# AluMag®

# North America 2015 9th - 11th of Nov

**AUTOMOTIVE LIGHTWEIGHT** 

# PROCUREMENT SYMPOSIUM

Cobo Center, Detroit, USA



The 3<sup>rd</sup> Automotive Lightweight Procurement Symposium to be focused on automotive lightweighting, supply / process chain and procurement management, will take place in Detroit from the 9th – 11th of Nov 2015. The symposium is held in the days leading up to the "ALUMINUM USA" exhibition taking place at the Cobo Center, Detroit, Michigan (Walking distance to symposium venue)

#### ATTENDING COMPANIES:





















StrikoWestofen®

















































































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BOCAR













AluMag is "The Market Developer" that successfully penetrates new markets, creates business and localize leading supplier for your company. markets and open doors for your business - regardless of region, market, application, material, process or product. AluMag makes you successful - worldwide!

#### AluMag® offers the four following services - worldwide:



- ■Aluminium Extrusion **Customer Database**
- ■Foundry & Tool Maker Database
- Automotive Application, Material & Process Analyses
- Various Industrial Application Research & Analyses

AluMag as your provider of automotive research and forecasting studies, offers you and your business, the market intelligence you need to realize the best strategic decisions



Large variety of market accesss, local & global:

- business database with 6,970+ companies and 18.700+ contacts
- 150+ satisfied customers world-
- Arranged 20+ roadshows/events since 2008



#### Your Benefits:

- Learn about your [potential] clients and competitors
- Obtain an inside view of the market Identify opportunities and threats
- Minimize risk and optimize prof-
- Position your company successfully
- Based on data off the shelf, secondary re-search and inter-views, AluMag generates vali-dated researches



Market Development

- Analysis & Development of **Market Opportunities**
- Accelerate Market Penetration
- Manage New Product Launches
- Establish a Sales Force Sales on Demand

AluMag guides and supports your organization globally through the different market development phasuntil we have successfully launched, implemented or executed your project.



Manage and integrate each aspect of your organization by initiating, planning, con-trolling, executing and closing out a new project. AluMag offers liaison mana-gement services as an addition to our customer's staff by bringing in the resources



Your Benefits

- Analysis and development of Markets
- Realize opportunities
- Accelerate market penetration
- Establish a sales force
- Provide warehousing and distri-
- Manage new product launches
- Sales on demand



■ Organization of Technical &

- Commercial Roadshows ■ Oversea Commercial & **Technical Events**
- Host In-House Events & Presentation
- Common Technology Booth at Leading Exhibitions

AluMag roadshows, tech-meetings and symposia are the first class events used by exhibitors and guest as a unique benchmark platform.



The AluMag think tank events are bringing in decision makers and executives in EUROPE, ASIA and NAFTA



#### **Upcoming Events:**

- 2015 Nov: Automotive Lightweight Procurement Symposium in Detroit, USA
- 2016 April Common tech- booth at the SAE World Congress in Detroit, USA
- 2016 Jul: Automotive Lightweight Procurement Symposium in Shanghai, China
- 2016 Nov: Automotive Lightweight Procurement Symposium in Duesseldorf, Germany.



- Warehousing & Distribution Service
- Supplier & Tie-up Localization
- Identification & Trade-off of new Technology
- Foreign Market Business Cases and whose Realization

AluMag has the global expertise to search, identify, evaluate and vali-date potential strategic business opportunities for expansions and partnerships that will assist your business growth plans regionally and globally



Services for:

- · Search, develop and present potential acquisition candidates for regional and global business expansions
- Localization of new manufacturing / service sites for business expansions
- Identification of new technology supplier development related to products, processes and materials
- Search, develop and present potential business partners suppliers to support regional and/or global supply programs
- Evaluate potential competitor profiles for new or existing business in non-presence geographies
- Evaluate new emerging technologies and processes business expansions

