



# An Evaluation of the Promoting Innovation and Entrepreneurship Programme

UK Community Renewal Fund (UKCRF)  
Supported Initiative

A Report to Petroc College  
January 2023



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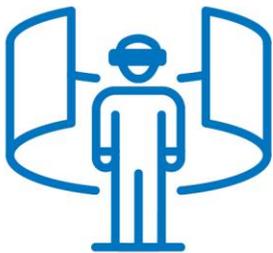
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# The UKCRF Petroc Promoting Innovation and Entrepreneurship (PIE) in Numbers



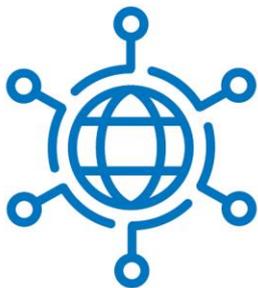
## Headline Programme Impact

- **£3.1m** Net Present Value Gross Value Added
- **1:6.0** Benefit Cost Ratio
- **38.2** total FTE jobs (23.0 direct and 15.2 indirect)



## Element One: The Use of AR/MR/VR Technology (Students)

- **100%** would recommend the technology to other courses
- **100%** develop new ideas
- **75%** developed listening and influencing skills



## Element Two: Enterprise Package and Grant Scheme (Beneficiaries)

- **93%** rated the knowledge/expertise of programme facilitators as 'Excellent' or 'Good'
- **92%** rated the speed of enquiry handling as 'Excellent' or 'Good'
- **20%** intend to start up a business in the future



## Element Three: Knowledge Transfer (Businesses/Entrepreneurs)

- **100%** rated communication with Programme team 'Excellent' or 'Good'
- **46%** improved business processes as a result of the support
- **33%** developed products/services as a result of a student placement



## Commercial Impacts (Businesses)

- **50%** will introduce new products/services to their firm
- **29%** will bring new products/services to market
- **25%** have increased turnover

## EXECUTIVE SUMMARY

This is the evaluation of the PETROC Promoting Innovation and Entrepreneurship (PIE) Programme which aims to create a workforce which matches the employment and skills needs of the local area. The programme's wider aims are to strengthen Devon's workforce and aid business development in Devon County and boost innovation and entrepreneurship.

### PROGRAMME CONTEXT

The overall aim is to create an environment and culture which encourages, nurtures and promotes innovation and entrepreneurialism in a much more effective way to drive growth and productivity as a means to tackle longstanding social and economic inequalities. It is focused in four places in Devon - Mid Devon, North Devon, Torridge and West Devon.

The PIE Programme has three elements. The first is the use of augmented/virtual/mixed reality (AR/VR/MR) technology within an educational setting. There are three specific aims for this element - to support career decision-making processes, reduce physical work placements, and help encourage businesses to innovate and develop with minimal risk. The second element is the use of a holistic package of three business incubation facilities to encourage business development and seamless progression and co-ordination. The third element involves knowledge transfer activities between students and local businesses via a short-term student placement, using the 'techknowledgey transfer' model as a blueprint.

There are a number of factors that informed the concept to boost innovation and enterprise. These include the reliance on part-time seasonal work (and low wages) and low productivity industries. It was felt the high volume of micros and self-employed people was an opportunity that could be better supported in key areas within the County. There was a strong fit with the UK Community Renewal Fund (UKCRF) which places an emphasis upon a multistrand approach to reducing inequalities through support for innovation and entrepreneurship, developing infrastructure, stronger pride in place and skills development. The UKCRF activity encouraged piloting new ideas and informing post EU Exit funds including the UK Shared Prosperity Fund.

### PERFORMANCE AND IMPACTS

Students consulted, who were introduced to AR/VR/MR technology, said it improved their understanding of work in their chosen career. It gave them experiences they may not have otherwise been able to have and informed them about available career opportunities. It helped them think creatively and thought it had or could help with problem solving skills, listening, and other management skills. They could see the benefits. For instance, it could reduce the duration of placement compared to a real-life setting and help them access new local opportunities. They think it perhaps could have more activities and an explicit educational focus and would, to some degree, recommend AR/VR for other courses/areas of study.

Looking at the business incubation support respondents to the survey from strand two, the headlines were as follows:

- They wanted practical advice to grow or start their businesses. Many attended workshops and tutorials and some received grants to purchase new equipment or invest in the business.
- The Programme scored well overall, particularly the quality and relevance of support.
- Lack of finance for business development, business know-how and equipment were the top three barriers faced by survey respondents prior to joining the Programme. 60% of respondents 'Fully' (6, 13%) or 'Partially' overcame (21, 47%) any barriers experienced.
- Programme participants were 39% more likely to develop their business or idea as a result.
- Many personal and business outcomes were achieved as a result of the support.
- Respondents enjoyed meeting like-minded peers and sharing ideas during the networking opportunities and most participants have applied or intend to apply Programme learning.
- Beneficiaries moved forward in their product/service development journey by 3.2 stages on average (on a scale of one to ten).
- Despite the short length of the Programme considerable actual and potential commercial impacts were cited including new products to market and/or expanded offerings.
- 95% of beneficiaries were 'Very satisfied' (23, 51%), 'Satisfied' (15, 33%) or 'Somewhat' satisfied (5, 11%) with the support received and there was considerable time and scale additionality ie the support brought forward impacts more quickly or on a larger scale.
- An improvement would be explaining better what potential participants might expect.

In terms of the business involved in technology transfer (strand three) the headlines were as follows:

- They wanted to learn about the applicability of new technologies. All aspects of assistance were rated positively including innovation plans developed. Finance and time were the biggest innovation barriers faced prior to joining the programme and were largely overcome.
- They used the financial support to purchase new equipment and/or embed new technologies and develop new products, services or processes within their businesses/organisations.
- As a result of the student project placements, business innovation, diversification and product or service development were the most improved areas or those with the most potential.
- They gained knowledge about applying new business techniques and the support helped them overcome time management issues. Most have or intend to applied Programme learning.
- Half the businesses had already introduced new products to their firm and the remaining 50% intend to. 29% said they will bring new products to market and over 50% will do in future. A quarter of respondents saw an increase in turnover, while 38% will do in the future. Similarly, jobs were created and safeguarded and these impacts are predicted to double in future years.
- All 9 respondents were very satisfied or satisfied with the support and for most, it exceeded their expectations though respondents said they would appreciate more flexibility on its length.
- There were high levels of additionality reports and no 'deadweight' and 100% of respondents would recommend the programme to other businesses.

## PERFORMANCE AND IMPACTS

In output terms the project performed well on engaging small businesses, private organisations and employed people. It was less easy to engage with medium sized businesses, unemployed and economically inactive people. The strong engagement of small businesses reflects the local economy.

In terms of outcomes the programme performed better on the innovation and enterprise measures than training and job search. It did better on employment in supported business and jobs safeguarded than self-employment though it did well on new businesses creation. In terms of product development, the new to firm target was considerably exceeded and the new to market target was slightly short

Based on the jobs created or safeguarded and new businesses and people into employment to the end of the Programme, the PIE Programme created 38.2 total FTE jobs (23.0 direct and 15.2 indirect) generating a total NPV GVA of £3.4m. This results in a cost-benefit ratio (BCR) of 1:6.0 i.e., each £1.00 of investment will generate £6.00. This is higher than the boundaries of what might be expected for this kind of initiative and the cost per direct job provides good value for money against recognised benchmarks.

## DELIVERY HEADLINES

Element one of the PIE Programme focused on three themes – career decision-making and job interview support for students and, reducing risks in business and business development. This was well managed and involved trialling various AR/VR/MR headsets and using it to support students in their career decision-making and job interview preparation. A bodyswap application helped students gain a better understanding and insight in the realities of careers they might consider. The technology helps students visualise the workplace better, empathise with professions, and better understand what roles might be like. There were acknowledged to be some practical challenges to embedding technology in the curriculum (see lessons and recommendations). This element was also used to support businesses/organisations in several ways with the use of new technologies. They used the support to expand or develop new services (the equipment was prohibitively expensive for many small firms).

The relative infancy of immersive technologies presented various practical challenges from procurement to security, and hardware and software compatibility. Furthermore, many businesses are not yet aware of how the technology can be fully exploited so part of the challenge was encouraging them to try or use it. Future programmes require careful planning of procurement, curriculum and business alignment, integration and exploitation. This is a time consuming and resource intensive process. Looking to the future, despite the implementation challenges, the technologies have significant potential for students and businesses alike much of which is yet to be discovered including a full costs service to businesses.

The key aim for strand two of the Programme was to develop a strategic approach to business support and incubation. Coordination between Cotie, Node, BIPC Devon, Fablab and Libraries Unlimited facilities along with Petroc helped to create a 'customer journey' with follow-on and grow-on support meeting the changing needs of entrepreneurs and businesses as they developed. The facilities delivered a variety of different tailored support programmes from formal business development advice to more informal

craft workshops for those who do not have or want specific business support advice. A grant programme which was well received sat alongside the programme and used typically to diversify and develop businesses/organisations. The delivery chapter describes the support offered in more detail.

This strand had a slow start – affected by the programme delays nationally and the fact the strategic alliance took longer than expected. That said partners believe the Programme has allowed them to develop a new productive, collaborative working partnership across all the facilities involved with more routine cross referrals. Whilst there were varying levels of collaboration and referrals between facilities, they have a much greater understanding of what each facility provides and their respective specialisms.

Delivery partners felt the level of paperwork was extensive and different approaches to monitoring were a challenge that was overcome, though it took some time to communicate and clarify the handling of reporting and funds. Combining this with the constrained length of time available for programme completion, was quite difficult for partners. A more centralised marketing approach might have increased recognition of the PIE Programme brand amongst beneficiaries and clearly demonstrate the ‘customer journey’ available.

As a direct result of participating in the Programme, partners experienced an increase in the membership of the facilities, attendance at events and workshops delivered. They are hopeful of a continued healthy pipeline of future beneficiaries since joining the Programme. All delivery partners are looking to continue providing the same or similar types of support in the future. They feel that the partnerships developed during the programme has been a positive and useful outcome transcending many of the Programme’s contractual targets. They are open to the idea of future collaborations building on the strategic alliance developed under the PIE Programme.

The key objective of strand three was knowledge transfer, connecting businesses with Petroc students via a placement. The aim was to enable students and businesses to work together on a two-way knowledge transfer project, building Petroc’s BEIS funded Business Basics ‘Techknowledgey Transfer’ Programme. However, delays to the Programme start meant the timings clashed with the college’s timetable. The focus of knowledge transfer activities shifted to a more general transfer of skills-based knowledge to businesses and the Petroc institution more generally.

The headline conclusions are as follows:

- The project met its overall aim to create an environment and culture which encourages, nurtures and promotes innovation and entrepreneurialism. This was also a key aim of the UKSPF and met a local identified need.
- Each strand worked well but there were some changes made to accommodate the shift in UKCRF timetable.
- There are some clear lessons in terms of adopting and embedding new technologies in the curriculum and in terms of raising awareness of the benefits to SMEs and entrepreneurs.
- The strategic alliance developed for the project provides a good basis on which to continue to collaborate with partners to develop a local innovation and entrepreneurial ecosystem and there is an appetite to do so.

## LESSONS LEARNED AND RECOMMENDATIONS

The key lessons for Petroc and partners are as follows:

- I. A strategic alliance for incubation requires on-going communication, careful alignment and the marshalling of resources into a single offer that is effectively marketed to target audiences.
- II. Linked to the above, some alliances and referral links are easier to nurture than others. For instance, similar or colocated services or those with existing relationships found is easier to collaborate where the relationship was new which required a more proactive stance.
- III. Marketing to be more central so beneficiaries understand the programme on a wider level – many didn't know they were on the PIE programme.

The lessons for those thinking of developing similar innovation and enterprise projects are:

- I. The planning phase for new technology development is a lengthy and complex process from procurement to the testing, compatibility and embedding of new technologies.
- II. Building networking opportunities (attending events at partner facilities) and strategic alliances around enterprise and innovation means facilities can reach more people from a wider geography and participants can take advantage of a wider suite of support across a local ecosystem.
- III. The potential benefits, and differences between new technologies such as AR/VR/MR are not yet universally well known amongst businesses. Programmes promoting these technologies need to take a very proactive approach including open days, demonstrations and outreach work to highlight potential applications.

Policy makers may wish to consider the following lessons.

- I. Policy level changes to support the implementation of higher level EdTech to facilitate better digital integration in the curriculum.
- II. Offering practical advice for those in the FE sector wishing to implement and mainstream AR/VR/MR technology from procurement to technology, software and security requirements to teaching and curriculum development
- III. Programme delays have knock on effects for Programme delivery and make mobilisation and alignment of activities more challenging and complex.

Petroc and partners may wish to consider the recommendations.

- I. Developing a strategic alliance with partners to build on the experience of UKCRF PIE to develop a comprehensive small and micro business enterprise, innovation and technology development offer for Devon.
- II. Securing appropriate funding (UKSPF, UKRI) to initiate the above.
- III. Embedding AR/VR/MR in the curriculum where appropriate.

Developing a more centralised and interactive virtual presence linked to Petroc and partner facilities and support for similar Programmes to entice business, participants and others wishing to engage and understand the offer.

## 1. PROGRAMME CONTEXT AND SUMMARY

This is an evaluation of the PETROC – Promoting Innovation and Entrepreneurship (PIE) Programme. The Programme has been funded by the UK Community Renewal Fund (UKCRF) and aims to strengthen Devon’s workforce and stimulate business development across Devon County.

This chapter introduces the PETROC PIE Programme and outlines its objectives, targets and rationale. The chapter ends with the strategic context behind the project and approach used for the project’s assessment.

### 1.1. PROGRAMME SUMMARY

Devon County Council (DCC) committed to deliver the Promoting Innovation and Entrepreneurship (PIE) Programme – a programme submitted by Petroc to the Ministry of Housing, Communities and Local Government, MHCLG (which at the time of programme approval had been renamed as the Department for Levelling Up, Housing and Communities, DLUHC). The programme aims to address business’s skills shortages and support businesses, particularly SMEs and start-ups, with high growth potential. The Programme also aims to encouraging innovation in early-stage start-ups, micro businesses and people with entrepreneurial potential so that they can establish and/or develop their business. The pilot programme planned to carry out activities and provide a firm evidence base for future provision.

The PIE Programme focuses on four target areas within Devon County - Mid Devon, North Devon, Torridge and West Devon.

The Programme consists of three elements:

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#### ELEMENT ONE: THE USE OF AUGMENTED/VIRTUAL/MIXED REALITY TECHNOLOGY

The first element is the use of augmented/virtual/mixed realities (AR/VR/MR) to address the challenges of the local workforce by identifying and plugging local skills gaps and opening ‘bottlenecks’ in the workforce training process. The strand has three specific aims.

The first is to test whether the AR/VR/MR technology can be used to reduce physical work placement hours in order for trainees to qualify in areas such as health and social care, where there is less opportunity for work placements thus, fewer individuals training at one time. The developers of the Programme felt the use of technology in this area would be efficient as vacancies in the health and social care sector are high and there is increasingly a need for qualified workers in this area.

The second specific aim is to test the use of AR/VR/MR in career decision making processes of both school-leavers who are making their first real career decisions and adults in the process of a change in careers, supporting them to make better informed decisions about their career choices.

The third specific aim is to test the use of AR/VR/MR technology to help encourage businesses to innovate and develop with minimal risk. For example, businesses often have complex and expensive

machinery which, if broken, can take some time and resource to fix. Using AR/VR technology can be used to assist businesses in fixing their machines virtually. The technology can also be used as a knowledge/skill sharing method.

