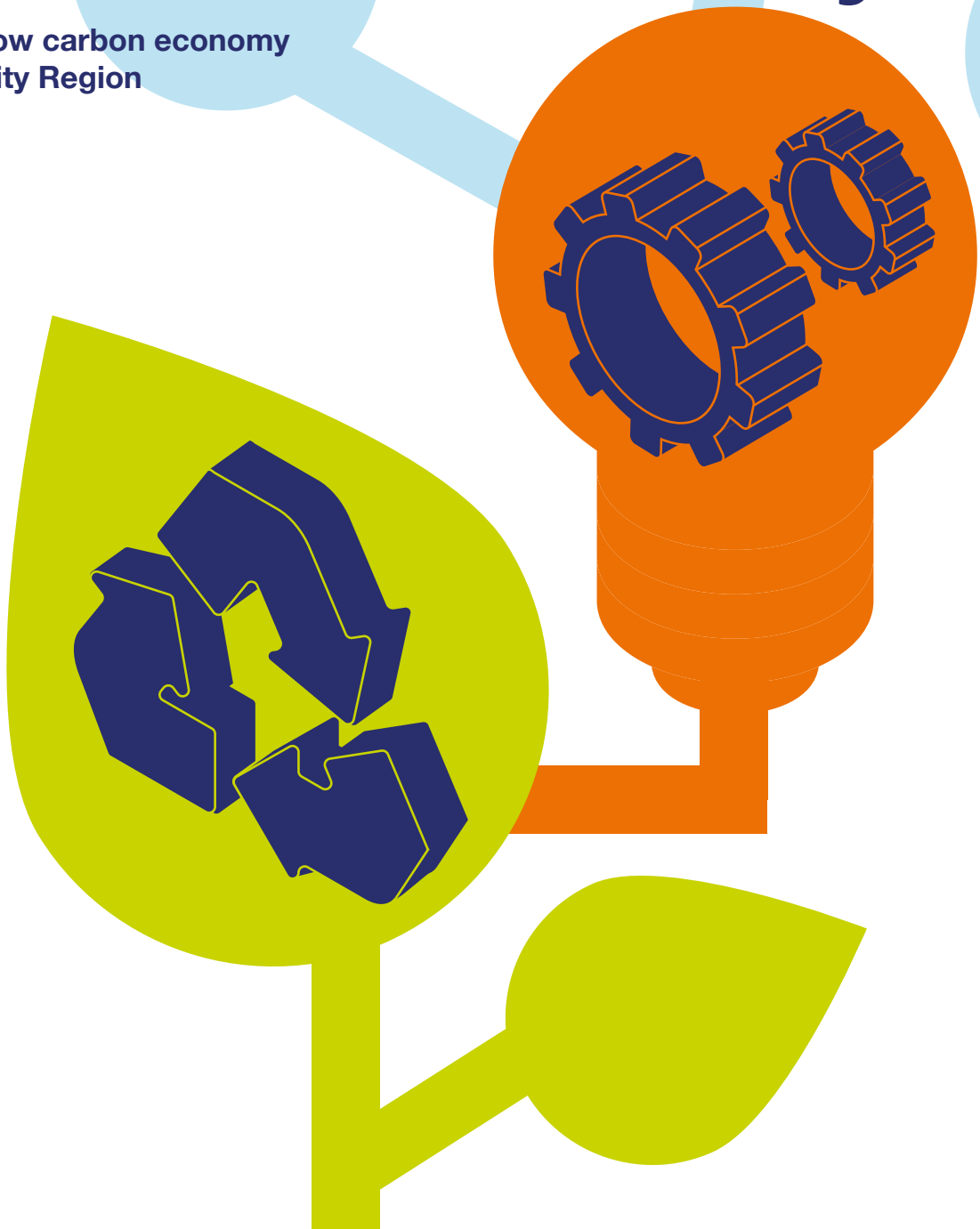
European Union
European Regional
Development Fund

NORTHERN POWERHOUSE
HM Government

Low Carbon Eco-Innovatory

Creating the low carbon economy in Liverpool City Region



Low Carbon Eco-Innovatory (LCEI) works with SMEs in Liverpool City Region across a variety of sectors and industries.

