options for more support in the future."

"I will definitely be growing my social media awareness and platforms (e.g., LinkedIn and Twitter). These were previously unknown areas for me, and I have now learned about them and will work to set them up."

"In the future, I will still need social media support. Also, support in automated accounting packages and software."

The next chapter summarises the findings from the stakeholder, partner and mentor interviews.

7. RESULTS PROCESS EVALUATION: STAKEHOLDER AND MENTOR INTERVIEWS

This section summarises the qualitative discussions with stakeholders, delivery partners and mentors. It blends findings from the interim and final evaluations.

Nine one to one interviewees were consulted at the midterm point, and seven were repeated in workshop format for the final evaluation. A list of these stakeholders is provided in Annex Two. They included all four delivery partners (who led the masterclasses, supported the students and aided in recruiting businesses) and members of the Petroc team, including those involved in recruiting participants and students and delivering and administering the project. In addition, five mentors were also consulted.

They were asked about the local economic context, including the role that technology has for local SMEs and the barriers they face. They reflected on the delivery of the project, including the application and selection of businesses and students, the delivery of masterclasses and student projects, the emerging perceived outcomes for SMEs, and further examined what worked well and what could be improved. The interviews provided partners, mentors and stakeholders with an opportunity to consider the process and its effectiveness.

7.1 LOCAL CONTEXT

Key Finding: The project has the potential to help businesses improve their productivity. It is thought to be well suited to early-stage businesses and those left behind by the recent acceleration in technology adoption. Businesses, many of which were time-constrained rural micro-businesses starting from a low base, were most receptive to a tailored approach and general advice on using technology effectively to boost their business resilience.

Stakeholders were asked about the importance of technology adoption for local SMEs and what role the Techknowledgey Transfer project might play. Respondents claimed that *"the South West has a particularly pronounced problem with low productivity"*, and so [the project] *"is about driving business efficiency"*. Technology adoption, it was claimed, *"has the potential to free up time for other things"*, allowing business owners to devote less time to routine business administration and more time to scaling up and growth opportunities.

> *"The notion here is that both by informing educating business owners about technology, [and] also by giving them the support of a digital native, younger person, they may be aided [and] supported to make the transition [to a technology-adopting business]."* Delivery Partner

Several stakeholders noted that in a world where technology use is increasingly prevalent, some businesses were failing to capitalise on the benefits it can bring. *"If they fail to make the most of technology, they'll struggle to compete, ultimately"*, noted one partner. This is particularly the case for start-ups. For example, *"safe, secure and effective use of cloud storage makes a difference between that business surviving or not"*.

The pandemic has accelerated the requirement for many to adopt new technologies. Even businesses that had previously relied on in-person meetings and physical premises found that technology use became vital to their survival. Businesses that had already introduced websites and online booking systems, for example, had an immediate advantage.

With regard to individual technology needs, stakeholders felt that much depended on the businesses themselves. While some businesses are dependent entirely on technology for day-to-day processes, sales, customer procurement and other operations, others simply may not need technology to the same extent. The consensus was that any SME technology support could not offer a 'one-size-fits-all solution'. Rather

than forcing complex accounting systems on all businesses, a more tailored approach is appropriate. For instance, for businesses that do not necessarily depend entirely on technology, it was noted:

"They've still got to do accounts; they've still got to communicate with suppliers [and] they've still got to do all of those things which invariably are technology-based these days." Stakeholder

Stakeholders were asked what barriers are faced by North and Mid Devon businesses. They noted that a large proportion of micro-businesses, lifestyle businesses and part-time businesses are providing supplementary incomes to business owners with daytime jobs. These small business owners are unable to dedicate themselves to their business fully but often depend on them for income. Additionally, the local population tends to be older than the UK average, with lower perceived levels of technological proficiency. Much of the area is rural, and even short distances can be difficult to travel, making peer learning opportunities more challenging than in larger towns and cities.

The most prevalent individual barriers were felt to be time and financial resources, which tallies with the findings of the surveys. There is also a knowledge barrier, with businesses starting from a low initial knowledge base and unsure of how to develop their understanding.

"[The] South West, in particular, has a pronounced problem with low productivity, and that may well be linked to being dominated by often lifestyle businesses, and the micro end of SMEs." Delivery Partner

"I think time is the number one thing - also money and knowing what technology is available." Stakeholder

Stakeholders were asked for a general impression of the types of support f businesses were seeking. Several felt that many businesses were unsure what technology might achieve for their business and welcomed more general advice. Of those with a specific idea of what support they could benefit from, most focused on marketing and growing their customer base, especially the effective use of social media. While many businesses already used some social media platforms, they were unsure how best to use them: *"what can they do to be effective, but also save themselves time?"*. Several businesses wanted support with financial systems such as accountancy and accountancy records.

"Everybody that I've spoken to has said their number one priority has been [that] if they've been forced to close, it's been to open up again and really grow their customer base." Stakeholder

Mentors provided support to businesses and students on the programme, mainly in digital marketing and general IT support. The support ranged from social media and website development and analytics support to sharing best practice for online content writing. Sections 3.2 and 5.2 provide a greater level of specificity for those interested.

7.2 DIAGNOSTIC AND TYPES OF BUSINESS ATTRACTED

Key Message: The diagnostic provided a good measure of technology usage and adoption. The project has succeeded in targeting smaller, lower productivity businesses. Some of these were thought to be too small or early-stage to have the capacity to engage effectively and/or realise their growth ambitions.

The delivery team felt the diagnostic survey was very useful in determining support needs and helping the businesses reflect on their current use and adoption of technology.

