

## **Sustainability, Climate and EHS**

### **Welcome remarks for the day**

C. Frieling  
Director Advocacy and Public Policy  
SEMI Europe, Brussels, Belgium

### **Abstract**

Opening remarks for the day at the TechArena

### **Biography**

Christopher Frieling is Director for Advocacy and Public Policy and Head of office at the SEMI Europe Brussels Office. He has a background in EU affairs, innovation, and tech policy. Mr. Frieling has 15+ years of experience in Brussels and leads SEMI's team for advocacy and oversees all of SEMI's engagement in European projects. Prior to SEMI he worked at the Brussels office of Fraunhofer in several roles including most recently as Senior Advisor. Mr. Frieling holds an MSc in Economics of Science and Innovation and a Bachelor of Business Administration.

References

## Opening remarks by session chair



E. Michalopoulou  
Program Manager, Sustainability and Innovation  
SEMI, Berlin, Germany

### Abstract

Aligning climate ambition, regulatory readiness and industry performance

This session explores how sustainability, climate priorities, and EHS considerations are increasingly shaping semiconductor manufacturing and operations across Europe. Industry experts will share practical approaches and collaborative initiatives that support regulatory compliance, reduce environmental impact, and strengthen the resilience of the semiconductor ecosystem.

Climate Strategy and Decarbonisation Pathways

EHS and Regulatory Readiness

Circularity and Resource Efficiency

### Biography

**Eleni Michalopoulou** is a Program Manager for Sustainability Innovation at SEMI Europe, working to strengthen Europe's semiconductor ecosystem through collaborative innovation, sustainability initiatives, and strategic EU projects. She brings together industry, research, and policy stakeholders to address challenges related to climate, circularity, skills, and technological competitiveness.

References

## **GENESIS Updates**

J. Osten  
Research Manager  
Fraunhofer IPMS, Dresden, Germany

### **Abstract**

Coming soon

### **Biography**

Julia Osten is a research manager working in Business Development at Fraunhofer IPMS in Dresden. She has been with the Fraunhofer-Gesellschaft since 2018, after previously working at HZDR. She has a PhD in Physics. Her work combines research management, strategic development and collaboration, with activities spanning topics such as microelectronics and resource-efficient technologies. In the Genesis Project she coordinates one work package.

References

## PFAS Whitepaper

J. Bierwagen  
Teamleiter Forward Material Compliance for  
Semiconductors  
Robert Bosch GmbH, Reutlingen, Germany

### Abstract

The semiconductor industry is facing increasing regulatory attention on PFAS while simultaneously enabling many of the technologies that support Europe's digital and green transition. This presentation provides an overview of the PFAS White Paper developed by the European Semiconductor Alliance, outlining the role of PFAS in semiconductor manufacturing, ongoing innovation efforts to reduce dependency where technically feasible, and the potential implications of future regulatory measures.

The presentation will discuss how the semiconductor value chain is addressing PFAS-related challenges, the importance of maintaining technological feasibility and supply chain resilience, and the need for science-based, risk-driven regulatory approaches. It will also highlight key messages and recommendations from the White Paper, intended to support a constructive dialogue between industry, policymakers, and other stakeholders on the future of PFAS regulation in Europe.

### Biography

Dr. Jakob Bierwagen is a semiconductor environmental and regulatory compliance expert at Robert Bosch GmbH in Reutlingen, Germany. He specializes in material compliance, environmental regulations, and sustainable semiconductor manufacturing. He currently serves as Chair of the Environmental, Health and Safety (EHS) Working Group of the European Semiconductor Industry Association (ESIA) and represents industry interests in discussions on environmental and chemical regulation affecting the semiconductor sector.

Dr. Bierwagen works closely with the European Commission, Member State authorities, and industry stakeholders on the development of appropriate environmental requirements for semiconductor manufacturing, including the ongoing STM-BREF (Semiconductor BREF) process under the Industrial Emissions Directive. His work focuses on balancing environmental objectives with technological feasibility, innovation, and the global competitiveness of the European semiconductor industry.

In addition, he is a member of the PFAS Working Group of the European Semiconductor Alliance, contributing to the development of the Alliance's PFAS White Paper. He has also provided semiconductor industry input on behalf of Bosch to the GENESIS Consortium in support of discussions on PFAS and future regulatory approaches.

For today's topic, Dr. Bierwagen brings both an industry and policy perspective, combining practical semiconductor manufacturing experience with active engagement in European regulatory and sustainability initiatives.

### References