From aluminium smelting to biotechnology; from maker spaces to safari parks and breweries, together we create innovative low carbon goods, processes and services.

A partnership between Liverpool John Moores University, University of Liverpool and Lancaster University, LCEI connects businesses to the world of academia and research. We open up access to cutting-edge resources and leading expertise, to help businesses reduce carbon emissions and increase profitability.

Over the past four years LCEI has brought millions of pounds of benefit to the city region economy and reduced carbon emissions by thousands of tonnes. And we've still got work to do…

LIVERPOOL JOHN MOORES UNIVERSITY

UNIVERSITY OF LIVERPOOL

Lancaster University

Strengthening research, technological development and innovation.

20
PHDs PLACED

7
MASTERS BY RESEARCH

250
BUSINESSES SUPPORTED

£4.5m
PROJECT FUND

10,000
TONNES GREENHOUSE GAS REDUCTION

How does Low Carbon Eco-Innovatory work?

Scoping

The initial exploratory meeting with our LCEI experts will help understand your low carbon challenges and determine the level of support your business will best benefit from.

Activities

Your bespoke action plan is developed with you. It will enable you to access the resources and technologies that will help increase your profitability and set your company on the right track to a low carbon, efficient future.

Monitoring

LCEI will monitor the project and help identify business improvements and carbon reductions made. They will lead on administration and support – ensuring the success of the project for all involved.

Implementation

The appropriate LCEI academics, researchers, graduates and students will implement your action plan. Overseen by the LCEI team, they will assist with every step; implementing new or improved technologies, processes or wider research as well as applying for specialist funding or investment where necessary.

CO_2

Reduced Carbon Emissions

LCEI Support Explained

We offer a range of support depending on your individual business needs:

Low Carbon Research & Innovation Projects
Direct support from the LCEI team and specialist academics to help your business create innovative low carbon goods, processes and services.

1 Month Internships
Support from a dedicated, supervised student, allowing you to access HEI facilities such as laboratories, software and libraries and investigate potential new markets or areas for development.

3-6 Months Supervised Projects
Access to resources and facilities of the universities through academic supervision of bachelors or masters students and a work-based dissertation.

3 Year & 1 Year Research Projects
The highest level of support - this is led by your R&D requirements and fulfilled by a dedicated full-time graduate researcher, plus an academic supervisor delivering intensive, sustained support.

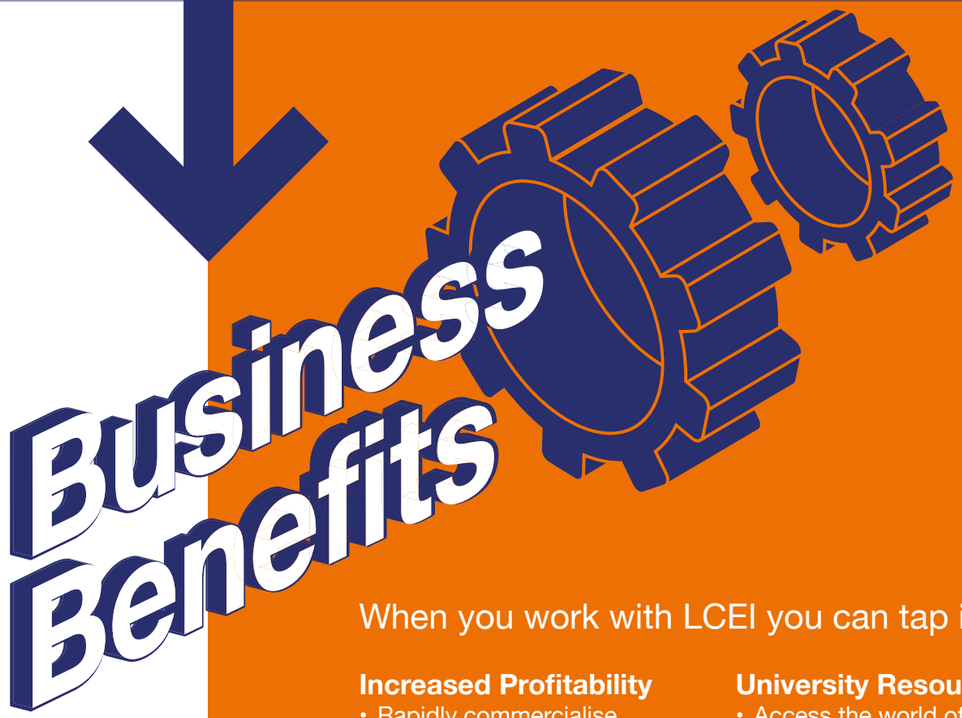
LCEI 2015-2019...

