Fab Management Forum

Welcome Remarks

L. Altimime
President
SEMI Europe, Berlin, Germany

Abstract
Coming Soon

Biography
Laith Altimime, as President of SEMI Europe, leads SEMI's activities in Europe and the Middle East and Africa (EMEA). Altimime has P&L responsibility as well as ownership of all Europe region programs and events, including SEMICON Europa. He is responsible for establishing industry standards, advocacy, community development, expositions, and programs. He provides support and services to SEMI members worldwide that have supply chain interests in Europe. He manages and nurtures relationships with SEMI members in the region and globally as well as with local associations and constituents in industry, government, and academia. Altimime has more than 30 years of international experience in the semiconductor industry. Prior to joining SEMI in 2015, He held senior leadership positions at NEC, KLA-Tencor, Infineon, Qimonda and imec. Altimime holds an MSc from Heriot-Watt University, Scotland.

References

Driving Collaboration and Digitalization: The Role of Virtual Factories in Production Planning

M. Mayr
Specialist Virtual Factory
BMW Group, Munich, Germany

Abstract
In a world shaped by globalization, sustainability, and digitalization, industries face the challenge of adapting to rapid changes and escalating consumer demands, leading to shorter development cycles and increasingly complex system landscapes. BMW has responded to these challenges by not only adapting but also redefining the future through the digitization of its vehicle factories as well as the virtualization of its factory planning.
BMW's digitization initiative has thoroughly documented all vehicle production facilities using 3D scanning technologies, creating a digital repository with panoramic images and point clouds. This repository, utilized by over 40,000 employees, supports diverse use cases such as virtual factory tours, precise measurements, and data exports for external collaboration, enabling seamless global interaction.
Further, BMW has developed a platform for virtual and collaborative 3D production planning. This platform, integrating 3D data from various source systems, serves as a centralized visualization tool that constructs detailed virtual factories. It is set to become an indispensable tool for planners and viewers, promoting efficient, real-time collaborative planning and early virtual validation within the context of the entire virtual factory. Thereby it enhances the decision-making processes and minimizes the reliance on physical prototypes.
This shift from static digital archives, often in 2D, to dynamic and collaborative 3D planning environments highlights the transformative role of virtual factories on production planning and operational efficiency. Through these innovations, BMW is setting new benchmarks in manufacturing excellence and sustainability.

Biography
Matthias Mayr has held various functions in vehicle safety and virtualization of production systems at BMW. Since 2021 he is specialist for the BMW virtual factory. His core responsibility is the rollout and design of all applications regarding the virtual factory to the wide spectrum of the BMW Production Systems organisation.

References

Artificial Intelligence and Eco-Design: Pioneering Sustainable Innovation in a Dynamic Global Market

S. Nicoleau
Group Vice-President Technology
ST Microelectronics, Crolles, France

Abstract
In an era characterized by rapid technological advancements and increasing environmental awareness, the integration of Artificial Intelligence (AI) and eco-design principles is emerging as a powerful catalyst for sustainable innovation. This presentation explores the transformative impact of these two forces on global market dynamics.
We will delve into how AI-driven technologies are revolutionizing product design, technology development, manufacturing processes, leading to more efficient and sustainable practices. Simultaneously, eco-design principles are reshaping the way technologies and products are conceived and developed, emphasizing the importance of environmental considerations from the earliest stages of design. This approach not only minimizes the ecological footprint of products but also meets the growing consumer demand for sustainable and ethically produced goods.
Join us and discover how these pioneering approaches are shaping a sustainable future in a dynamic global market !