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#### ELEMENT TWO: HOLISTIC SUPPORT PACKAGE

The second element is a holistic support package for businesses and individuals across four areas of Devon including North, West, and Mid Devon and the Torridge area. The support package consists of four physical facilities and their varying services.

- FabLab, a workshop which provides digital fabrication, for example, 3D printing.
- PETROC's Cotie, a new (est. 2021), bigger technology and innovation centre which offers more complex digital fabrication, rapid prototyping, hotdesking and meeting facilities.
- Node (North Devon Enterprise Centre) Coworking Space, a business incubation facility which offers high quality office and collaboration space for start-ups and SMEs. The facility also provides tailored support for businesses and individuals.
- BIPC – Business and IP Centre Devon – offers business support via expert courses, workshops and 1-1 tailored advice.

The aim of this element is to create a seamless and impactful customer journey through partnership working, collaboration and outreach work. The notion behind the holistic package is that by bringing these facilities together, entrepreneurs will be able to realise their full potential.

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#### ELEMENT THREE: KNOWLEDGE TRANSFER

The knowledge transfer element is a blueprint of the 'Techknowledgey transfer' programme - a knowledge transfer model used to encourage the uptake of technology use within business administration. This element is considered as a continuation of this model. This knowledge transfer element looks at whether the knowledge transfer model can be used as a blueprint for other areas of business or to promote areas other than technology such as business growth, promotion of innovation, and increased productivity in other areas.

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#### TARGETS

The targets of the Programme, which are reviewed in Chapter 5.0 include:

- 40 businesses in education/training
- 20 businesses engaged in job-search activities
- 7 people in employment, including part-time employment or self-employment
- 4 businesses introducing new products/services to the market; 4 businesses introducing new products/services to the firm
- 4 permanent, full-time jobs created and 4 jobs' safeguarded
- 2 new businesses created
- 14 organisations involved in knowledge transfer activity
- 22 business innovation plans developed.

## 1.2. PROGRAMME RATIONALE

The Petroc PIE Project aims to create an environment which encourages, cultivates and promotes innovation and entrepreneurialism effectively to drive economic growth and productivity as a means to tackle longstanding social and economic inequalities amongst the four target areas within Devon. Low education levels, high proportion of part time work and low wages earned by people in Devon all contribute to economic and social inequalities.

[NOMIS](#) data shows that population in Devon overall have fewer qualifications at NVQ4 and above (39.1%) compared to the national average at 43.6%. The picture is more stark in the target areas - Torrington has just 21.9% at this level followed by Mid-Devon at 34.6% and North Devon at 36.3%. West Devon is not far behind the national average.

Despite the low unemployment rates in Devon, statistics show there are more people in part-time work (36.3%) compared to the country's average (31.9%). Looking at the four target areas, Torrington has the highest percentage of part time workers compared to the national average (8.1% higher) followed by North Devon at 6.2%, West Devon at 5.6% and Mid Devon with 2.7% higher than average. Nationally, people get around 7.5% more in wages than those in Devon.

A report from [The Economy 2030 Inquiry](#) highlights the increase in economic insecurity in the UK labour market. The increase in minimum wage has had less impact on those who have low weekly pay because the wage people receive, depends on the number of hours people work. 88% of part-time workers receive low weekly pay. Some part-time workers want to work more hours but are unable to due to the unavailability of more work, childcare issues and other possible barriers to working more hours. Workers with lower levels of education are more likely to face higher levels of job insecurity.

A [Work Foundation report](#) (2022) found that in 2021, more than 1.5 million workers in part-time or temporary work said they were unable to get full-time or permanent work. Workers in involuntary part-time work face severe insecurity. Working part-time significantly reduces the likelihood to an increase in wages over time. Some people like the flexibility of part-time or temporary work but where workers in insecure roles would prefer permanent work and more hours, insecure work can negatively impact mental wellbeing. Health impacts of this kind of work can be just as negative as impacts of unemployment. Furthermore, there is little likelihood of training or progression in the role in the long-term.

Boosting pay, jobs and living standards are key elements of improved productivity. Growing the private sector would contribute greatly to these goals. Spreading opportunities in innovation and entrepreneurialism with emphasis on a multi-strand approach is needed to reduce social inequalities.

[Devon County Council](#) (DCC) outline that the majority of businesses in Devon are SMEs and micros. With a high rate of self-employment, there is great opportunity to further develop already established small and micro enterprises in Devon. DCC aim to promote start-up businesses and support existing businesses to be resilient and continue to grow. The [Skills for Jobs White Paper](#) emphasises the importance of the Further Education and Industry relationship to develop a sustainable two-way knowledge and skills exchange.

### 1.3. STRATEGIC CONTEXT

#### REGIONAL

As part of [Devon's Economic Recovery Plan](#), there is determination to build on the entrepreneurial culture in the county to create a stronger and sustainable economy. Health, retail and tourism account for 43.1% of employment. Agriculture, education, manufacturing, construction and real estate employment are overrepresented in Devon compared to the national representation. The Council plan to work with at-risk sectors to support skills and business development.

Within the Economic Recovery Plan, there is also a focus to support young people in education and work. The Council aims to assist people in finding new opportunities by supporting the increase in take-up of vocational, other further education, skills and training opportunities.

#### NATIONAL

The £220 million Community Renewal Fund (CRF) was launched by the UK Government in March 2021 with the aim of supporting in-need communities across the UK. Institutions were encouraged to bid for funding for pilot programmes and projects designed to grow local economies, support skills development, develop employment opportunities, and build communities. It was designed as a precursor to the UK Shared Prosperity Fund that was launched in April 2022.

Both funds are directly linked to the aims outlined in the UK's Government's [Levelling Up White Paper](#) that was published in February 2022. The White Paper outlined the UK's Governments focus upon reducing geographical inequalities across the UK through:

- Boosting productivity, pay, jobs and living standards by growing the private sector, especially in those places where they are lagging
- Spreading opportunities and improve public services, especially in those places where they are weakest
- Restoring a sense of community, local pride and belonging, especially in those places where they have been lost
- Empowering local leaders and communities, especially in those places lacking local agency

It places emphasis upon a multistrand approach to reducing inequalities through support for innovation and entrepreneurship, developing infrastructure, stronger pride in place and skills development.

UKCRF is included as a key investment strand within the White Paper focused upon the delivery of pilot projects that enable innovation, create levelling up opportunities, and build community capacity. As a pilot programme the evaluation findings from CRF projects provide a clear evidence base upon which future levelling up funding applications can be built.

Priorities of the UKSPF<sup>1</sup> include supporting local businesses and investment in people and skills. The importance of providing investment in small businesses, and creating opportunities for networking and

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<sup>1</sup> House of Commons Library (2022) 'The UK Shared Prosperity Fund' [Available here](#)

collaboration are outlined. The Levelling Up agenda also recognises the significance of knowledge transfer to reduce the “long tail” of low productivity firms and to enhance management capabilities.

#### 1.4. STUDY APPROACH AND OBJECTIVES

This study aims to provide an evidence-based evaluation of the Petroc PIE Programme. The evaluation has the following objectives:

- To assess the outputs and outcomes of the project, the overall impact on the beneficiaries, lessons learnt and successes.
- To assess the original rationale for the project, whether it is valid and how it fits with the local, sub-regional and national policy strategies.
- To conduct a robust quantitative impact evaluation of the project that assesses performance, including the achievement of gross outputs and expenditure against its approved targets.
- To conduct a value-for-money assessment of the cost-effectiveness of the project.
- To assess the effectiveness of the process of delivery, including management, administrative, and delivery mechanisms as well as operational characteristics that have had a significant effect on the scale and nature of the outcomes and impacts realised through the project.
- To identify lessons learned and provide recommendations to improve operational delivery, beneficiary experience and outcomes.

An inception meeting was held to confirm the study approach and agree the principal milestones. A desk review of regional and strategic context was undertaken. Primary research was carried out with beneficiaries of the Upskilling Project. These included:

- An on-line survey of student beneficiaries who accessed the AR/MR/VR technology support within their school setting.
- A telephone survey of people and businesses supported by any of the four physical incubation facilities.
- Businesses receiving support through the knowledge transfer element of the Programme.
- Case studies with participants which appear throughout.

Three stakeholder group consultations were conducted with the Petroc team alongside other delivery partners. Discussions included the rationale for the project and a reflection of the project delivery. Challenges, lessons, strengths and weaknesses were also reflected upon to help inform the recommendations.

## 2. ELEMENT ONE AND TWO: THE PARTICIPANT PERSPECTIVE

This chapter analyses feedback from students who accessed VR technology to support them in their career decision-making process. It also analyses feedback from a telephone survey of 46 respondents receiving strand two incubation support exploring experiences and impacts.

### 2.1. ELEMENT ONE – STUDENT PERSPECTIVE OF AR/VR/MR TECHNOLOGY

Students who were introduced to AR/VR/MR technology as part of the PIE Programme were asked for feedback on their experience of using the technology. They were also asked about the possible benefits and impacts they feel could be achieved by making the most of the technology in an educational setting. Four students were surveyed. Most of the student survey respondents were studying Animal Management at Petroc whilst one was respondent was learning Business Studies.

The majority of students felt the technology improved their understanding of what working in their chosen career might look like on a day-to-day basis. The students strongly agreed that the technology allowed them to have experiences they may not have otherwise been able to have. This made them feel positive about their career prospects and the opportunities available to them.

Students were asked about skills development that have and could be achieved as a result of using the technology. All the students felt the technology has or can help them think creatively in terms of ideas development. A majority of students found the technology has or could help with problem solving skills, listening, and other management skills such as influencing.

Most students believed that using the technology has or probably could allow them to try out potential work opportunities. Half of student respondents agreed that by using the technology, barriers to learning could be overcome. The same number of students agreed that it could reduce the hours needed to be spent in a real-life placement setting.

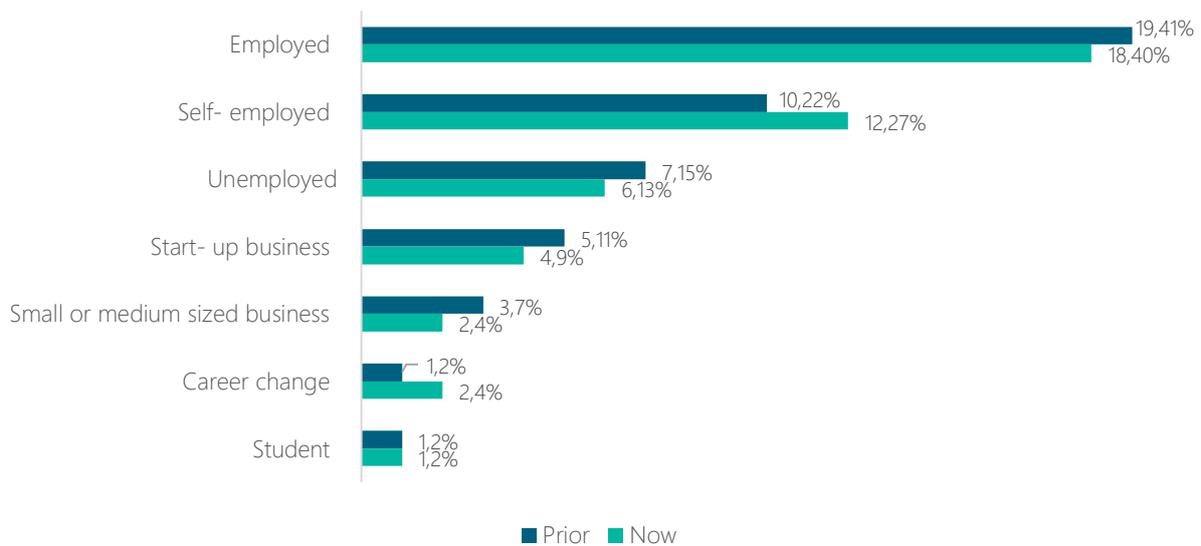
When students were asked what could improve their experience of using the AR/VR technology, two of the four students said they would like the technology to have more of an educational focus. One student said they would like to see more activities within the technology.

All students said they would recommend the use of AR/VR for other courses/areas of study to some extent. Two students said they would 'definitely' and two students said they would 'very probably' recommend it. Half of student respondents feel the technology could help them access opportunities they may not be otherwise able to access in their local area.

## 2.2. BENEFICIARY PROFILE

Beneficiaries were asked their employment status before and after the Petroc PIE Programme. There was little movement generally e.g. a slight 5% increase in the number of self-employed (2).

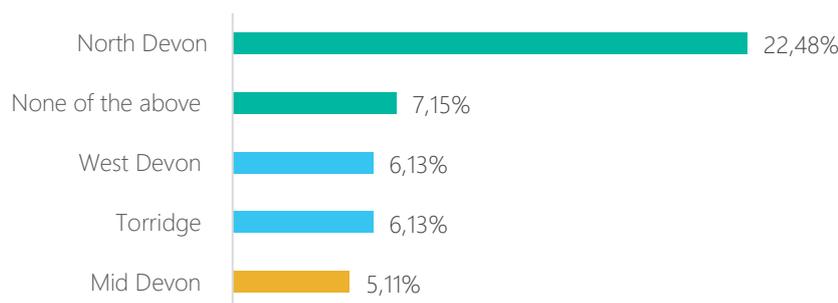
What was your status prior to joining the Programme and what is it now?



Source: Kada Research, Survey Analysis, n=46

48% of respondents were from North Devon, 13% West Devon and Torridge and 11% from Mid Devon.

Area of Devon you are based



Source: Kada Research, Survey Analysis, n=46

## 2.3. ABOUT THE SUPPORT RECEIVED

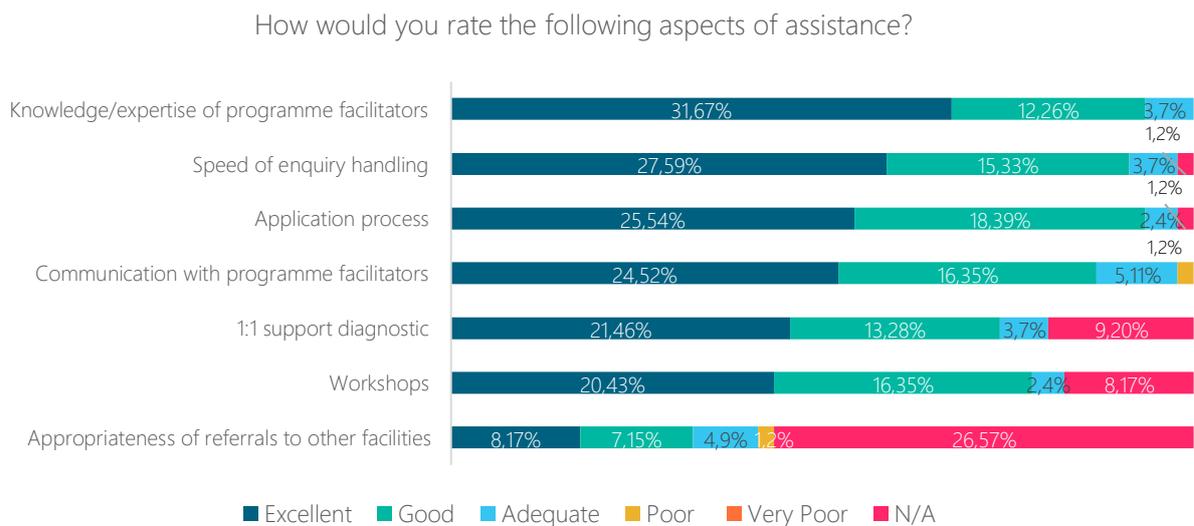
Beneficiaries were asked which facilities they had accessed during their time on the PIE Programme. The majority of respondents surveyed accessed Fablab. The team at Fablab assisted by providing tutorials and workshops to help businesses understand and use software relating technology and graphic design. They also assisted in showing survey respondents how to use laser and wood cutting equipment. Of

those who accessed Node, respondents found they were assisted most in terms of advice around business development and growth.

