

Programme committee

- **Ulrich Adam** – CEMA, Brüssel
- **August Altherr** – John Deere, Kaiserslautern
- **Reiner Brunsch** – Institute for Agricultural Engineering, Potsdam-Bornim
- **Wolfgang Burget** – Liebherr, Kirchdorf
- **Ludger Frerichs** – Institute of Mobile Machines and Commercial Vehicles, Braunschweig
- **Marcus Geimer** – Institute of Vehicle System Technology, Karlsruhe
- **Günter Hähn** – Wirtgen, Windhagen
- **Eberhard Nacke** – CLAAS, Harsewinkel
- **Belén Bravo** – CECE, Brüssel
- **David Tinker** – EurAgEng, Bedford

Organizer

Scientific lead: Institute of Mobile Machines and Commercial Vehicles

Organisation: ITS Niedersachsen

Conference fees

Participant: 290€ + VAT

Student: Please contact the conference administration

Conference fees include the proceedings, catering during the conference and the evening reception.

Registration

Please visit our website:

www.tu-braunschweig.de/imn/emma

Hotel

List of hotels for the conference participants, please look at the website.

Venue

**ZUCKER – Restaurant
in der Raffinerie**
Frankfurter Str. 2
38122 Braunschweig

**Stadthalle Braunschweig
Congress Hall**
Leonhardtplatz 1
38102 Braunschweig



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Efficiency of Mobile Machines and their Applications

A Contribution to the Reduction of GHG



Symposium at the
Institute of Mobile Machines and
Commercial Vehicles

10th / 11th March 2015, Braunschweig

Introduction

The latest EU climate targets for the year 2030, 40 % reduction of CO₂ emissions relating to 1990, might be achievable but only under great efforts of all those involved. Manufacturers of mobile machines want to and must make their contribution. But the market of mobile machines is characterized by a wide diversity and the application on construction, agriculture and municipal sites etc. varies even more. Against this background the Braunschweig Symposium in March 2015 aims to establish a forum for an international and all-sector exchange about efforts and opportunities to increase efficiency of machines and processes. The Symposium will point out in particular the role of the agricultural and construction machinery in context of the EU climate targets, what measures will contribute to a reduction of CO₂ emissions and how this may be evidenced. Intelligent solutions for the technology as well as for any regulatory demands are required due to the diversity and complexity. Since single CO₂ limits are not reasonable, the manufacturers are going to prepare solutions for a voluntary commitment. First conceptual solutions are elaborated for this purpose and will be presented at the Symposium.

The international Symposium „Efficiency of Mobile Machines and their Applications“ will offer the chance to discuss demands and approaches for one of the most significant future topics. Increasing efficiency means to improve the productivity, the consumption of resources as well as the emission of greenhouse gases. Hence this is the key for smart handling of regulatory demands, for improving the public acceptance of manufacturers and users and not at least for business success.

Welcome to Braunschweig, have a successful Symposium.

Prof. Dr. Ludger Frerichs

Programme

Tuesday, 10th March 2015

Venue: ZUCKER – Restaurant in der Raffinerie

18:00 Evening reception

Dinner speech

Improvement in efficiency of thinking processes

Prof. Martin Korte (TU Braunschweig)

Dinner

Wednesday, 11th March 2015

Venue: Stadthalle Braunschweig – Congress Hall

Session I: Background to the topic (Ludger Frerichs)

08:30 Opening remarks

Prof. Ludger Frerichs (TU Braunschweig)

08:45 The global context of GHG-emissions and climate change

Dr. Benjamin Leon Bodirsky (Potsdam Institute for Climate Impact Research)

09:15 Approach to reducing GHG in agriculture

Dr. Annette Freibauer (Thünen Institute)

09:45 Energy- and carbon management in the building sector

Dr. Peter Krammer (STRABAG)

10:15 Coffee break

Session II: Achievements and potentials (Marcus Geimer)

10:45 Potential improvements in efficiency - viewpoint of construction and road building machinery manufacturers

Dr. Wolfgang Burget (Liebherr-EMtec GmbH),

Dr. Martin Göbel (Wirtgen GmbH)

11:30 The scope of efficiency improvement in the agricultural machinery industry

Dr. Eberhard Nacke (CLAAS KGaA mbH)

11:45 Efficiency potentials of ICT in agriculture

Dipl.-Wirt.-Inf. (FH) Jan Horstmann

(Maschinenfabrik Bernard Krone GmbH)

12:15 Lunch break

Session III: Achievements and potentials (August Altherr)

13:15 Sustainable energy storages for mobile machines

Prof. Marcus Geimer (Karlsruhe Inst. of Technology)

13:45 What prevents us from using more efficient technology?

Prof. Reiner Brunsch (ATB Potsdam)

14:15 Coffee break

Session IV: The smart way forward (Wolfgang Burget)

14:30 CO₂-quantification of agricultural machinery

M.Sc. Beate Fleck (CLAAS KGaA mbH),

M.Sc. Steffen Hanke (TU Braunschweig)

15:00 CO₂-quantification of mobile machines on construction sites

Dipl.-Ing. Isabelle Ays (Karlsruhe Inst. of Technology)

15:30 We need smart regulation for mobile machines

Dr. Ulrich Adam (CEMA Brussels)

16:00 Discussion

Prof. Ludger Frerichs (TU Braunschweig)

16:30 Coffee to go

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