

MANAGEMENT SUMMARY

Oliver Wyman study “Auto & Environment 2007”

Climate change debate changes purchasing behavior

- **80 percent of all drivers will react to climate change**
- **Consumers want more ecological cars at the same cost**
- **Environmental compatibility among the top five purchasing criteria for the first time**
- **Consumers want an independent eco-seal**
- **Great expectations for the German car brands**

Consumers in Europe and the United States intend to react to the climate change debate by purchasing more environmentally friendly cars. This trend has affected their purchasing criteria for new cars. For the first time ever, environmental compatibility has risen to fifth place, behind reliability, safety, price/ performance ratio and total cost of ownership. But very few consumers believe they are knowledgeable enough to judge whether a given automobile is environmentally compatible. Accordingly, about three quarters of European consumers would like to see an “eco-seal” for cars. These are some of the findings of the Oliver Wyman study “Auto & Environment 2007: Customer Expectations as an Opportunity for the Auto Makers.” As part of the study, 3,600 consumers in the European Union and the United States of America participated in a survey. At the present time, consumers perceive Japanese and French brands as being especially environmentally friendly. But the German car manufacturers are catching up. According to the European consumers surveyed, German auto makers will produce the most environmentally friendly cars in ten years. To fulfill these expectations, the German car makers need to apply the same rigorous and sustained commitment to environmental compatibility as they have in the past to safety and quality.

Nearly 80 percent of Europeans surveyed stated their intention to react to the climate change debate in their next car purchase. For the overwhelming majority of the persons surveyed, however, doing without a car is not an option. Almost half of them want to limit the number of kilometers they drive, but only 15 percent consider that to be enough. Accordingly, nearly 30 percent of European consumers intend to switch to a more environmentally friendly drive system. Another 12 percent intend to purchase a less powerful car and nine per cent want to purchase a smaller car. A full 18 percent stated their wish to purchase the eco-model of a given model series, but only slightly less than 13 percent would be willing to pay higher costs for that model.

As the Oliver Wyman study “Auto & Environment 2007” shows, the climate debate has substantially influenced the general criteria for purchasing a new car. The study identified a clear trend towards environmental preferences. Now as then, the four most important purchasing criteria worldwide are reliability, safety, price/ performance ratio and total cost of ownership. But environmental

compatibility had risen to fifth place, ahead of design, service and brand prestige. The climate change debate has caused environmental compatibility to come up out of nowhere to take fifth place among purchasing criteria. If this trend continues, environmental compatibility could become permanently established as a third basic expectation, alongside reliability and safety – although most customers are not willing to pay more for that. In a specific buying situation, the purchase cost and gasoline consumption are the decisive factors for more than half of consumers.

Consumers want to see an eco-seal

55 percent of the persons surveyed believe they are not personally capable of determining whether a car is environmentally friendly or not. Accordingly, three quarters of the European consumers surveyed and 70 percent of the U.S. consumers surveyed stated that an independent eco-seal for cars would represent an important factor in their purchasing decision. A full 40 percent of consumers in the European Union and almost 25 percent of U.S. consumers would like to purchase an eco-friendly car that is clearly recognizable as such, through a particular ecological design or model name. Consumers also expect some help from the government, with 75 percent of Europeans and 65 percent of U.S. Americans stating their wish for tax incentives on purchases of ecologically friendly cars.

More than 90 percent of the consumers surveyed indicated that low fuel consumption and low CO₂ emissions are the most important characteristics of an environmentally friendly car. 80 percent of the Europeans surveyed and 60 percent of the Americans surveyed think that an independently drafted environmental life cycle assessment would be a good idea. And on both sides of the Atlantic, slightly more than 50 percent of consumers consider recyclable materials to be an important factor. On the other hand, only ten percent of the persons surveyed considered small cars to be important. Evidently, consumers do not automatically consider them to be environmentally friendly.