#### Are you:

- looking for specific data, information and outlook about product, material, customer, supplier, technologies, ...
- want to discuss your project, increase sales, access new markets, ...
- interested to participate in one of our roadshows / events or organize your customized showcase ...
- looking to localize, expand into new markets, countries, tie-up targets, ...

please contact your AluMag Team to receive a quote or proposal

#### **CONTACTS & PROJECT TEAM**



Mr. Jost GÄRTNER Managing Partner AluMag® Automotive GmbH ERMANY el: +49 2373 929492 nan & English





Mr. Roberto BOEKER Managing Partner AluMag® Automotive LLC 42056 Michigan Avenue Canton, MI 48188 +1 248 962 5086





. Thomas KATCHMARK w Business Developmer utiliag® Automotive LLC 929 Sunnydale mington Hills, MI 48336 







# N. America Automotive Lightweight Procurement Symposium 2015 9<sup>th</sup> – 11<sup>th</sup> Nov

Cobo Center One Washington Blvd. Detroit, Michigan, 48226 USA



AluMag Automotive GmbH Jost GAERTNER Managing Partner

Cell: +49 172 6000569 j.gaertner@alumag.de www.alumag.cc



AluMag Automotive LLC Roberto BOEKER Managing Partner

Cell: +1 248 9625086 r.boeker@alumag.de www.alumag.cc



## Index

#### **Company Speechs by:**

Ford Research and Innovation Center

Carbon War Room and Meritor Headquarters

Striko Westofen America

**Kurtz** 

Bharat Forge Aluminiumtechnik

C.P.C. USA

**BOCAR Group** 

Ford Motor Company

**Automotive Insight** 

**EJOT Fastening Systems LP USA** 

UACJ Corp.

<u>Lightweight Innovations for Tomorrow</u>

Aluminum Blanking Company

### Agenda

Agenda: (Is Continuously Being Updated)

Monday The 9th Of November - Cobo Center, Detroit

05:30pm - 07:30pm



Pre-registration and Welcome

Reception

Tuesday The 10th Of November - Cobo Center, Detroit

08:30am - 09:15am



Registration

Morning Coffee / Tea

<u>09:15am – 09:30am</u>



Welcome:

Mr. Jost GAERTNER - Managing Partner At AluMag Automotive GmbH

09:30am - 10:25am



Opening Keynote: Mr. Craig RENNEKER - Chief Engineer, New A/T Programs & Component – Transmission & Driveline Engineering At Ford Research & Innovation Center

Lightweight Transmission & Driveline Components: Practical Challenges

10:25am - 11:00am

Break for Refreshments/Coffee/Tea, Snacks, Networking, Tech Exhibition

11:00am - 11:45am



Paper 1: Mr Mike ROETH – Executive Director At North American Council for Freight Efficiency (NACFE) & Operations Leader – Carbon War Room



Paper 1: Mr. Karl MAYER – Director Product Line Management At Meritor

Lightweighting Heavy Duty Class 8 Tractors and Trailers

<u> 11:45am – 01:45pm</u>

Break for Lunch, Refreshments, Networking, Tech Exhibition 01:45pm - 02:25pm



Paper 2: Mr Ryan BROWN – Director Of Sales At StrikoWestofen America

Analysis Of Cost Drivers When Buying Lightweight Solutions / Materials & The Elimination Of These

02:30pm - 03:10pm



Paper 3: Mr. Lothar HARTMANN – Managing Director Foundry Machines & Trimming Presses At Kurtz GmbH

Chassis & Suspension Weight Reduction By LPDC Aluminum With Hollow Cross Sections



Mr. Kevin CROY - NAFTA Sales Manager Foundry Machines & Trimming Presses At Kurtz GmbH

03:15pm - 03:45pm



Paper 4: Mr. Jörg MANTWILL – Director Sales At Bharat Forge Aluminiumtechnik GmbH & Co. KG

