



The **Aerospace and Mechanical Engineering Department of University of Liege** and the **Automotive Cluster** of the **Euregio Meuse Rhine** are pleased to invite you to the workshop:

“Metallic Materials for automobile of the future”

To be held in September 19, 2011

Pôle d'Ingénierie des Matériaux de Wallonie in Liege, Belgium

Abstract :

After the development of new efficient powertrains, the industry investigates other ways of further reducing the CO₂ emissions. In this context, there is a revived interest for revisiting steel and material applications, which have become a corner stone for taking over the sustainability challenge of auto industry, while preserving high safety standards as well as acceptable overall cost issues in vehicle production.

Reducing the vehicle structural weight initiates the virtuous circle of fuel efficiency while selecting materials requiring less energy of production and good recycling properties reduce the environmental footprint of the vehicles. Especially, new steel grades, multimaterial applications using steel, and innovative forming processes such a near net shape processes are constantly improved or created in order to meet the needs of the market. Another strong tendency for weight saving relies on assigning multi functions to components and/or on selecting optimal multilateral components (combining steel, aluminium, nanoparticles and other metallic or non metallic materials) to achieve higher or innovative performances that can not be reached by a single material. Multimaterial and multifunctional applications require innovation in joining the materials and future developments of coatings and intelligent surface treatments. The new material applications are involved in the development of new lightweight body in white, power train or engine components as well as rolling gear and suspension components.

The topic of metallic material issues in sustainable automotive technologies will be introduced by three keynote lectures by Dr M. Belhabib (Ford Motor Company), Mr B. de Lamberterie (Secretary General of the European Steel Technology Platform – ESTEP) and Mr P. Remacle (Arcelor-Mittal Auto). Then, the second part of the meeting is devoted to an open discussion in roundtables: 1/ “Near net shape processing technologies” animated by Dr A. Rassili (ULg-Thixo Unit) and Dr J. Halleux (SIRRIS) and 2/ “Coatings and Intelligent surface treatments” by Dr. Bart Vandufel (Smart Coating Application Lab) 3/ “New steel grades for automobile and truck applications” animated by Arcelor-Mittal Auto.

The goal of the workshop is to identify possible collaborations between the partners. The workshop will initiate a series of deep-dive seminars between small groups of partners of Euregio (Virtual Sub Clusters and/or Networks of Technological Intelligence). Financial solutions for supporting the projects will be proposed and explained in the end of the workshop.

Workshop agenda:

This meeting is planned for September 19, 2011 Pôle d'Ingénierie des Matériaux de Wallonie in Liege.

- 13h15 – 13h40: Welcome
- 13h45 – 14h00: Introduction by Prof. Dr Ir Pierre DUYSINX
- 14h00 – 14h20: Challenge for metallic materials, by Dr J.C. Herman, director of CRM Group
- 14h20 – 14h50: “The European Steel Technology Plateform” by Mr B. de Lamberterie (ESTEP General Secretary)
- 14h50 – 15h20: “Introduction to lightweight vehicles” by Dr M. Belhabib (Ford Motor Company)
- 15h20 – 15h50: “S in Motion – Arcelor Mittal” by P. Remacle (Arcelor Mittal)
- 15h50 – 16h10: Coffee break
- 16h10 – 17h00: Roundtables
 - “Near net shape processing” by Dr A. Rassili (Thixo Research Unit of ULg) and Dr J. Halleux (SIRRIS);
 - “New coatings and Intelligent surface treatments” by Bart Vandufel (Smart Coating Application Lab);
 - “Future steel grades for automobile and truck applications” (Arcelor Mittal)
- 17h00 – 17h10: Financial instruments to support to your project
- 17h10 – 17h20: Reporting of the round tables
- 17h20 – 17h25: Conclusions
- 17h30 – 18h00: Drink and Lab tour

Automotive Cluster Euregio Meuse Rhin 2012 :

The partners of the Automotive Cluster of the Euregio Meuse-Rhine (ACEMR) bundle their competencies to strengthen the development and international visibility of the regional automotive industry. The ambition is to create an internationally known region that contains cross border knowledge platforms and clusters within an environment that enables innovation and business development.

One mean to reach this goal are Networks of Technological Intelligence (NTI). These consist of partners active in a common field of technology, who together can represent the strengths of our region for a robust positioning within the international automotive market and who will benefit from complementing each other in areas where they work together. Our round table shall provide a basis to establish a NTI in the field of connected automotive mobility within the EMR.

Information and registration:

For further information and registration, please visit the web page www.ingveh.ulg.ac.be/workshop or email to Mr Laurent Van Miegroet (L.VanMiegroet@ulg.ac.be). The participation is free of charge but the number of places is limited. Registrations are expected at the latest by September 12, 2011.

With kind regards,



Prof Dr Ir Pierre DUYSINX,
Head of LTAS- Automotive Engineering



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