



INTERNATIONAL CONGRESS & EXHIBITION  
5-6 NOVEMBER 2007 | COLOGNE



## Global Motorsports Congress 2007

Performance Technology Transfer

- Advanced Engine Technology
- Aerodynamics
- Performance Materials

**New this year:**

- PMW Expo visit
- PMW Awards Gala Dinner

## GMC 2007



### PERFORMANCE THROUGH AERODYNAMICS

One consequence of the current Formula 1 rules is that aerodynamics has become the most important factor in the design of a Formula 1 racing car; engine development has largely been frozen. Aerodynamics defines not only the basic shape of the car but also the location of the most important features in and around the car. Ultimately, at the pinnacle of motor sport, it is aerodynamics that is the difference between winning or losing.

The key role played by aerodynamics is reflected in the programme of this year's Global Motorsports Congress, with a detailed aerodynamics session and a parallel session led by academics sharing the latest aerodynamics research results.

But what will the future look like? Will motor sport become eco-friendly? FIA president Max Mosley has set his sights on a "green revolution" in Formula 1 for the year 2011. According to Mosley's proposals, engine revs will be restricted to 10,000 rpm (instead of today's 19,000 rpm) and engine output will be reduced to 770 horsepower. In addition, the engines will run on biofuel and will have to last five GP races before they can be replaced. The proposals will also allow the cars to be equipped with traction control, four-wheel drive and a "power boost button" to help overtaking. This exciting and innovative new subject will also be a hot topic of conversation at the Congress.

The Global Motorsports Congress 2007 offers an unprecedented range of highly acclaimed speakers and technical highlights. Senior engineers and developers from the fields of research, design, development, construction, computation, testing, production and motorsport will hear the latest industry developments and explore cutting edge technologies.

We look forward to seeing you there – and to two days of stimulating discussion and debate.

Roland Schedel  
Dr. Otto Willenbockel

**ATZ**

Auto**Technology**

**MTZ**

CONGRESS PROGRAMME  
MONDAY 5 NOVEMBER 2007



Parallel session 11:45 – 13:15

9:00 **Exhibition opens**  
Registration  
Refreshments (served in exhibition area)

9:30 **Congress opens**  
Roland Schedel, Editor-in-Chief, AutoTechnology  
Dr. Otto Willenbockel, Master of ceremonies

9:45 **KEYNOTE**  
**The development of the VW Race Touareg for the Rallye Dakar**  
Kris Nissen, Director Motorsports, Volkswagen AG

>> **ADVANCED ENGINE TECHNOLOGY SESSION**

Session Chair: Dr. Peter Schoegg, AVL

10:15 **VW R5 TDI with dual stage turbocharging for the Rally Dakar**  
Donatus Wichelhaus, Engine Director, Volkswagen Motorsport

10:45 **Honda Formula 1 – naturally aspirated engines**  
Shiro Hisatsune, Chief Engineer, Honda Racing Development

11:15 **Refreshment break**

11:45 **Methods and tools to optimize engine performance and durability**  
Dr. Peter Schoegg, Deputy VP Racing, AVL

12:15 **The different technological challenges for motorcycle and car racing engines**  
Andreas Bilek, Head Engine Development, KTM Sportmotorcycle

12:45 **Braking energy: recovery and storage**  
Jon Hilton, Managing Partner, Flybrid Systems

13:15 **Lunch (served in the exhibition area)**

>> **AERODYNAMICS: ACADEMIC RESEARCH SESSION**

Session Chair: Prof. Dr. Franz Magerl, University of Applied Sciences Amberg-Weiden

11:45 **The evaluation of aerodynamic drag of go-karts by means of coast down test and CFD analysis**  
Marco Evangelos Biancolini, Researcher, University of Rome

12:15 **F1: The aerodynamics of slipstreaming**  
Dr. Robert Dominy, Director, Centre for Automotive Research Durham University

12:45 **The aerodynamic design of a hydrogen fuel cell powered land speed record car**  
Kimberly Stevens, Aerodynamic Design – The Buckeye Bullet 2, Aerospace Engineering, Ohio State University