Biography
Since 2024, Serge Nicoleau is Group Vice-President Technology in charge of defining, implementing, and driving the R&D governance of Digital and BCD technologies of STMicroelectronics. He started his career in STMicroelectronics in 1998 in manufacturing management of the 200mm Crolles fab, nearby Grenoble. After various positions in manufacturing, process engineering, equipment engineering, he joined in 2004 the Crolles 300mm fab within the Crolles2 Alliance between STMicroelectronics, Motorola/Freescale and Philips/ NXP. In 2007, he became Director of Industrial Technologies, before enlarging his responsibilities in 2012 as Deputy Director of the Operations of both Crolles 200 and 300 fabs.
This role included a specific responsibility for the industrial challenges of Automotive and IoT products in technologies ranging from 0.5µm down to 28nm critical dimensions with their multiple variants and options.
In 2018, Serge Nicoleau is engaged into the new STMicroelectronics 300mm fab program in Agrate (Italy) to support Smart Power, Analog Mixed Signal and eNVM products. Then in 2020, he took the responsibility of the Technology & Design Platforms organization as General Manager. This organization is covering digital technologies, fast analog technologies, embedded memories, and optical sensors, with teams in France, in India, in United States which are addressing the digital products of STMicroelectronics.
Serge Nicoleau holds an Engineering Degree of the Ecole Polytechnique (Paris), a master's degree in Theoretical Physics of the Ecole Normale Supérieure (Lyon) and a PhD in Particle Physics.

References

Powering the Future of European Semiconductors by Building and Nurturing a Talent Ecosystem

C. Le Lan
Program Manager
Synopsys, Inc., BIOT, France

Abstract
The semiconductor industry is experiencing unprecedented growth, accompanied by significant challenges, particularly in Europe which aspires to capture 20% of the global market share.
While emerging technologies such as Generative AI, AI-enhanced Electronic Design Automation (EDA), and advanced cloud services offer promising solutions to some of these challenges, the most pressing issue in Europe lies in cultivating a robust talent pipeline, encompassing comprehensive education, strategic acquisition, and continuous development, to bridge the skill gap.
This presentation will delve into Synopsys' role in addressing Europe's semiconductor talent crisis highlighting our workforce development strategy to attract, develop, and retain top-tier talent. This approach is designed not only to drive innovation but also to position Europe to meet the evolving needs of the semiconductor industry.
By focusing on these key areas, we aim to become the preferred technology partner of choice for workforce development in Europe's semiconductor ecosystem, ensuring its long-term success and global competitiveness in this critical sector.

Biography
Catherine's experience focuses on worldwide customer success management, , encompassing technical support, training, project management, and team leadership. Her expertise spans both industry and academia.
Holding a master's degree in Microelectronics from ESIEE Paris, Catherine started her professional journey as a Field Application Engineer, advancing to roles as a Technical Project Manager and Team Manager at LSI-Logic, Synopsys, and Texas Instruments in France and the United States.
After a stint in the academic world, Catherine returned to industry in 2018.
In 2022, Catherine rejoined Synopsys with a mission to bridge the gap between industry and academia. Her current role focuses on establishing and nurturing education and research collaborations with European universities, capitalizing on her multifaceted background.
Throughout her career, Catherine has demonstrated adaptability, leadership, and a commitment to fostering innovation through strategic partnerships. Her journey exemplifies the value of cross-sector experience in driving technological advancement and educational excellence.

References

Fab Investment Outlook and the Dynamics of Regional Semiconductor Manufacturing

C. Tseng
Sr. Director
SEMI, Market Intelligence, Milpitas, United States of America

Abstract
The semiconductor industry is at a critical point where decisions about semiconductor fab investments not only determine the future of individual companies but also affect the resilience of regional semiconductor supply chains. This presentation will provide an overview of global fab investments and explore the dynamics in different regions.

We will start by examining the current status of semiconductor fab capacity and investments worldwide. We will explore the factors driving these investments, including geopolitical considerations, technological advancements, and market demands. We will also share the latest forecast on fab investment and capacity expansion regarding major product segments. Additionally, we will delve into the outlook for fab capacity and investment in the European region and its impact on supply chain dynamics.

