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# **Summative Assessment of the South East New Energy (SENE) Project**

## **Final Report**

University of East London

17 November 2023

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# Contents

<b>Executive Summary</b>	<b>i</b>
Economic Impact	vii
<b>1.0 Introduction</b>	<b>1</b>
South East New Energy Project	1
Project evaluation	1
<b>2.0 Project Context</b>	<b>4</b>
South East New Energy Context	4
Original Objectives, outputs, and intended outcomes	4
Project delivery area	6
Economic Context	6
Policy Context	9
Rationale	10
<b>3.0 Progress</b>	<b>12</b>
Initial Contracted Expenditure	12
Initial Output Targets	13
Project Change Requests	13
Outputs and Results	16
Beneficiary Profile	17
<b>4.0 Delivery and Management</b>	<b>22</b>
Delivery Model	22
Governance and management	24
Monitoring and reporting	25
Recruiting beneficiaries	26
Beneficiary feedback	27
Challenges	30
Contribution to ERDF cross-cutting themes	31
<b>5.0 Outcomes and Impact</b>	<b>34</b>

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	Outcomes and impacts for beneficiaries	34
	Future support requirements	43
	Outcomes and impacts for the project team and stakeholders	44
	Wider outcomes and impacts	45
	SENE's Added Value	46
<b>6.0</b>	<b>Economic Impact Assessment</b>	<b>48</b>
	Benefits arising from SENE Support	48
	Future impacts	51
	Total economic impact	54
<b>7.0</b>	<b>Assessing Value for Money</b>	<b>56</b>
	Economy	56
	Efficiency	57
	Effectiveness	57
<b>8.0</b>	<b>Conclusions and Recommendations</b>	<b>59</b>
	Output achievement	59
	Delivery and management	59
	Outcomes and impacts	59
	Value for Money	60
	Recommendations for policy makers	60

# Executive Summary

## Introduction

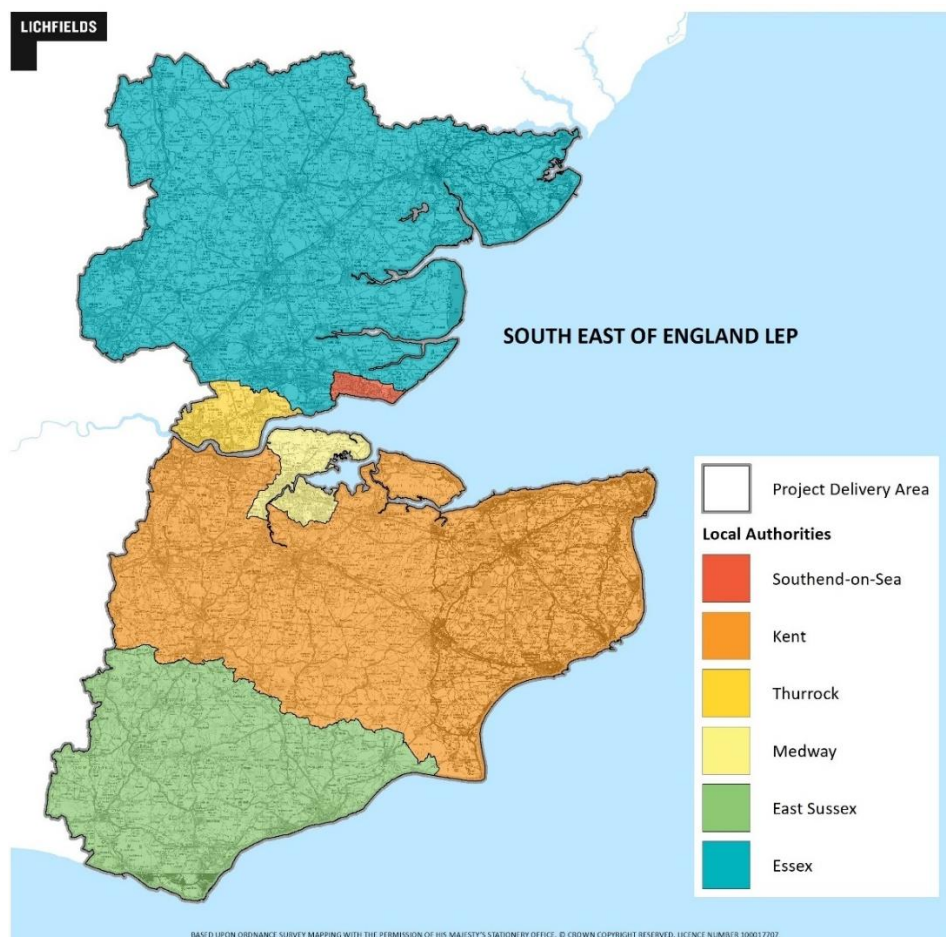
- E1.1 In March 2023, Lichfields was appointed by the University of East London ('UEL') to independently prepare a Summative Assessment of the South East New Energy ('SENE') project. The SENE project is part of the European Regional Development Fund ('ERDF') programme.
- E1.2 The purpose of the Summative Assessment is to reflect on the experience of implementing the SENE project, identify the difference the project has made to beneficiaries, relevant partners and stakeholders, and the wider South East England economy, assess whether the project provided value for money, as well as the lessons learned and best practice that can be used to inform future project design and delivery.
- E1.3 The evaluation process included an early desk-based review of relevant project documentation and data based on information shared by the Project Management Team at UEL, including:
- ERDF Funding Application;
  - ERDF Claims Progress Reports;
  - ERDF Quarterly Monitoring Data;
  - SENE Logic Model;
  - Project Change Requests; and
  - Primary research and reporting undertaken throughout the project.
- E1.4 The document and data review, alongside the inception meeting, informed the development of research tools for the primary research strands of data collection. The report is evidenced through primary research findings uncovered through a consultation exercise with core Project Management staff, project delivery partners and beneficiary surveys which were disseminated via project delivery partners and elicited 37 responses, representing c. 36% of all beneficiaries supported at the time of the evaluation (July 2023).

## Context

- E1.5 The SENE project is a £6.4 million, four-year project delivered by a consortium of partner organisations led by UEL, with the goal of accelerating progress towards a low carbon economy.
- E1.6 The SENE project contributes to ERDF Priority Axis 4: Supporting the Shift Towards a Low Carbon Economy in All Sectors. More specifically, the programme aligns with Investment Priority 4f: Promoting research and innovation in, and adoption of, low-carbon technologies.

- E1.7 The SENE project was, and remains, aligned with strategic ambitions both regionally and nationally. It plays an important function supporting the South East's low carbon agenda as well as the wider economic growth ambitions by promoting prosperity through innovation, commercialisation and facilitating industry-academia collaboration.
- E1.8 The rationale for the SENE project was well defined at inception and the needs case for the support has only been strengthened by emerging policy, and a shifting economic landscape (notably the energy cost crisis and Net Zero agenda).
- E1.9 The size of the delivery area, whilst large compared to other ERDF projects, is deemed appropriate considering the aim of supporting regional acceleration towards a low carbon economy.
- E1.10 The project delivery area covers the SELEP area, comprising the local authority areas within East Sussex, Essex, Kent, Medway, Southend-on-Sea, and Thurrock. As part of project eligibility, the majority of beneficiaries engaged must be based or starting up within these locations.

Figure E.1 SENE Project delivery area



Source: Lichfields

## Project Progress

- E1.11 The SENE project has made good progress towards achieving its output targets, despite initial delays in mobilisation and condensed timescales as well as the pressures brought about wider macroeconomic factors.
- E1.12 The project is on course to exceed many of its remaining output targets, reflecting the hard work and commitment of the project partnership team.

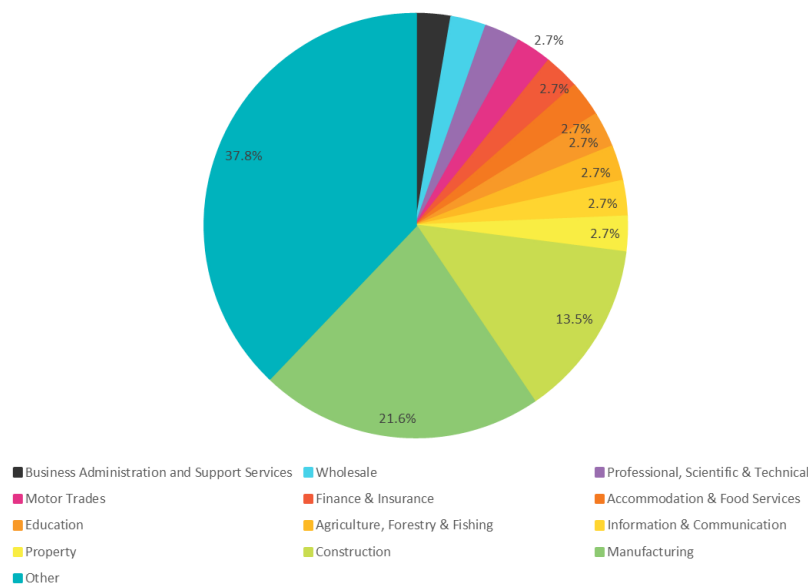
Indicator	Targets		Achieved at time of Evaluation (Q2 2023)		Forecasted Performance	
	Original	Adjusted	Number	% of target	Number	% of target
Capital expenditure £m	£3,488,829	£2,201,530	£660,555	30%	£1,885,099	86%
Revenue expenditure £m	£2,874,595	£1,814,142	£1,374,544	76%	£1,663,297	92%
ERDF Expenditure	£3,181,512	£2,007,836	£1,017,550	51%	£1,773,698	88%
C1 – Number of enterprises receiving support	200	130	94	72%	118	91%
C5 – Number of new enterprises supported	15	8	10	125%	10	125%
C26 - Number of enterprises cooperating with research entities	15	10	12	120%	14	140%
C29 – Number of enterprises supported to introduce new to firm products	10	9	10	111%	10	111%
C30 – Additional capacity for renewable energy production	1.0	1.0	0.155	16%	0.93	93%
C31 – Number of households with improved energy consumption	50	50	-	-	48	96%
C32 – Decrease of annual primary energy consumption of public buildings (kWh/year)	150,000	150,000	-	0%	183,894	122%
C34 – Estimated GHG reductions (tonnes CO <sub>2</sub> )	2,200	2,200	74.77	3%	811.83	37%

## Beneficiary Profile

### Business Sector

- E1.13 Analysis of beneficiary response data shows that SENE engaged with businesses from across a wide range of sectors. Manufacturing, construction, and property sector beneficiaries were well represented, accounting for 37.8% of beneficiaries. Consultation with the project team flagged that delivering support across a broad sector base, whilst challenging, offered a more authentic approach to decarbonisation. The team noted that whilst restricting support to specific sectors would have been easier to deliver, the LEP-wide cross-sector approach adopted offers genuine advantages in responding to real world sectoral interfaces.

Figure E.2 Beneficiary Profile – Sector representation

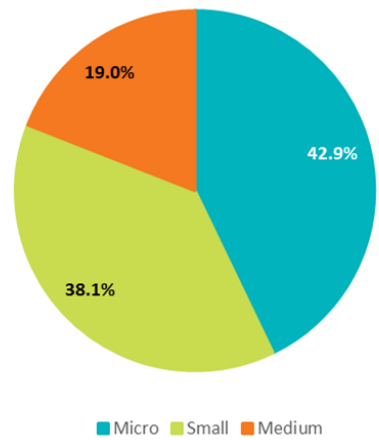


### Business Size

- E1.14 The SENE project engaged with businesses of varying size, both in terms of number of employees and turnover. Businesses engaged, ranged from sole traders through to organisations employing more than 200 members of staff. With respect to turnover, beneficiaries included start-ups with no registered turnover up to businesses with turnover of over £40 million. Figure 3.2 below demonstrates that the greatest proportion (42.9%) of businesses support were micro (<10 employees), over a third (38.1%) are considered a small business (<50 employees) and 19.0% were medium (<250 employees).



Figure E.3 Breakdown of businesses by size

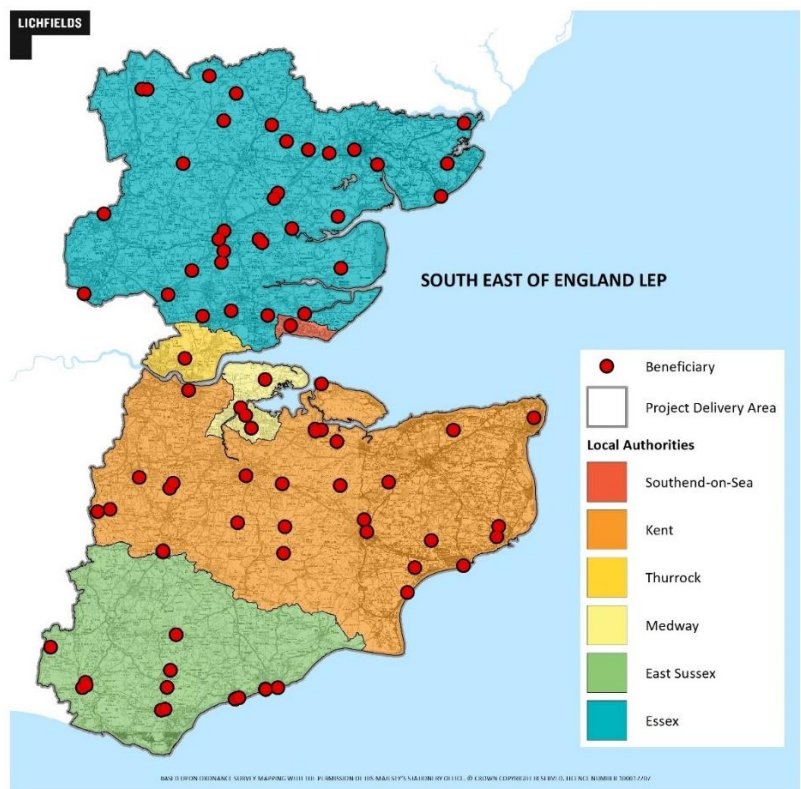


Source: SENE Beneficiary survey – Lichfields analysis

Geographical Profile

E1.15 SENE support was available for businesses across the SELEP area. Figure E.4 shows the distribution of beneficiaries based on analysis of monitoring data.

Figure E.4 Distribution of SENE beneficiaries and proportion based within each Local Authority area



Source: Lichfields

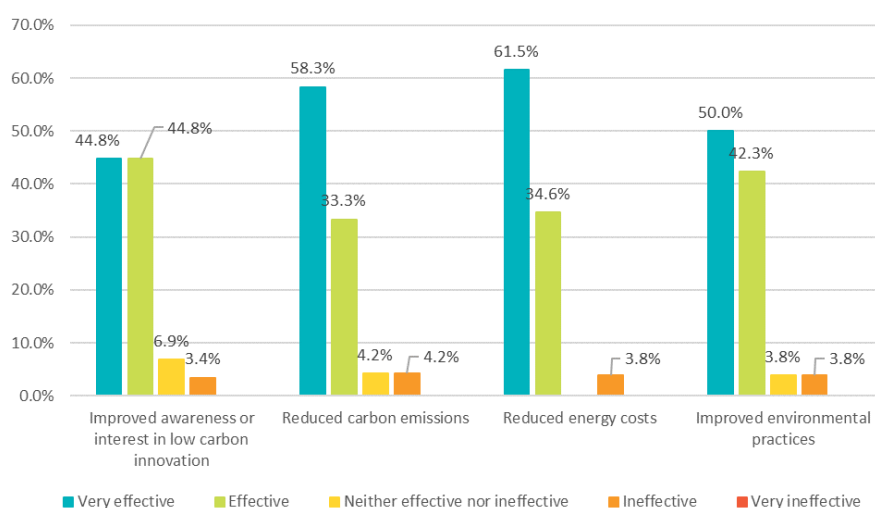
## Management and Delivery

- E1.16** Despite initial challenges in mobilisation as a result of key personnel dropouts as well as the resourcing issues faced through partner drop out and condensed timescales, SENE has recovered and responded well to these challenges, which is testament to the project team and the dedicated partners involved in project delivery.
- E1.17** Beneficiaries felt supported throughout the project, with administrative teams providing help and clear guidance to minimise compliance issues and support with grant application processes, given the volume of paperwork required for these. The project team was praised for its communication and clear advice to help reduce the administrative burden on beneficiaries and partners alike.
- E1.18** The access to a broad range of expertise from across the partner organisations ensured that SENE was well positioned to respond to niche and technically complex collaborations, and to support businesses from a broad range of sectors.

## Outcomes and impacts

- E1.19** SENE has made a significant positive impact not only on beneficiary businesses supported, but also to the UEL, wider stakeholders, and the regional economy.
- E1.20** The project support helped SMEs across the South East Local Enterprise Partnership ('SELEP') assess their carbon usage and develop and implement action plans to address identified issues, ultimately leading to improved energy efficiency. The project also supported development and bringing closer to market innovative low carbon products. Businesses overwhelmingly felt that they had improved awareness, interest, and the likelihood of undertaking future research and development ('R&D') activity following project support.

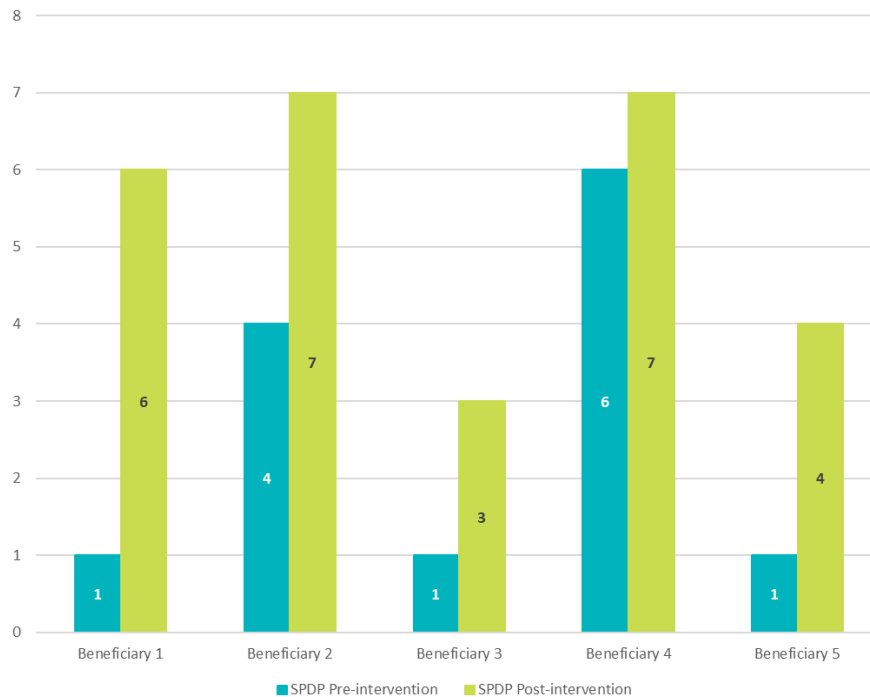
Figure E.5 SENE contribution to improved environmental performance and costs



Source: SENE Beneficiary e-survey / Lichfields analysis

- E1.21 The project supported businesses in accelerating product/process development, with respondents indicating improvement in Standard Product Development Process ('SPDP') levels indicating products moved closer to commercialisation.

