

# Centre for Environment and Sustainability

**The Practitioner Doctorate in Sustainability**  
a programme that links industry and academia to find  
innovative and enduring solutions for organisations



# SUSTAINABILITY LED INNOVATION

Sustainable business creates a raft of opportunities to expand and develop existing business processes. Companies that recognise the interdependence between the earth, the economy and our communities are in a unique position to drive and influence these processes.

Life cycle thinking, circular economy, social values, industrial ecology and resource efficiency are just some of the areas where business and academia can come together to co-create innovative business practices and models that encompass business, nature, society and governance. This in turn leads to a long term, prosperous and sustainable legacy and purpose-driven partnerships that drive business while bringing positive impact.

The University of Surrey's Centre for Environment and Sustainability (CES) is recognised as world leading in its approach to lifecycle thinking, ecological economics and industry collaboration. We have nearly 25 years' experience of enabling companies to tap into the best academic knowledge and find practical approaches to sustainability issues.

## How it works

Through the Centre's Practitioner Doctorate in Sustainability programme, organisations are paired with a highly-trained Doctoral Practitioner, giving them access to additional resource for two to four years without employment commitments. Together we will create a collaborative partnership for problem solving and sustainable innovation that incorporates cross-cutting expertise in systems thinking, methods, operations and horizon-scanning. While the Doctoral Practitioner will work within your organisation, you will also benefit from close collaboration with senior, experienced academics within CES, high levels of engagement from academic supervisors and the wider academic community, bespoke training, and opportunities to attend a variety of CES events. These will give you the opportunity to engage directly with other industry experts who are pioneering sustainability within their organisations.

Industry partners and academics jointly develop the research brief, co-recruit and jointly manage the resource, while the rights to foreground intellectual property remain with the company. The research insights gained from these programmes put organisations ahead of their competitors and provide a lasting legacy of work. The investment compares favourably with 250 man hours from a big 5 consultancy firm.

💡 We believe that sustainability is a means to an end rather than an end in itself. Our aim is to collaborate with industry to develop solutions based on academic & industry evidence that will have enduring value for organisations and wider industry sectors. ♥

**Dr Jacquetta Lee**  
PDS Director

# INSPIRING RESEARCH



## Complex structure of construction supply chains

**Student:** Erica Russell  
**Company:** Carillion Plc

This project explores the complexities around how a company manages sustainability through the supply chain and what the key impacts are. Understanding the challenges of responsible/ethically sourced material and how to ensure compliance, following the Planetary boundaries debate and understanding the concept of where supply chains stopped including the issue of embodied carbons are all topics covered within this project.



## The 'Zero Bills Home': an innovative self-powering house

**Student:** Rehan Khodabuccus  
**Company:** ZedFactory

The design of a true zero carbon home requires consideration of not only the energy and materials used in construction, but also those required by the occupants throughout its use, and at end of life. This can only be achieved by understanding the environmental, social and economic aspects of building design and occupation. This project has created a house that meets those strict and challenging requirements of a true zero carbon house.



## Product-based environmental metrics for use in aerospace

**Student:** Abdul Miah  
**Company:** Consortium project overseen by the ADS Group Ltd partnering Rolls Royce, BAE Systems, Airbus Group, Bombardier Aerospace and Granta Design

Determining the embodied energy of components in complex products is a time consuming and expensive process. This collaborative project has developed a common approach to measure this therefore reducing variability in the measurement process, facilitating B2B communications and supporting improved sustainable business practices.

## Our Telford PremiumAward winners

**Company:** Surrey County Council  
**Student:** Jade-Ashlee Cox  
**Paper:** Waste and Resource Management

**Company:** Rolls Royce  
**Student:** Stafford Lloyd  
**Paper:** Recommendations for assessing materials criticality

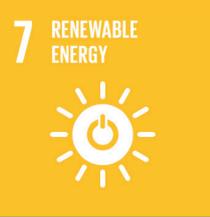
💡 This is a great programme. Our doctoral practitioner has become the focal point for understanding and resolving a very specific challenge. Sitting within our business, we can draw from their expertise and academic network and at the same time, they can understand our needs better. Together we're able to make big steps forward. 💡

**Martin Goodfellow,**  
Programme Manager, Rolls-Royce

Our industry partners include:

					
					
	<p>💡 The programme has provided us with a unique opportunity to really make a difference. We are applying different scientific disciplines to improve quality and achieve zero waste in our production process. Together, we are developing solutions that get to the root of our biggest sustainability challenges. 💡</p> <p>Professor Guoping Lian Science Leader, Unilever</p>				
					

Drive good behaviours – turning the SDG’s from bold ambition to bold action

Practitioner Doctorate in Sustainability

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