# SEMICON<sup>®</sup> EUROPA

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### ITF Chip into the Future

#### Welcome Remarks

K. Marent EVP & Chief Marketing and Communications Officer imec, Leuven, Belgium



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#### Biography

Katrien has an engineering degree in microelectronics. She joined imec in 1992 as analog design engineer and specialized in design of low-noise readout electronics for high-energy physics. In 1999, she became press responsible and scientific editor at imec's business development division and was responsible for authoring and editing the research organization's numerous company technical documents and publications. In 2001, she was appointed corporate communications director at imec. Her responsibilities expanded in August 2007, when she got the position of external communications director including corporate, marketing and outreach communications. In October 2016, she became VP corporate, marketing and outreach communication. Since April 2020 she is Executive Vice President & Chief Marketing and Communications Officer and member of the executive board of imec.

#### **Opening Keynote**

L. Van den hove President & CEO imec, Leuven, Germany



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#### Biography

Luc Van den hove is President and CEO of imec since July 1, 2009. Before he was executive vice president and chief operating officer. He joined imec in 1984, starting his research career in the field of silicide and interconnect technologies.

In 1988, he became manager of imec's micro-patterning group (lithography, dry etching); in 1996, department director of unit process step R&D; and in 1998, vice president of the silicon process and device technology division. In January 2007, he was appointed as imec's EVP & COO. Luc Van den hove received his PhD in electrical engineering from the KU Leuven, Belgium.

In 2023, he was honored with the Robert N. Noyce medal for his leadership in creating a worldwide research ecosystem in nanoelectronics technology with applications ranging from high-performance computing to health.

He has authored or co-authored more than 200 publications and conference contributions.

J. Kinaret Executive Director Chips Joint Undertaking (Chips JU), Brussels, Belgium



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#### Biography

Jari Kinaret was born in Finland and holds M.Sc. degrees in Theoretical Physics and Electrical Engineering from the University of Oulu in 1986 and 1987, respectively, and a Ph.D. in Physics from the Massachusetts Institute of Technology (MIT) in 1992.

Prof. Kinaret has worked in various roles at research institutes and universities in Copenhagen, Denmark, and Gothenburg, Sweden. From 2013 to 2023, he served as the Director of the Graphene Flagship, a one-billion-euro research project dedicated to exploring the potential of graphene.

In October 2023, Prof. Jari Kinaret assumed the role of Executive Director at Chips Joint Undertaking (Chips JU), a European public-private partnership that supports research, development, innovation, and future manufacturing capacities in the European semiconductor ecosystem.

J. De Boeck EVP & CSO imec, Leuven, Belgium



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#### Biography

Jo De Boeck received his engineering degree in 1986 and his PhD degree in 1991 from the University of Leuven. Since 1991 he is a staff member of imec (Leuven). He has been a NATO Science Fellow at Bellcore (USA, 1991-92) and AST-fellow in the Joint Research Center for Atom Technology (Japan, 1998). In his research career, he has been leading activities on integration of novel materials at device level and new functionalities at systems level. In 2003 he became Vice President at imec for the Microsystems division and in 2005 started Holst Centre (Eindhoven) as General Manager of imec the Netherlands. From 2010 he headed imec's Smart Systems and Energy Technology Business Unit. He is part-time professor at the Engineering department of the KU Leuven and held a visiting professorship at the TU Delft, Kavli Institute for Nanoscience (2003–2016). In 2011 he became Chief Technology Officer and in 2018 he was appointed Chief Strategy Officer. He is member of imec's Executive Board.

S. Joeres

Vice President for Business Development, Semiconductor Strategy and Strategic Projects Robert Bosch GmbH, Munich, Germany



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#### Biography

Stefan Joeres has been Vice President for Business Development, Semiconductor Strategy and Strategic Projects of Robert Bosch GmbH since 2014.

Born in Mönchengladbach, Germany, on April 15, 1977, he is married and has two children. He studied electrical engineering and information technology at RWTH Aachen (Germany).

He Graduated as Dipl.-Ing. And finalized his doctorship in 2008 about system simulation for high-frequency circuits at the RWTH Aachen.

S. Dauvé CEO CEA-Leti, Grenoble, France



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#### Biography

Sébastien Dauvé was named CEO of CEA-Leti effective on July 1, 2021, after more than twenty years of experience in microelectronics technologies and their applications, including clean mobility, medicine of the future, cybersecurity, and power electronics.

Sébastien Dauvé started his career at the French Armament Electronics Center, where he worked on developing synthetic-aperture radar. In 2003, he joined CEA-Leti as an industrial transfer manager and supervised several joint research laboratories, in particular with the multinational Michelin.