13:15 **Lunch (served in the exhibition area)**

>> **PERFORMANCE MATERIALS SESSION**

14:30 **Kinetic energy recovery system**  
Martin Halley, Chief Engineer, Xtrac

15:00 **A Study of advanced brake materials**  
Adam Loukus, Project Engineer, REL

15:30 **New solutions for high temperature-resistant tools**  
Dr. Marcel Sommer, Group Leader Automotive, Huntsman Advanced Materials

16:00 **Refreshment break**

16:30 **Lubricants in relation to the F1 current regulations**  
Mark P Wakem, F1 Engine Lubricant Development Leader, Shell

17:00 **Optimisation of the lubrication system for a dry sump F1 gearbox**  
Gabriele Tredozi, Former Technical Director, CRP Racing

18:00 **Shuttle bus departure**

18:30 **Networking dinner**

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CONGRESS PROGRAMME  
TUESDAY 6 NOVEMBER 2007



9:15 **KEYNOTE**

**Le Mans and DTM different cars, same aero and chassis development process at AUDI**  
Wolfgang Appel, Head of Vehicle Technology, Audi Sport

>> **AERODYNAMICS SESSION**

Session Chair: Marco Evangelos Biancolini, University of Rome

9:45 **Aerodynamics of commercial racing cars – development costs vs. lap time performance**  
Andrea Toso, Head of R&D, Dallara

10:15 **The aerodynamics of the Impala SS NASCAR vehicle**  
Kevin Bayless, Oval Track Chassis & Aero Program Manager, GM Racing

10:45 **Refreshment break**

11:15 **Keeping race cars cool – Heat management/protection and simulation**  
Sven Perzon, Technical Director, Go Virtual

11:45 **The role of aerodynamics in oval track racing**  
Kurt Romberg, Chief Aerodynamicist, Hendrick Motorsports

12:15 **3D-Track – advancing race car simulation through the design of high-resolution virtual race tracks**  
Bernhard Schick, General Manager Chassis Systems, TÜV Automotive

12:45 **Congress closes**  
**Lunch & Farewell Cocktail**

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14:00 **Visit to the PMW Expo**

**Professional  
MotorSport**  
WORLD EXPO 2007  
6.7.8 NOVEMBER KÖLN, GERMANY

19:00 **PMW Awards Gala dinner**

## REGISTRATION FORM



# Global Motorsports Congress 2007

5-6 NOVEMBER 2007 | COLOGNE

Please use one form per delegate.  
Forms may be photocopied for additional delegates.

_____ Last Name	_____ First Name	_____ Title (Mr/Mrs/Ms)
_____ Job Title	_____ Department	
_____ Company		
_____ Address		
_____ City	_____ Post Code	
_____ Country		
_____ Phone	_____ Fax	
_____ E-Mail		

I have read and understood the terms and conditions and wish to confirm my registration for the Global Motorsports Congress 2007.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

### Please send the registration form by post or fax to

Vieweg Technology Forum • Abraham-Lincoln-Strasse 46  
Birgit Ulber • 65189 Wiesbaden • Germany

**Phone: +49 (0)6131 3295 610 • Fax: +49 (0)6131 3295 611**

**For additional information and enquiries regarding exhibition and sponsorship opportunities please contact the Event Manager:**

Bettina Seehawer  
Phone: +49 (0)6131 3295 610 • Fax: +49 (0)6131 3295 611  
Email: motorsports@vieweg.de

### REGISTRATION FEE

€ 1,345 plus VAT (at 19%)  
per person.

This includes participation in the congress, access to the GMC exhibition and the PMW Expo and all refreshments, including GMC lunch, GMC dinner and PMW Awards Gala Dinner for one person. Invoices will be issued upon receipt of registration form.

Full payment must be received before the congress opens.

### CONGRESS VENUE

Congress-Centrum Nord

Koelnmesse  
Messeplatz 1  
50679 Köln  
Germany

[www.koelnkongress.de](http://www.koelnkongress.de)

### HOTEL

Accommodation is available at special congress rates in the following hotel.

