

# Greening Vehicles – Challenges and Opportunities

**Stafford Constituency's Future Skills Needs in the  
Low Carbon Economy**

**Staffordshire University  
19<sup>th</sup> March 2010**

**Greg Archer  
Managing Director, Low Carbon Vehicle Partnership**

# Low Carbon Vehicle Partnership

**Accelerating a sustainable shift to low carbon vehicles and fuels in the UK**

**Stimulating opportunities for UK businesses**

Renewable Fuels Agency

Carbon and Sustainability Reporting Within the Renewable Transport Fuel Obligation

Technical Guidance Part One

Office of the Renewable Fuels Agency V1.2

August 2008

**cenex**

**ACT ON CO<sub>2</sub>**

LowCVP 'Low Carbon Road Transport Challenge'

Proposals to reduce road transport CO<sub>2</sub> emissions in the UK to help mitigate climate change

June 2008

| Fuel Economy                   | Low Carbon Car |
|--------------------------------|----------------|
| 115-130 mpg (litres/100 miles) |                |
| 107-115                        |                |
| 97-107                         |                |
| 87-97                          |                |
| 77-87                          |                |
| 67-77                          |                |
| 57-67                          |                |
| 47-57                          |                |
| 37-47                          |                |
| 27-37                          |                |
| 17-27                          |                |
| 12-17                          |                |
| 7-12                           |                |
| 1-6                            |                |

Fuel used (estimated) for 1000 miles

CO<sub>2</sub> emissions (estimated) for 1000 miles

VED for 10 months

£662

£50

LowCVP

Accelerating the Shift to Low Carbon Vehicles and Fuels

Low Carbon Transport Innovation Strategy

ACT ON CO<sub>2</sub>

Future events

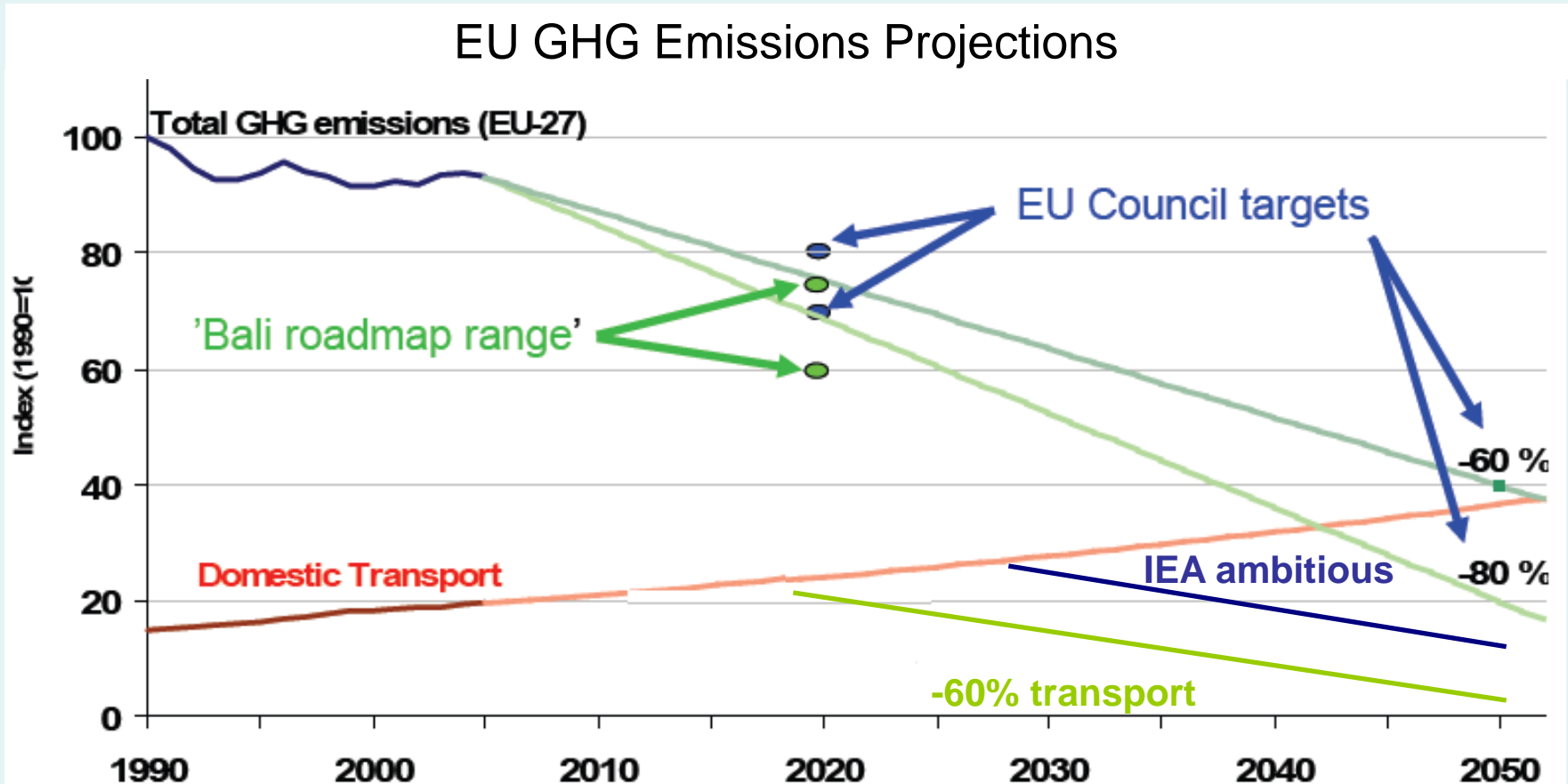
LowCVP Annual Conference 2009 'The Transport Challenge for Vehicles and Fuels'