"The diagnostic only took about 30 minutes, but I got so much information from it. I could have recorded even more information." Stakeholder

In terms of the types of business attracted, there were mixed views. Some thought there were too many small or early-stage lifestyle businesses that might not be able to achieve growth. However, as one stakeholder pointed out, *"ultimately, we are in North Devon, and these are the businesses located here, so we've got to try and help them."* The Techknowledgey Transfer project was conceived to target low productivity and technology usage, and these businesses were successfully attracted. The baseline survey noted the prevalence of small businesses in the health and lifestyle sector.

"Very accurate targeting, [because the] majority of them are small businesses." Delivery Partner

One constraint with the size of the businesses attracted is that non-employers were felt to be far less likely to have the capacity to take on student placements simply due to lack of time.

7.3 SME RECRUITMENT

Key Finding: The target SMEs are by definition hard to reach, and this factor, combined with the effects of the pandemic, has made the initial target of two hundred far more difficult to achieve than anticipated. The acceleration of technology generally has meant the competition for online classes has increased since the project was conceived.

Stakeholders were acutely aware of the challenges of SME recruitment during a pandemic. The target of two hundred businesses was more difficult to achieve than anticipated. Several circumstantial factors influenced recruitment. The outbreak of the pandemic before the project began meant that many 'target businesses' needed to adopt new technologies to survive and had either found advice themselves or sought support before the project began. Many firms were offering online technology support during these exceptional months. The project moved from having a relatively unique offer to competing in a crowded market. This made the marketing pitch more challenging to businesses that were receiving many offers of support. Other projects run by Cosmic and the libraries emerged, competing for the attentions of SMEs. Cosmic is a social enterprise helping people identify their digital needs and offering digital skills training and services. Also, once the restrictions eased, North Devon was very busy being a popular UK staycation market.

"When we opened, it was summer, and they [SMEs] were busy. Even when they joined up, it was challenging to get them to come to masterclasses. They were very clear about what they wanted, and if it wasn't there, they didn't bother". Petroc Team

The move to online delivery potentially detracted some value from the masterclasses. It was claimed that it was easy for businesses to attend online classes; in-person classes required a degree of planning and commitment. *"It's very easy to say; I'm busy, I can't make that Zoom meeting."* (Stakeholder). As the support was offered for free, there were no repercussions for non-attendance. Additionally, the business owners taking part tended to be low adopters of technology and might, at least initially, have preferred in-person 'chattier' sessions. These issues made it more difficult to recruit via word of mouth, as the less-engaged participants were not as likely to mention Techknowledgey Transfer to other businesses. Meanwhile, the pandemic-related restrictions inhibited some business-to-business communication.

"We worked hard to engage business and put lots of work in, and many didn't turn up to masterclasses or were driving. Those that did got something out of it as it was tailored to their needs. But there is a wider issue that participation in events has dropped off. It was high, then people got Zoom fatigue, and there has been a resistance to attend[ing] events. Businesses are choosing carefully what they spend their time on." Stakeholder

"Occasionally, we were told on the day that a masterclass was not going to happen, and sometimes businesses didn't turn up, so we didn't have enough. Some firms don't value what you get for free. Future programmes need to get the attendance levels up and enhance the breadth of attendees and be more ambitious." Stakeholder

Several stakeholders mentioned project marketing. The project had a strong social media presence, and the team put immense effort into using their own networks and contacts to promote it. That said, one stakeholder thought *"the messaging could have been clearer"*, with another suggesting that the marketing materials could benefit from a more *"detailed description of what each class actually entailed"*. A breakdown of the masterclass contents would have helped those marketing the project.

One challenge with the target SMEs was that they had such little technological understanding that they did not realise how, for instance, cyber security may be relevant to them. In some cases, the team found it

difficult to identify technology that would help the very smallest of businesses. Even where general marketing reached a wide audience, *"it's been really challenging to get the right type"* of business. As well as the low volume of businesses, the delivery partners raised some concerns about the quality of businesses recruited who they felt were simply too small to benefit from technology adoption.

"The target audience wasn't defined enough, and we need a very clear message to attract that target audience. The messaging wasn't strong enough in my view". Stakeholder

But this difficulty is to be expected, claimed another stakeholder. As a member of the team observed, *"nobody has cracked the problem of engaging small SMEs to increase their productivity"*. Given that small, low-productivity businesses were the primary target of the support; it is to be entirely expected that recruiting them was difficult.

Despite the challenges encountered, the team succeeded in recruiting a wide range of businesses (see section 3.2), including many that stood to gain a great deal from the learning and expertise on offer. Ultimately, *"the team have worked incredibly hard to recruit businesses"*, said one stakeholder despite not meeting the targets.

"In the second lockdown (winter 2020/21), people did not want to do training, [as] they wanted to give their staff a break. There was a big shift in the second lockdown; whereas [in] the first lockdown (March-May 2020), we would have had more success." Stakeholder

7.4 STUDENT APPLICATION AND SELECTION

Key Finding: Petroc students in the Faculty of Management and Business Studies were given a presentation about the placement opportunity, and there was an application form for those interested. A lot of work was done to prepare the students for the placements, including a series of masterclasses. The virtual format for the placements during restrictions was not ideal. The students have good knowledge of new technologies, especially social media (though they have less understanding of customer-facing activities).

There was much support for students planning to undertake a placement as part of the Techknowledgey Transfer Programme. The Enterprise Academy created some marketing material to engage students, setting out what they might get from the programme. Most student applications came as a direct result of these presentations. There was a wide spectrum of students who applied, from those really motivated by the project and those that wanted to do a placement. There was an application form for those students interested.

Students completed some preparatory training sessions and masterclasses delivered by a combination of external providers (such as the Enterprise Academy) and Petroc staff. Examples included marketing (Facebook, LinkedIn, hashtags, Mailchimp and hints and tips on taking excellent photographs), customer relationship management, finance, keyword research/search engine optimisation and website development. These sessions were delivered alongside the business masterclasses and gave the students the foundation skills they needed to work with businesses and business owners. They were described by a stakeholder as *"a great opportunity for students"*.

