






Cutting carbon from road transport: lessons from the first decade of focused UK policy *1-426-15*

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Low Carbon Vehicle Partnership (UK)

eceee, June 2015

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Are you sitting comfortably…?

Then I'll begin.

Once upon a time…

"Storytelling is the construction of a desirable future based on a narrative of past events, with a plot that expresses some causal relationship"

Barry Goodchild, based on D.E. Polkinghorne (1991)

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The Low Carbon Vehicle Partnership –
A decade of cutting carbon from road transport

Connect | Collaborate | Influence

- A forum for stakeholders (Gov't, industry, NGOs & others) **c200 member orgs**
- Develops initiatives
- Policy advice to Government
- Opportunities for UK business
- Contributes to meeting climate targets



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Accelerating the Shift to Low Carbon Vehicles and Fuels

Story background: The UK Policy context

Ten years ago…

- The UK auto sector looked like a 'sunset' industry
- High economic and environmental pressures
  - Climate change rising up the agenda
- Policy not well aligned to industry/national goals
- Labour Gov't not averse to activist ind'l policy

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

Automotive R&D Services Company (LowCVP Study survey response)

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Background developments (2003-13)…

- Increasing globalisation of the auto industry
- Fuel price increase (= more incentive for efficiency)
- (Post-2008) Economic crisis – recession and 'austerity'
- Environmental pressures continue but rise of 'climate fatigue'
- Rise of climate scepticism and nationalist right (UKIP and some Conservative support)

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Background developments (cont'd)…

- From 'the greenest government ever' (2010)…
  to '…green crap' (2013) (David Cameron, PM)
- Environment-focused messages losing traction
- Economy, jobs & exports key themes



2010 2013

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What's the story Jackanory?

- Environment regulation/other policies are a costly distraction…just more 'green crap'

or…

- Environment regulations etc have encouraged UK industry to invest in technologies for markets of the future

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

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So, could we help to write the story for the UK auto sector?

We were encouraged to do so by…

- Recent reports of significant auto industry investments, many in 'greentech'
- Improving export and productivity stats
- (Mainly anecdotal) Reports of industry confidence and vibrancy

- E4Tech & Cardiff Business School commissioned by LowCVP to research the story
- Output scheduled for presentation at LowCVP Conference, July 2014 at Gov't Dept of Business, Innovation and Skills

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The story could have two conclusions…

Either: "The UK auto industry is growing and doing well; fears that environment regulation would hold it back are proving unfounded…"

Or…

"The industry's recent success is a direct result of an activist industrial policy focused on cutting carbon."

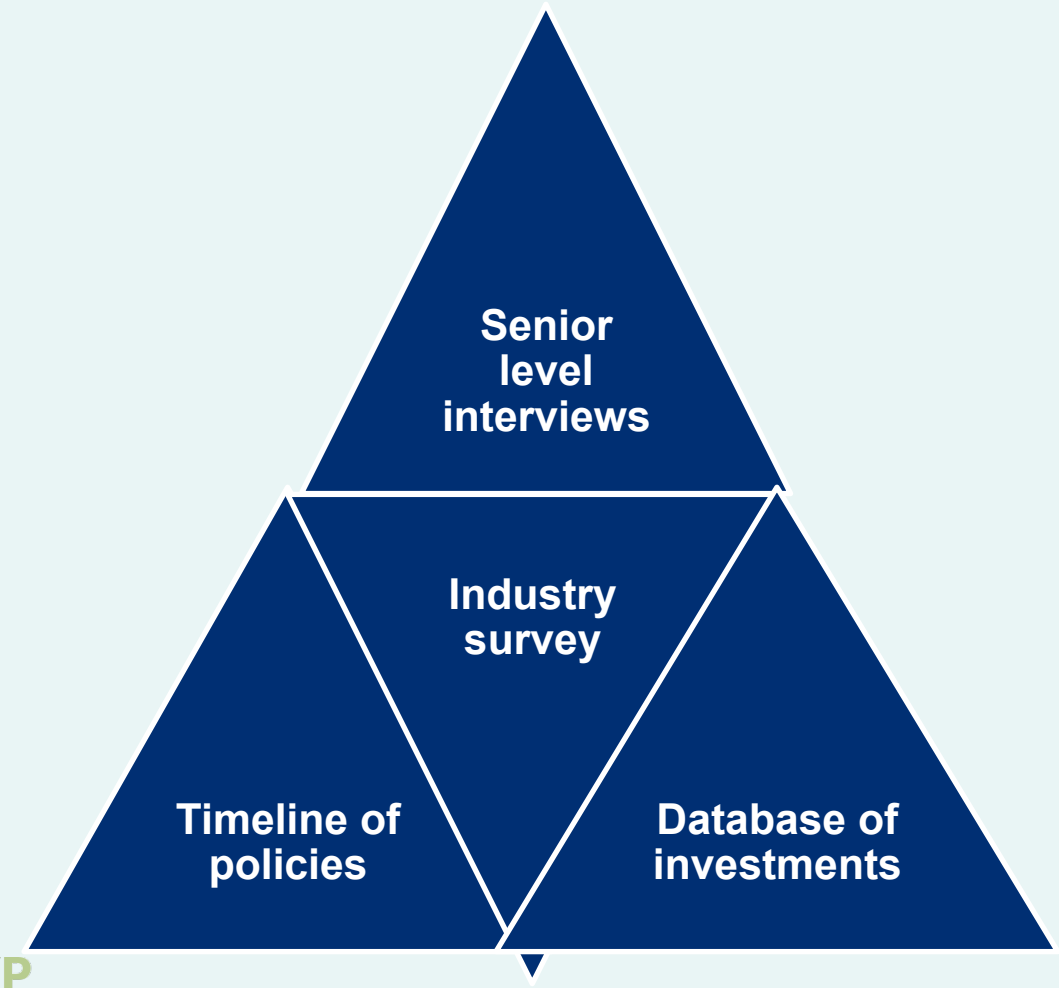
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Researching the story: Study components