We have made the following achievements in our first four years:

10,000
TONNES OF CARBON SAVED

250
SMEs SUPPORTED

120
NEW LOW CARBON PRODUCTS DEVELOPED



When you work with LCEI you can tap into:

Increased Profitability
- Rapidly commercialise products and services; access new markets and sectors.
- Meet environmental standards to attract new tenders and new customers in an increasingly eco-conscious market.

Knowledge
- Access leading researchers and academics, as well as first-rate students.
- Explore new techniques and ways to address challenges in your own area of expertise AND in low carbon issues, energy management, finance and impacts on profitability.

Competitive Advantage
- Develop high value, commercially attractive products and services.
- Access the latest global research and world-class facilities.
- Use toolkits and support to stand out from your competitors.

University Resources
- Access the world of academia and specialist research facilities - including purpose-built BRE test houses and cutting-edge modular houses, via Liverpool John Moores University, University of Liverpool and Lancaster University.

Information Sharing
- Learn about emerging global opportunities, market trends and real world analysis.
- Be the subject of academia-backed research, or be cited as leading in your field by university experts.

Funding Opportunities
- Get expert support to access different funding programmes.
- University support to open doors to growth.
- Be directly referred to other relevant support programmes such as Clean Growth UK and LCR4.

We simply could not perform the experiments without the scientific support and advice offered by LCEI.

CASE STUDY

Little World Market

Industry
Food and Beverage

Challenge
Development of research centre to determine if mushrooms can break down hydrocarbon plastics.

LCEI Support
Through LCEI, academics reviewed all the existing research available to provide an evidence base for Little World to build on. They developed a scientific method for investigating the degradation process of plastics by mycelium, to enable the process to be scaled-up.

Result
LCEI and Little World have built a positive partnership and will continue to work together. Little World now has the scientific support and knowledge base needed to progress their research.

CASE STUDY

Bristol Blue Green

Working with LCEI has proven invaluable in discussions with potential clients.

Industry
Energy

Challenge
To test the Bristol Blue Green voltage management unit - the BG5.

LCEI Support
The BG5 device was fitted in the LCEI BRE test houses and energy use was recorded, with voltage at regular levels and at a BG5 controlled lower level. The results revealed that the device offered significant savings.

Result
Bristol Blue Green now has independent, academic-backed evidence to support its claims about the BG5's effectiveness and have gone on to install the device internationally.

CASE STUDY

Real Sphere Eco World

We would encourage all businesses to look at LCEI and see how it can help them.

Industry
Retail and Commercial Cleaning Products

Challenge
To test the effectiveness of their eco-friendly cleaning range against standard cleaners.

LCEI Support
LCEI tested the antimicrobial efficacy of products from the Real Sphere Eco World Xtra range, against different types of bacteria. The response to E. coli was excellent and proved good against the more challenging bacteria strains such as P. aeruginosa. LCEI was also able to help with a life cycle carbon assessment of the Real Sphere Eco World products and packaging.

