



PhoxTroT

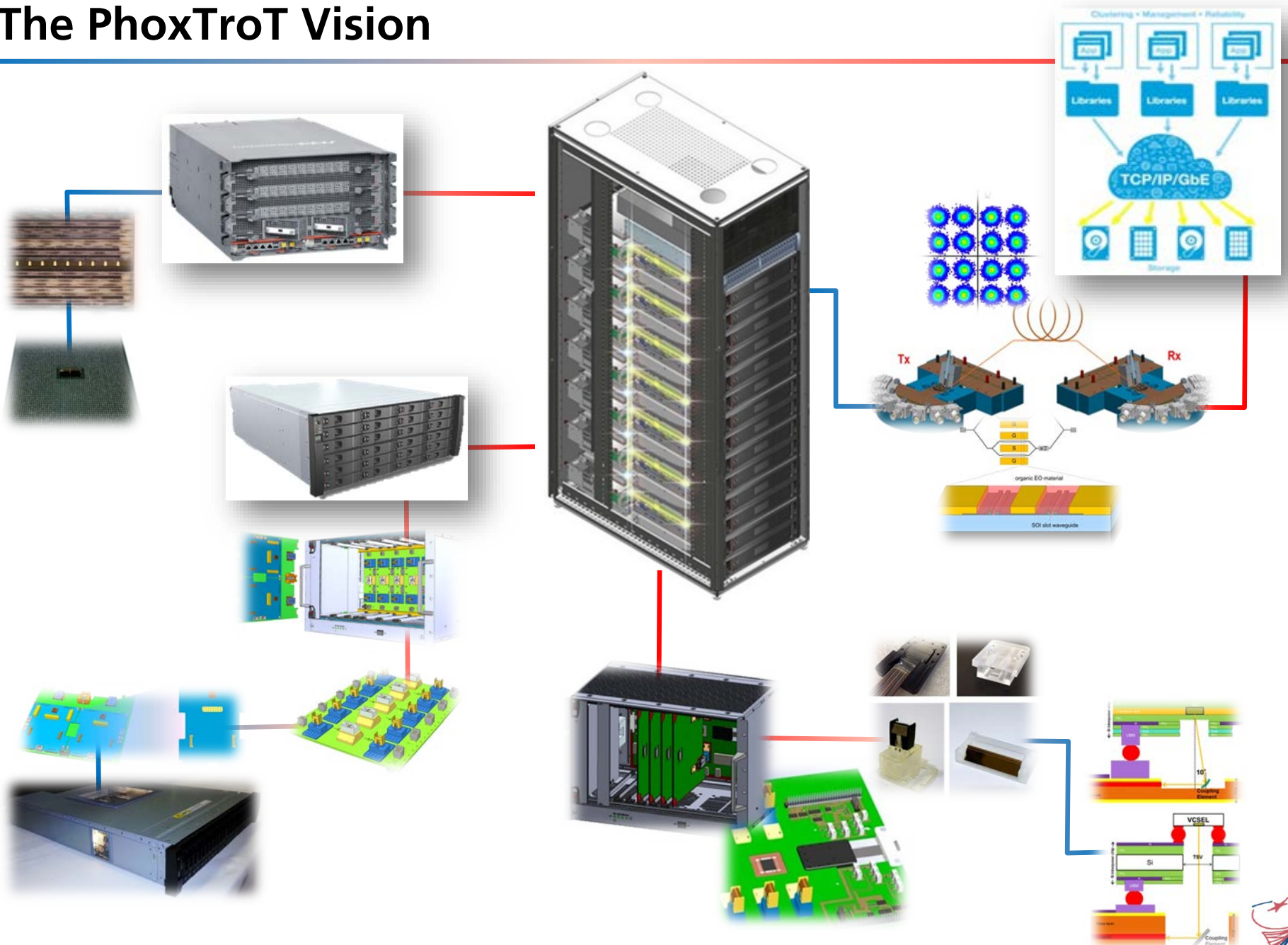
**Photonics for High-Performance, Low-Cost & Low-Energy
Data Centers, High Performance Computing Systems:
Terabit/s Optical Interconnect Technologies for On-Board,
Board-to-Board, Rack-to-Rack data links**



