PRESS RELEASE

PolyPhotonics project Berlin: Fraunhofer HHI and partners present optical chips made of polymer

The growing core “PolyPhotonics Berlin” presents itself during the "Pho
tonic Days Berlin Brandenburg”. "Great in Optics – Small in Size", Poly-
Photonics Berlin will take this motto to the global communications mar-
ket. The project is part of the “Regional Enterprise Initiative” of the Ger-
man Federal Ministry of Research. The consortium develops the value
chain for the creation of a new technology platform.

Eleven regional enterprises and three research institutes pool their expertise in PolyPhotonics Berlin. For the first time, the network partners will be able to im-
plement comprehensive solutions using optical components made of plastic,
which are globally not yet available in this form. The participants in this initiative
want to create innovative materials and procedures for the production and as-
sembly of photonic multiple-use components.

Christian Rickerts, Permanent Secretary in the Senate Department for Economy,
Energy and Public Enterprises, comments, “The PolyPhotonicsBerlin technology
platform shows that when it comes to digitalization, the capital city has an out-
standing profile as a location also in the field of hardware development for opti-
cal communications technology. With a new generation of polymer chips, the
PolyPhotonics partners will be forerunners on the global market for optical com-
 munications technology. By providing the Zukunftsfonds grant to fund the col-
laborative projects "Berlin Access” and “100x100 Optics”, the State of Berlin has
made an important contribution to launching the new technology platform.”

The PolyPhotonics Technology provides a toolbox of hybrid-optical building
blocks. Using suitable technologies, members of the initiative put these basic
building blocks together to form flexible modules for integration into compact
functional components of very flexible build (hybrid integration). At the core of
the platform is a chip with optical waveguides, which are made of plastic. This
chip may feature further passive elements such as optical fibers, thin film filters
and micro-optics as well as active elements such as photodiodes or laser chips. In
micro technological procedures, the latter components are connected to the
waveguide chip. In the group’s laboratories, the components are tested and be-
come market-ready.