Figure E.6 Standard Product Development Process Level Pre-intervention and Post-intervention



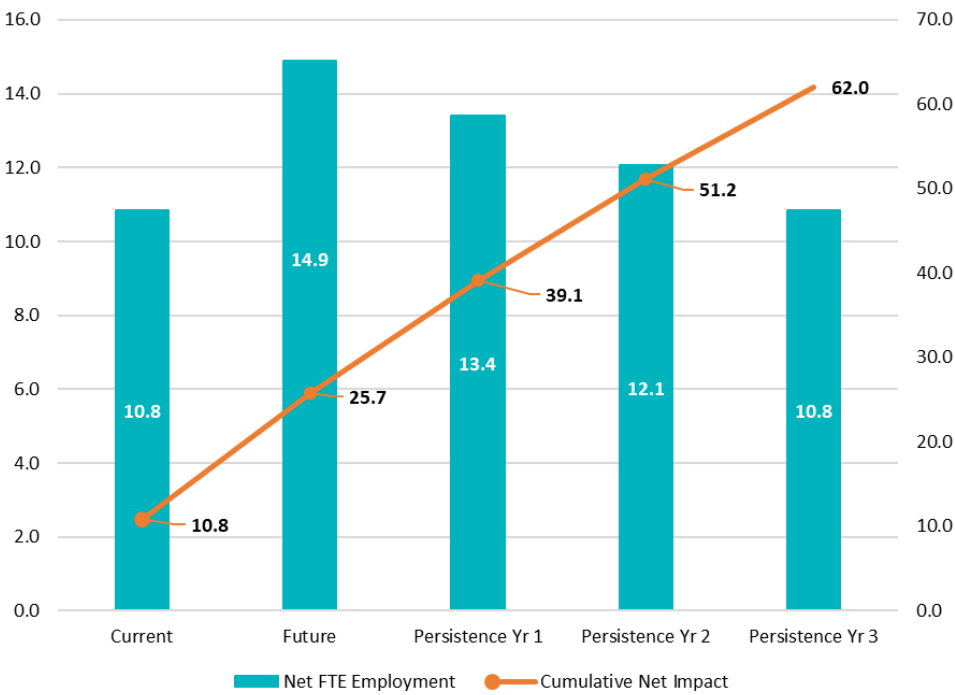
Source: SENE Beneficiary Survey / Lichfields analysis

- E1.22 The SENE project has helped SMEs reduce carbon emissions and energy costs, whilst also improving their environmental processes as well as achieving business growth, improving productivity and extending networks. Most businesses felt that in the absence of the SENE support they would not have achieved the same outcomes, or if they had done, not at the same pace or the same scale.
- E1.23 A key outcome of SENE for the project team and stakeholders has been the new and improved relationships fostered between industry partners as well as business-to-business relationships helping to build and foster new supply chain relationships. A significant number of beneficiaries suggested that they had developed or improved their relationship with UEL, delivery partner organisations or other beneficiaries receiving support through the SENE project.

## Economic Impact

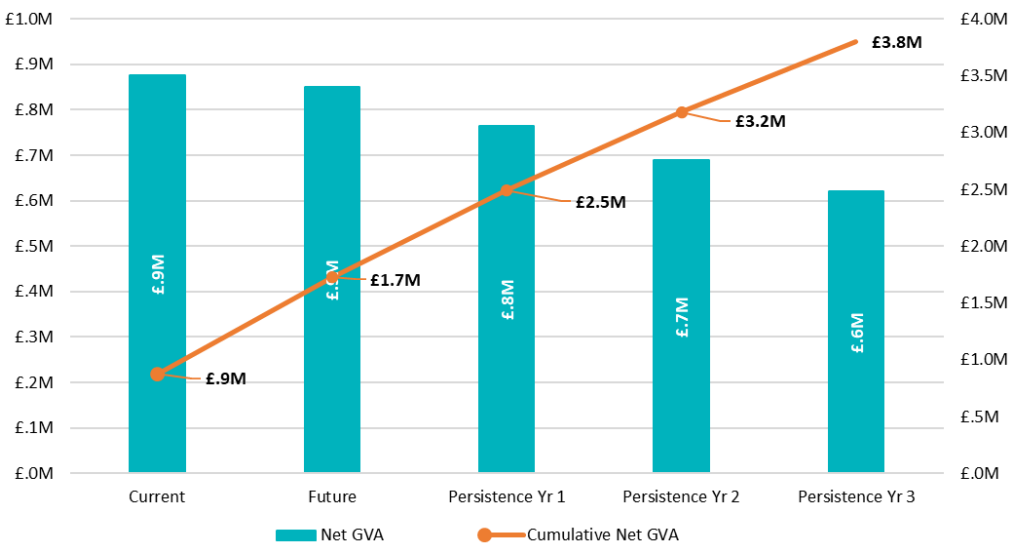
- E1.24 The economic impact assessment of the SENE project estimates that it has generated £3.8m of net additional gross value added ('GVA') benefits to the SELEP area economy and has supported 62.0 net additional full-time equivalent ('FTE') jobs. This is a significant contribution to the local economy in driving economic output and employment.

Figure E.7 Cumulative net additional employment impacts



Source: Lichfields analysis

Figure E.8 SENE Cumulative GVA Impacts



Source: Lichfields analysis

Value for Money

- E1.25

The project team has put in place a number of processes with a view to minimise the cost of resources, whilst also ensuring quality. The project team actively aimed to maximise efficiencies and reduce waste.
- E1.26

The project team feel that SENE delivers value for money as a function of the scale of delivery and the benefits of the complex collaboration model – which although difficult to achieve – has enabled the project to effectively support decarbonisation across the region. The project offers a systemic analysis of the barriers and effective interventions defined around a breadth of cross industry expertise, with effective relationships built to connect businesses with appropriate expertise to move them on in their individual journeys, and away from the threat of ‘greenwashing’ and market forces that can erode trust due to excessive commercialisation of environmental goods and services.
- E1.27

The SENE project performed well relative to national benchmarks, granting confidence in the efficiency of the programme. With a BCR of 2.14 to 1, the project represents a high VfM outcome. A total cost per net additional job of £28,600 is significantly lower than national cost per job benchmark for business support interventions.

Table E.1 SENE project Return on Investment assessments

Impact Metric	ERDF Investment	ROI
62.0 Net additional FTE jobs created	£1,773,698	£28,600 per net additional job
£3.8m Net additional GVA		£2.14 net additional GVA per £1 investment

Source: Lichfields analysis



## 1.0 Introduction

- 1.1 In March 2023, Lichfields was appointed by the University of East London ('UEL') to independently prepare a Summative Assessment of the South East New Energy ('SENE') project. The SENE project is part of the European Regional Development Fund ('ERDF') programme.

### South East New Energy Project

- 1.2 The SENE project is a £6.4 million part ERDF-funded with the aim of accelerating the transition towards a low carbon economy across the South East Local Enterprise Partnership ('SELEP') area. The project seeks to build a stronger local energy and low carbon economy by helping to remove barriers that prevent rapidly decarbonising communities, buildings, transport, and lives.

- 1.3 SENE works with businesses, local authorities, communities, organisations, households, and individuals to:

- Better understand their energy needs to reduce consumption, and reduce carbon emissions;
- Enable businesses to generate renewable energy;
- Investigate between switching vehicle fleets to low carbon alternatives;
- Develop and execute Net-Zero action plans;
- Explore approaches to building affordable zero-carbon homes;
- Retrofit existing homes;
- Develop community and commercial energy projects; and
- Design, develop and bring to market new low carbon products and services.

### Project evaluation

- 1.4 Lichfields was appointed to undertake an independent evaluation in accordance with the ERDF Summative Assessment Guidance. The purpose of this Summative Assessment is to reflect on the experience of implementing the SENE project, identify the difference the project has made to beneficiaries, relevant partners and stakeholders, and the wider South East economy, assess whether the project provided value for money, and identify lessons learned and any best practice that can be used to inform future project design and delivery.

- 1.5 The evaluation process included an early desk-based review of relevant project documentation and data was undertaken based on information shared by the Project Management Team at UEL, including:

- ERDF Funding Application;

- ERDF Claims Progress Reports;
- ERDF Quarterly Monitoring Data;
- SENE Logic Model;
- Project Change Requests; and
- Primary research and reporting undertaken throughout the project.

- 1.6 The document and data review, alongside the inception meeting, informed the development of research tools for the primary research strands of data collection.

### Beneficiary Surveys

- 1.7 In July 2023, a beneficiary survey was disseminated (i.e. via email by project partners) to all beneficiary businesses. In total, this elicited 37 responses that were of usable quality for analysis. This equated to a response rate of around 36% of beneficiaries supported by SENE.
- 1.8 Analysis of the beneficiary survey data formed part of the quantitative and qualitative evidence presented within this report, and was supplemented with consultation with the project team, key stakeholders and programme-wide data collected as part of SENE project monitoring information.

### Consultation

- 1.9 Consultations were undertaken with the core SENE management team, delivery partners, wider SENE project support staff and stakeholders actively engaged with promotion of SENE. These consultations were undertaken via Microsoft Teams to understand people's views on how the programme was run and the impacts it has had on beneficiary organisations.

### Economic Impact Assessment

- 1.10 Finally, government guidance and good practice relating to economic impacts are used to fully capture the direct, indirect, and induced employment and Gross Valued Added ('GVA') impact achieved to date and those predicted to materialise in the future as a result of the project. Drawing on this estimate and the project's overall costs, it is then possible to estimate SENE's overall value for money ('VfM') and return on investment ('RoI') of project costs.

### Reporting Structure

- 1.11 The rest of this report is structured as follows:

- **Section 2.0 Project Context** – Assesses the rationale for the SENE project, and considers the economic and policy contexts in which it was delivered. This section concludes by considering the rationale behind the project's intervention;



- **Section 3.0 Project Progress** – Assesses the lifetime progress of SENE against contractual expenditure and output targets, as well as its forecasted performance at project completion;
- **Section 4.0 Project Delivery and Management** – Explores the experience of implementing and managing SENE and lessons learned;
- **Section 5.0 Project Outcomes and Impact** – Assesses the outcomes and impacts attributable to the project for beneficiaries, the University, delivery partners, and wider stakeholders as well as its economic impact assessment;
- **Section 6.0 Project Value for Money** – Analyses the cost-effectiveness of the project against its intended and unintended outcomes and impacts; and
- **Section 7.0 Conclusion and Recommendations** – Draws together the findings of this evaluation exercise and presents policy and project design recommendations and best practice approaches for similar projects in the future.

## 2.0 Project Context

2.1 This section sets out the background of the SENE project, and outlines its intended objectives, outputs, outcomes and impacts as per the project Logic Model included in Appendix 1.

### South East New Energy Context

2.2 The SENE project is a £6.4 million, four-year project delivered by a consortium of partner organisations led by UEL, with the goal of accelerating progress towards a low carbon economy.

2.3 The SENE project contributes to ERDF Priority Axis 4: Supporting the Shift Towards a Low Carbon Economy in All Sectors. More specifically, the programme aligns with Investment Priority 4f: Promoting research and innovation in, and adoption of, low-carbon technologies.

2.4 The rationale for SENE is underpinned by existing market failures that prevent the creation of a dynamic local energy economy. These are principally missed opportunities to reduce costs and create and deliver value, resulting in the region creating fewer jobs and commercialising fewer innovations.

2.5 Through its interventions SENE seeks to build a strong local energy economy, one where:

- Regional small and medium-sized enterprises ('SME') grow and become more competitive;
- Buildings and infrastructure become more energy efficient; ·
- Innovators are more able to bring new products and services to market; ·
- Energy is increasingly generated, stored and consumed locally;
- More energy assets are locally owned;
- Local businesses trade energy with each other; and
- Low carbon sector business activity and profits are retained within the South East region.

### Original Objectives, outputs, and intended outcomes

2.6 The SENE project provides support to beneficiaries based in the South East LEP area (see Figure 2.1), to help accelerate progress towards a low carbon economy by means of support delivered through several Work Packages. The objectives of the ERDF funds were to:

- Support the development and growth of the local energy economy;
- Ensure the SELEP area benefits from local ownership of energy generation and supply;
- To support SMEs/social enterprises in the Low Carbon Environmental Goods and Services ('LCEGS') sector/supply chain to generate renewable energy;

- To support SMEs to adopt low carbon technologies;
- Support SMEs to introduce and supply LCEGS products/services to customers; and
- Support SMEs towards the development of new LCEGS technologies.

2.7 The intended projects target outputs were:

- 200 enterprises receiving support (C1);
- 15 new enterprises receiving support (C5);
- 15 enterprises supported by research institutions (C26);
- 10 enterprises supported to introduce new to the firm products (C29);
- 1 MW of additional capacity of renewable energy production (C30);
- 50 households with improved energy consumption (C31);
- 150,000kWh/year decrease in primary energy consumption (public buildings) (C32); and
- 2,200 tonne CO<sub>2</sub>e reduction in Greenhouse Gases (GHG).

2.8 The intended outcomes and impacts listed within the logic model were:

#### **Intended Outcomes**

- Increased energy generation, efficiency, and adoption of LCEGS;
- Growth in SELEP-based LCEGS innovations being developed;
- Demonstrations of retrofit products and services in 50x dwellings;
- New business models for retrofit developed;
- Increase in local energy generation; and
- Increase in local energy generation owned by communities.

#### **Intended Impacts**

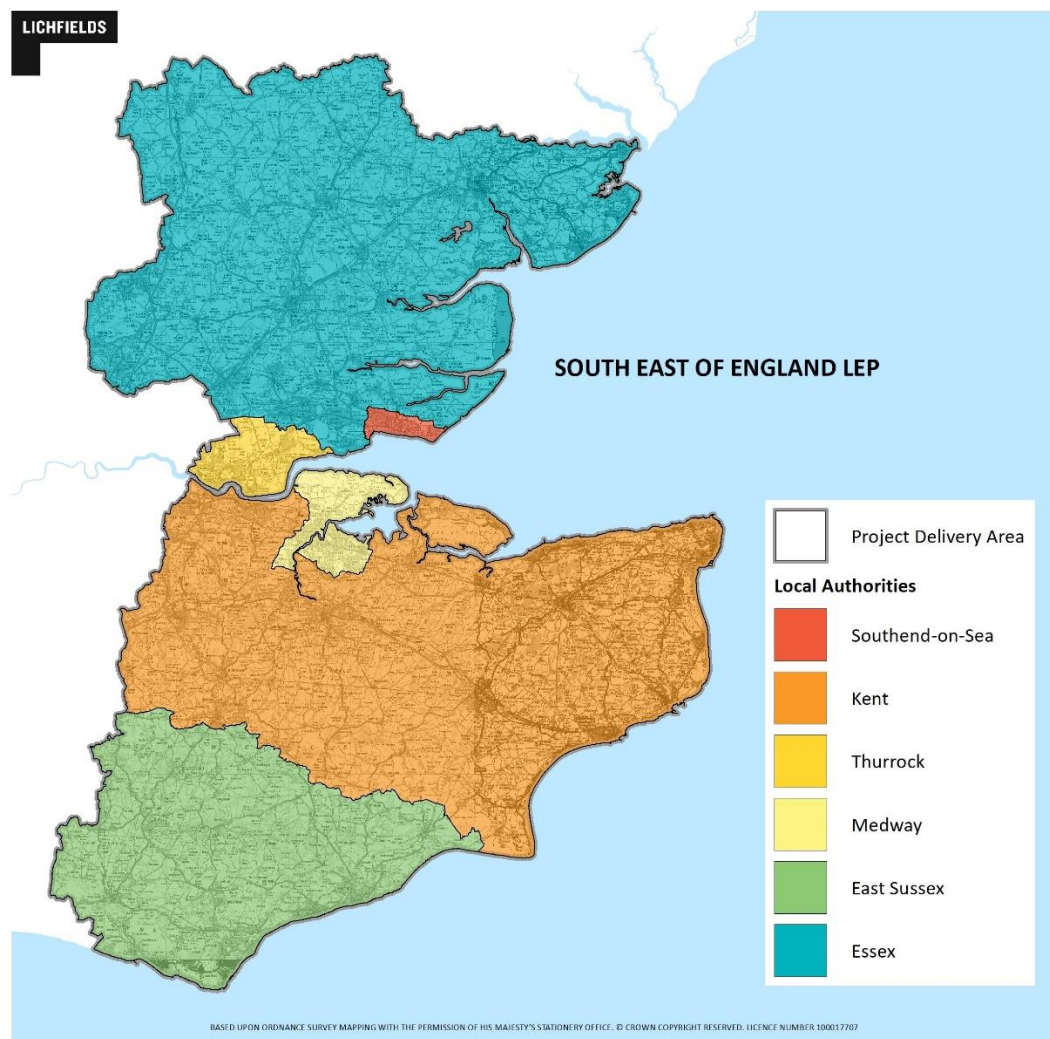
- Increase in average energy efficiency, amount of energy generated, and carbon intensity? of SMEs and the public sector within the SELEP area;
- Increase in the size of the energy sector (number of businesses and jobs) and in the associated supply chain;
- Development of LCEGS innovation culture within the SELEP area;
- Accelerate the rate of testing, demonstration, and adoption of new LCEGS across SELEP;
- Reduction in emissions from transport and normalisation of the use of low emissions vehicles in commercial fleets;
- Reduction in spending on imported energy across SELEP;
- Increased retention of profits from the energy sector in SELEP's economy;
- Reduction in green house gas ('GHG') emissions form SELEP; and

- Increase in GVA across SELEP.

## Project delivery area

- 2.9 The project delivery area covers the SELEP area, comprising the local authority areas within East Sussex, Essex, Kent, Medway, Southend-on-Sea, and Thurrock. As part of project eligibility, the majority of beneficiaries engaged must be based or starting up within these locations.

Figure 2.1 SENE Project delivery area



Source: Lichfields

## Economic Context

- 2.10 The proceeding paragraphs outline the economic context of the project's delivery area in terms of its resident population, economic activity, business demography and productivity.

In this report, data for the project delivery area (SELEP) is benchmarked against the national figures.

## Demographic Profile

- 2.11 The resident population of the SELEP in 2021 stood at 4.3 million, having grown by 6.1% over the period 2012-2021. This rate of growth is marginally lower than growth at the regional level (6.5%) over the same period, but higher than the national growth (5.2%).
- 2.12 The proportion of working age (i.e., 16-64) residents in the delivery area stood at 60.6%, which is below both the wider regional and national rates of 61.9% and 62.9% respectively.
- 2.13 The absolute size of the working age population in the SELEP area rose by 3.7%, which is below the growth in the wider region (4.6%), but larger than the growth in Great Britain (3.2%).

## Labour Market conditions

- 2.14 An analysis of data from the Office for National Statistics ('ONS') indicates that the total number of jobs in 2021 stood at 1.99 million. This represents an increase of 14.1% relative to 2011. This rate of growth is higher than that observed both regionally (10.4%) and across Great Britain (13.1%) over the same period.
- 2.15 The same dataset provides a measure of the ratio of total jobs to working age residents in a given area. The latest available data (for 2021) shows that the SELEP had a job density of 0.77, indicating that for every 100 working age residents there were 77 jobs. The current employment density across the delivery area is lower than both the regional and national averages (both 0.85).

## Unemployment

- 2.16 Data collected from the Annual Population Survey ('APS') highlights that the economic activity rate (i.e. the share of working age residents either in or seeking employment) stands at 79.8% in the SELEP area. This is marginally below the average across the wider region (80.7%), but slightly higher than the average across Great Britain (78.4%).
- 2.17 The same dataset also shows that model-based unemployment in the SELEP area (3.9%) is higher than the wider South East region (3.4%) and Great Britain (3.6%).

## Business Count

- 2.18 UK business count data shows that the number of businesses in the delivery area stood at 178,305 in 2022, representing a 27.2% increase since 2013. This rate of growth is greater than the regional average (21.4%), but marginally lower than the national average (28.0%) over the same period.

## Employment Structure

2.19 An analysis of the most recent data, provided in Table 2.1 overleaf, indicates that the employment sectors with the greatest representation (by broad industrial group) in the delivery area are:

- Health (13.9%)
- Retail (10.7%);
- Education (9.4%); and
- Business administration and support services (8.8%).

