

GREENER & CLEANER: IS THE UK MOTOR INDUSTRY FULLY INVESTED IN A LOW CARBON FUTURE?

KONSTANZE SCHARRING

10 May 2012

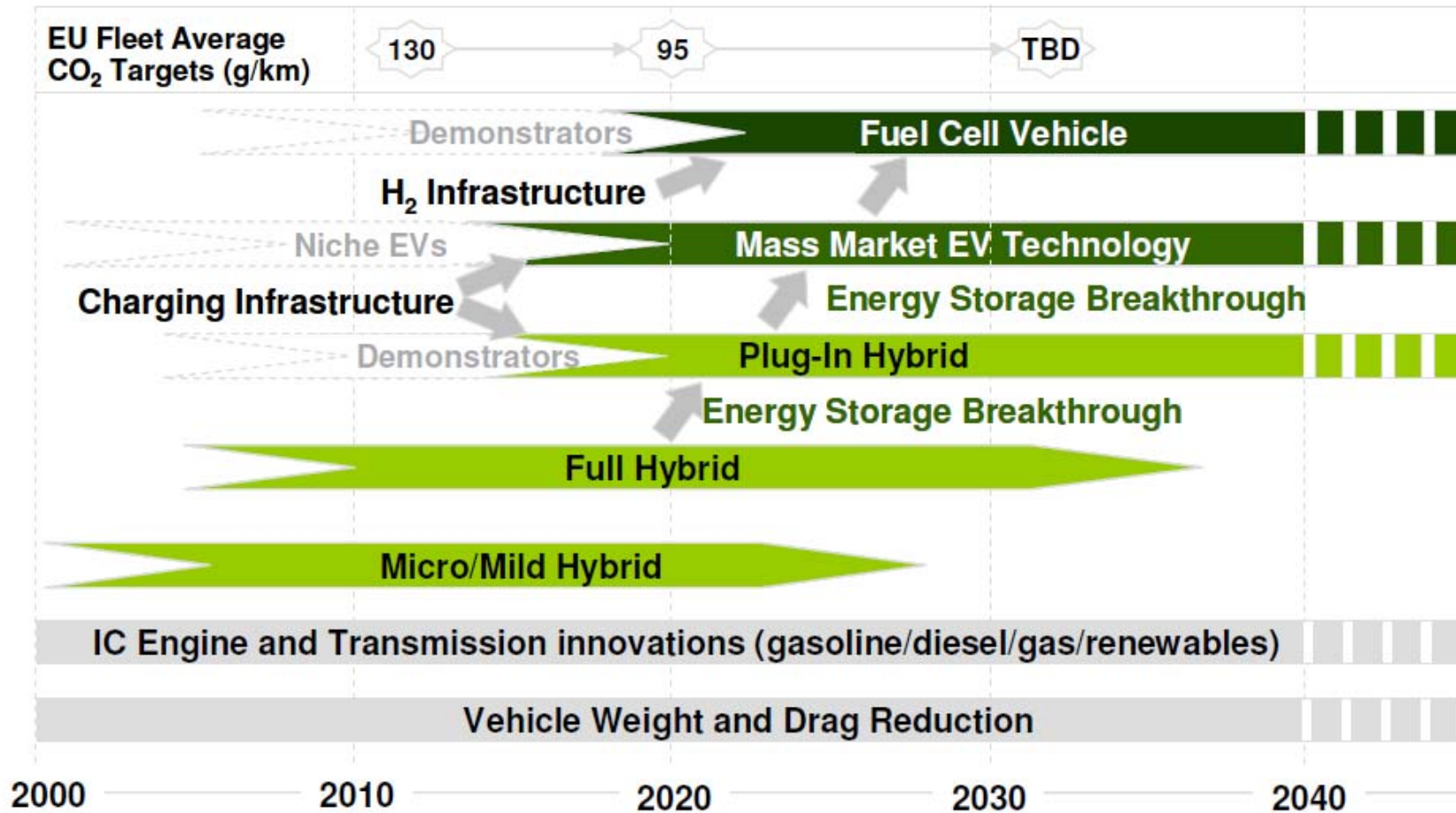
THE UK AUTOMOTIVE SECTOR

- **UK automotive sector makes 1.5 million cars and commercial vehicles and over 2.5 million engines annually**
- **Automotive is vital to the UK economy**
 - Around £50 billion turnover
 - £10 billion value added
 - Over 730,000 jobs dependent on automotive
 - More than 11% of total UK exports
 - Invests £1.3 billion each year R&D
- **UK is home to 7 volume car manufacturers, 8 commercial vehicle, 11 bus & coach, over 100 niche, premium & specialist vehicle manufacturers and ca. 2350 component manufacturers**



