



European Union
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county council

SUMMATIVE ASSESSMENT OF THE ERDF-FUNDED:

WORCESTERSHIRE LOW CARBON OPPORTUNITIES PROGRAMME (LOPOC)

A FINAL REPORT FOR
WORCESTERSHIRE COUNTY COUNCIL

SEPTEMBER 2019



KADA
RESEARCH



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European Regional Development Fund

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EXECUTIVE SUMMARY

This is a summary of the evaluation of the Worcestershire Low Carbon Opportunities Programme, (LoCOP or 'the Project'). This £2.2m part European Regional Development Fund (ERDF) funded Project started in October 2016 and ends in September 2019. This summary sets the scene, assesses performance and impacts and looks at satisfaction from a business perspective. It reviews the effectiveness of the delivery of the Project and key lessons learnt.

PROJECT SUMMARY

The rationale for LoCOP was to significantly improve carbon savings and innovation in businesses, through overcoming information and innovation market failures identified for SMEs (lack of access to finance, asymmetric or imperfect information, and/or a lack of awareness of positive externalities).

The Project provided eligible SMEs with revenue and capital grants for investment in renewable energy and innovation in low carbon technology related products and services. The grants were designed to support the adoption of low carbon or renewable energy sources, more sustainable business operations and innovation and growth for businesses operating in the low carbon sector, meeting ERDF priority axis 4:

"Supporting the shift towards a Low Carbon Economy in all Sectors"

STUDY AIMS AND APPROACH

This study is part of a suite of evaluations of Worcestershire County Council (WCC) Business Support projects. Each evaluation aims to give an independent and objective assessment of the respective project performance, benefits and impact. The Invitation to Tender (ITT) highlights the following generic objectives for the evaluation, to:

- Analyse the demand, impact and benefit of the projects on the beneficiaries and the economy of Worcestershire as a whole.
- Analyse the business sectors benefiting from the projects and consider the implications of this on the nature of business support being offered by the Council and whether it is sufficiently supporting the area's growth sectors.
- Consider what factors have contributed to the success/failure of the projects, if the projects have met the expectations of the businesses accessing the support and any added value that the projects have delivered. This is covered in Section 4.1.
- Highlight lessons learnt and opportunities for changes or improvements to inform future projects and service delivery to increase performance and impact and identify how the projects could

develop beyond the period of funding to access future potential funding opportunities. These elements are also covered in Section 5.0.

The study used a combination of qualitative and quantitative research including discussions with stakeholders and telephone interviews with 25 SMEs. The ERDF Summative Assessment guidance was closely followed. Section 1.7 of the report summarises the approach taken.

STRATEGIC CONTEXT

Globally, policy measures have frequently been used to implement resource efficiency techniques at international to local scales to help tackle climate change. Most recently, the UK government announced its commitment to the Paris Agreement by setting legally binding targets to achieve net zero carbon emissions by 2050. The UK Clean Growth Strategy sets proposals for decarbonising all sectors of the UK economy in the coming decades, and with 99.9% of all private sector businesses being SMEs that employ 60% of all private sector workers, the potential for national environmental impact improvements is high. SMEs contribute 64% of Europe's environmental impact (European Commission, 2010) and are therefore an obvious focus for policy interventions which can result in wide ranging environmental, economic and social benefits.

Regionally, this project is a direct response to the objectives of Worcestershire LEP's economic plan to sustain growth in the low carbon business sector and to reduce the county's carbon emissions by 80% of 2005 levels for 2050. Five target sectors were chosen due to high capabilities for low carbon related improvements and significant positive externalities, making a strong case for public and private investment and support.

PERFORMANCE

The team is projecting that the outputs will finish largely on or ahead of target with the exception of C2 (number of enterprises receiving grants). Results to the end of the Project show 83 SMEs (101% of target of 82) will be supported and 35 (target 35) grants will be awarded. 8 'new products to company' were achieved against a target of 8. The project is predicted to exceed or meet its two environmental targets of additional renewable energy production capacity (C30, 103% against target) and GHG reductions (C34, 100% against target).

The estimated net NPV GVA of £3.5m would result in a cost benefit ratio (CBR) of 1:6 i.e. each £1.00 of public investment will generate £1.60. This is what might be expected for this kind of initiative i.e. it is investing in resource efficiency not job creation per se. This is perhaps a narrow measure of the true impacts of the Project and it is suggested that in the future environmental benefits are 'monetised' (see recommendations).

The cost per business assisted at £26,407 is within the accepted benchmarks which ranges from £15,600 lower quartile to £28,000 (median) and £94,000 (mean)¹. The cost per gross job generated (£41,422) is at the higher end expected for this kind of activity, which varies from £11,500 (lower quartile) to £25,700

¹ England ERDF Programme 2014-20: Output Unit Costs and Definitions, A Final Report by Regeneris Consulting, 2013, 96

(median) and £71,000 (mean)². This reflects the fact this is a capital-intensive programme and this measure does not take into account future resource efficiency and carbon savings and efficiencies.

Clients from the business survey (See Chapter 3.0) found out about the LoCOP project through targeted emails, word of mouth, the Chamber of Commerce, Exhibitions, Worcestershire Business Central, Worcestershire Hub, and 'Other' means (all between 28-4%).

BUSINESS SURVEY

The rating for professionalism of the grant administrators was overwhelmingly positive (96% excellent or good) and expectations of the project were exceeded or matched by 92% of the respondents. For those whose expectations were exceeded, positive benefits included developing an increased knowledge of energy consumption and increasing business efficiencies. The Project was noted to be delivered proficiently with *"thorough and timely feedback, and email responses on the same day"*, as well as *"lower than expected administration"* and a *"straightforward grant application process"*. Only two respondents claimed to be less than satisfied with the support received, claiming the process was more complex than anticipated.

Satisfaction with the quality of the service received was 92%. The recommendations report was rated as Very good or Good by 84%, and 40% of businesses have already applied the suggested actions. Reduced carbon footprints, increased awareness of environmental issues, improved understanding of the potential of renewable energy and reduced energy usage were the most common benefits that LoCOP provided.

There were some project improvements suggested. The majority of comments focused on funding processes, with more clarity being required for claiming expenses. It was claimed that advisors could have better knowledge of relevant building and planning procedures.

In terms of future growth priorities, the majority of businesses were optimistic about internal prospects (citing priorities in staffing, R&D, facilities) and/or wider market prospects (new or expanding markets, sales, marketing). Businesses also mentioned several priorities related to improving environmental impacts, including upgrading IT systems, developing new products and increasing sales. However, several businesses claimed Brexit was resulting in a scaling back of their exports, with a refocus on the UK market. Future support was sought in diverse areas, with SMEs requesting funding support, advisory services and other grants.

The survey highlights are summarised in the infographic at the end of the executive summary.

PROJECT DELIVERY

It was clear across all stakeholder groups, be they regional partners, delivery partners, beneficiary companies or representatives of the County that the rationale for the Project remains valid and, as energy prices continue to rise and carbon reduction becomes increasingly critical, support provided by such projects will only gain in importance. As with Worcestershire's Business Energy Efficiency Programme (BEEP), raising awareness about available renewable technologies and the support that can be provided

² Op. Cit.p10.

to facilitate their installation, is a key objective of the LoCOP Project. This objective was facilitated by the reach and significance of a strong partner network within Worcestershire that works to promote and deliver across target regions to ensure the Project's impact is seen.

The Project is managed through a central team, based at WCC, and delivered via the LoCOP team and two delivery partner companies contracted via a competitive tendering process to provide relevant advice and support on applicable renewables technologies and carbon-saving innovation.

Delivery of the Project was seen as professional, particularly by the beneficiary companies and particularly in relation to the grant administration team who were identified as always available, knowledgeable and proactive. Assessment of applications was undertaken by the LoCOP team and the Grant Panels for the respective elements of the Project and then passed through the Project Board. This thorough process was undertaken in a timely manner which, when coupled with a straightforward application form resulted in a relatively streamlined client journey through the application stage.

Some issues were identified by LoCOP management in relation to the recruitment of the delivery partners, with the relatively small value of the delivery contract possibly not attracting the calibre of delivery partner desired by the Project. It was identified during this evaluation that the delivery partners, although strong on solar PV and its associated technologies, perhaps lacked 'on the ground' expertise when it came to more advanced/novel technologies and their costing and procurement requirements. The Consultants have addressed this further in the main body of the report and it should be noted that the beneficiary survey did identify high levels of satisfaction for the support provided by the LoCOP Project.

It should also be noticed that delivery of future iterations of the Project will see an increased focus on capital funding, possibly with LoCOP and BEEP seeing increased levels of integration.

CONCLUSIONS OF PERFORMANCE AGAINST OBJECTIVES

The Project has performed well against its overall objective to increase the adoption and development of low carbon products/processes, increase the number of businesses in Worcestershire's low carbon sector that are innovation active and the overall number of SME's generating renewable energy. For instance, it will exceed the target number of businesses supported by one, supporting 83 firms. The target for renewable energy capacity is anticipated to be exceeded - 1090 kWh against a target of 1057 (C30, 103% against target). Its environmental targets (GHG reductions) are also anticipated to be achieved (1135 CO₂te). Looking at the sector more widely 60% of businesses have, will or may have developed low carbon good or services as a direct result of the support received. In the future perhaps the environmental benefits could be monetised. The implementation of low carbon activities was arguably more successful than the development of a sustainable low carbon goods and services network. The team will reflect on how this element, if desirable, could be strengthened as part of any successor measures.

There were some wider additional internal targets identified by the Project Board too. These included an ambition to boost productivity, increase and protect employment and lever private sector investment. When asked if the support received had any direct commercial impact on their business to date, the figures were understandably low as carbon interventions are not likely to impact turnover or

jobs created. That said, 12% of businesses reported turnover benefits and 8% of firms reported job creation benefits. There was also an ambition to reduce energy consumption. The survey shows that 76% of business have, will or may reduce energy usage or improve energy efficiency.

LESSONS LEARNT

FOR WORCESTERSHIRE COUNTY COUNCIL

- The deepening of in-coming and out-going referral links might stimulate more applications and less one-off business interactions i.e. businesses could be supported on different aspects of business growth.
- Expanding future programme iterations to include and enhance relations with academia-linked institutions, such as those established with CREST@UCS and Birmingham City University, should contribute to the achievement of innovation-related, product-development indicator targets.
- Future LoCOP programmes require active monitoring and appropriate measures to embed business diversity.
- The advisors might benefit some on-going CPD to keep up-to-date with fast changing developments in the low carbon goods and services market.
- From the advisors' point of view, a less sporadic pipeline of leads would aid resource and business planning, and a more effective/regimented payment structure, as opposed to when SMEs choose to sign off the final report, would be beneficial. Obtaining detailed information from the beneficiary company, i.e. energy usage and bill amounts, prior to the initial visit would also enhance the effectiveness and efficiency of Project delivery.
- Follow-up meetings with beneficiaries might encourage SMEs to take up actions from their recommendations report and support from other complementary business programmes.
- Ensure targets set for 'new to firm products and services' are realistic and achievable.
- The monetisation of key environment benefits such as renewable energy capacity and GHG reductions using appropriate conversion factors would help to illustrate the wider impact of the Project.
- Development of a sustainable low carbon goods and services network is to continue, with future programme iterations to more fully exploit the resource held within such a network and to build on links established with academic institutions (CREST, Birmingham City University).
- It would be possible to consider how the delivery lessons from this project and BEEP could be taken forward into a subsequent iteration of the programme, balancing these with strategic priorities of partners.
- On a programme level (i.e. the full suite of ERDF activity), the wider business offering of ERDF projects was initially perceived to be too complex. This has now been refined into a simplified programme comprising of innovation, enterprise, growth/productivity and clean growth. Each aspect will have an event, 1:1 support, grant support and a network. The next iteration of LoCOP will be delivered within this new programme under the clean growth strand.

- On a Project level, the awareness of available technologies and support built by LoCOP should assist in clarifying the message for any future iteration of the Project, which should result in quicker take-up of support and delivery of outputs and impact.
- An increased integration of the BEEP and LoCOP projects, with a greater focus on capital funding, may increase clarity of message in future programme delivery.

THOSE DESIGNING AND IMPLEMENTING SIMILAR INTERVENTIONS

- Focusing on production of new technologies/products/services as a route to decarbonisation is a key strength.
- Strong in-coming and outgoing referral links will ensure a project is well embedded within the business support ecosystem and the intervention is not a 'one-off' hit.
- Continuous rises in electricity prices will generate interest in procuring and installing renewable, low-carbon technologies. An increased focus on capital funding to supply this increasing demand should be considered for future programmes.
- Introduction of a system that will facilitate longitudinal examination of benefits for those programmes that support innovative development projects may result in a clearer picture of total impact.
- "How to reach the Mediums?" – Accessing those companies at the larger end of the eligible SME base was acknowledged as an area of future programme delivery that could be improved and could facilitate achievement of product/service development related indicator targets.