High expectations placed in the German car brands with regard to environmental compatibility

For now, European consumers consider Toyota, Renault and Peugeot to be especially environmentally friendly. The German car brands are ranked in the middle of the field when it comes to environmental compatibility, but are perceived as being on the rise in this respect. Ten years from now, according to the persons surveyed, three German brands will be among the five most environmentally friendly brands. BMW in particular is perceived as being very active in this regard. European buyers of premium cars expect Mercedes-Benz to be the most environmentally friendly brand in ten years. And Volkswagen, which already ranks fifth among the group of environmentally friendly mass-market producers, will rise to third place in ten years, according to European consumers. German customers believe that Volkswagen will take first place. The survey reveals the high level of expectations that European consumers place in the German car brands. They perceive Audi, BMW, Mercedes-Benz and Volkswagen as the most technologically advanced manufacturers and believe they can assume the leadership role also with respect to environmental engineering in the medium-term future.

New opportunities for eco-friendly business models

The “Auto & Environment 2007” study concludes that the auto manufacturers have not yet completely served the clearly growing preference for more environmentally friendly cars. Environmental protection must be firmly established as a binding imperative, just like safety and quality, throughout the organization, including research and development, production and sales. This is the best and only way to strike the optimal balance between the vehicle concept, the technical implementation and the price or usage costs.

The study's authors also believe that courageous new developments would be very promising. Even if they do not immediately generate high unit volumes or cover their costs, alternative models can have a major impact. From the customers' viewpoint, cars cost too much and consume too much fuel. Therefore, the time has come to experiment more boldly than before. A model with radically reduced weight and fuel consumption and minimal total costs of ownership could have a tremendous impact on the auto manufacturer's image and, over the medium term, generate valuable new ideas for ecological and economical improvements for the entire product line. Numerous key technologies for vehicles that consume less fuel (such as batteries, for example) are in the hands of the automotive suppliers. Thus, the auto manufacturers should enter into strategic partnerships with selected suppliers, to secure their access to key technologies.

Environmental protection ideas can form the basis for new business models, which the auto makers should systematically pursue. Among these ideas would be an ecological second car for city driving, lease models with an emphasis on total cost of ownership, combined marketing of cars and fuel (or batteries), eco labels on the manufacturer or model level, manufacturers' environmental eco-seals or vehicle exchange programs for improved environmental protection and lower costs. The manufacturers need to understand that environmentally friendly cars can serve to technically differentiate their brands. Above all, marketing and sales need to exploit the trend towards environmentally friendly cars as a means of achieving their sales goals and overcoming purchase barriers among consumers, in all vehicle classes.

Six recommendations for the eco-management of automobile manufacturers

1. Sharpen the brand's environmental positioning

The relative importance of environmental compatibility within the brand's hierarchy of values should be redefined.

2. Evaluate options for environmental marketing

New technologies offering environmental advantages must be marketed more aggressively.

3. Overcome purchase barriers

Projects that lower vehicle costs and fuel consumption will create new purchasing incentives.

4. Protect technological leads

The access to key environmental technologies must be secured by means of partnerships with suppliers.

5. Firmly establish environmental protection as a priority in research and development

Environmental protection must be firmly established as an overriding priority in research and development, just like safety and reliability.

6. Evaluate the opportunities of eco-models

Special eco-models aimed at environmentally conscious consumers should be added to the company's vehicle line-up, without making it more expensive.

The "Auto & Environment 2007" study

For the "Auto & Environment 2007" study, a group of 3,600 consumers, weighted by car brands, were surveyed in Germany, France, Italy, Poland, Spain, Great Britain and the United States. The survey was conducted by TNS Infratest between July 6 and August 2, 2007. The results were analyzed by age group, gender, vehicle class and brand preference (premium vs. mass-market brand).

Criteria for new car purchase – EU¹, USA

“Let us assume you are going to buy a new car next week. How important are the following criteria for your purchase decision, on a scale of 1 (very important) to 5 (not important at all)?”

