



AUTOMOTIVE CIRCLE
CONFERENCE

CAR BODY ENGINEERING INSIGHT @ AUDI 2018

20 – 21 JUNE 2018

AUDI, PLANT NECKARSULM, GERMANY

The new Audi A8 – Intelligent
multi-material lightweight design

**INCLUSIVE
GUIDED TOUR**
through the
production of
the new A8



In cooperation with Audi



THE NEW AUDI A8 – INTELLIGENT MULTI-MATERIAL LIGHTWEIGHT DESIGN

For the new generation of the Audi A8, an intelligent mix of four materials is being used for the first time in the body structure: Aluminium, steel, magnesium and carbon. By using as many as 29 different material grades, the company puts the principle „the right material in the right place in the right amount” consequently into practice.

How did the engineers realise the material mix? Which new joining technologies are used? What challenges did Audi face? Which production concepts do they pursue?

These and other questions will be addressed at the Insight @ Audi 2018. Learn more about Audi’s new flagship and discuss with experts from Audi as well as other OEM about material mix, efficient joining technologies, process strategies to increase productivity as well as quality and smart factory solutions.



Be part of these discussions –
we are looking forward to
meeting you there!

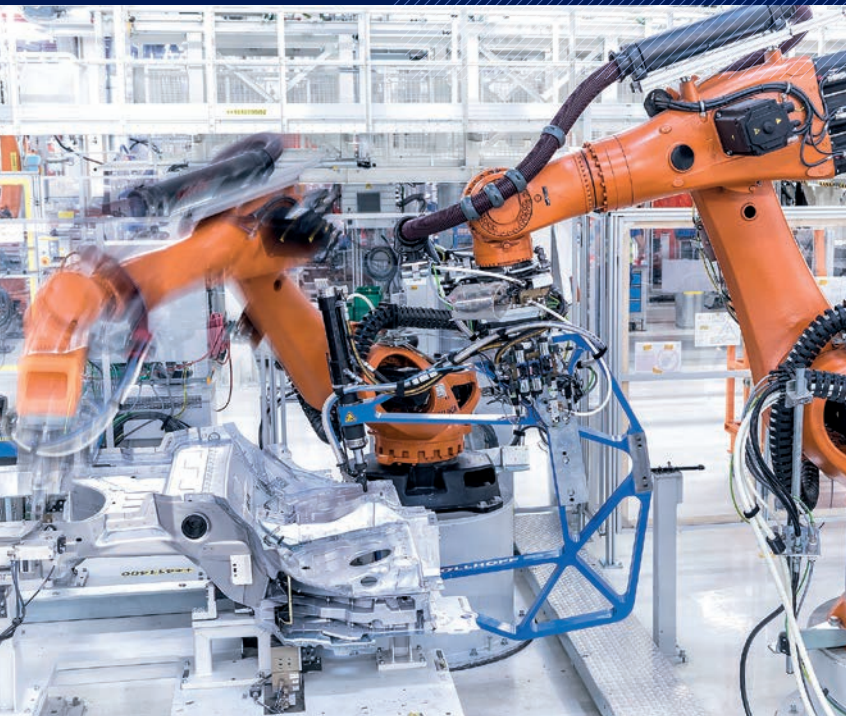
A handwritten signature in black ink that reads "Sabine Scharf". The signature is written in a cursive, flowing style.

Sabine Scharf
Presidium
Automotive Circle

PLUS!

GUIDED TOUR THROUGH THE PRODUCTION OF THE NEW A8

Audi invites attendees to a guided tour through the new A8 body shop. Get exclusive insights into the modern production line with its more than 500 robots, 90 adhesive bonding systems, 60 automated stations for self-tapping screws, 270 punch riveting systems and 90 resistance spot welding guns. Take the opportunity to discuss with the experts directly at the production line.



PROGRAMME

WEDNESDAY, 20 JUNE 2018

- 8.00 h** **Registration and handover of conference documents, Audi Forum Neckarsulm**
- 9.00 h** **Welcome and introduction to the conference**
Sabine Scharf, Automotive Circle, DE
- 9.15 h** **Welcome and introduction to the Audi plant Neckarsulm**
Helmut Stettner, Audi AG, DE
- 9.35 h** **Audi Space Frame 4.0: The multi-material car body concept of the new A8**
Dr. Bernd Mlekusch, Audi AG, DE
- 10.05 h** ☕ **Coffee & contacts**