In 2007, Sébastien Dauvé became a laboratory manager, then head of an R&D department in the area of sensors applied to the Internet of things and electric mobility. During this time, he supported the dissemination of new technologies in industry, including the automotive industry (Renault), aeronautics, national defense (SAFRAN), and microchips with the industry leader Intel. He played an active role in the creation of start-ups in application fields ranging from health to infrastructure security, leading to dozens of new jobs. In 2016, he became Director of the CEA-Leti Systems Division.

From sensors to wireless communication, Sébastien Dauvé has played an active role in the digital transformation, focused on coupling energy frugality and performance. He has made cross-disciplinary approaches central to innovation by harnessing the expertise of talented teams with diverse backgrounds. Their goal is to provide technological tools for meeting the major societal challenges of the future. Sébastien Dauvé is a graduate of the French Ecole Polytechnique and the National Higher French Institute of Aeronautics and Space (ISAE-SUPAERO).

M. Germain General Manager BU GaN & CEO SOITEC Belgium NV, Leuven, Belgium



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#### Biography

**Dr Marianne Germain** received in 1999 her PhD degree in Electrical Engineering from the University of Liege (BE), where she conducted research in close collaboration with RWTH Aachen (D), and as invited post-doc in Purdue University (US) and Würzburg University (D). In 2001, she joined IMEC, where she became in 2004 Program Manager of the "Efficient Power/GaN" program. In May 2010, she co-founded "EpiGaN", a spin-off located in Hasselt manufacturing GaN epiwafers for electronics applications, where she acted as CEO and member of the Board of Directors. EpiGaN nv was acquired by SOITEC in May 2019, where she is now acting as General Manager of BU GaN and CEO of SOITEC Belgium NV.

C. Kutter Director of Fraunhofer EMFT Fraunhofer EMFT, Munich, Germany



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#### Biography

Christoph Kutter is director of Fraunhofer EMFT, an institute of the Research Fab Microelectronics Germany (FMD), of which he is currently co-spokesperson. He also holds a professorship specializing in solid-state technologies at the University of the Federal Armed Forces in Munich. His focus at Fraunhofer EMFT is on silicon technologies, MEMS, flexible electronics, biosystem integration and heterogeneous integration of various solid-state technologies.

Christoph Kutter is currently Vice President of the VDE (Association for Electrical, Electronic & Information Technologies), a member of acatech (National Academy of Science and Engineering) and the BBAW (Berlin-Brandenburg Academy of Sciences BBAW).

From 1995 to 2012, Christoph Kutter held various management positions at Infineon Technologies AG and Siemens AG, including Head of Communications Product Development, Head of Chip Card Development and Head of Central Research. Christoph Kutter was responsible for several central improvement projects to increase efficiency in research and development as well as for the management of the company-wide innovation initiative.

From 1990 to 1995, Christoph Kutter worked as a research assistant at the High Magnetic Field Laboratory (Max Planck Institute for Solid State Physics) in Grenoble, France.

Christoph Kutter received his Dipl. Phys. from the Technical University of Munich and his Dr. rer. nat. from the University of Constance in 1995.

M. Boll Vice President Public Policy Infineon Technologies, Munich, Germany



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#### Biography

Michael Boll is a seasoned professional with a strong background in law, economics, and public policy. Born near Münster, Germany, he pursued higher education in Economics and Law at the University of Münster, earning his First State Examination in 2000 and his Second State Examination in Law in 2003. Michael furthered his academic credentials by obtaining a Master's degree in International and European Business Law (LL.M.) from the University of Exeter in 2003-2004.

Michael's professional journey began in the consulting sector, where he held various leadership positions at EUTOP and Gauly Advisors. His client base was mainly from the Tech and Financial sector. He served as Director at EUTOP from 2005 to 2014, followed by a stint as Senior Manager and Partner at Gauly Advisors from 2014 to 2017. He later rejoined EUTOP, taking on roles such as Director & Syndic of EUTOP International GmbH, Member of the EUTOP Asia Executive Board, and Member of the EUTOP Executive Board in Berlin from 2017 to 2020.

In 2021, Michael brought his expertise to Infineon, a leading semiconductor company, as Vice President of Public Policy. In this role, he leverages his knowledge of law, economics, and public policy to drive strategic decision-making and advocacy efforts. Throughout his career, Michael has demonstrated a unique blend of academic rigor, professional expertise, and leadership acumen. His diverse experience in consulting, academia, and the corporate world has equipped him to navigate complex policy landscapes and drive meaningful impact.