This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 318240.

www.phoxtrot.eu

The PhoxTroT Vision



Partners

World leading industrial organisations, research institutes and universities coming together to realise the PhoxTroT Vision



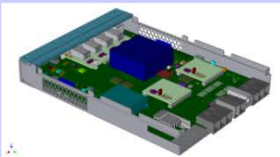
Converged Data Centre System Portfolio

- Product portfolio for converged storage, compute and ultra-high radix switching systems in object oriented fully optically disaggregated data centres

PhoxDem09.04A



PhoxDem09.04.SC1



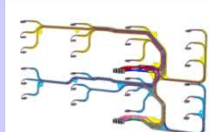
PhoxDem09.04.MP1



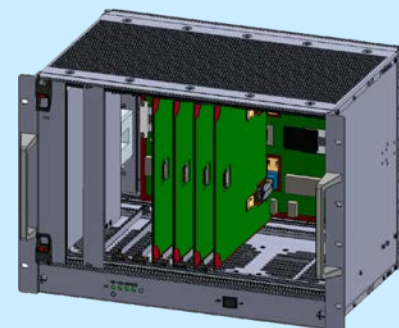
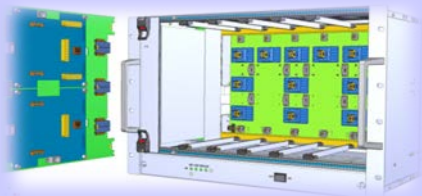
PhoxDem09.04.OD1



PhoxDem09.04.FP1



PhoxDem09.04B



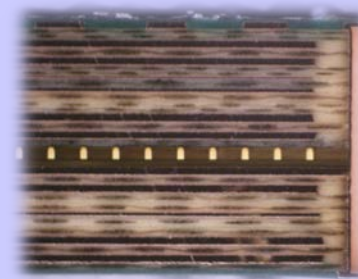
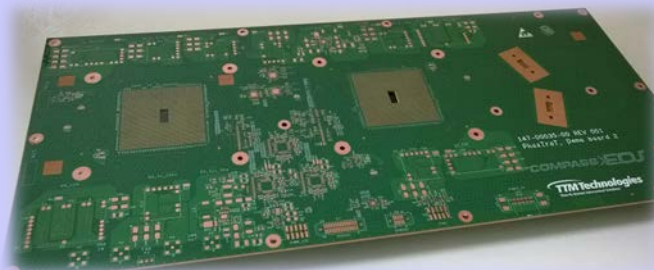
System Level Multimode Optical Interconnect

- High volume electro-optical circuit board manufacture and assembly
- Optically enabled data storage systems

Optically enabled data storage platforms



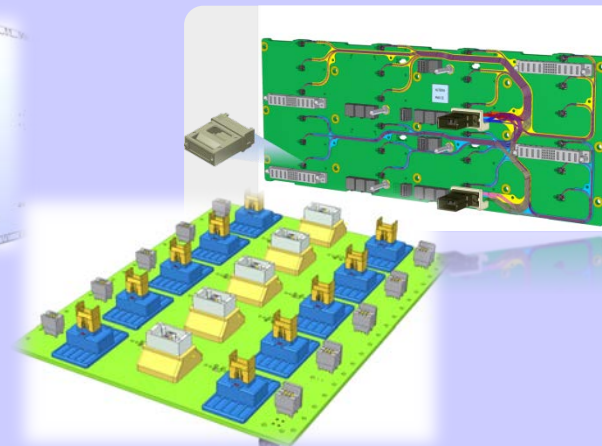
High volume EOPCB manufacture and assembly



