PhotonDelta

EPIC Technology Meeting on Photonics Integrated Circuits
12-13 March, 2025

The Impact of Ecosystems on the Growth of the Integrated Photonics Industry

Abdul Rahim
Ecosystem Manager

PhotonDelta Foundation

PhotonDelta is a non-profit ecosystem builder and PIC industry accelerator, supporting an end-to-end value chain of photonic chip companies.
We are based in The Netherlands and manage a Dutch Public Private Partnership.

Key Activities

- International collaborations
- Growth in the number of companies
- Capital availability for R&D
- Development of a talented workforce

Overview European PIC Industry

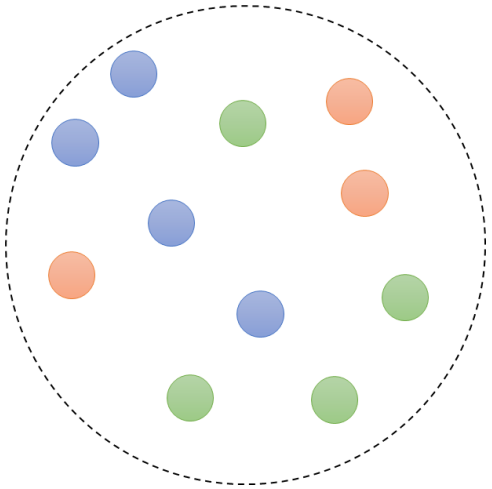
(By no means exhaustive)

- The complete value chain is present in Europe
- Strong fundamental research by universities
- Infrastructure at universities and RTO's
- EU pilot lines offer prototyping and low volumes
- Foundries in InP, SiN and SiPh
- All key ingredients are there to grow the industry