The intention was to encourage a sense of responsibility and commitment and clarify that the project constituted formal work experience rather than a 'homework-style' task to supplement their classes. This also helped establish the students' interests and inform the student/mentor matching process. Some students had a very clear idea of the work they would like to undertake and the technology that caught their interest. Staff tried to match business needs with student interest where feasible, but it was generally accepted that, given the limited numbers of businesses and students, this was not always a perfect fit. Some students had to take a second choice placement. Of the 78 students who applied for a placement, 32 followed it to fruition. There was some attrition with a variety of reasons for this. For instance, they left the college, were ill, could not get a good match or found their own placement to fulfil course requirements.

The projects were linked to technology masterclasses delivered to the students, with the aim of applying this knowledge within their host businesses. Students tended to have a strong general understanding of technology, and social media in particular, but less experience or knowledge of branding and customer-facing activities. According to one stakeholder, several students have requested a second placement, suggesting that they valued their initial experience.

"Having the application form made it more like something that they are actually generally going to be a part of it, rather than them seeing it as just part of their placement classes." Stakeholder

The first meeting with the employer was designed to help put a plan in place and clarify what the student would do. Some students drew heavily on the mentors, and some less so. For instance, some student liked their mentors to attend meetings.

Stakeholders suggested that working with more specialised students might generate more student interest in the project. *"Rather than choosing a student who's on a business administration course"* for marketing projects, suggested a stakeholder, a student with *"specific branding and marketing experience"* might be more interested and more valuable.

One stakeholder has suggested a job match fair that would introduce students to businesses and allow students to think about which businesses they would like to partner. Having students working directly with the businesses rather than virtually (as was can for many) would have raised the currency and perception of the placements. Virtual engagement could seem more like coursework than work experience.

7.5 PROJECT ADMINISTRATION, MANAGEMENT AND GOVERNANCE

Key Finding: The project has been well managed and administered, with regular team and partner meetings, and the team has been flexible and approachable. There has been honest and open dialogue between college staff and the delivery team, who have cooperated well.

The Petroc administration team did a "great job" at adapting quickly to the changing circumstances of the programme. The delivery of the RCT was a "steep learning curve" for the team, though, as noted, this element was subsequently dropped (See Section 2.0). Delivery partners felt that the expectations of them were clear, and the project was well managed. They found the Petroc team highly responsive to any questions they had. The governance of the programme has worked well, with regular and thorough management and partner meetings. Project finances have been managed effectively. Overall the project processes were straightforward. Stakeholders noted that poor internet connectivity at the college made some administration more challenging.

"I don't think there [have] been any issues with that. From our perspective, it's all been well organised." Delivery Partner

"The governance has been very thorough and straightforward." Stakeholder

The programme management team were described by the mentors as *'excellent'* and *'easily accessible'*. The team were in regular contact with mentors and was able to support and liaise with both students and businesses.

7.6 BRAND PRESENCE AND PROFILE

Key Finding: The project was branded effectively within wider Petroc activities and has been able to draw on marketing resources within the college. More dedicated promotion for, what is a fairly complex offer to convey, could be used alongside existing outreach work (through local contacts, etc.).

Stakeholders agreed that the project collateral and communications were well branded, and the team had support from their internal marketing team. The project is one of several initiatives run by Petroc. Without dedicated Techknowledgey Transfer social media accounts, it has sometimes been challenging to promote the project distinctively and give it a sufficiently prominent profile. As one stakeholder pointed out, it is

particularly difficult to reach the Petroc target market – *"by definition, really, you're trying to reach the unreachable"*. If the target audience responded to marketing around business growth and development, they would *"already be turning up to the Federation of Small Business and Chamber of Commerce events"*.

One stakeholder said they found it difficult to explain that the project was part of a research RCT and that, therefore, businesses would not be guaranteed a student project.

The team and delivery partners have also relied on word of mouth, with local contacts reaching out to businesses within their networks. It was suggested that brand ambassadors within the local business community might be an effective means of stimulating future engagement in business support projects or using delivery partner networks to bolster Petroc's efforts.

7.7 COVID-19 IMPACT

Key Finding: Covid-19 was a mixed blessing for the project. There was a plethora of business support available at the start of the pandemic, so it was a crowded marketplace. For some firms and individuals, the shift online opened up new business and personal development opportunities, but for others, their circumstances meant they could not commit to the project masterclasses and/or student placement.

As mentioned earlier, the initial impact of Covid-19 was to move masterclasses and student projects online. Unfortunately, this occurred alongside several other business support offerings. For those taking part in masterclasses, some would have preferred face-to-face sessions. They found online classes less enjoyable and, in some cases, difficult to participate in due to the technology required. It was sometimes difficult for those taking part in student projects to build a rapport in a virtual setting, making collaborations less enjoyable and effective for both parties. One delivery partner said that the timing from the project's perspective was not helpful, suggesting that there would have been significantly more interest had the programme begun a few months earlier.

The impact of the pandemic on student projects was mixed. Several businesses that had been offered student projects found that they were not in the best place to take on a student project. Many businesses had to close or significantly downscale their operations. This affected their ability to put together a project of technology adoption tasks for students to complete. Some business owners had to take on another job alongside their business to earn enough to get by. This meant they did not have the capacity to commit to a student project. Although, in a number of circumstances, businesses found the online aspect of the project efficient and found no issues in the quality of communication when the projects were carried out online.

For the students themselves, struggles with online schooling, delayed or cancelled exams and general anxieties about the pandemic made it more difficult to engage with the business placements. This eased towards the end of the programme, particularly when government rules allowed face-to-face contact. Students who carried out projects towards the end of the programme were perhaps better positioned to complete a placement.

