

## Doors and Closures in Car Body Engineering 2014

5<sup>th</sup> International Benchmarking Conference with Innovation Award

> 18 – 19 November 2014 Bad Nauheim Germany

Bestowal of the Doors & Closures Innovation Award 2014! OEM HARDWARE PRESENTATIONS BY

Audi · BMW · Ford Honda · Jaguar Mercedes-Benz · Peugeot









## Confined complexity

Within the car body, and a vehicle in general, doors and closures certainly represent a class of its own: Their large outer surface significantly governs the design of the vehicle; in most non-driving situations it is these parts that have a direct impact on the customer's feel for the car, and in a very confined space they integrate a multitude of complex functionalities. So in terms of visual, acoustic, haptic and functional impressions, they very much shape the character of the car. At the same time, as every part of the car, they have to realize the greatest possible weight savings without compromising safety or comfort issues, and they need to be manufactured as efficiently as possible, also facing a growing model variety.

In this situation, current progress in the construction and series production of such hang-on parts is defined and benchmarked in the annual Automotive Circle International conference on **Doors and Closures in Car Body Engineering**. On 18 and 19 November 2014, the event again gathers its international network of dedicated automobile engineers in Bad Nauheim, Germany, to present and discuss newest door and closures series developments by leading OEM, latest innovations by trailblazing system suppliers as well as relevant studies by important research institutions.

For the fifth time, the conference delegates also decide, through their expert vote, on the winner of this year's **Doors & Closures Innovation Award**, which is bestowed by Automotive Circle International for the most innovative door and closure product development presented at the conference.

Have your say in these discussions and evaluations – we are looking forward to meeting you in Bad Nauheim!

## International OEM Advisory Board



Andreas Fidorra Audi AG, DE



Bernhard Kandlbinder BMW Group, DE



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Conference Organisation

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### The conference addresses

\\ Automotive engineers with responsibilities in the pre-development, development, planning and production of car body hang-on parts, from international OEM as well as their

\\ system suppliers and engineering service providers.

## TECHNOLOGY BRIEFING

17 November 2014 | 17.00 h - 19.00 h

- English language only -

## Modern lightweight design door concepts

Innovative automotive door concepts currently are much under discussion and significantly contribute to an efficient lightweight design in today's vehicle engineering. This concerns both new material concepts and — often closely interrelated — innovative door construction. In addition, unconventional ingress/egress systems have recently experienced closer attention, e.g. rear-hinged back doors, B-pillar integration, gull-wing doors or sliding doors, enhancing the viable options for modern door concepts.

Which concepts best lend themselves for different material concepts and why? How do different concepts compare in terms of technological and economic performance; what are their pros and cons; which concepts can be applied in which vehicle segments? Using current examples, Dr. Axel Förderreuther analyses and discusses these questions in our Technology Briefing — and also prepares you, in this way, for the presentations of newest developments in the main conference.



#### Dr. Axel Förderreuther...

... studied Physical Metallurgy in Stuttgart and Oxford/UK and received his Doctorate at the Max-Planck-Institute for Metal Research. He started his professional career in 2000 as a development engineer with Alcoa Automotive, where he mainly conducted aluminium car body projects, among others for Audi, BMW, Daimler, Ferrari, Lamborghini, Porsche, Renault and Volvo. In 2009, he joined the engineering service provider RLE International, today RLE Mobility, where he currently serves as Departmental Manager and Lead Engineer, responsible for both technical and economic aspects of car body and lightweight design development projects for OEM. His particular expertise is in all aspects of lightweight car body design and the practical application of new materials, such as light metals and fibre-reinforced composites. In his work, door projects very often have been at the focus of his attention.

TECHNOLOGY BRIEFINGS allow you to gain a compact overview on important and current aspects or on emerging technologies pertaining to a given conference topic. Renowned industry experts analyse and evaluate the state-of-the-art of the technology in question and will be available for discussions. In these Briefings, knowledge of fundamentals pertaining to the main conference topic is presumed.

Fee: 399,-€ plus 19 % German VAT

Please note that the Technology Briefing and the main conference are two independent events. Separate registration for both events is required.

## Doors & Closures Innovation Award 2014

For the fifth time, the conference participants decide, through their expert evaluation, on the winner of this year's **Doors & Closures**Innovation Award, bestowed by Automotive Circle International for the most efficient and innovative OEM series hang-on part development presented at the event.