THE INDUSTRY TECHNOLOGY ROAD MAP

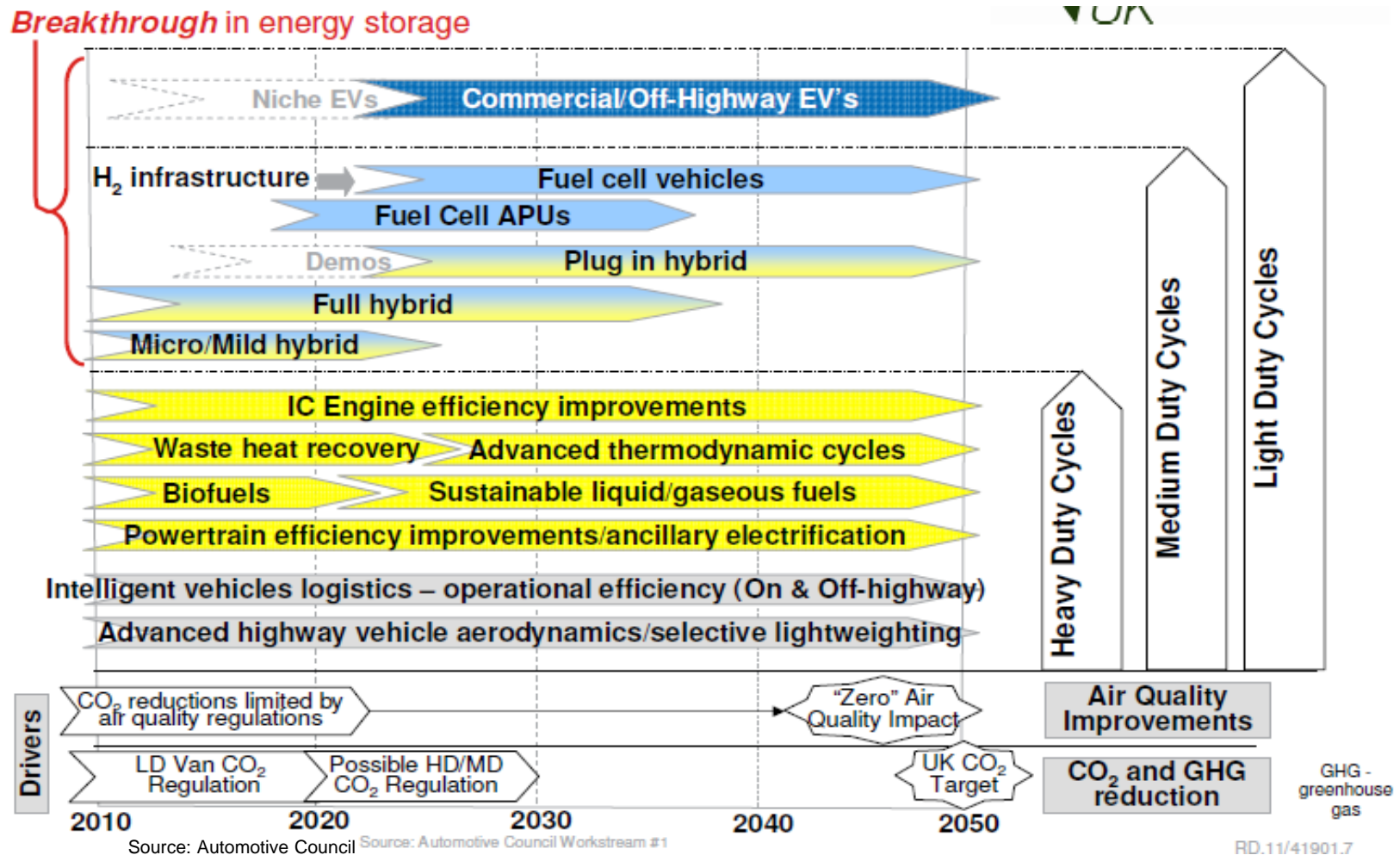
PORTFOLIO APPROACH - passenger cars



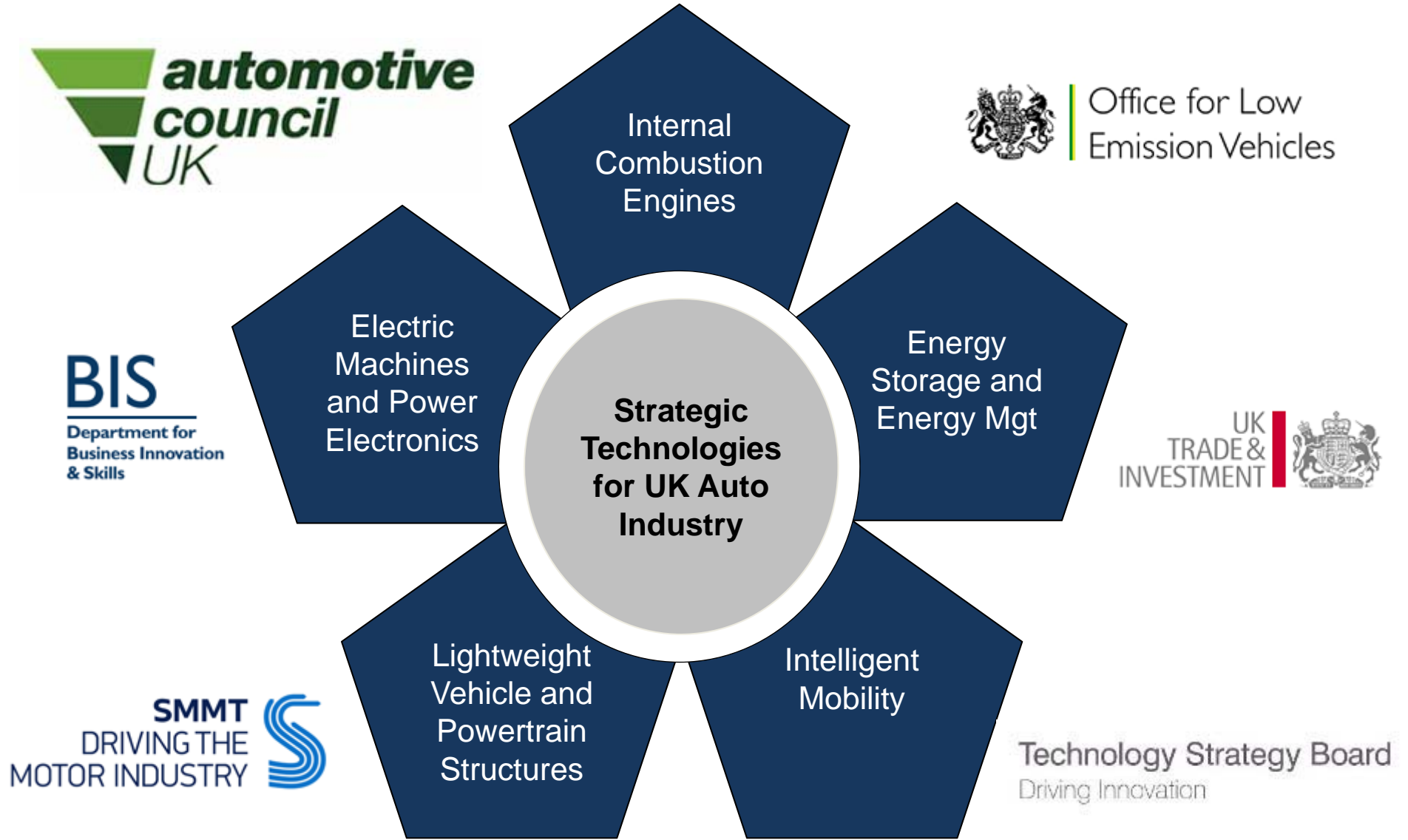
Source: Automotive Council

THE INDUSTRY TECHNOLOGY ROAD MAP

PORTFOLIO APPROACH – commercial and off-highway



THE UK'S 5 STRATEGIC TECHNOLOGY PRIORITIES



INVESTMENT - INDUSTRY SEIZING THE OPPORTUNITY



- 2010 Ford announced £1.5bn investment in UK low carbon R&D and manufacturing



- £100m Toyota investment to build its new hatchback at Burnaston



- £725m investments made to build new Nissan Leaf, Invitation & battery plant at Sunderland