Financial support was also available. 83% of respondents received financial support under strand two. Respondents stated it enabled them to purchase equipment and programmes to develop their business. One respondent was able to use the financial support to produce a professional website.

Respondents had a range of motivations for joining the programme, but the most common response was to upskill through the courses available and get experience of the technology and equipment which they could access. Respondents stated upskilling was for both personal improvement and to develop their business. Respondents were intrigued to learn about the grants available for their business and the potential to develop their business ideas.

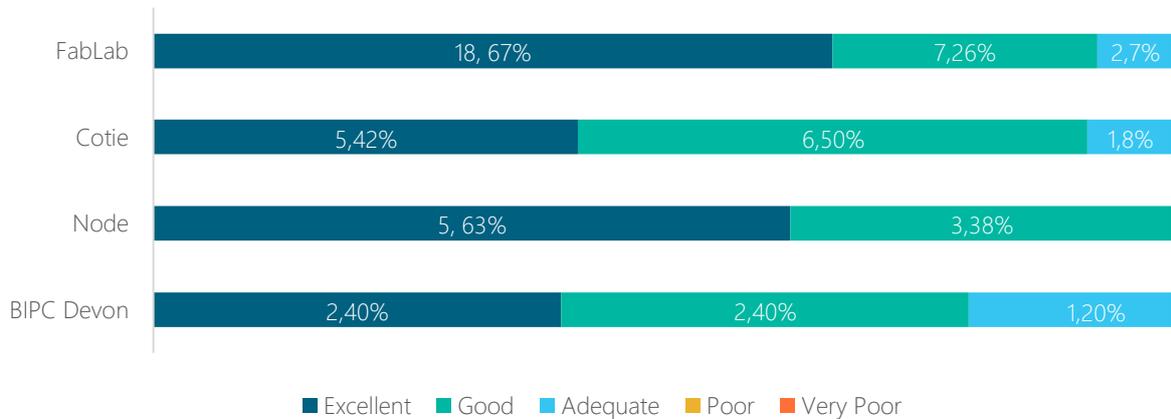
Beneficiaries were asked to rate various aspects of assistance they received on the Programme. The programme scored well overall, especially on the knowledge and expertise of the programme facilitators (93% excellent or good), the speed of enquiry handling (92% excellent or good), the application process (93% excellent or good) and the communication with facilitators (87% excellent or good).



Source: Kada Research, Survey Analysis, n=46

Survey respondents rated the relevance and quality of different facilities that they had access to as part of the Programme. Feedback shows that FabLab was the most accessed facility and the most positively rated – with 93% rating the facility as ‘Excellent’ (67%) or ‘Good’ (26%). BIPC Devon was not accessed as much as the other facilities. Node and Cotie received an ‘Excellent’ rating of 63% and 42% respectively. BIPC Devon was not accessed as much as the other facilities but rated mostly positive. No facilities were rated poor or very poor by anyone.

How would you rate the relevance and quality of support from the following facilities?

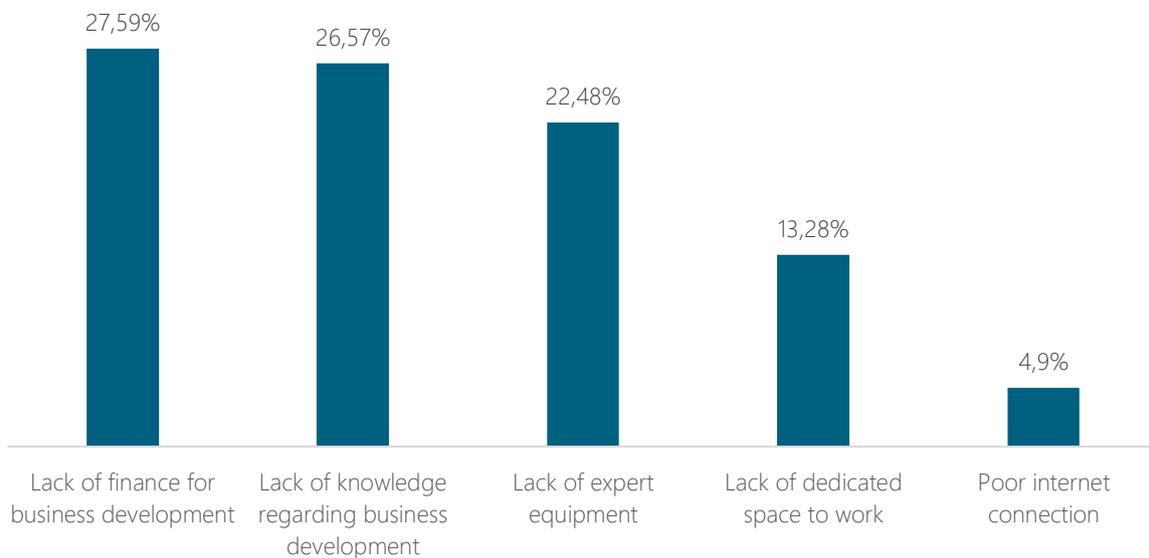


Source: Kada Research, Survey Analysis, n=46

## 2.4. BARRIERS FACED

Survey respondents cited a range of barriers prior to joining the Programme. 59% cited a lack of finance for business development and 57% a lack of business development knowledge. Just under half of respondents lacked access to equipment.

What barriers did you face prior to joining the programme?

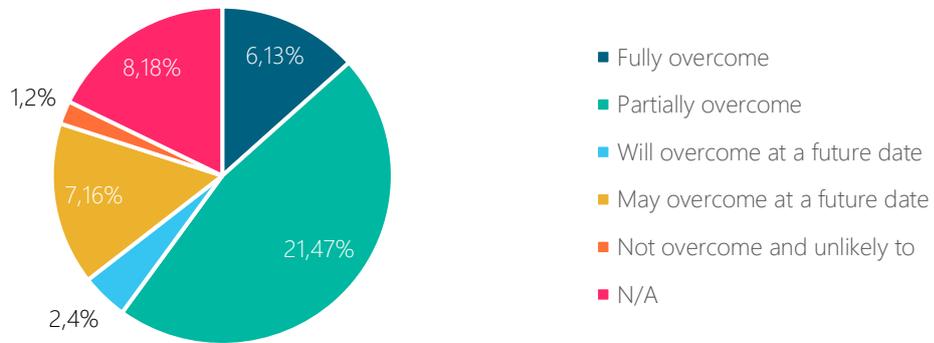


Source: Kada Research, Survey Analysis, n=46, multiple responses allowed

A lack of training and experience was a significant barrier to developing a business idea, and businesses welcomed insights into new technology like CAD. Inexperience of using new equipment meant individuals could not always envisage how useful it could be. Business inexperience was mentioned which

led to lack of confidence and direction. Learning difficulties such as dyslexia were also cited. That said 60% of respondents 'Fully overcame' (6, 13%) or 'Partially overcame' (21, 47%) any barriers experienced.

To what extent were your barriers overcome?



Source: Kada Research, Survey Analysis, n=45

Despite the barriers faced, participants were on average more inclined to develop their business or business idea since they received the support. On a scale of 1 to 10 where one is 'Not at all inclined' and ten is 'Very inclined', the average response given by respondents since receiving the support was 7.9 compared to 5.7 prior (a 2.2 or 39% difference).

How inclined were you to develop your business or business idea prior to joining the programme and how inclined are you now?

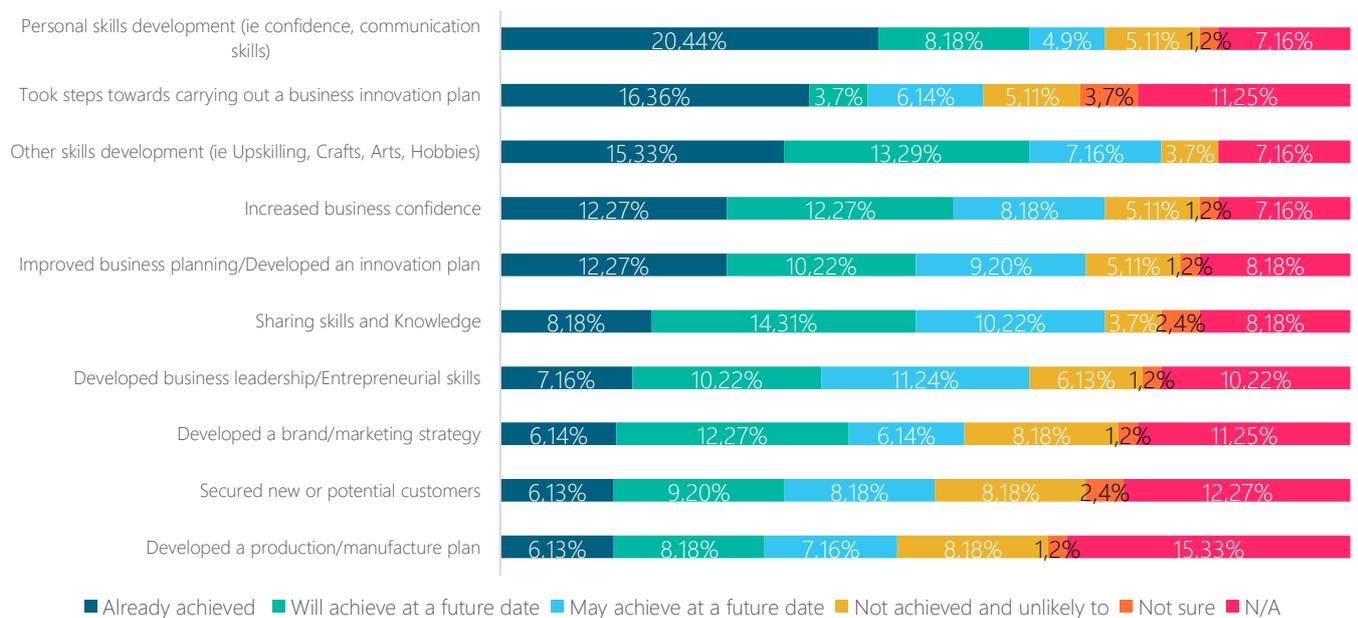


Source: Kada Research, Survey Analysis, n=45

## 2.5. OUTCOMES AND COMMERCIAL IMPACTS

Many personal and business outcomes were achieved as a result of the support. 44% already developed personal skills development such as confidence and communication, and 18% will do in the future. 36% took steps towards carrying out a business innovation plan. 33% had developed other new skills. Less common outcomes included the development of a brand/marketing strategy, the securing of new customers, and the development of a production/manufacturing plan.

Which or the following personal or business outcomes have you or will you achieve as a result of the Programme?

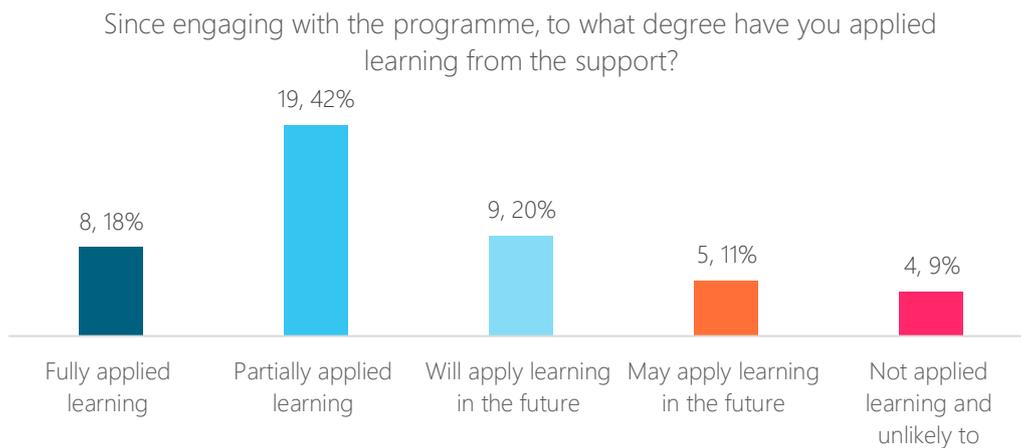


Source: Kada Research, Survey Analysis, n=45

Respondents enjoyed the networking opportunities allowing them to meet like-minded peers and share ideas (one cohort set up a WhatsApp group to communicate outside of the workshops.) It gave participants confidence to progress their business or business ideas. Some chose not to take advantage of networking opportunities available because networking wasn't the focus of what they were doing.

Some made useful connections with artists and creative entrepreneurs that they intended to keep in touch with for technical support and advice. It was too early to say what the outcome of these connections might be.

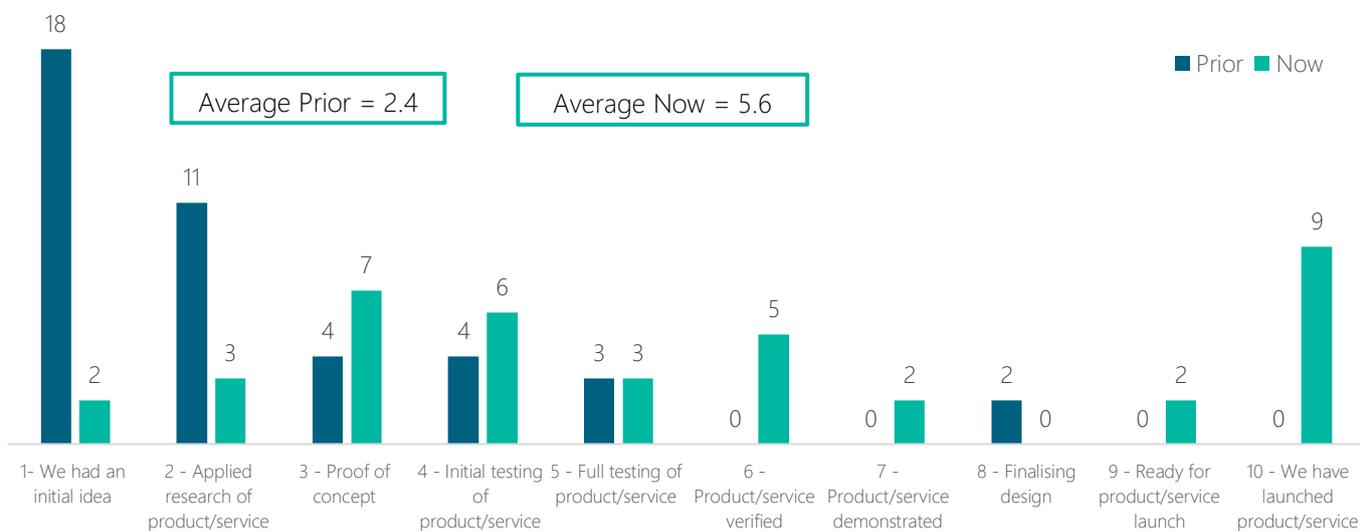
18% of survey respondents have fully applied learning since receiving support. 42% or 19 survey respondents partially applied learning. 20% of survey respondents agreed they will apply learning in the future. Only 9% (4 respondents) felt they would not apply learning from the support they received.



