

SEMICON® EUROPA

NOV 14-17, 2023 | MUNICH, GERMANY



Global GAAC Summit



A. Aal
GAAC Europe Chair
Volkswagen AG, Munich, Germany



Biography

Andreas (IEEE SM / CRP) drove the semiconductor strategy & reliability assurance activities within the E/E development at Volkswagen, Germany, for many years, concentrating on technology capability enhancement of most advanced nodes incl. improved HW integration schemes as well as optimization of power electronics for automotive applications. He temporarily joint CARIAD SE between 2020 and 2022 as a system architect and product security officer focusing on semiconductor and SW driven innovations.

Wearing always one shoe from the semiconductor industry and the other one from the car OEM, he became a strong representative of the through-the-supply-chain-joint-development and collaboration approach also being rewarded with the EDA Achievement award 2020.

He has 24 years of experience with and within the semiconductor industry, has authored/co-authored over 40 publications on reliability and has given tutorials at IEEE IRPS and IIRW as well as invited and keynote speeches during various conferences and conventions.

His early collaboration activities began already in 2007 becoming the chair of the German VDE ITG group MN 5.6 on (f)WLR, reliability simulations and qualification. He is currently also chair of the European chapter of the SEMI Global Automotive Advisory Council (GAAC), member of the coordination team of the corresponding "European platform for automotive semiconductor requirements along the supply chain" hosted by the VDE ITG and member of the Bmbf industry advisory board on cyber security.

Driving the disruptive automotive transformation process on a collaborative supply chain basis is one of his major passions.

Welcome Remarks

B. Weiss
Chief of Staff & Corporate Strategy
SEMI, Milpitas, California, United States of

America



Abstract

Coming Soon

Biography

As Chief of Staff & Corporate Strategy, Bettina Weiss reports to SEMI's President & CEO and manages a broad portfolio of responsibilities. Major focus areas include advancing specific global strategic initiatives such as SEMI's Smart Mobility and Supply Chain initiatives and SEMI University, facilitate thought leadership (Think Tanks) activities in key strategic areas as well as improving organizational efficiency, alignment and financial sustainability. In addition, Weiss is the Sr. Liaison to the SEMI Board of Industry Leaders, leading strategic partnerships and M&A activity, and supporting the President & CEO in successfully creating a highly effective, agile global association.

Weiss joined SEMI in 1996 and held a variety of positions in SEMI's International Standards department, including department lead, global responsibility for SEMI's Photovoltaic/Solar Business Unit, business development including the integration of SEMI Strategic Association Partners FlexTech, MEMS & Sensors Industry Group, ESD Alliance and the SOI Consortium.

Prior to joining SEMI, Weiss worked in sales and marketing positions at Metron Semiconductor and Varian Semiconductor in Munich, Germany. She holds a BA from the International School for Applied Languages in Munich, Germany, and is a certified translator for Anglo-American Law and Economics.

Opening Remarks



A. Aal
GAAC Europe Chair
Volkswagen AG, Munich, Germany



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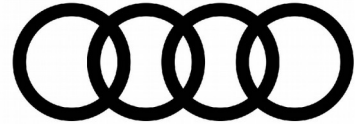
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From Managing the Semiconductor Crisis...



B. Hellenthal
Head of Audi Semiconductor Program (APH)
AUDI AG, Munich, Germany



Abstract

With the start of the semiconductor crisis, Volkswagen established a cross-function, cross-brand taskforce, which has implemented measures to handle supply shortages and secure production in the short-term. Starting at unconscious incompetence, Volkswagen is stepping forward into a future of actively steering semiconductors within the vehicles of tomorrow.

Biography

Dipl.-Ing. Berthold Hellenthal studied mechanical engineering at the RWTH Aachen University. He started his career as a consultant on the implementation and application of complex control theories (fuzzy logic and artificial intelligence) in Europe and the US, specifically for the semiconductor industry. He then worked as co-founder and co-CEO in a venture capital financed start-up.

Before joining the AUDI AG in 2006 as a member of the technical development management team, Mr. Hellenthal worked as a consultant on electronic development in the automotive industry. At Audi he was responsible for the comprehensive competence center “Electronics & Semiconductors” as well as for the Audi semiconductor strategy, the Progressive Semiconductor Program (PSCP) that he initiated in 2010. From late 2020 to mid 2022, Berthold build up and lead the department “Compute Platform and Semiconductors” in CARIAD SE., a Volkswagen Group company. Topics of the department were compute platform, semiconductor development, hardware/software co-design, virtual prototypes, electronic control unit development and robust electronics.

Returning to AUDI AG he currently heads the comprehensive competence center “Robust Design”. Mr Hellenthal is also leading the comprehensive Audi Semiconductor Program (APH) where he has the technical responsibility for all semiconductors at Audi.

