

Press Information

Berlin, 2th March 2018

VPIphotonics participates in QAMeleon

EU project QAMeleon to develop next generation photonics and electronics technology that will enable 128 Gbaud optical data flow generation, reception and switching over SDN platform

About QAMeleon

QAMeleon – *Sliceable multi-QAM format SDN-powered transponders and ROADMs Enabling Elastic Optical Networks* – is a new EU-funded project under the H2020 ICT 2016-2017 - Photonics KET Call and the initiative of the Photonics Public Private Partnership. QAMeleon aims to scale metro and core networks to 128 Gbaud speed via the development of SDN (software-defined networking) enabled transceivers and ROADM (reconfigurable optical add-drop multiplexer) node architectures that support sliceable and reconfigurable optical data flows. The 4 year project started January this year, has a budget of almost 8 Million EUR, and comprises of an international consortium of 16 partners across the whole value chain including academia, hardware/software technology developers, component and system vendors, and network providers.

The increasingly volatile traffic stemming from the new internet services sets busy-hour internet on a compound annual growth rate of 36% which drives the market of 200G shipments and the development of the first 600G products. While component and system vendors are well underway with the development of their 64 Gbaud portfolio, the enabling technologies to shift to the next gear of 128 Gbaud are urgently being sought. At the same time, telecom operators and system vendors target to achieve better Quality-of-Service and higher bandwidth at the same price for their end users by adopting software-defined networking concepts that will make their networks more efficient and more dynamic. In this realm, QAMeleon will develop the underlying technology that will enable the next generation of a sliceable bandwidth-variable transponder (S-BVT) white box operating at 3 Tb/s and novel CDCG (Colorless, Directionless, Contentionless, Gridless) ROADM node architectures for both metro-core networks and metro-access networks including emerging 5G applications.

VPIphotonics' Contribution

VPIphotonics participates in formulating the use-cases, network requirements and performance indicators of the project, and in defining the system and component specifications. VPI takes an active role in the development of the transceiver DSP (digital signal processing) algorithms that are central to the technological objectives of QAMeleon. VPI leads a task where system and component modeling and simulation takes place. The work that will be carried out here will constitute the first verification of the proposed system concepts of the project. Heavy interaction with work packages related to components fabrication will take place to aid the design and development cycle, and ensure that performance targets are met. VPI will also actively support the experimental verification effort, contributing with researchers and its commercial lab automation software *VPIlabExpert* in the laboratory and field trial validations of the developed technology.

For further information, please visit

www.ict-qameleon.eu

www.VPIphotonics.com



PHOTONICS PUBLIC PRIVATE PARTNERSHIP