SPECIFIC APPLICATIONS FOR THE A8

- 10.30 h** **Online process control and quality assurance during laser beam remote welding of aluminium in the door production of the new Audi A8**
Timur Demirbas, Precitec GmbH & Co. KG, DE
- 11.00 h** **Production and assembly of the Audi A8 rear wall with innovative CFRP-manufacturing process and new structural adhesives**
*Julian Draheim, Voith Composites GmbH & Co. KG, DE,
Dr. Stefan Schmatloch, Dow Europe GmbH, CH*
- 11.30 h** **Aluminium structural casting: Integrated development of alloy, part and process**
Markus Heim, DGS Druckguss Systeme AG, CH
- 12.00 h** **Specific use of magnesium diecasting using hot chamber diecasting technology**
Hartmut Fischer, Andreas Stihl AG & Co. KG, DE
- 12.30 h** 🍴 **Lunch**

LIGHTWEIGHT TECHNOLOGIES AND MATERIALS

- 13.30 h** **Tailored materials and joining processes for lightweight and multi-material design**
Prof. Dr. Marion Merklein, Friedrich-Alexander-Universität Erlangen-Nürnberg, DE
- 14.00 h** **STAF Technique – Steel Tube Air Forming**
Ryuichi Funada, Masayuki Ishizuka, Sumitomo Heavy Industries, Ltd., JP
- 14.30 h** **Next steps towards increased versatility and maturity for aluminium BIW applications**
Stefan Knabben, Hydro Aluminium Rolled Products GmbH, DE
- 15.00 h** **Innovative aluminium alloys with highest strength and improved formability**
Jörg Simon, Novelis Inc., CH

15.30 h **New structural adhesives for multi-material design**

Dr. Andreas Lutz, Dr. Felix Koch, Dow Europe GmbH, CH

16.00 h ☕ **Coffee & contacts**

OEM REPORTS I

16.30 h **Robust optimisation of multi-material joining method**

Leland Decker, FCA US LLC, US

17.00 h **Future E-mobility architectural concepts and the potential effect to the premium OEM**

Piers Green, Jaguar Land Rover Ltd., GB

17.30 h 👥 **Get-together**

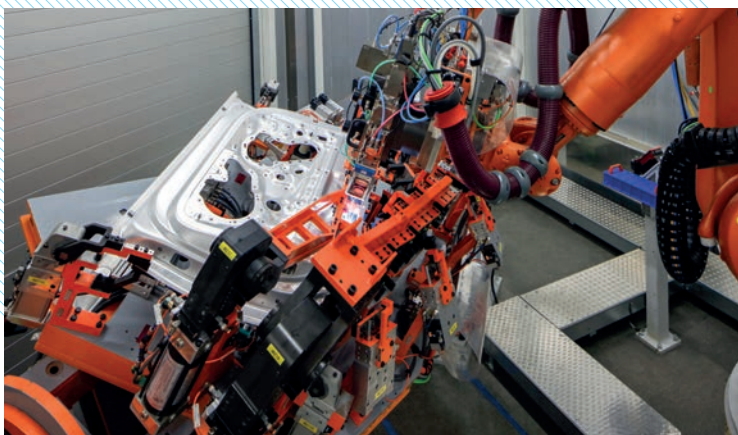
18.30 h **Networking Night, Audi Forum Neckarsulm**

THURSDAY, 21 JUNE 2018

8.30 h **Production concept and technology highlights of the Audi A8**

N.N., Audi AG, DE

9.00 h **Guided Tour through the production of the new A8**



12.00 h 🍴 **Lunch**

SMART FACTORY FOR EFFICIENT PRODUCTION

13.00 h **Self-piercing riveting technology: Increased flexibility through modular machine concepts and systematic change management**

Dennis Henke, Böllhoff Verbindungstechnik GmbH, DE

13.30 h Efficient and intelligent laser beam welding in the smart factory

Dr. Florian Albert, Scansonic MI GmbH, DE

14.00 h The AMRC automotive digital manufacturing technology demonstrator

Ben Kitcher, Alex Godbehere, AMRC with Boeing, GB

14.30 h ☕ Coffee & contacts

OEM REPORTS II

14.45 h Efficient body assembly line for small volume aluminium BIW of the new Alpine

Hubert Ernault, Renault Groupe, FR

15.15 h Launching new model: Challenges of flexible, efficient and high quality mixed production

Mike Bulugaris, Honda Engineering North America, Inc., US

15.45 h Farewell and conclusion, end of the conference

Audi Programme Committee, Audi AG, DE,

Sabine Scharf, Automotive Circle, DE

Subject to change (status as of 26 March 2018)



**ONLINE REGISTRATION AT:
WWW.AUTOMOTIVE-CIRCLE.COM**
conference seats are limited!

CONFERENCE VENUE

Audi Forum Neckarsulm
NSU-Straße 1
74172 Neckarsulm
Germany

HOTEL

We kindly ask you to make your own hotel reservation.