HCM And Aluminum Forging – Partnership To Birth Chassis Parts' Safety

03:45pm - 04:15pm

Break for Refreshments/Coffee/Tea, Snacks, Networking, Tech Exhibition

04:15pm - 04:55pm



Paper 5: Mr. Gary F. RUFF -President and Chief Executive Officer, Ruff and Associates, LLC 8/12 -Present

Advanced Counter Pressure Casting Process for Light-Weighting of Auto and Truck Chassis and Suspension Components

05:00pm - 05:55pm



Closing Keynote: Mr. Gilberto SALDIVAR – New Projects Group Manager At Bocar Group

Key Factors To Achieve Mechanical Properties In Lightweight Structural Parts

05:55pm - 06:00pm



Summary:

Mr. Roberto BOEKER – Managing Partner At AluMag Automotive LLC

### Agenda

06:00pm - 08:00pm



Dinner Speech:

Mr. Richard KLEIN -Responsibility Strategic Planning -Business Development & German Business At BOCAR

Wednesday The 11th Of Nov - Cobo Center, Detroit

08:15am - 08:55am



Mr. Ali JAMMOUL – Global Director Body Exterior And Safety Engineering At Ford

**Body Lightweighting** 

09:00am - 09:40am



Paper 1: Dr. Gerald COLE – President At Light Weight Strategies LLC

Light Weighting the Automotive Industry - The Road to 2025 CAFÉ

09:45am - 10:25am



Paper 2: Mr. Laurence CLAUS -President At NMI Training & Consulting Inc. & Technical Consultant To EJOT Fastening Systems LP USA

EJOT Fastening Solutions Enable Lightweight Body-in-white Assembly

10:25am - 11:00am

Break for Refreshments/Coffee/ Tea, Snacks, Networking, Tech Exhibition

11:00am - 11:40am



Paper 3: Dr. Akio NIIKURA - General Manager R&D Division At UACJ Corp.

UACJ's Global Strategy And Approach To The Automotive Aluminum Market

11:45am - 12:05pm



Paper 4: Mr. Lawrence E. BROWN – Executive Director At Lightweight Innovations For Tomorrow

Lightweight Innovations For Tomorrow!!!!

12:10pm - 12:40pm



Closing Keynote: Ms. Laura ANDERSON – CEO At Aluminum Blanking Company

The Story Behind Aluminum's Sourcing Evolution: A North America Perspective

12:40pm - 12:45pm



Summary:

