Novel Compound Rotary Engine Range Extender for Electric Vehicles

Fact Sheet

Project Information

CREEV

Grant agreement ID: 733967

Project website

Funded under
H2020-EU.3.4.
H2020-EU.2.1.1.
H2020-EU.2.3.1.

Start date
1 August 2016

End date
30 November 2018

Overall budget
€ 990,962,50

EU contribution
€ 693,673,75

Coordinated by
ADVANCED INNOVATIVE ENGINEERING (UK) LIMITED
United Kingdom

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RESEARCH*EU MAGAZINE
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Objective
This project seeks to successfully demonstrate and scale up for market readiness, a novel, high efficiency, low emission, compact rotary engine range extender for electric vehicles.

Electric vehicles (EV) are emerging as the future of transport as they break the dependence on fossil fuels and offer significant advantages in terms of noise and local air pollution. However, uptake has been poor so far due to range anxiety. As a result, while 44% of drivers consider emissions & environmental friendliness as important factors when buying a car, only 5% would consider buying an electric car due to range concerns.

Automotive manufacturers have addressed this issue through the installation of range extender engines. However, existing extenders tend to be too large with poor power density, limiting their use in small commercial and domestic vehicles where space is at a premium. The clear business opportunity is to provide tier 1 automotive powertrain providers and OEMs with breakthrough innovation in EV range extender technology that significantly improves power density whilst providing high efficiency, low emissions, low noise and low vibration to meet consumer needs.

Our solution, CREEV, takes the inherent advantages of rotary (Wankel) type engines for such compact applications and applies patent protected innovations to overcome efficiency and reliability issues to deliver an engine exactly matched to OEM needs.

Our breakthrough solution is lab tested/demonstrated. The Phase 1 feasibility study report has already been accepted and this DSI Phase 2 funding application builds on this success.

With the market for EVs in Europe growing 1300% in the last 2 years, CREEV offers a market opportunity worth an estimated €79m over 6 years. Our management team has over 100 years’ experience in engine technology and strong links with OEMs and Tier 1 suppliers, ensuring market success.

Field of science

/social sciences/economics and business/business and management/commerce
/social sciences/social and economic geography/transport/electric vehicles
/social sciences/economics and business
/natural sciences/earth and related environmental sciences/environmental sciences/pollution
/social sciences/social and economic geography/transport
/engineering and technology/environmental engineering/energy and fuels
Call for proposal

H2020-SMEINST-2-2016-2017

Funding Scheme

SME-2 - SME instrument phase 2

Coordinator

ADVANCED INNOVATIVE ENGINEERING (UK) LIMITED

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Activity type
Private for-profit entities
(excluding Higher or Secondary Education Establishments)

EU contribution
€ 693 673,75

Contact the organisation

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