- Commercial hydrogen station at Honda's South Marston plant, Swindon



- BMW's £500m investment across facilities for new MINI Coupe and Mini Roadster

Full list available at: www.smmmt.co.uk/investment

INVESTING NOW FOR A LOW CARBON FUTURE

£355 million low emissions engine plant, Wolverhampton



JAGUAR

£490 million investment for the hybrid C-X75, Solihull



Cygnets production to create 150 new jobs, Gaydon

£725m investment for LEAF, Invitation & battery plant, Sunderland



Toyota creates first car plant solar array, Burnaston



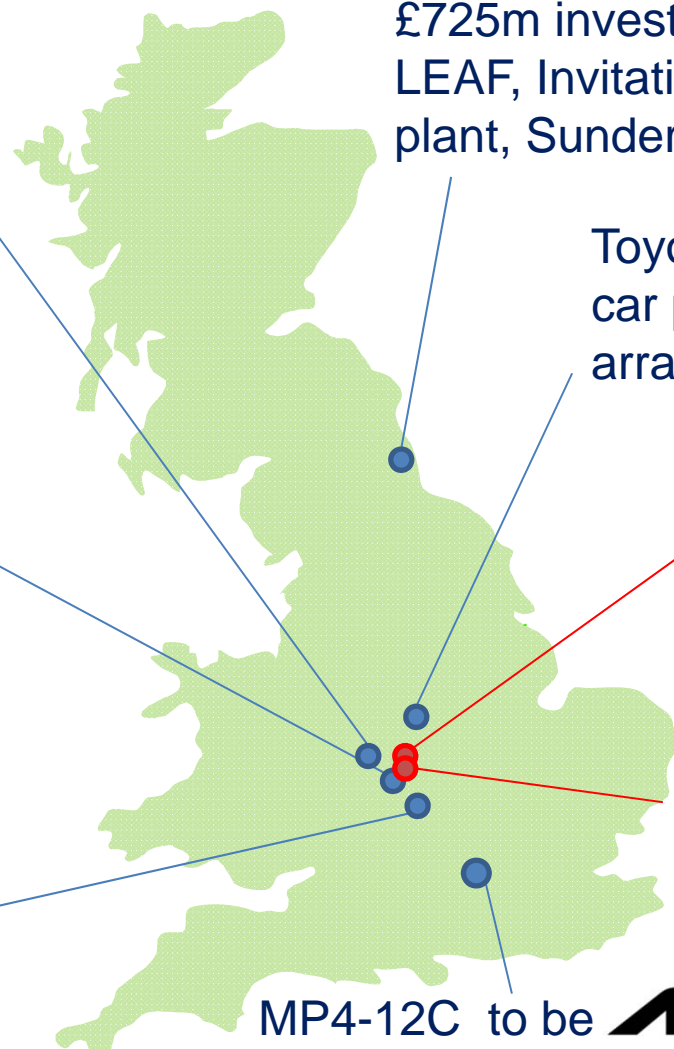
MIRA £250m facility expansion, Nuneaton



Expansion of TATA European Technical Centre, Warwickshire

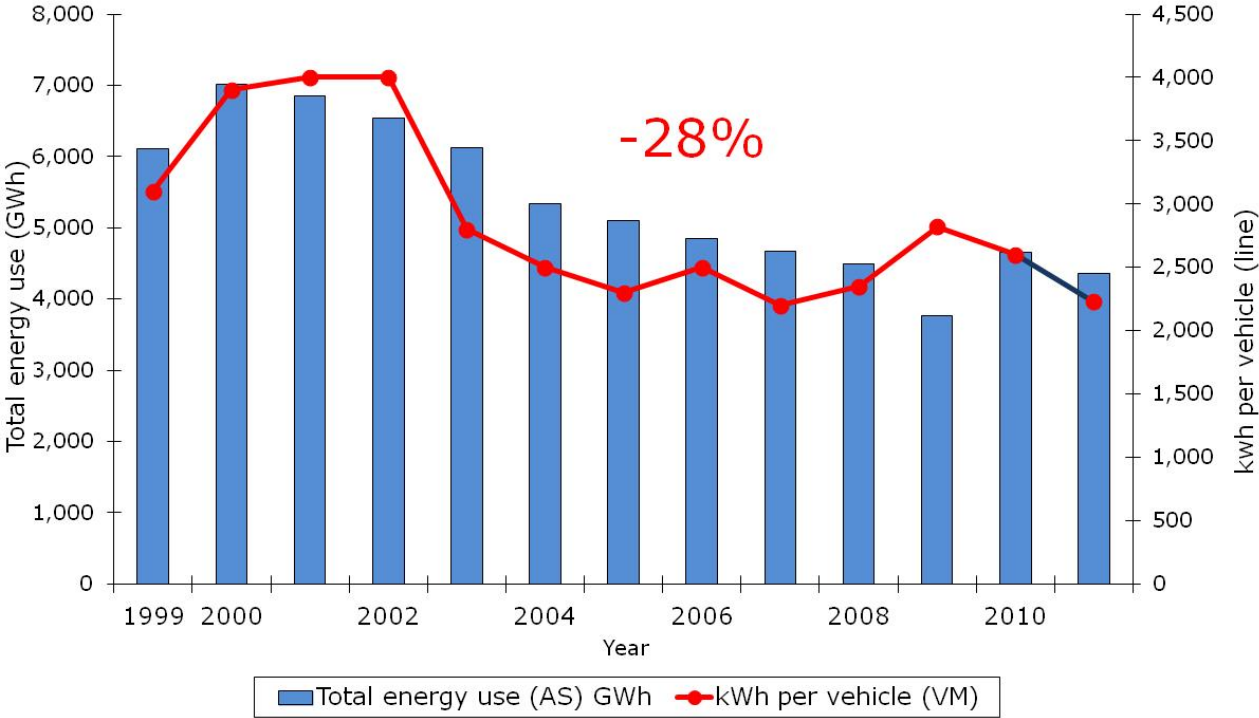


MP4-12C to be manufactured, Woking



INDUSTRY SUSTAINABILITY REPORTING

Reduction in energy used per vehicle: 28% since 1999



- **CO₂ emissions -38%, water use -79%, waste to landfill 75%, VOCs -36%**
- **In 2011, 16,000 MWh of renewable energy produced on automotive sites - enough to power 4,000 homes**

