UK/GENERAL RELEASE

Stark warning for European automobile sector

Findings from the largest ever study of the sustainability of car manufacturing of 17 of the world's leading car companies have just been published by a leading European research team.

Key findings from the study entitled *Sustainable Value in Automobile Manufacturing* highlight:

- How Asian car manufacturers are outperforming their North American, and many of their European competitors, in using their economic, environmental and social resources more efficiently
- How General Motors' poor financial performance is accompanied by the worst sustainability performance recorded.
- Leading manufacturers including Porsche, KIA or Chinese manufacturers are still not producing sufficient sustainability performance data.

The unique report, which covers the period between 1999 and 2007, has been created by researchers at Queen's University Management School in Belfast, alongside colleagues from the Euromed Management School Marseille, and the Institute for Futures Studies and Technology Assessment (IZT) in Berlin.

It provides a full account of the societal impacts of car production, including issues such as the volume of greenhouse gas emissions from production facilities and the number of work accidents recorded by a company. It also looks at how efficiently car manufacturers used key natural resources compared with their industry peers and how much profit or loss was generated with these resources.

The ratio of sustainable value to sales is calculated in the report so that different companies can be directly compared irrespective of their size. Sustainable value includes not just the use of economic capital but also environmental and social resources. It is the first value-based method for assessing corporate sustainability performance.

In the report Asian car manufacturers including Toyota, Hyundai, Nissan, Honda, and to a lesser extent, Suzuki have all out-performed their North American competitors. In stark contract to the Asian manufacturers, both North American carmakers Ford and General Motors (GM) lie well into negative territory, with GM showing the most striking downside trend.

There is a mixed picture among European manufacturers. While BMW tops the ranking of all 17 manufacturers in most of the years assessed, other European carmakers PSA (Peugeot, Citroën), Renault, Volkswagen and DaimlerChrysler/Daimler AG only occasionally keep pace with the industry leaders. FIAT Auto consistently falls behind throughout the entire review period.

Professor Frank Figge from Queen's University Management School, one of the authors of the study, said: "Economic crisis, energy crisis, climate crisis and recent global developments have affected the automobile industry like few other sectors. Never before has it been as important for car manufacturers to employ their economic, environmental and social resources wisely – and efficiently.

"However, while issues such as fleet consumption and CO_2 emissions have been firmly put on the public agenda, the equally considerable environmental impact of the production phase of car manufacturing has as yet been largely ignored. The survey attempts to close this gap."

The study also shows the improvement potential that a car giant like General Motors has in how it could improve its long-term performance. GM achieved a sustainable value of minus €9.87 billion, in comparison with BMW, which having used all the resources considered necessary to create value doubled its sustainable value to €2.8 billion from 1999 to 2007.

Ralf Barkemeyer from Queen's University Management School said: "The study shows that in 2005 GM had by far the worst negative Sustainable Value within the industry which is mainly the result of a dramatic profits slump in 2005. But GM's value contributions from carbon dioxide, nitrogen oxide and sodium oxide emissions as well as waste generation are very negative during the period 1999 to 2007. Its sodium oxide value contributions show the worst level of resource efficiency in the entire study.

"The example of several of the other car manufacturers shows that there is a multi billion euro potential for a company like GM to improve both its environmental and social and its financial performance simultaneously.

But accessing sustainability data for the whole sector remains a problem. Ralf Barkemeyer added: "While Tata could be assessed for the first time in 2007 – and narrowly beats the benchmark in this year – other car manufacturers such as Porsche, KIA or Chinese manufacturers do still not provide sufficient data. Likewise, Daihatsu could not be included in the assessment in the year 2007 due to its insufficient sustainability reporting".

Professor Figge added: "The bottom line is that this study reveals big differences in sustainability performance in automobile manufacturing. This shows that the production process itself bears considerable room for improvement in terms of sustainability performance. We hope car manufacturers and governments worldwide will take note of this important study."

Both study and extensive information on the Sustainable Value approach are available at www.sustainablevalue.com.

Ends.

Media inquiries to Andrea Clements, Press and PR Unit. Tel +44 (0)28 90 97 5391 or email a.clements@qub.ac.uk

Notes to Editors

Both Professor Frank Figge and Ralf Barkemeyer from Queen's University Management School are available for interview.

The survey examines a set of nine environmental, economic, and social resources: capital use, water use, and waste generated as well as emissions of carbon dioxide, nitrogen oxides, sulphur oxides, and volatile organic compounds; further, the number of employees and the number of work accidents are taken into account.

The analysis is based on the financial, environmental and social data reported and published by the companies themselves and as a result 17 out of the 20 largest carmakers worldwide were included in the ranking: BMW Group, Daihatsu, DaimlerChrysler/Daimler AG, FIAT Auto, Ford, General Motors (GM), Honda, Hyundai, Isuzu, Mitsubishi, Nissan, PSA (Peugeot, Citroën), Renault, Suzuki, Tata, Toyota, and Volkswagen Group.

Dr. Tobias Hahn, Associate Professor at Euromed Management School Marseille added: "A unique feature of the survey is that it analyses the sustainability performance of a whole sector. The 17 companies under review account for approximately 80 per cent of automobile manufacturing worldwide."

The Sustainable Value approach applied in this study has been developed by Prof. Frank Figge of Queen's University Belfast and Dr. Tobias Hahn of Euromed Management School Marseille.

Prior to this present survey, the approach had been tested and refined in two extensive comparative studies funded by the European Commission and the German Federal Ministry of Education and Research.

The original version of this study triggered public interest and sparked discussion within the industry. BMW Group expressed an interest into how its efficiency gains documented in these regional assessments would translate into an evaluation of its sustainability performance relative to major automobile manufacturers worldwide.

Therefore, it provided substantial financial support for the present survey along with funding from the research institutions involved. The independent researchers would like to make it clear that the study's findings are wholly independent of any input from funders outside of the data supplied and assessed for every car manufacturer included in the study.