



FOR IMMEDIATE RELEASE

**Over £1 MILLION NEW FUNDING SUPPORTS SMALL
BUSINESSES IN ZERO CARBON ECONOMY**

- **The Advanced Propulsion Centre (APC) awards over £1m to 14 SMEs developing the next generation of low-carbon vehicle technologies**
- **Projects to receive valuable business support to help bring innovative solutions to market**

The Advanced Propulsion Centre (APC) has today announced over £1 million in support to 14 micro, small and medium-sized companies, developing innovative low-carbon technologies to significantly reduce vehicle emissions.

This grant funding comes as part of a phased 18-month process through the APC's successful Technology Developer Accelerator Programme (TDAP), which is one of APC's funding streams that supports smaller organisations on their journey from concept to a viable commercial product. In addition to the financial backing of up to £100k, projects also benefit from access to industry experts, helping them to identify routes to market, protect intellectual property and validate their technology.

The projects will develop cutting-edge technology across three of the key innovation areas that will help to realise net-zero emission vehicles:

- Lightweight vehicle and powertrain structures
- Energy storage and energy management
- Electric machines and power electronics

Josh Denne, TDAP Manager, said: "SME's play a crucial role in the low-carbon future of the automotive industry; by supporting companies at the beginning of their commercialisation journey we can ensure the UK stays competitive with some of the most exciting technological innovation in the sector."

The winning projects are:

2-D TECH – a spin-out from the University of Manchester developing graphene-enhanced lightweight materials and powertrain structures.

AGILE CHARGING – a trailer-mounted EV fast charger with integrated battery storage that is easy to install, use and redeploy.

BALANCE BATTERIES – a lightweight, low-cost method of forming battery module cooling systems, specifically designed to accommodate cell expansion forces and allow near direct cooling of the cell faces.

CB2TECH – a spin-out of Cambridge University looking to commercialise high power battery technology that will meet the demands of many automotive applications.

CHEESECAKE ENERGY LTD – a spin-out from the University of Nottingham developing energy storage technology to support the charging of electric vehicles, at a substantially lower cost than lithium-ion alternatives.

ELECTRICAL COOLING SOLUTIONS – a simulation platform that will make high fidelity, multi-physics simulations for electric machines more accessible to companies in the automotive sector.

EMPEL SYSTEMS – development of a scalable product family of multi-voltage electric drive modules offering high performance, unparalleled integration and flexibility with advancements in product value.

FUNCTIONAL STRUCTURES - a manufacturing process and software toolchain that enables digital flexible assembly of wiring using robotics and additive manufacturing methodologies.

PARAGRAF LIMITED – the creation of graphene-based sensors in power electronics to reduce control system complexity and improve motor efficiency.

PHOTOCENTRIC – use of additive manufacturing techniques to create a process that enables custom-mass manufacturing of electric vehicle batteries by 3D printing.

SAM PEARCE DESIGN – integrating in-wheel suspension to make a significant contribution to the lightweighting of electric vehicles.

SPARK EV TECHNOLOGY – using journey data for bus, passenger vehicles and trucks to improve journey predictions for electric vehicles, reducing range/time anxiety and improving trust for drivers.

UPGRADE TECHNOLOGY ENGINEERING – a multi-chemistry battery concept that will improve the longevity of automotive battery packs and increase performance, whilst reducing production and servicing costs.

WHITE MOTORCYCLE CONCEPTS – development of a revolutionary aerodynamic motorcycle, significantly improving the vehicle range and performance possible for the same electric charge.

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About the Advanced Propulsion Centre:

The Advanced Propulsion Centre (APC) accelerates the industrialisation of technologies which will help to realise net-zero emission vehicles. It is at the heart of the UK government's commitment to end the country's contribution to global warming by 2050.

Since its foundation in 2013, APC has funded over 110 low-carbon projects, involving more than 290 partners. The technologies developed in these projects are projected to save over 179 million tonnes of CO₂, the equivalent of removing the lifetime emissions from 6.5 million cars.

APC projects have helped generate economic benefits too. Companies involved have seen turnover increases of 14–17%, with new jobs increasing by 8–10%. Together these have generated a 17% Gross Value Added uplift.

With its deep sector expertise and cutting-edge knowledge of new propulsion technologies, APC's role in building and advising project consortia helps projects start more quickly and deliver more value. In the longer term, its work to drive innovation and encourage collaboration is building the foundations for a successful UK industry.

For more information go to apcuk.co.uk or follow us @theapcuk on Twitter and Advanced Propulsion Centre UK on LinkedIn.

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