

Global GAAC Summit 2023 – Driving Innovation & Shaping Mobility

Opening Remarks

Andreas Aal, Volkswagen Commercial Vehicles
Chair GAAC EU-Chapter
November 15th, 2023

Global Automotive Advisory Council – the think tank that enables transformationGAAC's Code of sustainable Innovation Engineering – driven by a semiconductor development methodology

1. *Product-Target:* Innovative, sustainable automotive electronics supply chain (**AE COMMUNITY**)
2. *Product Management:* Continuous automotive transformation concept creation, evaluation & deployment (**VISION**)
3. *Architecture:* Supply chain re-configuration through collaboration along the value chain (**MISSION**)
4. *Development:* GAAC supports the coordination of technical and non-technical aspects for sustainable growth within a continuous change
5. *Ecosystem-Dependencies:* Review, inference and adoption of industries best practices and lessons learned (**RISK MGMT**)
6. *Design-Flow:* Road mapping incl. technology potential/capability analysis, technology readiness/maturity analysis & driving STOs to adjust their roadmaps (**VOICE of the CUSTOMER**)
7. *Process:* Prioritization of topics and corresponding WGs/focus groups, benchmarking (i.e. Entegris), issuing guidelines, **representing the supply chain (ECONOMY NETWORK) towards governments /** European Commission etc.
8. *Re-Gloabalization:* Organization through worldwide GAAC-Chapters – common mindset, complementary focus groups, using SEMI's WW infrastructure beyond AE (**SYNERGY**)

Global Automotive Advisory Council – the think tank that enables transformation

GAAC’s Code of sustainable Innovation Engineering – driven by a semiconductor development methodology

Member Benefits:

- Networking with like-minded peers
- Better understand the role of supply chains and infrastructure initiatives (industry & government driven)
- Cross industry sector synergies – harmonization of product classes of various industry sectors
- Drive and control through participation in innovation (more than an idea) creation
- Establishing best practices based and generally accepted and anonymous guidelines aligned along the supply chain that are / can not be available from standardization organizations
- Aligning EU wide roadmaps to those areas with requirements towards strategic economic programs like ChipsAct, but going beyond by incorporating the whole automotive electronics value chain

Targeted members:

- OEMs/Tier-1/2/3s – executive, program management, engineering
- Automotive electronics community



Contamination Control Solution	Loc. A	Loc. B	Loc. C	Loc. D
Bulk Solvent Purification	○	○	○	–
Resist Packaging	○	●	○	●
Dispense Pumps	●	●	●	●
POU (point of use) Filter – Resist	–	●	●	●
POU Filter / Purifier – Solvent	–	●	●	●
Reticle Pod	●	●	●	●
AMC (airborne molecular contamination) Filter	–	●	●	●
Bulk Filter	●	●	○	●
POU Filter – FEOL (front end of line)	●	●	●	●
POU Filter – BEOL (back end of line)	–	●	●	●
Deionized Water	○	●	○	–
Metal Purification	○	●	●	–
Isopropyl Alcohol	○	●	●	–
Post-etch Clean	●	●	○	●
Bulk Gas Purification	○	–	●	–
AMC Filter	●	–	○	–
FOUP (front opening unified pod) or SMIF (standard mechanical interface) Pods	○	●	○	●
Finished Wafer Shipper	●	●	–	–

● equal or better ● can be improved ○ not adequate – unknown

Meeting Point – Back of Executive Forum 13:30

GAAC WG 1:

Powertrain electrification

Meeting room: Ostersee

Selected Aspects:

- **Systems Engineering** – from Semiconductor to Packaging, ECU/Component Design to System Integration
- Reviving industry initiatives - Supporting the creation of standardized Mission Profile (MP) collectives
- Industry Benchmarking for (SiC) semiconductor manufacturing lines

Benefits:

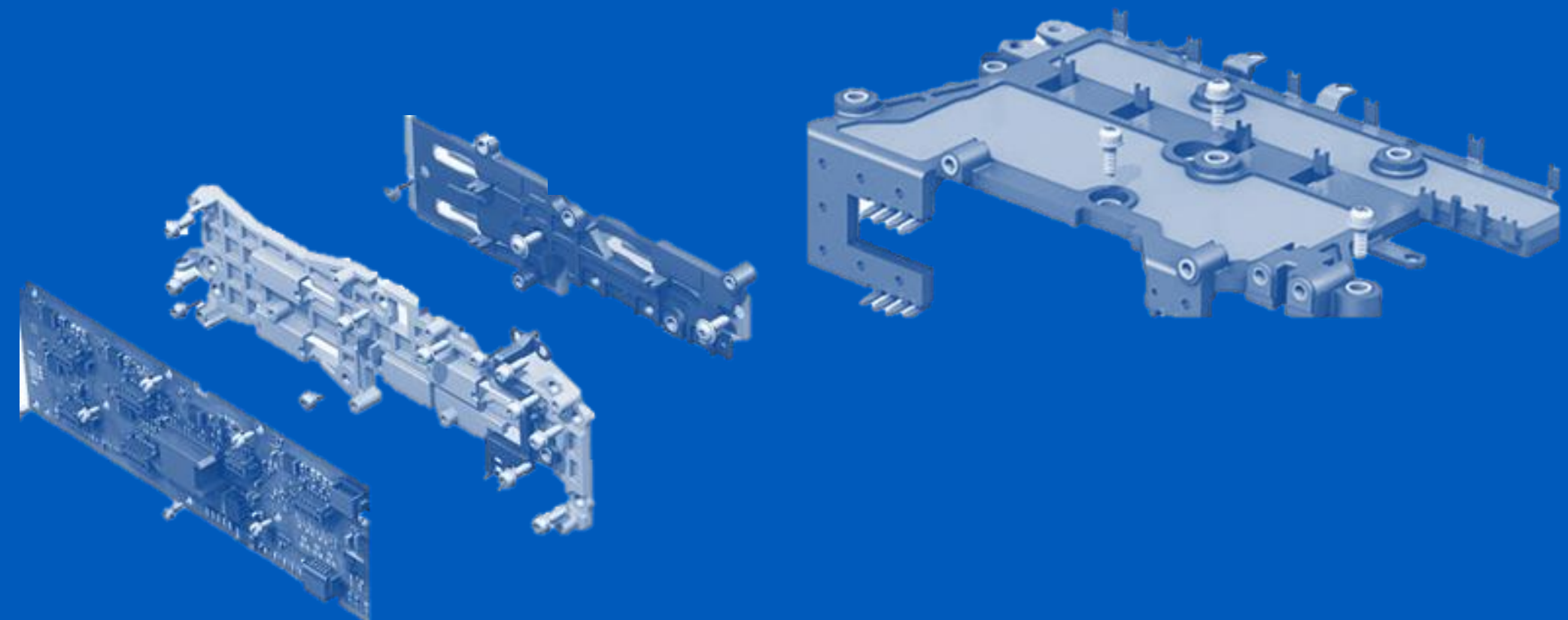
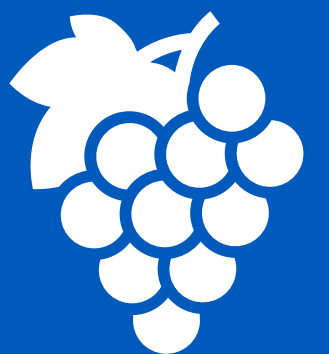
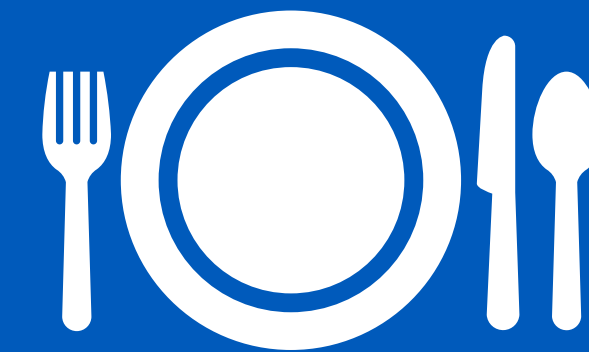
- Networking with like-minded peers from collaborators and competitors
- Better understand the role of supply chains and infrastructure initiatives (industry & government driven)
- Cross industry sector synergies – **harmonization of harsh environmental power electronics product classes**

How will it be conducted:

- Group discussions, where smaller groups would discuss key questions and report back to the wider group for reflection and follow up
- Risk ranking, where individuals would be asked for their assessment of a range of given risks, and their familiarity and approaches to mitigation.