Table 2.1 Employment structure by sector

Sector	SELEP	South East	Great Britain
Health	13.9%	13.0%	13.6%
Retail	10.7%	10.1%	9.2%
Education	9.4%	9.6%	8.7%
Business administration & support services	8.8%	8.9%	8.9%
Construction	7.4%	5.6%	4.9%
Accommodation & food services	7.4%	7.3%	7.5%
Professional, scientific & technical	7.0%	9.2%	8.9%
Transport & storage	6.4%	5.1%	5.0%
Manufacturing	5.9%	5.8%	7.6%
Arts, entertainment, recreation & other services	4.1%	4.4%	4.2%
Public administration & defence	3.9%	3.3%	4.6%
Wholesale	3.6%	3.9%	3.5%
Information & communication	2.8%	5.5%	4.4%
Financial & insurance	2.5%	2.8%	3.6%
Motor trades	2.0%	1.8%	1.7%
Property	1.6%	1.7%	1.8%
Mining, quarrying & utilities	1.3%	1.5%	1.3%
Agriculture, forestry & fishing	1.0%	0.7%	0.7%

Source: Business Register and Employment Survey

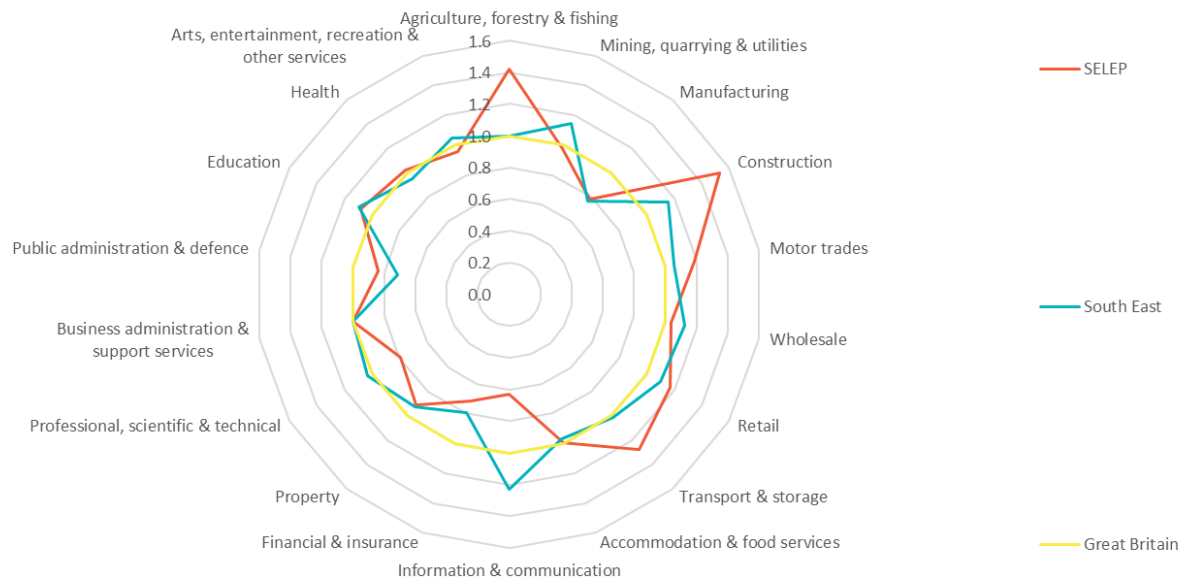
2.20 Location quotient ('LQ') analysis quantifies how prominent (as a percentage share of the overall employment base) a particular sector is in a particular area compared to the sector's representation at the national level. Figure 2.1 shows the spread of representation across all broad industrial groups, highlighting that the delivery area has a number of sectors that are over-represented compared to all comparator areas:

- Construction (1.5 LQ; 7.4% of employment);
- Agriculture, forestry & fishing (1.4 LQ; 1.0% of employment);
- Transport & storage (1.3 LQ; 6.4% of employment);
- Motor trades (1.2 LQ; 2.0% of employment);



- Retail (1.2 LQ; 10.7% of employment);
- Education (1.1 LQ; 9.4% of employment); and

Figure 2.2 Sector Location Quotients relative to National Employment



Source: BRES / Lichfields analysis

## Policy Context

### Energy White Paper: Powering Our Net Zero Future (2020)

2.21 The Energy White Paper builds upon the National Infrastructure Strategy (summarised overleaf) and the Ten Point Plan, outlining the strategy the energy system must follow to achieve net zero. This is underpinned by three overarching themes:

- Transform energy: building a cleaner, greener future for the UK economy, people and planet;
- Support a green economy: growing the UK economy, supporting thousands of green jobs across the country in new green industries and leveraging new green export opportunities; and
- Create a fair deal for consumers: protecting the fuel poor, providing opportunities to save money on bills.

2.22 The White Paper also outlines the goal for “*electricity to be a key enabler for the transition away from fossil fuels and decarbonising the economy cost effectively by 2050.*” The electrification of vehicles and increased use of electricity for heating – replacing gas – means that demand could increase significantly, however, and the use of renewable energy sources has an important role to play in supporting this.

## UK Innovation Strategy (2021)

- 2.23 The government published its UK Innovation Strategy in 2021. The government believes increasing innovation will enhance productivity across the economy, and in turn bring jobs, growth, and prosperity to all parts of the UK. The strategy focuses on how businesses can be supported to innovate by making the most of the UK's research, development, and innovation system by delivering against four key pillars:
- **Pillar 1:** Unleashing business – increased R&D; reduced complexities for innovative companies; British Business Bank's Life Sciences Investment Programme for growth-stage funding; review regulation; form a Business Innovation Forum.
  - **Pillar 2:** People – revitalise the Innovator route to attract/retain high-skilled, globally mobile innovation talent; help to grow management skills development to boost business performance.
  - **Pillar 3:** Institutions and places – independent review; Strength in Places Fund for R&D capacity and Connecting Capability Fund for university-business collaboration.
  - **Pillar 4:** Missions and technologies – New Innovation Missions programme to address significant issues; identify the key seven technology families for future growth; launch new Prosperity Partnerships for industry, university and government research and investment.
- 2.24 Through these pillars, the strategy aims to both establish the right underlying policy environment and clearly signal those areas where government will take the lead.
- 2.25 The Strategy includes the importance of commercialising the ideas from the UK's research base including universities in Pillar 1, with enhanced technology transfer and improved access to universities for investors. Pillar 3 includes significant focus on university-business collaboration. Freeports are identified as locations for innovation.

## Rationale

### Economic Market Failure Rationale

- 2.26 The rationale for public investment must be evidenced by a clear case of a market failure, whether that be relating to issues of public goods, externalities, asymmetric/imperfect information, imperfect competition and/or co-ordination problems. The ERDF programme for England was designed to meet target market failures that constrain growth.
- 2.27 The European Structural and Investment Fund ('ESIF') strategies, Strategic Economic Plans ('SEP') and growth and innovation strategy of SELEP have identified growth constraints and market failures in the region relevant to both:
- Their primary goal of creating a bigger and stronger private sector; and
  - ERDF Priority Axis 4 – supporting the shift to a low carbon economy.
- 2.28 The SENE project seeks to address the following growth constraints and market failures:
- A 'lack of information' (i.e., information asymmetry) on how to reduce energy costs and emissions and the high 'transaction costs' involved in acquiring that information;



- An ‘innovation deficit’ which is particularly true of low carbon product and service innovation as markets fail to offer sufficient incentives for the development of low-carbon technologies due to the systematic mispricing of carbon in the economy;
- A lack of access to finance, in particular for smaller energy/LCEGS projects;
- A lack of network infrastructure to support adoption of local carbon behaviours and low carbon technologies (the ‘network effects’ market failure) such as smart grids and electric/hydrogen vehicle charging points; and
- High levels of greenhouse gas emissions (the ‘greenhouse-gas negative externality’) which if not abated are projected to change the climate with severe adverse economic impacts over time.

#### **Chapter Summary:**

- The SENE project was, and remains aligned with strategic ambitions both regionally and nationally. SENE plays an important role and function in supporting the SELEP’s low carbon agenda as well as wider economic growth ambitions by supporting prosperity through innovation, commercialisation and facilitating industry-academia collaboration;
- The rationale for the SENE project was well defined at inception and the needs case for the support has only been strengthened by emerging policy, and shifting economic landscape (notably energy cost crisis and Net Zero agenda);
- The size of the delivery area, whilst large compared to other ERDF projects is deemed appropriate considering the aim of supporting regional acceleration towards a low carbon economy.

## 3.0

## Progress

## 3.1

This chapter presents performance against expenditure and output targets as set out within the ERDF funding agreement.

### Initial Contracted Expenditure

## 3.2

As detailed earlier, the original budget for the SENE project was £6.4 million, as per the ERDF grant funding agreement, comprising £3.2 million ERDF funds, £500,000 public sector match funding and £2.7 million private sector match funding (see Table 3.1 below).

Table 3.1 SENE Programme Match Funding (Original GFA)

Financial Sources	Total Amount Original GFA
ERDF Investment	£3,181,512
Public Match	£501,033
Private Match	£2,680,479
<b>Total</b>	<b>£6,363,024</b>

Source: SENE ERDF GFA

## 3.3

Table 3.2 below provides a breakdown of the capital-revenue split of the SENE project from the original grant funding application ('GFA'), broken down further to identify ERDF funding contribution, public match funding and private match funding. The capital element of the project as detailed within the initial GFA was expected to be £2.3 million, comprising £1.2 million of ERDF capital funding and £2.3 million private match funding. The revenue element of the project was initially costed at almost £2.9m, with £2m ERDF funding, £500k of public sector match funding and £400k of private sector match funding.

Table 3.2 SENE Capital-Revenue split (Original GFA)

Financial Sources	Total Amount Original GFA
ERDF Capital	£1,209,582
Public Match Capital	-
Private Match Capital	£2,278,847
<b>Total Capital</b>	<b>£3,488,429</b>
ERDF Revenue	£1,971,930
Public Match Revenue	£501,033
Private Match Revenue	£401,632
<b>Total Revenue</b>	<b>£2,874,595</b>
<b>Total</b>	<b>£6,363,024</b>

Source: SENE ERDF GFA

## Initial Output Targets

3.4 The original contractual targets of the SENE project are set out below:

Table 3.3 SENE Original ERDF Output Targets

Output Indicator	Target from Original GFA
C1 – Number of enterprises receiving support	200
C5 – Number of new enterprises supported	15
C26 – Number of enterprises cooperating with research entities	15
C29 – Number of enterprises supported to introduce new to firm products	10
C30 – Additional capacity for renewable energy production	1
C31 – Number of households with improved energy consumption	50
C32 – Decrease of annual primary energy consumption of public buildings (kWh/year)	150,000
C34 – Estimated annual decrease of GHG (tonnes)	2,200

Source: SENE Application / GFA

## Project Change Requests

3.5 Over the lifetime of the project there was one Project Change Request ('PCR') submitted by SENE, adjusting some of the originally intended programme plans. This is summarised in the following sections.

### February 2023 PCR

3.6 As a result of project contracting delays from the original submission to project launch as well as delivery challenges and partner losses/disengagement, a PCR was submitted in February 2023 to reduce and reprofile the project budget, thus reducing levels of private and public sector match funding as well as output targets and profiling.

3.7 The PCR also set out a proportional reduction in output targets reflecting partner losses and realistic capacity with the remaining partners to deliver against the outputs. As well as partner losses, UEL experienced large internal staffing changes in the latter part of 2021 which significantly impacted the pace of coordination.

3.8 Three of the original project delivery partners had either disengaged from the project or were formally removed from the partnership. UEL recommended the addition of the Peterborough Environment City Trust ('PECT') to the partnership, following successful delivery of the SME grant element of the ENE project and enabling continuation within the South East as well as offering a more effective way to deliver support to Heavy Energy Users.

3.9 The delivery partner changes are set out below:

#### Withdrawn partners:

- Energy Intelligence Centre;

- Community Energy South (Disengaged); and
- Retrofit Works (Disengaged).

**Replacement partners:**

- Peterborough Environment City Trust ('PECT');

**Changes to funding sources**

- 3.10 The PCR saw a reduction in the project value of £2.3 million, with a proportional decrease in ERDF funding, to keep an intervention rate of 50%. The reduction was deemed necessary, reflecting the loss of partners and delays in mobilisation constraining the timescales for effective delivery.
- 3.11 The reprofiled project budget and expenditure forecasts set out within the PCR were developed in close collaboration with remaining active and engaged partners to assess what would be possible given the context at that time.

Table 3.4 Changes to Project Funding (PCR February 2023)

	Current	Proposed	Change	% Change
<b>Capital</b>				
ERDF	£1,209,582.00	£763,361.12	-£446,220.88	-36.89%
Public Match				
Private Match	£2,278,847.00	£1,438,168.88	-£840,678.12	-36.89%
<b>Total Capital</b>	£3,488,429.00	£2,201,530.00	-£1,286,899.00	-36.89%
<b>Revenue</b>				
ERDF	£1,971,930.00	£1,244,475.11	-£727,454.89	-36.89%
Public Match	£501,033.00	£335,161.52	-£165,871.48	-33.11%
Private Match	£401,632.00	£234,505.82	-£167,126.18	-41.61%
<b>Total Revenue</b>	£2,874,595.00	£1,814,142.45	-£1,060,452.55	-36.89%
<b>Total ERDF</b>	£3,181,512.00	£2,007,836.22	-£1,173,675.78	-36.89%
<b>Total Match</b>	£3,181,512.00	£2,007,836.22	-£1,173,675.78	-36.89%
<b>Total Project Value</b>	£6,363,024.00	£4,015,672.45	-£2,347,351.55	-36.89%

Source: SENE PCR (February 2023)

**Changes to expenditure**

Table 3.5 below highlights the changes to the project expenditure brought about by the first PCR.

Table 3.5 Changes to expenditure (PCR February 2023)

	Current	Proposed	Change	% Change
<b>Capital</b>				
Land Acquisition	£0.00	£0.00	£0.00	-
Building Acquisition	£0.00	£0.00	£0.00	-
Building and Construction	£917,000.00	£990,000.00	£73,000.00	7.96%

	Current	Proposed	Change	% Change
Plant and Machinery	£2,571,429.00	£1,210,000.00	-£1,361,429.00	-52.94%
Equipment	£0.00	£0.00	£0.00	-
Fees	£0.00	£0.00	£0.00	-
Other Capital	£0.00	£1,530.00	£1,530.00	100.00%
<b>Revenue</b>				
Consultancy	£301,379.00	£283,437.50	-£17,941.50	-5.95%
Marketing	£65,506.00	£9,350.00	-£56,156.00	-85.73%
Office Costs	£26,328.00	£202.00	-£26,126.00	-99.23%
Other Revenue	£133,742.00	£10,248.05	-£123,493.95	-92.34%
Flat Rate Indirect Costs	£296,666.00	£191,830.01	-£104,835.99	-35.34%
Professional Fees	£73,200.00	£40,208.14	-£32,991.86	-45.07%
Rent	£0.00	£0.00	£0.00	-
Salaries	£1,977,774.00	£1,278,866.75	-£698,907.25	-35.34%

Source: SENE PCR (February 2023)

### Changes to output profiles

- 3.12 As a result of the partner losses and the overall impacts caused by delays to delivery and lasting effects of Covid-19 on businesses, the PCR requested a reduction and reprofiling of output targets. It was felt that the reduction represented a proportional reduction to the overall decommitment of the budget.
- 3.13 The PCR highlights the challenges faced in delivering particular output targets. C5 and C29 outputs were noted as being particularly challenging to deliver given the broader economic climate, with many businesses in 'survival mode' as they continue to struggle with the fallout of pandemic and post-Brexit trading conditions.
- 3.14 Similarly, challenges were faced in C26 delivery, notably relating to difficulties in keeping businesses engaged with lengthy in-depth research collaborations as they navigate a challenging business landscape.
- 3.15 Table 3.6 sets out the changes to the output profile as per the initial PCR.

Table 3.6 SENE Changes to Output profile (PCR February 2023)

	2020	2021	2022	2023	Total
Contracted – C1	0	48	94	58	<b>200</b>
Proposed – C1	0	0	19	111	<b>130</b>
Contracted – C5	0	4	6	5	<b>15</b>
Proposed – C5	0	0	3	5	<b>8</b>
Contracted – C26	0	3	7	5	<b>15</b>
Proposed – C26	0	0	3	7	<b>10</b>
Contracted – C29	0	3	5	2	<b>10</b>
Proposed – C29	0	0	5	4	<b>9</b>
Contracted – C30	0	0	0	1	<b>1</b>
Proposed – C30	0	0	0	1	<b>1</b>

	2020	2021	2022	2023	Total
Contracted – C31	0	0	0	50	<b>50</b>
Proposed – C31	0	0	0	35	<b>50</b>
Contracted – C32	0	0	0	150,000	<b>150,000</b>
Proposed – C32	0	0	0	150,000	<b>150,000</b>
Contracted – C34	0	0	0	2,200	<b>2,200</b>
Proposed – C34	0	0	500	1,700	<b>2,200</b>

Source: SENE PCR (February 2023)

## Outputs and Results

3.16 Table 3.10 below demonstrates progress against contracted ERDF targets, as at Q2 2023 (latest available claims data), reflecting the final contracted target. The forecasted expenditure and output profile is also shown.

Table 3.7 Achievement against Expenditure and Output Targets

Indicator	Targets		Achieved at time of Evaluation (Q2 2023)		Forecasted Performance	
	Original	Adjusted	Number	% of target	Number	% of target
Capital expenditure £m	£3,488,829	£2,201,530	£660,555	30%	£1,885,099	86%
Revenue expenditure £m	£2,874,595	£1,814,142	£1,374,544	76%	£1,663,297	92%
ERDF Expenditure	£3,181,512	£2,007,836	£1,017,550	51%	£1,773,698	88%
C1 – Number of enterprises receiving support	200	130	94	72%	118	91%
C5 – Number of new enterprises supported	15	8	10	125%	10	125%
C26 - Number of enterprises cooperating with research entities	15	10	12	120%	14	140%
C29 – Number of enterprises supported to introduce new to firm products	10	9	10	111%	10	111%
C30 – Additional capacity for renewable energy production (MW)	1.0	1.0	0.155	16%	0.93	93%
C31 – Number of households with improved energy consumption	50	50	-	-	48	96%

Indicator	Targets		Achieved at time of Evaluation (Q2 2023)		Forecasted Performance	
C32 – Decrease of annual primary energy consumption of public buildings (kWh/year)	150,000	150,000	-	0%	183,894	122%
C34 – Estimated GHG reductions (tonnes CO <sub>2</sub> )	2,200	2,200	74.77	3%	811.83	37%

Source: SENE Claims Data

Note: Output/expenditure performance within a tolerance of 15% is accepted

- 3.17 This demonstrates that the SENE project has made significant progress against a number of output and financial expenditure contractual targets, particularly given the context of the project delivery timescales being condensed due to delays in mobilisation, as well as the impact of partner dropouts.
- 3.18 Consultation with the project team highlighted that despite the issues faced in delivery throughout the early stages, the processes, and systems under which the project relies on for efficient delivery have been refined and streamlined to improve delivery and converting outputs. It is anticipated that the final claim (Q3 2023) will draw the project to a close with the majority of output indicators either exceeding targets or within an acceptable level of tolerance, with the exception of C34 output targets.

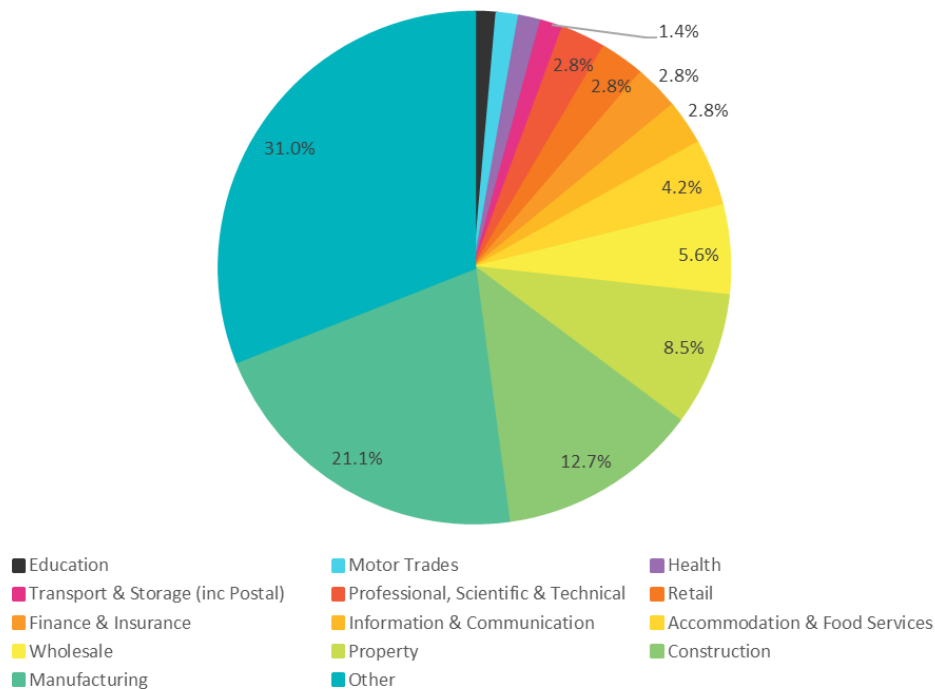
## Beneficiary Profile

- 3.19 SENE monitoring data on beneficiary sign-up allows analysis to be undertaken to explore the profile of beneficiaries supported by the project, in terms of sector representation, business size and geographical location.