POLICY-MAKERS

- The simplification of the application process would be welcomed by applicants and project delivery officers.
- The Low-Carbon Opportunities Programme was affected both positively and negatively by key legislation changes during its lifetime, namely the removal of Feed-in-Tariffs and the introduction of business rates on, for example, solar PV equipment. Better communication between policy makers and the designers of such intervention would help to minimise the adverse impact of such changes on future programme iterations.
- The dual aspect of support provided by Worcestershire was seen as a key strength. Technical advice, supplemented with grant funding, is an attractive offering to SME audiences.
- From a Worcestershire perspective there is a desire to work with firms in areas of high opportunity and demand with the potential for significant impact.

Contents for Low Carbon Opportunities Programme



Impact

in Numbers

£3.5m

NPV GVA

£1.00:£1.60

return on investment

83

received support, achieving
101% of the project target

33

enterprises received
grants against a
target of 35

56%

have or will have
applied the advised
measures

72%

have or will have an
improved understanding
of renewable energy

80%

have or will have
a reduced carbon
footprint

100%

of the target for GHG
reductions will be made
(1135 tCO₂e)

103%

of the target for additional
renewable energy capacity will be
implemented (1090 kWp)



Service

96%

rate professionalism
of grant administrator
as excellent or good

92%

rate knowledge of
their requirements
as excellent or good

88%

rate quality of
advice as excellent
or good

84%

rate their
recommendations
report as very good
or good

92%

claimed the support
exceeded or was in line
with expectations

92%

satisfied with
the quality of
service

1. INTRODUCTION AND PROJECT CONTEXT

This chapter introduces the Low Carbon Opportunities Programme, (LoCOP or 'the Project'), and sets out its key objectives. It highlights the rationale for the Project and the market failure being addressed. LoCOP's activities and the study aims and objectives are summarised. The chapter concludes with a review of the approach to the evaluation and the strategic context.

1.1. WHAT WAS THE PROJECT SEEKING TO DO?

This three-year project aimed to provide energy and low carbon technology related support to 82 Worcestershire SMEs, leading to growth of Worcestershire's Low Carbon economy and assistance for businesses making transitions towards resource efficiency and low carbon product deployment.

The Project specifically advised, funded and consequently facilitated beneficiary SMEs to achieve projects or improve operations within two areas of focus:

- 1) **Renewable energy systems** (2/3rds of support)
 - Support of investment or adoption of low carbon or renewable energy sources/more sustainable business operations and practices.
- 2) **Development of low carbon technologies, products and services** (1/3rd)
 - Support for innovation, growth or diversification of products or business services into the low carbon sector.

1.2. PROGRAMME OBJECTIVES

Over three years, the project provided various business support services and increased SME's collaborative links within the sector to enable greater innovation, research and development.

The Project objectives were to increase the adoption and development of low carbon products/processes, increase the number of businesses in Worcestershire's low carbon sector that are innovation active and the overall number of SME's generating renewable energy.

Below is a breakdown of the finalised programme objectives. Original targets are included in brackets and were edited for several reasons following project change requests during the programme.

- C1, C5:** Assist 82 businesses, including 6 start-ups (80, 5)
- C2:** Provide 35 enterprises with grants (25)
- C26:** Facilitate SME & Research entity collaborations (1 collaboration)
- C29:** Increase the number of businesses with new to the firm products by 8 (4)
- C30:** Increase renewable energy production capacity by 1057 kWp (1076 kWp)

C34: Reduce carbon emissions by 1135 tCO₂e (1040 tCO₂e)

Increase the percentage of SMEs which are innovation active in the low carbon sector by 6%

Increase the number of larger-scale e.g. 40kW+ renewable energy installations by 12

Simultaneous to the targets specified above, the Project Board set additional internal organisational targets to help SME's in Worcestershire more widely, including:

- Reducing SME energy consumption
- Leverage private sector investment (£1.1m)
- Improve business productivity
- Increase &/or protect employment
- Increase in knowledge transfer programmes and HE graduate placement activity (which will serve to accelerate innovation in the sector)

1.3 RATIONALE AND MARKET FAILURES BEING ADDRESSED

The Project had an over-arching target to significantly improve carbon savings and innovation in businesses linked to the manufacturing, construction, agri-tech and food and drink sectors, whilst also working towards the LEP's goals of moving to a net zero carbon economy by 2050.

In terms of rationale, there is strong evidence that SMEs require grant funding to adopt low carbon innovation and adoption of low carbon technology and renewable energy, as well as evidence demonstrating the genuine need for wider public sector funding for these types of projects. Many SMEs are unlikely to access financing from commercial sources for investment in low carbon technologies or renewable energy deployment, as they may be seen as risky investments, and unattainable due to staff numbers (with more than 96% of Worcestershire SMEs employing fewer than 50 people). It is therefore vital that public funding is put in place to address these market failures and challenges for SMEs, which consequently helps Worcestershire's low carbon economy fulfil its growth potential and meet national economic and energy targets.

The specific market failures addressed through this programme are information and innovation related failures, which negatively impact SMEs access to finance, efficient energy and resourcing procedures, skills development, abilities to innovate and R&D support (ESIF strategy, 2016). These issues arise from SMEs having a lack of knowledge, confidence and opportunity in these sectors, as well as being unaware of benefits of the various short and long-term paybacks renewable low-carbon projects can offer.

1.4. PROJECT SCOPE

Worcestershire Businesses with less than 250 employees and a turnover of less than €50 million per annum were eligible for support. SME's had to match 55% of the project funding and comply with state aid rules. Potential beneficiaries were identified by the project team and the local business growth hub (Worcestershire Business Central) and referred directly to the Project. Firms in the target sectors were also reached in other ways, including through direct marketing (face-to-face leafleting & telemarketing were found to be most effective), as well as signposting from other related programmes in the council's remit. SME's could also apply directly to the Project for support.

CONSULTANCY

Specialist independent consultants delivered free of charge advisory services to eligible businesses, in the form of 12 hours of 1:1 support. Consultants were specialists in advising on developing low carbon innovation and the installation and usage of renewable energy sources. If deemed suitable, SMEs were recommended to apply for a capital or revenue grant, and/or develop links with relevant research institutions or businesses. The businesses were also supported throughout the grant application process, and if successful, received monitoring and evaluation support.

GRANTS

33 grants between £20,000 to £100,000 were provided to help firms invest in renewable energy measures or innovative low carbon product or process development. These grants were match funded by SMEs and comprised of targeted capital investment (including larger scale low carbon technology, such as renewables), low carbon product R&D, and business development related to low carbon services and products.

LOW CARBON BUSINESS NETWORK

A network for Worcestershire was developed with a programme of 20 events including clinics, workshops, conferences and exhibitions. Engagement took place with the Birmingham Science City Innovative Low Carbon Working Group and the Central Technology Belt. The Low Carbon Network was designed to provide a further stimulus for SMEs to enhance their innovation and low carbon performance. This part of the Project is important, as to be successful in low carbon and environmental projects a report by Innovas (2015) found that larger companies, SMEs, research institutions and public partners must be united to share knowledge about how to implement solutions.

Integration between SMEs and Research institutions had been flagged during similar programmes to be challenging and often producing low returns, so this part of the Project was planned with careful consideration of past projects and attention towards establishing focused and productive relations.

1.5. STUDY OBJECTIVES

Building upon the findings from the interim evaluations (where available), the final evaluations of Worcestershire ERDF-funded business support projects will provide an independent and objective assessment of the projects' performance, benefits and impact. The Invitation to Tender highlights the following objectives, to:

- Analyse the demand, impact and benefit of the projects on the beneficiaries, the economy of Worcestershire as a whole and environmental benefit.
- Analyse the business sectors benefiting from the projects and consider the implications of this on the nature of business support being offered by the Council and whether it is sufficiently supporting the area's growth sectors.
- Consider what factors have contributed to the success/failure of the projects, if the projects have met the expectations of the businesses accessing the support and any added value that the projects have delivered. This is covered in Section 4.1.

- Highlight lessons learnt and opportunities for changes or improvements to inform future projects and service delivery to increase performance and impact and identify how the projects could develop beyond the period of funding to access future potential funding opportunities. These elements are covered in Chapter 5.0.

1.6 DELIVERY AND GOVERNANCE

The project was delivered by Worcestershire County and District Councils, contracted consultants and the businesses themselves. The Project operated within Worcestershire County Council's sustainability team, managed by the Principal Sustainability Manager, who had overall responsibility for the project. This team also included a Project Manager & Project Assistant, who undertook much of the administration work involved.

1:1 Business support was provided by independent, procurement specialists, with separate contracts for the two specialisms listed in section 1.1. Marketing of the project was completed by a Business Engagement Officer, already in post, based in the local growth hub, Worcester Business Central.

Delivery partners included five Worcester district councils, who were represented on the Project Board and helped in the promotion and marketing and formed a part of the grant panels.

The Project Board was established to make high-level executive decisions about the project and approve grant recommendations. It included:

- Principal Sustainability Manager (Worcestershire County Council)
- WCC Funding and Programmes manager
- LEP Business Board representative
- Worcester City Council Economic Development Officer
- Wychavon District Council Economic Development Officer
- Malvern Hills District Council Economic Development Officer
- North Worcestershire Economic Development officer (representing Bromsgrove, Redditch and Wyre Forest district councils).

The Project Manager provided an update on programme performance every quarter and a full report when requested and presented at the board three times over the course of the project.

Two grant appraisal panels gave approval to projects relevant to the two streams of the project, the first being Renewable Energy and the second being Low Carbon Innovation Applications.

The first panel looked at applications relating to investment on renewable energy and other low carbon energy measures and included:

- County Council representative
- District Council representative
- Business representative from the LEP with links to the low carbon sector

Advice regarding the viability of innovative renewable energy was sought from a member of the Birmingham Science City Innovative Low Carbon Working Group (BSCLCWG), which also enabled the involvement of a research institution.

The second panel looked at applications relating to product and service innovations in low carbon technology and applications and included:

- County Council representative
- District Council representative
- Representative from Climate KIC (a European Climate Innovation Organisation)

The Grant Appraisal Panels independently checked the suitability of applications, scored projects and then recommended them for either approval or rejection prior to the Project Board's final review. The appraisal panel used their own experience and expertise to assess each project, using a standardised scoring system to structure decisions.

Design of the Project delivery was built on the wealth of experience gained from previous ERDF programmes (MetNet, Resource Efficient Worcestershire and the Proof of Concept programme). Good practice observed in MetNet significantly informed programme design, including supply chain R&D studies, networking events and support for business-research institution collaborations.

For the compliance side of the project, the Sustainability Manager worked closely with WCC's Economic Development Manager, Programmes and Performance Manager and the Strategic Funding Officer, all of whom have a number of years' experience in the delivery and development of EU programmes, including ERDF & ESF, public procurement and state aid compliance. Financial and legal support was provided by WCC.

1.7 STUDY APPROACH

An inception meeting was held to discuss the evaluation approach/framework and a logic model was subsequently agreed. Topic guides were drafted and signed off in line with Summative Assessment Guidance.

Desk material was used to determine the rationale, context and strategic fit for the Project. The Project application, monitoring reports, and project change requests were reviewed, and beneficiary data was analysed.

Internal and external stakeholder discussions were held with WCC partners, delivery agents and project managers with an initial scoping call with project managers to agree evaluation requirements. Discussions covered achievements and future aspirations plus challenges, successes, lessons learnt and importantly, future direction.

A 15-minute closed telephone questionnaire was undertaken with 25 business beneficiaries looking at motivations, satisfaction and impacts including precision on persistence of impact.

An economic impact assessment was undertaken, informed by Green Book principles. Value for money and net impact was calculated using survey evidence to inform the appropriate adjustments from gross to net (displacement etc). This provides a robust understanding of what would have happened anyway and assessment of net current and future GVA return on public and ERDF investment. Two case studies illuminate the subtleties and intricacies of the Project.

The evaluation approach was structured and designed to give an assessment of the performance and lessons of the Project in line with the ERDF Summative Assessment guidance.

1.8 STRATEGIC CONTEXT

GLOBAL CONTEXT

There is growing global pressure to implement resource efficiency measures to tackle climate change. In response to the Paris Agreement, the UK Climate Change Act has set an ambitious, legally binding target of an net zero carbon emissions by 2050. Similarly, Europe 2020, the European Commission's 10-year strategy for sustainable growth, set out commitments to reduce emissions by a minimum of 20% by 2020, increase the share of renewable energy as total of energy consumption to 20% and move towards a 20% increase in energy efficiency. The European Commission (EC), has been 'supporting the shift to a low carbon economy across all sectors' as one of its thematic objectives for ERDF projects in 2014 to 2020.

In October 2018, the IPCC published a report highlighting the benefits of limiting global warming to 1.5°C as opposed to 2°C. The report warns that lowering the limit is possible "*within the laws of chemistry and physics*" but that it requires "*rapid and far-reaching*" changes in how society manages land, energy, industry, buildings, transport and cities. Human-caused CO₂ emissions would require a reduction of around 45% from 2010 levels by 2030 and reach 'net zero' levels by 2050.

NATIONAL CONTEXT

Published in October 2017, the UK government's Clean Growth Strategy sets proposals for reductions of the UK's carbon budgets, and in 2019 the UK became the first major economy to pass laws to achieve net zero emissions law for 2050. These decisions are motivated by the environmental, economic and social benefits of low carbon opportunities, whilst also contributing to national and international commitments to tackle climate change. The UK has been one of the most successful countries in the developed world to grow its economy whilst reducing emissions, as since 1990, emissions have been cut by 42% while the economy grew by two-thirds. Consequently, as 99.9% of all UK private sector businesses are SMEs, that employ 60% of all private sector workers (2018), the SME market is a key target area for making vast environmental impact improvements.