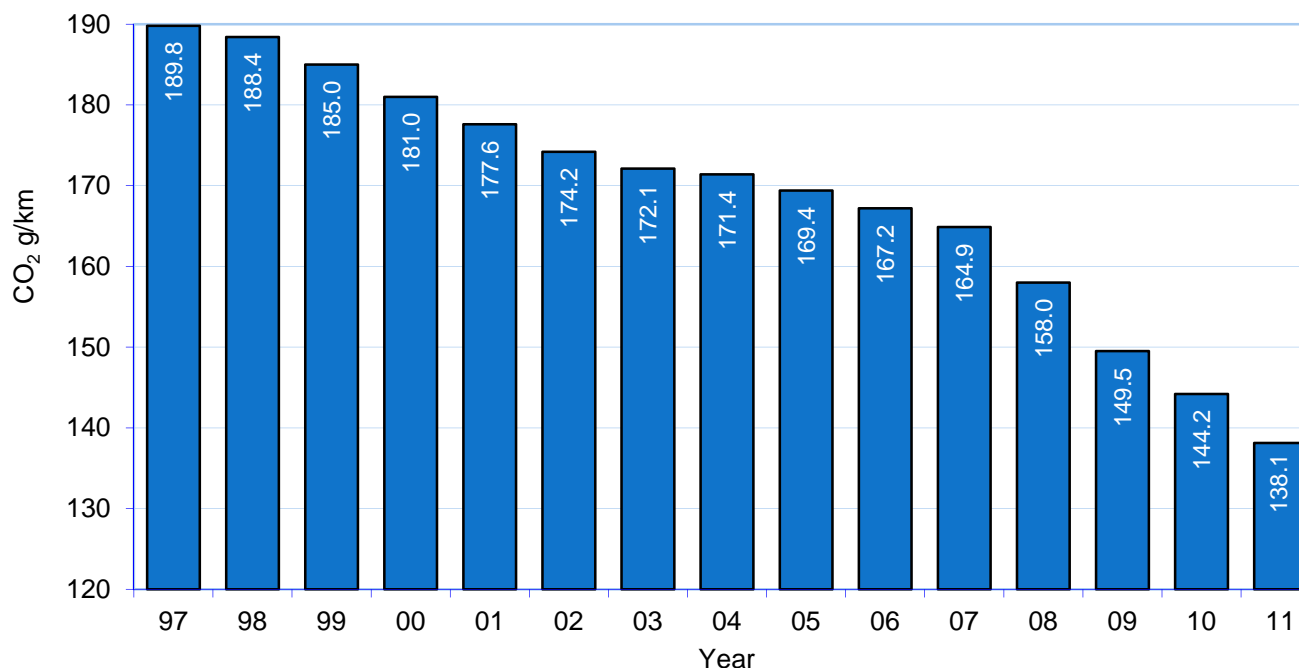
Full report at:

www.smmmt.co.uk/sustainability

SMMT NEW CAR CO₂ REPORT – APRIL 2012

- UK average new car CO₂ – 138.1g/km in 2011
- 23 per cent improvement on 2000, 4.3 per cent on 2010
- Significant progress, but challenges ahead

Average new car CO₂ – 1997-2011 (SMMT)