Mr. Jost GAERTNER, Managing Partner At AluMag Automotive GmbH

12:45 pm - 01:30pm



Reception Speech With Snacks & Finger Food

Mr. Michael KOEHLER - Industry Vice President At Reed Exhibitions USA

#### 01:30pm - 05:30pm



Individual Or Guided Visit At The 2015 "Aluminum USA" Exhibition

#### **EXHIBITOR**

Aluminum Blanking Company USA, 48340-1854 Pontiac / Michigan

Tel.: +1 248 3384422 http://www.albl.com



ACTech North America
USA, 48108 Ann Arbor / Michgan

Telefon: +1 734 9130091 www.rapidcastings.com



Bharat Forge Aluminiumtechnik GER 09618 Brand-Erbisdorf

Tel.: +49 37322 474 747 www.bharatforge.com



Auma Engineering Products

USA 48393 Wixom MI Tel.: +1 248 9609330

www. BOCAR.com.mx



C.P.C. USA

USA, 92630 Lake Forest / California

Tel.: +1 949 830 7797

www.cpcmachines.ilindenmachines.com



### **EXHIBITOR**

EJOT Fastening Systems LP USA 48393 Wixom MI

Tel.: + +1 262 612 3550 http://www.ejot-usa.com



Kurtz GmbH GER 97892 Kreuzwertheim

Tel.: +49 9342 807 0 http://www.kurtzersa.de



StrikoWestofen GmbH GER 51643 Gummersbach

Tel.: +49 2261 709 10 www.strikowestofen.com

StrikoWestofen of Group

# BHARAT FORGE ALUMINIUMTECHNIK





Mr. Jörg MANTWILL Director Sales

Bharat Forge Aluminiumtechnik GmbH & Co. KG GER, 09618 Brand-Erbisdorf

Tel.: +49 37322 474 747 www.bharatforge.com

#### **TITLE**

**HCM And Aluminum Forging – Partnership To Birth Chassis Parts' Safety** 

#### **ABSTRACT**

Car manufacturers are looking for ways to constantly improve their environmental impact and trying to reduce their carbon footprint. Aluminum is more and more becoming their favorite material due to its significant lighter weight and following advantages for fuel efficiency.

Beside the car body parts, the development activities are focused on powertrain and chassis parts. Bharat Forge Aluminiumtechnik (BFAT), manufacturer of control arms and knuckles, is able to realize significant weight reductions by combining aluminum with function optimized design layout and forging technology. Furthermore, the company has closed its loop of material recycling and the product's global footprint is reduced by 40% - an ideal constellation to master the current challenges.



# HCM and Aluminum forging partnership to birth chassis parts' safety

Automotive Lightweight Procurement Symposium 2015 9th - 11th of Nov 2015 in Detroit

Paper 4
Mr. Joerg Mantwill - Director Sales j.mantwill@bf-at.de







CONTENT TECHNOLOGY **PROSPECTS** COMPANY COMPANY **PROSPECTS** Key facts Bharat Forge ■ BFAT – Al chassis specialist worldwide Business unit Bharat Forge ■ BFAT - Full service partner for OEM Aluminiumtechnik GmbH BFAT - Synonym for material and design improvement **TECHNOLOGY** Product focus Al Casting vs. Alumimium Forging ➡ HCM - Base for chassis parts' safety





BHARAT FORGE ALUMINIUMTECHNIK



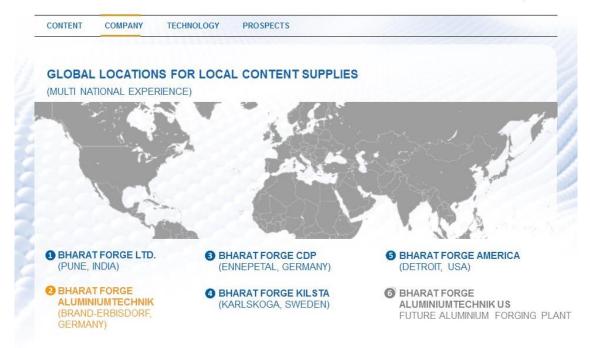


## BHARAT FORGE ALUMINIUMTECHNIK KALYAN



### BHARAT FORGE ALUMINIUMTECHNIK









BHARAT FORGE IS SPECIALIZED IN

BHARAT FORGE ALUMINIUMTECHNIK



CONTENT

COMPANY

TECHNOLOGY

**PROSPECTS** 

#### BHARAT FORGE ALUMINIUMTECHNIK (BFAT) - GERMANY

Al forged chassis parts based on HCM primary material



- Turnover: 44 Mio. EUR (2014)
- Material consumption: 12,000 t (Aluminium)

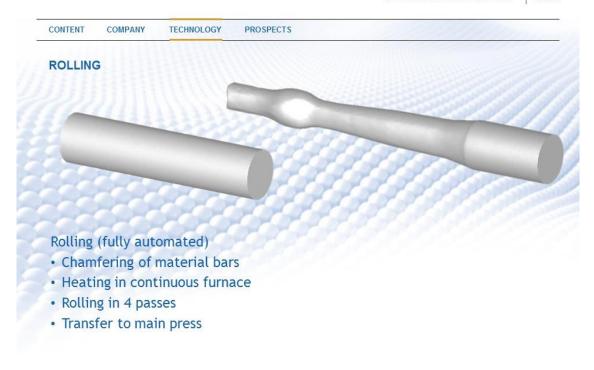
- Key products: control arms, knuckles
- Forging capacity: 3,5 Mio parts p.a.
- Parts weight: 2 7kg