Several participants mentioned that they would not have been able to participate in Techknowledgey Transfer if they had not been working from home, which allowed them extra time. During the first lockdown, there was a trend for some firms to invest in new skills and technology development, for instance, with individuals making use of furlough to upskill their staff or themselves. Additionally, the programme targeted small, low-productivity businesses, many of which were start-ups and non-employers. The restrictions led to some people using their newly found time to develop products and ideas from home. Several participants started their businesses during the pandemic and said they would otherwise never have had the time to do so.

"A lot of the self-help stuff started six to nine months before the project got off the ground. Had it not been for Covid-19, we probably would have seen a much greater impact, [with] more people showing interest because there wouldn't have been the same sort of density and breadth of [business support] offerings as during Covid-19." Delivery Partner

"Covid-19 has been quite hard to navigate because different businesses have been affected in different ways- whether personally or within their business." Stakeholder

Mentors felt that the pandemic had little to no impact on the running of the programme but, in some instances, did affect their capacity to form a strong relationship with their students. The main changes made to the delivery were moving to online meetings, which mentors felt was done seamlessly though some mentors have to balance work commitments carefully with mentoring activities, which were time consuming.

"Mentoring was much harder during lockdowns; it's harder to explain things virtually". Petroc Team

"Remote working was hard on the placement students – they missed out on the work environment when the business couldn't meet the students". Petroc Team

7.8 WHAT HAS WORKED WELL?

Key Finding: The expertise of the delivery partners, the quality of the masterclasses and the calibre of the students are project highlights. There have also been wider unanticipated benefits for delivery partners, mentors and participants (such as new skills and networking). Some mentors developed an explicit placement plan with activities, expectations and expected outcomes. Student confidence has improved as they have realised their potential, and Petroc has made new connections with businesses.

The feedback from the masterclasses has been very positive, with businesses citing useful content and helpful, tailored advice. The delivery partners' teams have developed new skills, including the capacity to *"produce, polish, deliver and follow up live masterclasses"*. Hands-on learning with local firms has been a new and valuable experience for some delivery partners. The partners bring considerable expertise. They are well-connected locally and embedded within the South West business support ecosystem.

"It's speaking to other people who have commercial knowledge and experience; I have learned so much." Stakeholder

"As a business that's involved in the project, it has been really good for our team to be able to hone their skills [in] delivering live events." Delivery Partner

Business and participant networking opportunities have been realised, as has access to wider business support expertise and resources. The business engagement team has directed businesses towards networking groups and funding opportunities. Several participants won business awards and were featured in a local business magazine.

One delivery partner mentioned the strong relationship built with some of the students on the project (*"a very good group of students"*). Their interactions with students were a highlight of the project.

"The students are of a very high calibre, they're impressive, and they're thinking seriously both about their projects and their own future."

"During student masterclasses, they were engaged and asked useful and relevant questions."

"The student engagement and enthusiasm to get involved has been good. Webinars and masterclasses have been well received." Delivery Partner

Mentors liked the overall concept of the project. They believed the students gained valuable experience which could accelerate their career and personal development prospects. The project resulted in mutually beneficial relationships between the student and business to develop and implement new technology skills in a business setting. This worked best when it was well planned in advance. Some mentors developed a clear placement plan with activities, requirements and outcomes clearly set out. The delivery partners noted that it was important that a consistently high quality of delivery was maintained and achieved. They noted that the mentor played an important role here.

There were many student benefits.

"After some initial anxieties, they all, without exception, increased in confidence. Some students realised that they were capable of more than they thought. Sometimes they were modest about their abilities." Petroc Team

And benefits for Petroc too (*"we have learnt lots"*).

"The project has worked well around their [the placement student] timetables, and we have been very flexible on when they do their placement work." Petroc Team

"There are wider benefits for the college. We have made new connections with businesses who are coming into the college and have contacted us about other things." Petroc Team

7.9 WHAT COULD BE IMPROVED?

Key Findings: There was a real hope that recruitment and masterclass attendance would have been better than it was. Reframing or simplifying the benefits of the project and adjusting the timing of masterclasses might stimulate more interest or engagement in the future. Mentors welcomed clarity in terms of the expectations of them and an up-front discussion about students' needs, requirements and ambitions.

As one of the delivery partners pointed out, the most obvious improvement to the Techknowledgey Transfer project would be to recruit more participants – *"we need to get significantly more businesses through the door"*. Another delivery partner felt that masterclass attendance rates had been irregular and added that some businesses might prefer in-person sessions. Offering online masterclasses as evening classes may help businesses to fit them into the working day.

An improvement suggested by a stakeholder, echoing the earlier sentiments on branding, would be to promote the offer more clearly, such as focusing on the potential for saving time or growing the business. Reframing the masterclasses around an enticing theme such as saving time might encourage more recruits – some smaller businesses may not be interested in social media scheduling or accountancy software because they do not know what the benefits might be.

For the treatment businesses, one suggestion was to provide business mentors who were more closely linked to the masterclasses chosen. Incorporating the mentors more strongly might also help clarify the benefits and expectations from a student project. Given that some businesses turned down student projects because they were unsure of the time implications or the amount of training they would be expected to provide, having a relationship with a mentor who can explain the student's role and assume some of that perceived responsibility could be beneficial.

One stakeholder suggested adjusting the timings of similar programmes taking into consideration student holidays and the academic calendar.

"[Offer] fewer masterclasses. We've had a number of times where businesses said, well, I'd like to do this one, this one, and this one because there [are] bits from each one. Making it more clear-cut would have made it easier for people to make a choice." Stakeholder

"Maybe a smaller selection of masterclasses, for example, one that really focuses on social media and marketing, rather than two or even at times three. Have it a bit more focused." Stakeholder

Mentors claimed the project was able to be most effective where the students were fully engaged. Some mentors found the brief and the expectations of what was required from them to be unclear in the initial stages. However, as the programme progressed, they better understood the expectations. For example, one mentor was unsure whether they were required to assist the student or the business. They felt that most of the conversations were focused on the business and their needs, and little was known about the student, their needs and the kind of support they required.