The benefits to the LoCOP project are two-fold, in that it helps reduce environmental impacts and can save SMEs time, money and resources.

"A third of small firms highlight the cost of energy as a barrier to growth and success of their business. Finding energy efficiency savings is the single best way of reducing these costs over the long-term".

John Allan, National Chairman of the Federation of Small Businesses. SME Guide to Energy Efficiency, 2015

Considering the proportional share SME's have on the UK's economy and labour market, the environmental impacts of these companies and their employees is heavily embedded into everyday societal functioning. The European Commission (2010) found that "SMEs contribute 64% of the EU's environmental impact", and although this figure encapsulates broad data sets, this project will help mitigate this impact for the county of Worcestershire and contribute to meeting wider UK targets.

The project also contributes to the UK Renewable Energy Roadmap (2011), which has the goal of generating 15% of UK energy use from renewables by 2020. As ~20% of Worcestershire properties are off-grid, the potential for successful uptake and innovation within domestic biomass heat, air and ground source heat pumps and solar PV was greatly encouraged through the Project. In summation Worcestershire businesses have strong potential for meeting renewable energy generation targets in cost-effective, sustainable and valuable ways.

SUB-REGIONAL CONTEXT

Locally, this project is a direct response to the objectives of the Worcestershire LEP's ESIF strategy and Economic plan to sustain growth in the low carbon business sector and reduce carbon emissions. The LEP identified 5 target sectors to stimulate the integration of renewable energy resources (Manufacturing, Agri-tech, Construction, Food production and distribution and Waste Management). They were targeted for their particularly strong opportunities for low carbon related innovation, growth, diversification and adoption of low carbon technology, whilst operating SMEs simultaneously face challenges including access to finance, energy/resource efficiency, innovation and R&D support.

"The future growth of businesses involved in low carbon and environmental goods and services is a key element of this plan and the European Structural and Investment Funds Strategy"

Worcestershire Strategic Economic Plan

Worcestershire's Climate Change Strategy is also supported by the delivery of this project, which aims to reduce the county's carbon emissions by 30% from 2005 levels by 2020 and put in place measures to net zero carbon emissions by 2050. In addition, the strategy looks to achieve a 19% reduction in CO₂ emissions from Worcestershire's business sector from 2009 levels by 2020, and by 2020, treble the amount of renewable energy generated in the county by 2012.

MEETING THE REQUIREMENTS OF THE ERDF PRIORITY AXIS 4A & 4F

4a: Promoting the production and distribution of energy derived from renewable resources.

4f: Promoting research and innovation in, and the adoption of, low-carbon technologies.

The project responds to needs set out in the UK government's calls to ERDF Priority Axis 4: Supporting the Shift Towards a Low Carbon Economy in All Sectors. With a focus on supporting and enabling local SMEs to realise the following local call priorities:

- Energy performance improvements
- Innovation in low carbon products and processes with research & development
- Adopting renewable and low carbon fuels for energy consumption
- Adopting low carbon technologies

The Worcestershire ESIF and SEP identify investment in low carbon technology development and adoption as being associated with significant positive externalities, making a strong case for public investment and support in this sector. The project is specifically focused on reducing the environmental impact of business activities in the county by the adoption of, and innovation in, low carbon 'Green' Technologies, including renewable energy. Through the targeted consultancy services and 1:1 advice, grants and Business Network, the project outputs will clearly be related back to meeting requirements

4a and 4f of Priority Axis 4. 2/3rds of the programme focus was axis 4a of “promoting the production and distribution of energy derived from renewable resources” and 1/3rd on 4f of “promoting research and innovation in, and the adoption of, low-carbon technologies”. This distribution of support is reflected in the outcomes, with the majority of benefits being related to axis 4a, whilst if the latter is more desirable in the future this should be focused on more as part of any successor programme.

The following Chapter looks at the LoCOP’s performance against contracted indicator targets.

2. PROJECT PERFORMANCE

This chapter focuses on the performance of LoCOP against financial allocation and contracted outputs. It briefly summarises the make-up of the companies that participated in the survey. Economic impacts and value for money are also assessed. It concludes with a brief assessment of equality of opportunity and marketing.

The information has been provided by the LoCOP project management team. The most recent intelligence covers the period ending July 2019.

2.1. VALUE FOR MONEY

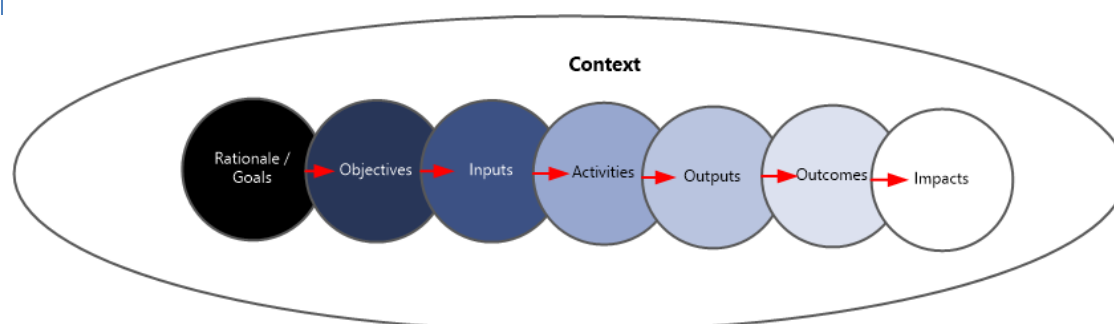
The estimated GVA of £3.5m would result in a cost benefit ratio (CBR) of 1:6 i.e. each £1.00 of public investment will generate £1.60. This is what might be expected for this kind of initiative i.e. it is investing in resource efficiency not a job creation per se.

The cost per business assisted at £26,407 is within the accepted benchmarks which ranges from £15,600 lower quartile to £28,000 (median) and £94,000 (mean)³. The cost per gross job generated (£41,422) is at the higher end expected for this kind of activity, which varies from £11,500 (lower quartile) to £25,700 (median) and £71,000 (mean)⁴. This reflects the fact this is a capital-intensive programme and this measure does not take into account future resource efficiency and carbon savings and efficiencies.

2.2. PROJECT OUTPUTS AND IMPACT

This section looks at the outcomes and economic impacts of the investment in the LoPOC project.

LOGIC MODEL AND THEORY OF CHANGE



A theory of change was developed to identify the causal links between the different stages of the Project, denoted by the red arrows in the illustration in the diagram. In most instances, this can be simplified into 'if>then' links, for example, if a project completes a certain activity, then it is expected to lead to a certain

³ England ERDF Programme 2014-20: Output Unit Costs and Definitions, A Final Report by Regeneris Consulting, 2013, 96

⁴ Op. Cit.p10.

output. The idea is that three sets of activities (see next section) will lead to three sets of outputs, outcomes and impacts. These causal links are illustrated with arrows on the summary logic model above. They help to explain the causality of the Project in more detail. The logic model was created to understand and present how the Project works, linking its planned activities with intended results. The more detailed logic model appears in Annex One. This sets out the Project's rationale and market failures.

OUTPUTS AND FINANCE

Indicators / Expenditure	Original Funding Agreement	Amount in most recent Funding Agreement Variation	Total achieved at time of evaluation	% of Target	Projected to be achieved at Project Closure	% of target
(C1) Number of enterprises receiving support	80	82	75	91%	83	101%
(C2) Number of enterprises receiving grants	25	35	33	94%	33	94%
(C5) Number of new enterprises supported	5	6	5	83%	6	100%
(C26) Number of enterprises cooperating with research entities	1	0	0	N/A	0	N/A
(C29) Number of enterprises supported to introduce new to the firm products	4	8	3	38%	8	100%
(C30) Additional capacity for renewable energy production	1076	1057	865	82%	1090	103%
(C34) Estimated GHG reductions	1040	1135	761	67%	1135	100%

The team is projecting that the outputs will finish largely on or ahead of target with the exception of C2 (number of enterprises receiving grant). It is worth noting the outputs slightly increased following a project change request. Results to the end of the Project show 83 SMEs (101% of target of 82) will be supported and 33 (target 35) grants will be awarded. 8 'new products to company' were achieved against a target of 8. The project is predicted to exceed its environmental targets additional renewable energy production capacity (C30, 103% against target) and GHG reductions (C34, 100% against target).

In terms of the overall project value, it was originally proposed at £2.4m, which by Q2 of 2019 was scaled down to £2.2m. The original ERDF funding value was £1.2m, and this too was scaled down to £1.1m; which amounted to £672,614 capital expenditure and £427,894 revenue expenditure. This reduction in expected spend was due to the governance team realising an underspend on grants during the project timeline. At the time of evaluation, the private sector match totalled £823,343, which breaks down into £636,003 from capital and £187,340 from revenue (September 2019) – 73% of the final target of £1.1m.

Furthermore, C26 output targets were changed between the programme outline and full application, with research institution collaborations being scaled down from 13 to 1. This target changed due to evidence from previous projects finding that SMEs were more likely to collaborate with other businesses or their supply chain rather than long-term collaborative links with research institutions, which had been notably hard to establish in the past. This final C26 target of 1 has not been met, with lessons learnt being that research institution engagement needs to be faster and businesses that are more likely to be able to benefit from academic support need to be sought after and targeted specifically. The project had initial output targets of supporting 80 businesses (including 5 start-ups) and increasing capacity for the county's renewable energy production to 1076 kWp and reducing GHG emissions by 1040 tCO₂e. Upon completion, 83 businesses will have been supported including 6 start-ups, renewable energy

capacity targets were decreased to 1057 kWp due to an increase in cost of installations locally, but are expected to be met, and GHG targets were increased to 1135 tCO₂e due to national changes in the UK's electricity costs. During the programme energy sources in the UK became cleaner, meaning each kWh of electricity used emitted less CO₂e, making it more difficult to reduce emissions with the original funding value, so CO₂e targets were reduced in the first PCR.

Following completion, all targets are expected to be met except from C26, as the event planned with Birmingham City University was to take place in Spring 2019 but was cancelled due to very low interest.

APPROACH TO IMPACTS

This sub-section assesses the gross value added (GVA) of the Project and the extent to which it is making a difference (compared to if the improvements had not been implemented). The analysis is based on reported outputs to date and responses to the business survey. A comprehensive assessment of economic impact was undertaken comprising:

- Net Employment and GVA NPV impacts to date (taking into account three years of persistence).
- Total public cost impacts and value for money.

Two tiers of effects are considered:

- Direct Employment: Employment impacts and resultant GVA from jobs created.
- Indirect Employment Effect: The effect on suppliers and resultant productivity / GVA.

The Treasury's Green Book offers some suggested guidelines in assessing the true impact of investments. In line with these, several steps have been taken to assess gross and net GVA and employment impacts, and net present value:

- Deadweight was assumed at 50% and displacement and leakage were assumed average and low at 19.5% and 10% respectively.
- A composite multiplier was used to calculate the indirect employment effects (from the HCA Additionality Guide Fourth Edition) using the sub-regional mean for business development and competitiveness (1.25).
- 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 three-year time frame was chosen based on experience elsewhere.
- A decay of 10% per annum has been used 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)⁵ 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% in order to determine NPV.

⁵ Net present value is a calculation that compares the amount invested today to the present value of the future cash receipts from the investment. In other words, the amount invested is compared to the future cash amounts after they are discounted by a specified rate of return.

- A cost benefit ratio calculated by Net Present Cost (NPC) against NPV i.e. the amount each £1 of investment generates.
- Estimates for GVA per FTE have been using BRES (The Business Register and Employment Survey) and ONS (Office of National Statistics), 2015 data for Worcestershire (updated using a historic inflation calculator).

The following table shows that the LoCOP project has or will create 53 gross FTE jobs (42 direct and 11 indirect) and a total Net Present Value (NPV) GVA of £3.5 million.

Economic Impacts

	Gross Jobs	Net Jobs	Net GVA	NPV over 3 years
Operations (FTE)	53	19	£1,058,681	£3,475,888
Direct Jobs	42	15	£846,945	£2,780,710
Indirect	11	4	£211,736	£695,178

Source: TIP/Kada Research

2.3. EQUAL OPPORTUNITIES

Worcestershire County Council's well-established equality policy ensures that projects are committed to delivering services in a fully accessible way with a commitment to diversity and inclusion. Projects are required to embed equal opportunities through its full life cycle including governance, development, and monitoring and evaluation. In practice this means suppliers have to adhere to equal opportunity policies and copies of delivery partners' equality policies have been obtained by the applicant authority. This project has been designed with partners with experience of developing inclusive and accessible projects and services.