F. La Via Research Director CNR IMM, Catania, Italy



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#### Biography

**Francesco La Via** was born in Catania, Italy, in September 1961. He received the M.S. degree in physics from Catania University, Catania, Italy, in 1985. From 1985 to 1990, he had a fellowship at STM, Catania. In 1990, he joined the CNR IMM in Catania as a researcher. During this time, he was a Visiting Scientist at Philips NatLab, Eindhoven, The Netherlands. In 2001 he became senior researcher of the CNR IMM and he is responsible of the research group that work on the new metallization schemes for silicon and silicon carbide. From 2003 he is responsible of the division of CNR-IMM that developed new processes for silicon carbide epitaxy and hetero-epitaxy. From 2020 he become Research Director. He is responsible of several industrial research projects and coordinator of two European projects: CHALLENGE (http://h2020challenge.eu/) and SiC Nano for picoGeo (http://picogeo.eu/). In this period, he has published more than 350 papers on JCR journals and 4 edited books. He has presented several invited contributions to international conferences and has organized several conferences and tutorials. He has 6 patents on SiC technology and growth. The main research interests are in the field of silicon carbide growth, power devices, detectors and MEMS.

# Staying Ahead of What's Next, An Advanced Materials and Semiconductor Equipment Perspective

J. Arcamone Vice-President of Corporate R&D ASM, Leuven, Belgium



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As Europe strives to assert its leadership in the global digital economy, the semiconductor industry plays a vital role in driving innovation, sustainability, and growth.

Advanced materials and deposition processes are the foundation for electrification & digitalization in a sustainable manner as part of the EU twin green & digital transition.

The presentation will discuss how ASM's technological innovations in Europe and globally are enabling growth through materials innovation, and will also highlight the necessity to collaborate along the electronics value chain as well as through public private partnerships.

#### Biography

Since 2023, Julien Arcamone is the Vice-President of the Corporate R&D of ASM, the leading semiconductor equipment supplier in ALD and Epitaxy. Based in Leuven at imec, he leads teams in Belgium and Finland that develop ASM's novel ALD and epi processes that will enable future advanced logic and memory devices.

Prior to that, he was 15 years with CEA-Leti, where he started as staff research scientist in NEMS. Then he held several positions, notably VP of Business Development for Asia, his last one with Leti being Head of the Connectivity & Computing Devices Department. In that position, he managed R&D teams dedicated to active RF and quantum devices, advanced CMOS and memories devices, and their related advanced computing approaches (Edge AI, In-Memory Computing), as well as the teams in charge of developing 3D integration technologies.

He graduated in 2003 from INSA Lyon in Materials Engineering, with a focus on semiconductor materials & devices. Then, he received a PhD in Electronic Engineering in 2007 from the Autonomous University of Barcelona (Spain), and the HDR (Habilitation à Diriger des Recherches) from Grenoble-Alpes University in 2017. He is an IEEE Senior Member, and was part of IEEE MEMS conference's TPC in 2016 and 2017. Dr. Arcamone has authored or co-authored more than 80 peer-reviewed scientific publications and 1 book, and is the co-inventor of 9 patents.

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K. Marent EVP & Chief Marketing and Communications Officer imec, Leuven, Belgium



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#### Biography

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authoring and editing the research organization's numerous company technical documents and publications. In 2001, she was appointed corporate communications director at imec. Her responsibilities expanded in August 2007, when she got the position of external communications director including corporate, marketing and outreach communications. In October 2016, she became VP corporate, marketing and outreach communication. Since April 2020 she is Executive Vice President & Chief Marketing and Communications Officer and member of the executive board of imec.

T. Heurung CEO Siemens Electronic Design Automation GmbH & Technical Director EMEA Siemens EDA, Munich, Germany



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#### Biography

Since graduating with a degree in electrical engineering in 1997 from Friedrich-Alexander University in Erlangen, Thomas Heurung has been assisting customers in solving various challenges in industrial applications. His first engagements were with the development of electrical systems for automobiles and airplanes, embedded software for distributed control systems, and eventually moved on to the development of complex electronic systems and components.

After transitioning from Synopsys to Mentor Graphics in 2004, which became part of Siemens AG in 2017 and is now known as Siemens Electronic Design Automation, he held various responsibilities such as global business development and establishing and leading technical sales in Europe and India for the Capital and Volcano product lines.

Since 2020, he is serving as Technical Director, responsible for the technical sales of semiconductor and electronic systems development tools at Siemens EDA in EMEA.

R. Hoofman Director imec.IC-link imec, Leuven, Belgium



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#### Biography

Romano Hoofman is Strategic Development Director at imec.IC-link since 2016. He is currently responsible for the innovation programs of the unit and for the coordination of the EUROPRACTICE Service. He started his career in industry, where he worked as a Principal Scientist at Philips Research and later on NXP Semiconductors. He covered many different R&D topics, ranging from CMOS integration, advanced packaging, thin film batteries, photovoltaics and (bio)sensors.

Romano received his PhD from the Technical University of Delft in 2000, where he investigated charge transport in semi-conducting polymers. He has authored more than 30 publications and holds more than 10 patents in various research areas.