Source: Kada Research, Survey Analysis, n=45

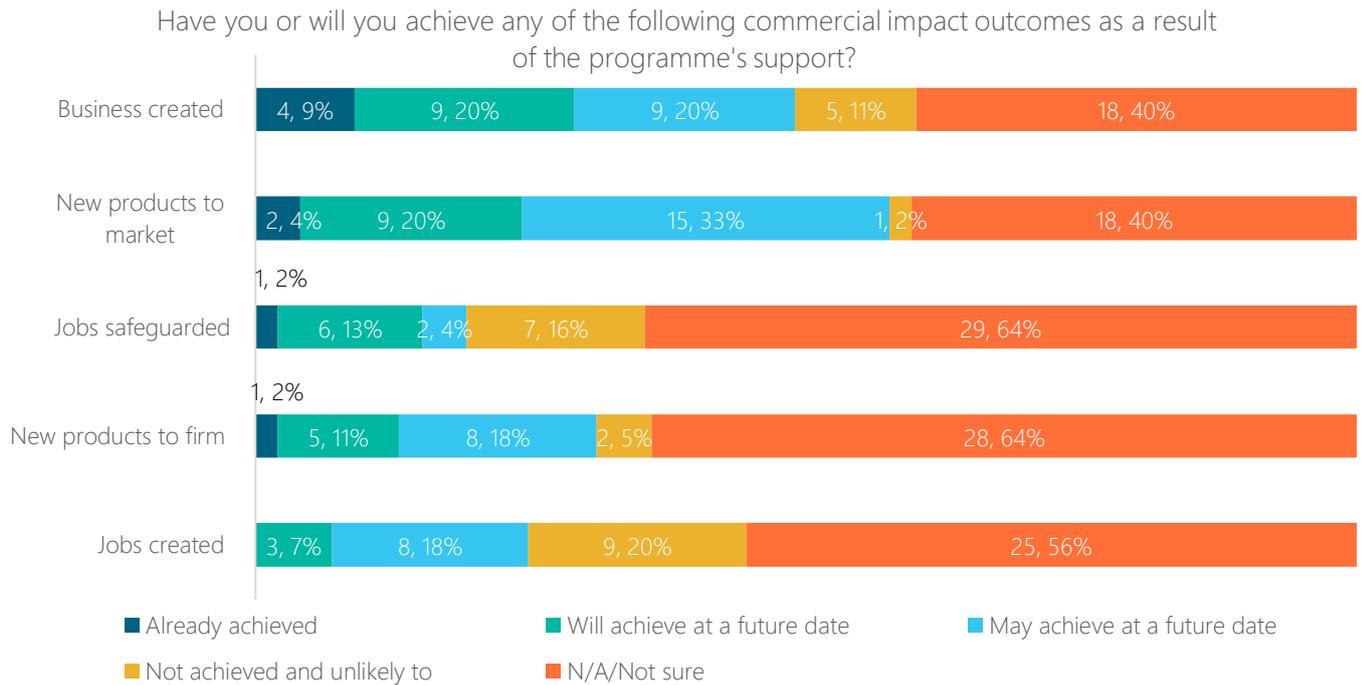
Beneficiaries moved forward in their product/service development journey by 3.2 stages on average (on a scale of one to ten), typically moving from ideas or applied research stage to full testing of their product/service. Before the Programme, 18 beneficiaries were at the first stage of having an initial idea. Since the support from the Programme, nine beneficiaries managed to launch their product/service.

If you aimed to develop a new product/service within your business, how close were you to market prior to joining the programme and how close are you now?



Source: Kada Research, Survey Analysis, n=45

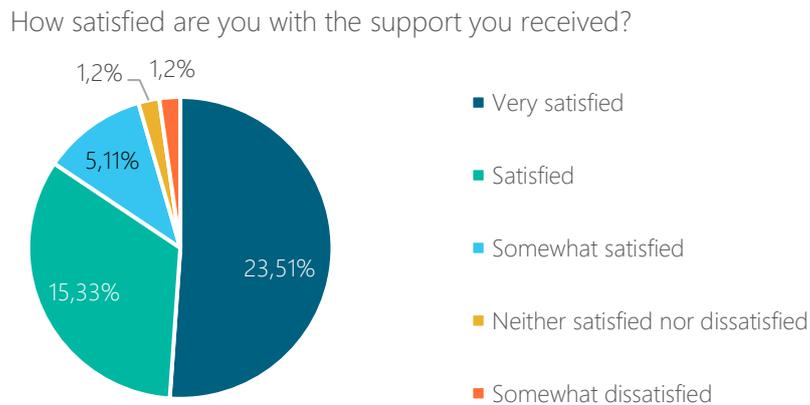
Despite the short length of the programme a considerable number of actual and potential commercial impacts were cited. 49% of respondents have (9%), will (20%) or may (20%) create a business. 59% have (4%), will (23%) or may (33%) bring new products to market and 31% have (2%), will (11%) or may (18%) bring new products to firm. One in four will or may create jobs and nearly one in five have, will or may safeguard jobs.



Respondents cited new products they brought to market and/or expanded offerings. Artists and businesses expanded their range of works, products and services. For instance, an interior designer began to offer virtual designs to customers, another was in the process of opening a new gallery and one respondent started to design and create children’s educational material. Some businesses have improved their signage and promotion materials.

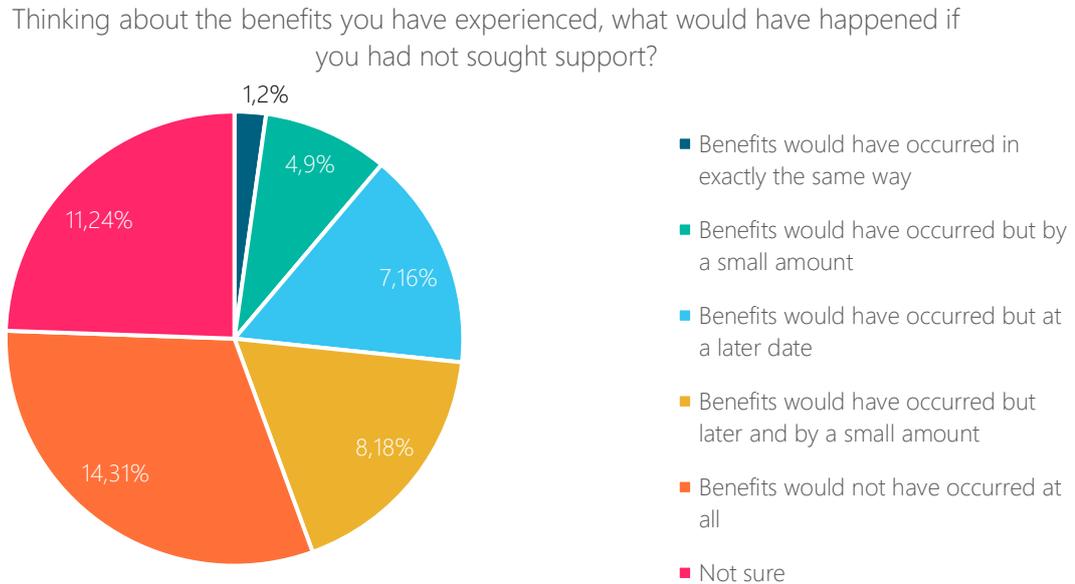
## 2.6. SATISFACTION AND POTENTIAL IMPROVEMENTS

84% of beneficiaries who responded to the survey were ‘Very satisfied’ (23, 51%) or ‘Satisfied’ (15, 33%) with the support they received.



Source: Kada Research, Survey Analysis, n=45

Survey respondents were asked to reflect on the benefits that had occurred as a result of the Programme's support. There was only 2% of 'deadweight' cited – those who believed that benefits would have occurred in exactly the same way without the Programme. 31% of respondents (14 beneficiaries) felt that benefits would not have occurred at all (pure additionality). There was also a considerable (43%) time (16%) and scale additionality (9%) and both time and scale additionality (18%)



Source: Kada Research, Survey Analysis, n=45

Survey respondents were asked whether the programme could be improved in any way. There was room for improvement in terms of telling participants exactly what to expect and programme planning. Some would like to have been told prior to events or courses, of anything they should bring and any preparation that was necessary. Some participants felt it would have been useful to be able to easily access learning material, for example, material to take home or to access online outside of the learning sessions. There was an appetite for progression onto more advanced training.

*"A longer, more in-depth course would be useful so we have time to apply what we learnt."*

*"Access to more professional software training, moving on from introductory courses would be great for the future, or information about where to access these courses."*

# Ilfracombe Museum develop a new service, with the support of the Petroc PIE Programme for visitors to enter the Victorian world using VR technology for a more immersive experience



First opened in 1932, North Devon based Ilfracombe Museum is set in a historical building and houses thousands of items in their collection. Some of the items in the Museum's collection include natural history, local history, taxidermy, and items from the Victorian period.

Ruth Warren – an employee of Ilfracombe Museum – had learnt about the Promoting Innovation and Entrepreneurship Programme via email. She had attended a networking event run by Petroc to find out more about the Programme and to understand the ways in which the Programme's support might be able to help Ilfracombe Museum.

“They [the Petroc team] were talking about virtual reality. I didn't really think it was something we could achieve but then I started talking to one of the Petroc team who outlined its potential.”

As a result of talking to the Programme team, Ilfracombe Museum developed an idea of using VR technology to recreate the old Victorian hotel which was located where the museum now stands. The Museum team felt an immersive VR experience would be captivating for their customers.



“It was a big Victorian building and was very grand back in its day. We thought it would be a great new service to be able to provide to our customers.”

Ilfracombe Museum received grant funding which helped them purchase the work of a 3D modeller who created the VR model of the old hotel building. The funding also helped the Museum team buy some of the equipment they needed, for example, a VR headset.

Ruth felt that the most significant part of the support was the technical knowledge of developing a VR experience from the Programme team. She found the assistance to be ‘really helpful’ in supporting the Museum to provide a diverse immersive experience.

“The Programme team helped us with all the technical aspects of using Virtual Reality so I didn’t have to think about how I was going to connect an app to a headset, instead I could focus on being creative and putting ideas together.”

“Parts of our museum are a bit outdated so it’s really nice to add something that’s really modern. It’s a different way of engaging with history.”

In terms of impacts, Ruth anticipates that once the VR experience is available to customers, it will bring more people to the Museum. She hopes that the diverse methods of teaching people about history would add more life to the Museum.

“The Programme really opened my eyes to what more we were capable of. It’s helped all of us at the Museum to be more ambitious and creative.”

Looking to the future, Ruth now plans an event to launch and publicise the new immersive experience. This will help direct more visitors to the Museum and develop an understanding of how well the experience is being received.



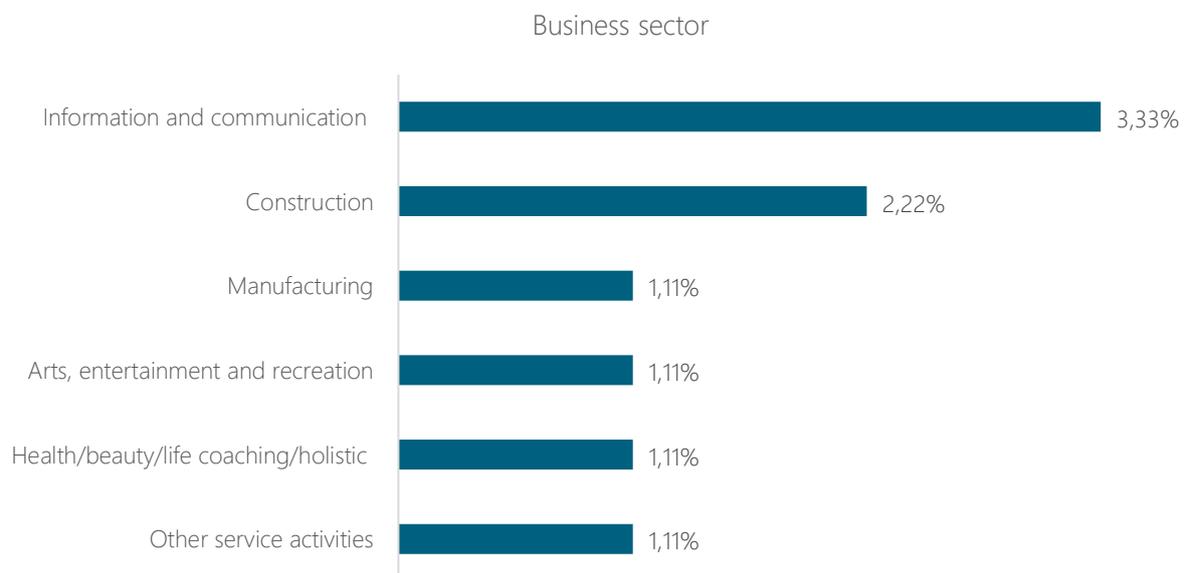
I didn’t really think it was something we could achieve but then I started talking to one of the Petroc team who outlined its potential.

### 3. STRAND THREE SURVEY ANALYSIS

This chapter analyses feedback from nine businesses who completed an online survey for the knowledge transfer (strand 3) of the PIE programme. These beneficiaries also had access to a grant.

#### 3.1. BUSINESS PROFILE

Three respondents were from the information and communication sector (33%), followed by 22% of respondents (2 businesses) from the construction sector. One business was from the manufacturing sector, another came from the arts, entertainment and recreation sector. One business was also from the health/beauty/life coaching/holistic business sector. Eight of the nine business survey respondents were based in North Devon and one from Torridge.



Source: Kada Research, Business Survey Analysis, n=9

Just over half of respondents (56%) were made aware of the programme by Petroc. Two found out about the programme online (through social media, a website or search engine). One business found out about the programme through facilities who were providing support as part of the wider PIE Programme, such as Cotie, Node, and FabLab.

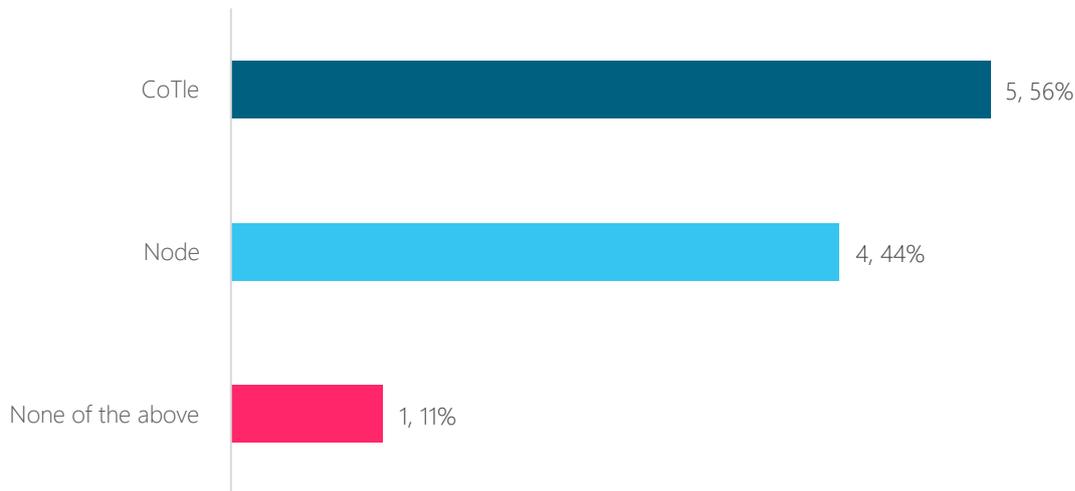
#### 3.2. MOTIVATIONS TO JOIN AND THE SUPPORT RECEIVED

When asked about their motivations for joining the programme, the most common response was to learn new business techniques such as VR technology and 3D Design to progress business. Businesses were also motivated to join the programme because of the financial support available to help with start-up/equipment costs or developing new products or services.

