THE leading event in the low carbon transport calendar

Investing in the low carbon journey: Lessons from the first decade of UK policy on the road to 2050

Peter Wells and Adam Chase Cardiff Business School and E4tech



The low carbon contribution: Driving growth; delivering jobs

Contents

- Peter Wells
 - Context
 - Performance 2003 2013

- Adam Chase
 - Role of policy
 - Future policy directions





A decade ago

- Automotive could have been a 'sunset' industry
- Economic and environmental pressures were immense
- Regulation was a threat not an opportunity
- Policy lacked alignment to industry and national goals
- It was a 'now or never moment'
- "We believe that the (automotive) industry can have a long term future in the UK provided that industry and Government work together."

Automotive Innovation and Growth Team (2002)







Evolving context

- Globalisation of the industry
- Fuel price surge
- Economic crisis
- Environmental pressures

2008 was a turning point for the automotive industry... the emergence of economic collapse and energy crisis at the same time transformed the industry

Automotive Company CEO

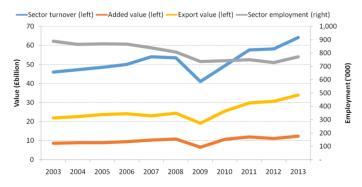


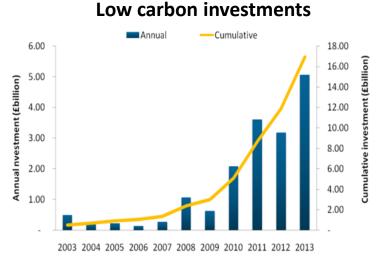


Sector performance 2003 to 2013

- UK automotive sector turnover grew from £46.3bn in 2003 to £64.1bn in 2013
- Productivity per worker up 45% from 2003 to 2013
- Exports account for 77% of UK car production, up from 70% in 2003
- Confirmed total value of £17.6bn in low carbon investments (approximately £40bn total by extrapolation)

Economic indicators



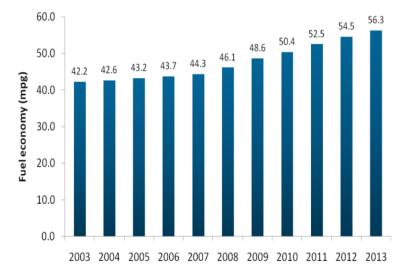






Environmental performance 2003-13

- Average new car fuel economy (petrol) has risen 33%
- New car CO2 emissions have fallen from 172.2g/km to 128.3g/km (meeting regulated threshold early)
- Rapid uptake of low carbon buses led to over 1,500 in service by 2013



New car fuel economy (petrol)





Today

- At end 2013 the UK was home to:
 - Seven mainstream car manufacturers
 - Seven commercial vehicle manufacturers
 - Nine bus and coach manufacturers
 - Eight premium and sports manufacturers
 - Over 100 specialist and niche manufacturers
 - Eight of the eleven F1 teams
 - 19 specialist R&D centres



 The UK automotive industry accounted for over 772,000 jobs of which over 160,000 were directly employed in manufacturing and 38,500 employed in motor sport.





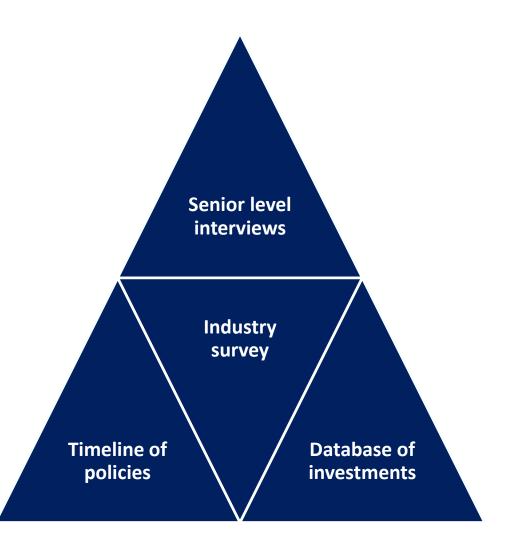
Policy journey

- Automotive Innovation and Growth Team (2002) challenged the view of the auto sector as a sunset industry.
- LowCVP (2003) provides a focal point for stakeholder engagement
- Climate Change Act (2008) provides a clear direction of travel to 2050
- Technology Strategy Board (2007) and Advanced Propulsion Centre (2013) provide consistent support for innovation
- New Automotive Innovation and Growth Team (2009) defined the industry's way forward
- Automotive Council (2009) became the focal point for industry government dialogue
- Office for Low Emission Vehicles (2009) and Green Bus Fund (2009) create market conditions for low carbon vehicle uptake
- Automotive industrial strategy (2013) aligns industrial and low carbon objectives





Establishing causation







Consistent government engagement has been crucial

Investment decisions are always about more than incentives – policy and stability are vital

Major vehicle manufacturer

Without TSB support we would not have made it through 2008-10

Automotive SME

** The continued existence and expansion [of policy] is vital to persuading investors to support activity here rather than abroad

Automotive manufacturer

^{\$\$} The Automotive Council has been working fantastically... and government genuinely listens

Automotive company CEO, Automotive Council member

Control There was a planets in alignment effect which led to...focus, consolidation and acceleration of effort, ending in the present day and APC...really interesting things started to happen around this time... with the formation of the TSB and the NAIGT

LowCVP Conference 2014 The low carbon contribution: Driving growth; delivering jobs



Major automotive company



Environmental policy has made a positive difference

"Back then, environmental regulation was seen as a threat not an opportunity"

Automotive R&D services company

"At the highest level, the creation of a level playing field [CO₂ target] by the EC was extremely helpful. A clear long term target is what industry needs – it will find a way to respond"

Automotive manufacturer

"These [charging infrastructure] initiatives were important to our parent's decision to make the UK one of our early markets for introduction of electric vehicles"

Major automotive manufacturer

"Due to the cost premium to purchase hybrid buses we would not have invested in the buses we bought without Green Fund support"

Bus operator





Not everything has gone smoothly

- Demise of RDAs too abrupt
- Heavy goods vehicles lack
 CO2 policy framework
- Unstable fuels policy in the UK and EU has hampered investment



The absence of any indication on policy beyond 2020 is undermining the possibilities for investment, in particular for advanced biofuels

Biofuel company CEO





Recommendations for future policy

Stay on course

- Maintain urgency
- Stay focused on low carbon
- Continue from innovation into manufacturing

Address remaining automotive sector challenges

- Build (low carbon) supply chain
- Develop (low carbon) skills
- Align low carbon with air quality policies
- Create CO2 measurement and incentive framework for HGVs
- Ensure strong engagement with EU-level initiatives
- Build long-term confidence for the low carbon fuels sector





Positive outlook.....if

- UK could be producing over 2 million vehicles by 2020, with strong exports and lower carbon vehicles
- Engine sector likely to continue resurgence (already producing 2.5million units)
- Bus and coach sector expanding, partly thanks to low carbon models
- Low carbon innovators see UK as the best place to be

- Continue close governmentindustry collaboration
- Long-term policy frameworks for vehicles and fuels
- Low carbon innovation focus with 2050 in mind
- Embrace ambitious change in order to lead the market
- Strong influence in international regulation and policy
- All stakeholders engaged