The survey found that:

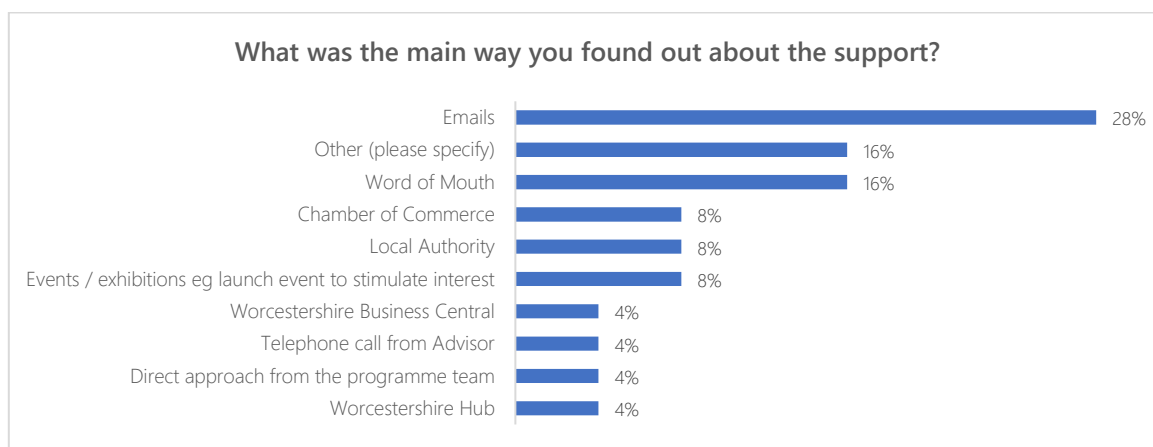
- 4% of respondents were from female majority businesses (72% male majority), 16% had no clear majority. In 2017, 19% of UK SME employers were led by women⁶.
- For ethnicity, 76% were 'white majority', 8% 'other' and 16% preferred not to say.
- With a small sample of 25 businesses there were only two LoCOP businesses who preferred not to say on the question of 'Do any of your owners or directors have a disability?' The other 23 reported 'No' to this question.

2.4. MARKETING

Clients from the business survey (see Chapter 3.0 for details) found out about the LoCOP project predominantly from 'emails' (28%). 'Other' and 'Word of Mouth' were the joint second most common way at 16% each. The 'Other' category comprised of one previous experience of applying for grants (BEEP), one through a local broker then through the Council/Chamber and two who couldn't remember. The Chamber of Commerce, Local Authority and various events or exhibitions designed to promote LoCOP were the next most popular at 8%. The findings match many other studies which claim that

⁶ House of Commons Library, Briefing Paper, Number 06152, 12 December 2018, Business statistics By Chris Rhodes, p10 Women in Business.

experience had shown that a targeted and direct marketing approach works well coupled with a referral system for businesses through local partners.



Source: TIP/Kada Business Survey, Aug 2019 (n=25)

3. BUSINESS SURVEY

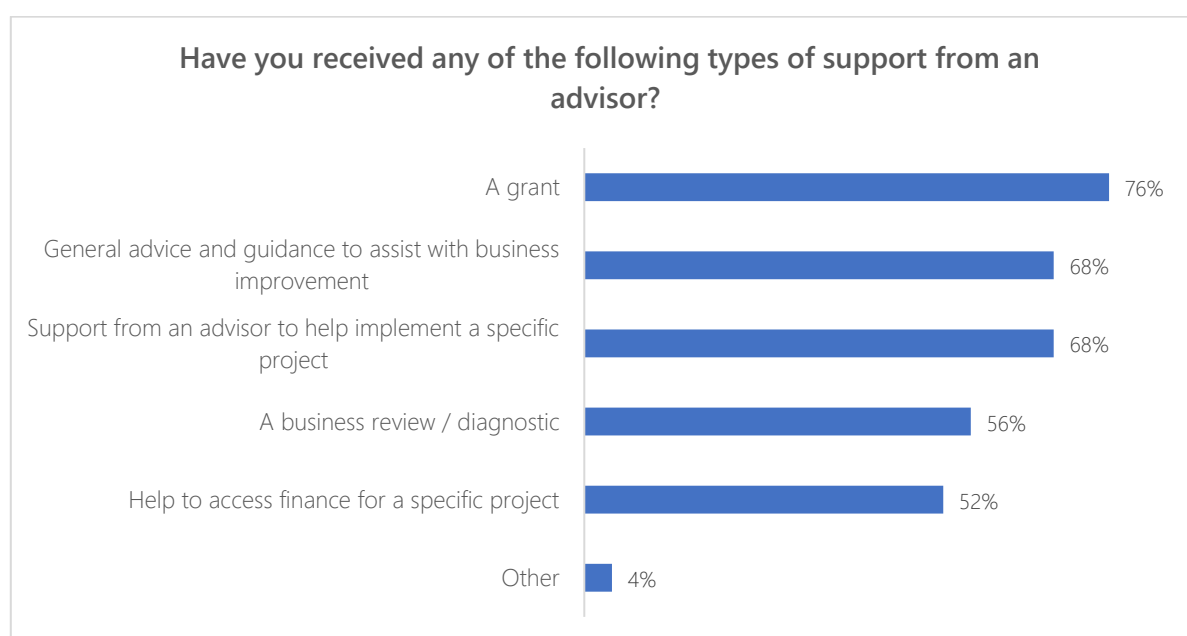
This chapter presents the findings from 25 company telephone interviews with supported businesses conducted during August 2019.

3.1. SURVEY SAMPLE

The survey sample was 25 businesses taken from a population of 75 (time of evaluation) / 83 (projected by project closure) companies supported by the Project. The sample size was therefore 33%/30%.

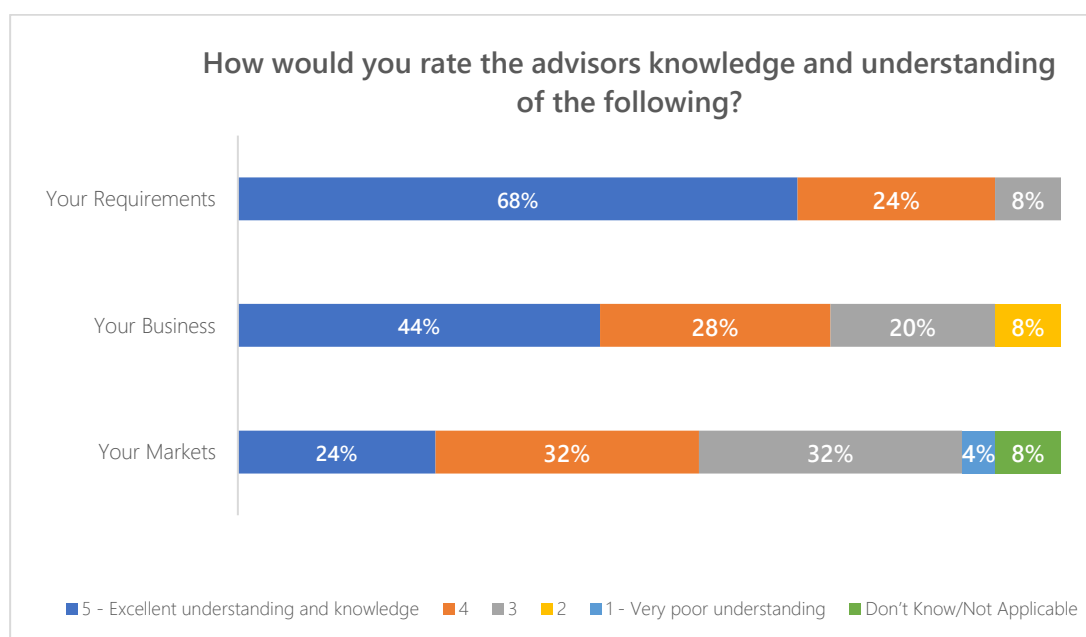
3.2. ABOUT THE SUPPORT AND SATISFACTION

The following table shows the breakdown of the level of support received by the 25 companies interviewed for the survey.

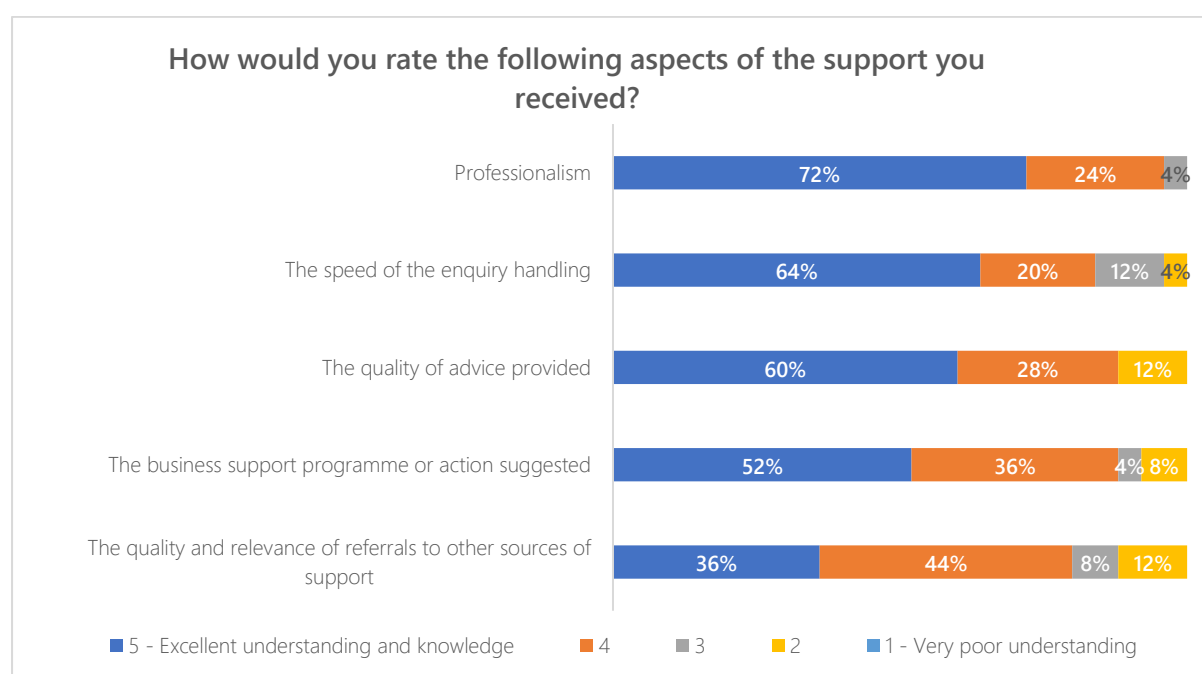


Source: TIP/Kada Business Survey, Aug 2019 (n=25)

Using a ranking scale of 1 to 5 (where 1 is poor and 5 is excellent), 92% of respondents said the advisor either had an excellent or good understanding of their requirements. Advisors also had an excellent to good understanding of their businesses (72%) and of the market businesses were operating in (56%).

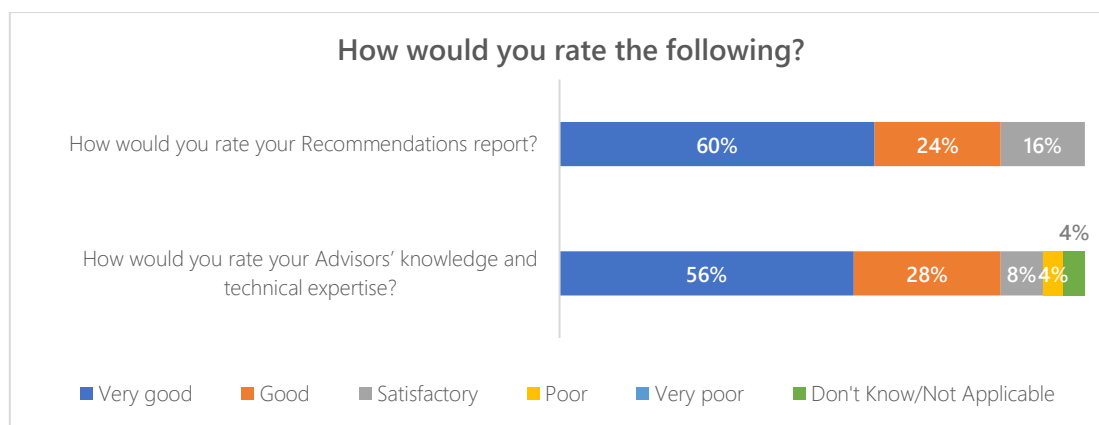


Looking at the aspects of the support received, professionalism was rated as excellent or good from 96% of the respondents. The quality of the advice provided and the action suggested were both rated as excellent or good in 88% of cases. The speed of enquiry handling received 84% excellent or good. Referrals to other sources of support were however a little less regarded with only 36% of respondents reporting the referrals as excellent and 44% as good (still 80% though when combined).



