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PHIX Photonics Assembly, The Netherlands

Packaging of photonic ICs

Europe is at the threshold of a technological revolution - the application of the power of light to solve our greatest global challenges. As a fast, compact, energy efficient and therefore sustainable option, photonic integrated chips (PIC's) have been developed initially to solve challenges in the power consumption and speed requirements for telecommunications and datacenters. However, it is expected that will tap into world markets like 5G, military, medical, sensors for strain, and gas detection and LIDAR. Volume manufacturing of PIC's is rapidly becoming widespread available through foundries that have evolving process design kits with more extensive building blocks in their libraries. Success depends on the possibility of assembling the chips in large quantities for the various markets. Up to now these have all been labor-intensive production steps, the high cost of which has posed a barrier to large-scale introduction.

The keynote will address topics like: State of the art in the packaging field, automation assembly requirements, cost drivers, why hybrid integration is sometimes inevitable, do's and dont's when designing chips for assembly.

Speaker Biography

Jeroen Duis received his bachelor's degree from the Technical University of Rijswijk in 2001. After his study he worked 16 years within TE Connectivity. Within the fiber optic business unit and corporate technology team he held several positions in engineering, research, technology scouting and management. During this time, he gained a broad experience in laser processing of glass fibers, WDM multiplexing, low loss optical interconnects, next generation photonic chip packaging for applications in mobile phones, automotive and high-speed computing applications. In March 2017, he accepted a position at SMART Photonics, a scale up in Indium Phosphide wafer manufacturing where he was responsible for the business development. November 2018, he accepted a position as chief commercial officer at PHIX Photonics Assembly where he is responsible for the commercial activities and the strategic direction for the hybrid packaging. He is the author and co-author of several publications and holds 15 patent applications in the field of optical interconnection technology.

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