# Outline

- ❑ The scale of the challenge & opportunity
- ❑ The technology roadmap for low carbon vehicles
- ❑ UK capabilities in low carbon vehicles and fuels
- ❑ Challenges for low carbon automotive SMEs
  - & how LowCVP helps
- ❑ Opportunities for Stafford to contribute & benefit



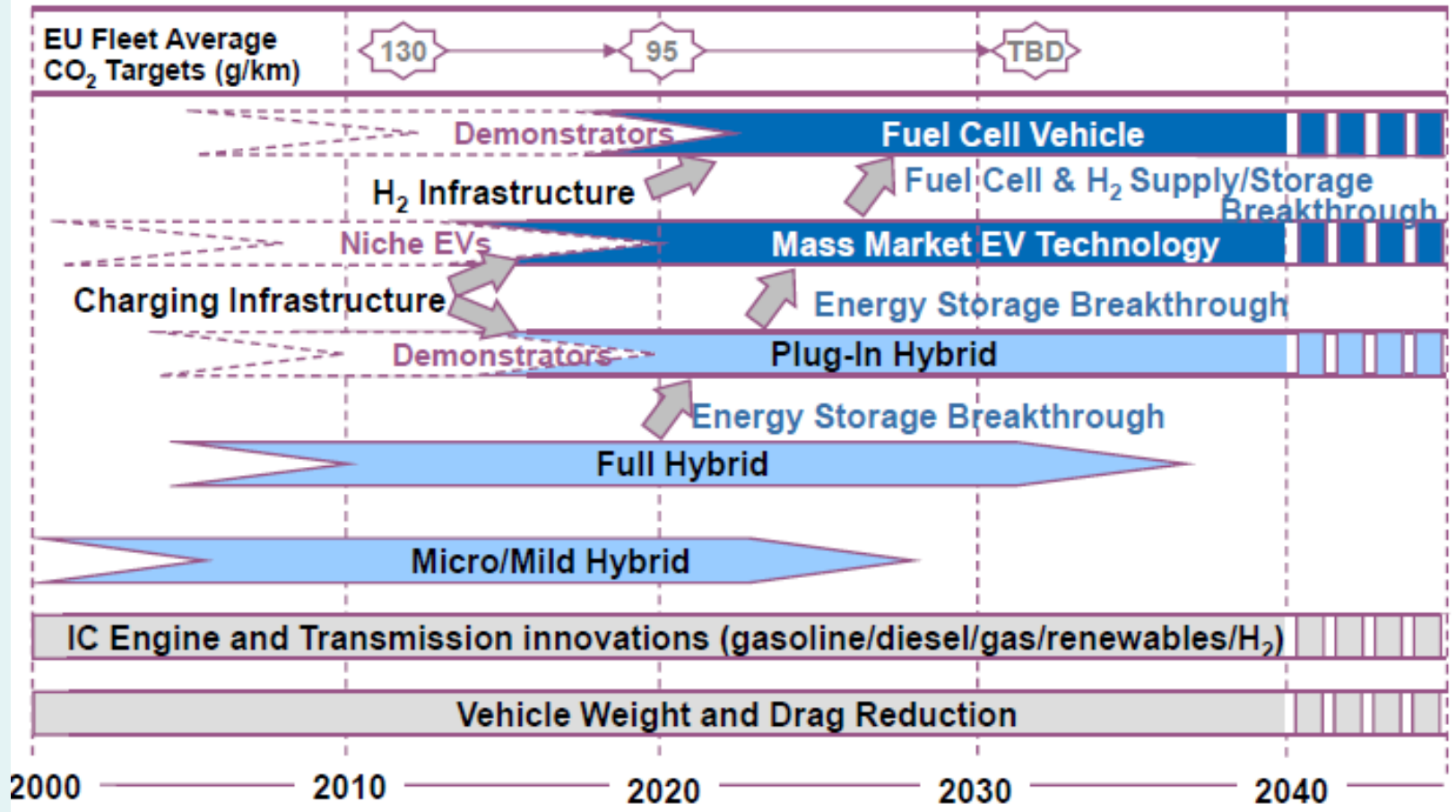
*EU domestic transport emissions will consume the available CO2 budget on current trends. Even ambitious scenarios leave inadequate headroom for other sectors*



