



## Low Carbon Vehicles Innovation Platform

First Technology Competition, September 2007

### Summary

**This competition, launched by the Technology Strategy Board and the Department for Transport (DfT), is allocating up to £20m of funding to support low carbon vehicle research, development & demonstration (R,D&D) projects. It is the first competition under this new Low Carbon Vehicles Innovation Platform – which seeks to position the UK's automotive sector to benefit from growing public and private sector demand for lower carbon vehicles.**

**This competition is focussed on bringing forward relatively near market low carbon vehicle technologies, whether for private or public service vehicles, that could be viable candidates for commercialisation or fleet procurement initiatives over the next 5-7 years.**

### Background

Road transport accounted for over 21% of the UK's domestic carbon emissions in 2005. Carbon emissions from road transport are also continuing to rise, driven by economic growth and greater personal mobility.

Tackling this continued growth in emissions represents one of the most significant challenges in moving to a lower carbon economy. Responses to the challenge include the development of a wide range of new initiatives, incentives and regulations focussed on improving the fuel economy and thus carbon emissions of vehicles.

The European Commission has communicated its intention to propose demanding, mandatory carbon emission standards for new cars, with a specific target of 130g CO<sub>2</sub>/km from vehicle technology averaged across the new vehicle fleet to be achieved by 2012. In 2006 the UK fleet average for new cars was 167.7g CO<sub>2</sub>/km.

Although new European targets would be implemented at EU and not national level, such a target, if introduced, would indicate a broad need to improve the average carbon

emissions of the UK passenger car fleet by around 20% compared to 2006 levels.

This poses a very significant challenge which will require significant new innovation and technology development on the part of industry to deliver the lower carbon vehicles required to meet the needs of public and private sector users.

At a domestic level the UK Government is also significantly expanding the scope of its policies in this area. The May 2007 Low Carbon Transport Innovation Strategy sets out a wide range of measures that the Government is taking to transform the market for lower carbon vehicles. These include:

- strengthening the Vehicle Excise Duty (VED) and company car tax regimes to further encourage the purchase of lower carbon vehicles;
- support for the move to demanding and mandatory CO<sub>2</sub> standards for new cars at a European level;
- setting specific targets for reducing the carbon emissions of Government vehicle fleets to 130g CO<sub>2</sub>/km or better by 2010/11;
- a new DfT programme, with an initial £20m of funding, to support the public

procurement and demonstration of innovative lower carbon vehicles;

- the commissioning of the King Review to examine vehicle and fuel technologies with the potential to decarbonise road transport over the next 25 years
- creating and developing this Low Carbon Vehicle Innovation Platform (LCVIP), initially supported by the Technology Strategy Board, DfT, Department for Business, Enterprise and Regulatory Reform and the Engineering and Physical Sciences Research Council (EPSRC).

Creation of the LCVIP is an important part of the Government's response to the societal and environmental challenges posed by the need to tackle the carbon impacts of road transport and to achieve the substantial reductions in average vehicle emissions outlined above. Through support for UK based R, D&D projects we aim to:

- help accelerate the market introduction of low carbon road transport vehicles over what would be achieved by global market forces alone, and
- maximise the benefit to UK business and help position the UK's automotive sector to benefit from the growing domestic and international demand for lower carbon vehicles.

## Scope for Applications

This competition will support vehicle technologies with clear potential for commercialisation within 5-7 years that have the potential to feed into low carbon fleet procurement programmes. The call will therefore support collaborative projects that will help bring new lower carbon vehicle technologies to the point where they can begin to be commercialised in the UK and wider global vehicle markets.

Future competitions under this Innovation Platform are expected to involve the (EPSRC) and focus on R&D into very innovative technologies with the potential of delivering large scale carbon reduction from vehicles over longer timescales.

There are no specific constraints on the vehicle categories and technologies that can be proposed in this competition. Indeed, applications relevant for passenger cars, light commercial vehicles, heavy goods vehicles, buses and taxis would be welcomed. Similarly all relevant in-vehicle technology options are eligible. Applicants should however take note of the significant weight given in this call to the key selection criteria that will in particular include:

- the scope for the technology in question to deliver meaningful carbon reduction benefits in domestic and international vehicle markets;



- the appropriateness of the proposed work to expanding the range of low carbon road vehicles available to fleet purchasers within a relatively short time frame (5-7 years).