Biography
Name: Clark Tseng
Title/ Position: Sr. Director, Market Intelligence
Company: SEMI

Clark Tseng is the Senior Director of the Market Intelligent Team (MIT) at SEMI. He is responsible for developing and executing global strategies that provide high-quality market research products and services, monitoring and analyzing the dynamics of the semiconductor manufacturing supply chain.

Clark specializes in analyzing and forecasting various microelectronics industries, such as IDM, Fabless, Foundry, Memory, and OSAT, with a focus on the Asia-Pacific and China markets. Additionally, he oversees SEMI's research partnerships worldwide.

Clark has held several strategic and analytical roles in leading microelectronics companies before joining SEMI. At Mediatek, he was Deputy Director for the Computing, Connectivity, and Metaverse Business Group. In this role, Clark provided market intelligence and competitive analysis for Computing (HPC/ASIC), Connectivity (5G/Wi-Fi), and Multimedia (XR and Auto) domains. Before that, he was the Strategy and Business Development division manager at Qimonda, managing market and competitive intelligence functions in the Asia/Pacific region. Clark started his career as an analyst at IDC, covering semiconductor, flat panel display, and telecommunication markets.

Clark holds a Bachelor of Business Administration and a Bachelor of Arts in International Relations from National Chengchi University in Taiwan.

References

Data, Standards, People – Enabler of a Smart 300 mm Fab

S. Fischbach
Group lead data analytics and machine learning
Robert Bosch Semiconductor Manufacturing
Dresden GmbH, Dresden, Germany

Abstract
To ensure a high-quality and cost-effective manufacturing in a modern semiconductor fabrication it is crucial to install high levels of automation and to leverage big data and AI. The integration of such technologies into a production system, however, can only be successful with a data-centric architecture, strict data governance and standards, and a data-driven mindset of the people shaping those systems. The presentation will illustrate how these enablers were installed and are permanently fostered at the new Bosch 300mm wafer fab in Dresden. Some highlights from the analytics and AI use cases will showcase the effectiveness of those factors.

Biography
Sarah Fischbach is a group lead for Analytics and Machine Learning at Robert Bosch Semiconductor Manufacturing Dresden GmbH. She joined Bosch in 2018 working on strategies for advanced analytics solutions for the new 300mm semiconductor plant. Before that she has been a research associate working on Semiconductor Physics at Technical University of Berlin completing a PhD in 2019. She holds a master's degree in Physics from Technical University of Berlin and a bachelor's degree in Physics as well as a diploma in Technical Economics from Karlsruhe Institute of Technology.

References

AI Enabled Precision Maintenance

D. Meyer
CEO
Lynceus AI, Paris, France

Abstract
AI Enabled Precision Maintenance is a new approach to maximize capital equipment efficiency in the fab. PM schedules are mostly fixed and executed irrespective of the tool or process actual condition.
By leveraging the latest developments in AI, we can develop fractional PMs using dynamic maintenance checklists, enabling engineers to do only what is required, when it is required. This will reduce overall green-to-green times and bolster personnel productivity.
Lynceus AI and MAX are joining forces to change the current maintenance paradigm and unlock the next step in equipment productivity.

Biography
David Meyer is co-founder and CEO at Lynceus AI, a pioneer in the deployment of AI solutions in the fab.

Ariel Meyuhas is Founding Partner & COO at MAX, a global consulting firm specializing in fab technical and operational optimization.

References

Topic Coming Soon

J. Behnke
General Manager Smart Manufacturing
INFICON, Cologne, Germany

Abstract
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Biography
Mr. Behnke has 40 years of semiconductor industry experience including: logic and memory manufacturing, technology/product development and fab operational excellence. As the GM of Final Phase Systems an INFICON Product Line, John leads a team that develop and deploy SMART software solutions that enable fabs to improve their manufacturing efficiency. FPS's suite of software solutions are built upon a common Datawarehouse which enables advanced Fab Scheduling and optimized WIP movement as well as other related capabilities. He is also a Co-Chair of the Semi North America Smart Manufacturing Special Interest Group.

