



**CHALMERS INITIATIVE SEMINAR**

## **Internal combustion engines in a sustainable transport system**

Is there a role for internal combustion engines today and in the future? What kind of engines need to be developed? In what context are combustion engines the best alternative from a sustainability point of view? This seminar is directed towards representatives from industry, the national and international research community, and the appropriate authorities.

The seminar is based primarily upon lectures by people who are well-known in their respective areas, with opportunities for feedback on the second day. Evening activities with many possibilities for discussion will be included as well.

Time: 28 – 29 September 2010

Place: Runan, Chalmers kårhus, Göteborg

Register by e-mail to [elenor.norberg@chalmers.se](mailto:elenor.norberg@chalmers.se)

Welcome!

**TRANSPORT**  
A CHALMERS  
AREA OF ADVANCE

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# Internal combustion engines in a sustainable transport system

### DAY 1 - September 28th 2010

#### 9.00 Registration & Coffee

10.00 Welcome addresses: Dr. Karin Markides, President of Chalmers University of Technology

10.20 Professor Anna Dubois (Chalmers): *Chalmers' transport area of advance*

10.45 Torbjörn Suneson (Strategy director, Trafikverket): *Regional development, with an emphasis on infrastructure and a future sustainable transport system*

11.15 Professor Sven Andersson (Chalmers): *Automotive powertrains – an overview*

11.30 Dr. Maria Grahn (SP): *Global energy systems modeling*

#### 12.00 Lunch

13.30 Dr. Michael Wittler (FEV, Aachen): *Combustion engines in the world - a view on the role of combustion engines today and in the future*

14.00 Professor Ingemar Denbratt (Chalmers): *Combustion engines at Chalmers; a presentation of research at Chalmers today and in the future*

14.30 Professor Mark Linne (CERC, Chalmers): *Fuel sprays; a critical area for research and development*

#### 15.00 Coffee

15.30 Dr. Derek Crabb (Vice President, Powertrain Engineering, Volvo Car): *What type of engines will be used for passenger cars in the future?*

16.00 Professor Curt Conner (University of Massachusetts Amherst): *Fuels in combustion engines; a survey covering the various types of alternative fuels*

16.30 Dr. Jonas Holmborn (Head of Advanced Combustion, Engine Development, Scania): *Perspectives from industry; experience from commercial introduction of engines using alternative fuels*

#### 17.00 Evening activity

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### DAY 2 - September 29th 2010

#### 8.30 Gathering & Coffee

9.00 Dr. Gudmund Smedler (HDD Technology Manager, Johnson-Matthey): *A technical survey of after treatment systems*

9.30 Professor Magnus Skoglund (KCK, Chalmers): *A presentation on the activities at Chalmers' Competence Center for Catalysis*

10.00 Director Mats Hilmersson (Hybrid Engineering, SAAB): *Hybrids; what combinations are there today and what will happen in the future?*

#### 10.30 Coffee

11.00 Professor Kristina Edström (Ångström Laboratory, Uppsala): *Batteries; a crucial question for hybrids and electric vehicles*

11.30 Manager Thomas Stenhede (Wärtsilä EcoTech): *Marine transport, powertrains and fuels*

#### 12.00 Lunch

13.30 Professor Mats Alaküla (Volvo Powertrain & Lund Institute of Technology): *The ICE role in future traction systems for road vehicles*

14.00 Speaker not confirmed: *A vision for combustion engines of the future*

14.30 Professor Anna Dubois (Chalmers): *Generation of questions and problems that can be solved via collaboration*

#### 15.00 Discussion, questions