Ecosystems could be an instrument for fostering collaboration

Different Types of Ecosystems

Knowledge Ecosystem



Knowledge sharing

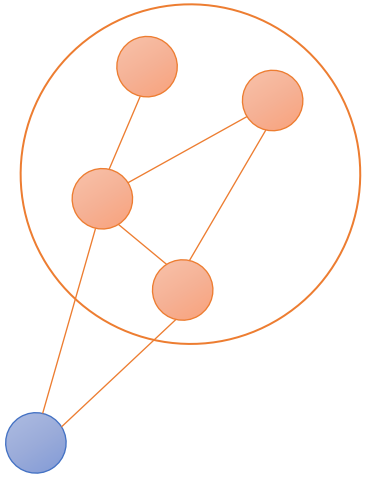
Corporate ecosystem

Competitive advantage

Regional ecosystem

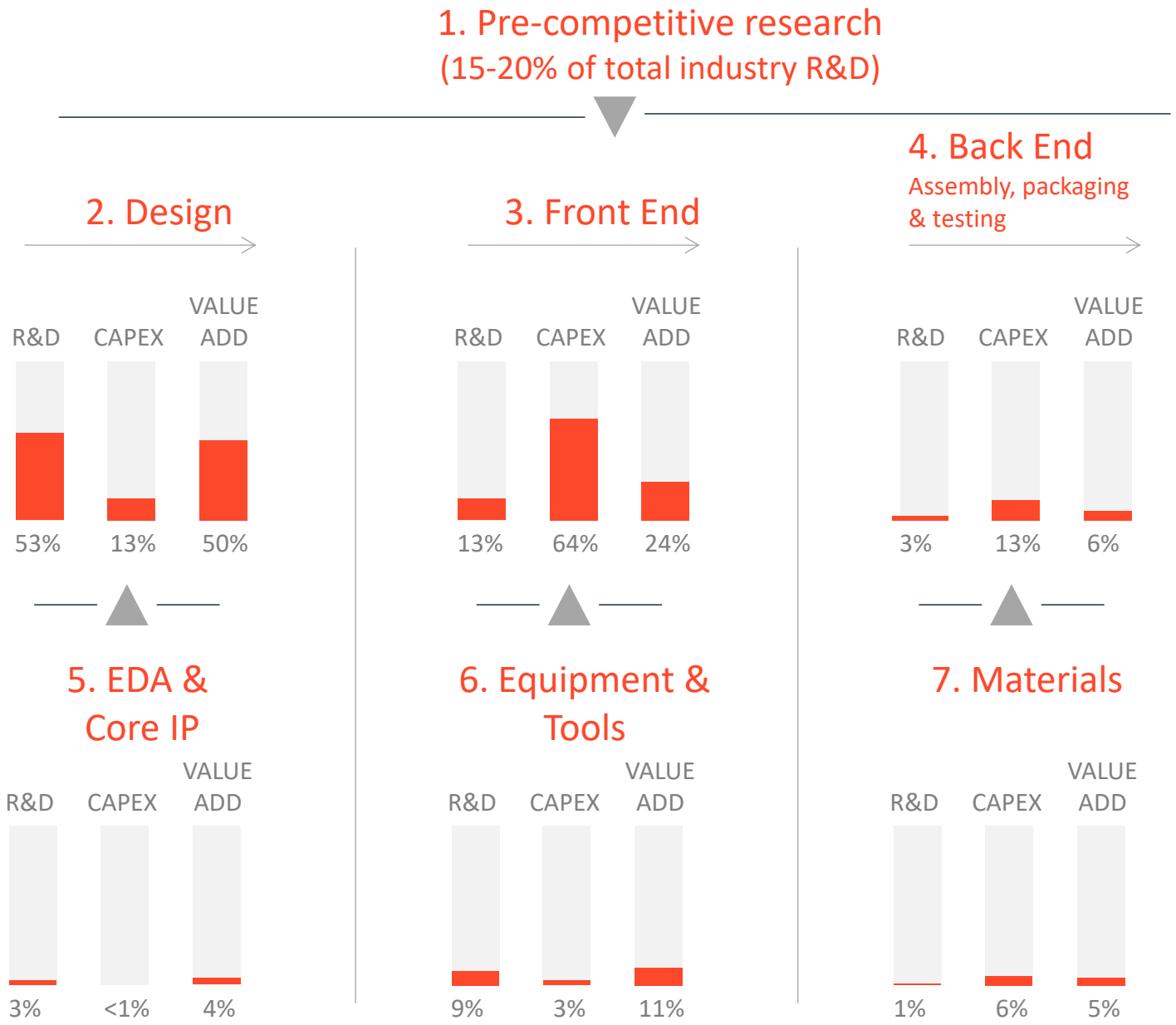
Regional (economic) development

Innovation ecosystem



Value proposition

Getting Inspiration from the Semiconductor Value System



Ref: BCG

PhotonDelta Ecosystem

1. Design

LioniX International

BRIGHT Integrated PHOTONICS

epiphany

STARIC

Tech partners

SYNOPSYS
GDS FACTORY
LUCEDA PHOTONICS

2. Fabrication

SMART PHOTONICS

NEW ORIGIN

ALUVIA

PHILIPS

Tech partners

ASML
AIXTRON
NTS OPTEL

3. Packaging

phix

PHOTONFIRST

neways

Tech partners

CITC
ETTEPLAN
SALLAND
SCIL
IMS
MICROALIGN
AIXSCALE

4. Applications

Data & Telecom

EFFECT PHOTONICS
AIRCISION
astrape networks
Signify
RAPID PHOTONICS
OneTouch TECHNOLOGY BV

Medical

DELTA LIFE SCIENCE
SURFIX
Nostics
EFI
AMAZEC PHOTONICS
Scinvivo
VitalWear

Sensing

SCANTINEL PHOTONICS
Tarucca
SENERGETICS
PHOTONFIRST
SENSING360
Spectrik
MMATIDIA
A NEW LOOK AT LIDAR
MEMSCAN
FUQON
NXP
DEMCON
Neuruno
MS MantiSpectra

Quantum

QuiX
CUbIQ

Tech partners

HIGH TECH XL
CHILAS
TSG
SUPERLIGHT
VTEC
Pilot Photonics

PIT Photonic Integration Technology Center
UNIVERSITY OF TWENTE.
TU/e
TU Delft
imec
Holst Centre
III-V lab
OnePlanet Research Center
SAXION HOGESCHOOL
THE HAGUE UNIVERSITY OF APPLIED SCIENCES
Fontys University of Applied Sciences
TNO
Fraunhofer HHI
MIT Massachusetts Institute of Technology
WATERLOO INSTITUTE FOR nanotechnology
Tyndall National Institute