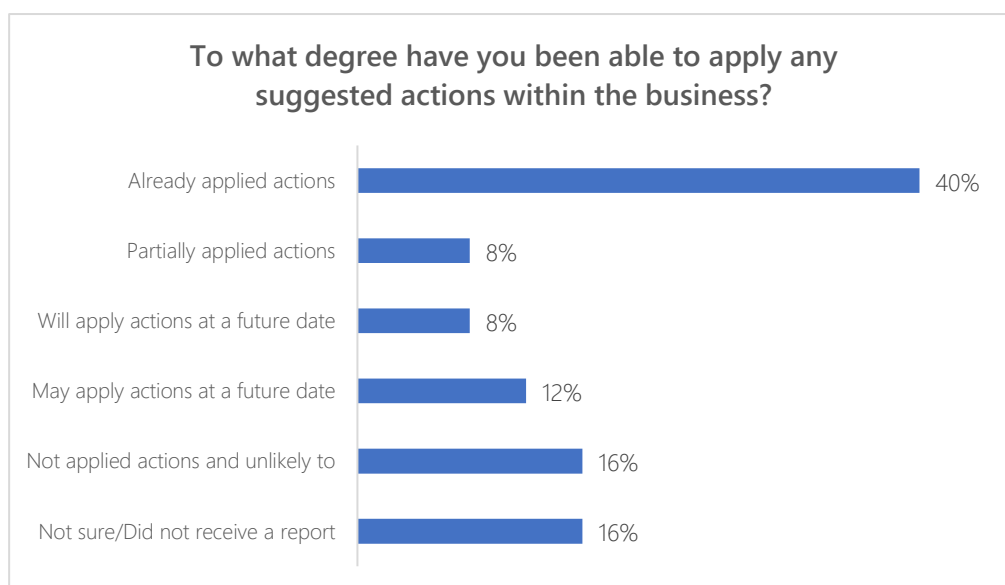
3.3. IMPACT

The Recommendations report that LoCOP provided was praised marginally more (as very good) than the adviser's knowledge and technical expertise. Nevertheless, both scored high satisfaction ratings (84% very good or good in both cases).



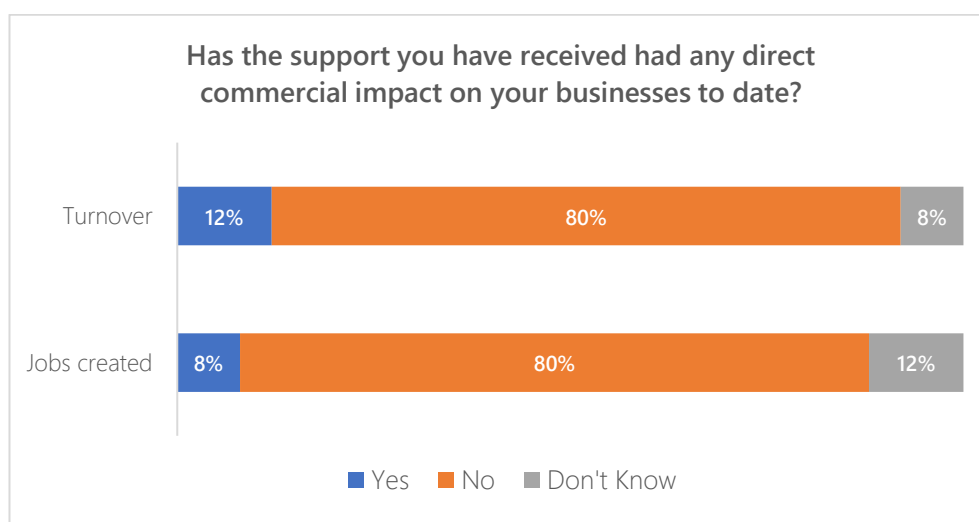
Source: TIP/Kada Business Survey, Aug 2019 (n=25)

40% of the businesses have already applied the low carbon suggestions as a result of LoCOP support. In total 56% have either applied the measures or will be doing so at a future date.



Source: TIP/Kada Business Survey, Aug 2019 (n=25)

When asked if the support received had any direct commercial impact on their business to date, the figures were understandably low considering that the aim of LoCOP was to implement low carbon projects, which is not likely to hugely impact turnover or create jobs.



Source: TIP/Kada Business Survey, Aug 2019 (n=25)

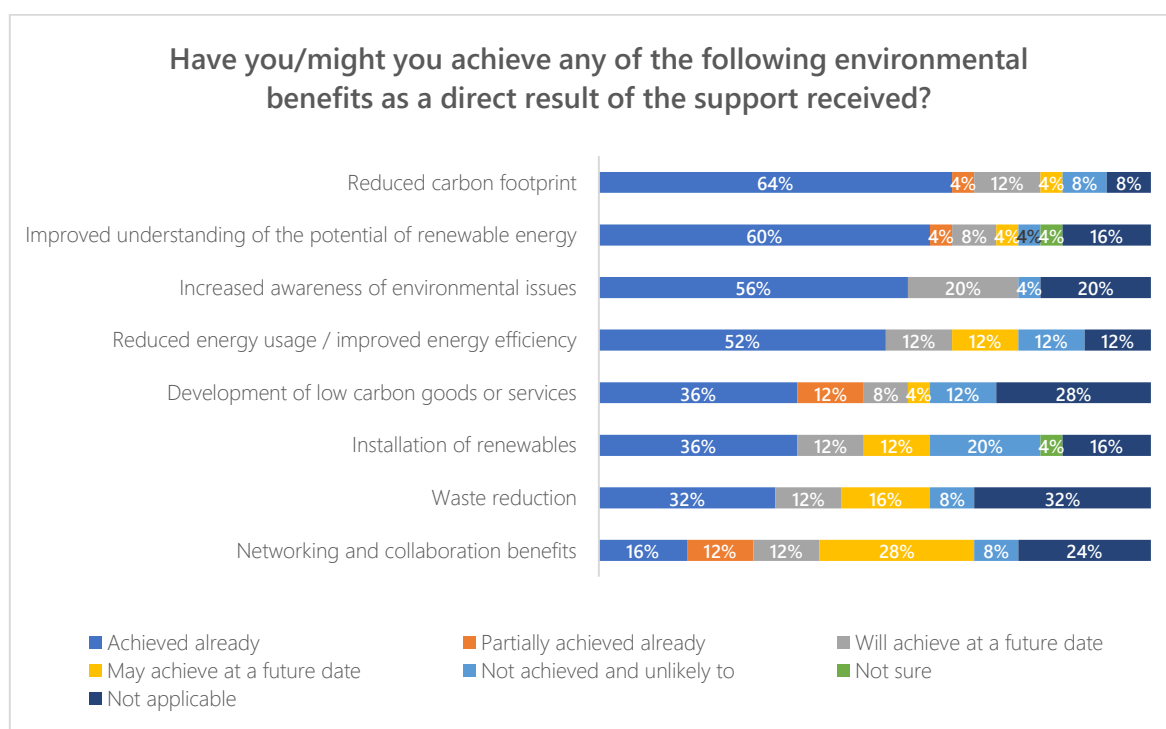
The businesses were asked to indicate the number of full-time equivalent jobs that had been created already in their company as a direct result of receiving assistance. Two businesses responded with a figure for this with the other 23 respondents saying they didn't know.

Surveyed businesses were also asked to indicate the additional turnover in pounds that had been created already in their company as a direct result of receiving assistance. Only one business responded with a figure for this with the other 24 respondents saying they weren't sure. The one business reported additional turnover as £500,000.

3.4. ADDITIONALITY

LoCOP was set up to help implement large scale renewable energy projects or to launch low carbon projects, so it is not surprising to see that the highest rated environmental benefit 'achieved already' was reduced carbon footprint at 64%. When added to the 'partially achieved already' and 'will achieve at a future date' responses the total figure reaches 80% of the businesses surveyed.

There was also good improvement in understanding the potential of renewable energy, with 60% of businesses saying they have achieved this already (72% if taking into account 'partially achieved already' and 'will achieve at a future date' responses). The figures for the development of low carbon goods or services and installation of renewables were both trailing at 36% 'achieved already' (though running at 56% and 48% when considering the 'partially achieved already' and 'will achieve at a future date' responses). Networking and collaboration benefits were also low.



Source: TIP/Kada Business Survey, Aug 2019 (n=25)

3.5. FUTURE PRIORITIES AND SUPPORT REQUIREMENTS

BUSINESS GROWTH PRIORITIES

The majority of responses were optimistic about their growth prospects. One response did describe the business scaling back the geographies it operated within, including a European and South American market and “[focusing back on the UK because of Brexit](#)”. Two respondents stated that growth wasn’t a priority at the time of interview, and one citation stated the aim was to simply “[stay afloat until Brexit is resolved](#)”.

The most common priorities related to developing new technologies or IT systems, through investment in research and development (5 citations) or increasing “[profit margins through sales](#)” (4 citations). Two respondents cited goals to continue to reduce their carbon footprints, “[through green expansions into new builds](#)”, and investment in more “[sustainable ranges of stocked fabrics to decrease carbon footprints, and improvements in machine efficiencies](#)”. One company was looking to employ another apprentice this year.

FUTURE SUPPORT REQUIREMENTS

Future support requirements were similarly diverse. Eight respondents required business support of some form including development programmes, advisory services or grants. Other requirements included sourcing energy providers, improved social media marketing, property advice, waste management and sales. Four respondents stated that they would welcome more financial support through grants, and one through private investment. On-going support was required to support firm’s internal business growth plans (in areas such as R&D costs). Two respondents would like support for

energy efficiency IT systems and equipment, and one respondent claimed that they would need support in *"finding the right staff for their industry"*, as this has proved to be a barrier in the past.

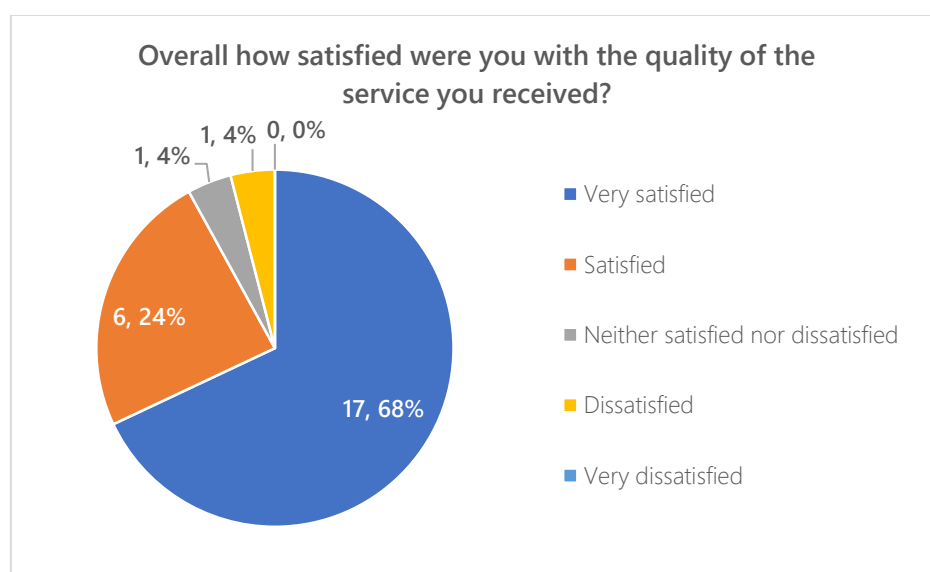
3.6. IMPROVING THE PROJECT

Of 25 respondents, 10 stated that the service could be improved for a wide range of reasons. The most common reasons related to funding. *"The Project needs more clarity about how you claim for expenses"* and should be *"more upfront with costs"*. Others felt that *"providing lists of pre-vetted suppliers would speed up the quotation process"*. One business thought an initial light touch pre-assessment survey might have *"reduced mis-understandings and saved the council time and money"*.

Also, respondents felt the advisors should have *"more technical experience relating to building and planning processes required for renewable projects"*. Finally, one respondent claimed the advisors were *"travelling an unjustified distance to meet SMEs to provide feedback"* that could have been communicated by other more efficient and environmentally friendly means.

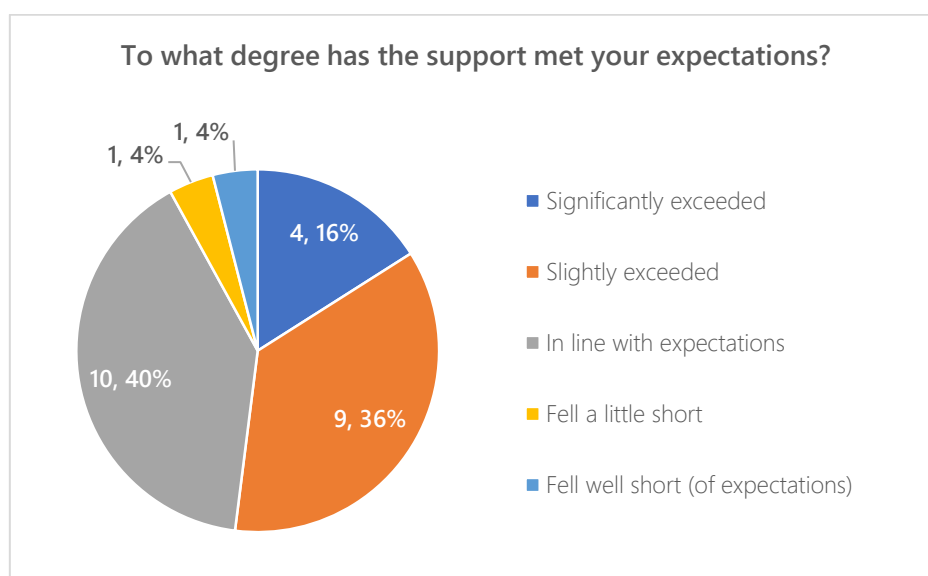
3.7. OVERALL SATISFACTION

The respondents were overwhelmingly 'very satisfied' or 'satisfied' with the service they received (92%).



Source: TIP/Kada Business Survey, Aug 2019 (n=25)

Expectations were met or exceeded (16% were significantly exceeded) in 92% of the businesses surveyed, which points to successful implementation of the Project and outcomes.