Hotel recommendations:

- › nestor Hotel Neckarsulm
- › Mercure Hotel Heilbronn*
- › Vienna House Easy Neckarsulm*

* Bus-Shuttle to the Audi Forum

Please find further information regarding your hotel booking at our website:

www.automotive-circle.com

CONFERENCE FEE

Early bird: 2.045,- EUR** (until 19 May 2018)

Standard: 2.145,- EUR**

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

PICTURES

Audi AG



YOUR CONTACT

Sarah Ehrchen

Event Manager
Automotive Circle
T +49 511 9910-374
sarah.ehrchen@vincentz.net

THE AUDI PROGRAMME COMMITTEE



The new Audi A8, the flagship of the brand, sets new standards in terms of function, sports appeal and comfort. The luxury sedan represents our brand claim **VORSPRUNG DURCH TECHNIK**.

In 1994, Audi introduced the Audi Space Frame ASF in the A8. Until now, this concept was realised in more than one million vehicles. Today, the consistently improved 4th generation of the ASF is a multi-material lightweight design. What once started in aluminium has evolved into a multi-material construction concept consisting of aluminium, steel, magnesium and carbon.

Exclusively for the production of the new Audi A8, we erected a new body shop building at the Neckarsulm plant. A total of 14 different joining technologies are used, including, for the first time, remote laser welding of aluminium.

We cordially invite you to experience the production and concept of the new Audi A8 and to discuss the various aspects with us.



Jörg Theuner
Head of A8
Body Shop



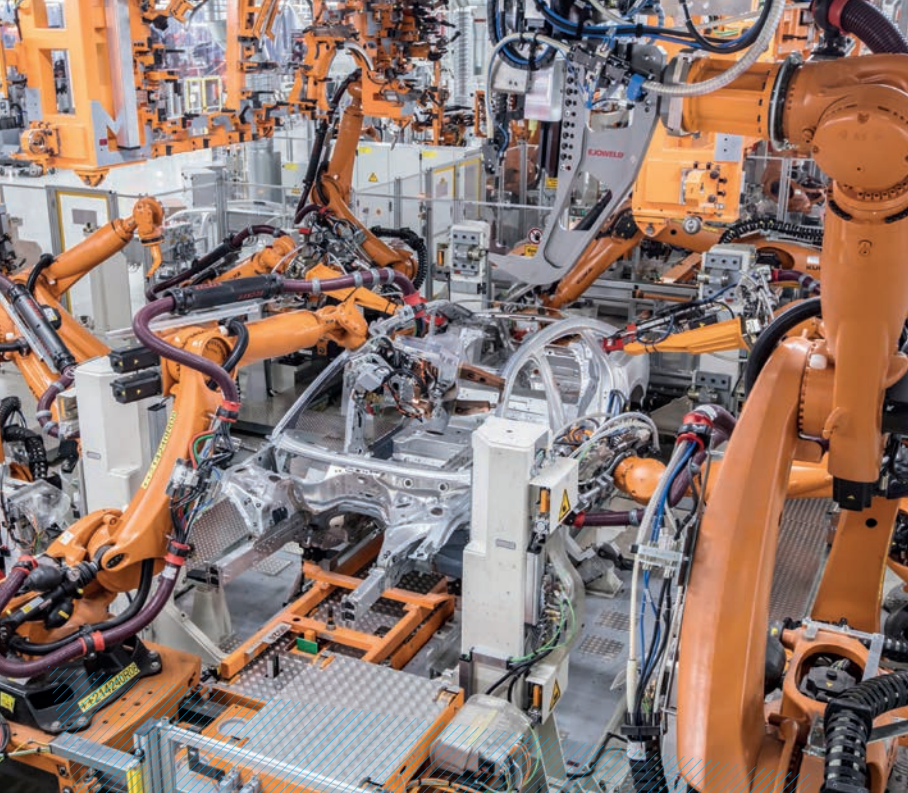
Dr. Bernd Mlekusch
Head of Development
Body Structure



Steffen Müller
Head of Technology
Development Joining



Thomas Heußner
Head of Technology Development
Materials and Process Engineering



**CONFERENCE SEATS ARE LIMITED!
REGISTER NOW AND SECURE YOUR PLACE!
WWW.AUTOMOTIVE-CIRCLE.COM**

**REGISTER
NOW!**

Vincenz Network GmbH & Co. KG
Automotive Circle
Plathnerstr. 4c // DE-30175 Hannover

