

III-V Summit

Opening Remarks by Session Chair

C. Lee
Director General
EPIC Photonics, Berlin, Germany



Abstract

Coming Soon

Biography

Coming Soon

References

From Recognition to Industrial Leadership: Scaling Integrated Photonics in Europe

E. Brinkhoff
CEO
PhotonDelta, Eindhoven, The Netherlands

Abstract

Europe has built a world-leading position in integrated photonics, with strong capabilities across III-V technologies and complementary photonic integration platforms. The European Commission's proposed revision of the EU Chips Act marks an important milestone: Photonic Integrated Circuits (PICs) are explicitly recognised as a strategic semiconductor technology within Europe's future semiconductor strategy.

Recognition, however, is only the starting point. Europe's challenge is now to translate its technological leadership into industrial scale, market adoption and long-term global competitiveness.

This presentation will outline what is needed to make that transition: moving beyond research excellence towards industrialisation and commercial deployment; creating viable pathways to scalable manufacturing; expanding and upgrading existing European production capacity; and strengthening the complete value chain from materials and substrates to PIC manufacturing, electronic-photonic integration, advanced packaging, testing, components and systems.

The revised EU Chips Act provides an opportunity to turn decades of European research, investment and innovation into lasting industrial leadership. The next phase is not simply about making more photonic chips in Europe, but about building a globally competitive European industry around them.

Biography

Eelko Brinkhoff (CEO) is CEO of PhotonDelta, where he leads the mission to accelerate the growth and maturity of the integrated photonics industry in the Netherlands and Europe. With more than 25 years of experience in economic development, internationalisation and foreign direct investment, he brings a strong network across business, government, knowledge institutes and universities.

Before joining PhotonDelta in February 2024, Eelko was Managing Director Internationalisation at the Brabant Development Agency (BOM). He is committed to building a globally recognised photonic chip ecosystem that turns Dutch and European innovation into scalable applications in areas such as datacom, telecom, healthcare, quantum technology, robotics, sustainable agriculture and autonomous mobility.

References

Coming Soon

F. J. Díaz-Otero
CEO
Ardora III-V, Vigo, Spain



Abstract

Coming Soon

Biography

Coming Soon

References

Enabling scalable III-V technology for RF and photonics applications at IMEC: Opportunities and challenges

A. Vais

Principal member of technical staff

Imec, Leuven, Belgium

Abstract

III-V semiconductor-based devices, in particular InP Heterojunction Bipolar Transistors (HBTs), are a strong contender for next generation high speed communication systems. In this presentation, motivation for the upscaling of III-V technology on to 200/300mm Si platforms is presented. A comparison of various options for such III-V on Si technology are described. The challenges in the way to achieve its integration into existing CMOS platform and possibilities to overcome them are shown. IMEC's path to enable a CMOS compatible III-V-on-300mm Si technology with the most recent results are demonstrated.

Biography

Abhitosh Vais received the Ph.D. degree in applied physics from the KULeuven, Belgium in 2016 for his work on III-V MOS devices and defect characterization. He was an Erasmus-mundus scholar during 2010-2012, working on MSc in nanoscience and nanotechnology at KULeuven, Belgium and Chalmers Technology, Sweden. He joined IMEC, Belgium, in 2016, where he is a principal member of technical staff and leads the development of III-V on Si technology for advanced RF applications. Dr. Vais has authored or co-authored 60+ technical journal papers and conference publications and several patents.

References

Topic Coming Soon

M. Bourke
Mng Dir, Specialty Technologies and Strategic
Marketing
Lam Research, Remote, United Kingdom



Abstract

Coming Soon

Biography

Michelle Bourke received her B.Sc. degree in Optoelectronics and Laser Engineering from Heriot-Watt University in Scotland, UK. Subsequently she joined the Defence Evaluation and Research Agency (DERA), where she worked on advanced processing methods for GaAs/AlGaAs optoelectronic devices. In 1997 she entered the semiconductor capital equipment industry as a technologist and has since accrued more than 25 years of experience in semiconductor technology, strategy, and new product development. She is a specialist in fabrication technologies for MEMS, Power Devices, RF Electronics and Optoelectronics.

Michelle is a frequent presenter at leading industry forums and also serves on many committees and industry councils. In November of 2018, she was inducted into the Semi MEMS and Sensors Industry Group Hall of Fame and in 2020 she was a Silicon Valley YWCA Tribute to Women Honoree. Michelle is currently Chair of the Semi MEMS Manufacturing Working Group, Co-chair of the Semi MEMs Standards Committee and a Director on the Transducers Research Foundation Board where she is the Chair of Fund Raising and Development Committee.

Michelle joined Lam Research in 2015 and is currently Managing Director of Specialty Technologies and Strategic Marketing in Lam's Corporate Strategy Group.

References

Coming Soon

R. Barnett
Director Etch Product Management
KLA, Wales, United Kingdom



Abstract

Coming Soon

Biography

Coming Soon

References

Closing Remarks by Session Chair

C. Lee
Director General
EPIC Photonics, Berlin, Germany



Abstract

Coming Soon

Biography

Coming Soon

References