Source: TIP/Kada Business Survey, Aug 2019 (n=25)

When asked about the level to which the support met candidate's expectations, the average response was positive, with a majority stating that support slightly exceeded expectations. 10 out of 25 respondents stated the support received was generally what was expected prior to engaging with the Project.

For those whose expectations were exceeded (13 of 25), several positive benefits were mentioned. These related to increased knowledge of energy consumption (3 citations) "*it provided a very in-depth report on energy consumption*" and increasing business efficiencies (2 citations) "*saving me an awful lot of time and money*". The Project was also noted to be delivered very efficiently (3 citations), with "*thorough and timely feedback, and email responses on the same day*", as well as "*lower than expected administration*" and a "*straightforward grant application process*".

Only two respondents claimed to be less than satisfied with the support received, claiming the process was more complex than anticipated. These responses seem to be project specific with claims that the SME's faced "*too much red tape*" regarding building a windfarm in the county, and complaints that the project team was "*not well positioned to make decisions*" and provided "*a report that included no useful suggestions*".

When the companies were asked if they would recommend the LoCOP project support to other people, 52% said they already had and 36% said they would be willing to.

The first case study looks an Evesham based fabric specialist that was able to significantly reduced its energy consumption and waste through investments in new equipment.

LoCOP support is Bang on Trend for Evesham-based Fabric Printing Specialist



Ruth advised us on several areas, not least how to advertise our procurement requirement due to the need to obtain three quotes. In the end we purchased a new piece of kit, plus installation, for £80,000, with a grant contribution of £36,000 (45% intervention) from the LoCOP programme.

Steve Curry,
Operations Director at
The Silk Bureau Ltd©

The Silk Bureau Ltd© (the 'Company'), a family-owned business founded over 30 years ago by Doug & Elaine Davies, distinguishes itself amongst competitors by being an innovative, market-leading digital textile printing company that manufactures 100% of its product in Great Britain. Based out of Evesham, Worcestershire, the Company provides digitally printed fabric, including silks, to individual designers, textile design studios and international retailers for a range of markets, including the fashion and interior design industries.

One piece of equipment essential for the Company's operation is its 'Loop Steamer', however, according to Steve Curry, Operations Director at The Silk Bureau Ltd©, the steam generator was causing problems on the production line:

"Our steam generator was coming to the end of its operational life. It had become highly inefficient and was utilising significant amounts of gas. We decided to replace the unit and part of that process involved researching what regional support was available to





“

The new machine will reduce exhaust gases and will reduce energy consumption. It will also reduce material waste as around 5m of material out of every 200m is destroyed during the print run on the old machine. These are tolerances that will be improved with the new installation and if we can eliminate the wastage that will mean less material shipping costs and higher productivity levels.

Steve Curry,
Operations Director at
The Silk Bureau Ltd©

assist with the procurement process. As a result of this process we discovered the Low-Carbon Opportunities Programme (LoCOP) managed by Worcestershire Business Central.”

Continuing the narrative, Steve explained that following initial contact with LoCOP, Ruth Corral, Programme Manager, came out to visit the Company and provided advice that was both professional and highly relevant to the Company’s needs.

Steve explained that the grant contribution allowed the company to make its purchase decision based on a number of factors, rather than primarily on who could supply at the lowest price:

“The grant funding allowed us to source the required piece of kit from a local supplier, which was important for us as it meant support was ‘on the doorstep’, but also because the investment was made within our local area and contributed to growth of the regional economy.”

Steve explained that the purchase will not only make the Company more efficient in terms of its energy use but also more efficient in its use of raw materials and associated logistics.

Steve concluded that the Company is in continuous communication with Ruth and the Low-Carbon Opportunities Programme and looks forward to continuing the relationship and accessing relevant and available support in the future.



4. PROJECT DELIVERY AND MANAGEMENT

THIS SECTION OF THE SUMMATIVE ASSESSMENT EXPLORES THE IMPLEMENTATION OF THE PROJECT. DISCUSSIONS WERE HELD WITH KEY STAKEHOLDERS IN RELATION TO SPECIFIC OPERATIONAL ASPECTS, INCLUDING SELECTION, DELIVERY PERFORMANCE, GOVERNANCE AND MANAGEMENT. IT ALSO CONSIDERS PROJECT DELIVERY STRENGTHS AND CHALLENGES.

4.1. DELIVERY MODEL

It was clear across all stakeholder groups, be they regional partners, delivery partners, beneficiary companies or representatives of the County that the rationale for the Project remains valid and, as energy prices continue to rise and carbon reduction becomes increasingly critical, support provided by such projects will only gain in importance.

As with Worcestershire's Business Energy Efficiency Programme (BEEP), raising awareness about renewable technologies that are available and the support that can be provided to facilitate their installation was seen as a key objective of the Project. This objective was facilitated by the reach and significance of a strong partner network within Worcestershire that works to promote and deliver the Project across the target regions to ensure impact is seen.

The Project is managed through a central team, based at WCC, and delivered via the LoCOP team and two delivery partner companies contracted via a competitive tendering process to provide relevant advice and support on applicable renewables technologies and carbon-saving innovation.

Delivery of the Project was seen as professional, particularly by the beneficiary companies and particularly in relation to the grant administration team who were identified as always available, knowledgeable and proactive. Assessment of applications was undertaken by the LoCOP team and the Grant Panels for the respective elements of the Project and then passed through the Project Board. This thorough process was undertaken in a timely manner which, when coupled with a straightforward application form resulted in a relatively streamlined client journey through the application stage.

Some issues were identified by LoCOP management in relation to the recruitment of the delivery partners, with the relatively small value of the delivery contract possibly not attracting the calibre of delivery partner desired by the Project. It was identified during this evaluation that the delivery partners, although strong on solar PV and its associated technologies, perhaps lacked 'on the ground' expertise when it came to more advanced/novel technologies and their costing and procurement requirements. The Consultants have addressed this, and it should be noted that the beneficiary survey did identify high levels of satisfaction for the support provided by the LoCOP Project.

It should also be noticed that delivery of future iterations of the Project will see an increased focus on capital funding, possibly with LoCOP and BEEP seeing increased levels of integration.

WHAT'S WORKED WELL

Key strengths and successful aspects of LoCOP engagement identified by interviewees have been outlined below:

Addressing Market Failure – a key strength of the Project, as evidenced through stakeholder discussions, was the continuing validity of the Project's rationale and its contribution to the mitigation of market failure addressed by ERDF Investment Priorities 4a, "Promoting the production and distribution of energy derived from renewable sources" and 4f, "Promoting research and innovation in, and adoption of, low-carbon technologies". The consensus was that the rationale for the Project is as valid now as it was at launch, with the process of supporting companies through such uncertain economic times seen as a critical mission of publicly-funded business-support programmes:

"Providing grants in the low-carbon arena was unusual at the time of launch and is even more critical now."

"Businesses are unaware how easy it is to install some of the latest available technology, how much such technology costs and what benefits they may experience. This Project creates awareness in this area."

"LoCOP widens the scope of support and funding that is available."

District Council partners also believed that the Project is value for money and should continue in some form following the end of this iteration.

"LoCOP is a really important project for us to have going forward! We are pushing for more energy-efficient commercial buildings and such support is critical to achieving that aim."

"LoCOP provides meaningful grant funding."

For those beneficiaries whose expectations were exceeded, positive benefits included developing an increased knowledge of energy consumption and how to increase business efficiencies.

Dual Focus of Support – the funding of feasibility support and grants to a) install renewable energy systems or b) launch low-carbon innovative projects was seen as a unique selling point for LoCOP, distinguishing it from other available support and, indeed, other support available under the WBC banner. Although the latter aspect of the support may have been a 'harder sell', it was proposed that significant impact and contribution towards carbon reduction targets could be achieved over the longer term.

"Focusing on production of new technologies/products/services as a route to decarbonisation is a key strength."

As with other such projects, the delivery of advice with recommendations, coupled with grants to action such recommendations was seen as a key strength of the Project. It was also stated by one delivery partner that:

"Targeting production specifically as a route to decarbonisation was a strength of the Project."

Applicable and Attractive Grant Levels – stakeholders believed the level of grant support to be appropriate and attractive. Being able to provide grants of £100k at a 45% intervention rate (providing a potential total project cost of £225k) facilitated the procurement and installation of renewables/low-carbon technologies that require significant capital outlay.

It was acknowledged by regional partners that grant levels up to £100k for capital and £50k for revenue projects moved the focus away from businesses at the micro/small end of the SME spectrum (due to the requirement for match funding) but helped to target those enterprises that could benefit from larger-scale renewable energy projects – the funding of which is a key aim of the Project.

The ability to fund both capital and revenue projects was also identified as a strength of the Project.

"LoCOP is a project with a good-sized grant and good grant application."

Accessibility and Expertise of LoCOP Team – throughout the various stakeholder groups consulted for this evaluation – beneficiaries, case study companies, delivery partners - the professionalism of the LoCOP team and its open lines of communication was seen as a key strength, contributing to the Project exceeding or matching expectations.

As stated earlier in this report, the Project was noted to be delivered proficiently with *"thorough and timely feedback, and email responses on the same day."*

"Ruth came out to visit the company within days of initial contact. She understood our specific needs and assisted us greatly with our equipment procurement process."

"Management of the project was good. It was a new initiative and Ruth was energised and professional."

"Ruth was very proactive, and she pulled the Project through."

User-friendly Application Process – the grant application process was viewed by the majority of stakeholders, most importantly by beneficiary companies, as relatively simple, straightforward and a strength of LoCOP, with strengths of the Project identified as *"lower than expected administration"* and a *"straightforward grant application process"*.

Reach and Significance of Project Partners – as with other WCC ERDF projects, it was the consensus amongst the stakeholder cohort that the network of active players has worked extremely well for LoCOP, with the reach provided as part of a network that includes the District Councils, the Growth Hub and, indeed, the other ERDF-funded programmes, allowing the Project to access client companies who can benefit the innovation and carbon savings funded through LoCOP. It was acknowledged that the LoCOP events, often delivered jointly with the Business Energy Efficiency Programme (BEEP), were successful in bringing regional innovators and regional suppliers together and showcasing what technologies are available, directly contributing to Investment Priority 4a.

On a programme (as opposed to project) level, it was identified during stakeholder discussions that there is now a much more proactive stance in relation to the engagement of regional companies, facilitated in part by the implementation of a new CRM system, which has also aided with project management.

"Under this ERDF programme, the County has taken a more proactive approach to determining business requirements. We have talked to the business community to find out what people want. It is business-led rather than public sector-led. We have businesses on the Steering Group and Board."

"Processes and systems are now continuously improved. Previously it was disparate – it is now more consistent in how projects are managed, and standardisation has helped. It is now more of a team environment between the projects and we use our business contacts to promote better across projects and events. We could still do more cross-selling, which is an improvement we need to look at in future project/programme development."

BARRIERS, LESSONS AND CONSTRAINTS

Identified below are key areas of commonality that the Consultants have taken from the interview process, which will hopefully influence future programme development and delivery.

Complex Message to Communicate – LoCOP management and delivery and District Council partners acknowledged that greater clarity could have been provided about what LoCOP could support and what the aims and objectives of the Project were.

"LoCOP is a good programme overall but it needed to be clearer on what and who it could support. The smaller grants from BEEP were easier to understand and, as a result, saw quicker take-up. LoCOP was more of a 'slow burner' but it hit targets in the end. We need to make more people aware that such support is available."

"The message on what could be supported was so broad it was difficult to convey – it ranged from software to tackle company car expenses to dealing with household waste."

Limited Expertise of Delivery Partners – independent consultancy partners were procured via a thorough competitive tender process to deliver LoCOP to the target region, however, it was identified by stakeholder interviewees and beneficiary companies that the level of expertise displayed by the delivery partners could have been better. Beneficiary companies suggested that the advisors could have had better knowledge of relevant building and planning procedures, whilst stakeholder interviewees identified that, although knowledge of solar power systems was competent, there was a lack of knowledge about more complicated systems. For example, there were instances where biomass boilers and combined heat and power systems were recommended inappropriately by the consultants, with the systems either being unavailable in the required sizes or for the applications required.

There were also a small number of instances when a lack of local industry knowledge resulted in the potential costs of systems being overstated in assessment reports. This rendered such reports invalid and reflected badly on the Project as a whole.

It was acknowledged by the stakeholder interviewees that the contract was relatively small, and this potentially contributed to difficulties in recruiting support providers with the requisite levels of skills.

Obviously, increasing the value of the support provider contracts in future project iterations would increase the pool of provider companies to choose from but this is clearly dependent on funding levels for future programme delivery. If this is not possible, building long-standing relations with the current suppliers and building CPD into the contract to address gaps in expertise may mitigate this issue.

It should be noted here that the delivery partners were happy with their working relationship with LoCOP management and believed that more could be done in future programmes:

"The delivery partner model worked well. Our relationship did not feel like a client/consultant relationship. There was a good level of trust built up between the various stakeholders."

Delivery Partner Administration – from a delivery partner point of view, the Project rationale was acknowledged as being valid and worthy of such support and relations with LoCOP management were identified as strong.

"WCC did a good job of marketing the Project and we put some companies through ourselves. The working relationship was good."

