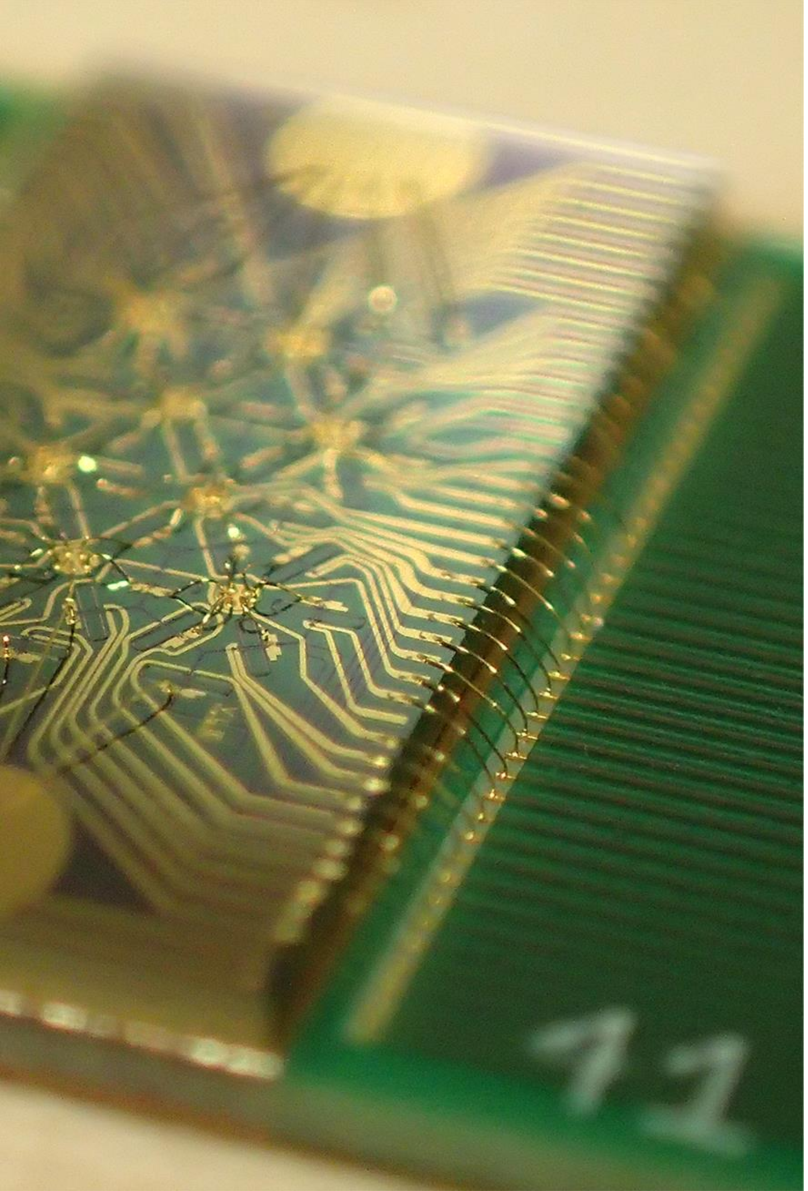


Online Technology Meeting on
Photonics Packaging and Testing

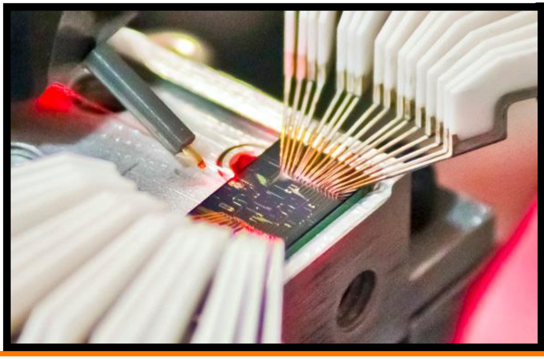
Characterization and test for PICs

24 April 2020

CONFIDENTIAL

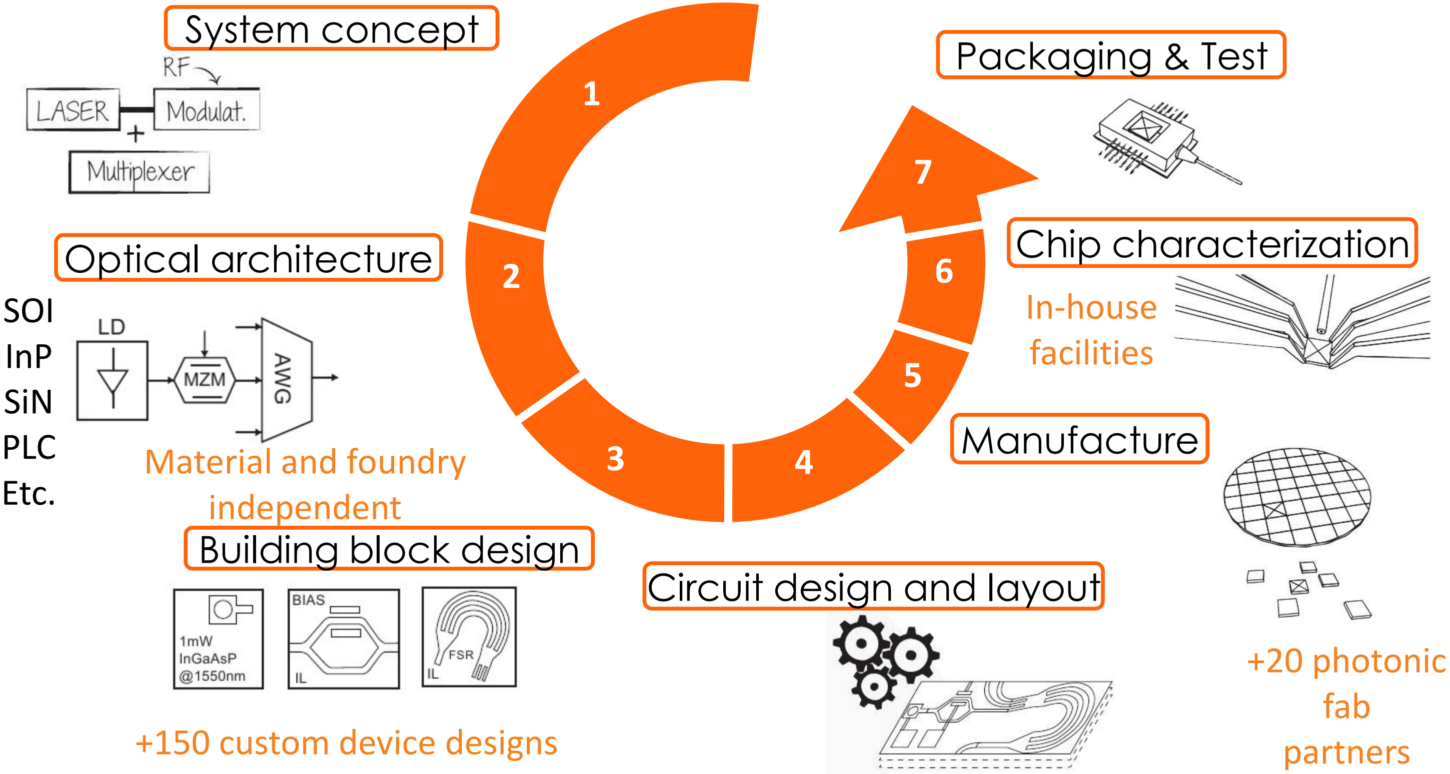
Who we are

- Founded in 2011.
- Offices in Spain, with a network of international partners.
- 17 members of extensive academic and industrial experience.
- 13+ years in the field of integrated optics and photonics.



What we do

- Provide engineering services for the development of PICs



System concept

Optical architecture

SOI
InP
SiN
PLC
Etc.

