

## **Research Project: Towards Sustainable Automobility - Sustainable Consumption of Automobility.**

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### **Background:**

Improving the sustainability impacts linked to personal transport and the use of private cars in particular is usually framed in terms of the absolute numbers of cars on our roads or the specific technologies of those cars and their fuel efficiency and emissions performance (See also A1). However, how cars are used (or rather consumed) strongly determines the sustainability impacts of the automotive sector and of individual households. BRASS research has sought to redress the balance by exploring aspects of how cars are consumed in terms of transport decision making and behaviour, and cultural dimensions of car choice and use.

### **Aims & objectives:**

- To understand the acceptability of different transport technologies and policies, and the factors affecting low-carbon transport behaviours;
- To understand how the current pattern of consumption came to be constructed and exploring the conditions that might allow new patterns can be established.

**About the research:** BRASS consumption of automobility research focused on several issues including:

- Determinants of transport choices: In particular through a European Seventh Framework Programme REACT project on Supporting Research on Climate-friendly Transport in which BRASS researchers explored preferences for low-carbon transport examining both expert opinion and attitudes amongst the general public. This work has also used and compared different methodologies for eliciting preferences, including deliberative workshops, paired preference and ranking exercises.
- Cultural influences on automobility. This includes work on the ‘culture’ of SUV ownership, an exploration of the influence of celebrity on car choice and an intriguing study exploring the correlation between levels of corruption within particular societies (as a proxy for willingness to follow rules) and their rates of road traffic deaths.
- Work studying ‘Eco-driving’: This has included funding from Shell to contribute to researcher time to study eco-driving habits. This work has had a practical dimension through Dr Paul Nieuwenhuis’s participation in the MPG Marathon in a vehicle provided by Citroen. This sought to demonstrate what can be achieved through economy driving (i.e. driver education) in addition to technology improvements in vehicles.
- Product longevity and the culture of classic car consumption.

### **Results and outputs:**

The work on transport choice found widespread support amongst both transport experts and non-experts for public transport, walking and cycling; but far less support amongst the general public, than amongst experts, for pricing policies (e.g., congestion charging). It also sought to apply a novel policy development and assessment framework – Integrated Sustainability Assessment (ISA) that focuses on transition analysis and stakeholder engagement. The research suggested that ISA can

help to produce amore holistic analysis of mobility systems, with the potential to inform measures that can foster behavioural change to favour more sustainable transport choices.

The work exploring the potential link between road traffic deaths and the corruption showed that countries that had a high level of corruption on the Transparency International index also tended to have a high level of road traffic deaths and injuries. The paper on the influence of celebrity culture on consumption showed that celebrity generally is a much-neglected topic among social science researchers, yet occupies a central role in contemporary culture with the power to influence for better or for worse. Sustainability policy making is hampered by a tendency towards sector-based, short-term and often techno-fix perspectives, and the dominant role played by ‘experts’.

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### **Impacts achieved/potential for impact:**

In the debate between technology versus behavioural change for a low-carbon society, this stream of work demonstrates the significance of the latter while policy has tended to focus on the former. The work on road safety has attracted the attention of the FIA (Federation International de l’Automobile) and has potential implications for any government within the rapidly motorising group of industrialising countries with relatively high accident death rates in developing policies and programmes to tackle the problem. The work on Integrated Sustainability Analysis also provides a useful tool for policymakers seeking to understand the transport and travel choices of individuals and to develop interventions that encourage them to make more sustainable choices (see also A33).