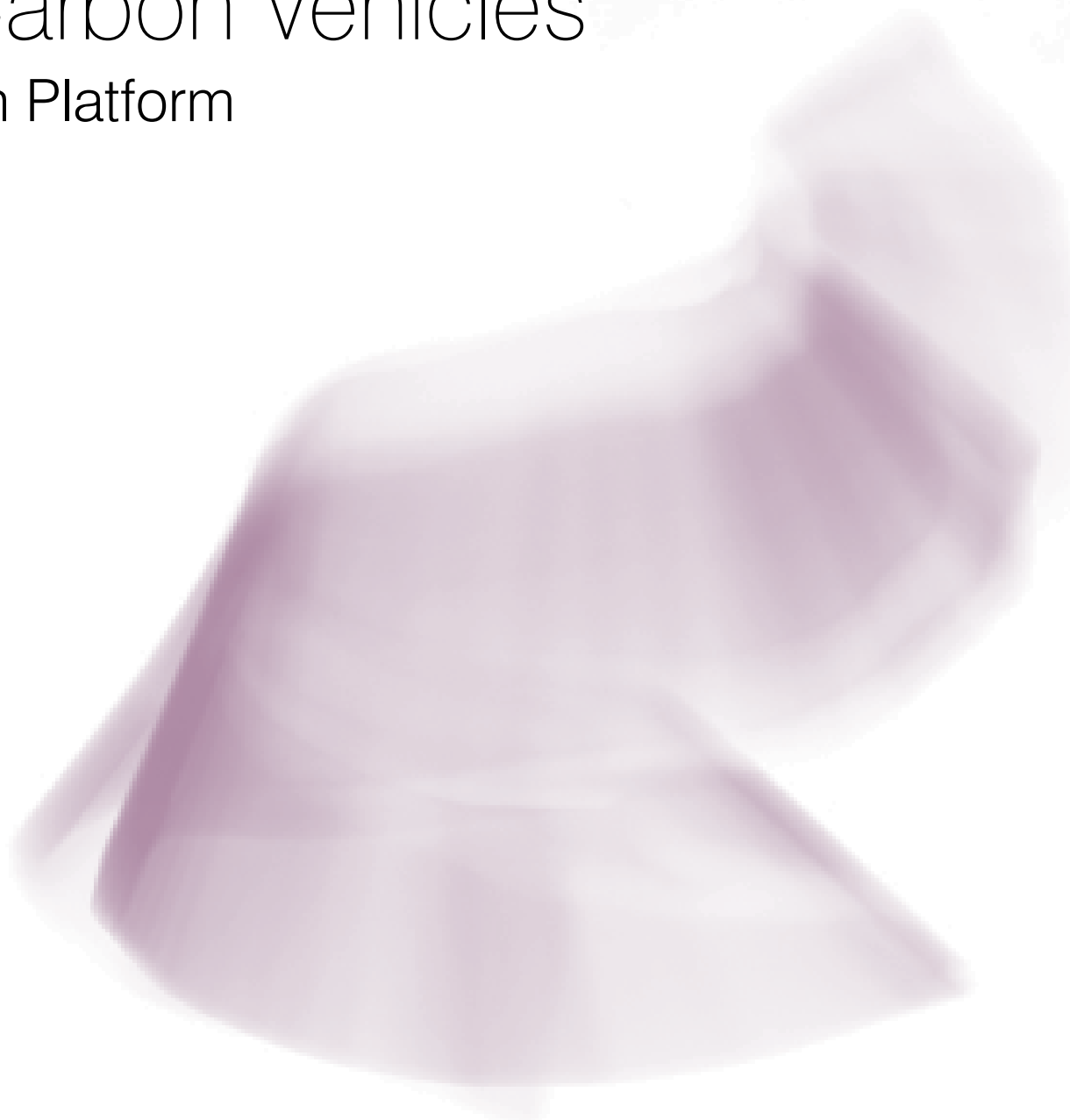


Technology Strategy Board

Driving Innovation



Low Carbon Vehicles Innovation Platform



Low Carbon Vehicles Innovation Platform

The Low Carbon Vehicles Innovation Platform aims to maximise the benefit to UK-based businesses of the rapidly-developing low carbon vehicles market, and to help accelerate the adoption of low carbon vehicles in the UK.