Portfolio overview

	Health	Datacom / Telecom	Quantum / AI / Compute	Agrifood	AR / VR	Fabrication & packaging	Other
PhotonDelta Startup fund (€60M)	AMAZEC PHOTONICS	astrape networks Photonic Switches	CUbIQ QKD	Spectrik Gas Sensing	BRILLIANCE	NEW ORIGIN HIGH TECH FOUNDRY SiNFoundry	epiphany EDA Tools
	VitalWear FBG Sensing	PHOTON IP	SENERGETICS SENSE IN DATA	SUPERLIGHT PHOTONICS Wideband Lasers		ALUVIA PHOTONICS Al_2O_3 Foundry	
PhotonVentures Fund (€100M)	DELTA DIAGNOSTICS Lab on a chip / Biosensing	EFFECT PHOTONICS Coherent Lasers + Pluggable Modules	QUIX Quantum Computing	ManliSpectra Spectral Sensing	vitrealab	LIONIX INTERNATIONAL	PHOTONFIRST FBG Sensing
	SURFIX Lab on a chip / Biosensing					SMART PHOTONICS InP Foundry	SCANTINEL PHOTONICS LiDAR
	EFI					phix	MicroAlign Fiber coupling

WEVOLVER

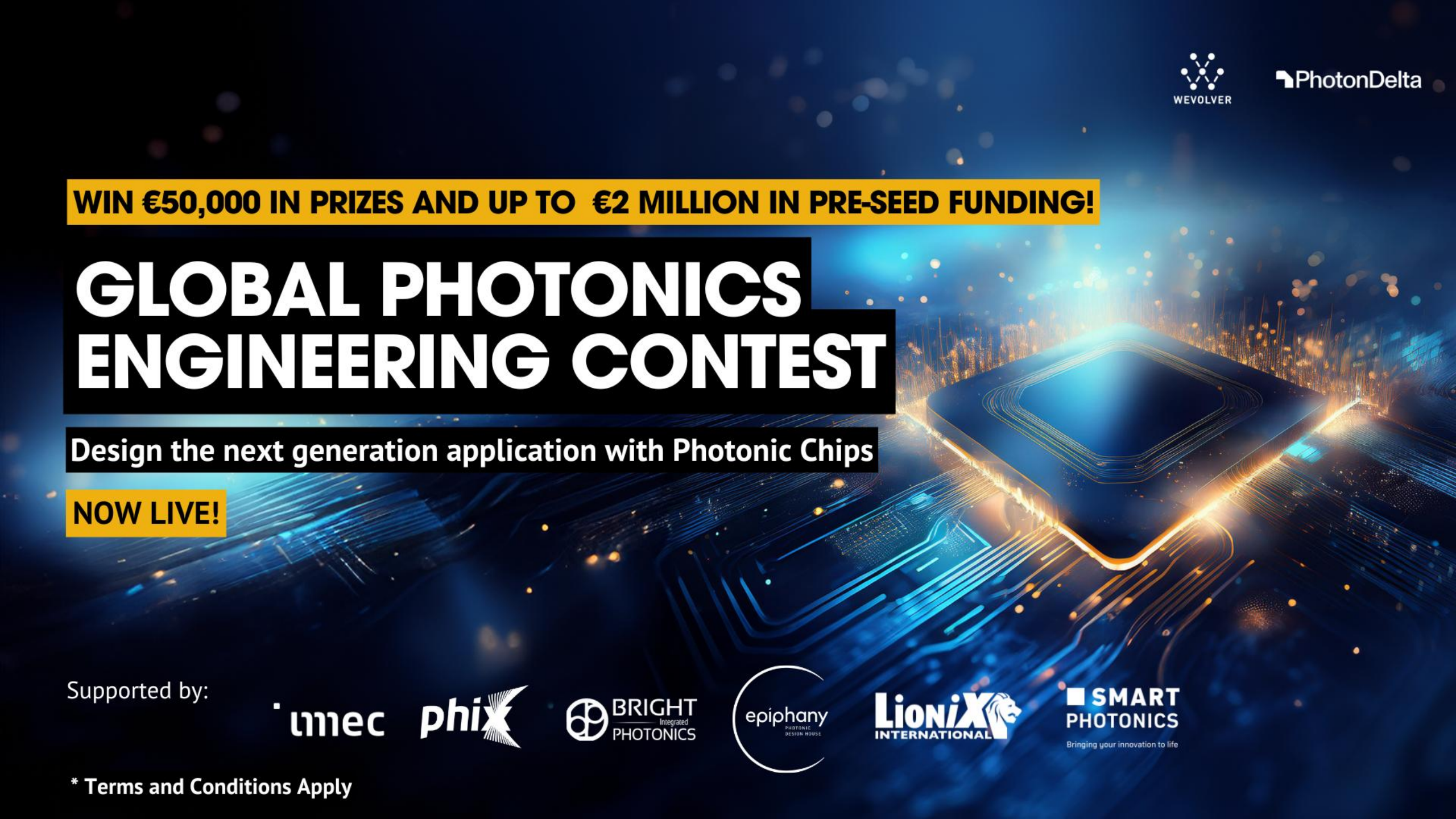
PhotonDelta

WIN €50,000 IN PRIZES AND UP TO €2 MILLION IN PRE-SEED FUNDING!

GLOBAL PHOTONICS ENGINEERING CONTEST

Design the next generation application with Photonic Chips

NOW LIVE!



Supported by:

imec

phix

BRIGHT Integrated PHOTONICS

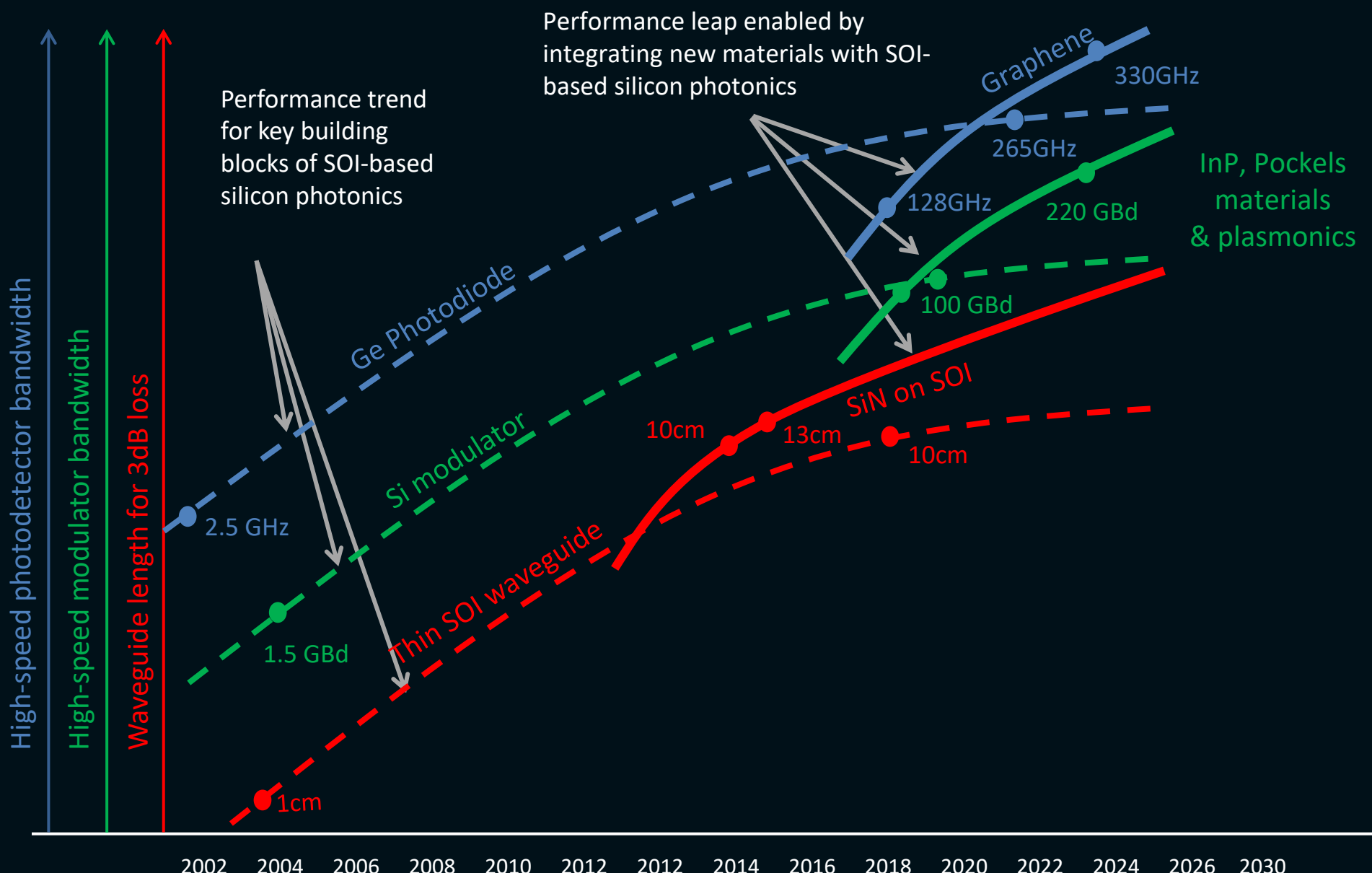
epiphany PHOTONIC DESIGN HOUSE

LIONIX INTERNATIONAL

SMART PHOTONICS
Bringing your innovation to life

* Terms and Conditions Apply

What is next?: Heterogeneous Integration



A New Silicon Nitride Fab Supported by PhotonDelta

Open, independent, pure-play PIC foundry

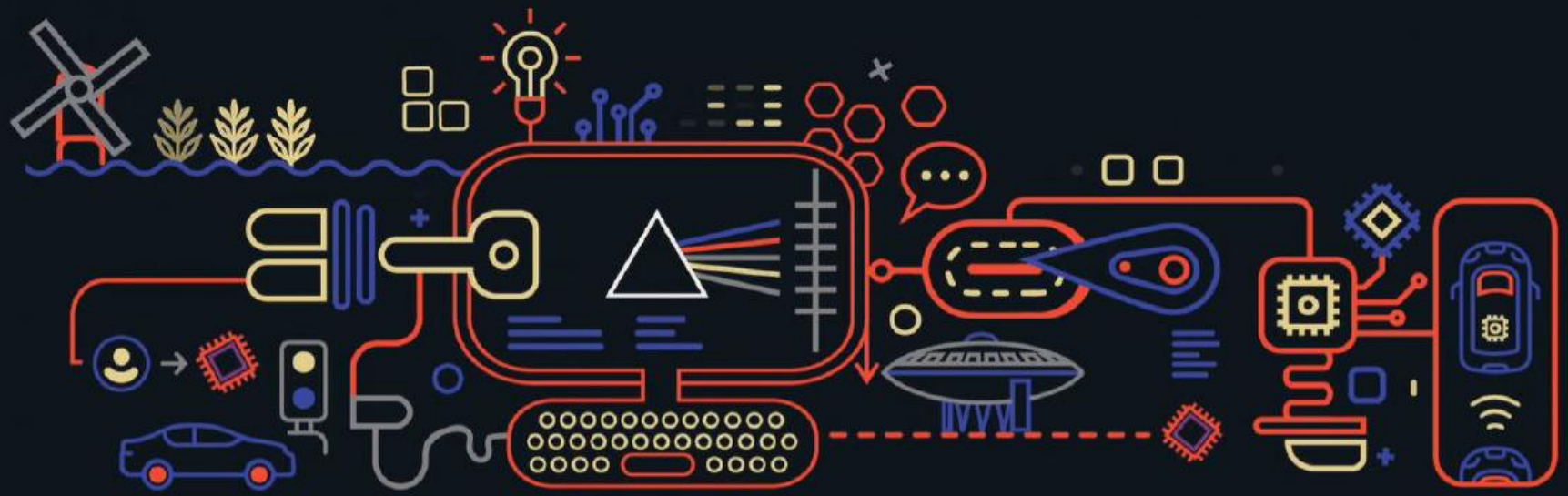
NEW ORIGIN
CHIPTECH FOUNDRY

- Silicon Nitride platform with ultra low loss waveguides, low power switching & high-speed modulation
- Medium volume, flexible mix production of 25k 200mm wafers/year with semi-automated manufacturing and state of the art lithography
- Global player, embedded in the European and Dutch eco-system
- Ensuring a smooth transition from development to manufacturing via partnerships with technology and packaging providers
- Focus on industrial excellence: targeting undisputed quality and industry-leading turnaround times at the right cost

Learn more @ https://neworigin.eu/en/

SAVE THE DATE!

PIC SUMMIT EUROPE 4-5 NOVEMBER 2025
EINDHOVEN, EVOLUON



PIC Summit
Europe

4 - 5 November 2025 Eindhoven

PhotonDelta