Target audience:

- OEMs/Tier-1/2/3s – executive & program managing
- Power electronics experts
- Automotive semiconductor community



GAAC WG 2:

Cybersecurity and Semiconductors – The Case of Automotive Supply Chain

Meeting room: Königssee

Selected Aspects:

- Cybersecurity (CS) incentives in the automotive semiconductor industry – **regulation or market driven?**
- Key motivations of (i) suppliers and (ii) customers for CS across supplier ecosystem.
- Changing from an extrinsic (i.e. compliance) motivation to an intrinsic (**competitive**) motivation.
- Achieving accountability within the supply chain – compliance assurance & incident management.

Benefits:

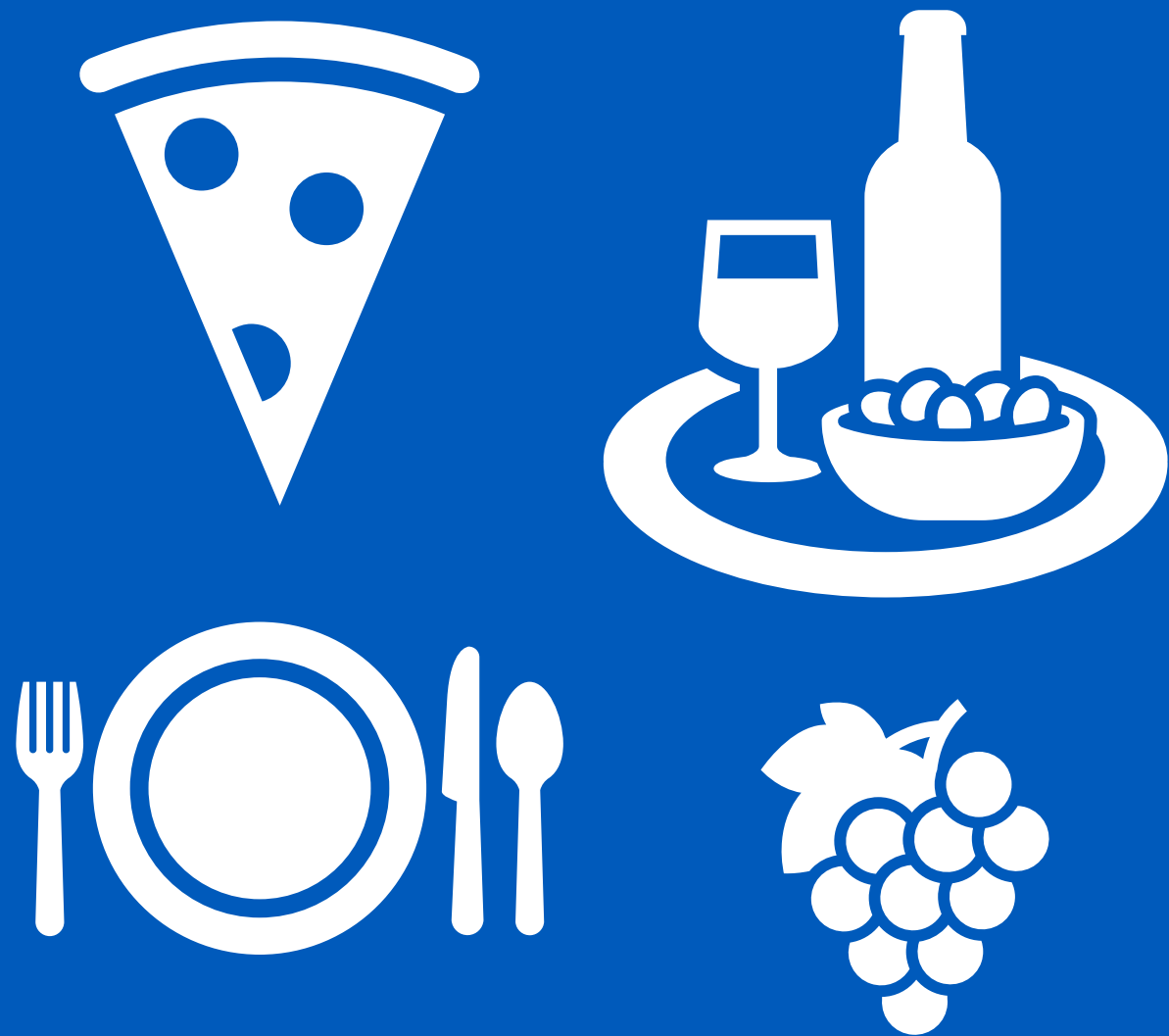
- Networking with like-minded peers from collaborators and competitors
- Improve vocabulary for security, resilience and cyber risks
- Better understand the role of supply chains and barriers to cybersecurity adoption
- Understand incident response techniques (technology and organization driven)
- Reasons why people should trust tools and scalability

