

ITF IMEC

Welcome

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



Abstract

Coming Soon

Biography

Katrien Marent 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.

References

Opening Keynote

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



Abstract

The AI field is evolving at an incredibly fast pace, with major models and updates being released almost every month. As these models evolve beyond Large Language Models towards next-gen AI with advanced reasoning capabilities, compute systems struggle to handle the heterogeneous workloads in a performant and sustainable way. However, developing new, AI-optimized compute architectures and the enabling semiconductor technologies takes much more time than writing algorithms. To prevent bottlenecks slowing down AI-based advancements, we must reinvent compute architectures and semiconductor technology platforms.

The presentation will shed light on the need for flexible, versatile compute architectures implemented in flexible, versatile technology platforms while addressing the increasing challenges of density, power and memory. To speed up both advanced semiconductor technology R&D and full stack innovation for future AI applications, imec is expanding its pilot line infrastructure under the EU Chips Act. Next to new infrastructure, imec aims to boost innovation through intensified collaborations with complementary knowledge partners and through further internationalization, attracting global talent and building strong, local ecosystems for diverse application domains, like health and automotive.

Transformative innovations for humankind hinge on the innovation pace of the semiconductor industry. It's time to supercharge our innovation engine, it's time to futureproof our prosperity.

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.

References

Enabling the European Supply Chain

P. Soussan
Technology Portfolio Director
imec, Leuven, Belgium



Abstract

Coming Soon

Biography

For 20 years **Philippe Soussan** has held different position in R&D management in imec in the field of sensors, photonics, 3D packaging. Addressing these technologies from R&D up to manufacturing levels. His background deals with wafer scale technologies, authoring over 100 publications, and holding more than 20 patents in these fields.

From 2007 till 2011, he has led the group "Packaging, Microsystems and Hybrid Technology". The group dealt with complex process integration using 3D interconnects, advanced packaging and micro fabrication of scaling and non-scaling driven components. In 2011, he became program manager for the smart system division of IMEC, which mission is to enable novel product in the field of More than Moore, such as sensors, microsystems in the field of RF and opto-electronics. In 2019, he was program director in the field of integrated photonics for sensing applications

Since 2024, Philippe is in charge of strategy definition for IC-link by imec. This imec business line provides an access to design and manufacturing services in the most advanced ASIC and specialty technologies.

References

F. Holsteyns
VP R&D Unit Process & Modules
imec, Leuven, Belgium



Biography

Frank Holsteyns has been serving as the VP of R&D at imec, leading the Unit Process and Module Department since July 1, 2023. Before stepping into this role, he was the director of the same department, where he managed various process-development-focused groups, including surface and interface processing, etch, thin film deposition, epitaxy, plating, chemical mechanical polishing, layer transfer, and assembly.

Frank's journey at imec began in 2000, where he concentrated on wet cleaning research for semiconductor devices. His work in this area culminated in a PhD in Bio Engineering (surface chemistry) from KU Leuven, Belgium. In 2006, he transitioned to Lam Research AG in Villach, Austria, as a research scientist. There, he coordinated a university and research network focused on fluid dynamics, particularly cavitation, droplet impact, wetting, and dewetting.

In 2012, Frank returned to imec, taking on the role of manager for the Surface and Interface Processing Group. In this position, he specialized in wet clean and etch processes, as well as isotropic dry etches.

References