## Evaluation of the Promoting Innovation and Entrepreneurship (PIE) Programme

Just over half of businesses (56%) accessed Cotie when participating in the programme, followed by 44% of respondents (4) who accessed Node support. One respondent (11%) accessed none of the facilities available (Cotie, Fablab and Node). None of the business survey respondents had accessed Fablab.

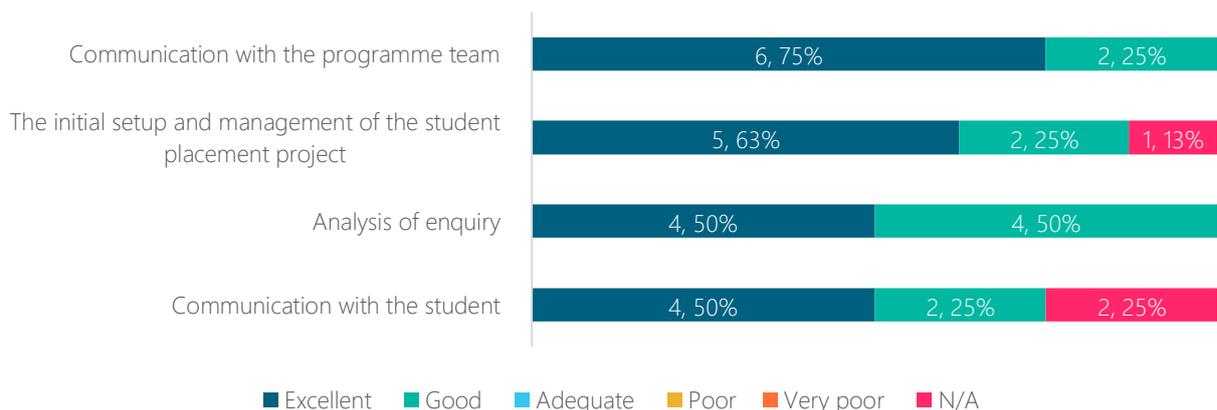
Which facilities did you access during your time on the programme?



Source: Kada Research, Business Survey Analysis, n=9, multiple responses

All aspects of assistance were rated positively. All respondents agreed that the communication with the Programme team was 'Excellent' or 'Good'. 88% rated the initial set up and management of the student placement project positively.

How did you find the following aspects of assistance during the programme?



Source: Kada Research, Business Survey Analysis, n=8

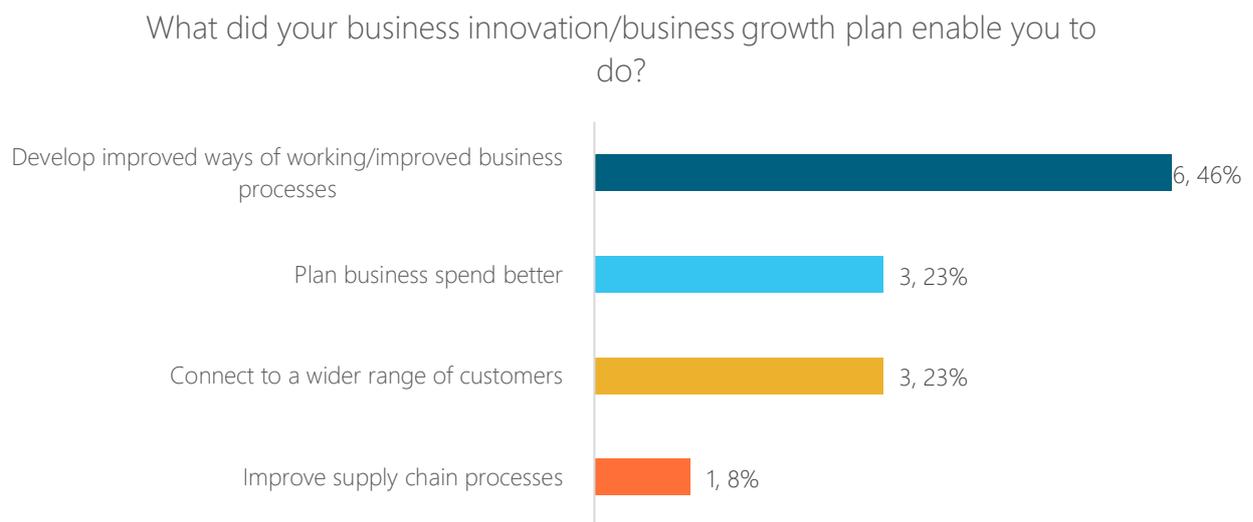
All nine respondents accessed financial support through the PIE programme. It was used almost exclusively to purchase new equipment, including manufacturing equipment for one business and equipment to help produce branding and marketing content for three other businesses. The grant enabled businesses to grow and develop their activities on a larger scale. Where technology was

purchased through the financial support, this allowed businesses to become more efficient and/or expand on the services they provide.

### 3.3. BUSINESS GROWTH PLAN SUPPORT AND OUTCOMES

Survey respondents stated how the programme helped implement their growth/innovation plans in a range of ways. Several commented that the programme helped improve their marketing processes. Some survey respondents developed better marketing strategies, and some held high profile events, speeding up the development of the business much sooner than they would have been able to do without the programme. This gave respondents the confidence to develop their business. Others noted how the programme helped them progress business innovation plans relating to 3D Design.

Several businesses (6,46%) stated their innovation plans enabled them to develop improved ways of working and improved business processes, and 23% (three businesses) said their innovation plans allowed them to plan business spend better and connect to a wider range of customers. One business (8%) stated their innovation plan would enable them to improve supply chain processes.

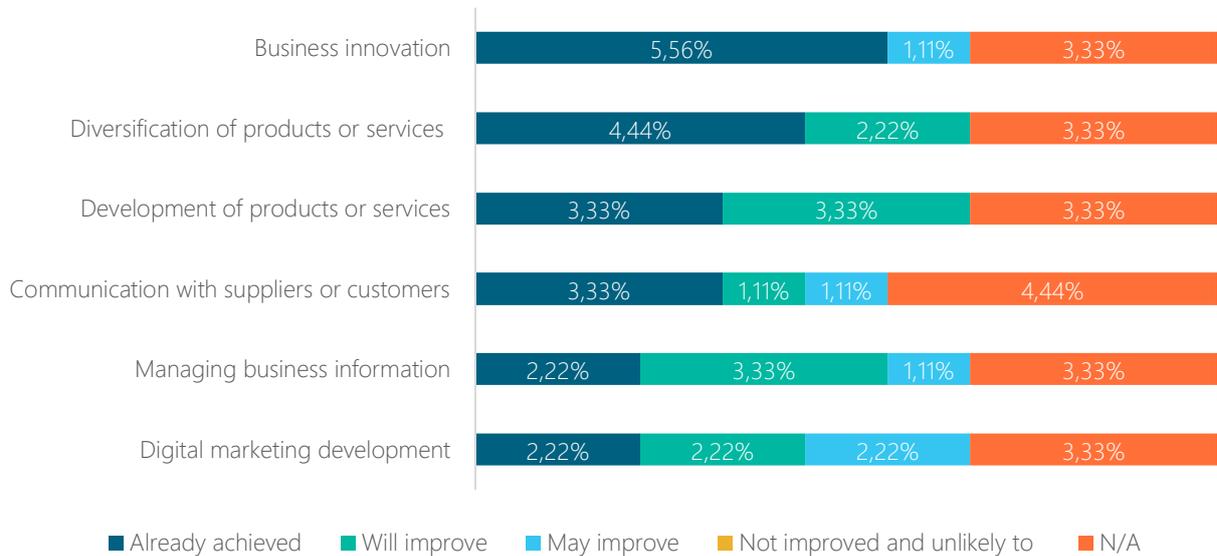


Source: Kada Research, Business Survey Analysis, n=9

As a result of the student project placements, business innovation was the most improved area for survey respondents. Just under half of respondents were able to diversify their products or services and a further 22% agreed they will improve in this area. A quarter of respondents said they have, and a quarter said they will, develop products or services within their business. The area which was improved the least was digital marketing development. A quarter of respondents felt this was not applicable to their business or was not a focus for them.

## Evaluation of the Promoting Innovation and Entrepreneurship (PIE) Programme

As a result of the student project placement, in which of the following business areas do you feel you have improved?

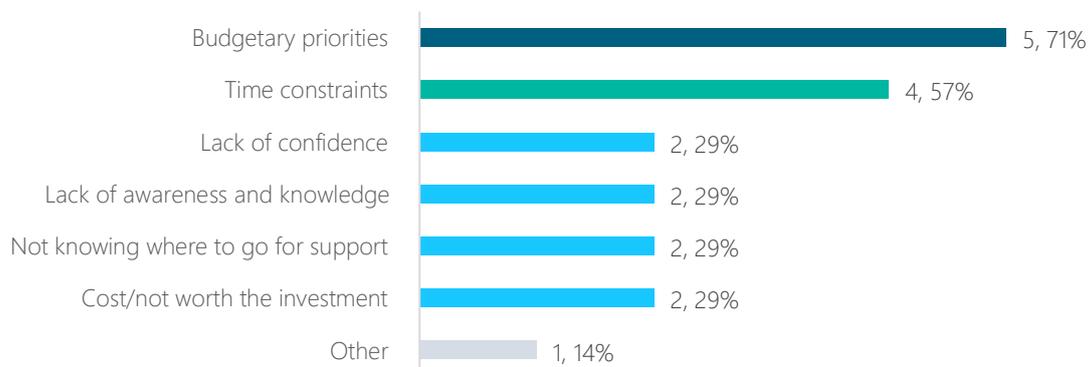


Source: Kada Research, Business Survey Analysis, n=9

### 3.4. BARRIERS TO DEVELOPMENT

Prior to engagement with the programme, the majority of respondents (71%) stated budgetary priorities were an innovation barrier faced. 57% of respondents stated time constraints were a barrier to their innovation, followed by 29% saying a lack of confidence and lack of awareness and knowledge were innovation barriers respectively. Similarly, 29% of respondents found not knowing where to go for support and the cost not to be worth investment to be barriers.

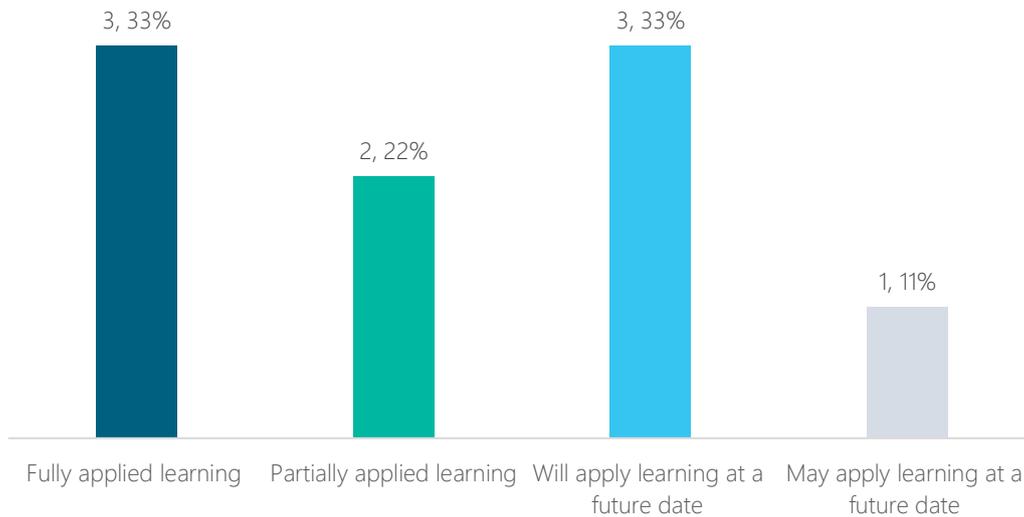
What innovation barriers did you face prior to your engagement with the programme?



Source: Kada Research, Business Survey Analysis, n=9

Respondents commented that innovation barriers were overcome as a consequence of the support. They gained knowledge and advice about applying new business techniques and the support helped them overcome time management issues.

Since engaging with the programme and upon completion of the student placement project, to what degree has your business applied learning from the support?



Source: Kada Research, Business Survey Analysis, n=9

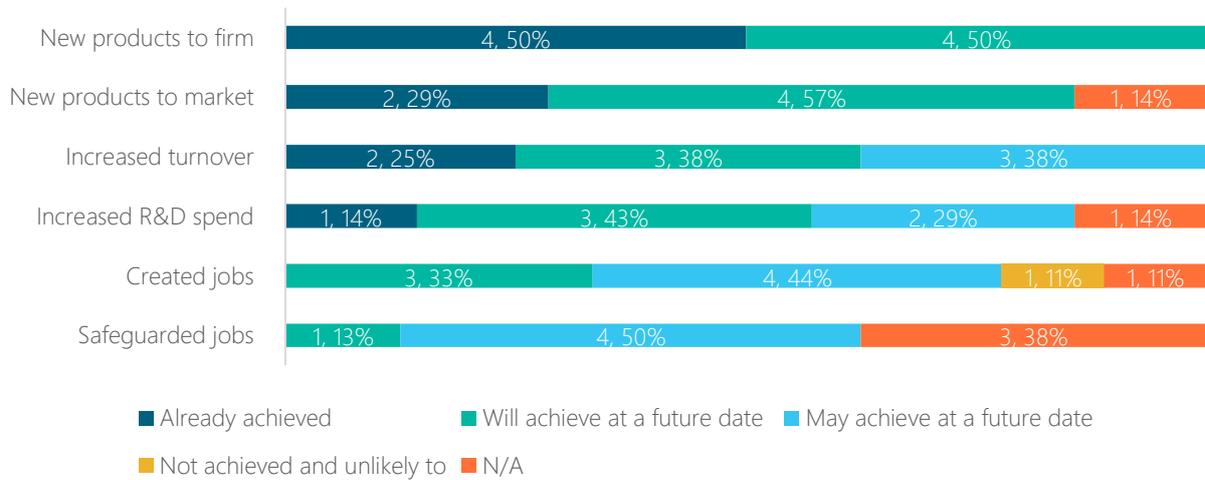
33% of respondents stated they had fully applied learning since engaging with the programme and upon completion of the student placement project, followed by 22% who had partially applied learning. 33% of business stated they will apply learning at some point in the future and 11% may apply learning at a future date.

### 3.5. COMMERCIAL IMPACTS

Half of businesses had already introduced new products to their firm and the remaining 50% said they will do in the future. 29% said they will bring new products to market and over 50% will do in the future. A quarter of respondents saw an increase in turnover, while 38% will do in the future.