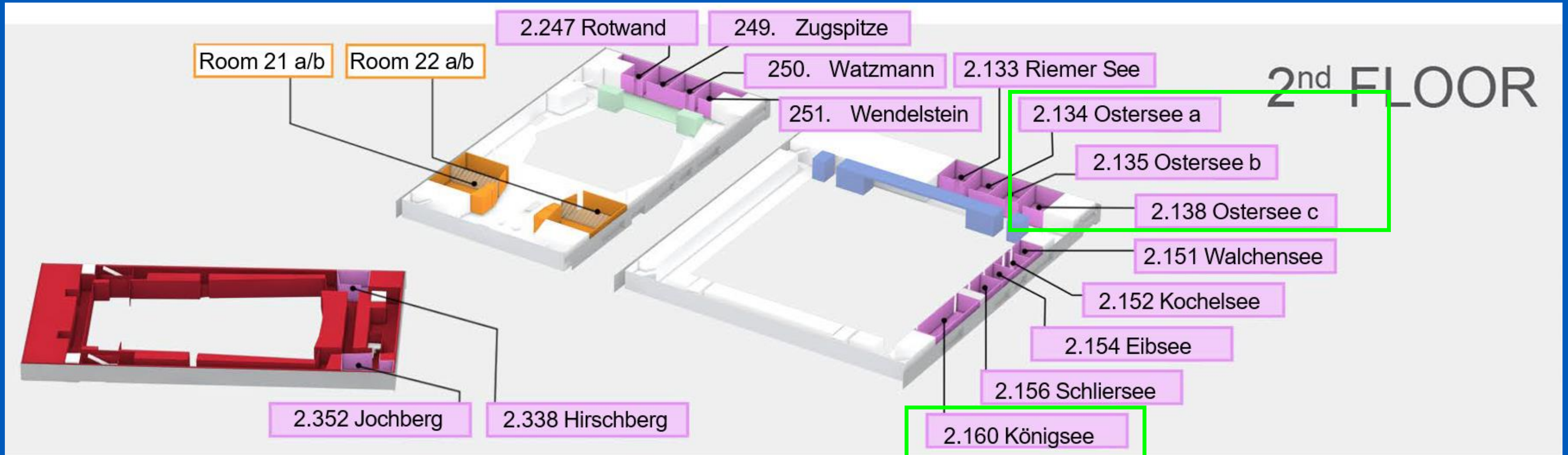
How will it be conducted:

- Group discussions, where smaller groups would discuss key questions and report back to the wider group for reflection and follow up
- Risk ranking, where individuals would be asked for their assessment of a range of given risks, and their familiarity and approaches to mitigation.

Target audience:

- CSOs from OEMs/Tier-1/2/3s
- Experts from cyber security service providers (with incidents experience)
- Automotive semiconductor community





Global GAAC Summit – Program

GAAC's Code of sustainable Innovation Engineering – driven by a semiconductor development methodology

10:20

From *Managing the Semiconductor Crisis...*

Berthold Hellenthal, Head of Audi Semiconductor Program (APH), AUDI AG

10:40

... to *Creating a Strategic Semiconductor Advantage* for the Volkswagen Group

Michael Schmid, Head of Procurement Semiconductor Management Group/Brand, Volkswagen AG

11:00

... to *Building Software Defined, Electric Vehicles*

Jan-Philipp Gehrmann, VP of Marketing of the Advanced Analog BL, NXP Semiconductors

11:20

... to *Smart 3D X-ray Inspection* Driving Productivity

Dionys van de Ven, President of the Industrial X-Ray Systems (IXS) Division, Comet Yxlon

11:30

... to *Hardware Security* for Connected Vehicles

Rob Potter, Chief Technology Officer, Beam Connectivity