- Policy journey/timeline 2003-13
- Desk research
  - Automotive investments database
  - Exports, sector economic indicators
- Stakeholder surveys and interviews
  - Wide LowCVP stakeholder survey (107 responses)
  - In –depth interviews with sector specialists (14 interviews)

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Establishing causation between policy and industrial success



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The policy journey – summary timeline

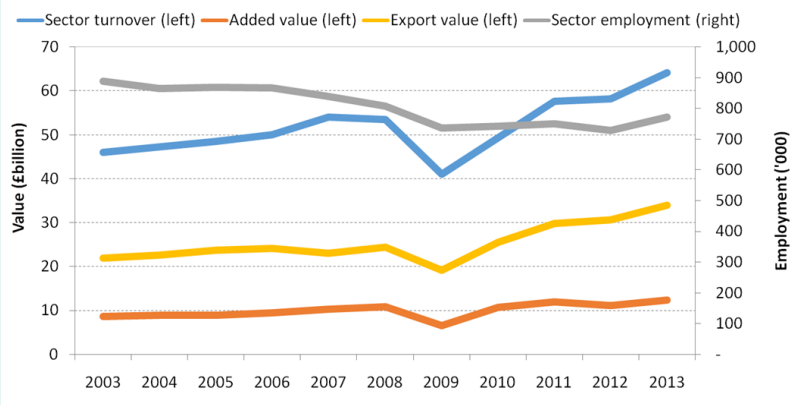
- **Automotive Innovation and Growth Team (2002)** challenged the view of the auto sector as a sunset industry.
- **LowCVP (2003)** provides a focal point for stakeholder engagement
- **Climate Change Act (2008)** provides a clear direction of travel to 2050
- **Technology Strategy Board (2007)** and **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

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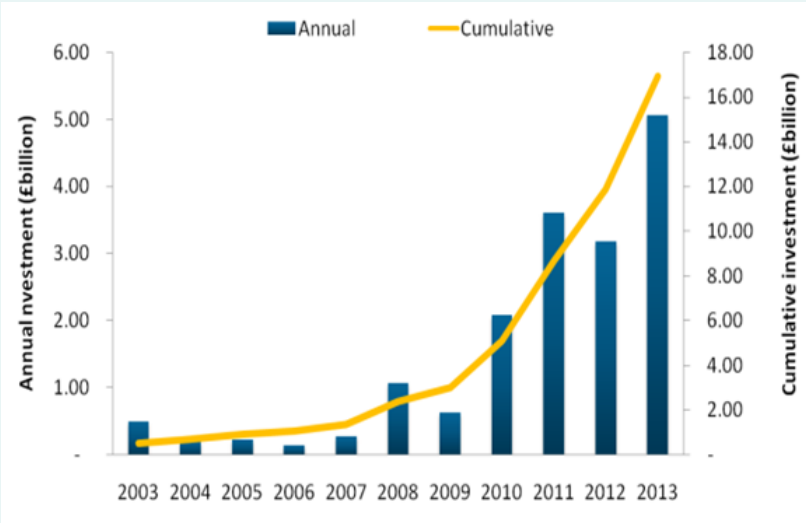
Sector performance 2003 to 2013