Prior to FPS John served as the CEO and President of Novati Technologies, the SVP and GM of the Semiconductor Group of Intermolecular, the CVP for Front End Manufacturing, Process R&D and Technology Transfers at Spansion and the Director of AMD's Fab 25's Engineering and Operations groups where he was a founding member of AMD's Automated Precision Manufacturing (APM) initiative which led the Semiconductor industry's development and use of APC and other advanced factory systems. He also led the successful conversion of Fab 25 from Logic to Flash memory which was enabled through the virtual automation of the fab.

Mr. Behnke earned a B.S. degree in Mechanical Engineering with an Industrial Engineering Minor from Marquette University. Mr. Behnke holds five U.S. patents.

References

Increasing Sustainability and Efficiency in Furnace Deposition Processes

M. Lösel
Product Specialist
Tokyo Electron Europe, TFF, Dresden, Germany

Abstract
TEL, as a leading global company of semiconductor production equipment, is committed to contributing to technological innovation in semiconductors to develop a dream-inspiring society. As semiconductors are increasingly becoming a vital part of social infrastructure, we challenge ourselves to make further innovations in environmental sustainability for our semiconductor production equipment.
TEL's ambition toward Net Zero is confirmed by the science-based targets for the environmental emission goals. By 2040, we aim to achieve net zero for scope 1, 2, and 3 emissions.
In our presentation, we will discuss TEL's environmental sustainability targets and show an example of reducing F2 consumption of a TEL LPCVD system that is being used for the deposition of polycrystalline Si films while at the same time improving the efficiency of the process itself.

Biography
Maximilian has more than 10 years of experience in the semiconductor industry. After his apprenticeship as mechatronics technician at Infineon Dresden he went to engineering school for mechatronics (state-certified engineer). After that, Maximilian joined Tokyo Electron in 2019 as Field Service Engineer for Thermal Processing Systems and started to study Industrial Engineering, where he a achieved a bachelors degree in 2021. Since 2022, Maximilian is part of the European Furnace Technical Support Team. Since that, he has been involved in different technical projects, such as tool evaluations and various optimizations, working closely with customers. In 2023, Maximilian achieved a master's degree in parallel to his job in Industrial Engineering from Hochschule Wismar. Since 2024, he is a doctoral candidate at Fraunhofer IPMS / Technische Universität Dresden, working on sustainable solutions for thermal processing.

Dr. Volker Hemel biography:
Volker is a twenty-seven year veteran in the Semiconductors industry. After completing his PhD at RWTH Aachen, he started working at VKR Gelsenkirchen department for analytic and environmental control. In 1997, he moved to Tokyo Electron, where he worked as a process engineer for furnaces.
Volker is currently working closely with European customers as European Process Manager in Thin Film Formation, supporting and improving their productivity requirements and future-oriented projects.

References

Topic Coming Soon

J. Potter
CEO & Cofounder
Flexciton, London, United Kingdom

Abstract
Coming Soon

Biography
Coming Soon

References

New Metrology and Inspection Era : 1+1=3?

A.-L. Charley
R&D manager
imec, Leuven, Belgium

Abstract
New system architecture as well as continuous scaling are important pillars of advanced semiconductor research and development, and both bring new challenges to today's metrology and inspection techniques. In parallel, improved process control comes with tighter specifications and therefore reduced metrology budget. Conventional metrology approaches cannot alone cope with this ever increasing demand for performance and a new approach has to be considered. This presentation will explore the importance of metrology solutions and what a realistic implementation could be to ensure the success of advanced semiconductor R&D efforts.