Semiconductor Management from an OEM Perspective



M. Schmid
Head of Procurement Semiconductor
Management Group/Brand
Volkswagen AG, BC-H, Wolfsburg, Germany

VOLKSWAGEN GROUP

Abstract

New vehicle architectures, OTA-Updates, and the SW-defined vehicle in general are key drivers for OEMs to pursue further vertical integration. It is crucial to define key hardware guardrails early in the product development process. In addition, the semiconductor crisis has made OEMs more aware of the importance of electronic components, especially in the automotive industry.

Volkswagen is actively shaping the future and has implemented key elements of a strategic semiconductor management program. A new top management committee decides on the company-wide semiconductor strategy from a technology and procurement perspective and reviews component sourcings at semiconductor level for conformity with strategy.

Volkswagen is implementing a semiconductor category management for the most important semiconductor categories, analogous to major Tier-1s. This results in explicit specifications for each semiconductor category, all the way up to product portfolios, always with an eye towards the future and without hindering innovation. This gives the Group greater control over bills of materials and designs, proactively reducing complexity and improving component interchangeability, while ensuring the use of state-of-the-art technologies wherever possible.

In addition, a risk monitor provides a clear basis for decision-making so that potential bottlenecks can be addressed at an early stage. Different dimensions such as end-of-life, probability of natural disasters or structural risks are combined in a score for each component. This tool can be used to identify risks and prepare mitigation measures such as technological alternatives or redesigns.

Beyond to the internal transformation, Volkswagen is increasingly pursuing collaboration across the entire semiconductor supply chain – an approach from which both sides benefit, both technologically and in terms of plannability and security of supply in the supply chain. In this way, Volkswagen supports SEMIs goals of sharing best practices, creating standards and driving new and innovative solutions through close collaboration across the supply chain, also incorporating politics in those discussions.

Biography

- Head of Procurement Infotainment Group/Brand (2010-2013)
- Head of Procurement Production Material VW India (2013-2016)
- Head of Procurement Engineering Services Group/Brand (2016-2019)
- Head of Procurement Infotainment, Telematics & HMI Group/Brand (2019-2022)
- Head of Procurement Semiconductor Management Group/Brand (since 2022)

Building Software Defined, Electric Vehicles



J.-P. Gehrman
VP of Marketing of the Advanced Analog BL
NXP Semiconductors, Munich, Germany



Abstract

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Biography

Jan-Philipp Gehrman is Vice President of Marketing for the Advanced Analog business line at NXP Semiconductors. With more than 20 years of experience in the semiconductor industry, his expertise encompass business strategy, sales, marketing, and product management. Multinational roles have led Jan-Philipp to China, Germany and Silicon Valley, where he previously led a sales and application engineering team focused on the local auto ecosystem. During the recent supply crisis Jan-Philipp led a task force to explore optimized engagement models along the auto supply chain. He currently lives in Hamburg, Germany with his wife and three kids. In his free time, he enjoys family time, and practicing a variety of sports.

Automotive Semiconductors Supply-chain and Technology Challenges



A. Bhullar
Global Director - Semiconductor Engineering
Jaguar Land Rover, Detroit, United States of
America



Abstract

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Biography

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Smart 3D X-ray Inspection Driving Productivity



D. van de Ven
President of the Industrial X-Ray Systems (IXS)
Division
Comet Yxlon, Hamburg, Germany



Abstract

Coming Soon

Biography

Dionys van de Ven
President Industrial X-Ray Systems

Born 1968, Dutch citizen; Master's degree in mechanical engineering from the Eindhoven University of Technology, Eindhoven

Before joining Comet in 2022, Dionys van de Ven has led Waygate Technologies' x-ray business unit (part of Baker Hughes) as the unit's Business Executive since 2020. In addition, he has been serving as Managing Director of Baker Hughes Digital Solutions GmbH and member of the board of management of GE Inspection Robotics.

Dionys van de Ven began his career at Philips Assembléon in 1997. In 2005 he became Director of Customer Relationship Management at Philips Applied Technologies and, in 2007, Senior Director of Customer Programs, Service and R&D at Philips Healthcare. In 2017, he joined Waygate Technologies.

Hardware Security for Connected Vehicles

R. Potter
Chief Technology Officer
Beam Connectivity, Bristol, United Kingdom

Abstract

Cyber attacks are getting more sophisticated and can leverage the greater number of attack vectors offered by CASE vehicles. Processing untrusted data across wireless interfaces is a major challenge with the current design of automotive processors. In this session we look at advances in foundational hardware security offered by CHERI - Capability Hardware Enhanced RISC Instructions.

Biography

As Chief Technology Officer at Beam Connectivity, Rob works with a variety of clients from startups to OEMs on deploying connectivity capabilities; covering embedded hardware, software and vehicle integration, through to cloud data analytics and mobile apps.

Prior to co-founding Beam, he led technical delivery of connected vehicle on the Dyson EV programme, building a greenfield connectivity platform and making contributions to the global automotive cyber security community.

Before entering the automotive sector, he was responsible for web-scale distributed systems in the consumer IoT and government sector. Working closely with hyperscale cloud vendors, Rob has delivered globally scaled solutions with specialisation in cloud architecture, digital identity, and cybersecurity.