Expectation management and more detailed planning of the student placement were commonly cited areas of improvement. This, it was thought, would result in a smoother process for all parties. For example, a clear outline of the business' needs, the support required by the student to achieve this and the mentor's precise role in terms of responsibilities to the student and business.

"In the future, a clearer structure would be beneficial and perhaps act as more of a deterrent on them [the students] not turning up". Petroc Team

One mentor outlined the need to develop the eligibility criteria for applying for a placement as some students were unsure of their relevance and value. The maturity of the student was an important consideration. Occasionally their behaviours and attitudes meant a considerable degree of wrap-around support was required. Some placement students had no work experience, so the pre-employability preparation was more intense than anticipated. These students relied heavily on tutors/staff for support. It is perhaps more challenging for students in their first year to do a placement. In these instances, the role of the mentor was elevated; furthermore, *"the mentor sometimes finished things off"*.

There were a few technical challenges experienced within Petroc. *"Logins and verifications have been challenging"*, and *"decent internet connections are important, e.g. being able to access all web pages"* (college restrictions were sometimes too strict). *"If we could have got webcams, it would have been a lot easier"*, noted one Petroc team member who had to undertake many activities remotely.

The delivery partners did wonder whether they could be involved in the selection process as the less experienced students required more support which, in some instances, resulted in the mentors playing a more hands-on role.

"Some placement students have required more engagement and support. Occasionally this crossed the boundary into consultancy. [They] were expected to be teachers, and the mentors had a fundamental role. We created worksheets to systemise it better." Stakeholder

7.10 BENEFITS FOR BUSINESS

Key Findings: There is evidence of businesses applying learning and adopting technologies, especially those that are 'quick and easy' to implement.

Delivery partners feel that many of the businesses have applied some learning from the project (*"often it's the little things that are free or quick and easy to implement"* that make the most difference). Some beneficiaries had no experience at all with free scheduling software or CRM (Customer Relationship Management) systems and had not realised how straightforward these systems could be. In one example, a delivery partner helped a business find software that will *"increase the accuracy of their record-keeping and allow them to spend more time on projects and quoting for jobs, rather than sitting in an office with bits of paper."* Others have now significantly improved their communication with their customers.

"Every business has benefitted in my view. One I know got a website, and others have learnt new skills such as keyword optimisation and the use of hashtags". Petroc Team

Several businesses have expressed an interest in seeking other support, for instance, with the recruitment of an apprentice. Some sole traders realised the limits of business growth that were achievable with only one person (*"actually some things they want to do, they can't do"* because it is *"a staff role in itself"*). The Petroc team thought businesses had gained more out of placements than anticipated (*"a few employers have wanted them for longer"*).

For the treatment businesses with student projects, stakeholders were asked whether the placements helped embed the learning from the masterclasses. Several delivery partners noted that the students were generally able to implement fairly routine but useful technologies. This was regarded as a good start for businesses that were very new to technology. Students working on social media projects conducted in-depth reviews

of competitors and developed a strategy based on their observations. These types of projects leave businesses with useful legacies once the students have left. This included establishing market-tested processes such as social media scheduling.

"It helps get the business to start to adopt these good practices." Delivery partner

"I think a few people have realised they need more staff, and they've looked into apprenticeships." Stakeholder

"Once you put these very basic building blocks in place if you have the foundations of the business sorted, it should really be fairly easy to a degree to just keep doing what you're doing." Stakeholder

The mentors gave a mixed response to the perceived impact on businesses that took on a student. Some mentors found the placement helped businesses to refine and develop their business processes and, at the same time, welcomed the opportunity to support young people in the local area. A handful of businesses had limited contact with their student. There were a number of reasons for this, including a lack of engagement or commitment from the student or because of Covid-19 (having to isolate if tested positive). These businesses were left frustrated and instead sought more support from their mentors. The businesses that did have a good relationship with their student benefitted greatly from the mutual, two-way learning.

Mentors were also asked about what they thought the programme's most significant aspects or outcomes were. Some mentors felt that the level of impact they were making on both students and businesses was satisfying, and the delivery partners thought the mentoring role had the potential to give opportunities to newer members of their team.

"Having a positive impact on the development of the student was satisfying. Watching the student take on feedback and be reactive to it showed they had a real interest in growing their knowledge and experience." Mentor

"We used a degree apprentice to co-ordinate the mentoring – they were able to draw on expertise within the business. This gave the apprentice some very some management experience. The mentoring is a success story, and they have helped engage students in something that was productive. We used junior staff who have learnt huge amounts." Mentor

Finally, the Petroc team noted more recently that it was good that businesses have been willing to meet in person (*"they have realised it's beneficial"*).

7.11 BENEFITS FOR STUDENTS AND MENTORS

Key Finding: Although this has not been an easy time for many students, they have, with hands-on support, gained valuable employability and personal development skills as a result of becoming engaged in the project. There were some unintended benefits for mentors who really welcomed the experience as a career opportunity. The enthusiastic engagement and commitment from the student was a key success factor.

There were difficulties in delivering the student projects during the pandemic because everything had to be conducted online, and there were delays due to insurance difficulties. Given these issues, it was hard to generate enthusiasm and engagement among some students. *"You want to give the students autonomy and independence, but we also needed to ensure that work was being done,"* noted one stakeholder. There were also limits to how much time businesses could spend with students, with one delivery partner saying that *"really the businesses should be spending a lot more time working with the students."* Despite these difficulties, there were substantial benefits for students. Before their placements, they had weekly Enterprise Academy sessions, described by a stakeholder as *"a great opportunity for students"*. These sessions were delivered alongside the business masterclasses and gave the students the foundation skills they needed to work with businesses and business owners.