Ultra high density electro-optical router chip



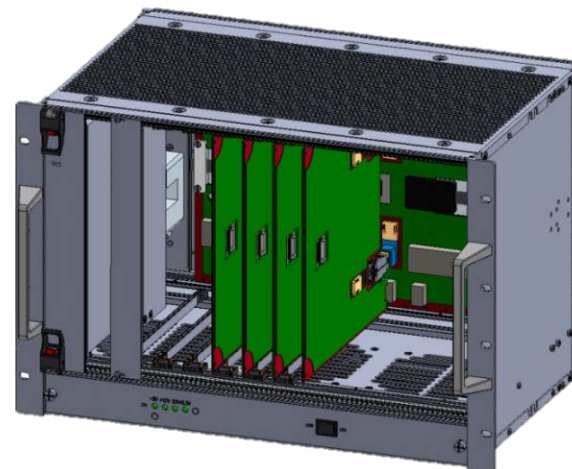
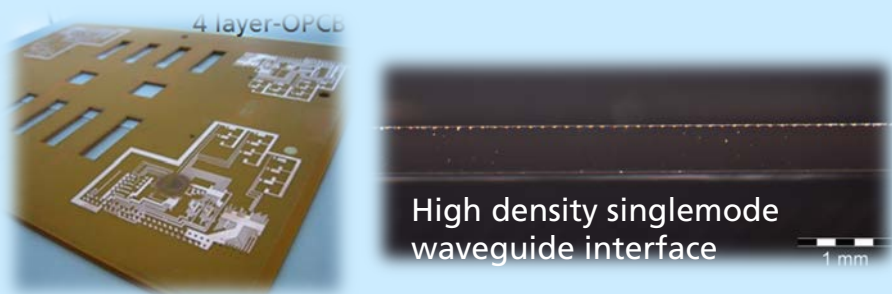
State of the art in polymer, glass and fibre EOPCB



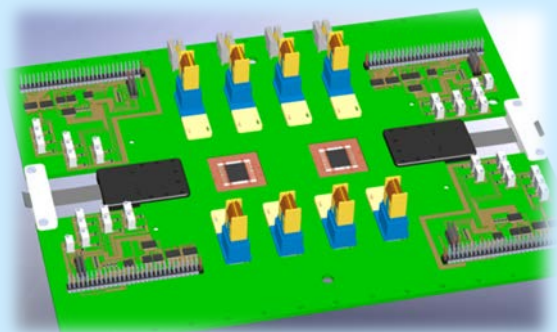
System Level Singlemode Optical Interconnect

- Advanced embedded singlemode optical interconnect for seamless connectivity to singlemode data centre infrastructures
- SiPh transceiver and ultra-high bandwidth router

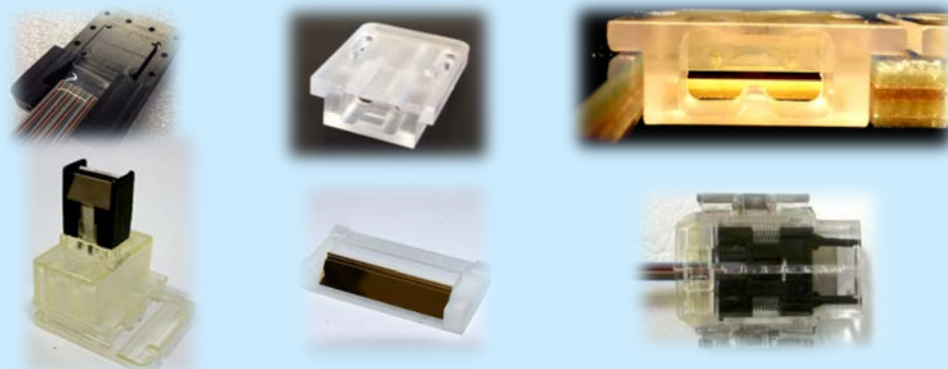
Glass EOPCB manufacture and assembly



Singlemode glass waveguide EOPCB fabrication and assembly



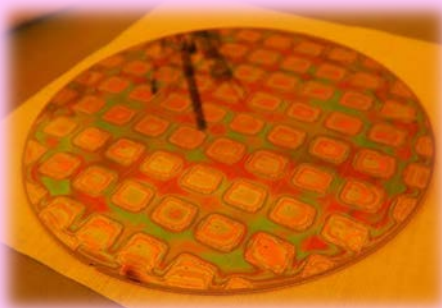
Singlemode and multimode couplers and connectors