- 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



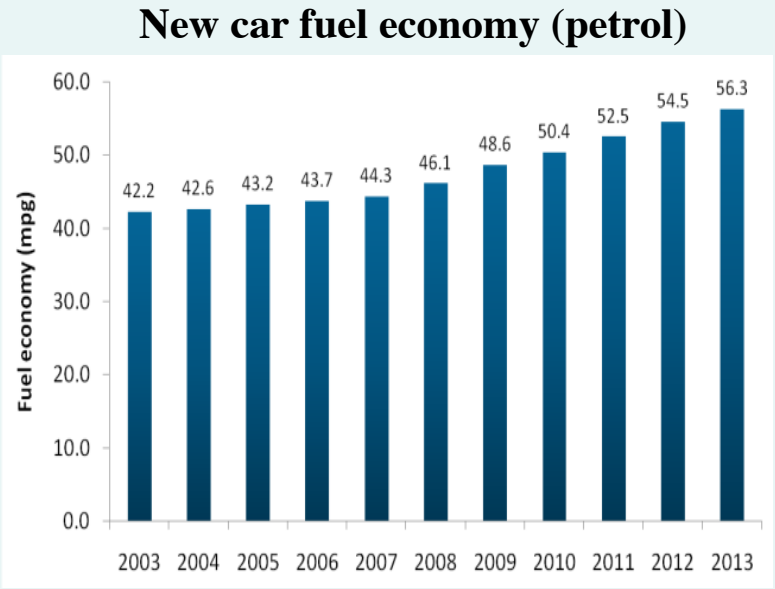
Low carbon investments



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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





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The UK auto sector 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.

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Stakeholder responses showed industrial policy focused on environment has made a positive difference to some…

"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 [CO_2 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

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Consistent government engagement has been vital…

> *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

> *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*
>
> Major automotive company

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The narrative allowed the researchers to make recommendations for future policy

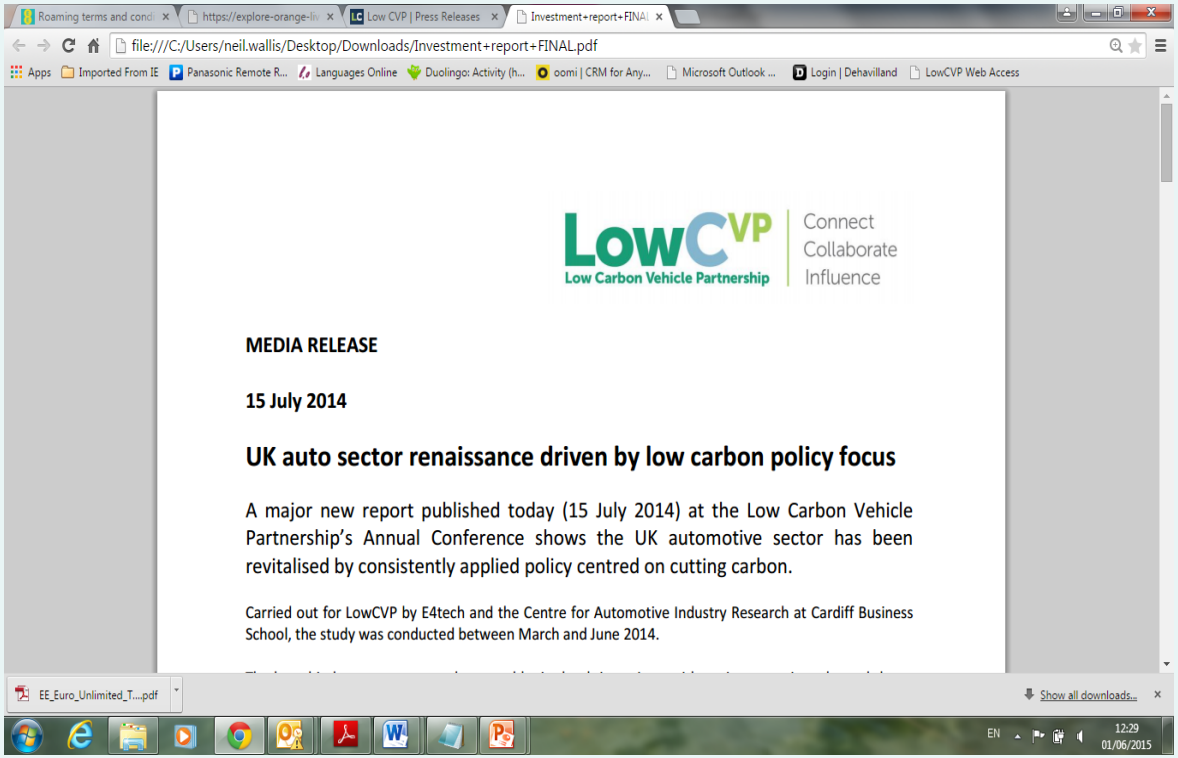
- **Stay on course**
  - Maintain urgency
  - Stay focused on low carbon
  - Continue from innovation into manufacturing

- **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**

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The report also allowed us to tell the story…



Media release



Report

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THANK YOU!

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