Issues that were identified by the delivery partners related to the sporadic nature of leads coming through, making business and resource planning difficult, and the need to get beneficiary companies to sign off the report before payment to advisors could be invoiced, leaving them at the mercy of the beneficiary company. Perhaps a more effective payment system could be introduced in future programme iterations.

"Although we saw a pipeline of leads (RAG system). There was little understanding on how many assists would be coming through and also some uncertainty in the message and the eligibility criteria. This made resource planning more difficult that it should have been."

It was also commented by the advisor partners that having the requisite level of detailed information, i.e. past energy usage figures and bill amounts, prior to first meeting with the company would be highly beneficial. This would enhance the impact of the first meeting and the 12-hour assist. It was acknowledged that not all beneficiary companies keep such detailed information but, when available, early sight of this by the advisors would streamline the process and increase effectiveness and efficiency of the support delivery.

Proactive Engagement of Companies – at a project level, it was acknowledged that LoCOP had some issues with finding regional innovator companies who could benefit from the innovation aspect of the support. In the main, innovative projects were also larger and longer, with payback periods of seven or eight years, making it difficult to attribute benefit directly to the LoCOP project. This may require a facility for a more longitudinal examination of the benefits of projects that support innovative development, with an increased focus on capital for innovation in any subsequent programme.

Success in terms of delivering the innovation-aspect of the support could also be boosted by building relationships with academia-based institutions, and the Consultants acknowledge that expansion of such support into Shropshire is planned, working with the Centre for Research into Environmental Science and Technology (CREST@UCS), a partnership between the University Centre Shrewsbury and Reaseheath College, which was established to develop and increase the productivity of environmental science and technology businesses in the area.

Advice regarding the viability of innovative renewable energy was also sought from a member of the Birmingham Science City Innovative Low Carbon Working Group (BSCLCWG), which also enabled the involvement of a research institution.

It was clear that significant take-up of the support on offer occurred late into the Project's lifecycle. This may have been due to a number of reasons, i.e. the continuing rise of electricity prices, the media becoming more interested in pushing the zero-carbon agenda, or general word-of-mouth from companies on the scheme. This momentum should be built on by the next iteration of the Project, making earlier wins possible and seeing impact being observed earlier in the programme's duration.

At a programme rather than project level, the challenge is proactively identifying and engaging potential beneficiary companies.

"We need to utilise the CRM system to improve this aspect and to engage not only with more companies but also with the right companies, i.e. those that can significantly benefit from support."

"Often, only 20% of companies in a region will consider public support."

Changes in Legislation – several changes in related governmental legislation had varying degrees of impact, both positive and negative, on the Project during its lifetime. The removal of Feed-in-Tariffs meant that companies who had not previously considered LoCOP now saw it as a viable alternative source of funding (ERDF regulations meant that companies could not benefit from both LoCOP and FITs), however, the introduction of additional applicable business rates, such as those placed on solar PV, impacted negatively on beneficiary companies, making some projects unsustainable.

"The introduction of such business rates meant that some business had to set up an SPV and sell the systems back to themselves."

ERDF FUNDING CONSTRAINTS

Programme Complexity – on a programme level, the wider business offer, incorporating all WCC business support projects (ERDF and non-ERDF), was initially perceived to be too complex. Note: it was confirmed during discussions that this process will be refined into a simplified programme based around four key areas of innovation, enterprise, growth/productivity and clean growth. Each area will have a standard offering including an event, 1:1 support and grant support and a network.

ERDF Timelines – it was noted by some stakeholder consultees that, at a national level, ERDF timelines in general can prove restrictive. It was identified that it can take 12 months to get from first bid to contract stage, sometimes resulting in programmes already behind profile at starting point. It was identified by stakeholders that often-lengthy timelines relating to decisions on Project Change Requests (PCR) and the general time it takes for decisions to be made can be to the detriment of seamless programme delivery.

Support Allowances – it was noted that, with expert advice being an aspect of support provision, increased allowances in terms of how much time can be spent with each beneficiary might result in better impact and more effective achievement of ERDF indicator targets.

"There is only so much support you can provide in 12 hours."

POSSIBLE ENHANCEMENTS

It was identified under the stakeholder interview programme that the complexity of the message that LoCOP was trying to get across did cause some issues with the beneficiary base. Joint events/promotion with the BEEP project and a closer integration of the two initiatives, coupled with increased awareness of relevant issues built by the LoCOP project over the last three years should mitigate such problems for future programme iterations.

The Consultants would recommend that a focus on supporting larger SMEs would yield more significant impact and facilitate achievement of innovation-related indicator targets. The issue of 'How to reach the Mediums' is discussed later in this report.

It was identified by beneficiary companies that a vetted list of 'best in breed' suppliers would assist greatly with grant-funded procurement processes.

Delivery partners suggested that a more structured supply of leads and a more effective payment system would improve planning in any future programme iteration. It was also suggested that detailed beneficiary information such as energy usage should be provided to advisors in good time before the initial meeting. This would enhance the effectiveness of the engagement, however it was acknowledged that smaller SMEs do not always have this information to hand.

Levels of expertise shown by contracted delivery partners was identified as an area of concern by various stakeholder groups. It was acknowledged that a larger contract size in future programme iterations would attract a higher volume and greater quality of tender responses, but advisor CPD to address gaps in provision may also be worth considering, depending on future funding levels.

Whilst Brexit is still causing uncertainty and little concrete evidence about funding levels being available it may also be that future funding streams can loosen some of the restrictions currently placed on ERDF-funded programmes. There is acknowledgement that 12 hours is insufficient to provide really beneficial support and, looking ahead with optimism, response times in relation to funding applications and PCRs may be improved under future funding streams.

4.2. RECRUITMENT AND REFERRALS

The general perception of recruitment was that, by the end of the Project, LoCOP had hit its indicator targets and had hit the correct size and type of businesses to provide the carbon savings and the aims of the Project. With the level of grant available under LoCOP, a key question in terms of recruitment was, "How to Reach the Mediums?". It was acknowledged that such businesses have the resource, i.e. match funding/will-power to install the larger-scale renewables projects that were a key aspect of LoCOP delivery and will deliver indicator target achievement and levels of impact that improve the success of the programme.

As with the majority of ERDF-funded projects under the business-support umbrella, the Growth Hub is the key source of referrals and provides a level of joined-up thinking between funded projects that is not evident in other regions.

"Referrals mostly come in from the Growth Hub and they are generally of a high quality."

Continuous review of the quality and relevance of referrals would allow Project management to see if improvements can be made.

The Consultants would again make the point here that a large portion of client companies interviewed under the beneficiary survey aspect of this evaluation were micro-businesses and, going forward, programme management may assess how better to target the larger SMEs in the region, where engagement could potentially show even better productivity increase and job creation figures as a result of engagement with support.

At a programme level, there was acknowledgement from key stakeholders that more could be done in this area, with activities such as supplier days at selected locations now being implemented so that providers get to know each other and act as advocates for the County, improving cross-referrals and identification of the most applicable businesses for each programme, be it POC, BA or IIG.

"This is starting to happen more and more. There is an expectation that providers will attend these days (it is part of improved contract management). This is starting to pay dividends, they are getting to know one another and increased cross referral is an output of such activities."

4.3. MARKETING, COMMUNICATIONS AND NETWORKING

Clients from the business survey (see Chapter 3.0 for details) found out about the LoCOP project predominantly from 'Emails' (28%). This finding was backed-up by evidence from stakeholder interviewees who identified that the LoCOP project support officer would email the directors of potential beneficiary companies to introduce the Project and such emails would be followed up with telemarketing activities – a process that generates the most leads for the Project.

'Word of Mouth' was joint second (with 'Other') in terms of the most common channels of initial contact at 16%, reflecting the positive perception of the Project within the beneficiary cohort. The Chamber of Commerce, Local Authority and various events or exhibitions designed to promote LoCOP were the next most popular at 8%, with stakeholders confirming that joint events ran between LoCOP and BEEP are a good way to get a complex message out to the Region's SMEs and also to get innovators and support providers together in the same room.

The findings match many other studies which claim that experience had shown a targeted and direct marketing approach works well when coupled with a referral system for businesses through local partners. Indeed, it was identified that the Growth Hub is playing an increasing part in providing quality referrals to the Project and that this will continue with any future iteration.

Communications between the LoCOP team and supported enterprises was identified as a strong aspect of the Project, with proactive communications being seen as a strength of the project management team.

As with other business-support provision in the Region, and on both a project and programme level, the implementation of the new CRM system will facilitate more focused marketing going forward, ensuring the County is supporting those businesses that can significantly contribute to the regional economy. District partners also acknowledged that the CRM system will improve and enhance communications going forward, with no significant issues being identified at this time.

4.4. MANAGEMENT, GOVERNANCE AND ADMINISTRATION

The Consultants believe the management and governance structure of the Project to be a key strength of LoCOP, ensuring the correct levels of rigour in grant assessment but also a level of openness and personal service appreciated by beneficiary companies in particular.

Utilisation of grant panels for the specific aims of the Project provided a relatively streamlined client journey through the application stage being acknowledged by beneficiaries. The only issue identified from the beneficiary companies' point of view being that there could be more clarity provided on the process for claiming expenses.

Some administration issues were identified from the perspective of the delivery partner advisors, namely that:

- Better clarity in terms of volume and timing of leads would result in more effective planning.
- Obtaining better quality and quantities of information prior to initial meeting would enhance support delivery.
- A more structured payment system would reduce the issue of SME company sign-off delaying payment for services (note: it was also suggested that the handover point could be tightened up in future programme iterations).

District Council partners were also happy with administration and management, and acknowledge the implementation of the CRM system as having the potential to streamline this process into the future.

At the programme level, governance is largely covered by the ERDF programme board, which meets quarterly to look at performance, spend, and any issues with projects or any blockages. District Council representatives attend these meetings and they have access to the CRM system. The general consensus was that the programme board has a healthy mix of representatives from each region to ensure that all interests are met.

4.5. SUMMARY FINDINGS

There was recognition within the stakeholder consort that the rationale for the LoCOP project remains valid and that a significant contribution is being made to ERDF Investment Priority areas 4a and 4f. There was also acknowledgement that the aspect of support aimed at increasing the number of SMEs that are innovation active was a 'harder sell' and that such projects will require longer timeframes to measure the full impact of such support.

The results of the beneficiary survey clearly show that satisfaction amongst client companies is very high and that awareness levels, both in terms of what technologies and what regional support is available, have increased. This is something which future iterations of the Project need to build upon.

As stated earlier in this report, in terms of rationale, there is strong evidence that SMEs require grant funding to adopt low carbon innovation and adoption of low-carbon technology and renewable energy, as well as evidence demonstrating the genuine need for wider public-sector funding for these types of projects. Many SMEs are unlikely to access financing from commercial sources for investment in low carbon technologies or renewable energy deployment and it is therefore vital that public funding is put in place to address these market failures and challenges for SMEs, which consequently helps

Worcestershire's low carbon economy fulfil its growth potential and meet national economic and energy targets.

The governance and management structures of the Project were robust and provided the level of rigour required for grant appraisal but also the level of personal service appreciated by beneficiary SMEs.

There were some concerns about the level of expertise and quality of advice provided by the contracted delivery partners. There was recognition that the relatively small contract size resulted in a lack of volume in terms of responses to the tender.

It was acknowledged by stakeholder consultees that the close working relationship between the various parties within Worcestershire, i.e. WBC and the Chamber of Commerce, is relatively uncommon and is a key strength of the Region, providing significant referral, networking and promotional opportunities for the funded programmes. In particular, the joint events hosted by LoCOP and BEEP to showcase applicable technologies and regional innovators, providing real-world case studies, were seen as highly beneficial.

The second case study illustrates how LoCOP supported a Redditch manufacturing company to identify and invest in renewable energy technology.



Case Study

LoCOP Support Helps to Pin Down the Right Renewables Technology for Redditch-based Manufacturer



We were very happy with the professional support provided by the LoCOP team, with the quality of advice provided and the speed with which enquiries were handled being excellent. The simplicity of the engagement and grant application process was also very welcome.

Mat Tracey,

Technical Director at
Pinstructure Ltd

Formed in 1985, Redditch-based Pinstructure Ltd is a second-generation owned and run company that produces non-threaded fasteners, dowel pins and other engineered parts that often need high volume production and long lead times, but are generally required by the client in small batch sizes at low cost and with swift delivery. The company has 25 employees and has grown from five product lines with 2,000 parts to 65 product lines with 14,000 parts, with key product ranges including 'clips and clamps', 'pins plus', 'spring fixings', and an assortment of these products supplied under the product name 'Factorpax'. The company supplies a wide range of strategically-important sectors, including nuclear, aerospace, automotive, rail, and white goods to UK, Irish and overseas markets.

Mat Tracey, Technical Director at Pinstructure Ltd, explained that the company is well embedded in the regional landscape and has a good working relationship with Worcestershire County Council (WCC), having benefitted from regional support before, including grant funding focused on energy efficiency.

After receiving an introductory email from the Low Carbon Opportunities Programme (LoCOP), Mat was interested in accessing such support to continue the



Case Study Page 1



We made the decision to go with solar PV as the technology was proven and readily available on the market. We received grant funding of circa £22,000 from LoCOP, against a total project cost of circa £48,000 (45% intervention rate), which included procurement of the solar PV panels and converters, installation of the technology, and provision of a software package 'SolarEdge' that lets us view how the panels are performing.