## Competitors 2014

Audi AG	Doors and closures of the AUDI TT: Lightweight design in the third generation		
BMW Group	The door system of the new BMW i8		
Ford-Werke GmbH	Sliding doors – anything but conventional		
Honda R&D Co., Ltd.	Unique tailgate development for a minivan		
Jaguar Land Rover	Development of the F-TYPE Coupé lightweight tailgate – the journey to a full carbon fibre version		
Daimler AG	The doors of the new Mercedes-Benz C-Class		
PSA Peugeot Citroën	Lightweight design for the new Peugeot 308 SW with a special focus on the plastic tailgate		



### Winners 2010 - 2013

2010 – BMW Group	The door system of the new BMW 5 Series
2011 – Audi AG	The door system of the new Audi A6
2012 – Daimler AG	The tailgate of the new Mercedes-Benz SL
2013 – BMW Group	The door system of the new BMW i3

#### TUESDAY, 18 NOVEMBER 2014

8.45 h Welcome and conference introduction
Dr. Dirk Meine, Automotive Circle International, DE

## ADHESIVE BONDING IN HANG-ON PART PRODUCTION

9.00 h Novel structural adhesives for closure bonding in body shop applications

Dr. Benjamin Haag, Dow Europe GmbH, CH

9.20 h Lightweight design with read through preventing antiflutter adhesives

Michael Gutgsell, Sika Technology AG, CH

- Subsequent discussion of the two presentations in the conference plenum -

#### HARDWARE PRESENTATION

AWARD COMPETITION

**9.50 h** Unique tailgate development for a minivan

Tomoki Yamaguchi, Shigeki Tanimoto, Honda R&D Co., Ltd, JP

- Plenary and individual discussion at the series part -

Coffee and contacts



#### **MODERN LATCH SYSTEMS**

11.10 h Uncompromising crash safety with a lightweight and modular side door latch realizing a true e-latch on the same platform Thorsten Bendel, Kiekert AG, DE

11.30 h Side door closure systems for the market needs of today and tomorrow

Dr. Ulrich Nass, Brose Schließsysteme GmbH & Co. KG, DE

- Subsequent discussion of the two presentations in the conference plenum -

#### HARDWARE PRESENTATION

**AWARD COMPETITION** 

12.00 h

Sliding doors – anything but conventional Jochen Klingbeil, Thomas Benderoth, Ford-Werke GmbH, DE

- Plenary and individual discussion at the series part -

13.00 h

Lunch break & New Car Show
Opportunity to inspect the full vehicles exhibited



#### PLASTICS TAILGATE DESIGN CONCEPTS

**14.20 h** A new approach to design and develop an all plastic tailgate

Dr. Dave Brands, Sabic Innovative Plastics BV, NL

14.40 h Plastics application in innovative tailgate solutions
Mark Zimmermann, Bertrand Hache, Plastic Omnium Auto
Components GmbH, DE

- Subsequent discussion of the two presentations in the conference plenum -

#### HARDWARE PRESENTATION

**AWARD COMPETITION** 

**15.10 h** Lightweight design for the new Peugeot 308 SW with a special focus on the plastic tailgate

Christian Roy, PSA Peugeot Citroën, FR

- Plenary and individual discussion at the series part -

Coffee and contacts



#### HARDWARE PRESENTATION

AWARD COMPETITION

16.30 h Development of the F-TYPE Coupé lightweight tailgate – the journey to a full carbon fibre version

Nigel Jones, Jaguar Land Rover, GB

- Plenary and individual discussion at the series part -

#### HARDWARE PRESENTATION

**AWARD COMPETITION** 

17.30 h The door system of the new BMW i8

Bernhard Kandlbinder, Florian Soldner, BMW Group, DE

- Plenary and individual discussion at the series part -

18.30 h Get Together

19.00 h Networking Night







Further details about the event as well as the possibility to register at





### WEDNESDAY, 19 NOVEMBER 2014

#### LIGHTWEIGHT DESIGN IN STEEL AND ALUMINIUM

**9.00 h** New lightweight steel door solutions

Dan Hasenpouth, ArcelorMittal SA, FR

9.20 h Advanced aluminium alloys 5xxx and 6xxx for complex door inner panels and considerations for an aluminium-specific design

Guillaume Florey, Andy Walker, Novelis Switzerland SA, CH

- Subsequent discussion of the two presentations in the conference plenum -

#### HARDWARE PRESENTATION

AWARD COMPETITION

9.50 h The doors of the new Mercedes-Benz C-Class
Karl-Heinz Adis, Daimler AG, DE

- Plenary and individual discussion at the series part -

Coffee and contacts



#### HARDWARE PRESENTATION

**AWARD COMPETITION** 

**11.10** h Doors and closures of the AUDI TT: lightweight design in the third generation

Andreas Ullrich, Audi AG, DE

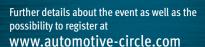
- Plenary and individual discussion at the series part -

12.10 h Lunch break & New Car Show
Opportunity to inspect the full vehicles exhibited



13.45 h Development of an elektromagnetic tool for post-forming of an aluminum hood

Christian Held, Audi AG, DE; Rani Plant, Bmax, FR







14.15 h Disclosure of the results of the Awards competition and bestowal of the Doors & Closures Innovation Award 2014

#### **OEM CONCLUSIONS**

14.30 h Representatives of the OEM Advisory Board on current trends in doors and closures development and their expectations/ wishes for the future.

14.45 h Farewell address and end of the conference

Subject to change (30 September 2014)

## YOUR ADDITIONAL BENEFITS

#### HARDWARE PRESENTATIONS

Discover current series hang-on parts of leading OEM on site in Bad Nauheim! Inspect those hang-on parts during the presentations and rate the benchmarks at the most comprehensive international comparison of door and closure developments – live, exclusive and close to SOP!