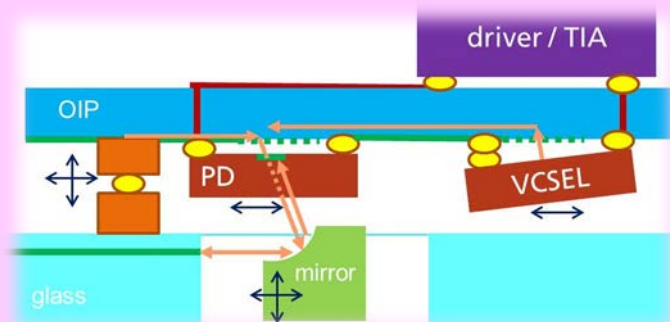
Silicon Photonics and 3D Assembly

- Silicon photonics design services
- Silicon photonics wafer foundry
- Silicon photonics integration and assembly

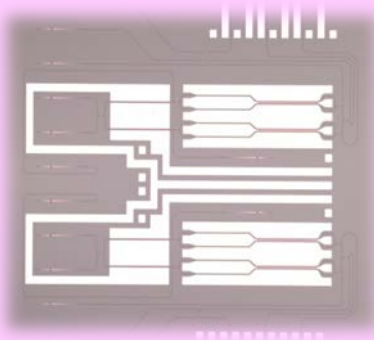
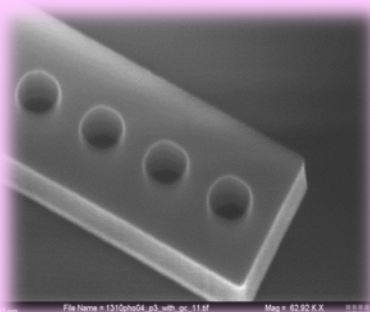
New EU Silicon Photonics foundry



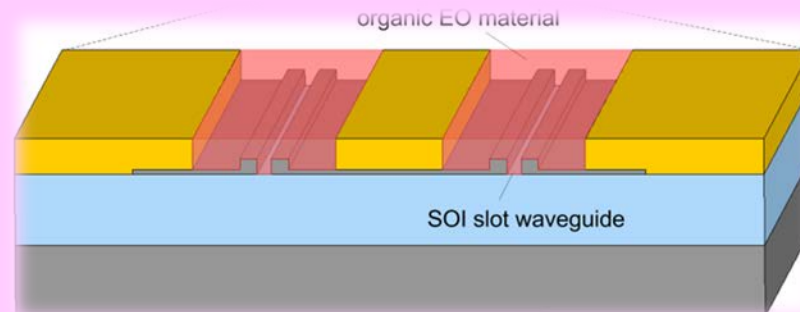
3D silicon photonics transceiver and router and coupling



Nano-photonics



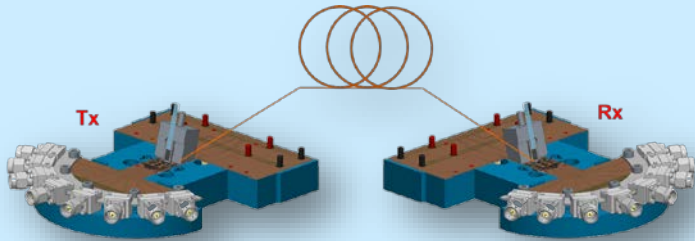
Silicon organic hybrid technology



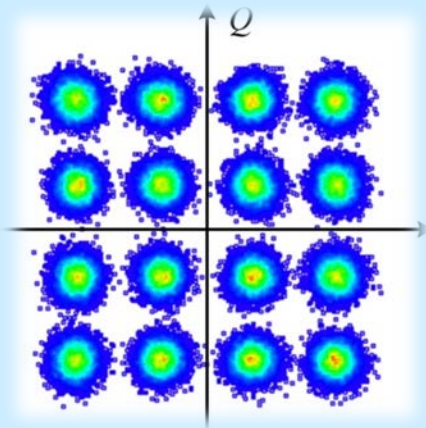
Advanced Inter-rack Optical Interconnect