Mat Tracey,

Technical Director at
Pinstructure Ltd

company's carbon-reduction journey, building on previous WCC support by making further use of available renewables technologies. Taking up the narrative, Mat explained that:

"We were interested in finding out more about two particular renewable energy technologies, the first being solar PV and the second being hydro-electric, as we have an underground stream system running beneath our facility."

Daniel Collins from LoCOP delivery partner 'Carbon Smart' visited the company and completed the initial assessment and recommendations report.

To ensure that the more technically challenging option was fully examined, Daniel signposted the company to a hydro-electric specialist and, as a result of this technical advice, the decision was made to go with solar PV due to concerns about the strength of flow of the underground stream and the size of plant that would be required to exploit the resource.

Although the system was only installed at the end of July, weekly monitoring of energy usage suggests that, to this point, the solar PV solution is making the company 10% to 15% more efficient in terms of its electricity consumption. Mat went on to state that installation of the system was undertaken by a company based in Inkberrow, Worcestershire, ensuring that this associated investment also contributed to the regional economy.

Mat concluded by outlining the ambitions of the company in terms of reducing its carbon emissions and a wish to continue a working relationship with WCC and to access regional support when applicable and relevant:

"In the future we would like to examine the possibility of using electric vehicles for our company fleet. This would require us to increase our electricity usage and, if business rate legislation becomes more favourable, we would certainly look at installing more solar PV panels and examining other available technologies. We look forward to working with WCC again and will continue to monitor support that is relevant to our company and its processes."

5. RECOMMENDATIONS, CONCLUSIONS AND LESSONS LEARNT

This final chapter reflects on the performance of the Project against its objectives and looks at the how the support might be developed in the future. It concludes with an assessment of lessons learnt.

5.1. RECOMMENDATIONS

Worcestershire County Council may wish to consider the following recommendations:

- Whether the successor programme could take appropriate measures to:
 - Deepen referral links (incoming and outgoing).
 - Enhance the diversity of applications (for instance female majority businesses).
 - Offer networking and collaboration and CDP opportunities for SMEs.
 - Simplify the application process.
 - Ensure any 'new to firm' product targets are realistic and achievable.
 - Production of a vetted list of local suppliers of relevant technologies would aid procurement procedures.
- Whether advisors would welcome further CPD to keep up to date with fast changing developments in the low carbon goods and services market.
- How the low carbon goods and services market could continue to be stimulated/supported.
- Whether there is scope for further follow-up to encourage SMEs to take up actions from the recommendations reports and support from other complementary business support programmes.
- Whether there is scope to monetise several of the key environment benefits in subsequent iterations of the Project, such as renewable energy capacity and GHG reductions using appropriate conversion factors.
- Whether the development of a sustainable low carbon goods and services network, if desirable, could be strengthened as part of any successor measures.
- Whether the initial sectoral focus is still valid for any successor measures.
- Whether there is scope to introduce a more longitudinal examination of benefits for those programmes that support innovative development projects and whose measurable impact takes longer to emerge.

5.2. CONCLUSIONS OF PERFORMANCE AGAINST OBJECTIVES

The Project has performed well against its overall objective to increase the adoption and development of low carbon products/processes, increase the number of businesses in Worcestershire's low carbon sector that are innovation active and the overall number of SME's generating renewable energy.

For instance, it will exceed the target number of business supported by one, supporting 83 firms. The target for renewable energy capacity is anticipated to be exceeded - 1090 KWh against a target of 1057 (C30, 103% against target). Its environmental targets (GHG reductions) are also anticipated to be achieved (1135 CO₂te). Looking at the sector more widely 60% of businesses have, will or may have developed low carbon good or services as a direct result of the support received. In the future perhaps these benefits could be monetised. The implementation of low carbon activities was arguably more successful than the development of a sustainable low carbon goods and services network. The team will reflect on how this element, if desirable, could be strengthened as part of any successor measures.

There were broader impacts identified in the logic model too – improved energy security and fewer issues with energy demand constraints, mitigating climate change through lowering carbon emissions and increased business competitiveness in the environmental and low carbon sectors. The measures on energy capacity and GHG emissions demonstrate the Project has achieved what it sought to in terms of the first two impacts. There is arguably more that could be done to sustain business competitiveness in the sector more broadly (see recommendations).

There were some wider additional internal targets identified by the Project Board too. These included ambitions to boost productivity, increase and protect employment and lever private sector investment. When asked if the support received had any direct commercial impact on their business to date, the figures were understandably low carbon interventions are not likely to hugely impact on turnover or jobs created. That said 12% of business reported turnover benefits and 8% of firms reported jobs creation benefits. There was also an ambition to reduce energy consumption. The survey shows that 76% of business have, will or may reduce energy usage or improve energy efficiency.

5.3. LESSONS LEARNT

FOR WORCESTERSHIRE COUNTY COUNCIL

- The deepening of in-coming and out-going referral links might stimulate more applications and less one-off business interactions i.e. businesses could be supported on different aspects of business growth.
- Expanding future programme iterations to include and enhance relations with academia-linked institutions, such as those established with CREST@UCS and Birmingham City University, should contribute to the achievement of innovation-related, product-development indicator targets.
- Future LoCOP programmes require active monitoring and appropriate measures to embed business diversity.
- The advisors might benefit some on-going CPD to keep up-to-date with fast changing developments in the low carbon goods and services market.
- From the advisors' point of view, a less sporadic pipeline of leads would aid resource and business planning, and a more effective/regimented payment structure, as opposed to when SMEs choose to sign off the final report, would be beneficial. Obtaining detailed information from the beneficiary company, i.e. energy usage and bill amounts, prior to the initial visit would also enhance the effectiveness and efficiency of Project delivery.

- Follow-up meetings with beneficiaries might encourage SMEs to take up actions from their recommendations report and support from other complementary business programmes.
- The monetisation of key environment benefits such as renewable energy capacity and GHG reductions using appropriate conversion factors would help to illustrate the wider impact of the Project.
- Development of a sustainable low carbon goods and services network is to continue, with future programme iterations to more fully exploit the resource held within such a network and to build on links established with academic institutions (CREST, Birmingham City University).
- It would be possible to consider how the delivery lessons from this project and BEEP could be taken forward into a subsequent iteration of the programme, balancing these with strategic priorities of partners.
- On a programme level (i.e. the full suite of ERDF activity), the wider business offering of ERDF projects was initially perceived to be too complex. This has now been refined into a simplified programme comprising of innovation, enterprise, growth/productivity and clean growth. Each aspect will have an event, 1:1 support, grant support and a network. The next iteration of LoCOP will be delivered within this new programme under the clean growth strand.
- On a Project level, the awareness of available technologies and support built by LoCOP should assist in clarifying the message for any future iteration of the Project, which should result in quicker take-up of support and delivery of outputs and impact.
- An increased integration of the BEEP and LoCOP projects, with a greater focus on capital funding, may increase clarity of message in future programme delivery.

THOSE DESIGNING AND IMPLEMENTING SIMILAR INTERVENTIONS

- Focusing on production of new technologies/products/services as a route to decarbonisation is a key strength.
- Strong in-coming and outgoing referral links will ensure a project is well embedded within the business support ecosystem and the intervention is not a 'one-off' hit.
- Continuous rises in electricity prices will generate interest in procuring and installing renewable, low-carbon technologies. An increased focus on capital funding to supply this increasing demand should be considered for future programmes.
- Introduction of a system that will facilitate longitudinal examination of benefits for those programmes that support innovative development projects may result in a clearer picture of total impact.
- "How to reach the Mediums?" – Accessing those companies at the larger end of the eligible SME base was acknowledged as an area of future programme delivery that could be improved and could facilitate achievement of product/service development related indicator targets.

POLICY-MAKERS

- The simplification of the application process would be welcomed by applicants and project delivery officers.
- The Low-Carbon Opportunities Programme was affected both positively and negatively by key legislation changes during its lifetime, namely the removal of Feed-in-Tariffs and the introduction of business rates on, for example, solar PV equipment. Better communication between policy makers and the designers of such intervention would help to minimise the adverse impact of such changes on future programme iterations.
- The dual aspect of support provided by Worcestershire was seen as a key strength. Technical advice, supplemented with grant funding, is an attractive offering to SME audiences.
- From a Worcestershire perspective there is a desire to work with firms in areas of high opportunity and demand with the potential for significant impact.

6. ANNEX ONE: LOGIC MODEL

Low Carbon Opportunities Programme: Logic Model

Objectives:

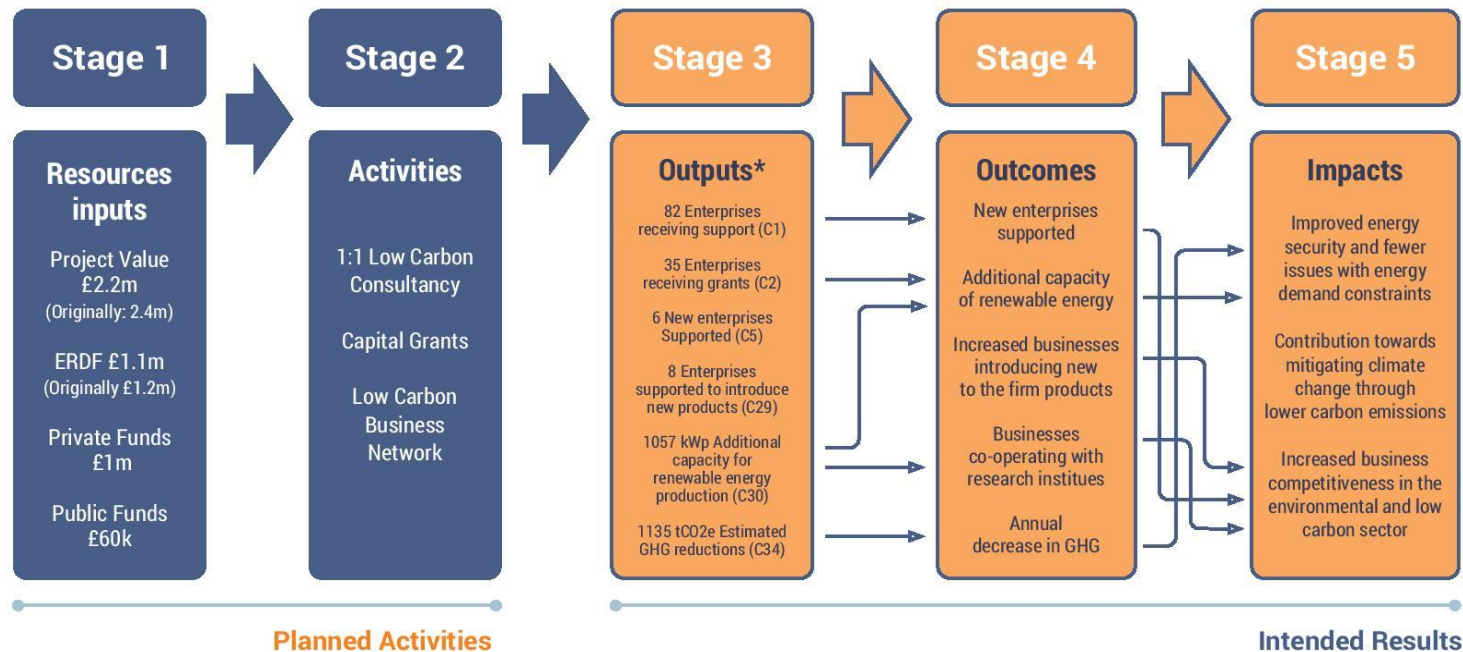
Assist businesses to increase renewable energy capacity and reduce carbon emissions through the installation or development of low carbon technologies.

Rationale:

Responds to WCC LEP's Economic Strategy to sustain growth in the low carbon business sector. Many SMEs cannot afford to install renewable energy without grants, and may not understand the best renewable energy options for their business. SMEs may also not have the expertise or market knowledge to bring low carbon innovation to the market.

Market Failure:

Related to information and innovation barriers: A) Lack of SME access to support, including finance, energy/resource efficiency, skills development, innovation and R&D support. B) SME's having lack of knowledge, confidence and opportunity. C) SMEs being unaware of the benefits that short & long-term paybacks renewable low carbon projects offer.



*Note: Outputs were changed following changes to original project funding

Source:
TIP/Kada
Research

7. ANNEX TWO: CONSULTEES

Name	Organisation	Position
Ruth Corral	Worcestershire County Council	LoCOP Programme Manager
Liz Alston	Worcestershire County Council	Sustainability Manager
Sue Crow	Worcestershire County Council	Economic Growth & investment Manager
Georgina Harris	NWEDR	Economic Development Officer
Helen Troup	Carbon Smart	Delivery Partner
Daniel Collins	Carbon Smart	Delivery Partner
Stuart Moss	Isle Utilities	Delivery Partner
Kevin Aisbitt	Worcestershire Business Central	Growth Hub Manager
Simon Smith	Malvern Hills District Council	Economic Development Manager
Jane Dobson	Wychavon District Council	Economic Development Officer
Janet Yates	Worcester City Council	Economic Development Officer



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