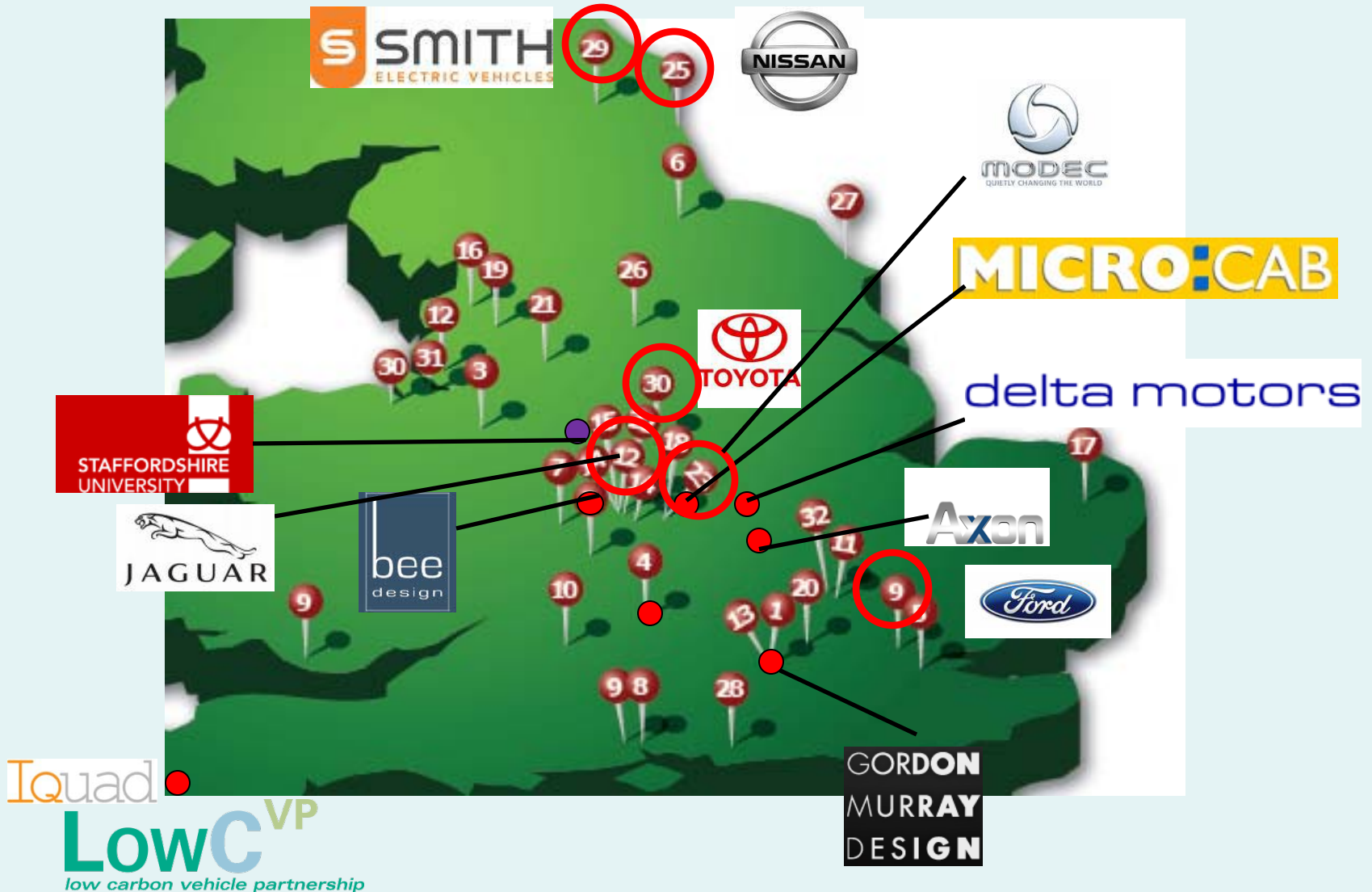
Adapted from EEA 2009 & TNO 2009

*There is emerging consensus on the future evolution of low carbon car technologies*

