



An interview with Julia King

In each edition of *The Review*, we feature an interview with a key transport figure. For this issue, Marion Gourlay spent time with Julia King, Vice-Chancellor of Aston University and member of the UK government's Committee on Climate Change.



King of the road

In March 2007, then Chancellor of the Exchequer Gordon Brown asked Professor Julia King, Vice-Chancellor of Aston University, to lead a review of low carbon cars. Exactly one year later *The King Review* was published, making recommendations to UK government on vehicle and fuel technologies which, over the next 25 years, could decarbonise cars.

From her base in West Midlands, the UK's heartland of car manufacturing, King explained that she may have been appointed to lead *The King Review* as she did not have any preconceived ideas. Coming from outside the road transport industry, King was able to bring a fresh perspective to one of the most emotive issues facing our planet – the internal combustion engine.

One conclusion she had already accepted was Sir Nicholas Stern's view that radical action must be taken to reduce CO₂ emissions by 80% from current levels by the year 2050. Road transport currently produces 25% of the UK's carbon footprint, and cars alone account for just over half that figure. King's investigation positively concluded that there is huge potential for reducing CO₂ from cars and, importantly, that action can be taken now to meet this timescale and even make a 90% reduction.

King is a scientist. She graduated from the University of Cambridge with a first class degree in natural sciences and a doctorate in fracture mechanics. In fact King has spent much of her 25-year career in academia at Cambridge and Nottingham Universities and Imperial College London, although an eight-year period with Rolls-Royce in senior engineering and operational leadership roles taught her valuable lessons about business.

To some, it may appear that *The King Review* did not tackle the thorny issue of travel behaviour. Yet she certainly doesn't avoid (or dismiss) the issue. She points

out – as a matter of fact – that smarter choices could reduce road transport's CO₂ emissions by as much as 50%, but only 10% of us are routinely willing to make those choices.

Instead, King's methodical mind was set on whether the car industry could make less polluting or zero emission cars and if we, as consumers, would buy them.

Technology is available now for cars that emit 30% less CO₂ per kilometre. King underlines that the challenge is for the car industry to develop and grow a new market. It's here where governments can have an impact.

As an example, Lord Mandelson's recent announcement of a £2.5 billion injection into the British car industry should be on the proviso that restructuring begins. She believes the big opportunity during the current recession is to put the environment first. "Whilst individuals are thinking about what they spend, they will be more receptive to the idea of saving money through a more fuel-efficient car."

King knows only too well that advertising develops our feelings about cars. When making the decision to buy a car, she strongly supports the colour-coded labelling for fuel efficiency, similar to that of buying white goods, to influence the consumer at the point of sale. Currently the EU has a voluntary code for the car industry which she'd like made compulsory. What's more, King is in favour of a colour-coded tax disc related to CO₂ emissions, sending a visual signal to consumers.

Still further initiatives can be adopted. The German government offers €1000 to incentivise consumers to switch to fuel-efficient cars and the French have introduced a similar scheme. In



California the take up of incentives on hybrid cars which obtain access to the state car pool lanes has exceeded the Governor's expectations.

By 2050 electric or hydrogen vehicles will be the norm. Of course there are technical challenges to overcome, such as developing lightweight high-power-density batteries, and new storage systems for hydrogen. And, if we are to truly see zero emission cars, then these must rely upon clean electricity generation. It is here that King advises the Government to position the UK as a leader in the development of low carbon technology. She challenges the scientific and research community to think big and get excited about finding solutions and has asked the Government to incentivise them.

Experience, and perhaps academia, has taught King that the brilliant minds required to fulfil our need of personal mobility will be eclectic. She passionately believes that "diversity drives innovation" and has already successfully instigated a global collaboration on decarbonising cars starting with the Treasury and its Indian reciprocal together with the best from each country's research and industrial communities.

It is King's new role, as a pivotal member of the independent Committee on Climate Change where we can have confidence that she will keep challenging Government to make progress in reducing CO₂ emissions.

The King Review can be downloaded via The Treasury website.