## Evaluation of the Promoting Innovation and Entrepreneurship (PIE) Programme

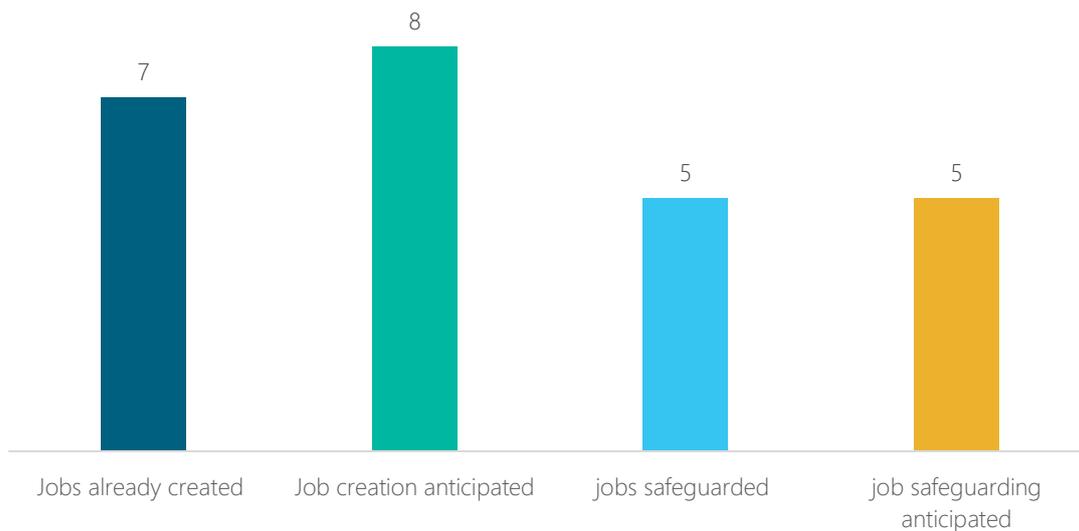
Which of the following commercial outcomes have you already or will you achieve over the next 3 years?



Source: Kada Research, Business Survey Analysis, n=9

Business survey respondents stated that seven jobs have been created as a result of Programme participation. Eight jobs are anticipated to be created and five safeguarded. Another five jobs are anticipated to be safeguarded over the next three years. These look in line with recorded outputs and is interesting to note that the claimed figure to date is likely to double in future years.

How many jobs have you created or safeguarded since engaging with the programme and how many do you anticipate to create or safeguard over the next 3 years?

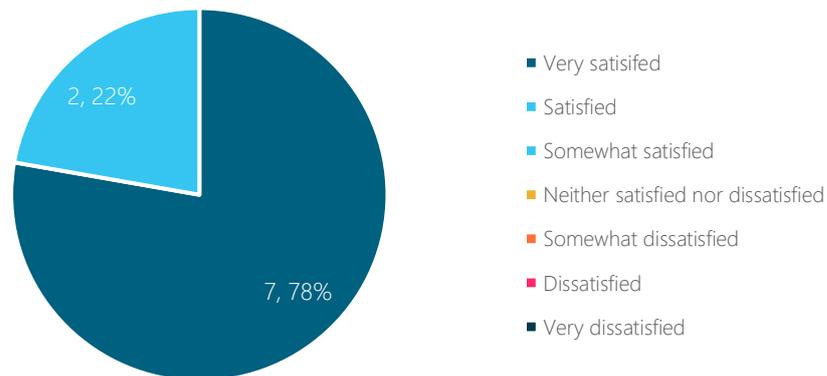


Source: Kada Research, Business Survey Analysis, n=9

### 3.6. SATISFACTION AND POTENTIAL IMPROVEMENTS

All 9 businesses were satisfied with the support received; 78% (7 businesses) were very satisfied whilst 22% (2 businesses) were satisfied.

How satisfied are you with the support received?



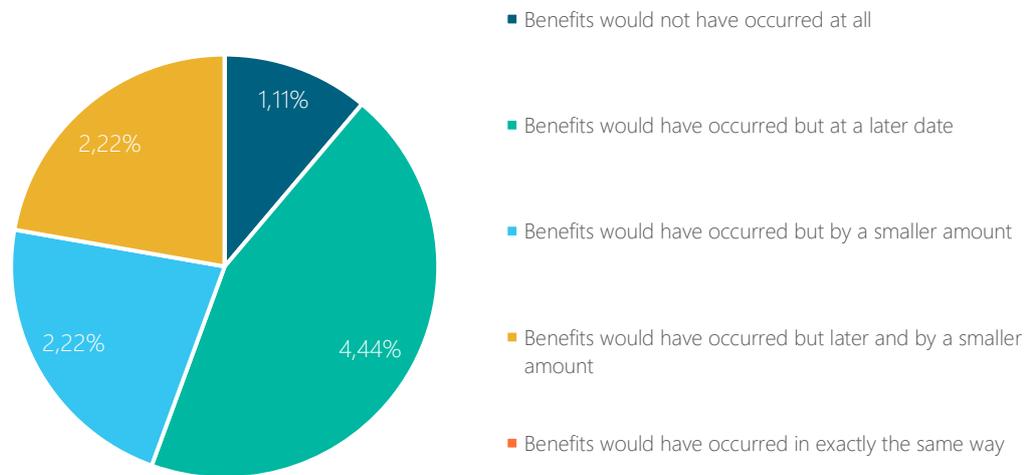
Source: Kada Research, Business Survey Analysis, n=9

The majority of respondents felt the support exceeded their expectations to some extent, with 67% of respondents (6 businesses) stating the support significantly exceeded their expectations and 22% of respondents (2 businesses) stating the support slightly exceeded their expectations. 11% of respondents (one business) thought the support was in line with their expectations.

When asked what improvements could be made respondents would have appreciated more flexibility on the length of the programme. One business thought the programme and learning was more advanced than how it was described as (though they did say the support provided was 'amazing').

In terms of additionality, 44% of respondents (4 businesses) felt the benefits experienced would have occurred anyway but at a later date (so called time additionality). 22% of respondents (2 businesses) felt benefits would have occurred but by a smaller amount and 22% of respondents thought benefits would have occurred but later and by a smaller amount. Lastly, 11% of respondents (1 business) thought benefits would not have occurred at all. No 'deadweight' was identified i.e. all the benefits would have occurred anyway.

What would have happened if your business had not sought support from the programme?



Source: Kada Research, Business Survey Analysis, n=9

100% of respondents stated they would recommend the programme to other businesses.

# Interior design Company – VK Interiors - expands its services to provide Virtual Reality to clients seeking tailored interior design concept developments



Established over 20 years ago, VK Interiors is an interior design company based in North Devon. The company mainly offers commercial interior design services particularly the leisure industry in the local area.

Vicky Wilkins – one of the directors of the company – found out about the Promoting Innovation and Entrepreneurship Programme from a weekly business networking group.

“I saw the flyer mentioned Sketch-Up VR. This is something the company uses already so it caught my attention.”

Vicky was motivated to join the Promoting Innovation and Entrepreneurship Programme to expand their current services. Using the VR technology, Vicky wanted clients to have a more interactive, realistic experience exploring the interior design concepts developed by the company. She found the application process straightforward.

“I booked a place onto the programme, then got a call back which was mainly to introduce ourselves and get to know more about the Programme.”

As part of the Programme's support, Vicky participated on a learning course made up of both classroom-based teaching and a practical demonstration on how to use the sketch-up software.

“There were only four of us on the course, so we had quite a lot of 1-1 support and interaction. During the demonstration, we used a model from one of the houses we were working on at the time. It was really good to be able to use our own work to practice on.”



Vicky felt the level of support was appropriate. She found the quality of the support was 'good' and highly tailored to her needs. She believed the practical session the most useful part of the support she received.

“We weren't just told what we have to do, we were shown how to set it all up so we could do that in our office.”

Vicky also received grant funding as part of the Programme which she used to buy a computer and the software needed to use the VR technology.

“What interested me was that we did not need much to go from what we do now to actually giving our customers the VR service.”



What interested me was that we did not need much to go from what we do now to actually giving our customers the VR service.



Vicky now plans to advertise the new VR service to clients. As well as providing a more unique offering, something which other designers are not offering in the area, she feels this would be a cost-effective addition to the company. Without the support, Vicky believes she may not have considered using VR due to the high costs and expert technical knowledge required. She would recommend the Programme to other businesses.

“In the years to come, there may be an opportunity to employ someone to monitor and manage the VR service within the company, depending on the customer feedback we receive.”

## 4. PERFORMANCE AND IMPACTS

This chapter includes an analysis of outputs and outcomes, economic impacts and value for money.

### 4.1. OUTPUT AND OUTCOME PERFORMANCE

Outputs	Total contracted	Forecast plus actuals over project lifetime	Total Variance	% Variance
Number of economically inactive people	125	108	(17)	-14%
Number of unemployed people	100	49	(51)	-51%
Number of employed people	150	147	(3)	-2%
Number of Small Businesses	32	49	17	53%
Number of Medium Businesses	8	2	(6)	-75%
Number of Public Organisations	4	2	(2)	-50%
Number of Private Organisations	40	50	10	25%
Number of Voluntary Organisations	12	7	(5)	-42%

In output terms, the project performed well on engaging small businesses (+53%), private organisations (25%) and employed people (-2%). It was less easy to engage with medium sized businesses (two against a target of eight were achieved) and unemployed (-51%) and economically inactive people (-51%). The strong engagement of small businesses reflects the make-up of the local economy.

Outcomes	Total contracted	Forecast plus actuals over project lifetime	Total Variance	% Variance
Number of People in Education/Training	40	7	(33)	-471%
People engaged in job-searching following support	20	6	(14)	-233%
Businesses introducing new products to the market	4	3	(1)	-33%
Businesses introducing new products to the firm	4	24	20	83%
Employment increase in supported businesses (FTEs)	4	8	4	50%
Jobs Safeguarded (Number of FTEs)	4	4	0	0%
New businesses created (Number of businesses)	2	9	7	78%
Organisations engaged in knowledge transfer activity	14	12	(2)	-17%
Number of innovation plans developed	22	27	5	19%
People in employment, including self-employment	7	2	(5)	-250%

In terms of outcomes, the programme performed better on the innovation and enterprise measures than training and job search. It did better on employment in supported business (8 jobs created, +50%) and jobs safeguarded (four against a target of four) than self-employment (2 people against a target of 7). 9 new businesses were created against a target of 7 (+78%).

In terms of product development, the new to firm target was considerably exceeded (+83%) with 24 new innovations and the new to market target was one short of its target of 4. These later targets take longer to materialise and the strand two survey showed that 59% of respondents have (4%), will (23%) or may (33%) bring new products to market. It was harder to engage the economically inactive on this programme and it is not surprising the knowledge transfer target slightly short (-17%) as this element of the programme was refocused (see next section).

## 4.2. ECONOMIC IMPACT

An economic impact assessment was undertaken comprising of:

- Direct Employment: Employment impacts and resultant Gross Value Added from job created and safeguarded (taken from the outputs cited).
- Indirect Employment Effect: The effect on suppliers and resultant productivity / GVA from jobs created and safeguarded and projected.

Several steps were taken to assess gross and net GVA and employment impacts and net present value:

- For the gross to net assumptions deadweight was assumed at 25% (based on survey findings), displacement at 17.9% and leakage at 13.5% (both based on benchmarks).
- An average composite UK employment multiplier was used at 1.66 to calculate the indirect employment effects (from ONS).
- The persistence of the benefits; i.e., how many years the benefits are expected to persist and the period over which benefits will accrue until they reach their full potential. In this instance, a modest two-year time frame was chosen based on experience elsewhere.
- A decay of 10% per annum has been used for year two; i.e., the proportion of annual benefits expected to be lost from one year to the next due to economic changes, other investment decisions etc.
- Calculation of the Net Present Value (NPV)<sup>10</sup> of the GVA benefit stream over the appropriate persistence time period by discounting back utilising an appropriate rate. HM Treasury Green Book guidance has been followed which recommends discounting by 3.5% to determine NPV.
- A cost-benefit ratio is calculated by Net Present Cost (NPC) against NPV; i.e., the amount each £1 of investment generates.
- Kada estimates for GVA per FTE have been using BRES (The Business Register and Employment Survey) and ONS (Office of National Statistics), for the South West Region.

The following estimates of the economic impact and value for money are based on projections to the end of the Programme from a review of the most recent performance on job creation, businesses supported and estimated spending.

Based on the jobs created or safeguarded and new businesses and people into employment to the end of the Programme, the following table shows that the PIE Programme created 38.2 total FTE jobs (23.0 direct and 15.2 indirect). The table below shows the PIE Programme has generated a total NPV GVA of £3.4m.

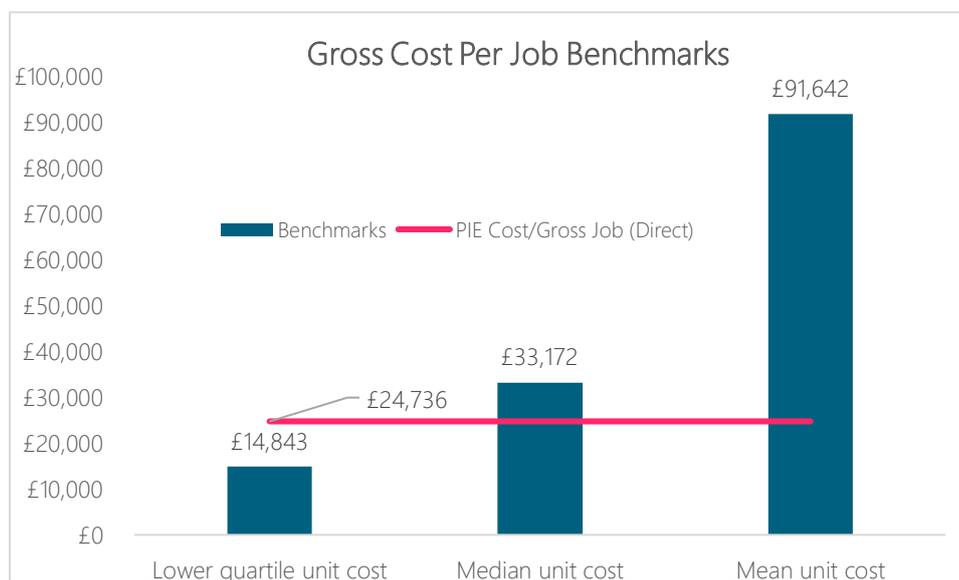
	Gross Jobs	Total Net Jobs	Total NPVGVA
<b>PIE Programme Jobs Created</b>	38.2	20.3	£3,395,438
Direct Jobs Created or Safeguarded	23.0	12.3	£2,045,444
Indirect	15.2	8.1	£1,349,993

#### 4.3. VALUE FOR MONEY ASSESSMENT

Lifetime cost benefit	Financial costs	GVA impacts	BCR
NPC/NPV	£568,917	£3,395,438	6.0

The estimated GVA to date of £3.4m would result in a cost-benefit ratio (BCR) of 1:6.0 i.e., each £1.00 of investment will generate £6.00. This is high the boundaries of what might be expected for this kind of initiative. For instance, a review by CRESR of evidence for general business support activity cites a BCR of between 1:6.0 and 8.7<sup>12</sup>.

Looking at the cost per direct job the PIE Programme at £24,736 provides good value for money well within the median cost of £33,172 identified by recognised benchmarks.



Source: Kada using Regeneris 2013 Output Costs and Definitions, note benchmarks updated to 2022

# North Devon Hospice incorporates Virtual Reality technology to their services to support and enhance healthcare delivery, with the support of the Petroc PIE Programme



Established in 1984, North Devon Hospice is a local charity which provides palliative care, complex symptom management and emotional/psychological support for patients with life limiting illness, for example, cancer, motor neurone disease, heart failure and COPD among others.

In line with North Devon Hospice Strategy to 2026, it was recognised that one of the Hospice's missions was to increase the use of Virtual Reality (VR) technology to support and enhance healthcare delivery. The Hospice had bought some equipment for the VR technology and had begun to explore the possibilities of using the equipment.

"There were several off-the-shelf things we could do with this headset."

It was then realised that there was more to be taken advantage of from the equipment bought by providing a customised experience for people using the facility. The Hospice did not have the skills or knowledge to progress the idea and it was paused for a year.