## Business Sector

- 3.20 Analysis of beneficiary response data shows that SENE engaged with businesses from across a wide range of sectors. Manufacturing, construction, and property sector beneficiaries were well represented, accounting for 42.3% of beneficiaries. Consultation with the project team flagged that delivering support across a broad sector base, whilst challenging, offered a more authentic approach to decarbonisation. The team noted that whilst restricting support to specific sectors would have been easier to deliver, the LEP-wide cross-sector approach adopted offers genuine advantages in responding to real world sectoral interfaces.

Figure 3.1 Beneficiary Profile – Sector representation



Source: SENE Monitoring Data

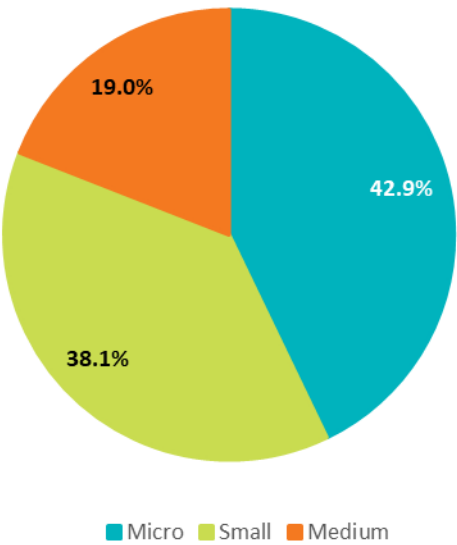
## Business Size

3.21

The SENE project engaged with businesses of varying size, both in terms of number of employees and turnover. Businesses engaged, ranged from sole traders through to organisations employing more than 200 members of staff. With respect to turnover, beneficiaries included start-ups with no registered turnover up to businesses with turnover of over £40 million. Figure 3.2 below demonstrates that the greatest proportion (42.9%) of businesses support were micro (<10 employees), over a third (38.1%) are considered a small business (<50 employees) and 19.0% were medium (<250 employees).



Figure 3.2 Breakdown of businesses by size

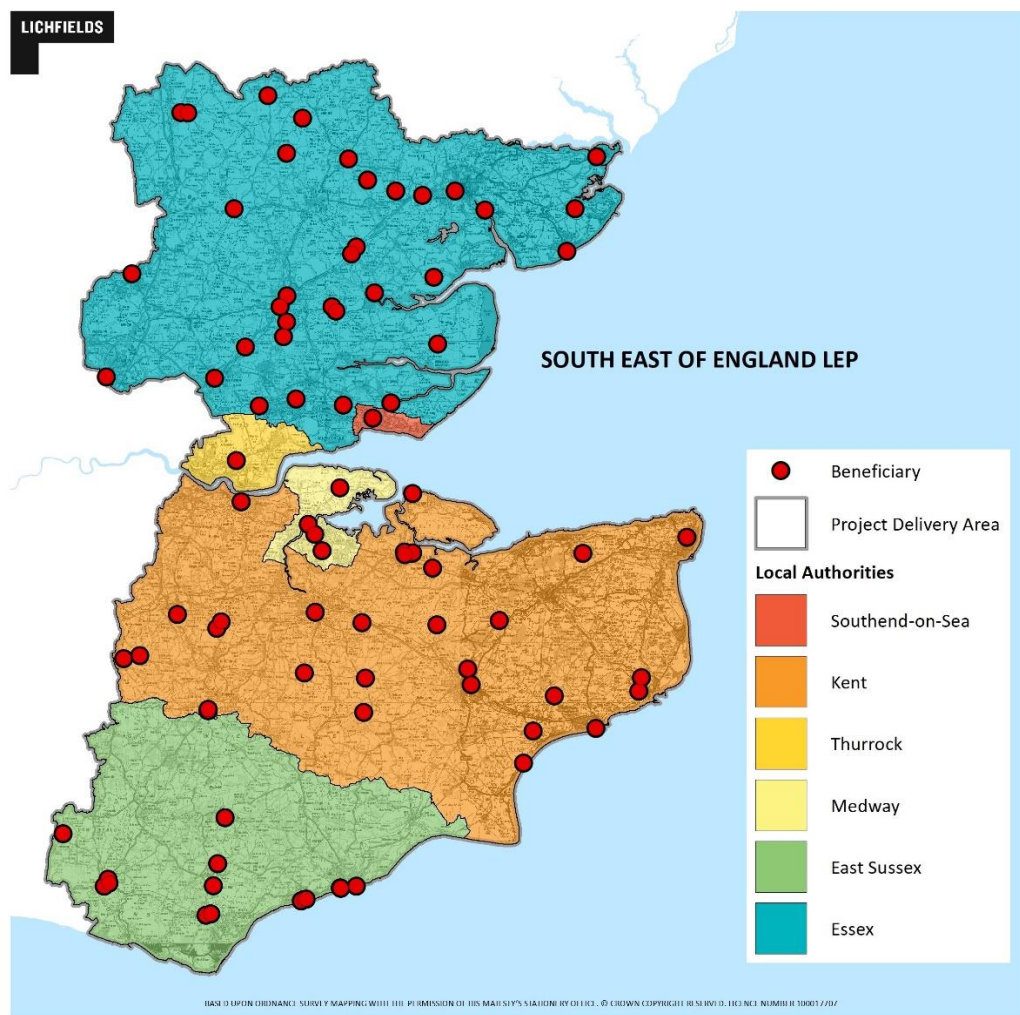


Source: SENE Beneficiary survey / Lichfields analysis

**Geographical Profile**

3.22 SENE support was available for businesses across the SELEP area. Figure 3.3 shows the distribution of beneficiaries based on analysis of monitoring data.

Figure 3.3 Distribution of SENE beneficiaries and proportion based within each LA area



Source: Lichfields

### Chapter Summary:

- The challenges faced throughout the delivery of the SENE project cannot be understated, delivering in the immediate aftermath of the Covid-19 pandemic and wider macroeconomic factors presented challenges to the way in which businesses operated and the strategic priorities which led to initial delays in engagement. Despite this, the SENE project was able to adapt and responded well to these challenges. The expertise of the partnership team and the experience of delivering similar projects helped to successfully navigate the project despite condensed timescales for delivery;
- Despite the early challenges faced, SENE has made good progress against contracted output targets and is expected to exceed against a number of output indicators. Whilst the project is anticipated to fall short of some output targets, these are expected to fall within the 15% tolerance accepted for ERDF projects;

- The reduced expenditure and output targets and delivery extension raised through the PCR were well justified and has ensured that the project has been able to perform against reprofiled targets brought about through the early challenges;
- The SENE project engaged with a diverse range of beneficiary businesses both in terms of sector representation and business size. The project also had good geographical representation from across the constituent local authority areas within the SELEP area.

## 4.0 Delivery and Management

4.1 This section assesses the approach to delivery and management of the SENE project, focusing on:

- Project Delivery Model and resourcing;
- Governance and Management (including data and information monitoring);
- Programme Delivery (including challenges and best practice); and
- Contributions to ERDF Cross-cutting themes.

### Delivery Model

4.2 The delivery model for the SENE project is based on bespoke Work Packages, delivered by individual project delivery partners, each of whom are responsible for managing their own delivery, including recruiting of beneficiaries, and managing claims processes. Overall project management and oversight was the responsibility of UEL.

### Work Packages

4.3 The SENE Project has five work packages, a summary of the activity for each is set out below.

#### Work Package 1 – Programme Management and Marketing

4.4 The UEL is the accountable body for the project and provides programme management oversight and responsibility for governance, financial management, compliance, and project marketing.

#### Work Package 2 – Non-domestic energy programme and heavy energy users

4.5 Work Package 2 ('WP2') focuses on proactively working with beneficiaries to support them to improve their energy performance by identifying opportunities for energy generation, efficiency and storage via green diagnostics, energy audits and site surveys. Within WP2, there are a number of sub-strands of:

- **WP2.1 – Facility Energy Assessment (Heavy and Medium Energy Users)** – Identifying opportunities for energy generation, efficiency, and storage via a programme of green diagnostics, energy audits and site surveys, helping to secure project finance and assisting with procurement of LECGS within the local supply chain
- **WP2.2 – Facility Energy Assessment (Public Buildings)** – Identifying opportunities for energy generation, efficiency, and storage via a programme of green diagnostics, energy audits and site surveys, helping to secure project finance and assisting with procurement of LECGS within the local supply chain.
- **WP2.3 – LCEGS Development (Heavy and Medium Energy Users)** – Coordination of supply chain development activity in the SELEP, identifying

opportunities for the deployment of LCEGS products and services and supporting beneficiaries to procure from the local supply chain.

### Work Package 3 – Collaboration for Innovation

- 4.6 Work Package 3 focuses on facilitating innovation to develop and commercialise products through knowledge transfer activity between UEL and SMEs.

### Work Package 4 – Smart Citizens in Smart Communities

- 4.7 Work Package 4 provides support to beneficiaries in utilising data analytics to identify suitable energy projects as well as introduce digital tools and technologies to the LCEGS supply chain.

### Work Package 5 – Low and Zero Carbon Affordable Housing

- 4.8 Work Package 5 focuses on supporting beneficiaries within the retrofit supply chain to identify retrofit packages comprising newer technologies and approaches to reducing energy use in housing and commercial facilities.

### Project Resourcing

- 4.9 The project is resourced by a dedicated management and delivery team, as well as a core group of project delivery partners. A summary of resourcing by work package, as per the latest project operating structure, is set out below:

#### Work Package 1: Programme Management and Marketing

- UEL

#### Work Package 2: Non-domestic energy programme and heavy energy users

##### *WP2.1 – Facility energy assessment (heavy and medium energy users)*

- PECT;
- Energy Intelligence Centre; and
- Energeo.

##### *WP2.2 – LCEGS Supply Chain Development (Embedded within 2.1 following PCR)*

- Energy Intelligence Centre; and
- Energeo.

##### *WP2.3 – LCEGS Supply Chain Development (Embedded within 2.1 following PCR)*

- Community Works; and
- Retrofit Works.

#### Work Package 3: Innovation support programme for SMEs in the low carbon sector

- UEL; and

- Anglia Ruskin University ('ARU').

#### **Work Package 4: Low Carbon Affordable Housing (New build and retrofit)**

- Retrofit works;
- Hyde Housing; and
- Community Works.

#### **Work Package 5: Local and Community Energy Innovation Cluster**

- Community Works;
- Energeo; and
- Essex County Council.

## **Governance and management**

### **Leadership and Culture**

- 4.10 SENE is a complex multi-strand programme that utilises the expertise and resourcing of multiple organisations. The leadership team have worked hard throughout delivery to build a strong network which, despite the initial setback in the delivery period due to personnel and staffing changes, has been well managed. At a work package level, partners have a good sense of the shared vision for delivery and activity of their counterparts.
- 4.11 Consultation with the project team identified that the delivery of the SENE project, whilst not without its own challenges, was smoother than that of the ENE sister project. The experiences and the lessons learned throughout ENE delivery were successfully implemented into the delivery of SENE.
- 4.12 There was a strong sense of partnership and good relationships between partner organisations were fostered, with many having existing relationships of working with each other. The project also benefited from the experience of partner organisations in delivering ERDF projects and as such there was an appreciation of the requirements and nuances associated with the fund, particularly the monitoring and reporting processes.
- 4.13 It was felt that Intra-Work Package relationships between partner organisations were particularly strong, with clear and shared goals. Whilst some partner organisations did not have a full appreciation of the wider delivery, regular partner team meetings were scheduled to reflect upon delivery and share learning, which helped to provide and update on the progress of the project and promote a shared vision.

### **Structures and Process**

- 4.14 The project team has developed a series of processes that are deemed fit for purpose. The project faced early issues with implementing effective processes however, these were developed and streamlined as the project progressed. They were also improved through the additional capacity brought about by the ERDF compliance officer role.



- 4.15 Beneficiaries were asked to identify the extent to which they agreed that the project was well managed, and administration was straightforward. The vast majority (90.0%) stated that the project was well managed, with 79.3% indicating that the project administration was straightforward.
- 4.16 There were some individual comments surrounding the processes adopted, which varied based on which Work Package was considered. However, beneficiary respondents generally felt that the project team were supportive through the administrative process which helped to reduce burden.

*'SENE communicated the application process in full and in a supportive way. There was certainly a sense that they were there to help and support our business.'* – **SENE Beneficiary**

*'Everything went well from initial enquiry, application approval, grant claim procedure and final payment of grant.'* – **SENE Beneficiary**

*'Good Communication from SENE.'* – **SENE Beneficiary**

*'Understandably there was a need to ensure the project was bonafide, so quite a lot of paperwork (some of which was totally unintelligible), but I was assisted with the completion of it so made it fairly straightforward.'* – **SENE Beneficiary**

*'The Team at SENE were very helpful. Everything was explained well, if it was unclear someone always got back to you quickly with an explanation or example to help. The team were all very friendly and all appeared to be very aware of our project.'* – **SENE Beneficiary**

- 4.17 Criticisms associated with project processes were largely surrounding the administrative requirements and burden associated with the project. Several beneficiaries suggested that there was an excessive amount of paperwork required and that the need to produce paper copies/wet signatures was particularly inconvenient and contradictory to the nature of the project focusing on promoting good environmental practices.

*'It went well but there seemed to be a lot of paperwork and excessive amount of sheets of evidence to be wet signed.'* – **SENE Beneficiary**

*'Avoid the need for wet signatures. For an environmental project, it was staggering to see the need to print and then post paperwork.'* – **SENE Beneficiary**

*'The request to send paper copies of everything by post was very inconvenient and time consuming.'* – **SENE Beneficiary**

## Monitoring and reporting

- 4.18 As with all ERDF-funded programmes, the management team is required to follow prescribed monitoring and reporting processes, which entails detailed paperwork and administrative tasks. The delivery team agreed that the monitoring and reporting processes improved throughout the project delivery. This was in part as a result of the streamlining of systems which was implemented within the ENE project to maximise efficiency. The project also benefited from the recruitment of a dedicated compliance and monitoring resource,

which helped the programme to move toward meeting its targets compared to the early challenges in output profiling.

4.19 The dedicated project management team at UEL had oversight of the project monitoring and reporting which were supplied by individual partners. The SENE project benefitted from a highly experienced partnership team with experience of delivering and managing ERDF projects,

4.20 It was recognised that some partners were better than others at keeping pace with the administrative responsibilities. However, as the processes improved this was much more efficient.

## Recruiting beneficiaries

4.21 Consultation with the project team identified that the SENE partnership effectively utilised local networks to generate leads. Individual partner organisations promoted SENE through their own websites and social media pages which helped to increase the audience and engagement. SENE project partners were highly experienced in delivering ERDF-funded projects and as such were able to draw upon an extensive network of beneficiaries.

4.22 The project was also marketed through and at events and conferences. Consultation with the project team also identified that other support being delivered within the region was a good source of lead generation.

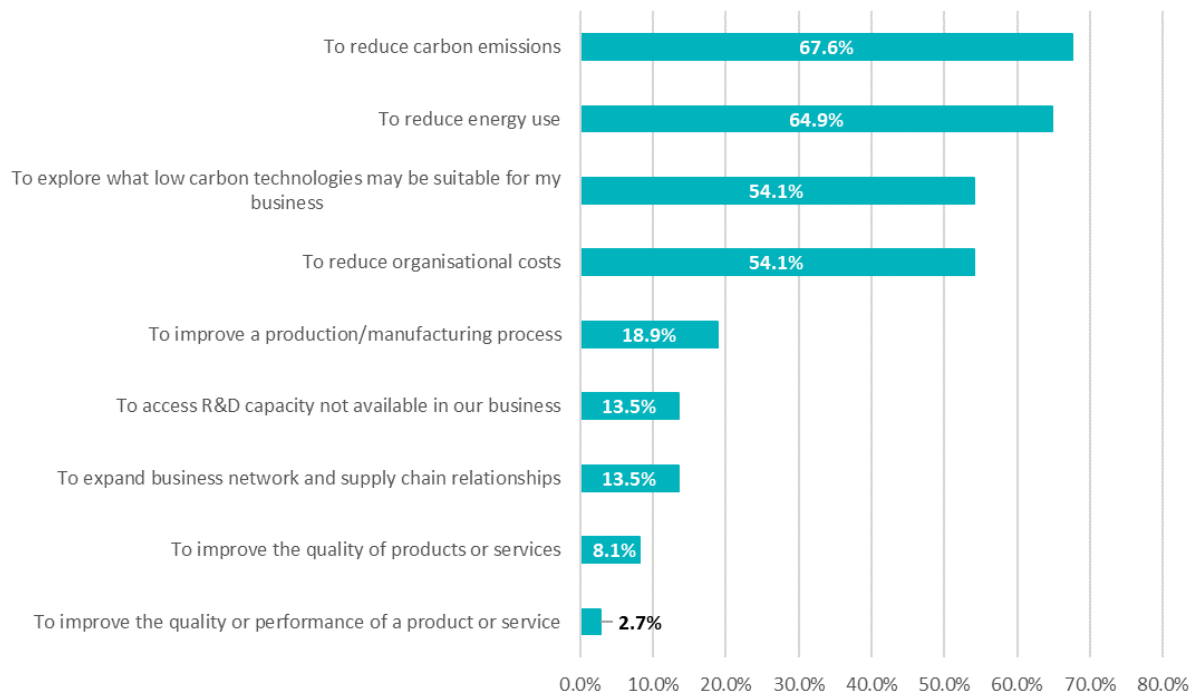
4.23 The project works closely with key stakeholders to signpost support to potential beneficiaries. Stakeholders felt that they had good working relationships with the SENE delivery teams, and that the project was well aligned to wider strategic ambitions of their organisations. Stakeholders recognise the important role that SENE plays within the region for supporting shared low carbon aims.

## Beneficiary motivations for accessing SENE support

4.24 Figure 4.1 summarises beneficiaries' motivations for engaging with SENE support and what they were originally hoping to get out of the project. The most common motivations were centred around reducing energy usage, and organisational costs and exploring what low carbon technologies may be suitable for adoption.