### BHARAT FORGE

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#### BHARAT FORGE ALUMINIUMTECHNIK











#### BHARAT FORGE ALUMINIUMTECHNIK



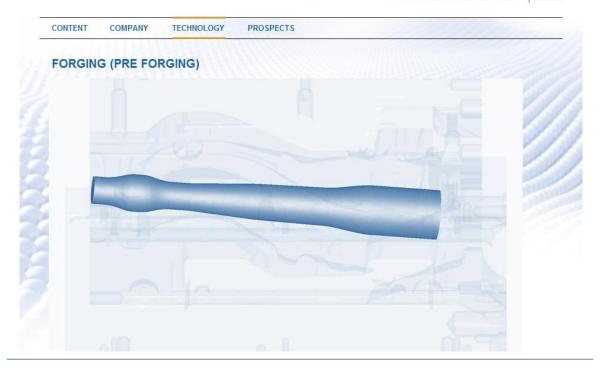


Hot trimming

· Repeatable, fully-automatic chained process





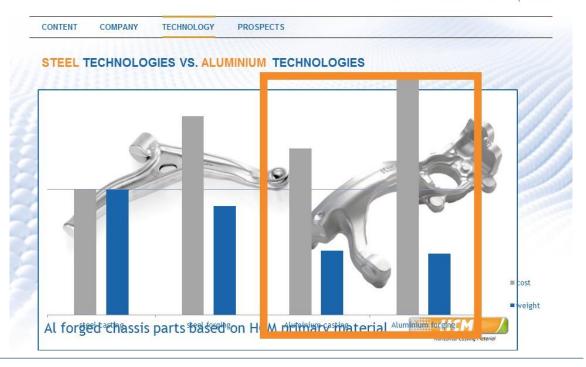


BHARAT FORGE ALUMINIUMTECHNIK



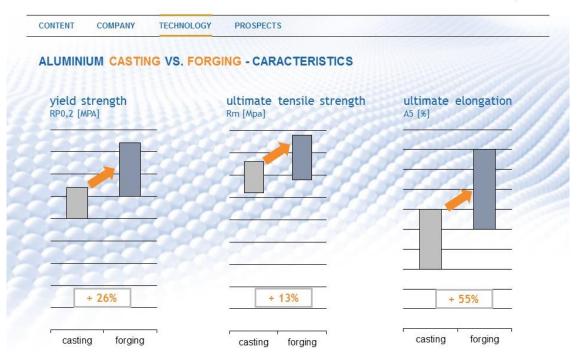




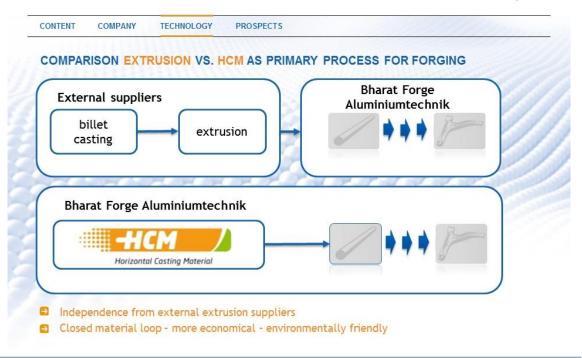


#### BHARAT FORGE ALUMINIUMTECHNIK









BHARAT FORGE ALUMINIUMTECHNIK



OUR INNOVATION - HCM (HORIZONTAL CASTING MATERIAL)