In terms of general employability, one delivery partner noted that employers often struggle to find school leavers with any understanding of how the business world works. The Techknowledgey Transfer programme allowed them to experience *"valuable work placements where the students feel they are part of something."* For many students, this was their first work experience opportunity and the first time they had communicated in a professional capacity outside the college. Coaching them to communicate proactively with their placements and mentors took some time: some students initially felt intimidated or confused about contacting other parties and did not want to irritate their contacts. Another stakeholder noted that students initially sent very informal emails and were subsequently encouraged to write more formally. The Petroc team addressed this lack of experience and confidence, and students have now learned to communicate more effectively with business owners.

Students have realised that their experience offered employability and personal development benefits and boosted their career plans. One student mentioned wanting an apprenticeship before discovering that their mentor offered degree apprenticeships.

"They can use their placement experience as part of their assignments and as evidence for apprenticeship and university applications." Petroc Team

"Some of the placements helped make the students more ready for employment. Some of [the] businesses [were] more ready to employ a student than others, and, generally, the mentors grew into the role quite well." Stakeholder

"For many of the students, this is their first experience of a work placement, [and] they're learning how to communicate. It's learning that there's a way of sending an email, a way of talking, a way to interview and chat." Stakeholder

"It's expanded their minds and their thinking, made them look not just nationally at competitors, but globally as well." Stakeholder

"I wanted the students to think, ah, this is what I'm learning on my course, and this is what happens in the real world. It teaches employability." Stakeholder

Most of the mentors thought that participating in the project had positively affected their career development. For some, it was the first time they had had an opportunity to mentor young people independently. For the mentors who had mentored a business or student before, they welcomed the opportunity to deepen their experience. There were some other unexpected benefits for mentors, which included networking opportunities with their host business. The programme opened opportunities to work on new projects for mentors. In effect, many businesses received high quality tailored coaching from the mentors. For those who did not think it developed their career as much, they still believed it was beneficial to support local businesses.

7.12 EXPECTATIONS

Key Finding: The project has exceeded expectations in terms of the student experience, and although it has fallen short in terms of recruitment, those who have taken part have found it worthwhile.

Stakeholders were asked whether the programme met their expectations. Several felt differently about various aspects of Techknowledgey Transfer. In terms of the overall recruitment numbers and the level of masterclass participation, most stakeholders felt that the programme did not meet their expectations. *"It's fallen a little short in terms of not being able to recruit as many businesses as hoped,"* said one delivery partner. Another was *"disappointed with market penetration"* and felt that the masterclasses were "expensive" to run with *"not much return"*.

However, with regard to the student experience and the benefits to the delivery teams, stakeholders were far more positive. One delivery partner described the student experience as *"excellent"* and felt that the

"students have exceeded my expectations". Another noted that *"some areas exceed [expectations]"* and offer significant *"benefits to [the] team and students"*.

Overall, as one stakeholder said, it would be useful to know *"what it would have been like in normal times"*. Clearly, the number of beneficiaries was lower than anticipated, but those who took part found it helpful. *"Even if we've only helped a small part of our local community, we've learned so much with the students, it's working, and we're moving forward"*.

7.13 SCALING UP

Key Finding: The online format of the project has evident potential for scale-up, and greater numbers could reduce the unit cost. A modest fee might reduce attrition rates among SMEs. Students need hands-on support to benefit from the learning opportunities available, and it would be possible to engage technology-savvy Higher Education (HE) students.

Most stakeholders agreed that, with some enhancements, there is potential for the project to be scaled up, as it *"has the building blocks to deliver a model that could work"*.

"We produced the masterclasses on a video platform. This is powerful for scalability and could be used by other partners." Stakeholder

One Petroc leader would like to develop a business improvement project building on the experience. Petroc is already taking forward learning via a Community Renewal Fund project. A future technology adoption project would need sufficient staff capacity as preparing the students was resource-intensive (the project team did have some staff absence, too, which meant they were 'capacity constrained').

"The model works but needs resourcing and would benefit from [a] better mix of businesses and the continued support of partners and mentors." Petroc Team

The benefits for some are clear-cut.

"There is a business need. They get mentor support [which] helps the business grow and develops the skills of the placement student". Petroc Team

A delivery partner noted that the online platform/format has considerable potential for sharing content with a wider audience and over a wider geographical area than via in-person classes. One stakeholder suggested charging the businesses a nominal fee to cover the costs of the additional masterclasses and mentors required to scale up the project. Even a low and very affordable fee might have the additional benefit of encouraging businesses to attend the classes they had signed up for, thus reducing attrition.

In terms of scaling up the student projects, one stakeholder felt that more student guidance would be needed (*"[we should] hold their hand a bit more"*). It would also be useful to encourage the students to benefit more from the learning opportunities available from the experienced business mentors. Any future placement project will need to continue to provide students with sessions on personal skills and business communication to ensure they are able to maximise the benefits from their experience. Another stakeholder suggested engaging more specialised HE Petroc students, either in place of or alongside the current level 2 and 3 Petroc students. This would introduce new technological skills, for instance, website coding changes or specific accounting software.

Others thought the size of the business would have to increase to make the level of support required viable.

"Some have been too small and will have limited economic impact. You wouldn't be able to fund the nature of engagement required with professionals. There was progression, but it was often from a low base. To roll out with mentoring micros won't stack up, the model wouldn't be economically efficient." Stakeholder

The delivery partners thought the scheme might work better as a business technology transfer that also acts as an employability programme.