- Active Optical Cable and transceiver products with advanced modulation schemes for ultra high bandwidth higher tier communication

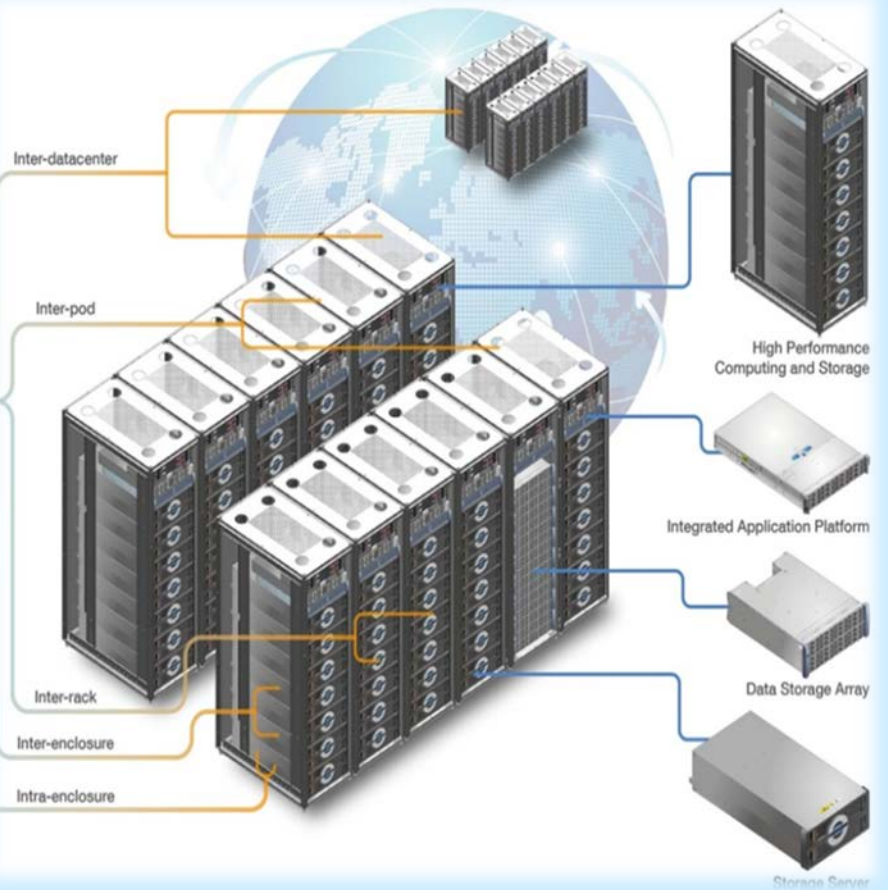
Active Optical Cable



Higher order modulation



Higher tier communication



International Standards

- Driving international standards for optical interconnect across the board

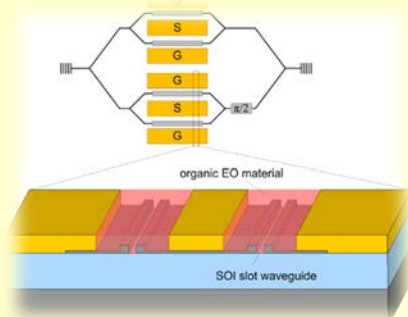
Optical circuit boards
IEC/TC86/JWG9

Waveguide Test Number
WTN AAA-BBB-CCC -DDD -EEE

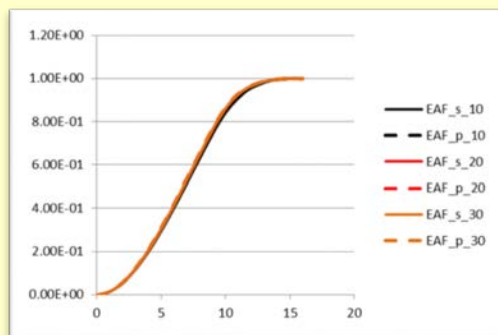
Waveguide under test



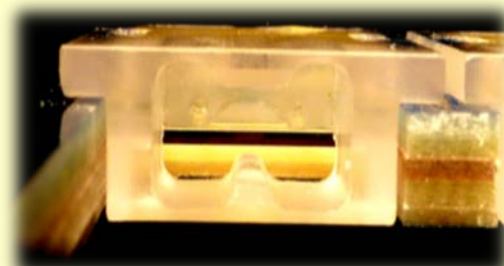