TECHNOLOGY

CONTENT

COMPANY

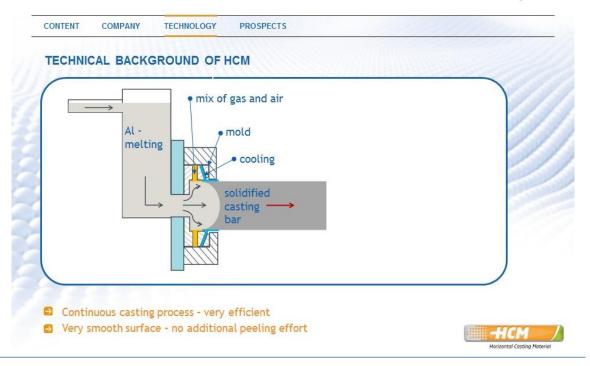


**PROSPECTS** 

already used for: Volkswagen Group, Maserati, GM, Daimler

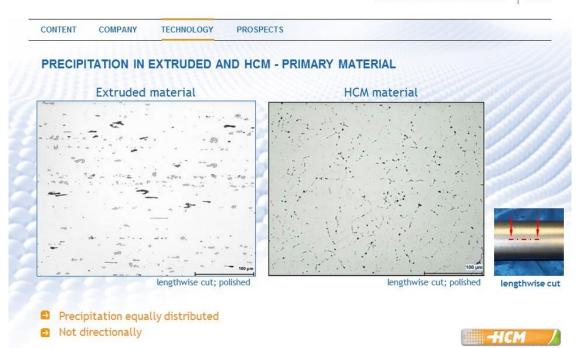






BHARAT FORGE



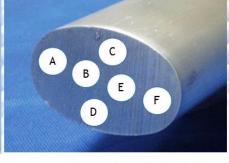




CONTENT COMPANY TECHNOLOGY PROSPECTS

#### MECHANICAL CHARACTERISTICS OF HCM- MATERIAL AFTER T6 PROCESS

sample area	direction	Rp0,2 [MPa]	Rm [MPa]	A5 [%]
A	lenght	331,1	393,8	15,2
В		339,9	393,5	14,6
С		328,3	391,9	13,6
D		331,1	393,7	15,6
E		339,8	393,1	14,2
F		332,3	395,3	16,5
A - F	crosswise	328,7	390,7	13,8



tensile according to DIN EN ISO 6892-1 sample form according to DIN 50125 – B5x25

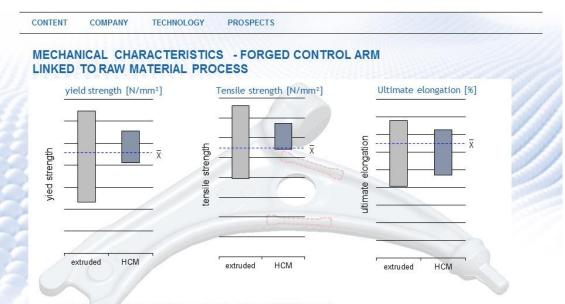
Sample position in the HCM material

- High mechanical characteristics already in heat-treated cast state
- No directional dependence



BHARAT FORGE





analysis of longterm series production (appr. 2.000 parts)

Comparison of forged parts based on extruded and HCM - raw material





STRUCTURE ANALYSIS AT FORGED PART

Forged profil based on HCM primary material

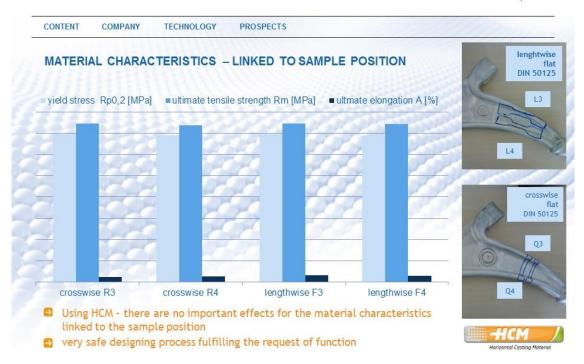
Forged profil (extruded primary mat.)