The growing pressure from customers and regulators for more environmentally friendly vehicles is creating new business opportunities for both the established industry and innovative new entrants.

The Low Carbon Vehicles Innovation Platform invests jointly with the industry and other funders in interventions that promote UK-based R&D in low carbon vehicle technologies, and strengthen the relevant supply chains within the UK.

The Technology Strategy Board launched the Low Carbon Vehicles Innovation Platform in September 2007 and activity is expected to continue for 5-10 years.

What is an innovation platform?

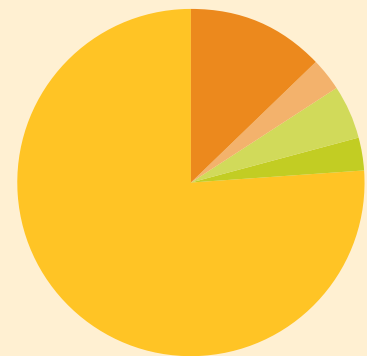
Global society faces many challenges. By applying technology and innovation we can help to meet these challenges and at the same time open up new opportunities for business. Innovation platforms focus on specific societal challenges where the UK Government is taking action through policy, regulation, procurement or fiscal measures to tackle the problem. By improving co-ordination between the key players from industry, academia and government, innovation platforms can identify barriers to meeting the challenge, map possible routes to overcoming the barriers and align activities to support innovative solutions. Innovation platforms aim to deliver a step change in the ability of UK businesses to provide solutions for the global marketplace, boost UK economic performance, and provide higher quality public services.

Why low carbon vehicles?

The UK Climate Change Act 2008 sets a number of challenging targets. These include a 26% reduction in overall UK CO₂ emissions by 2020, and an overall target of reducing greenhouse gas (GHG) emissions by 80% by 2050 (from a 1990 baseline).

The UK intends to meet its transport-related environmental targets by decreasing the carbon footprint of vehicles, whilst simultaneously improving efficiencies in the overall transport network and encouraging lower-carbon travel choices². This strategy is supported by the **Low Carbon Vehicles Innovation Platform** which addresses low carbon vehicles, and the **Intelligent Transport Systems and Services (ITSS) Innovation Platform** which addresses the complementary aspects.

Transport contributes about 24% of UK CO₂ emissions^{1,2}



- Cars 13%
- Vans 3%
- Trucks 5%
- Other transport 3% including bus, rail, marine, domestic air and other modes
- Non-transport related UK domestic emissions 76%

The priorities

To identify the innovation platform's priorities Technology Strategy Board reviewed published roadmaps and held a number of stakeholder consultations. These priorities continue to be guided by an industry-led steering group and are also informed the New Automotive Innovation & Growth Team (NAIGT) **Technology Roadmap** and associated work, which was funded by the Department for Business, Innovation and Skills (BIS) and has recently been released by the UK automotive industry³. The Low Carbon Vehicles Innovation Platform is also working closely with the Office for Low Emission Vehicles, to support a package of policy measures to drive consumer take-up of low carbon vehicles in the UK.

1 www.dft.gov.uk/pgr/sustainable/analysis.pdf

2 www.dft.gov.uk/about/strategy/transportstrategy/pdfsustaintransssystem.pdf (Fig. 2.4)

3 www.berr.gov.uk



First projects funded

The first 14 projects that we funded resulted from a collaborative research & development (CR&D) competition in September 2007, representing £23m of joint Technology Strategy Board/ Department for Transport (DfT) funding and total funding, including investment from the companies involved, of £52m. The projects focus on bringing forward low carbon vehicle technologies that are relatively near to being ready to launch on the market and that could be viable candidates for commercialisation or fleet procurement initiatives over the next 5-7 years.