#### LIVE POLLS ON-SITE

Address the conference plenum with your own questions via an automated live poll system and take the opportunity to gain some insight into the considerations of the conference audience, which represents a unique body of expertise. The results will be displayed immediately.

#### **NETWORKING NIGHT**

Meet directly with other conference participants and network with business partners, clients and colleagues in a relaxed atmosphere whilst enjoying good food, drinks and music.

#### ADJACENT EXHIBITION

At the adjacent exhibition international suppliers showcase their relevant new products and solutions all around "Doors and Closures in Car Body Engineering" – the exhibition is the perfect addition to the conference programme and rounds off your participation.

### **Terms & Conditions**

#### \\ REGISTRATION PROCEDURES

Vincentz Network GmbH & Co. KG Automotive Circle International Plathnerstr. 4c DE-30175 Hannover T+49 511 99 10-383 F+49 511 99 10-379 info@automotive-circle.com

#### \\ YOU CAN ALSO REGISTER ONLINE AT

www.automotive-circle.com

#### \\ DATE AND VENUE

Technology Briefing: 17 November 2014 Conference: 18 – 19 November 2014

Hotel Dolce Bad Nauheim Elvis-Presley-Platz 1 DE-61231 Bad Nauheim T+49 6032 303-0 F+49 6032 303-529 www.dolce-bad-nauheim-hotel.com

We kindly ask you to make your own hotel reservation at the conference hotel, please refer to "Automotive Circle". The hotel offers special room rates from 132,— $\in$  to 152,— $\in$  depending on different cancellation conditions. The mentioned room rates include 5,— $\in$  breakfast per person and per day.

#### \\ CONFERENCE FEES

Technology Briefing: 399,- €\*
Conference (Standard): 1.815,- €\*
Conference (Early-bird): 1.615,- €\*

#### Early-bird price available until 20 October 2014.

Students will get 50 % discount on standard prices on presentation of a valid student ID.

\* All prices plus 19 % German VAT. All confer-

All prices plus 19% German VAI. All conferences in Europe are subject to VAT. To reclaim, please contact your local tax office.

#### \\ FEES INCLUDE

<u>Technology Briefing fees</u> include the attendance, list of delegates, the proceedings and catering. <u>Conference fees</u> include full conference participation, incl. conference materials and list of delegates, the authority for downloading the presentations on the Internet, luncheons, catering and the participation in the evening networking event.

#### \\ CONFERENCE LANGUAGE

The conference will be translated simultaneously into English and German. Please note that the contents of lectures and presentations at simultaneously interpreted conferences are predominately composed in the English language.

#### \\ CANCELLATIONS

Fees will be refunded in full if notice of cancellation is received by 20 October 2014, 50 % of the conference fees will be refunded in case notification of cancellation is received later,



but not later than 3 November 2014. Delegates who fail to attend without notifying the organiser will be liable for the whole conference fees. Substitutions of delegates may be made at any time. Cancellations and changes should be notified in writing. In all cases date of postmark shall apply. Any fees to be refunded will be paid after the end of the conference. The organiser reserves the right to change the programme content or to cancel the event due to important reasons. Cancellation fees of third parties that may appear in this context will not be reimbursed.

#### \\ DATA PROTECTION

Vincentz Network produces a list of delegates for each event which may include the following information: company name, address (zip code, city, country), name and job function of delegate. This list of delegates will be made available for all conference delegates, speakers, exhibitors and sponsors of the event, who may use the data for promotional purposes. Objection against publication and circulation of this data may be made at any time until 3 weeks prior to the event and has to be made in writing to the organiser. Company's name, city and country might be published on the Internet as reference for upcoming Automotive Circle International-conferences.

#### \\ PLEASE NOTE

By registering you understand that your participation and attendance at the conference may be videotaped, filmed and/or audio recorded. You agree that the recording may be used for any lawful purposes that Vincentz Network, or its designees, in their sole discretion, may determine. The address data are processed for customer service and information purposes in compliance with the German Federal Data Protection Law. Company's name, city and country might be published on the Internet as reference for the upcoming conferences of Automotive Circle International.

#### \\ PICTURES

Vincentz Network

## Registration

# Doors & Closures in Car Body Engineering 2014

18 - 19 November \\ Bad Nauheim \\ Germany

Title	First Name				
Name					
E-mail (Please note that the invoice and further information will be sent to you via e-mail.)					
Company					
Department					
Function					
Street					
Zip Code/City					
Country					
Phone		Fax			
Our Order No.		Our Vat No.			
I hereby register for. (For prices see terms and co	onditions.)				
Conference ☐ Technology Briefing 18 – 19 November 2014 17 November 2014					
Method of payment:					
<ul> <li>□ Please charge my credit card:</li> <li>□ American Express</li> <li>□ Eurocard/Mastercard</li> <li>□ Visa</li> </ul>					
·			Expiry Date		
Card Number			Verification Code (if necessary)		
For further information about paying by bank transfer, please contact: T +49 511 9910-383, info@automotive-circle.com  Yes, I want to be informed about future Vincentz Network events and products via e-mail.					
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Date, Signature					

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