## NAIGT low carbon car technology roadmap



*The UK has strong and growing capabilities in low carbon vehicle manufacturing and technology  
- much is centred on the Midlands*



# *UK Low carbon automotive SMEs face formidable challenges in bringing product to market*

- ❑ High development & validation costs
- ❑ Limited access to R&D grants & availability of match funding
- ❑ Challenging route to market with restricted access
  - No Tier 1 & limited OEM R&D
  - Long development cycles
- ❑ Restricted access to investment capital
  - Incremental technologies less appealing
  - Low margin sector
- ❑ Business expertise
  - Limited incubator access

**80**

**Towards  
80g CO<sub>2</sub>/km  
and lower**

**WINNERS**  
THE LOWCVP TECHNOLOGY  
CHALLENGE 2009

**LowC<sup>VP</sup>**  
low carbon vehicle partnership

**Axon**

**Brunel  
UNIVERSITY  
WEST LONDON**

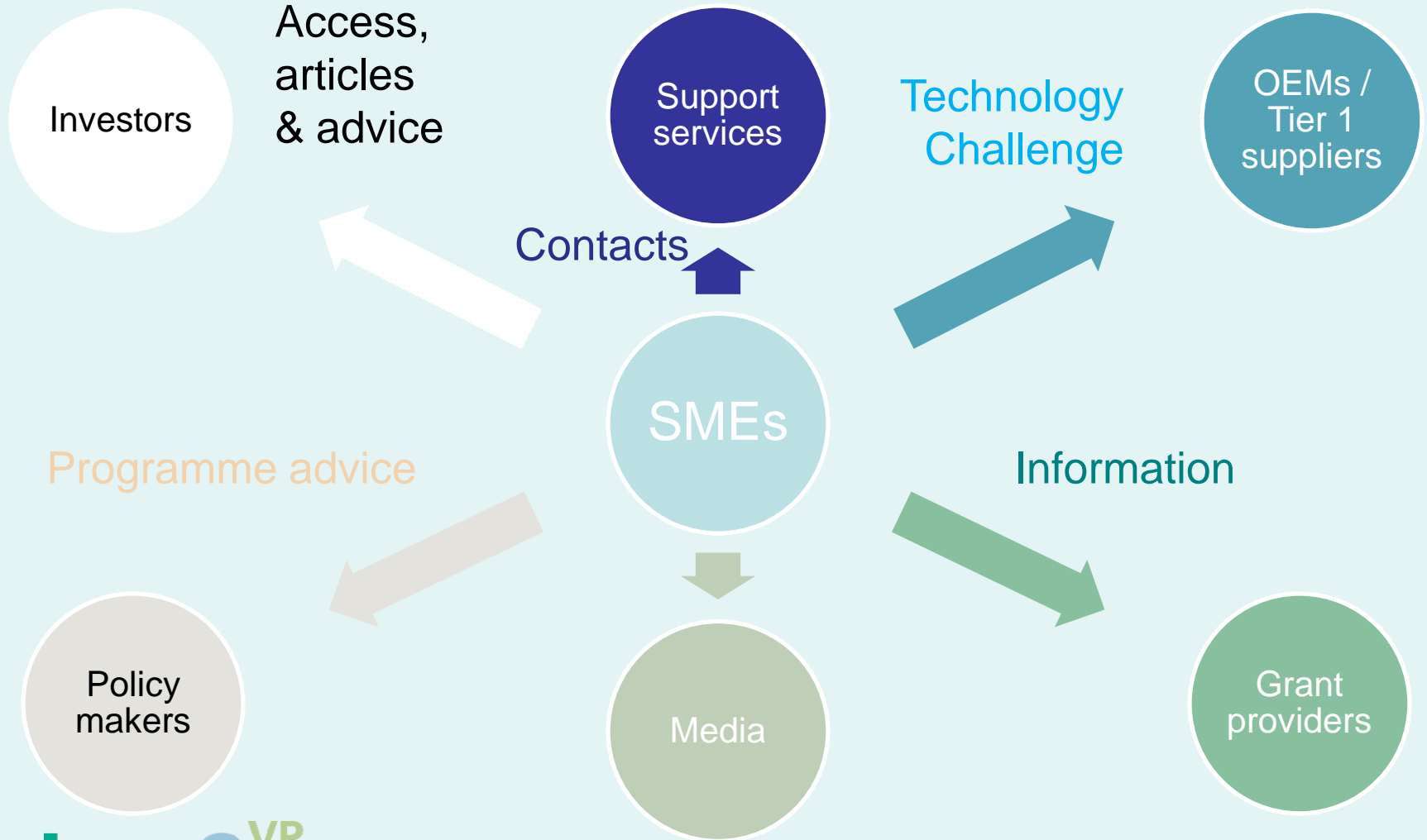