The Integrated Delivery Programme

The Low Carbon Vehicles Integrated Delivery Programme is a key tool that the innovation platform will use to achieve its goals over the coming 5 years.

The programme has over £200m of joint government and industry investment, and co-ordinates the UK's low carbon vehicle activity from initial strategic academic research through to industry-led CR&D.

The Integrated Delivery Programme is guided by an industry-led advisory panel that will help shape the technological direction and priorities for the programme. Flexible rolling opportunities are being provided for industry to seek support for high quality CR&D work which takes technology through to system or vehicle concept readiness. There are also aligned Engineering and Physical Sciences Research Council (EPSRC) managed competitions for strategic research.

To date, the DfT and EPSRC, together with regional development agencies Advantage West Midlands (AWM) and One North East (ONE), have agreed to invest in the programme. Further support will be sought from other regional development agencies and the devolved administrations.

The first CR&D competition under the Integrated Delivery Programme, **'Ultra-Efficient Systems for the Market Advancement of Electric and Hybrid Vehicles'**, offered £10m of funding from the DfT, technology Strategy Board, ONE and the EPSRC. This competition recognised R&D in the electrification of road transport as critical to achieving the longer term vision of decarbonisation of vehicles.

Launched in June 2009, the second Integrated Delivery Programme competition allocated £15m to fund highly innovative collaborative research and development projects and proof-of-concept studies.

The innovation and technology focus of the competition was informed by the NAIGT report, published in May 2009 (www.berr.gov.uk/files/file51139.pdf).

We have also been working closely with the EPSRC, which is managing a £3m strategic research competition.

The competition targets small-scale, short-term, basic research feasibility projects exploring future technologies that might contribute to the reduction of CO₂ emissions from the UK vehicle market and so help support the uptake of low carbon vehicles.

The Ultra Low Carbon Vehicle Demonstrator

We have run an ultra low carbon vehicle demonstration competition with investment of over £25m. Co-funded by the Technology Strategy Board with DfT, AWM, ONE and the South East of England Development Agency, it will deliver over 340 new and innovative cars on the road in the UK by late 2009 /early 2010. Through this we are aiming to showcase new and emerging low carbon vehicle technologies in real world situations, and to identify potential barriers to their wider adoption. The demonstrators will include in-vehicle data logging, user perception surveys, and consideration of the required local

infrastructures. More details are available on our website www.innovateuk.org under Innovation platforms/Low carbon vehicles.

Who are we working with?

Large societal challenges cannot be tackled by the Technology Strategy Board alone. We need to work with other key players to align our programmes for maximum effect. Our partners include:

Government

- Central Government departments (eg DfT and BIS)
- Office for Low Emission Vehicles
- Other publicly funded bodies (eg CENEX, knowledge transfer networks and the Low Carbon Vehicle Partnership)
- Regional development agencies and devolved administrations
- Research councils

Industry organisations

- Vehicle manufacturers
- Supply chain
- R&D organisations
- Society of Motor Manufacturers and Traders Ltd
- New Automotive Innovation & Growth Team

Others

- Universities, academics.

Further information

Further information is available in the Low Carbon Vehicles Innovation Platform section at www.innovateuk.org and from **Tim.O'Brien@tsb.gov.uk** or **Andrew.Everett@tsb.gov.uk** or **John.Laughlin@tsb.gov.uk**.

Who are we?

The Technology Strategy Board is a business-led executive non-departmental public body, established by the Government. Its mission is to promote and support research into, and development and exploitation of, technology and innovation for the benefit of UK business, in order to increase economic growth and improve the quality of life. It is sponsored by the UK's Department for Business, Innovation and Skills (BIS).

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