Figure 4.1 Beneficiary reasons for participation



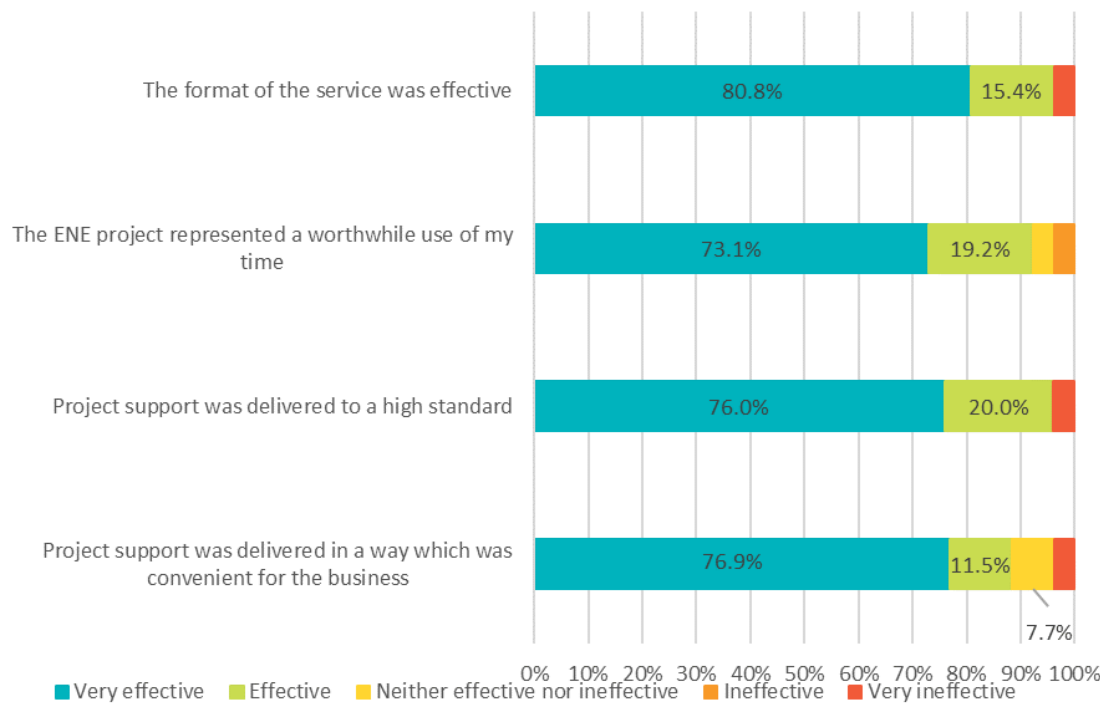
Source: SENE Beneficiary survey

## Beneficiary feedback

### Effectiveness of SENE support

4.25 The vast majority of beneficiaries surveyed felt that the format of the SENE project delivery was effective (96.2%) and was delivered to a high standard (96%). Similarly, beneficiaries overwhelmingly agreed that the project support was delivered in a way that was convenient for their business, a view expressed by 88.4% of respondents. Ultimately, the majority (92.3%) of beneficiaries indicated that taking part in the SENE project represented a worthwhile use of their time.

Figure 4.2 Beneficiary Feedback on SENE delivery

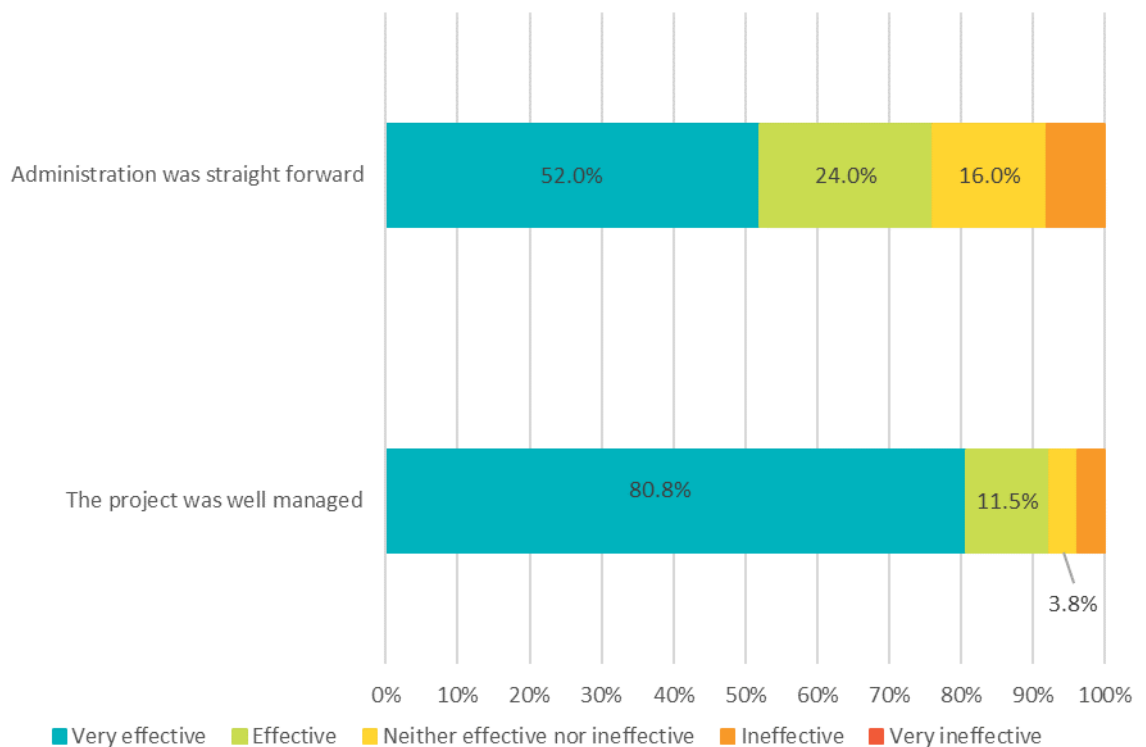


Source: SENE Beneficiary Survey

Project administration and support

4.26 Beneficiaries overwhelmingly felt that the project was well managed, with 92.3% either stating that management was either very effective or effective. Similarly, 76% of beneficiaries surveyed indicated that project administration was straightforward.

Figure 4.3 Beneficiary feedback on SENE administration and project management



Source: SENE Beneficiary Survey

### Comparison with alternative support

4.27

Respondent beneficiaries were asked to identify whether they had previously accessed any other business support, with around a quarter (23.9%) indicating that they had previously received support from other support programmes. Feedback from those beneficiaries that had previously accessed alternative support suggested that the SENE offer was an improvement, citing supportive project team and clear communications in guiding them through the process.

*'Found SENE very supportive and helpful in guiding through the process.'* – **SENE Beneficiary**

*'Very well, Antony Gough [at PECT] and his team were very supportive and clear in their communications.'* – **SENE Beneficiary**

*'SENE was easier than many other support schemes.'* – **SENE Beneficiary**

*'Both are about decarbonisation and saving money for householders and businesses. We were helped by a Groundwork project which involved climate champions speaking to villagers (unsolicited, however), providing information and advice. Householders to make decisions on how to proceed with decarbonisation methods in own home.'* – **SENE Beneficiary**

## Challenges

### Mobilisation and Timescale Challenges

4.28 A key early challenge faced by the SENE project were the delays in initial mobilisation. this was primarily due to the issues in setting up the Service Level Agreements ('SLA') as well as dropout of key personnel at the outset. Whilst the ENE and SENE projects were initially applied for at the same time, there was a lag in delivery of SENE to delays in the approval of funding.

4.29 Consultation with the project management team and delivery partners identified that the delivery did not get fully underway until the ENE project began to 'tail off'. Whilst this presented challenges in timescales, there were some benefits as the lessons learned through the experience of delivering ENE meant that some of the issues faced in that project were avoided.

*'Only the timing - completing the work by the end of the grant availability deadline.'* – **SENE Beneficiary**

*'Time! Applying for the grant took a great deal of time, which for a small and busy business makes things quite difficult, and there were times when I almost gave up to focus on more pressing situations as they arose. There must be an easier way - I've tried and given up with numerous grants or similar support scheme over the years.'* – **SENE Beneficiary**

4.30 Wider macroeconomic influences arising from Brexit and the invasion of Ukraine also presented challenges to the project, particularly bottlenecks within the supply chain, in particular, the provision of solar photo voltaic cells, which prevented a number of businesses from becoming beneficiaries.

### Resourcing Challenges

4.31 Another challenge faced by the project was resourcing, primarily due to the loss of key senior personnel during the early stages of the project and project partners moving onto other roles. This presented continuity challenges as processes set up by former members of staff were at times difficult to follow. However, the project team successfully adapted and navigated this, and the experience and lessons learned through the experience of the ENE project aided this, as systems had been refined and streamlined.

4.32 Whilst there were some partner dropouts during project, which presented challenges to the delivery, the engaged partners were highly experienced and worked hard to achieve outcomes. It was also agreed that there was a collaborative effort between project partners to signpost beneficiaries to suitable Work Package support to increase engagement.

### Business Capacity Challenges within Small Businesses

4.33 Consultation with delivery partners identified that whilst there was a high level of enthusiasm from beneficiaries for the support, some of the businesses engaged often struggled with capacity issues (primarily due to their size) which made it difficult to spend

time on projects and move at the pace required, leading to delays which ultimately impacted upon output claims. Given the timescale constraints as a result of the delays to project mobilisation this presented challenges, particularly for time sensitive Work Packages, notably WP2 due to the renewables supply chain and approval constraints.

## Contribution to ERDF cross-cutting themes

### Environmental Sustainability

- 4.34 Environmental sustainability is a core theme throughout the delivery and operations of SENE, given the nature of the project objectives towards low carbon and green innovation. The project leads by example, implementing environmentally sustainable processes as much as possible.
- 4.35 Sustainability is at the core of the work of the Sustainability Research Institute ('SRI') across its three ERDF programmes which includes SENE, the Eastern New Energy ('ENE') and Advancing Resource Efficiency and Urban Ecology Innovations ('ARENA') projects. In addition to the work of SENE this includes zero carbon planning, climate emergency planning, building sustainable communities, delivering energy efficient buildings and zero carbon affordable homes, and supporting the switch to low emissions transport modes.
- 4.36 The SRI work in sustainable development through ERDF projects and other EU and UK funded projects as well as research collaborations and consultancy through strong relationships with various stakeholders.
- 4.37 UEL is committed to be net zero by 2030. The commitment sets out the University's ambitions to reducing emissions through increased renewable energy use and production underpinned by a three-point net zero plan, set out below:

#### Phase 1: Reduce:

This is the first major step towards the reduction of energy consumption on campus through the installation of LED lighting in all buildings and upgrades to all building management system controllers. This will reduce our carbon emissions by 10%.

#### Phase 2: Produce

We will focus on bringing in technology that will directly decarbonise a large portion of UEL's energy consumption through the installation of solar photovoltaics ('PV'), heat pumps and the installation of electric vehicle ('EV') charging.

The introduction of approximately 2MW of solar PV, which will provide over 1.2 Gigawatt hour ('GWh') of zero carbon, zero cost electricity every year. 90% of this energy will be consumed across our campuses, with the remainder stored or exported to the national grid.

#### Phase 3: Living Lab

The Living Lab will be for teaching and will use the built environment to provide real-life, real-time data, for example, using the data from one of our buildings to calculate energy flow as part of a civil engineering project.

It will also be for research, incorporating a scalable data management platform, allowing researchers to collect and integrate multiple types of data, including small data, campus data and external data. All this data will be stored on the Mindsphere platform, which will be the property of UEL and accessible to any of its researchers or partners anywhere in the world.

The data will provide an evidence base so that the University can make informed decisions about new technology, maximising operational efficiency, minimising cost and laying the path to net zero carbon by 2030.

4.38 UEL's 'using our resources responsibly' pledge also sets out the University's commitment relating to resource usage, which include:

- 'We will minimise our air pollution from use of energy, vehicles, and refrigerants';
- 'We will reduce our water consumption and minimise our water pollution';
- 'We will reduce our consumption of goods and services and the waste we produce';
- 'We will enhance biodiversity and green spaces on campus'; and
- 'We will embed sustainability into all our procurement processes'.

## Equality and Diversity

4.39 The project operates with consideration to equal opportunities. The University has a wide range of infrastructure, policies, and action plans in place, supporting day-to-day work practice. The University has Athena SWAN Bronze status achieved in reflecting efforts in gender equality and Race Equality Charter ('REC') bronze award, one of only fourteen universities to be awarded this. The project is underpinned by the University's Equality and Diversity Policy.

4.40 In October 2019, UEL established the Office for Institutional Equity to further solidify efforts in equality, diversity and inclusion ('ED&I') and the team are signed up to the Disability Confident Employers programme.

4.41 As an Equal Opportunities Employer, UEL provide a workplace free of discrimination, staff are treated with respect, and success is based on merit. UEL monitor the diversity profile of applicants and employees and regularly review processes to ensure they do not disadvantage any person or group. The SENE recruitment procedures were reviewed regularly in line with our Equality and Diversity Policy.

4.42 Efforts were made throughout the project to ensure that the programme remained open and accessible to all though targeted marketing and appropriate gender and ethnicity balance in the delivery team. Processes are in place to capture information relating to equal opportunities through various project paperwork which is aggregated within the project Customer Relationship Management ('CRM') system for reporting purposes.

### Chapter Summary:

- The project faced initial setbacks as the commencement suffered significant delays which were primarily linked to key personnel dropouts and delays in contracting setup;

- Whilst the project faced some instances of partner dropout throughout delivery which led to some disruption and continuity challenges. The remaining partners were deemed to be positively engaged and experienced and as such were able to accelerate delivery and make significant progress against output and expenditure targets;
- Partners expressed that they had positive working relationships, particularly with other organisations delivering the same Work Package strand. There were governance structures in place that facilitated shared learning and allowed partner organisations to share progress;
- The project benefited from the lessons learned through the ENE project delivery, implementing effective processes, that were developed and streamlined over the ENE project time. The additional ERDF compliance officer resource was cited as being crucial in helping the SENE project, with partner organisations commenting that this role enabled them to focus more on actual delivery;
- Beneficiaries felt that the project team were helpful in supporting with applications and the administrative requirements expected of them. Almost all (92.3%) of beneficiaries surveyed indicated that the project was well managed and 76.0% indicated that project administration was straightforward;
- Monitoring and reporting processes were well established and the introduction of dedicated compliance and monitoring resource helped to maximise efficiency, allowing the partner organisations to focus on project delivery;
- Whilst the project struggled with traction in the early stages, marketing and recruitment processes became established over the project lifetime. SENE partners signposted the project to potential beneficiaries through a variety of approaches to extend the project reach and maximise the audience for engagement;
- Beneficiary feedback on SENE delivery was overwhelmingly positive, with 96% indicating that the project was delivered to a high standard. The format of delivery was also regarded as being effective, a view shared by 96.2% of beneficiaries;
- The majority (88.4%) of beneficiaries indicated that SENE support was delivered in a way which was convenient for their business. Similarly, 92.3% of beneficiaries indicated that taking part in the project represented a worthwhile use of their time;
- Existing processes and policy systems in place at UEL ensured that the project operated effectively within the consideration of ERDF cross-cutting themes. The project led by example in terms of environmental sustainability, implementing environmentally sustainable practices and processes such as waste reduction and efficient energy usage. The University-wide Equality and Diversity Policy was accorded to throughout the delivery of the project;



## 5.0

## Outcomes and Impact

## 5.1

This chapter considers the outcomes and impact of SENE, and covers:

- The impact upon beneficiaries and programme team, as gleaned from the beneficiary e-surveys and consultations;
- The potential wider impacts;
- The potential for outcomes to have occurred without the programme (counterfactual);
- The strategic added value of the SENE project.

### Outcomes and impacts for beneficiaries

#### Improved Environmental Performance

## 5.2

SENE has successfully supported beneficiaries to reduce their carbon emissions, which in turn has contributed to reduced energy costs at a time when many businesses have faced significant rises in their energy costs. The SENE project support has enabled businesses to monitor their energy consumption and develop plans and introduce new technology and processes to reduce energy output.

## 5.3

The vast majority of beneficiaries highlighted that SENE had been very effective or effective in helping to reduce carbon emissions, reduce energy costs and improve environmental processes.

*'The project enabled us to replace halogen lamps in our floodlights with LED lamps, with a consequent reduction in our electricity costs and a reduction in our carbon footprint. '* – **SENE Beneficiary**

*'The SENE project support provided a feasibility study to ascertain the prospect of us having solar panels and a battery for energy efficiencies.'* – **SENE Beneficiary**

*'Energy consultation which advised next steps, including commissioning a building survey, which we have done. We also had an energy audit which gave us lots of information and advised areas to concentrate which, again, we are actively following up.'* – **SENE Beneficiary**

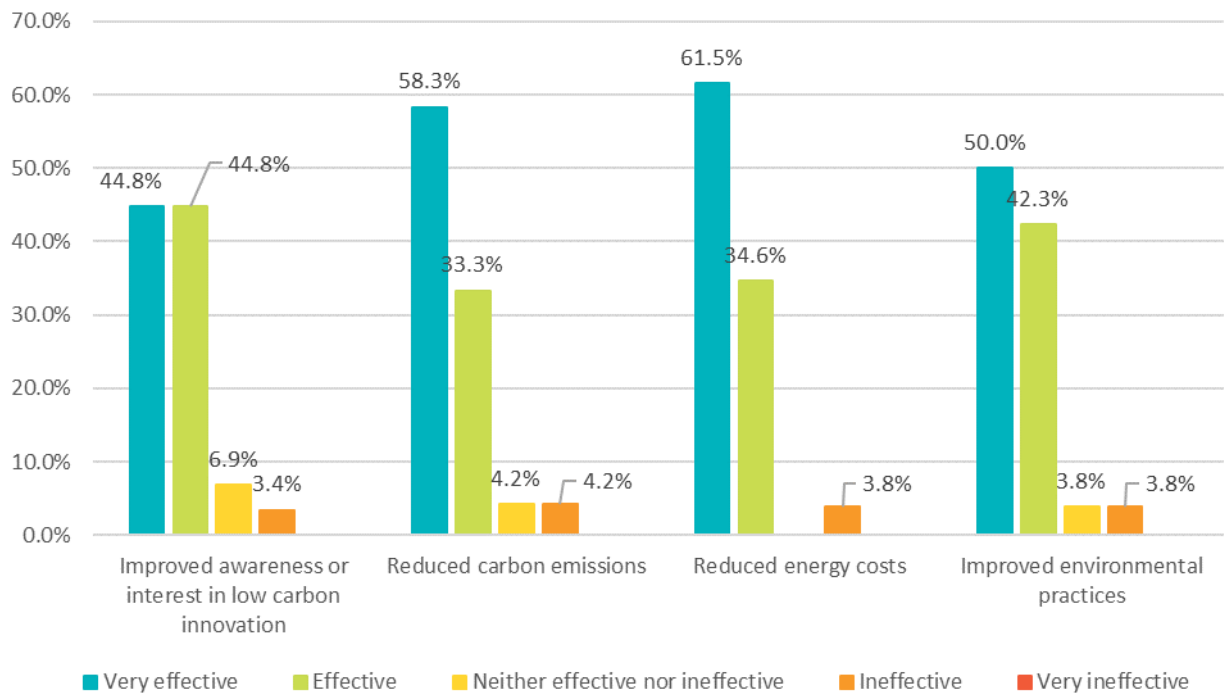
*'Reduced energy usage resulting in high cost savings for the business and an overall improved working environment.'* – **SENE Beneficiary**

*'Reduced Costs & Improved Productivity - Improved Carbon Reduction to help achieve carbon neutral target by 2030.'* – **SENE Beneficiary**

*'The project was to replace all our lights with efficient LED lights, to reduce power consumption. The quality of the light is improved, and we anticipate our energy costs will come down. We are PAS2060 certified, and we believe this project will aid our attempts to reduce our carbon emissions.'* – **SENE Beneficiary**



Figure 5.1 SENE contribution to improved environmental performance and costs



Source: SENE Beneficiary e-survey

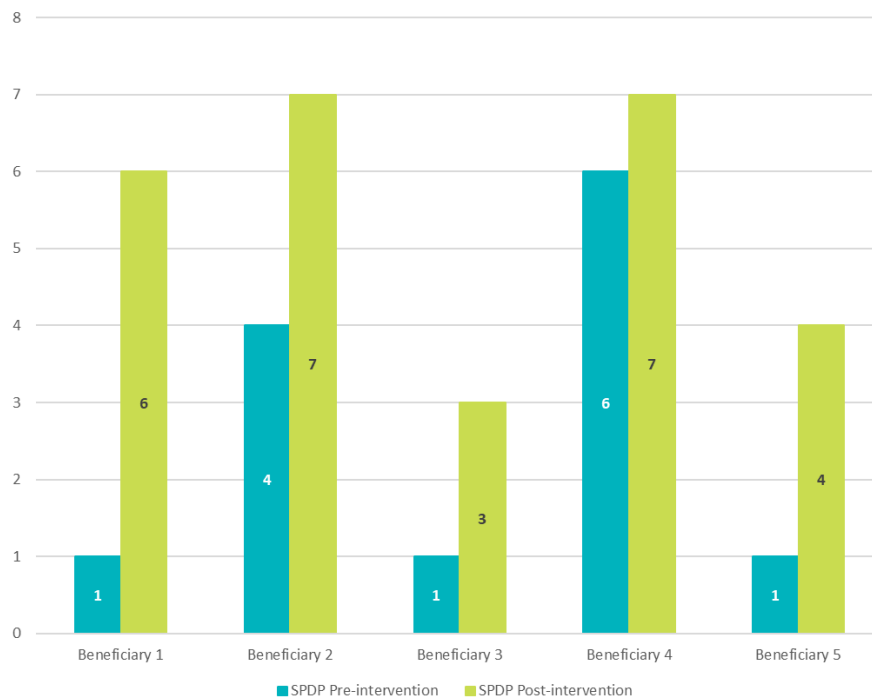
## Supporting Product/Process Implementation and Development

- 5.4 SENE helped a number of beneficiaries to further develop their products and processes. Beneficiaries were asked to identify what Standard Product Development Process (‘SPDP’) level they were at prior to SENE intervention and what level they are at following support from the project. Beneficiary businesses reported increases in the commercial stage of products and processes, highlighting that the project successfully supported with bringing products closer to market. On average, beneficiaries reported an average increase in SPDP of over 2 stages.
- 5.5 Many beneficiary businesses suggested that they lacked the in-house capacity and capabilities and that SENE had been vital in helping to bridge those gaps.