Biography
Anne-Laure Charley owns a PhD in physics of semiconductor from INPG (Institut national polytechnique de Grenoble, France) specialized in lithography and optic for semiconductor (graduated in 2006). She started her career as lithography R&D engineer at STMicroelectronics (France) and at Crocus Technology (San Jose, USA). She joined imec in 2008 as researcher in metrology for advanced patterning applications. She became R&D team leader in the field of CD metrology in 2015 and is now managing the inline metrology and inspection group in the advanced patterning department.

References

Supporting Fab Operations Using Multi-Agent Reinforcement Learning

J. van Heugten
CTO
minds.ai, Santa Cruz, United States of America

Abstract
As semiconductor operations grow increasingly complex, optimizing production schedules has become too challenging for advanced algorithms and skilled manufacturing engineers (MEs). We present how real-time machine learning, specifically reinforcement learning (RL), can enhance decision-making in semiconductor fabrication facilities.

Modern 300MM semiconductor fabrication facilities face challenges such as complex hierarchical structures, high financial stakes, and dynamic processes. These facilities contain thousands of tools with unique capabilities, resulting in intricate dispatching schedules. Frequent schedule updates are required due to maintenance, failures, and shifting priorities. This constant updating makes it impractical for MEs to manually optimize scheduling parameters.

To address these issues, we present an RL-based solution to support MEs in scheduling decisions. RL uses simulations and historical data to generate optimized scheduling strategies tailored to current FAB conditions. Automating routine tasks allows engineers to focus on exceptional occurrences and enhance productivity. The system offers real-time schedule modifications to improve key performance indicators (KPIs) like throughput, tool idle time, and critical queue time constraint violations. Machine learning integration not only improves these KPIs but also enhances engineers' quality of life by reducing time constraints.

The deployed solution has shown significant improvements in wafer production and operational efficiency with virtually no downsides. The implementation is built using the minds.ai Maestro framework and robust and automated Machine Learning Operations (MLOps) processes.

Combining advanced machine learning techniques with the expertise of MEs has increased wafer production and improved engineers' quality of life. This approach demonstrates AI's transformative potential in complex manufacturing environments.

Biography
Jasper van Heugten is the Chief Technology Officer at minds.ai. He leads the research and development of the minds.ai Maestro product, an optimization suite for Semiconductor Manufacturing leveraging state-of-the-art Deep Learning (AI) methods, including Deep Reinforcement Learning. He has 9 years of experience in scaling AI from early idea to production at Fortune 100 companies across multiple industries, such as Semiconductor, Pharma, Automotive, Renewables, and Big Tech. He holds a PhD in Theoretical Physics from Utrecht University, the Netherlands.

Itzik Gilboa is the CEO of minds.ai, responsible for driving the growth of the company’s revenue and profitability and positioning the company as a strategic partner to its customers.
Itzik joined minds.ai in 2023 with over 30 years of Semiconductor Manufacturing technology experience in roles ranging from process technology development, operations management, strategy development, to end product business development and management. Itzik held executive leadership positions at Cypress

Semiconductors, SanDisk and Western Digital.
Itzik has multiple patents in semiconductor process technology, holds a Master's degree in Business Administration from San Jose State, a Master's degree in Materials Science from The Technion IL and a Bachelor's of Science in Aerospace Engineering from the Technion IL.

References

Subfab360 ATC - Smart Control System for the reduction of emissions and energy consumption in the Subfab

S. Hammer
General Manager
algorismic gmbh, Dresden, Germany

Abstract
The progress in the digitalization of semiconductor manufacturing has opened the door to implementing innovative software-driven approaches for optimizing production. The showcased solution, *Subfab360 ATC*, plays a significant role in this integrated smart manufacturing strategy through the incorporation of a software-based active tool coupling (ATC).

Existing solutions, such as dry-contact couplings or in-device optimizations, already offer substantial opportunities for cost savings. Differing from current solutions, *Subfab360 ATC* employs an application-driven IT data integration architecture that connects wafer tools and subfab units, including abatements and pumps. By utilizing the software interfaces of existing hardware and subfab equipment, along with significant process information, additional avenues for device optimization can be unlocked. This, in turn, contributes to heightened energy efficiency, diminished harmful gas emissions, reduced water consumption, and overall cost reduction.