"You could have students mentored by apprentices so that both them and the student develop their employability skills. Perhaps it could start with a launch event with star speakers at the college to introduce the placement side to businesses (with a minimum of five employees) and showcase the [easily] adoptable technologies with categories to choose from and not necessarily force them through masterclasses."
Stakeholder

8. ANNEX ONE

PETROC CONSULTEES

Consultee	Role
Jenny Challenger	Project Delivery Manager
Emma Doble	Deputy Project Manager
Charlotte Broadhead	Deputy Project Manager
Marie Gould	Project Lead
Edwina Stevenson	Programme Lead (Employer Support)
Kim Willmetts	Head of Programme Management

9. ANNEX TWO

STAKEHOLDERS LIST

Stakeholder interviewed	Role	Interviewed for MidTerm	Interviewed for the Final
Jane Maynard	Delivery Partner	X	
Stuart Brocklehurst	Delivery Partner	X	X
Ben Parry	Delivery Partner	X	X
Matt Norris	Delivery Partner	X	X
Mike Matthews	Delivery Partner	X	X
Emma Doble	Deputy Project Manager	X	
Jenny Challenger	Project Delivery Manager	X	X
Charlotte Broadhead	Deputy Project Manager	X	X
Marie Gould	Project Lead	X	X

10. ANNEX THREE

TECHNOLOGY USAGE

Areas where technology was applied/adopted	Baseline		Post Programme		
	Yes	No	Yes	No	Diff
Internet and Mobile Banking for transactions	89%	8%	92%	8%	3%
Buying goods and services online	69%	11%	92%	8%	22%
Some finance and accountancy functions	67%	31%	67%	31%	0%
Accounting software programmes	39%	58%	53%	44%	14%
Automation of bills, invoices, statements, and receipts	28%	69%	44%	53%	17%
Online sales channels linked to an accounts package	22%	61%	42%	53%	19%
Online payment or donation functions linked to an accounts package	28%	44%	44%	50%	17%
Organisation Facebook page	89%	11%	94%	6%	6%
Have a social media presence	92%	8%	94%	6%	3%
Communicate and engage with suppliers and/or customers digitally (e.g., via social media, online channels)	86%	14%	94%	6%	8%
Allowing customers to view products and services on a website	75%	25%	78%	19%	3%
Attract customers digitally (e.g. via social media, online channels)	83%	17%	94%	6%	11%
Organisation Instagram page	69%	31%	83%	17%	14%
Use of strategic content to enhance company brand	53%	36%	67%	33%	14%
Organisation LinkedIn page	36%	61%	47%	53%	11%
Use of analytical tools to measure and inform marketing activities	44%	47%	64%	36%	19%
Deliver advertising targeted at specific audiences	36%	58%	44%	56%	8%
Have a social media marketing strategy	22%	78%	75%	25%	53%
Organisation Twitter page	11%	83%	14%	86%	3%
Maintain relationships with customers and/or suppliers (e.g. through e-mail)	86%	14%	100%	0%	14%
Use technology to communicate virtually with customers and suppliers (e.g. video conferencing)	72%	11%	75%	25%	3%
Customer Relationship Management systems (e.g. databases)	42%	50%	56%	47%	14%
An online booking system for appointments and meetings	25%	39%	56%	39%	31%
Procurement software to compare quotes from suppliers	0%	17%	3%	64%	3%
Procurement tools to provide quotes to different buyers	0%	17%	0%	64%	0%
Systems in place to work remotely	83%	0%	83%	6%	0%
Use of digital IT systems to manage or store information (e.g. in the cloud or via internal servers, Dropbox, Google Drive, Microsoft OneDrive etc.)	69%	31%	92%	8%	22%
Store digital information on suppliers and customers	67%	28%	81%	19%	14%
Use software to collaborate (e.g. Google Docs, Shared folders, OneDrive)	58%	36%	75%	25%	17%

Using data to improve website performance (e.g. Search Engine Optimisation)	36%	50%	64%	36%	28%
Inventory and stock management systems	25%	14%	31%	42%	6%
Employee timesheet and scheduling systems	17%	19%	14%	58%	-3%
Software is kept up to date	78%	0%	94%	0%	17%
Critical business data is backed-up (e.g. using anti-virus software, hard-drives)	78%	17%	92%	8%	14%
Protecting the business and its customers from fraud and other harm	69%	8%	86%	8%	17%
Secure access to company data resources	64%	8%	89%	8%	25%
Suitable protection against data breaches	56%	17%	81%	11%	25%
Staff have access to training in cyber security processes	8%	22%	22%	31%	14%