Table 5.1 Standard Product Development Process levels

SPDP Level	Description
SPDP 1	Idea generation
SPDP 2	Idea screening
SPDP 3	Concept development/testing
SPDP 4	Business analysis
SPDP 5	Beta testing/Market analysis
SPDP 6	Technical implementation
SPDP 7	Commercialisation (Post-NPD)

Figure 5.2 Standard Product Development Process Level Pre-intervention and Post-intervention



Source: SENE Beneficiary Survey

5.6 SENE also supported many businesses to introduce a wide range of energy reducing and generation technologies and products within their businesses, including:

- Solar panels;
- LED lighting
- Infrared heating;
- Energy tracking and savings systems; and
- EV charging ports.

### Access to finance

5.7 The SENE project offered Work Package 2 beneficiaries with access to grant funding aimed at subsidising the costs associated with implementing energy reducing technologies as recommended following an energy audit. The grants were used by beneficiaries to introduce a range of energy reducing technologies.

*'To support installation of low carbon LED floodlights to reduce our carbon footprint.'* – **SENE Beneficiary**

*'Grant towards solar panel installation.'* – **SENE Beneficiary**

*'To install infrared heaters in our main community space.'* – **SENE Beneficiary**

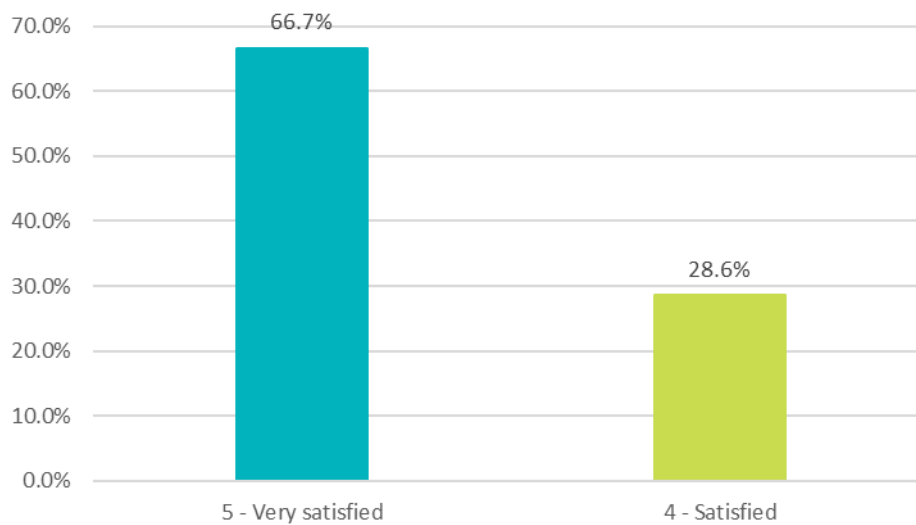
*'The SENE grant programme assisted with cost of replacing factory lighting with LED equivalents.'* – **SENE Beneficiary**

*'The grant supported the installation of 46 solar panels.'* – **SENE Beneficiary**

5.8

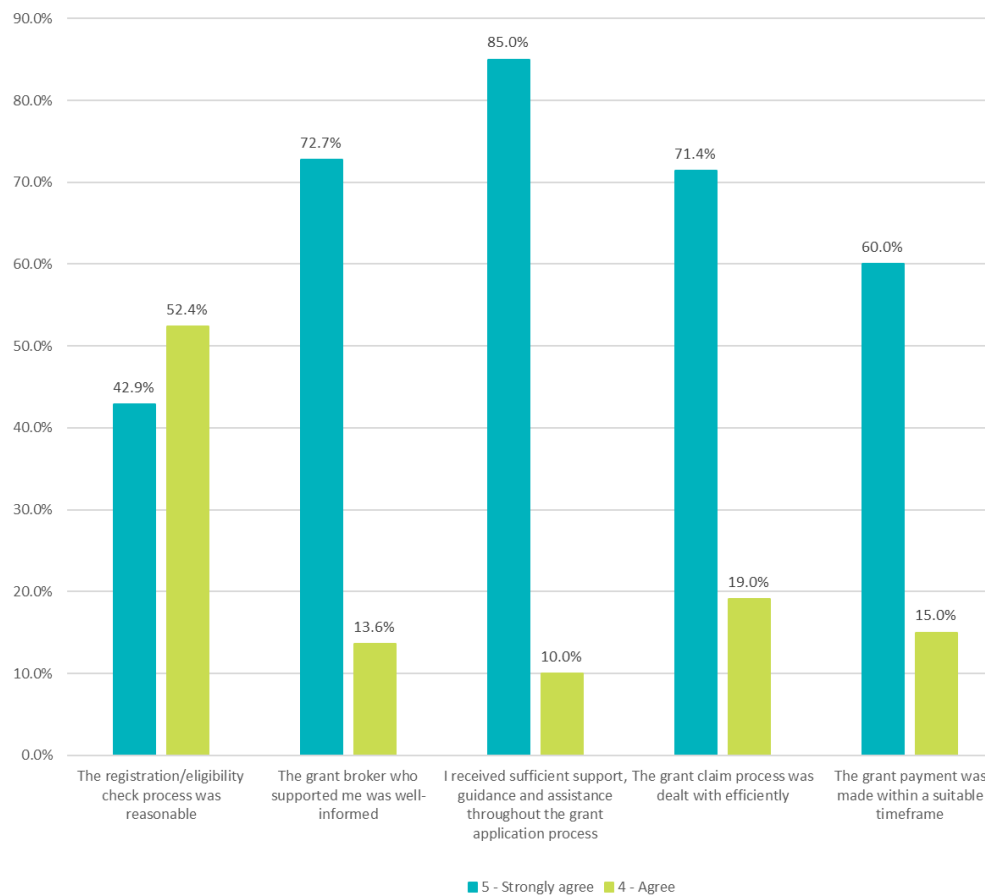
Beneficiaries were asked to identify how satisfied they were with the grant process. Almost all (95.3%) beneficiaries indicated that they are at least satisfied by the support received, citing that the registration/eligibility process was reasonable, support from the grant broker and timescales for accessing funding as reasons for satisfaction.

Figure 5.3 How satisfied were you with the grant process?



Source: SENE Beneficiary Survey

Figure 5.4 To what extent do you agree with the following statements regarding the grant process?



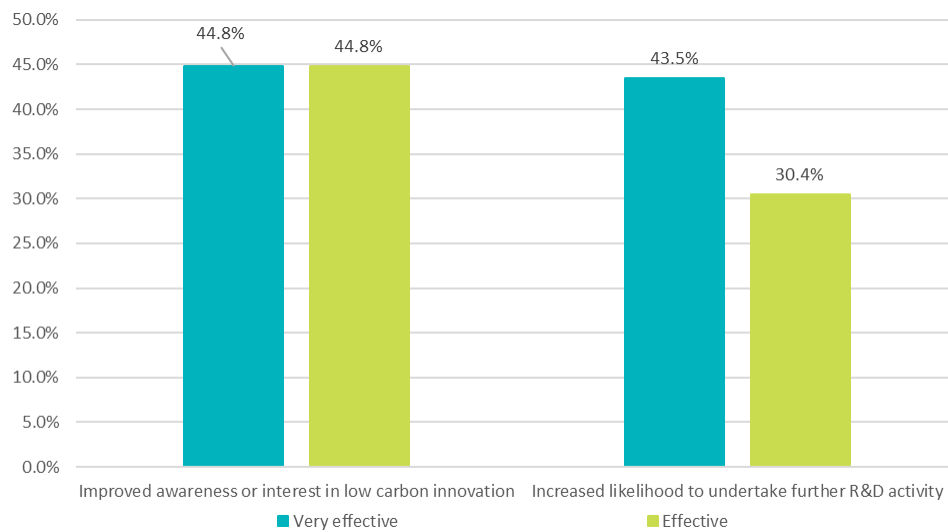
Source: SENE Beneficiary Survey

### Improved awareness and appetite for innovation

5.9

A key outcome of SENE has been the increased engagement in innovation activity from businesses across the SELEP area. The majority (89.6%) of beneficiaries reported that the project had been effective in improving their awareness of and interest in low carbon innovation activity, with almost three-quarters (73.9%) also reporting that they would be more likely to undertake further R&D activity.

Figure 5.5 Awareness in innovation

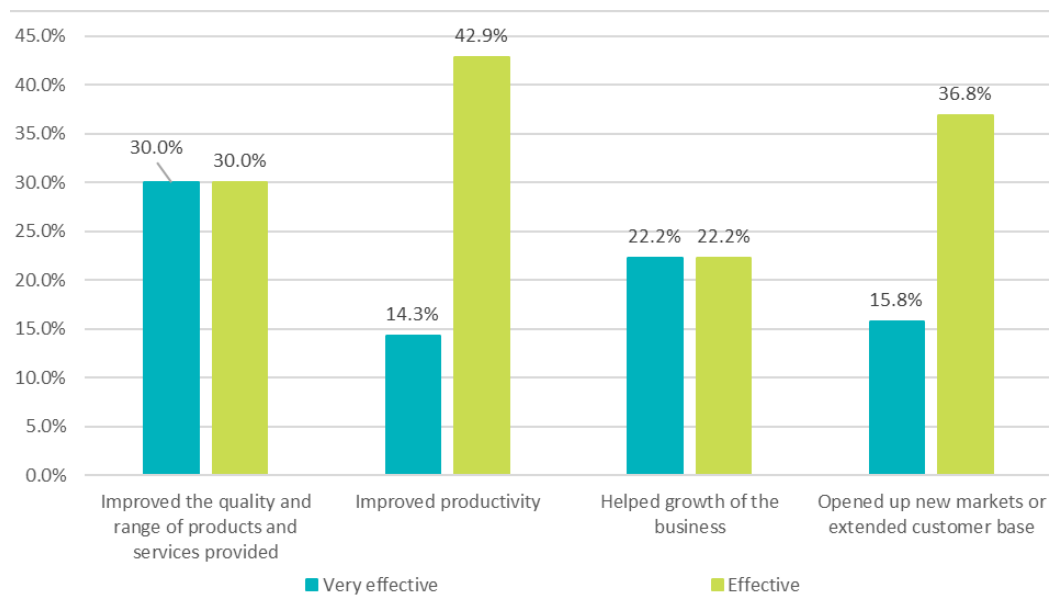


Source: SENE Beneficiary e-survey

## Business Impacts

- 5.10 SENE contributed positively to beneficiary businesses in achieving a number of positive business impacts, including improved quality of products and services provided, improved productivity and growth. More than half of beneficiaries reported that SENE had helped them to open up new markets and/or extend their customer base.
- 5.11 Further detailed economic impact analysis of the project can be found in chapter 6.0.

Figure 5.6 SENE Business Impacts



Source: SENE Beneficiary Survey

### Case Study: AirEx Tech



Airex Technologies is a construction and climate change company dedicated to addressing fuel poverty and climate change through innovative and cost-effective smart home solutions. Our flagship product is the world's first smart air brick, designed to help homeowners and landlords reduce energy demand while managing air quality in homes. Initially, Airex sought support from the SENE project to expand its business network, establish relationships with housing providers, local authorities, and developers, and grow its customer base by promoting its offerings.

As part of the SENE support, Airex participated in the Innovation Forum, providing an opportunity to network with public and private sector housing providers, developers, and contractors, showcasing our product offerings. Through the project, we established a valuable relationship with Hyde Housing Association, aiding their retrofit objectives and assisting at-risk residents in reducing energy demands.

The Hyde Group recently secured £6.7m in SHDF wave 2.1 funding through their combined bid with Sanctuary Housing Association. Recognising the potential benefits of the Airex solution, Diana Lock, Energy and Sustainability Manager, identified the Airex Floor-vent system as a cost-effective means to improve EPC by 2-4 SAP points. The positive ROI prompted Hyde Group to seek approval for incorporating the Airex Floor-vent into the SHDF wave 2.1 project.

The SENE support was well-organised, providing a platform to grow our business network. Inbound inquiries increased post-SENE events and webinars hosted by Harvey and Terry at the SENE. Their support has been instrumental in connecting us with organisations that see value

in Airex products. Exposure across various sectors, especially after the Private Sector Group event on March 15th, has opened new revenue and marketing streams. The event allowed us to present our solution to the private market, gaining valuable insights and shaping our marketing approach.

*“Building on the contacts made through the SENE, we have secured a pipeline of new business, expecting a positive impact on our accounts into the new year. Leveraging insights from the SENE webinar, we are developing new solutions for the private market. We look forward to attending and supporting future SENE events, continuing our collaboration, and strengthening relationships to provide valuable solutions addressing key challenges in achieving NetZero, decarbonising the UK’s housing stock, and implementing cost-effective technology to enhance EPC and address ventilation challenges in the built and retrofit environment.”* – **Dwayne De Silva, Business Development Manager**



## Case Study: MKC Rail



MKC Rail Limited is an established and highly regarded electrification contractor to the rail industry. Established in 2014, MKC Rail delivers highly motivated, qualified, and experienced electrification and civils staff to the industry that work collaboratively delivering a wide variety of rail projects.

Following a period of growth, MKC Rail originally accessed SENE project support to continue to develop and grow the business. Through the project support, MKC Rail received funding to develop a feasibility study to explore the commercial viability of an Overhead Line Equipment (OLE) infrastructure project that is intended to reduce carbon emissions through the manufacturing process of support masts.

MKC were pleased with the support from the project and the funding helped to de-risk the commercial feasibility assessment and which has provided them with a route to commercialisation plan. MKC are following up with their plans and have continued to develop their relationships with the University and are in discussions with Innovate UK to progress the technology further with plans to bring the product to market.

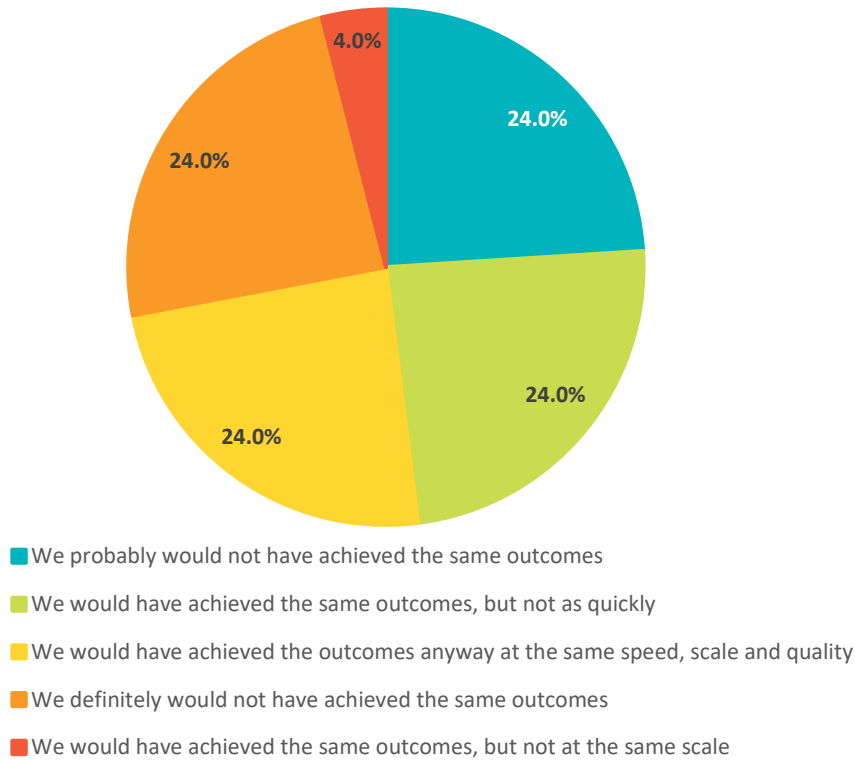
Following on from SENE support MKC Rail have been successful on getting onto several frameworks, including a significant opportunity with Transport for London (TfL), which has helped to grow work opportunities. MKC have continued their relationship with the University and anticipate further growth going forward including increasing their workforce and growing turnover.

**Matt Crowe, Director**

## Counterfactual

- 5.12 Businesses were also asked to identify whether they would have achieved the same outcomes in the absence of SENE. Almost half of survey respondents (48.0%) indicated that they were either 'unlikely to achieve' or 'definitely not achieve' the same outcomes in the absence of the project. Almost a quarter (24.0%) of beneficiaries indicated that they would have achieved the same outcomes but not as quickly. Similarly, 4.0% of beneficiaries indicated that they would have achieved the same outcomes but not at the same scale.

Figure 5.7 Likelihood to achieve outcomes in absence of SENE support



Source: SENE Beneficiary Survey

*'Helped fund a solar PV installation at our HQ, making the cost more affordable and enabling us to reduce our Scope 2 emissions.'* – **SENE Beneficiary**

*'SENE contributed towards the cost of installing solar panels, which made the project viable. Generating 50% of our electricity usage during the summer months.'* – **SENE Beneficiary**

*'The grant of 20% of costs enabled the charity to provide alternative heating in our main space, cutting our gas use and using electricity instead which we self-generate from a solar array. This has provided a more comfortable space for the customers who rarely felt the benefit of the underfloor heating but feel direct benefit from the new infrared heaters. They are a visible indicator of the charity's commitment to lowering its carbon footprint.'* – **SENE Beneficiary**

## Future support requirements

5.13

Beneficiaries were asked to identify what future support they would be looking to access going forward. Key suggestions included:

- Access to more funding opportunities to implement further improvements;
- Further expert advice on how to reduce carbon in other areas of businesses;
- Further support on implementing energy efficiency measures, including finding suitable suppliers; and

- Further opportunities to collaborate and networking channels with likeminded businesses.