Subfab360 ATC translates real-time process gas data from manufacturing tools (via Interface A or SECS/GEM) and information about N2 purge flows to enhance abatement performance. Through the software-based approach, a more precise, quasi-analog mapping of the process gas with the burner's settings is achieved, leading to a consumption pattern tailored to demand rather than fixed abatement settings. This efficiently reduces the usage of natural gas, oxygen, cooling water, CDA, as well as fresh water and the generation of wastewater. Thus, *Subfab360 ATC* enables achieving Scope 1 improvements that go beyond current technology. On an administrative level, *Subfab360 ATC* ensures dedicated user access to crucial EHS data.

Biography
Stefanie Hammer
General Manager algorismic GmbH

Education:
Steinbeis University Berlin, Germany
Bachelor of Arts - Digital Business & Innovation

Experience:
10 Years Industry Experience
Digitalization & Software Management
Digital Business Model Development
International Project Management

References

Green Building Standard LEED – Sustainability in Semiconductor Fab Design and Construction

F. Lindner
Quality Manager
Infineon Technologies Dresden GmbH & Co. KG,
Dresden, Germany

Abstract
The growing scarcity of natural resources is one of today's greatest global challenges. Optimizing the efficiency in the use of resources offers both ecological and economic benefits and is a key component in Infineon's sustainability strategy worldwide. Hence, they are high priorities in the planning and construction of the Smart Power Fab in Dresden. This includes being the first Infineon fab to strive for "Leadership in Energy and Environmental Design" (LEED) – a sustainability certification used worldwide defining standards for environmentally friendly, resource-conserving and sustainable construction. LEED provides a framework for healthy, highly efficient, and cost-saving green buildings. With a LEED certification we demonstrate our commitment to both client satisfaction and promoting a more sustainable future by reducing our reliance on limited resources such as energy and water. The Smart Power Fab of Infineon will make a decisive contribution to driving climate protection and digitalization forward by setting new efficiency standards for the consumption of important resources. The investment in Dresden is part of the company's strategy to reach CO_2-neutrality by 2030.

The Smart Power Fab is funded by the European Union, the Federal Republic of Germany and the Free State of Saxony. Sponsors: European Union, Federal Ministry for Economic Affairs and Climate Action on the basis of a resolution of the German Bundestag and the Saxon State Ministry for Economic Affairs, Labour and Transport.

Biography
Franziska Lindner is a Quality Manager at Infineon Dresden and coordinating sustainability measures in the design and construction of the new 300mm Smart Power Fab to produce analog/mixed-signal technologies and power semiconductors needed in automotive and renewable energy industries.
After completing her Master of Science in biology 2014, Franziska Lindner started as scientific associate supporting international process transfers and cleanroom capacity expansion. As head of manufacturing and quality officer, she built up pharmaceutical clean room production processes from quality as well as production perspectives. Franziska Lindner was born in Dresden, Germany, in 1989.

References

Finding Solutions to Reduce Greenhouse Gas Emissions in Semiconductor Manufacturing

C. Villieu
Process Engineer
ST Microelectronics Crolles, Crolles, France

Abstract
Human and industrial activities drive climate change, and the increasing demand for electronic devices underscores the need to reduce greenhouse gas (GHG) emissions in semiconductor manufacturing. Environmental sustainability of current and future microelectronic products is crucial for our industry. Several solutions have proven effective in reducing GHG emissions. The key is to implement these solutions in existing widely utilized equipment, such as the Lam Research 2300 dry etching tools.
Clear net zero goals motivate the STMicroelectronics and Lam Research teams to work on these projects. Improving products is ambitious and requires rigorous methods to ensure lasting achievements for next-generation devices. Our project is based on measurements done by Lam Research on a dedicated STM Crolles dry etching platform, using dedicated software to evaluate GHG impact, with the results validated by STM Crolles to verify process impacts. This approach has been very successful to optimize recipe set-up and reduce harmful gases for the environment. The project set-up enables immediate testing in an industrial environment for quick feedback and adjustments.