11. ANNEX FOUR

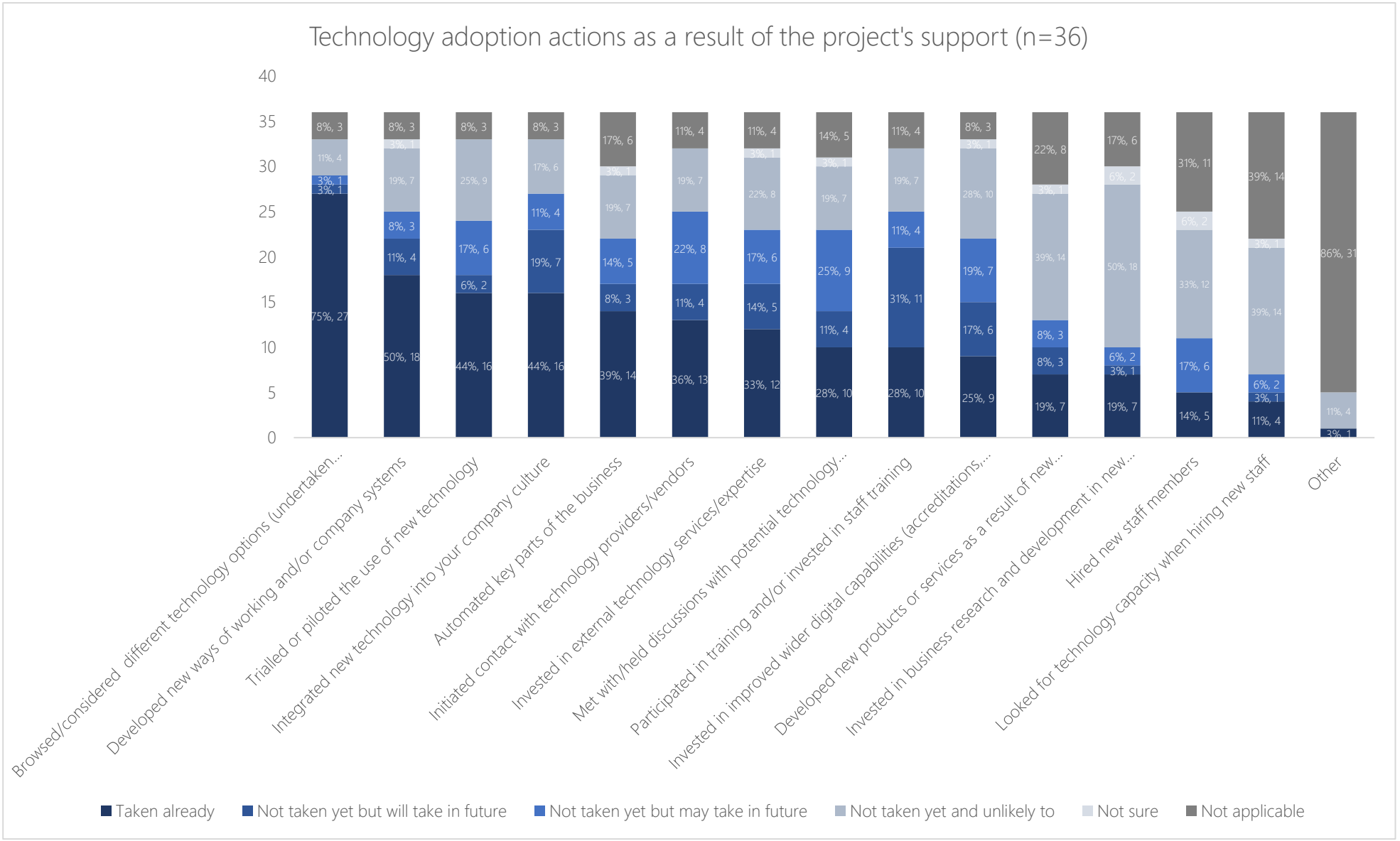
LIST OF MASTERCLASSES

Name of masterclass	Masterclass 1	Masterclass 2	No. attendees
Social Media Marketing for small businesses 24th November 2020	5	0	5
Getting your bookkeeping right from the start 27th November 2020	4	3	7
Introduction to Business Technology 30th November 2020	0	1	1
The Beginner's Guide to Business Cybersecurity 2nd December 2020	0	1	1
Managing your costs 7th December 2020	0	2	2
The Beginner's Guide to Cloud IT, Remote Working & the Modern Workplace 9th Dec 2020	0	1	1
Automation for a paperless business 14th December 2020	0	1	1
Social Media Marketing for Small Businesses	2	1	3
Getting your bookkeeping right from the start	0	1	1
Introduction to Business Technology 15th Feb	0	1	1
Introduction to Business Technology 14th Jan	1	0	1
Automation for a paperless business 15 01 2020	0	1	1
Getting your bookkeeping right from the start 10 02 2020	2	0	2
Connecting with Clients 27 01 2020	1	0	1
Connecting with Clients 18 02 2020	0	1	1
Streamlining your office 16 02 2020	1	0	1
Introduction to Business Technology 15th Feb	0	1	1
Social Media Marketing for small businesses 15 12 20	0	1	1
Building your reputation through PR and Social Media 25th Jan 2-3.30	1	1	2
Social Media Marketing for small businesses 19th Jan	1	0	1
Social Media Marketing for small businesses 3rd Feb	4	0	4
Building your reputation through PR and Social Media 11th Feb 2-3.30	1	1	2
Social Media Marketing for small business 16th February 12 - 1	1	2	3

Building your reputation through PR and social media	3	4	7
Getting grant support to implement technology 15th April 2:00 - 2:30	1	0	1
Social Media Marketing for Small Businesses 4th May	1	0	1
Social Media Marketing for Small Businesses 25th May	1	0	1
Getting your bookkeeping right from the start 27th May	1	1	2
Building your reputation through PR and social media 1st June	0	2	2
Mailchimp Basics: Introduction to Business Email Marketing & GDPR 27th May 10:00-12:00	1	0	1
Automation for a paperless business 8th June 10 - 12	1	0	1
Streamlining your office 8th September	0	1	1
Mailchimp basics 8th July	2	0	2
Mailchimp basics 5th August	1	0	1
Building your reputation through PR and Social Media 28th July	2	3	5
Getting grant support to implement technology 8th June 2:00 - 2:30	0	1	1
Getting grant support to implement technology 29th July 2:00 - 2:31	0	1	1
Social Media Marketing for small businesses 22nd June	3	0	3
Social Media Marketing for small businesses 14th July	2	0	2
Social Media Marketing Sept 10 12-1	1	1	2
Getting your bookkeeping right from the start 14th September 10-12	0	1	1
Getting your bookkeeping right from the start 11th October 10-12	3	1	4
Automation for a paperless business 30th September 10-12	2	1	3
How to convert enquiries to sales 29th Sept	0	2	2
Getting your bookkeeping right from the start 11th October 10-12	3	1	4
Building your reputation through PR 15th Sept	1	0	1

12. ANNEX FIVE

TECHNOLOGY ADOPTION ACTIONS



KADA Research
10 South Street,
Park Hill, Sheffield,
S2 5QY. UK

T: 0114 350 3303
www.kadaresearch.co.uk