Ben Shirley – the head of technology at North Devon Hospice – had found out about the Petroc PIE Programme via email. The email included an invitation to an open day for the Programme which gave Ben the chance to discuss the project with the Programme team. There was also a display of VR technology headsets at the open event.

"I attended an open event, met a member of the programme team and started talking about our project. That's when they suggested that it's something they could help us with."





Our objective was to gain a better understanding of what VR can offer us and our patients. And that's what the Programme delivered.

Ben found the application process simple. He set out his ideas and what he was looking to get from the programme.

The Hospice also received a proof-of-concept award to develop their ideas. The Programme support team filmed a pilot VR 3D tour of the Hospice's gardens. As a result, Ben feels his team have better understanding of the new technologies and how to produce customised tours.

“Our objective was to gain a better understanding of what VR can offer us and our patients. And that's what the Programme delivered.”

Ben felt the support was pitched just right and he was very pleased with the communication from the team.

Ben is now more confident that the VR technology is a service that the Hospice will be able to offer to both residents and potential users of the Hospice and their families. As a direct result of the work during the Promoting Innovation and Entrepreneurship Programme, Ben now has a better understanding of the skills needed to continue the development of the VR service which has been incorporated into job specifications for the Hospice team.

The Hospice is now able to provide an extra service for their residents, for example, providing an experience for those at the end of their life where they otherwise may not have been able to.

Without the Programme's support, Ben believes his team would have spent a lot of time learning how to use the VR technology themselves. Looking to the future, the Hospice are planning to apply for funding to obtain the equipment needed to continue with their VR project.

“Following the support, we now have a list of equipment that we need to purchase in order to continue to make our own VR videos whereas before the programme, we simply didn't know what we needed.”

## 5. STAKEHOLDER AND DELIVERY PARTNER SURVEY

This chapter explores the delivery model adopted by the programme through key stakeholder interviews. It addresses issue of recruitment, impact and lessons learnt.

### 5.1. ELEMENT ONE – AR/VR/MR TECHNOLOGY

Element one of the PIE Programme focused on three themes – career decision-making and job interview support for students and, reducing risks in business and business development.

Stakeholder's communication methods, monitoring and management of the Programme were comprehensive. They held a steering group meeting every three to four weeks to oversee, facilitate and manage the Programme. Within these meetings, there were discussions around the various AR/VR/MR technology equipment that was available and which of these should be considered. The team trialled various AR/VR/MR headsets to identify the most compatible to the needs of the Programme. Oculus and Vive headsets were bought and trialled. HoloLens headsets were also trialled. Trials found that Oculus was not suitable to be used in a college environment securely and didn't offer the versatility of control of other brands. Collaborative decision-making was important for ensuring that decisions on implementing new technology were robust.

One element of strand one was to support students in their career decision-making and job interview preparation. It was agreed the technology could help counter some of the myths surrounding certain careers and occupations and help students gain a better understanding and insight in the realities of careers they might consider. This allows them to make much more informed decision and has the advantage of being more low cost than a physical placement and suited to a rural economy where placements are limited and often require extensive travel.

Using AR/VR/MR technology offered a safe place to 'test the waters' before going ahead with a career decision. An application called Bodyswaps was purchased to deliver some job interview preparation and career decision-making support. The Bodyswaps application contains a range of modules for job interview preparation, for example, presentation delivery practice, and mock interview practice. Other modules included communication and listening, relaxation techniques and confidence building to prepare for job interviews. The application supported young people at a local job centre who were preparing for their job interviews, particularly using the mock interview module.

*"Now we have trialled the technology and the content, we need to decide how we're going to use it to inform the career decision-making process and where Bodyswaps needs to sit within the curriculum."*

Mixed reality technology was used to introduce students to new careers in a realistic setting. For example, using the HoloLens headset, students could access a virtual hospital and be presented with a patient presenting symptoms of a potentially serious illness.

*"In one experience, you could move the patient around and ask them questions. Their symptoms would develop, and the patient would deteriorate in front of you. And you were meant to make an initial diagnosis."*

Whilst the health and social care curriculum team were initially slightly apprehensive about using the technology to practice a simulation of the resuscitation of babies they acknowledged that these experiences of a work environment helped students make more informed career decisions.

*"The AR/VR/MR technology for careers has been mostly well received."*

The technology helps students visualize the workplace better, empathize with professions, and better understand what roles might be like. But the technology was not suitable for everyone. Some participants had a temporary negative effect after using the technology and others were generally resistant to using the VR technology or preferred in-person support. Nevertheless, the Bodyswaps' application overall was a success and the potential learning to be gained from the use of AR/VR/MR technology was significant.

The aim to reduce placement working hours for students was not achieved due to the funding rules stating that placements must be in an employer's premise. This was a challenge which could not be overcome. Changes need to be made at a higher level for AR/VR/MR technology to be more easily incorporated into educational institutions. Integrating EdTech with existing systems such as student placement modules need an assurance of compatibility and funding alignment.

The strand one element was also used to support businesses/organisations in several ways with the use of AR/VR/MR technology. They used the support to expand or develop new services. Teaching sessions were offered on how to operate live streaming 360 cameras so businesses could use this equipment to create digital marketing content. Strand one also delivered a VR SketchUp course for businesses to learn how to use the Mixed Reality application which enabled people to virtually engage others in an experiential design review. Using a headset, people can inhabit a design, helping to facilitate effective communication about complex spatial issues. For example, an interior design business who attended the SketchUp course was able to use the support to create Virtual Reality designs of their work.

*"They can see that they've missed things off their design which they normally wouldn't spot on a desktop PC, but because you're immersed in that space, you can spot it straightaway."*

Strand one support was not limited to businesses. Charities also sought support including North Devon Hospice and Ilfracombe Museum (See case studies throughout the report). Stakeholders believed that AR/VR technology could offer good opportunities for businesses and organisations looking to develop or expand their services. Acknowledging that the expensive equipment can be a barrier to adoption and development for local small businesses, stakeholders believed there was scope for businesses to immerse themselves in using AR/VR/MR technology to identify new opportunities for product and/or service development and innovation.

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#### ELEMENT ONE: CHALLENGES FACED

The relative infancy of immersive technologies presented various practical challenges. The number of competing technologies means that procuring and testing them all is a long and on-going process.

The software is often developed in isolation meaning that it is often only compatible with certain headset brands or types. This can be restrictive and complex to navigate. Stakeholders found that Oculus - a more financially and operationally accessible headset brand – was complex to upload to a sufficiently secure network (required for an educational setting).

Purchasing highly technical equipment within the delivery timeframe and the financial regulations of the UKCRF was somewhat difficult. There were many platforms selling equipment, but certain headsets were hard to source. Equipment delivery delays interrupted the delivery of the Programme. The breadth and the technical requirements were simply quite challenging to procure in a timely manner.

The hardware and broadband requirements to run the applications on headsets was another challenge faced and should be noted by others considering similar investments.

*“Even our top-of-the-range PCs had to have their graphic cards upgraded. The entry point for the static kit is high and the bandwidth needed is enormous.”*

Many businesses are not yet aware of how the technology can be fully exploited so part of the challenge was encouraging them to try or use it. However, the Programme has helped several businesses gain access to the equipment and learn how to use the technology through appropriate support (Cotie for instance). Stakeholders agree it would be good to offer the technology and equipment to businesses in the future. This would help them understand the potential benefits and impacts and minimise the risk of purchasing such expensive equipment.

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#### ELEMENT ONE: FUTURE AMBITIONS AND LEGACY

Future programmes require careful planning of procurement, curriculum and business alignment, integration and exploitation. They also need the on-going evaluation of appropriate high-quality technology, content and software that is applicable both for students in an educational setting and for business needs more widely. This is a time consuming and resource intensive process. Trialling the technology within an educational environment had some security and licencing constraints so testing the technology within a developmental network not subject to the same restrictions was useful.

*“We need to reflect on how the technology can be used and what its most appropriate use is for us as an FE institution and where its potential best lies.”*

Looking to the future, despite the implementation challenges, the technologies have significant potential for students and businesses alike much of which is yet to be discovered. Stakeholders want to embed the technology deeper within the curriculum. For example, within the architecture and construction sector twin motion software use within VR headsets is increasingly common. The curriculum could incorporate these technologies to help students become ‘work ready’ and develop new skills businesses in this sector will be looking for when recruiting.

*“Deploying the technology as an organisation in a wider context for everybody to use is the next step, and ensuring we have the resource to do that.”*

*"This new technology is something all our students will benefit from, especially as some form of Artificial Intelligence, or Virtual Reality are increasingly being used amongst most careers and will continue to do so in the future."*

There is an opportunity for more 'full cost' technology engagement with businesses building on the support trialled on the Programme. For example, the metaverse conferences, the VR SketchUp course, and tutorial and access to the live streaming 360 cameras received considerable business interest. Businesses were also interested in hiring the equipment and this could be matched with college expertise (staff and students).

*"Ultimately, businesses would access the technology on a relatively affordable commercial basis. That's a huge part of the legacy built as a result of the Programme."*

## 5.2. ELEMENT TWO: HOLISTIC SUPPORT PACKAGE

The key aim for strand two of the Programme was to develop a strategic approach to business support and incubation. Coordination between Cotie, Node, BIPC Devon, Fablab and Libraries Unlimited facilities along with Petroc helped to create a 'customer journey' with follow-on and grow-on support meeting the changing needs of entrepreneurs and businesses as they developed. The facilities delivered a variety of different tailored support programmes from formal business development advice to more informal craft workshops for those who do not have or want specific business support advice.

Node focused on prestart and early-stage businesses to stimulate new entrepreneurial activity. They ran a 6-week Kick-Start support programme with the option to access partner facilities such as those at Cotie and Fablab. Node also supported Petroc students; however, this was not received as well as hoped. More engagement with Petroc students would be needed in the event of a future Programme. Delivery partners at Node used the Kickstart Programme to offer more bespoke support, accommodating a wider pool of people. They also offered grants to people as per the required outputs of the PIE Programme.

*"We [at Node] are very pleased with the success of the 6-week Kickstart Programme. All the business participants had a chance to pitch their business in front of an audience within that timeframe."*

*"Visitors enjoyed coming to our facility [Node] and use the space we had. We are well-placed to host events."*

BIPC Devon ran both online and outreach workshops with a focus on business development support such as business planning, digital marketing, accounting, and IP support. BIPC also delivered several business webinars called 'The Art of Business'. Topics included branding, marketing, website essentials, filmmaking and developing a photography career amongst others. The webinars introduced the practical skills needed for entrepreneurs to start or grow their business.

FabLab and Libraries Unlimited offered a less business focused approach to their support based on the needs of those who access the support. Both facilities worked alongside each other to deliver outreach workshops to remote places with less access after a series of online workshops. Workshop topics include digital design and craft tutorials. Support within the Lab included inductions for the various machinery

available, 3D printing and modelling, CAD courses, and Vinyl printing. Petroc worked with Fablab and libraries unlimited to deliver a photogrammetry workshop for VR and 3D printing.

FabLab and Libraries Unlimited were able to support those who were unemployed. The facility's already established networks and customer base were a key strength in getting people to know about and access the support they provided.

*"It was much more accessible for people to come in to FabLab than Petroc. People usually find us less intimidating and less corporate or business-like."*

Although the impact of the support is not shown in tangible outcomes, beneficiaries gained many benefits. Many people do not have access to local libraries and other facilities so having outreach and online support was significant. A lot of impacts made by the support included upskilling, and reskilling. People were greatly encouraged by the fact that access to the facilities and the equipment/software was free of cost.

*"Some beneficiaries were getting back into education, learning computer skills. We had unemployed people who are trying to get or change jobs. People who had just finished schooling were looking to add things to their CVs."*

Businesses also accessed FabLab and Libraries Unlimited for support. The support was used to develop business marketing such as shop signs, T-shirts and window signs. Entrepreneurs used the support to make merchandise to sell on an online e-commerce website.

Partnership working proved to be significant in the delivery of grants. Grant funds were originally to be delivered under strand three of the Programme alongside knowledge transfer between businesses and students.

*"Pitching and delivering the grants got off to a slow start but we discovered a potential use when we started speaking to businesses and individuals who either had a business idea or had an established business – mostly through Node and Petroc courses." - Petroc*

Grants were used by business start-ups and businesses who wanted to diversify their products/services, for example, branch out their services to include sustainability. The grants were used in a range of ways. Some sole traders or micro businesses used the grant to access training, for example, one entrepreneur wanted to learn how to fit solar panels and add the service to their business. A number of businesses used the funding to support them with their headset purchases or other costly equipment they had used on the programme. Being able to promote the Programme in partner facilities was helpful in delivering the grants.

*"A lot of grants did go through being at node and being able to talk to small businesses, or through Node's Kickstart business programme. I went into a couple of their sessions to actually promote the grant system to them, which is brilliant, because it was great just to talk to them." - Petroc*

For grants to be given to businesses, purchases had to be made which were then reimbursed. A few businesses did find they were unable to purchase their equipment or training upfront, so the grants were

given in two halves once all the relevant paperwork was complete. This did create extra administrative work for the programme management team for a relatively small amount of grants which proved to be challenging.

Delivery partners agreed that strand two had a slow start. This was partly because partnerships and collaborative work between the facilities and Petroc were still in their infancy and building the strategic alliance took longer than expected. A longer Programme timeframe would have helped to nurture those relationships without impacting Programme delivery. UKCRF national delays meant there was period of inactivity at the beginning of the Programme. A Programme delivery extension was helpful but it came a little late for the delivery partners to use the extra time effectively.

*"We thought we had till March, then we had till June, and then we had till December, if we'd known in November that we had a year, we would have done things in quite a different way." - Petroc*

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#### ELEMENT TWO: PARTNERSHIP WORKING AND PROGRAMME MANAGEMENT

Partners believe the Programme has allow them to develop a new, productive collaborative working partnership across all the facilities involved with more routine cross referrals. They have a much greater understanding of what each facility provides and their respective specialisms.

*"We now know what each facility provides. This means we can refer people/businesses depending on their needs and level of maturity." - Petroc*

*"Some of the Kick-starters in Node had gone on to work with Petroc on CAD or 3D printing." - Node*

*"Some of the BIPC workshops were here. So again, the people were in the right place to be told about all the amazing other things that we do. I think that's another positive about us being a public space." - Fablab*

That said, there were varying levels of collaboration and referrals between facilities. For instance some beneficiaries were looking for referrals to facilities with similar kinds of support but different equipment or technology. Some facilities were collocated and/or had existing relationships. For example the use of a single public space for some aspects of Programme support was helpful in building relations between BIPC, FabLab and Libraries Unlimited. Delivery partners agreed there was room enhance contact and deepen relationships between some facilities to deliver a more seamless offer, in these instances referrals were not as routine as hoped. In the future partners would like to work towards a more universal offer with a range of different support programmes aligned to suit different circumstances through a recognised hub.

*"We didn't have much information on when some of their support was commencing. Some facilities had certain projects that ran for a set number of weeks so we couldn't refer people well after the start date."*

*"It was at times difficult to tease out how the various partners should work together. We may have needed to undertake a gap analysis of what is already being delivered, then try to fill in the gaps."*

The different ways in which UKCRF projects are managed can be challenging. The way in which DCC handled the UKCRF project was different to what some facilities were used to in terms of providing

evidence for funding. Therefore, it took some time to communicate and clarify the handling of reporting and funds.