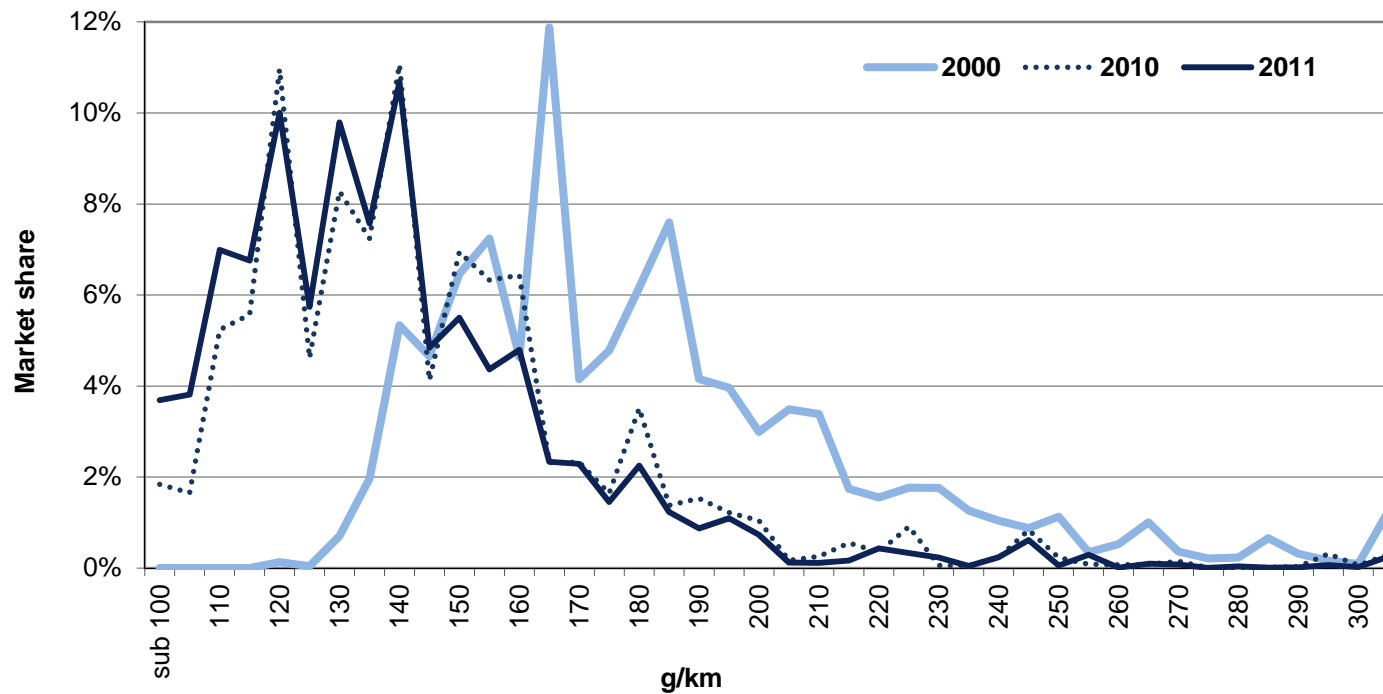


Full report available at: www.smm.co.uk/CO2report

DISTRIBUTION OF THE NEW CAR MARKET BY CO₂

- Shift into lower CO₂ emitting vehicles.
- 46.8% of the market below 130g/km and 3.4% below 100g/km, compared with 0.9% and 0% in 2000.

New car market by CO₂ bands (SMMT)



CURRENT UK LOW CARBON VEHICLE MARKET

- **Plug-in grant car registrations were 0.05% of 2011 market**
- **1,276 total plug-in car grants issued by March 2012**
- **Significant annual percentage increases**
- **Still very early market in need of support**

Vehicle Category	YTD April 2012	Full Year 2011
Total pure electric	430	1,082
Plug-in Car Grant eligible	488	1,052
Total petrol/electric hybrid	8,843	23,370
Alternatively fuelled vehicles	700	985

2012 ULTRA LOW CARBON VEHICLE MODELS

By 2013, 7/9 car segments will include a plug-in option

RENAULT ZOE

- Pure EV
- Battery leasing business model
- Late 2012 launch



Car segment	Current and 2012 plug-in models
Mini	smart ed
Supermini	Mitsubishi i-MiEV, Peugeot iOn, Citroen C-Zero, Renault Zoe
Low-medium	Nissan Leaf, Ford Focus Electric, Toyota Prius plug-in hybrid
High-medium	Vauxhall Ampera, Chevrolet Volt, Volvo V60 plug-in hybrid,
Executive	Tesla Model S
Luxury	Fisker Karma
Specialist Sports	Tesla Roadster, Mercedes-Benz E-Cell



COMMERCIAL VEHICLES IN THE UK

- **Commercial Vehicle Show 2012, 24-26 April showed the way**
- **Industry is investing across all commercial vehicle types to reduce regulated emissions & increase fuel efficiency through engine technology, alternative fuels, aerodynamics, telematics and driver training**