Biography
Process engineer in dry etching section of STMicroelectronics Crolles sonce 2018, particularly involved in conductor etching.
Graduated in 2017 with a engineer diplmoma and master in university of Orléans, specialized in plasma techonologies.

Will be joined by Lamm Research

References

Making the Fab Fit for the Future: Retrofit for Modern Technology, Security, and Maintenance Capability

N. Schulze
Product Manager Equipment Control and Integration
Kontron AIS GmbH, Product Management, Dresden, Germany

Abstract
The semiconductor industry is continuously evolving, driven by innovation, efficiency and scalability. To maintain competitiveness, not only the adoption of new equipment is required, but also the strategic retrofits of existing systems. Learn about the benefits of retrofitting semiconductor production equipment to enable their integration into modern production.
Prolonged Use of Existing Production Equipment
Retrofitting is cost efficient as they extend the operational life of current assets. Semiconductor manufacturing equipment is a substantial investment, and leveraging retrofits allows fabs to update these systems to support new process requirements, accommodate advanced materials and improve overall production capabilities. By updating not only the software of a legacy tool, but also outdated components, the risk to require no longer existing spare parts can be minimized.
Enhanced Technology Integration and Automation
Central to a successful retrofit is the integration of sophisticated equipment controls. The utilization of SECS/GEM, GEM300, and Equipment Data Acquisition (EDA) standards is essential. SECS/GEM standards ensure compatibility and interoperability across diverse equipment, while GEM300 standards support automation in 300mm fabs, enhancing throughput and efficiency. EDA further allows for detailed data analysis and predictive maintenance, contributing to higher yield and reduced downtime.
Improved Security and Maintenance
Retrofitting also addresses critical security concerns. Modern control software solutions more sophisticatedly support cybersecurity measures to protect against increasing threats. This is crucial for maintaining the integrity and confidentiality of proprietary manufacturing processes. Additionally, retrofits improve maintenance capabilities, incorporating regular tool updates. This is one step ahead to reach conformity with the cybersecurity standards SEMI E187 and E188.
Conclusion
In conclusion, retrofitting existing semiconductor production equipment with modern technology, security, and maintenance capabilities presents a strategic pathway for fabs aiming to remain competitive in a fast-evolving market. By leveraging advanced equipment control and integration software, fabs can achieve significant cost savings, improved performance, and enhanced security. Join us in exploring how retrofits can make your fab fit for the future, driving innovation and efficiency in semiconductor manufacturing.

Biography
With two years dedicated work as product manager for equipment control and integration software in the semiconductor industry at Kontron AIS, it is my aim to support OEMs and Fabs to tackle the major challenges we meet: a fast moving market, high speed innovations and keeping up with the pace.

References

Automotive Photonic Journey

W. Lex
Senior Vice President Mobility & Illumination
ams-OSRAM International GmbH, OS Mobility & Illumination, Regensburg, Germany

Abstract
Since 40 years the photonic developments have made huge progress from simple indicator lamps up to now LED in pixelated Headlamps and Stadium illumination. This disruptive change from incandescent lamps to solid state technologies was a result of very constructive collaboration between system providers, Semicon industries and end customers. Meanwhile, penetration of traditional light sources is more or less done. New photonics applications are on the horizon which will continue to change our way of life. Photonics journey just began.

Biography
Wolfgang Lex is Senior Vice President of the Business Line OS Mobility & Illumination at ams OSRAM. He has 40 years of experience in the semiconductor and automotive industry. He started his career at SIEMENS Semiconductor and joined OSRAM in 2002. Wolfgang Lex has held various management functions worldwide with a strong focus on automotive.

References