**CPT**  
COMPACT POWER TECHNOLOGIES

**EVO ELECTRIC**  
the evolution of power

**Libralato  
Holdings Ltd.**

**Oxy-Gen Combustion**

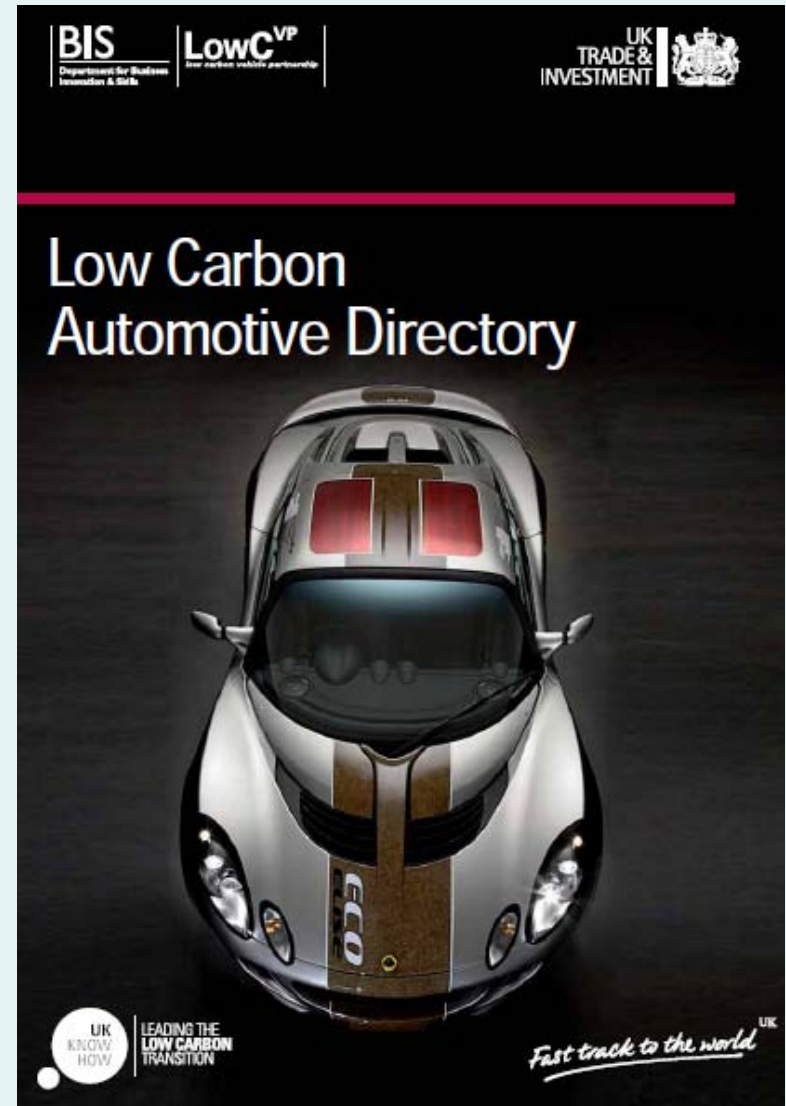
*LowCVP provides a networking role between low carbon automotive SMEs & key partners*





# *The shift to low carbon vehicles provides new opportunities for Stafford & the University*

- ❑ Specialist low carbon automotive services
  - Manufacturing robotics
  - Knowledge Transfer Partnerships
  - Automotive engineering support
  - Energy Efficient Motorsport
- ❑ Analytical / engineering testing / modelling support
- ❑ Business support
- ❑ Training courses
- ❑ Low carbon vehicle grad/post-grad. quals.



Thank you for your  
attention

Any Questions?

020 3178 7860

The Low Carbon Vehicle Partnership

[secretariat@lowcvp.org.uk](mailto:secretariat@lowcvp.org.uk)

[www.lowcvp.org.uk](http://www.lowcvp.org.uk)