Photonic integrated circuits
IEC/TC86/SC86C/WG4



Optical measurement
IEC/TC86/SC86B/WG4



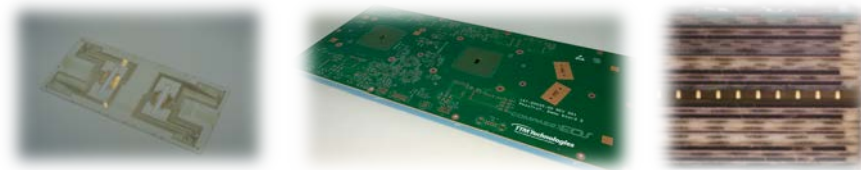
Optical connectors
IEC/TC86/SC86B/WG6



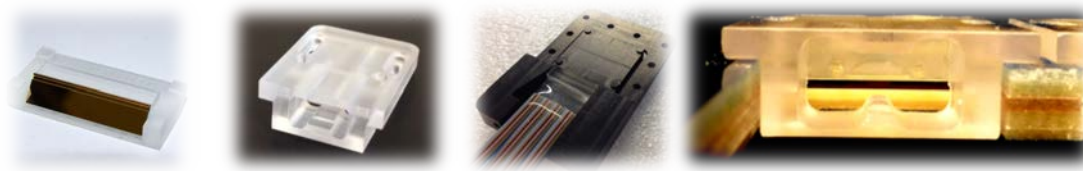
Holistic Approach

- Synergizing different platforms to deploy the optimal "mix& match" technologies tailored for each optical interconnect layer

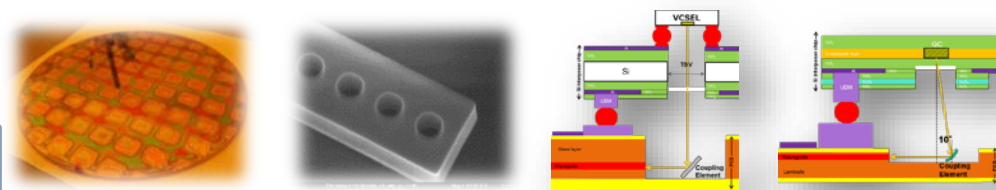
Optical circuit boards



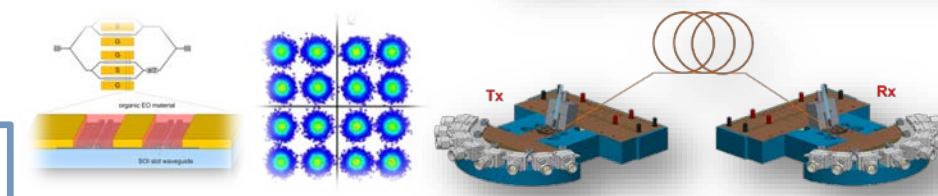
Connectors & interfaces



PIC fabrication & 3D assembly



Transceivers & advanced modulation



Switches & converged systems