*'We would look for similar support in the future, we are a manufacturer of energy efficient products and would be keen to get involved in as many retrofit private / publicly funded schemes as we can to build our commercial pipeline.'* – **SENE Beneficiary**

*'An energy audit/assessment - this was not available to us as we had already applied for the LED lighting. We would welcome additional support towards replacing the rest of the LED lighting in the building, as well as guidance on other energy saving measures, we could participate in. Local networking with other SENE participants would also be helpful to share knowledge/expertise.'* – **SENE Beneficiary**

*'Support to take our proposals to the next steps of lab testing to prove it works.'* – **SENE Beneficiary**

*'Assistance with finding and applying for grants.'* – **SENE Beneficiary**

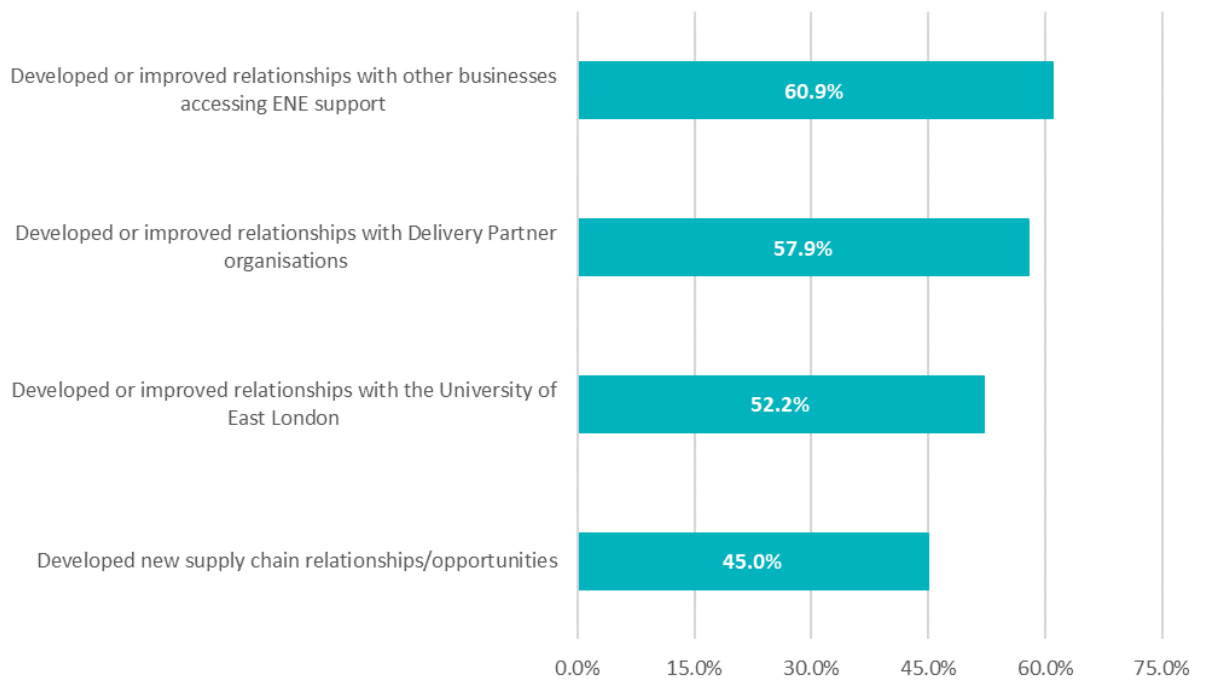
## Outcomes and impacts for the project team and stakeholders

- 5.14 Consultation with the project team, delivery partner organisations, and wider stakeholders identified key outcomes and impacts of SENE from the perspective of representatives of the organisations involved directly with SENE. These are explored in more detail in the section below.

### Improved Academia-Industry and Organisational Relationships

- 5.15 One of the key outcomes of SENE for the project team and beneficiaries' stakeholders has been the new and improved relationships fostered between the University and industry partners as well as business-to-business relationships helping to support and foster supply chain relationships.
- 5.16 Beneficiary survey respondent data also identifies that a significant number of beneficiaries have developed or improved relationships with the University, delivery partner organisations and/or with other beneficiary businesses accessing support via SENE.

Figure 5.8 Business relationships



Source: SENE Beneficiary Survey

## Wider outcomes and impacts

- 5.17 The SENE project has also contributed to a number of wider outcomes and impacts which are detailed below.

### Supporting the Regional low carbon agenda

- 5.18 SENE has positively contributed towards addressing the SELEP's low carbon agenda, acting as a key asset for the area in terms of supporting innovation and low carbon ambitions. Consultations with the project team and partners suggested that SENE had developed a strong, recognisable, and respectable brand and that the project delivery was well-aligned with policy and strategy ambitions. The project is expected to have legacy in the local area with businesses citing improved environmental awareness, and lasting relationships with SMEs and delivery partner organisations expected to further support low carbon aims.

### New Market Opportunities

- 5.19 Through the research collaboration work package, SENE assisted SMEs across SELEP to develop products and identify opportunities to penetrate the low carbon supply chain. SENE has also provided a platform for businesses to develop synergies between different organisations' products/activities which, through collaboration, could respond to a challenge or opportunity facing low carbon industries.
- 5.20 SENE's research collaboration work package provides the expertise and research facilities to develop new products/refine existing products to respond to identified market opportunities. This enables local businesses to expand into new market spaces and – as a

result – create new revenue streams. Over half (52.6%) of all beneficiaries surveyed indicated that they had opened up new markets or extended their customer base as a result of the SENE project support.

## Supply Chain Opportunities

- 5.21 Support provided by the project has played a key role in better positioning SMEs in the SELEP area to access supply chain opportunities. Elements of the SENE delivery focuses on technical innovation, ensuring that SMEs understand the challenges facing the low carbon cluster and collaborating with them to explore how these can be addressed. The beneficiary survey data indicates that 60.9% of beneficiaries have developed relationships with other businesses accessing SENE support, with almost a half (45.0%) citing that the project had helped them to develop new supply chain relationships and opportunities.

## SENE's Added Value

- 5.22 SENE's focus on providing support to beneficiaries to promote the low carbon economy and green innovation, where levels of innovation are typically lower<sup>1</sup>, makes an important contribution to unlocking R&D in the SELEP and South East region more widely. The role played by SENE in addressing some of the key barriers to innovation is summarised below:

- **De-risking innovation:** the SENE project supports facilitating innovation activity within beneficiary organisations, access to finance, as well as access to leading-edge technologies that might otherwise be cost prohibitive for businesses to purchase to test/prove a product.
- **Access to specialist advice/expertise:** partnering with the SENE project has enabled beneficiaries to benefit from academic expertise and industry experience which may not be available in-house.
- **Developing low carbon supply chains:** by promoting collaboration and supporting networking, the SENE project helped to bring together businesses with an interest in the low carbon economy. This encourages them to exchange ideas and explore potential synergies/opportunities for joint working which help to stimulate innovation.
- **Supporting the regional low carbon agenda:** Through the delivery activity, the SENE project makes a positive contribution to addressing low carbon ambitions as identified within local, regional, and national policy agenda. The SENE project addresses the issues holistically, providing support that supports beneficiaries through a multitude of activity.

<sup>1</sup> UK Innovation Survey 2021 found that 44% of SMEs were innovation active between 2018 and 2020, in comparison with 58% of large businesses

### **Chapter Summary:**

- Beneficiary businesses reported improvements in environmental performance through reduced carbon emissions, energy costs and improved sustainable practice;
- SENE helped beneficiaries to further develop their products and processes, helping bring products closer to and to market;
- SENE project support positively contributed towards business impacts, including employment and turnover growth, productivity gains, improving quality and range of products and services as well as opening access to new markets;
- The project supported beneficiaries in improving their awareness and interest in innovation activity as well as increasing their likelihood to undertake further R&D activity;
- The counterfactual evidence indicates that the majority of beneficiaries supported would not have achieved the same outcomes in absence of SENE support, either at all or at the same pace or scale;
- The SENE project was considered to have led to improved relationships between SMEs and UEL as well as wider project partners and is expected to benefit from lasting relationships. Several beneficiaries indicated that they had continued or expected to continue working with delivery staff beyond the SENE project;
- The SENE project helped to develop relationships and supply chain opportunities between supported beneficiaries, with beneficiaries reporting that following support they had opened new markets and improved/developed relationships with new supply chains including with other SENE beneficiaries;
- The SENE project provided added value through de-risking innovation, providing access to expertise, supporting the development of low carbon supply chains, and supporting the regional low carbon agenda through engagement and intervention activity delivered across a broad geography and range of business sectors.

## 6.0 Economic Impact Assessment

- 6.1 This section assesses the economic impacts generated by the project delivery. As per government guidance, both gross and net impacts are calculated. In order to calculate net impacts each factor of additionality is considered.
- 6.2 The methodological approach for this assessment is standard and conducted in line with HM Treasury's Green Book guidance. This includes capturing the GVA and full-time equivalent ('FTE') employment impacts associated with the SENE project interventions. The assessment considers economic additionality factors to derive net economic impacts, multiplier effects and persistence. The benefits in the assessment are captured within the SELEP area, the delivery area of the project.
- 6.3 Where possible, primary data is used to inform the assessment of economic impacts, however, where this is not possible robust assumptions from recognised data sources are applied.
- 6.4 The impacts covered within this assessment include both:

- **Current Impacts:** Economic impacts achieved to date attributable to SENE; and
- **Future Impacts:** Anticipated future impacts associated with SENE support activity, informed by future order book data (from beneficiary e-survey) as well as a 3-year persistence period and an annual benefits decay rate of 10% per annum.

### Benefits arising from SENE Support

- 6.5 To estimate the impact of the whole project on the SELEP economy, the estimates from the sample of SENE survey responses are extrapolated to all 102 businesses that have been supported by the project to date (August 2023) as per the latest completed ERDF claims data.
- 6.6 GVA impacts have been calculated using a 'turnover route to GVA' method. This is a common approach which aims to capture the GVA impacts associated with business support interventions.

**Turnover route to GVA:** Change in beneficiary turnover is captured and the factors of additionality are applied. This turnover is then converted to GVA using a ratio of £ of GVA per £ of Turnover. A national ratio of 0.62:1 used in the assessment is calculated using ONS Annual Business Survey data.

### Gross Change

- 6.7 The first step of the impact assessment is to calculate the gross change by comparing businesses' current employment and turnover with the baseline position prior to receiving support from SENE. Table 6.1 provides details of the average gross employment and turnover change, as observed from pre-intervention to present.



Table 6.1 Gross Change in Employment and Turnover

Employment	FTE
Average gross increase in employment per business (n = 24)	0.79 FTE
Total gross uplift in employment (extrapolated to 102 businesses)	80.8
Turnover	£
Average gross increase in turnover per business (n = 18)	£192,250
Total gross uplift in turnover (extrapolated to 102 businesses)	£19.6 million

Source: SENE Beneficiary Survey

- 6.8 SENE beneficiaries reported an uplift in employment of 2.0%, when considering the wider baseline turnover data of beneficiaries within project monitoring information data this translates to an average gross uplift of 0.8 FTEs per supported beneficiary. Extrapolating this to the 102 beneficiaries supported by the SENE project results in an estimated gross uplift of 80.8 FTEs.
- 6.9 SENE beneficiaries also reported an uplift in turnover of 6.0%, when considering the wider baseline turnover data of beneficiaries within project monitoring information data this translates to an average gross uplift of £192,250 per supported beneficiary. Extrapolating this to the 102 supported beneficiaries is equivalent to a gross turnover uplift of £19.6 million.

### Additionality

- 6.10 In keeping with government guidance, this impact analysis considers the following additionality factors:

- **Deadweight:** Outputs/outcomes that would have been secured anyway without support from the project;
- **Displacement:** Existing business activities in the area that no longer take place due to the project;
- **Leakage:** Benefits that accrue outside of the area of impact being considered.
- **Multiplier Effects:** Further economic activity associated with additional income and supplier purchases.

- 6.11 To account for these factors, the business survey incorporated questions relating to the additionality of job creation and turnover impacts. This included their judgment about the level of attribution in terms of reported growth in employment and turnover as a result of the support, as well as the location of their staff, competitors and customers.
- 6.12 It should be noted that survey respondents often find it difficult to quantify and estimate employment or turnover change attributable to any business support received. On this basis, the additionality factors are benchmarked against additionality estimates from recognised secondary sources based on meta studies for business support interventions. These sources are Homes and Communities Agency ('HCA') Guidance and Department for

Business, Innovation and Skills ('BIS') Research. This process seeks to sense check assumptions.

- 6.13 The HCA and BIS reports are both 'meta-analyses' drawing on a large number of studies to report typical values, as well as indicating the range of higher or lower estimates.

Table 6.2 Economic additionality factors and benchmarking

Additionality Factor	SENE Survey (May 2023)	'Ready Reckoners' Additionality Guide (2014)	BIS Additionality Research (2009)
Deadweight – Employment	92.5%	Above beneficiary survey average (36%)	Mean, Regional, Business development & Competitiveness: 47.2%
Deadweight – Turnover	91.2%	Above beneficiary survey average (36%)	Mean, Regional, Business development & Competitiveness: 47.2%
Displacement	19.5%	Below Low (25%)	Mean, Regional, Business development & Competitiveness: 19.5%
Leakage – Employment	20.5%	Below Medium (25%)	Mean, Regional, Business development & Competitiveness: 16.3%
Leakage – Turnover	16.3%	Below Medium (25%)	Mean, Regional, Business development & Competitiveness: 16.3%

Source: HCA / BIS / Lichfields analysis

- 6.14 Based on the survey of beneficiaries, deadweight for SENE is estimated at 92.5% for employment and 91.2% for turnover. Table 6.2 would suggest that these values are somewhat high compared to national benchmarks. It should however be noted that attribution ranged from 0% through to 100% and the average deadweight figure above presents the average of the sample. Individual impacts are calculated on a business-by-business basis and are extrapolated to the population in the aggregated analysis.
- 6.15 The displacement adopted is a proxy value from the BIS guidance, therefore the value adopted is in line with meta-analyses of comparable interventions.
- 6.16 Leakage of impacts for the SENE project are comparable to regional estimates for similar business support interventions, at 20.5% for employment (derived from e-survey responses) and 16.3% for turnover (applying a BIS sub-regional proxy). As could be expected, leakage figures are relatively low, which can be attributed to the wide geographical area being assessed (encompassing the SELEP area), meaning benefits are less likely to 'spill out' into other areas.
- 6.17 As well as the additionality factors described above, it is also important to consider for multiplier effects, which capture the indirect impacts across the wider economy. The multiplier used in this analysis is taken from HCA additionality guidance (2014) which

suggests a multiplier of 1.51 at the regional level for ‘Business Development and Competitiveness’ interventions.

### Net additionality of impacts

- 6.18 Once the additionality factors above are applied, the net additionality of impacts can be derived. Where an individual survey respondent has not provided response data to additionality factors, averages from the wider sample are used as proxy values. The estimated net additional FTE and GVA impacts that have been realised to date, and those anticipated, are given in Table 6.3. To reflect the degree of estimation, these figures are rounded.
- 6.19 Based on SENE beneficiary responses, a net additional employment figure of 0.1 FTEs per business supported is estimated. Extrapolating the above to the total number of businesses assisted through the SENE project translates to current net additional impacts of 10.8 FTEs.
- 6.20 Average net turnover per business is estimated at £13,800 for current benefits, based on beneficiary response data for the most recent full financial year. Applying a national GVA to Turnover ratio of 0.62 (from ABS data) translates to an average GVA uplift of £8,600 per supported business.
- 6.21 Extrapolating the above to the total number of businesses assisted through the SENE project translates to a current net additional turnover uplift of £1.4 million and a net additional GVA impact of £0.9 million.

Table 6.3 SENE net economic impact

Employment	FTE
Current net additional employment per business (FTE)	0.1
Current net additional employment impact (FTE) (Extrapolated to 102 business assists)	10.8
Turnover	£
Current net additional turnover per business	£13,800
Current net additional turnover impact (Extrapolated to 102 business assists)	£1.4 million
GVA	£
Current net additional GVA per business	£8,600
Current net additional GVA impact (Extrapolated to 102 business assists)	£0.9 million

Source: Lichfields analysis

### Future impacts

- 6.22 The above analysis provides a conservative estimate of the potential impacts of the project as further future impacts over a wider time-horizon are likely to be positively influenced by the project that take time to come to fruition. Further economic impact analysis, firstly using future order book turnover and persistence of benefits over a 3-year period has been undertaken to quantify the potential future benefits of the SENE project.

## Forecast benefits based on future order book and workforce ambitions

- 6.23 In addition to current employment and turnover data, the beneficiary survey sought to identify future turnover based on current order books and workforce growth ambitions. Beneficiaries responded positively to these questions, providing sufficient data to undertake analysis.
- 6.24 In considering anticipated future employment, forecasted employment benefits are estimated at an additional 0.1 FTEs per business supported. This translates to future net additional impacts of 14.9 FTEs.
- 6.25 Considering forecasted turnover data based on future order book, a further GVA uplift of £8,350 per business supported is anticipated within the next financial year. Extrapolating the above to the total number of businesses assisted through the SENE project translates to estimated future net additional GVA impacts of £850,000.

Table 6.4 Forecast net additional impacts

Employment	FTE
Forecast net additional employment per business (FTE)	0.1
Forecast net additional employment impact (FTE) (Extrapolated to 102 business assists)	14.9
Turnover	£
Forecast net additional turnover per business	£13,400
Forecast net additional turnover impact (Extrapolated to 102 business assists)	£1.4 million
GVA	£
Forecast net additional GVA per business	£8,350
Forecast net additional employment impact (Extrapolated to 102 business assists)	£850,000

Source: Lichfields analysis

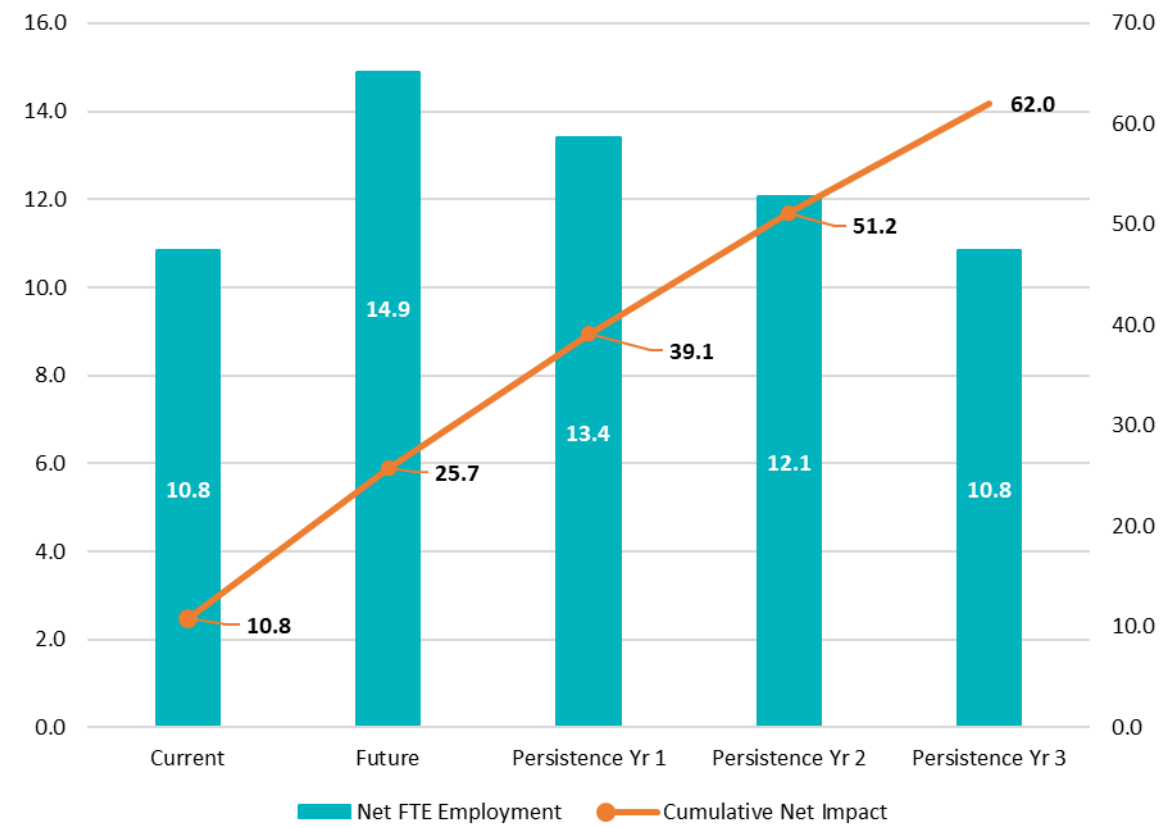
## Future benefits persistence and cumulative benefits

- 6.26 In addition to the reported impacts achieved to date and anticipated future impacts linked with projected recruitment ambitions and order books, there are also further persistence benefits linked to project intervention. Impact appraisal and evaluation guidance published by Scottish Enterprise<sup>2</sup> identifies an average persistence of benefits duration for enterprise support projects of 3 years. The guidance also indicates an annual benefit decay rate of 10%.
- 6.27 Considering the above, the impacts have been modelled over a three-year persistence period to estimate the potential wider future impacts attributable to SENE support. Figure 6.1 below highlights the annual net additional employment impacts by impact period as well as the cumulative benefits. The analysis indicates that the SENE project is estimated to

<sup>2</sup> [Scottish Enterprise's Impact Appraisal and Evaluation Guidance](#)

support 68.5 FTEs.