Any niche vehicle applications would need to clearly demonstrate the applicability of the technology to wider vehicle markets. Similarly proposals in technology areas generally considered to be further from market would need to demonstrate convincing and credible evidence of a viable route to market within a 5-7 year timeframe.

Other proposal assessment criteria will include the extent to which the proposed projects would bring forward UK-based supply chain investment in low-carbon technologies and the likely cost-effectiveness of the carbon saving technologies in question.

While the competition is open to a wide range of vehicle technology applications, applicants should be aware that the following areas are **outside** the scope of this competition:

- The development of new lower carbon fuels or their supply infrastructure. However work on in-vehicle technologies that can accommodate current or soon to be available alternative fuels is eligible for support
- ITS (Intelligent Transport Systems) or telematics applications. While it is recognised that these technologies can positively help to deliver lower carbon transport, this field is covered by the Technology Strategy Board's Intelligent Transport Systems & Services Innovation Platform.

This Innovation Platform competition is seen as complementary to the new DfT procurement programme noted above, through the support it will provide for relevant R,D&D work which can subsequently be incorporated into new vehicles. However, this programme is only one opportunity and applicants should demonstrate a broader approach to exploitation of the innovations developed, (e.g. through reference to wider market or regulatory developments). Proposers should be clear that the Innovation Platform will **not**

support the commercial purchase of lower carbon vehicles by private or public sector organisations, although R, D&D activities up to and including the development and validation of single or very small numbers of prototype vehicles may be eligible for support through this competition.

## Funding Allocation and Project Details

This competition is jointly funded by the Technology Strategy Board and the Department for Transport and has an indicative total budget of up to £20m. The work must be undertaken in the UK and must involve at least two collaborators. It is expected that successful projects will be industry led; however, where appropriate, industry-academic collaborations can be proposed and are eligible for support.

Applications may seek support for Applied Research (attracting 50% public funding) through to nearer market Experimental Development projects (25% public funding), or a programme combining both types of work.

There is no specific limit on project size but proposers should be mindful of the overall budget available and the need to demonstrate value for money in a competitive environment. It is appreciated that the objectives of the Innovation Platform can only be met if the supported R, D & D activity leads to the subsequent industry investment required to bring the technology to market. When considering how to accelerate the route to market, proposers may wish to explore how their commercialisation plans align with regional development investment priorities.

Allowable government support will be subject to the Technology Programme's State Aid approvals as indicated in the Guidance for Applicants.

The Technology Strategy Board will require all projects to provide a non-commercially confidential summary, at the start and the conclusion of the project, for dissemination.

Further information on the assessment criteria will be available in the Guidance for Applicants.

## Key Dates

Competition opens:	21 September 2007
Information morning in London:	4 October 2007
Deadline for registering intent to submit an application:	5 November 2007
Deadline for all Outline applications:	12 November 2007
Full stage opens:	30 November 2007
Deadline for receiving full stage applications:	28 January 2008
Decision and feedback to applicants:	March 2008

## Expressions of interest

The first stage in expressing your interest in this competition will be to register for the information morning to be held in London on 4 October 2007.

To register, visit:

**[www.technologyprogramme.org.uk](http://www.technologyprogramme.org.uk)**.

## More information and contacts

If you have any queries about the technical scope of the competition or the application process, please email **[info@technologyprogramme.org.uk](mailto:info@technologyprogramme.org.uk)** or contact the helpline on **01355 272155**.

### About the Technology Strategy Board

The Technology Strategy Board was established by the Government as a business-led executive non-departmental public body in July 2007, sponsored by the Department of Innovation, Universities and Skills (DIUS). Taking a business-focused approach, the Technology Strategy Board invests around £200m per year into areas such as Collaborative Research and Development and other programmes designed to stimulate knowledge transfer and business innovation. It operates across Government and in partnership not only with business but with Government departments, RDAs, Devolved Administrations and Research Councils.

The Technology Strategy Board's mission is to promote and support research into, and development and exploitation of, technology and innovation - in order to increase economic growth and quality of life in the UK.

More information at [www.dius.gov.uk](http://www.dius.gov.uk) or [www.berr.gov.uk/innovation/technologystrategyboard](http://www.berr.gov.uk/innovation/technologystrategyboard).

### About Innovation Platforms

An Innovation Platform is a Technology Strategy Board approach to stimulating innovation designed to address a major policy and societal challenge, by understanding Government's intended use of regulation and procurement to address the challenge, engaging with business and the research community to identify appropriate responses and their development needs, and supporting programmes to deliver innovative solutions.