

CAR BODY PARTS –

FROM DEVELOPMENT TO PRODUCTION

MODULE 1: CASTING, MOLDING, ADDITIVE TECHNOLOGIES

TUESDAY, SEPTEMBER 26, 2023, 9.00 AM TO WEDNESDAY, SEPTEMBER 27, 2023, 3.30 PM CEST (UTC+2)

MODULE 2: PANEL FORMING, PROFILING

WEDNESDAY, SEPTEMBER 27, 2023, 9.00 AM TO THURSDAY, SEPTEMBER 28, 2023, 2.00 PM CEST (UTC+2)

TUESDAY, SEPTEMBER 26, 2023

MODULE 1:

CASTING, MOLDING, ADDITIVE TECHNOLOGIES



9.00 AM Welcome and introduction to conference Module 1

Dr. Dirk Meine, Automotive Circle, DE

CASTING CAPABILITIES

9.15 AM Gigapress under body casting cell

John Stokes, Idra Srl., IT

9.45 AM As-cast engineering and prototyping of large integrated structural castings

Kentaro Higaki, Kimura Foundry Co., Ltd., JP; Dr. Joachim Gundlach, Grunewald GmbH & Co KG, DE

10.15 AM Sustainable megacasting production for the body-in-white of tomorrow

Hermann Roos, Bühler Group, CH

10.45 AM Meet the Speakers / Coffee and contacts

CASTING CHALLENGES

11.30 AM Die casting challenges in aluminium automobile lightweight body parts manufacturing using HPDC process

David Lorenz, ESI Germany GmbH, DE

12.00 PM Mega, giga, hyper - challenges of a new dimension: 3D straightening of structural castings

Philipp Hettich, Laubinger + Rickmann GmbH & Co. KG, DE

12.30 PM The project MeGiCast

– Follow-up of the Megacasting vs Multi-Material-Mix discussion held at Car Body Parts 2022 –

Simon Frank, AIT Austrian Institute of Technology, Center for Low-Emission Transport, AT; Prof. Thilo Röth, ACA Invest GmbH, European Center for Sustainable Mobility (ECSM), DE

1.00 PM Live Polls in the auditorium

1.15 PM Meet the Speakers / Lunch break

CASTING PROCESS IMPROVEMENTS

2.30 PM Weight-neutral substitution of magnesium by aluminum in die casting through innovative 4-plate mold technology

Dr. Thomas Kopp, Thomas Pöppl, BMW Group, DE

3.00 PM Innovative vacuum dosing technology for sustainable mega & giga foundries

Roger Rapp, Meltec Industrieofenbau GmbH, AT

3.30 PM Meet the Speakers / Coffee and contacts

4.15 PM (online presentation)

Advanced manufacturing of conforming cooling molds

Dr. Haneen Daoud, Neue Materialien Bayreuth GmbH, DE

4.45 PM Accelerating the product development process of overmolded structures via Robotic Screw Extrusion Additive Manufacturing

Timo Huse, German Aerospace Center (DLR), Institute of Vehicle Concepts, DE

5.15 PM Meet the Speakers / Get-Together

6.30 PM Networking Night Module 1

ZWO – Tapas Restaurant

Frankfurter Straße 70, 61231 Bad Nauheim

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MODULE 1 (continued):

CASTING, MOLDING, ADDITIVE TECHNOLOGIES

MODULE 2:

PANEL FORMING, PROFILING

(Joint Sessions for both Modules)

9.00 AM Welcome and introduction to conference Module 2

Dr. Dirk Meine, Automotive Circle, DE

OEM FOUNDRY ACTIVITIES

9.15 AM Renault BIW by casting

Frank Gaté, Renault, FR

9.45 AM (online presentation)

ZEEKR 009 Megacasting rear floor

Tianqi Li, Jian Wang, Yadong Song, ZEEKR Automobile, CN

10.15 AM Large in-house HPDC aluminium casting for next generation body in white design at Volvo Cars

Michelle Khoo, Volvo Car Company, SE

10.45 AM Meet the Speakers / Coffee and contacts

11.30 AM Panel discussion

Megacastings – a game changer for the industry?