Result
Real Sphere Eco World now has independent academic research and scientific evidence to show that their products are as effective as standard cleaners, but with the added benefit of being eco-friendly. This will help them build authority and trust with their customers as they grow their business.

By working with LCEI we are hoping to create a new 'Hub' or quarter in Liverpool, focused on realising our ambitions.

CASE STUDY

Plastics in Construction PhD

Industry
Construction

Challenge
To find ways to reduce plastic in the construction supply chain and explore sustainable alternatives.

LCEI Support
Through LCEI, the University of Liverpool has assisted a number of companies to develop interlinked PhD projects, including Changing Streams, Vermont Construction and Ideal Modular Homes.

Changing Streams is a CIC, established in Liverpool two years ago with the objective of exploring ways to eradicate plastic in the construction sector supply chain.

Property developers Vermont Construction also share Changing Streams' vision and are interested in exploring the potential of more sustainable materials.

Ideal Modular Homes worked with LCEI to create R&D projects in civil engineering and industrial design, when they identified a similar ambition. They are now working with LCEI to investigate environmentally friendly alternatives to plastic cladding. Additional companies are already progressing ideas along the same theme.

Result
This PhD research allows SMEs to work collaboratively towards low carbon goals. The project will form the basis of a regional cluster group for construction sector SMEs, where they can engage with each other and understand the implications of plastic usage and employing alternative products.

CASE STUDY

Mole Group Utilities Ltd

Industry
Advanced Engineering

Challenge
To help Mole Group better communicate the environmentally friendly benefits of their specialist directional drilling services.

LCEI Support
Mole Group uses unique technologies which offer less disruption and use less energy in drilling underground pathways for cables, pipes and network links.

Through LCEI, Lancaster University provided a funded internship for student Gabrielle, who helped to put in place a targeted marketing and communications plan, promoting the company's environmental credentials and unique system.

Result
Mole Group now has a clear marketing strategy to move them forward and target new clients and contracts.

"LCEI really helped us understand how to strategise marketing communications and utilise social media platforms to promote our products and services.

CASE STUDY

Omni Design

"Meeting the team at LCEI has moved us forward considerably.

Industry
Creative and Design

Challenge
To produce a prototype of a new multi-purpose seat and storage product using energy efficient processes.

LCEI Support
LCEI teamed Omni Design with its 3D printing specialists and produced a prototype of the seat's plastic shell, showing that 3D printing of the product is possible and feasible on a large production scale.

Result
Omni Design now has a prototype, and proof of concept to take to investors.

Talk to our team and start your journey today.

Climate change and the coronavirus pandemic have changed the world we do business in. Make your business stronger, greener and smarter for the future with low carbon support from LCEI.

Low Carbon Eco-Innovatory

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Part of Growth Platform

growth platform
Liverpool City Region Growth Company

European Union
European Regional Development Fund

ERDF Funding
LCEI is funded by the European Regional Development Fund (ERDF). In most cases, no initial investment is needed from the companies that we work with. However, in some instances, such as Masters and PHD projects, there is a contribution required.

The project has the potential to bring significant economic benefits to the SMEs in Liverpool City Region, supporting businesses to reduce greenhouse gas emissions and develop low carbon technologies that will put the region at the forefront of new and expanding global markets.

The unique partnership between Liverpool John Moores University, University of Liverpool and Lancaster University provides niche and unique strengths in low carbon technologies and has a key role to play in the implementation of the low carbon agenda across Liverpool City Region.

NORTHERN POWERHOUSE HM Government

Northern Powerhouse
The Northern Powerhouse is a key aspect of the government's approach to addressing the productivity gap in the North and ensuring a stronger, more sustainable economy for all parts of the UK. Alongside over €1.5 billion of European Regional Development Fund support for businesses and communities across the North, the government has awarded £3.4 billion in three rounds of Growth Deals across the Northern Powerhouse.

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