



PHOTONICS PUBLIC PRIVATE PARTNERSHIP

PHOTONICS²¹



Thessaloniki (Greece), 21st June 2018 - MOICANA is a new ambitious EU H2020 R&D Project which was launched at January 1st and aims to the development of fundamental innovations in the field of Photonic Integrated Transmitters, making them cheaper and more power efficient. MOICANA is funded under the H2020 ICT 2016-2017 – Photonics KET Call and the initiative of the Photonics Public Private Partnership. The project is coordinated by Aristotle University of Thessaloniki in Greece and will be running throughout the period of January 2018 to December 2020.

The wide-spread adoption of optical transceivers in a broad range of application domains is urgently calling for a low-cost, high power efficient and large volume manufacturing integration technology that can meet the different specifications required in every application sector and urgently scale up to serve the growing telecom and datacom markets. The current promoted solutions to tackle this demand are favouring Silicon Photonics based technologies that still feature a major drawback. They need complex and expensive hybrid integration substrates, since they rely on externally coupled InP laser sources for the final assembly, while the redundant testing for the pre- and post- processed coupled laser is inducing an additional cost-increasing factor.

MOICANA aims to demonstrate breakthrough performance by synergizing the best in class from the two worlds of Photonic Integration: Quantum Dot InP structures as the III-V light source material and SiN from the Silicon Photonics for the passive platform.

MOICANA targets the highest possible cost effectiveness in mass fabrication of optical transmitter through the development of the technological background for the epitaxy of the Quantum Dot InP components directly on Si by Selective Area Growth.

MOICANA will highlight its versatile and scalable perspective and its broad market take-up credentials through the demonstrations of a whole new series of cooler-less, energy-efficient and high-performance single-channel and WDM transmitter modules for Data Center Interconnects, for 5G Mobile fronthaul and for coherent communication applications.

The consortium is bringing together 4 leading industrial partners, and 4 top-ranked academic and research institutes in the PIC and Photonic Systems value chain. The project participants are the Aristotle University of Thessaloniki (Greece), University of Kassel (Germany), Technion - Israel Institute of Technology (Israel), III-V lab (France), Mellanox Technologies (Israel), Ligentec (Switzerland), ADVA (Germany) and VLC Photonics (Spain).

MOICANA: Monolithic co-integration of QD-based InP on SiN as a versatile platform for the demonstration of high performance and low-cost PIC transmitters is funded through EU H2020 Photonics KET (Project Number: 780537)

For more information please visit project's website: www.moicana.eu

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