Delivery partners felt the level of paperwork was extensive. Combining this with the constrained length of time available for programme completion, was quite difficult for partners. Additionally, evidencing outcomes was found to be tricky. In some circumstances where the beneficiary will produce an outcome after the lifetime of the Programme, these could not be captured as a predicted outcome. There were some teething problems initially with the reporting requirements regarding the way in which activities are evidenced, however, most of these issues were easy to rectify. One delivery partner found that the way funds were provided caused them problems with cash flow.

*"The extent of the paperwork and the evidence that's required, I suppose for us, is a level of detail that we are not normally used to."*

*"It was difficult for us as a small business to have to defray up front and then wait for reimbursement."*

Partners would welcome greater clarity on the outputs and outcomes in the initial stages of programme so that the delivery of support can be adjusted and made more bespoke depending on the targets of the Programme. Better communication during the beginning of the Programme would have helped earlier planning and preparation for the delivery stage, although central government delays did impact this to an extent.

With regards to branding, one delivery partner felt the requirements to be quite strict. There were many logos that had to be included in marketing materials which, they felt, detracted from the attractiveness and effectiveness of marketing material. This also caused delays in the distribution of relevant content due to material not being approved because of missing logos.

More generally, particularly with online marketing content, a more centralised marketing approach might have increased recognition of the PIE Programme brand amongst beneficiaries. It might have improved the understanding of the roles the facilities played within the wider Programme, using marketing collateral to clearly demonstrate the 'customer journey' available.

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## ELEMENT TWO: LEGACY AND FUTURE POTENTIAL

Through outreach support and proactive on-line marketing, the partnership successfully managed to support the UKCRF target areas of Torridge, West Devon and North Devon and more remote areas of Devon. As a direct result of participating in the Programme, partners experienced an increase in the membership of the facilities, attendance at events and workshops delivered. They are hopeful of a continued healthy pipeline of future beneficiaries since joining the Programme.

*"The Programme has put us on the map locally. We have lots more people coming to us for support."*

All delivery partners are looking to continue providing the same or similar types of support in the future. Some are refining their offer taking a more targeted approach towards more enterprise focused support.

Delivery partners feel that the partnerships developed during the programme has been a positive and useful outcome transcending many of the Programme's contractual targets. The successful joint delivery

of UKCRF activities positions the partnership well to delivery future UKSPF investment priorities. They are open to the idea of future collaborations building on the strategic alliance developed under PIE.

*"We now know each other's strengths and specialisms, having worked alongside one another so we would be in a stronger position to bid for future opportunities."*

### 5.3. ELEMENT THREE KNOWLEDGE TRANSFER

The key objective of strand three was knowledge transfer connecting businesses with Petroc students via a placement. The aim was to enable students and businesses to work together on a two-way knowledge transfer project, building Petroc's BEIS funded Business Basics 'Techknowledgey Transfer' Programme. However, delays to the Programme start meant the shift timings clashed with the college's timetable.

*"Once we got going, we fell into exam season, and then it was the summer."*

As the changed timeline made it difficult for students and the curriculum team to participate, a change in approach was required. The focus of knowledge transfer activities shifted to a more general transfer of skills-based knowledge to businesses and the Petroc institution more generally.

Overall, twelve knowledge transfers were completed. Seven of the businesses were introduced and supported with VR technology in various ways based on different business needs and project ideas. A couple of businesses created VR experiences as a new service for their clients (see case studies).

Many businesses accessed Petroc to familiarise themselves with the new technology. This helped them realise the potentials of using the technology within their own business. Some businesses had accessed support to create a 3D scan using LiDAR technology. Some had attended a course on 3D photography and printing. A couple of businesses were supported with 'Bodyswaps' AR/VR software; for one media business, this had benefited their T-Level students. A HR company learnt about the 'Bodyswaps' software and other various technologies that were available to them. They felt it was good to be able to experience the technology before they make an investment. Petroc also were able to benefit as businesses were being supported. Petroc were able to take the knowledge gained from business's experiences with technology, and share this more widely with other businesses.

With the expertise of Petroc, architectural designers - Project (SW) - were able to combine their Archicad software with Twinmotion, a 3D immersion software to create high quality images, panoramas and standard or 360 VR videos. Petroc were able to then deliver an extended reality course, demonstrating and sharing the knowledge they gained from the Project (SW) experience to other businesses.

Petroc and its students were also able to benefit from non-technological knowledge sharing experiences with businesses. Five businesses were supported by Petroc students in service development, market research, marketing development and digital marketing. In return, students had a chance to experience active work experience to support their studies and development. They were able to put the knowledge gained from their studies onto real-world practice.

## 6. PROGRAMME LESSONS/RECOMMENDATIONS

There are programme suggestions and recommendations that have emerged from discussions with delivery partners and business surveys conducted during this study.

The key lessons for Petroc and partners are as follows:

- I. A strategic alliance for incubation requires on-going communication, careful alignment and the marshalling of resources into a single offer that is effectively marketed to target audiences.
- II. Linked to the above some alliances and referral links are easier to nurture than others. For instance similar or colocated services or those with existing relationships found is easier to collaborate where the relationship was new which required a more proactive stance.
- III. Marketing to be more central so beneficiaries understand the programme on a wider level – many didn't know they were on the PIE programme.

The lessons for those thinking of developing similar innovation and enterprise projects are:

- I. The planning phase for new technology development is a lengthy and complex process from procurement to the testing, compatibility and embedding of new technologies.
- II. Building networking opportunities (attending events at partner facilities) and strategic alliances around enterprise an innovation means facilities can reach more people from a wider geography and participants can take advantage of a wider suite of support across a local ecosystem.
- III. The benefits, potential and differences between new technologies such as AR/VR/MR are not yet universally well known amongst businesses. Programmes promoting these technologies need to take a very proactive approach including open days, demonstrations and outreach work to highlight potential applications.

Policy makers may wish to consider the following lessons.

- I. Policy level changes to support the implementation of higher level EdTech to facilitate better digital integration in the curriculum.
- II. Offering practical advice for those in the FE sector wishing to implement and mainstream AR/VR/MR technology from procurement to technology, software and security requirements to teaching and curriculum development
- III. Programme delays have knock on effects for Programme delivery and make mobilisation and alignment of activities more challenging and complex.

Petroc and partners may wish to consider the recommendations.

- IV. Developing a strategic alliance with partners to build on the experience of UKCRF PIE to develop a comprehensive small and micro business enterprise, innovation and technology development offer for Devon.
- V. Securing appropriate funding (UKSPF, UKRI) to initiate the above.

- VI. Embedding AR/VR/MR in the curriculum where appropriate.
- VII. Developing a more centralised and interactive virtual presence linked to Petroc and partner facilities and support for similar Programmes to entice business, participants and others wishing to engage and understand the offer.

## ANNEX ONE: STAKEHOLDER CONSULTEES

Name	Role	Organisation
Edwina Stevenson	Programme Lead	Petroc
Sarah Brialey	Project Manager	Petroc
Kim Willmetts	Head of Programme Management	Petroc
Nicola Allen	Project Manager	Petroc
Jenny Sparling	Project Development Manager	Petroc
Bill Blythe	Vice Principal Finance, Resources &	Petroc
Debbie Gower	Cotie Centre Coordinator	Petroc
Neil Tanton	Head of IT Services	Petroc
Ian Parkin	Capital Accountant	Petroc
James Walker	Project Manager	Petroc
Jenny Fuller	Project Manager	Petroc
Sue Dingle	Project Manager	Petroc
Adam Copley	Project Manager	Petroc
Jude Jeal	Barnstaple Library Centre Manager	Libraries Unlimited
Jane Petch	Library Supervisor – Barnstaple Library	Libraries Unlimited
Callum Archer	Centre Manager – Exeter Library	Libraries Unlimited
Lisa D’Alberti	Senior Supervisor – Barnstaple Library	Libraries Unlimited
Steve Turner	Head of Commercial & Innovation	Libraries Unlimited
Kerala Cotter	Digital Making Tutor	FabLab Barnstaple
Marcus Brown	Digital Making Tutor	FabLab Barnstaple
Richard Love	Manager - BIPC Devon	BIPC Devon
Mandy Weston	Founder & COO	Town Square Spaces Ltd
Shirley Whitcombe	Project Manager	Town Square Spaces Ltd
Carl Turner	Community Director	Town Square Spaces Ltd
Cariann Emanuelli	Operations Director	Town Square Spaces Ltd
Alison Lavelle	Project Administrator	Town Square Spaces Ltd
Julian Dymond	Community Manager	Node Cowork

## **ANNEX TWO: CASE STUDIES**

Annex two consists of the remaining three case studies (see below).

# Welcombe skincare accelerates product development and launch with the support of the Promoting Innovation and Entrepreneurship (PIE) Programme



Established in 2022, Welcombe Skincare provides skin treatments focusing on the skin's microbiome\* which maintains its long-term health. The business aims to develop and produce a range of handmade creams and cleansers for the face and body.

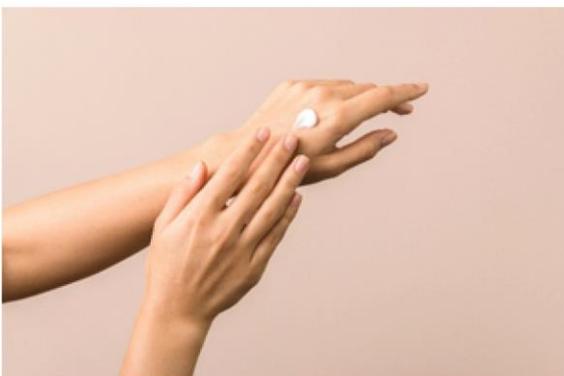
Richard Bence found out about the Promoting Innovation and Entrepreneurship (PIE) Programme via an email from Devon County Council. Having had experience in managing several businesses in the past, Richard was interested in gaining new insights on business planning, management and marketing for this latest venture. He found the Programme's application process very straightforward.

"It's quite lonely on your own trying to start a business. I felt it would be good to have ideas considered and a forum in which to throw ideas around."

Richard accessed support from Devon-based Node - an enterprise centre supporting freelancers, start-ups, small businesses and social enterprises. He attended the six-week Kickstart business support course which aims to help new and growing firms looking to develop their business or take them to the next level.

Richard attended course workshops where he received useful hands-on advice on business and financial planning and strategic marketing.

"Previously, I had developed business plans in a traditional way which were time consuming and involved a large amount of documentation. These were often never revisited for reflection or further planning. I needed something more dynamic and applicable."





The support has accelerated the business at a faster rate than would have been possible without it [the support from PIE]. It has made the business stronger.

Richard learnt about the LEAN business planning approach during his time on Kickstart. This process involves taking small steps, consistent tracking, and frequent iterations. The LEAN plan only includes elements that add value to the business. The plan is lean, small, and streamlined and designed to be refined and updated. This was by far the most useful part of the Programme for Richard. It initiated the key change Richard needed and felt was lacking in his own planning process.

“LEAN will help me ensure the business is continuously progressing in a positive way.”

Learning alongside peers helped Richard share ideas and receive useful feedback from a range of entrepreneurs at different stages of growth.

“The workshops were an opportunity for us all as a group of new businesses to discuss the challenges we faced and consider what we could do to overcome them.”

The quality and appropriateness of the support was just right, Richard claimed, and the learning sessions involved collaboration opportunities, in what he described as, a very ‘participatory approach’.

“After some sessions, we were able to put together what we had learnt, apply it to our own business and then feedback our experience to the group. That was really valuable.”

Richard accessed tailored 121 support from experienced advisors and as a result gained a better understanding of how to develop a clear, targeted and effective marketing campaign for the business. The business also received a grant of £1,000. This was used to buy manufacturing equipment (mixers and heaters) to scale up production.

“The grant enabled us to speed up the rate of product development and manufacturing.”

Richard believes the LEAN planning process enabled him to launch his product in much shorter space of time than would have otherwise been the case.

“The support has accelerated the business at a faster rate than would have been possible without it [the support from PIE]. It has made the business stronger.”

Richard recommended the PIE Programme to other start-up businesses looking to learn new skills and network with like-minded entrepreneurs. Looking to the future, Richard is planning to invest in product development and launch more products.

\* The skin microbiome is the collection of microorganisms that live on and within your skin.

# Start-up CDF develop a knowledge transfer project for Petroc Media Studies students, giving them the opportunity to kickstart their careers



CDF is a new visual arts and media company established by Chris Horrell. Chris has been a visual art technician for television, theatre and corporate events and was looking for a change. He is hoping to use his experience to develop a projection mapping artistry organisation using industrial landscapes and indoor stages and domes for video projections (see image for an example of the concept from elsewhere). Chris sought support from the Promoting Innovation and Entrepreneurship (PIE) Programme to develop the idea and develop the company in to a Charitable Incorporated Organisation (CIO).

During his discussions with the Programme team, Chris developed the concept to create a knowledge transfer project called the Creative Technology Foundation with Petroc's Media Studies students. Chris hopes this would be a yearly occurrence with potential for a competition where students enter their work to be featured. It is hoped that students would be able to project their work and, in doing so, kickstart and propel their career in visual arts.

“Once a year, we would run a visual arts festival. We would use projection mapping onto a local iconic building in Ilfracombe. We would use augmented reality, visual reality and drone mapping using photogrammetry.”

During his time on the Programme, Chris accessed Petroc’s Centre of Technology and Innovation Excellence (Cotie) facility. The facility provided a professional workspace with access to computers and workstation pods for him to hold meetings. Chris used grant funding from the programme to buy a laptop to help manage and develop the business.



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Chris also attended metaverse sessions where he was able to make connections with other local businesses and media related companies. Chris believes without the Programme’s support he would not have been able to make the connections he has made to progress the Creative Technology Foundation Project.

# Multiverse gains a true sense of direction in applying immersive technologies in the Hospitality sector



**MULTIVERSE  
HOSPITALITY**

Multiverse Hospitality Limited creates tools to empower and enable the hospitality sector to adopt and capitalise on the opportunities that advanced technologies bring. These include the adoption Web 3.0 technologies and making the most of Virtual Reality (VR)/Actual Reality (AR) applications from ordering to immersive customer experiences and training.

[“We are informing and enabling businesses to embrace the future of digital hospitality.”](#)

Its founder John Curtis joined the Petroc Promoting Innovation and Entrepreneurship (PIE) Programme with an ambition to develop and grow his business. He attended the six-week Kickstart Business Support course, delivered at the Node facility in north Devon. Node is an enterprise centre supporting freelancers, start-ups, small businesses and social enterprises. The Kickstart course aims to help growing businesses looking to grow their business or take them to the next level.

During his time on the Programme, John developed a clearer understanding of his business and how it might help others in the food and beverage sector to capitalise on these opportunities and respond to changing customer demands. John used the experience to reflect on his business plan. This gave him the direction and insight he



was seeking. It helped him realise he needed to focus on developing a Minimum Viable Product (MVP) with enticing features to attract early-adopter customers (rather than offering a vast number of services before the business had gained sufficient traction). The immersive opportunities in this sector are significant and wide-ranging so prioritising key services of potential was essential for his business to progress. Node gave him the opportunity to do just that in a safe and supportive space.

John noted the high quality of the 121 support offered, appreciated the guidance from experience course facilitators and welcomed the validation he received of his concept.



They listen to you, your needs, and put you in touch with the right people.



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John found the networking opportunities with other attendees useful too and intends to use new connections to seek further specialist advice.

“It’s easy to get lost when you’re trying to do something on your own. It’s good to get feedback from other businesses and gauge their reactions.”

Looking the future John will continue to seek advice to further develop and implement his identified business priorities.

“As you go into a business, you realise that you’ve only actually covered about 50% of what you need to know. My to-do list just keeps growing!”



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