OEM and academic experts on the future of car body concepts

– including Live Polls in the auditorium –

12.30 PM Meet the Speakers / Lunch break

CONCEPT INNOVATIONS

1.45 PM Smart search engine to unlock the full potential of technical databases

Charles Zgheib, Brightclue, FR

2.15 PM Automatic inline surface inspection in press shop and body shop

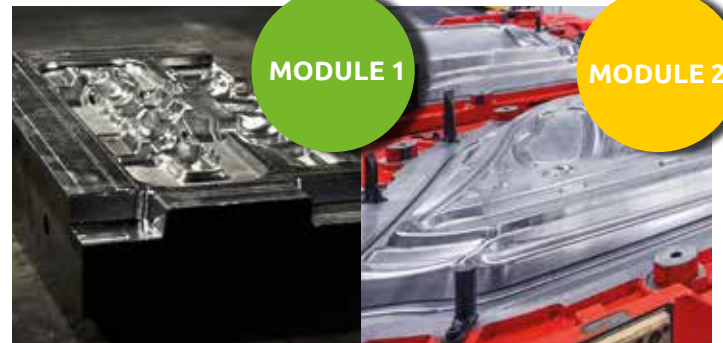
Hubert Lechner, Carl Zeiss Automated Inspection GmbH, DE

2.45 PM Sustainable steel solutions to simplify vehicle design and production

Jesse Paegle, ArcelorMittal S.A., FR

3.15 PM Meet the Speakers / Coffee and contacts

(END OF MODULE 1)



(MODULE 2 CONTINUED)

INCREASING PROCESS EFFICIENCY

4.00 PM (online presentation)

Efficiency by design - The application of a smart stamping process engineering concept in the BiW process definition

Gianfranco Ruggiero, AutoForm Engineering, IT

4.30 PM A novel stamping method to reduce trimming scrap by 75% on applicable BiW components

Christopher Cleaver, DeepForm Ltd., UK

5.00 PM Material reduction in additively manufactured sheet metal forming tools

Yannick Taschbach, Laboratory for Machine Tools and Production Engineering (WZL) of RWTH Aachen University, DE

5.30 PM The influence of surface cleaning on scrap rates and production costs of car body parts

Daniel Gottschall, Wandres GmbH micro-cleaning, DE

6.00 PM Meet the Speakers / Get-Together

7.00 PM Networking Night Module 2

Spiegelsaal – Hotel Dolce

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THURSDAY, SEPTEMBER 28, 2023

MODULE 2 (continued):

PANEL FORMING PROCESS INNOVATIONS



Subject to change (Status as of September 13, 2023)

- 9.00 AM** *(online presentation)*
Improving of productivity using direct water quenching in hotstamping of ultra-high strength steel parts
Yujiro Mitsui, Subaru Corporation, JP; Yasutaka Suzuki, Toa Industries Co., Ltd., JP
- 9.30 AM** **Application potential of new hot forming steels under consideration of manufacturing technologies**
Janko Banik, Dr. Dirk Rosenstock, thyssenkrupp Steel Europe AG, DE
- 10.00 AM** **New stamping technology for lightweight materials – Application of warm forming for high strength aluminium**
Jens Aspacher, Schuler Pressen GmbH, DE; Dr. Li-Liang Wang, Department of Mechanical Engineering, Imperial College London, UK
- 10.30 AM** **Meet the Speakers / Coffee and contacts**
- 11.15 AM** **Possibilities of sustainable heating methods for press hardening processes**
André Jungeilges, Paderborn University, Chair of Automotive Lightweight Design (LiA), DE
- 11.45 AM** **Laser welded blank solutions for subframe chassis**
Kevin Luttschlager, ArcelorMittal Tailored Blanks, FR
- 12.15 PM** **The fully digital approach for optimized aluminum components**
Dr. Patrick Böhler, Constellium Singen GmbH, DE
- 12.45 PM** **OEM summaries**
OEM Advisory Board experts on their learnings from the conference and foreseeable challenges in car body part production.
- 1.00 PM** **Concluding remarks and end of the conference**
- 1.15 PM** **Farewell lunch**

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