HCM - effects a very small marginalized layer of recrystallisation (appr. 1mm)

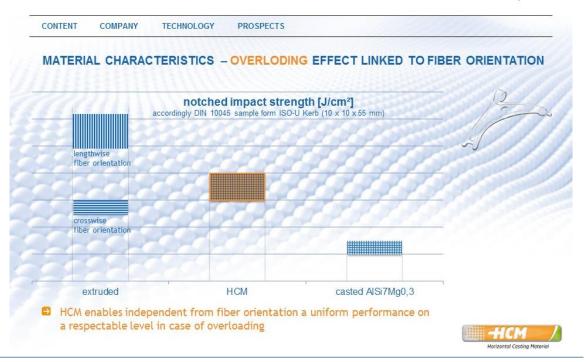
Safety buffer for long life fatigue strength
Perfect material characteristics to enable assembling of bearings (rolling)





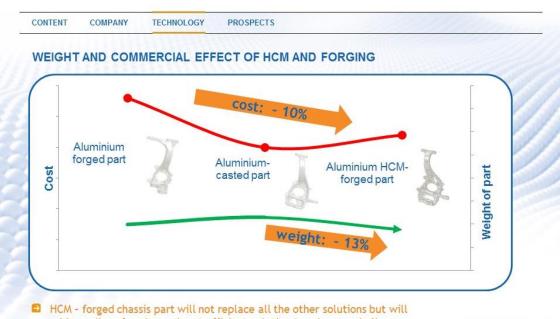






#### BHARAT FORGE ALUMINIUMTECHNIK





add a well performing and cost efficient solution to solve our challenges



#### BHARAT FORGE



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### BHARAT FORGE ALUMINIUMTECHNIK

technology



PROSPECTS CONTENT COMPANY TECHNOLOGY BHARAT FORGE - FULL SERVICE FOR LIGHT WEIGHT CHASSIS ... are challenging us as ... lead to OEM needs Costumers' needs Your partner with regarding chassis Light weight design COx reduction Weight reduction Optimized material NOx reduction Premium performance Driving pleasure properties Safety reserve Reliable production Safety Reliable parts Economical cars processes Competitive suppliers Efficient production





### We Welcome You To Our Next Event



**AluMag**<sup>®</sup> Asia 2016 6th - 8th of July AUTOMOTIVE LIGHTWEIGHT PROCUREMENT SYMPOSIUM Jumeirah Himalayas Hotel in Shanghai, China





Organized by AluMag

#### **CONTACTS & PROJECT TEAM**



Mr. Jost GAFRTNER Managing Partner AluMag® Automotive GmbH Kirchplatz 1a 58706 Menden GERMANY Tel.: +49 2373 929492 j.gaertner@alumag.de German & English



Mr. Jesper Ove LARSEN Manager Market Research AluMag® Scandinavia Byagervænget 69 8330 Beder DENMARK Cell: +45 2573 8790 j.larsen@alumag.de

German & English & Danish



Mr. Roberto BOEKER **Managing Partner** AluMag® Automotive 42056 Michigan Avenue Canton, MI 48188 USA Cell: +1 248 962 5086 r.boeker@alumag.de English & German & Spanish







Mr. Ricardo SCHOER Senior Consultent AluMag® Automotive Av. San Antonio 189-131 Col. Napoles 03810 MEXICO Cell: +52 55 4002 0501 r.schoer@alumag.de



Ms. Ying ZHOU Project Coordinator Japan & China AluMag® Automotive GmbH Kirchplatz 1a 58706 Menden GERMANY Cell: +49 172 6415876 y.zhou@alumag.de German & English & Chinese & Japanese



Mr. Thomas KATCHMARK New Business Development Manager AluMag® Automotive 20929 Sunnydale Farmington Hills, MI 48336 Cell: +1 313 410 0865 t.katchmark@alumag.de