### Superior 4 star Hotel

Hotel Regent  
Melatengürtel 15  
50933 Köln

Phone: +49(0)221 5499 999

Fax: +49(0)221 5499 998

[info@hotelregent.de](mailto:info@hotelregent.de)  
[www.hotelregent.de](http://www.hotelregent.de)

Congress rate – single room € 90  
incl. breakfast (weekend rate)

Congress rate – single room € 115  
incl. breakfast

Please contact the hotel directly to make your booking. Special congress rates apply until 6 October 2007. To receive these special rates please quote "Global Motorsports Congress" at time of booking.

### TERMS AND CONDITIONS

**Registration:** To register, please complete and return the registration form. You may also register by sending an e-mail with your full details to [motorsports@vieweg.de](mailto:motorsports@vieweg.de).

On receipt of your registration we will send you a confirmation note.

**Cancellation:** Unless another participant is designated as a replacement, cancellation after Monday 8 October 2007 (date of receipt of cancellation notice) and no-shows will result in forfeiture of the entire registration fee. Cancellations made before 8 October 2007 will be subject to a processing and administration fee of € 300. Cancellations must be made in writing. Should the event be cancelled altogether,

the registration fee will be refunded.

**Change to programme:** In the event that one of the speakers is forced to cancel their engagement on account of force majeure, illness or accident or any other circumstances beyond the control of vieweg technology forum, then another qualified person shall be appointed to the exclusion of any claim for compensation.

**Data usage:** vieweg technology forum processes your data solely within the context of the given event and in line with the principles of data protection. Beyond this, data may be passed on to Vieweg's marketing partners. In case of objection please inform us in writing.



## SPEAKERS

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**Wolfgang Appel**

Head of Vehicle Technology,  
Audi Sport

**Kevin Bayless**

Oval Track Chassis & Aero  
Program Manager, GM Racing

**Marco Evangelos Biancolini**

Researcher, University of Rome

**Andreas Bilek**

Head of Engine Development,  
KTM Sportmotorcycle

**Dr. Robert Dominy**

Director, Centre for Automotive  
Research, Durham University

**Martin Halley**

Chief Engineer, Xtrac

**Jon Hilton**

Managing Partner, Flybrid Systems

**Shiro Hisatsune**

Chief Engineer, Honda Racing  
Development

**Adam Loukus**

Project Engineer, REL

**Prof. Dr. Franz Magerl**

Dean, University of Applied  
Sciences Amberg-Weiden

**Kris Nissen**

Director Motorsports,  
Volkswagen AG

**Sven Perzon**

Technical Director, Go Virtual

**Kurt Romberg**

Chief Aerodynamicist,  
Hendrick Motorsports

**Roland Schedel**

Editor-in-Chief, AutoTechnology

**Bernhard Schick**

General Manager Chassis Systems,  
TÜV Automotive

**Dr. Peter Schoeggel**

Deputy VP Racing, AVL

**Dr. Marcel Sommer**

Group Leader Automotive,  
Huntsman Advanced Materials

**Kim Stevens**

Aerodynamic Design - The Buckeye  
Bullet 2, Aerospace Engineering,  
Ohio State University

**Andrea Toso**

Head of R&D, Dallara

**Gabriele Tredozi**

Former Technical Director,  
CRP Racing

**Mark P Wakem**

F1 Engine Lubricant  
Development Leader, Shell

**Donatus Wichelhaus**

Engine Director,  
Volkswagen Motorsport

**Dr. Otto Willenbockel**

Consultant,  
Combustion Engine Consulting



**Kris Nissen**  
Volkswagen AG



**Wolfgang Appel**  
Audi Sport



**Dr. Robert Dominy**  
Durham University



**Marco Evangelos  
Biancolini**  
University of Rome



**Jon Hilton**  
Flybrid Systems



**Shiro Hisatsune**  
Honda Racing  
Development



**Adam Loukus**  
REL



**Sven Perzon**  
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AVL



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Dallara



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TÜV Automotive



**Gabriele Tredozi**  
CRP Racing



**Mark P Wakem**  
Shell