Ranking of criteria for new car purchase	Importance	
	EU ¹	USA
1. Reliability	1.3	1.1
2. Safety	1.4	1.4
3. Price / performance ratio	1.6	1.3
4. Total cost of ownership ²	1.6	1.4
5. Environmental friendliness	2.1	2.2
6. Design/styling	2.3	2.2
7. Good relationship with dealer/service shop	2.5	2.4
8. Brand/prestige	2.9	2.9

Levels of importance : 1 = very important, 5 = not important at all

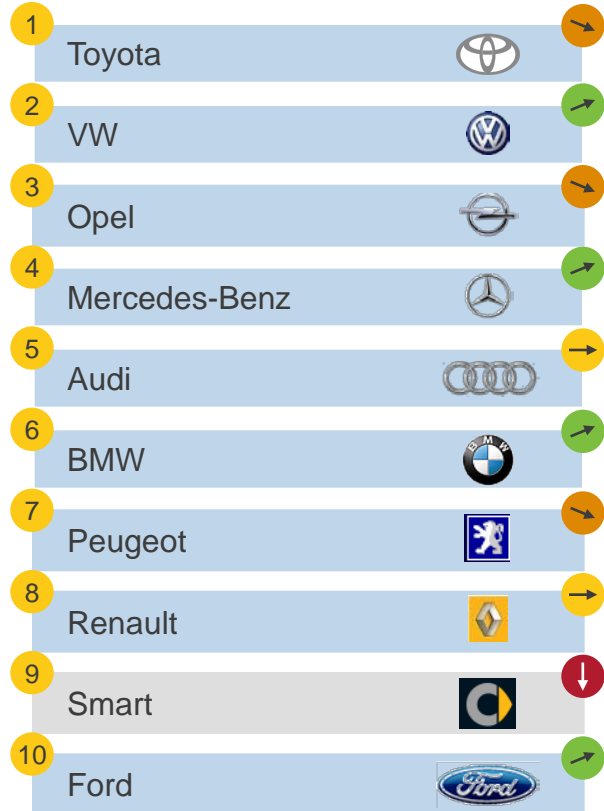
¹Germany, France, Italy, Poland, Spain, Great Britain

²Purchase price, taxes, insurance, fuel consumption, maintenance

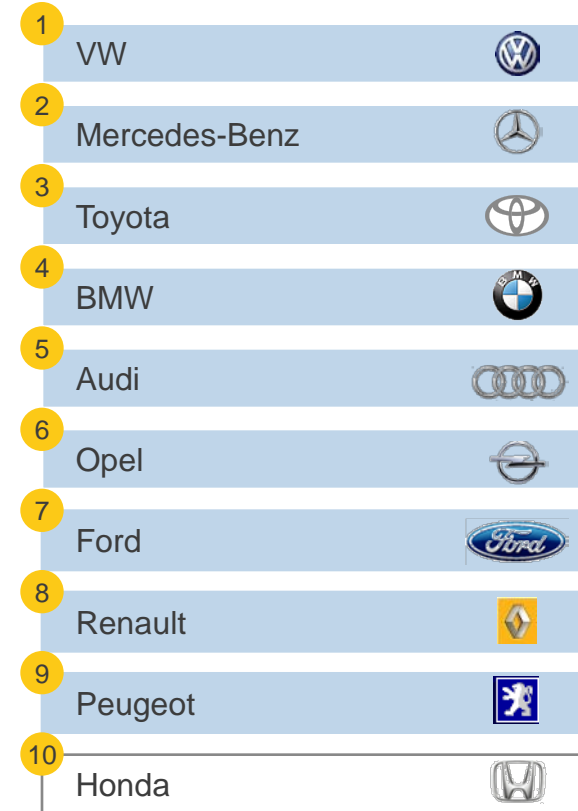
Perceptions of car brands and environmental compatibility – Germany

“Which three car brands would you say are especially environmentally friendly / ecologically responsible today?” [unprompted answers, up to three mentions]
 “Which three car brands do you believe will be the leading companies for environmental protection in the next ten years?” [unprompted answers, up to three mentions]

