

Grant Funding Success Stories: Energy and the Environment

Since 2007, Innovate UK has invested around **£2.5bn** to help businesses across the country to innovate, with match funding from industry taking the total value of projects above **£4.3bn**.

Innovate UK has helped **8,500** organisations create around **70,000** jobs and added an estimated **£18bn** of value to the UK economy. In the period 2019/2020, Innovate UK received **5,794** applications for grant funding and made **949** awards. **£645,886** was awarded in terms of grant funding, **24%** of the total amount applied for.

Deregallera Limited **Industry Sector: Energy Storage & Electric Drive Technology**

Deregallera Limited is an advanced research and development facility based in Caerphilly, Wales that specialises in energy technologies and usage.

The company applied to Innovate UK for grant funding of **£497,560** to carry out feasibility studies, with London South Bank University and the University of South Wales as participants, to develop a feasibility demonstrator system, for extending the life of batteries used in the systems of electric vehicles.

The background to the project is that growing adoption of electric vehicles in the automotive industry has led to a surge in demand for high output batteries.

The power profile of typical electric vehicle use is harmful to the electrochemical process of any battery. Hybridisation of high power-density supercapacitors with high energy density batteries has been shown to dramatically prolong battery life, by shielding

the battery from the majority of small charge/discharge cycles.

The application was successful and the project received **£397,769** by way of funding.

Stopford Projects Limited **Industry Sector: Waste Management**

Stopford Projects Limited applied to Innovate UK for grant funding for a collaborative R&D project which seeks to fast-track the testing, scale-up and design of a novel mobile microwave induced plasma (MIP) gasification



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technology, to enable the safe and sustainable disposal of **COVID-19** related waste.

The background to the project is the growing amount of clinical waste from hospitals and new temporary medical/healthcare facilities that have been erected globally to deal with **COVID-19**.

The innovative solution has been proposed to provide healthcare trusts and hazardous waste management companies as an alternative to offsite incineration, enabling waste to be treated safely and sustainably onsite whilst reducing the costs associated with waste disposal.

The project will focus on the rapid testing and scale-up of Stopford's highly efficient modular MIP gasification technology to enable viable onsite management of **COVID-19** clinical waste at a scale of **1000** tpa.

Enabling the destruction of **COVID-19** clinical waste onsite, will present both healthcare trusts and hazardous waste management companies with an opportunity to alleviate capacity issues and safety issues relating to the disposal of clinical waste, whilst also enabling an opportunity to reduce grid-based issues energy demand through the generation of low-carbon energy.

As such this project presents the global health care sector with a novel process to enhance the safety and sustainability of **COVID-19** clinical waste disposal whilst reducing operational costs and carbon emissions.



The project received an offer of **£131,114** by way of funding.

Catagen Limited **Industry Sector: Reduction in environmental emissions**

Catagen Limited, a company that specialises in reducing environmental emissions, applied to Innovate UK for grant funding for a collaborative R&D project that aims to enable automotive manufacturers to manufacture cleaner vehicles.

Catagen Limited say that the effects of **COVID-19** on the automotive industry is that vehicle manufacturers are cutting jobs and reducing budgets for new vehicle development.

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Work is being carried out to reduce the development costs of new vehicles whilst improving vehicle emissions.

Catagen aims to address this need by using their proprietary toolset to develop a new full drive cycle WLTC (Worldwide harmonized Light vehicles Test Cycles) test that provides automotive manufacturers with a more accurate data set using a test that is more repeatable, at a reduced cost and in a shorter timeframe, leading to better even cleaner new vehicles being developed.

Catagen hopes that this project can improve the UK's competitiveness in this international market and in doing so, they can make further positive changes to the way in which vehicles are developed, de-carbonising the process and improving air quality for the benefit of all.

The project has received **£174,360** by way of funding.

Meet the Claritas Team:

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