

# P r e s s   R e l e a s e

## **JEC Consortium publishes version 4 of its definitive 'Well-to-Wheels' study on automotive fuel and energy pathways including new data on electric vehicles, shale gas and biofuels**

EUCAR and its partners in the "JEC Consortium" today published version 4 of its "Well-to-Wheels Analysis of Future Automotive Fuels and Powertrains in the European Context". The JEC Consortium comprises the European Commission's Joint Research Centre (JRC), the European Council for Automotive R&D (EUCAR) and the oil industry's European association for environment, health and safety in refining and distribution (CONCAWE).

The first JEC Well-to-Wheel study was published in 2003 and has been updated at regular intervals according to new data and framework conditions.

The specific objectives of this version of the study are to:

- Establish, in a transparent and objective manner, a consensual well-to-wheels energy use and GHG emissions assessment for a wide range of automotive fuels and powertrains relevant to Europe in 2020 and beyond;
- Have the outcome accepted as a reference by all relevant stakeholders.

This 4<sup>th</sup> version includes a longer term outlook, expanding the time horizon to 2020. In particular, it adds an assessment of the contribution of electrically-chargeable vehicle configurations including plug-in hybrid, range extended, battery and fuel-cell electric vehicles.

The report also introduces updated fuel pathways including shale gas, additional biofuel types, updated production data for biofuels and an updated electricity mix, relevant to electric vehicle recharging.

Results on GHG emissions have been published for all vehicle and energy types compared to a conventional vehicle baseline, concluding that options exist for reducing GHG emissions from transport, whose contribution is dependent on both the efficiency of the vehicles and the production paths of the propulsion energy.

Leading EUCAR's work on the study was Heinz Hass, Manager for Sustainability and Environment at the European Ford Research Centre in Aachen, Germany: "The study was conducted in a robust technical manner, taking into account up-to-date data on fuels and vehicles." Continuing, he stated, "Assuming availability of the most beneficial fuels and energy sources, along with continued improvements in vehicle efficiency, vehicle emissions can be expected to continue on their downward trend."

Website for download: <http://iet.jrc.ec.europa.eu/about-jec/downloads>

### **About EUCAR**

EUCAR is the European Council for Automotive R&D of the major European passenger car and commercial vehicle manufacturers. EUCAR facilitates and coordinates pre-competitive research and development projects and its members participate in a wide range of collaborative European R&D programmes. European automobile manufacturers are the largest private investors in R&D in Europe with over €32 billion investment per annum, or 4% of turnover. EUCAR members are BMW, DAF, Daimler, FIAT, Ford of Europe, GM/Opel, Hyundai Motor Europe, Jaguar Land Rover, PSA Peugeot Citroën, Renault, Scania, Volkswagen, Volvo Cars and Volvo Group. EUCAR is closely connected to ACEA, the European Automobile Manufacturers Association.

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### **About JEC**

The JEC research collaboration between the European Commission's Joint Research Centre (JRC), the European Council for Automotive Research and Development (EUCAR) and the Oil Companies' European organisation for environment, Health and Safety (CONCAWE) began in 2000. The three organisations have collaborated in several areas related to the sustainability of the European vehicle and oil industries, providing facts relating to energy use, efficiency and emissions from a broad range of road vehicle powertrain and fuel options. The JEC Well-to-Wheels (WTW) reports and methodology (WTW2007) have become a scientific reference in the European energy research landscape.