Today



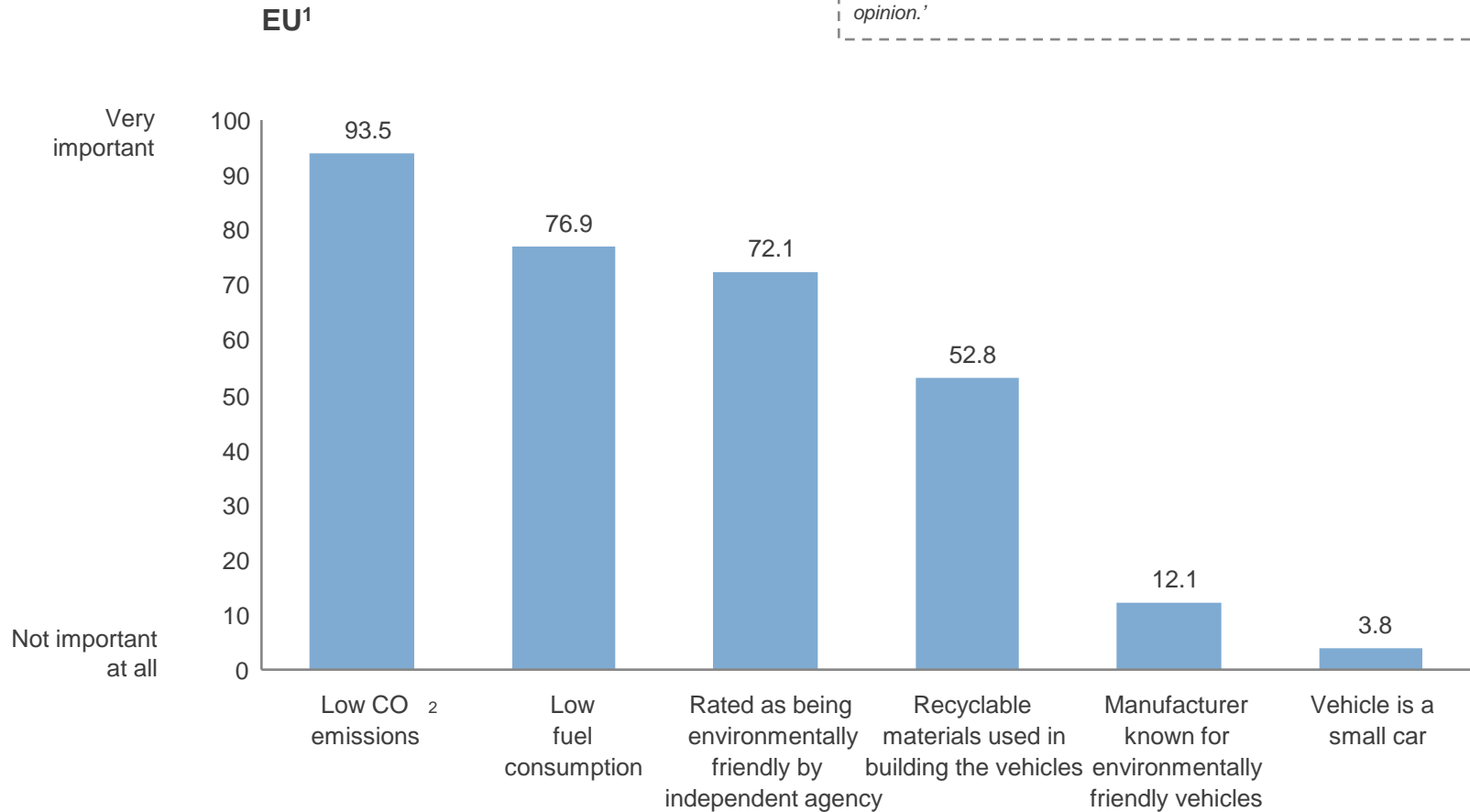
In ten years



Remains in top ten
 Displaced from top ten
 Included in the top ten for the first time

