

**Presentation Dow Energy Award  
Prof. Anton van Steenhoven  
September 1, 2005**

**Ladies and gentlemen,**

Since 1985, the **Dow Energy Award** has been presented to persons who have been encouraging sustainable developments in the process industry.

This year, the Royal Netherlands Academy of Art and Sciences Selection Committee for the Dow Energy Awards, consisting of Prof. Van Bekkum, Dr Groeneveld, Prof. Van Swaaij, Prof. Verkooijen and myself, considered **seven** nominations for the award.

These nominations have been assessed according to various **criteria** including creativity, scientific content, individual contribution, entrepreneurship, social potential and status of development.

The Selection Committee has decided to present the Dow Energy Award 2005 to Peter de Kok for the important contribution he has made over many years to the innovative development of new engines at DAF Trucks NV.

The Selection Committee believes that Mr De Kok's work more than meets the criteria for awarding the prize. The requirements made of a new diesel engine are varied. It must not only be more clean, but also more powerful, more fuel-efficient and quieter than its predecessors. The characteristics of the newly developed MX engine at DAF Trucks demonstrate that a considerable advance has been made with regard to performance and fuel consumption. In addition, particle emission has been effectively tackled by a newly developed fuel injection system, which allows a particle reduction of ninety percent.

Peter de Kok has been involved in the development of new engines at DAF Trucks for almost thirty years. On the basis of existing and new scientific insights, he has developed and applied innovative technologies in new engine concepts.

The development of the new engine was the result of teamwork, but the driving force behind the project is Peter de Kok. In the opinion of the Selection Committee, the winner of the Dow Energy Award 2005 is a person who combines new sustainable technological developments with innovative insights and technical ingenuity.

For the presentation of the **Dow Energy Dissertation Awards**, which are being presented this year for the **seventh** time, the Selection Committee considered **ten** nominations.

The dissertations are assessed according to various criteria, including the scientific basis of the research, the individual contribution and creativity of the nominee, the originality of the research and the expected impact of the results.

Needless to say, the research must also be linked to **saving energy** and reducing negative environmental impacts.

The Selection Committee has decided to present one of the two Dow Energy Dissertation Awards to Dr Norbert Cabrera.

Norbert Cabrera's doctorate research - carried out under the supervision of Prof. Peijs of Eindhoven University of Technology – focused on the development of fibre reinforced construction materials consisting of 100% polypropylene.

The Selection Committee believes that outstanding experimental fundamental research has enabled Mr Cabrera to develop a new concept for the manufacture of these composites.

As a result of their low weight, recyclability and considerable resistance to impact, these materials are currently being applied in several types of cars, resulting in considerable fuel savings and significantly reduced emissions.

The other Dow Energy Dissertation Award is being presented to Dr Lucas Seghezzo.

Lucas Seghezzo's doctorate research – carried out under the supervision of Prof. Lettinga of Wageningen University – was focused on discovering ways of applying wastewater anaerobic treatment technology at low temperatures.

The research showed that biological purification methods, that is to say the direct anaerobic treatment of wastewater in Upflow Anaerobic Sludge Bed reactors followed by a series of stabilisation ponds, is not only possible and efficient in **tropical**, but also in subtropical conditions. The Selection Committee believes that in his research, Mr Seghezzo has convincingly succeeded in developing simple, economical and efficient methods of treating wastewater in developing countries.

On behalf of the Selection Committee, I wish the three prize winners every success and congratulate them on gaining their awards.