- **Logistics Task Force:
£9.5m TSB Low Carbon Truck demonstration trial**
- **Plug-in Van grant - up to £8,000**



**Transport Minister Mike Penning
MP at the 2012 CV Show**

LOW CARBON BUSES IN THE UK

- **Green Bus Fund Round 3 – March 2012: continued success**
- **439 new low carbon buses – hybrid, electric, gas**
- **Alexander Dennis Limited, MAN, Optare, Volvo and Wrightbus partnering with 26 bus operators across the UK**
- **Majority manufactured in the UK**
- **Already 588 hybrids in UK**
- **Fact:
UK largest market in EU
for hybrids in public transport**



UK H2 MOBILITY

- Companies and government have come together to form a consortium to investigate hydrogen fuel cell technology
- UK H2 Mobility will develop an action plan for an anticipated roll-out to consumers in 2014/15



UK H₂ Mobility



CONCLUSIONS

- **Low carbon vehicle agenda is an industrial agenda**
- **Industry commits over £4bn investment in UK & strategic technologies and brings latest low carbon models to UK market**
- **Significant improvements in conventional technology/ICE & early market for ultra low carbon vehicle market is developing but needs continued support**
- **Post-2020 delivery of ultra low carbon mobility depends increasingly also on other players:**
 - **Government: strategy, fuels/energy roadmap & support**
 - **Electricity providers & network operators: investment**
 - **Operators/fleets/customers: adoption & behavioural change**

THANK YOU

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