Criteria for environmentally friendly cars– EU¹

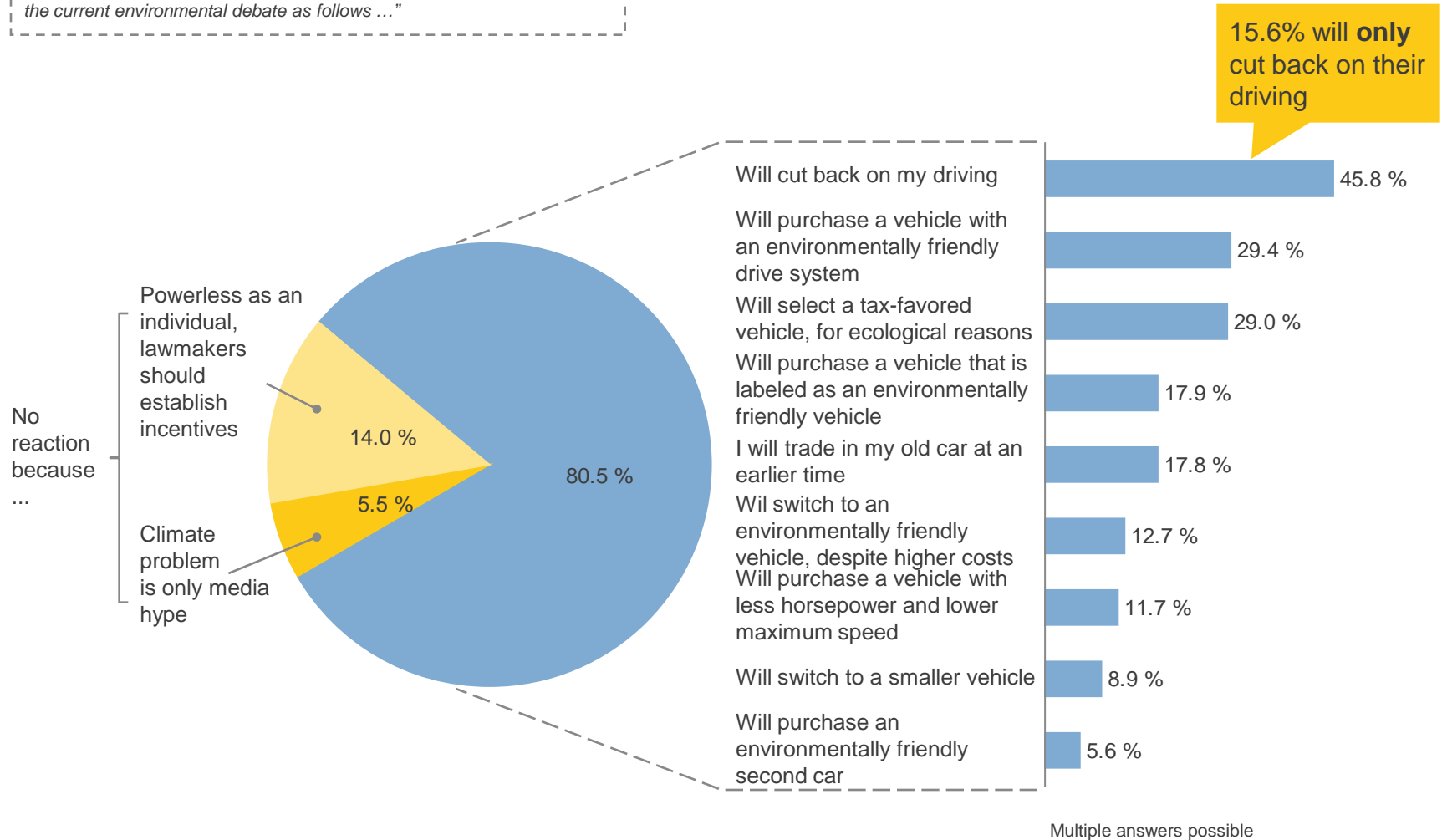
“There are different ways of judging the environmental friendliness of motor vehicles. Please indicate below the most and least important characteristics for judging the environmental compatibility of a car, in your opinion.”



¹Germany, France, Italy, Poland, Spain, Great Britain

Reaction of drivers to climate change – EU¹

“With regard to personal mobility, I intend to react to climate change and the current environmental debate as follows ...”



¹Germany, France, Italy, Poland, Spain, Great Britain