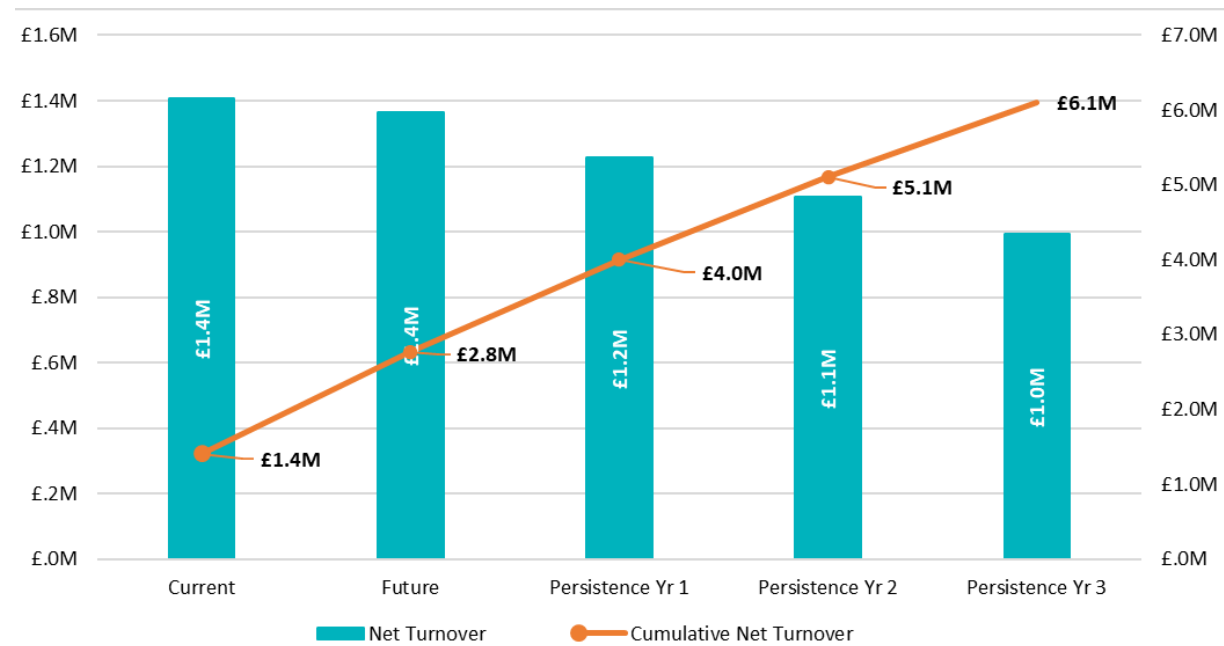
Figure 6.1 Cumulative net additional employment impacts



Source: Lichfields analysis

6.28 Figure 6.2 below highlights the estimated annual net additional turnover impacts of the SENE project as well as cumulative impacts. The assessment indicates that the SENE project is likely to lead to net additional turnover benefits of £6.1 million.

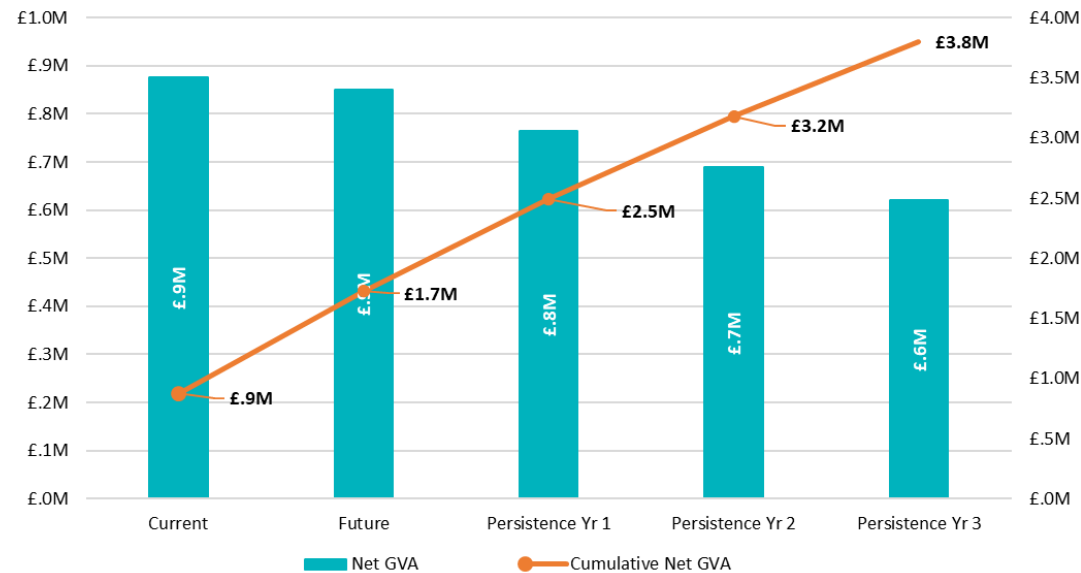
Figure 6.2 SENE Cumulative Turnover Impacts



Source: Lichfields analysis

6.29 The cumulative GVA impacts associated with the SENE project are estimated at £3.8 million when factoring in persistence benefits.

Figure 6.3 SENE Cumulative GVA Impacts



Source: Lichfields analysis

## Total economic impact

6.30 The aggregate economic impact of SENE considering the benefits realised to date and the estimated future benefits anticipated to be realised beyond the project delivery period are

summarised in Table 6.5 below. The combined impact of the project is estimated to support the creation of 62.0 FTE jobs and deliver £3.8 million of GVA. This is a significant contribution to the SELEP economy, creating job opportunities and supporting towards economic output alongside the energy reduction benefits delivered by the SENE project.

Table 6.5 Aggregate SENE impacts

	Impact
Net additional employment (FTE)	62.0
Net Additional GVA	£3.8 million

Source: Lichfields analysis

**Chapter Summary:**

- The SENE project has delivered significant economic impacts to the SELEP economy, in terms of creating employment opportunities and economic output;
- The SENE project is estimated to have created 17.4 FTE jobs to date and generated an estimated £900,000 of GVA to the SELEP economy;
- Considering future persistence benefits, SENE is estimated to support a total of 62.0 net additional FTEs and contribute £3.8 million of GVA to the SELEP economy.



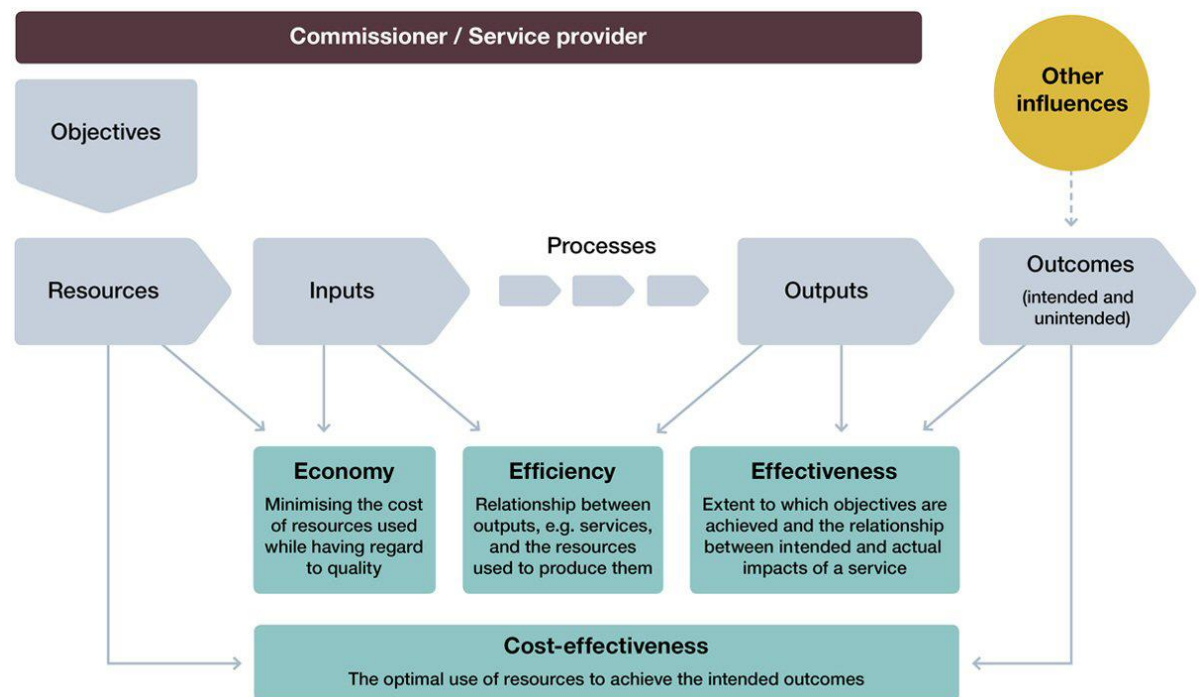
## 7.0

## Assessing Value for Money

## 7.1

This section provides an overview of the value for money ('VfM') provided by SENE. The approach to assess value for money draws on the National Audit Office definition, and is underpinned by three principles, namely: economy (spending less); efficiency (spending well); and effectiveness (spending wisely), as illustrated below.

Figure 7.1 Value for Money assessment framework



Source: National Audit Office

## Economy

## 7.2

The SENE project team worked hard to ensure VfM was achieved throughout the project delivery. The transition to more virtual delivery as a result of the pandemic presented cost savings as well as reduced unnecessary project related carbon emissions associated with travel.

## 7.3

The project team feel that SENE delivers value for money as a function of the scale of delivery and the benefits of the complex collaboration model – which although difficult to achieve – has enabled the project to effectively support decarbonisation across the region. The project offers a systemic analysis of the barriers and effective interventions defined around a breadth of cross industry expertise, with effective relationships built to connect businesses with appropriate expertise to move them on in their individual journeys, and away from the threat of 'greenwashing' and market forces that can erode trust due to excessive commercialisation of environmental goods and services.

## Efficiency

- 7.4 The SENE project has been benchmarked against meta-analyses of previous business support interventions to compare the cost efficiency in terms of cost per output, where data permits.
- 7.5 Table 7.1 shows the overall outputs and input costs per output for the programme as at Q2 2023 as well as the forecast figures at project completion. The results show that relative to ERDF contributions the unit cost per output of the SENE project is lower than the national benchmarks across several indicators, implying resource efficiency for delivering outputs.

Table 7.1 Cost per output analysis – benchmarked against national meta-analysis

Output indicator	Actual performance to date (Q2 2023)	Projected outputs	Regeneris national research (2013)
C1: Number of enterprises receiving support	94 – Unit cost of £10,825	118 – Unit cost of £15,030	Mean unit cost of £34,000 based on 623 studies
C5: Number of new enterprises receiving support	10 – Unit cost of £101,755	10 – Unit cost of £177,370	Mean unit cost of over £200,000 based on 24 studies
C26 - Number of enterprises cooperating with research entities	12 – Unit cost of £84,796	14 – Unit cost of £126,693	Mean unit cost of £93,000 based on 199 projects
C29: Number of enterprises supported to introduce new to the firm products	10 – Unit cost of £101,755	10 – Unit cost of £177,370	Mean unit cost of £94,000 based on 78 projects
C30 – Additional capacity for renewable energy production (MW)	0.1545 kWh – Unit cost of £6.6m/MW	0.93 – Unit cost of £1.9m/MW	No comparable data
C32 – Decrease annual primary energy consumption of public buildings (kWh/year)	N/A	183,894 – Unit cost of £9.65/(kWh/year)	No comparable data
C34 – Estimated GHG reductions	74.77 – Unit cost of £13,609/tonne CO <sub>2</sub>	811.83 Unit cost of £2,185/tonne CO <sub>2</sub>	No comparable data

Source: Lichfields analysis / Regeneris national evaluation

Note: Regeneris benchmarking values are from 2013 research and have not been adjusted for inflation

## Effectiveness

- 7.6 To provide an assessment of the effectiveness of the intervention and ERDF funding contribution, cost per net additional job and Benefit Cost Ratio ('BCR') metrics are calculated. Table 7.2 below demonstrates that SENE supported 62.0 net additional FTEs, translating to a cost per net additional job of £28,600. National benchmarking analysis

identifies a mean cost per job created of £71,000<sup>3</sup>, therefore the SENE project has supported job creation more cost-effectively.

7.7

The return-on-investment figure highlights that net additional benefits of the programme exceed the total investment, for every £1 of ERDF investment there are £2.14 of benefits, representing high levels of effectiveness. Using the Government's VfM framework, a BCR of 2.14 corresponds to a 'High value for money', which is categorised by interventions with a BCR over 2.0.

Table 7.2 SENE project Return on Investment assessments

Impact Metric	ERDF Investment	ROI
62.0 Net additional FTE jobs created	£1,773,698	£28,600 per net additional job
£3.8m Net additional GVA		£2.14 net additional GVA per £1 investment

Source: Lichfields analysis

### Chapter Summary:

- Value for money has been achieved throughout the project, with the project team establishing processes to ensure cost efficiencies are realised;
- The project team feel that SENE delivers value for money as a function of the scale of delivery and the benefits of the complex collaboration model – which although difficult to achieve – has enabled the project to effectively support decarbonisation across the SELEP area. The project offers a systemic analysis of the barriers and effective interventions defined around a breadth of cross industry expertise, with effective relationships built to connect businesses with appropriate expertise to move them on in their individual journeys, and away from the threat of 'greenwashing' and market forces that can erode trust due to excessive commercialisation of environmental goods and services.
- The SENE project has performed in line with national benchmarks for business support interventions regarding cost per output, demonstrating that the outputs from project delivery provided value for money relative to ERDF funding;
- The SENE project demonstrates a BCR of 2.14, translating to an additional £2.14 of benefits for every £1 of public funding spent, presenting high value for money in Government Value for Money framework; and
- Cost per job analysis identifies that the SENE project performed £28,600 per net additional job created compared with national benchmarking of £71,000.

<sup>3</sup> Based on 758 ERDF projects within the England ERDF Programme 2007-2013

## 8.0 Conclusions and Recommendations

- 8.1 This section of the report provides an overview of each of the sections detailed earlier in the report, drawing conclusions, lessons learnt and offering recommendations for legacy support in response to the summative assessment findings.

### Output achievement

- 8.2 The SENE project has made good progress towards achieving output targets, despite initial delays in mobilisation constraining the delivery timescales as well resource challenges through changes to the delivery partner structure.
- 8.3 The project is on course to meet many of the remaining output targets, which is testament to the hard work of the project partnership team and the experience that individual partners brought to the project. For those indicators that are expected to fall short, they are largely anticipated to fall within an acceptable level of tolerance. It was felt by many partners that if the project had been delivered to the original timescales that they would have far exceeded the output targets.

### Delivery and management

- 8.4 Despite initial challenges in mobilisation resulting from key senior personnel changes as well as resourcing issues faced through instances of partner drop out, SENE responded well to these challenges and has ultimately been successful, which is testament to the project team and the dedicated partners involved in project delivery.
- 8.5 Beneficiaries felt supported throughout the project, with administrative teams providing help and clear guidance to minimise compliance issues. The project team were praised for their communication and clear advice to help reduce the administrative burden on beneficiaries.
- 8.6 The access to a broad range of expertise from across the partner organisations ensured that the SENE project was well positioned to respond to niche and technically complex collaborations and to support businesses from a broad range of sectors.
- 8.7 Dedicated compliance and administrative resource was deemed by the delivery team and wider partnership as being particularly helpful, enabling them to focus on project delivery rather than contributing significant resource to administrative requirements.

### Outcomes and impacts

- 8.8 The SENE project has made a significant positive impact not only on beneficiary businesses supported, but also to UEL, wider stakeholders, and the SELEP economy.
- 8.9 The project support helped SMEs in the SELEP to assess their carbon usage and develop and implement action plans to address identified issues, ultimately leading to improved energy efficiency. The project also supported developing and bringing innovative low carbon products closer to market. Businesses overwhelmingly felt that they had improved

awareness, interest, and likelihood of undertaking future R&D activity following project support.

- 8.10 The project supported businesses in accelerating product/process development, with respondents indicating improvement in SPDP levels indicating products moved closer to commercialisation.
- 8.11 The SENE project has helped SMEs to reduce carbon emissions and energy costs, whilst also improving their environmental processes as well as achieving business growth, improving productivity, and extending networks. Most businesses felt that in the absence of the SENE support they would not have achieved the same outcomes, or if they had done not at the same pace or to the same scale.
- 8.12 One of the key outcomes of the SENE project for the project team and stakeholders has been the new, and improved, relationships fostered between industry partners as well as business-business relationships helping to support and foster supply chain relationships. A significant number of beneficiary respondents suggested that they had developed or improved relationships with UEL, delivery partner organisations or other beneficiaries receiving project support as a result of SENE support.
- 8.13 The SENE project support has helped contribute towards the SELEP's low carbon agenda by providing low carbon focussed support activity across the region and successfully engaging with businesses from across a wide sector base.
- 8.14 The economic impact assessment identifies that the SENE project is estimated to generate £3.8m of net additional GVA benefits to the SELEP economy and help to support 62.0 net additional FTEs. This is a significant contribution to the local economy in driving economic output and employment.

## Value for Money

- 8.15 The project team have put in place a number of processes with a view to minimise the cost of resources, while ensuring quality. The project team actively aim to maximise efficiencies and to reduce waste.
- 8.16 The project team feel that SENE delivers value for money as a function of the scale of delivery and the benefits of the complex collaboration model – which although difficult to achieve – has enabled the project to effectively support decarbonisation across the SELEP area.
- 8.17 The SENE project performed well relative to national benchmarks, granting confidence in the efficiency of the programme. With a BCR of 2.14 to 1, the project represents a high VfM outcome. A total cost per net additional job of £28,600 is significantly lower than national cost per job benchmark for business support interventions (£71,000).

## Recommendations for policy makers

- 8.18 The Summative Assessment has identified several considerations for policy makers and any future similar projects based on the experience of the SENE project. These include:

- Whilst more challenging to deliver, the sector-wide complex collaboration model delivered at scale (i.e. pan regional) offered advantages by delivering an authentic approach to decarbonisation through a holistic offer. The project offers a systemic analysis of the barriers and effective interventions defined around a breadth of cross industry expertise, with effective relationships built to connect businesses with appropriate expertise to move them on in their individual journeys, and away from the threat of ‘greenwashing’ and market forces that can erode trust due to excessive commercialisation of environmental goods and services.
- Having the ability to leverage expertise from across a broad range of experienced delivery partners opened the project support up to beneficiaries from a wide range of sectors with niche and technically complex collaborations.
- Effective ongoing engagement with delivery partners helps to establish buy-in and increase added value by maximising opportunities. This ensures that projects have a clear vision and common goals are well understood by all involved, helping lead to better outcomes. This is crucially important in multi-partner projects and regular touch points for sharing progress and lessons learnt can help to overcome delivery issues.
- Work closely with the beneficiaries throughout the programme to ensure they understand outputs and are recording them. Give them clear expectations and firm deadlines. Providing administrative support is useful for ensuring compliance is efficient.
- Having well-established and effective processes and systems in place are vitally important for assessing project progress, potential delivery risks and allowing the delivery team to inform decision making and identify timelines for key outcomes and objectives.
- Including a dedicated project compliance resource is beneficial for streamlining monitoring and reporting processes and freeing up wider resource to focus on delivery activity and wider project management.





## Appendix 1 SENE Logic Model



