

Design

Bright Photonics (NL)
Synopsis (CA, NL)
VLC photonics (ES)
VPI Photonics (DE)
ETSC Europe (BE)
EHVA Photonics (CA)
Luceda Photonics (BE)
Siemens EDA (prev. Mentor Graphics) (US)
Photon design (UK)

Test

VLC photonics (ES)
PhotonFirst (NL)

Design & Test Software

Synopsis (CA, NL)
Cadence (US)
Nazca design (Bright Photonics)(NL)
Ansys / Lumerical (US/CA)

For corporate verticals, see the module vendors.

PHIX Photonics Assembly(NL)

Alter Technology (UK)
AMKOR technologies (US)
Physik Instrumente PI (US)
Ficontec (DE)
Etteplan (FI)
Argotech (CZ)
Microalign (NL)
Black semiconductor (DE)

Research Institute

Tyndall NI (IE)
AIM Photonics TAP Facility (US)
CITC (NL)
TNO (NL)

Corporate PIC Design & Test & PDK development

PDK Building block development

TU Eindhoven (NL)
UCSB (US)
CREOL U.C. Florida (US)
CPS Cambridge (UK)
Ghent University (BE)
UGent (BE)
Oxford University (UK)
DTU (DK)
KTH (SW)
FBH (DE)
Fraunhofer HHI (DE)
Ghent University (BE)

McGill University (CA)
ORC Southampton (UK)
CAS Beijing (CN)
Georgia IT (US)
UTwente (NL)
UDelft (NL)
Hunan (CN)
KTH (SW)
Polimi (IT)
UCAM (UK)
WUT (PL)
UVigo (ES)

Foundries

Corporate
InPact (FR)
DenseLight (SG)
Global Communication Semiconductors (GCS) (US)
SMART Photonics (NL)
Almae Technologies (FR)
Sivers Photonics (prev. CST Global) (UK)
Infirera (US)
SRI International (US)
III-V labs (FR)

Packaging

II-VI Epiworks (US) / IntellIEP (US)
3SP Technologies (FR)
WIN semi (TW)
IQE (GB, US, SN, TW)
VPEC (TW)
Landmark (TW)
VIGO (PL)

Research Institutes
Fraunhofer HHI (DE)

Module vendors

Data & Telecom

EFFECT Photonics (NL)
Aircision (NL)
Freedom Photonics (US)
Mellanox (IL)(bought by Nvidia)
Accelink (CN)
II-VI Finisar (US)
NeoPhotonics (US)
Source Photonics (US)
Mitsubishi electronics (JP)
Acacia (US)
AOI (JP)
Global Communication Semiconductors (GCS) (US)
APAT (CN)
Lumentum (US)
MACOM (US)
Fujitsu (JP)
Hisense Broadband (CN)

Almae Technologies (FR)
AXT (AUS)
Duet Microelectronics (US)
3SP Technologies (FR)
EMCORE (US)
Juniper networks (US)
Chilas (NL)

Sensing / LIDAR

PhotonFirst (NL)
Ommatidia Lidar (ES)
Scantinel Photonics (DE)
SILC Technologies (US)
Lumiwave (CN)
Aurora Innovation Inc (US)
Aeva (US)

Biosensing / Fibersensing

PhotonFirst (NL)
MicroAlign (NL)

Aggregators

Jeppix (NL)
EPIXFAB (BE)
CMP (FR)
Cornerstone (UK)
IMEC (BE NL)

Manufacturing technology

Corporate
AMKOR technologies (US)
Demcon (NL)
Etteplan (FI)
Jabil (US)
MicroAlign (NL)
Nexus Photonics (US)
PIC Advanced (PO)
Salland Engineering (NL)
ShinEtsu (US)
Ribber (FR)
LAM (US, AU, KO, TW)

Hitachi (CN)
Applied Materials (US)
ASMI (NL)
ASML (NL)
AIXTRON (NL)
Solmates (NL)
ASM Amicra (DE)

Research Institutes
IMEC (BE, NL)
TNO (NL)
C2N (FR)

imb-cn (ES)
AIM photonics (US)
Sandia National laboratories (US)
Fraunhofer (DE)
COMMSCOPE (BE, US)
Nanoscribe (DE)
ASM Amicra (DE)

Auxiliary technology

IMS (NL)
Bruco IC (NL)

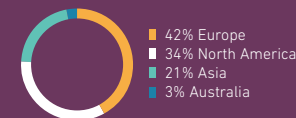
Metrology

Corporate
Exfo (US)
Luna Inc (US)
Etteplan (FI)

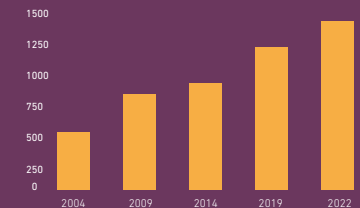
Research Institutes
VTT (FI)
Euramet (EU)
Fraunhofer CMI (US)
CSIC (ES)

PhotonDelta Global InP Map

The Global InP value map presents the value chain for Indium Phosphide (InP) photonic integrated circuits and affiliated applications. InP is the base material that stands out for its ability to produce light, thus allowing for fabrication of active components like lasers. These components are very suitable for applications in data centers, fiber-to-the-X, 5G base stations connections, but also for lidar and sensing applications.



Locations of InP value chain companies (% per continent)



Published InP photonics patents on average per year*
*Global analysis of Indium Phosphide photonics patents in the years 2000-2022 (source: Lens.org, no subselection of companies)