Material and foundry independent

Building block design

+150 custom device designs (passive and active)

Circuit design and layout

Manufacture

+20 photonic fab partners

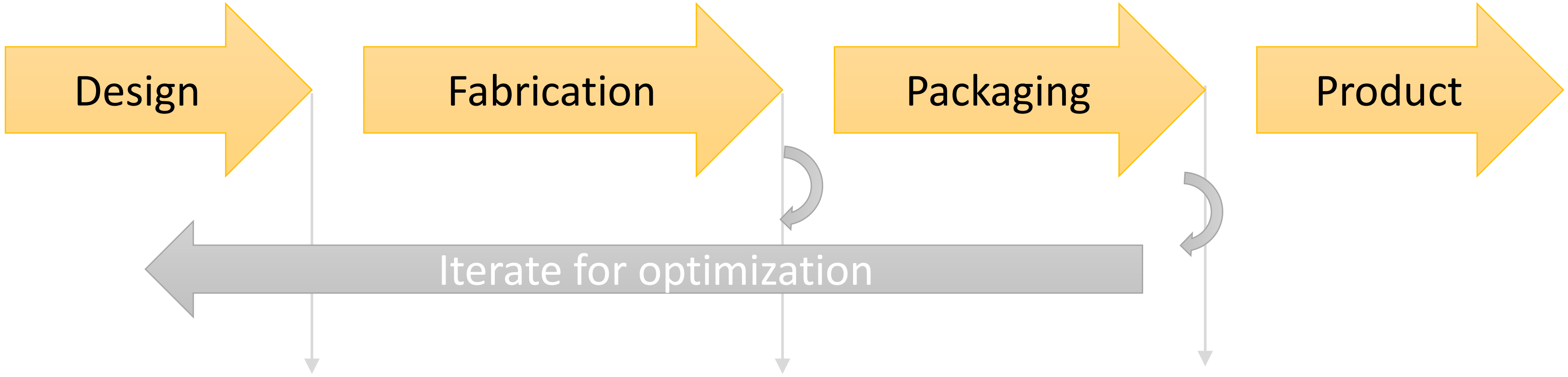
Chip characterization

In-house facilities

Packaging & Test

Why to characterize/test?

- There is a need for information on the performance of every phase to optimize the final product



Design

Fabrication

Packaging

Product

Iterate for optimization

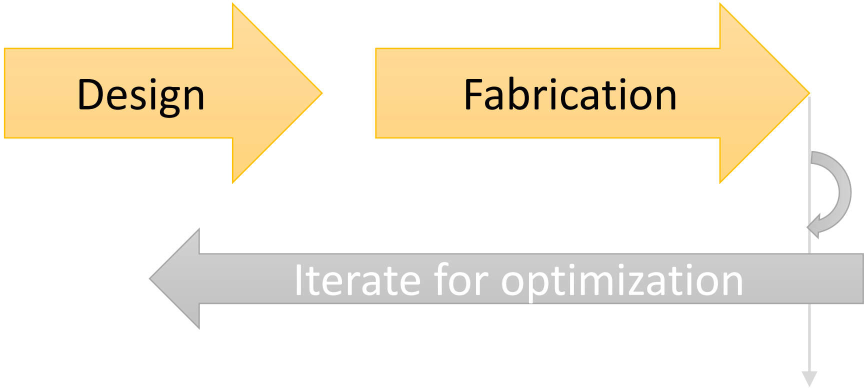
Compact models

Characterize
Building Blocks and Functional System
KGD

Test
Components or assembly

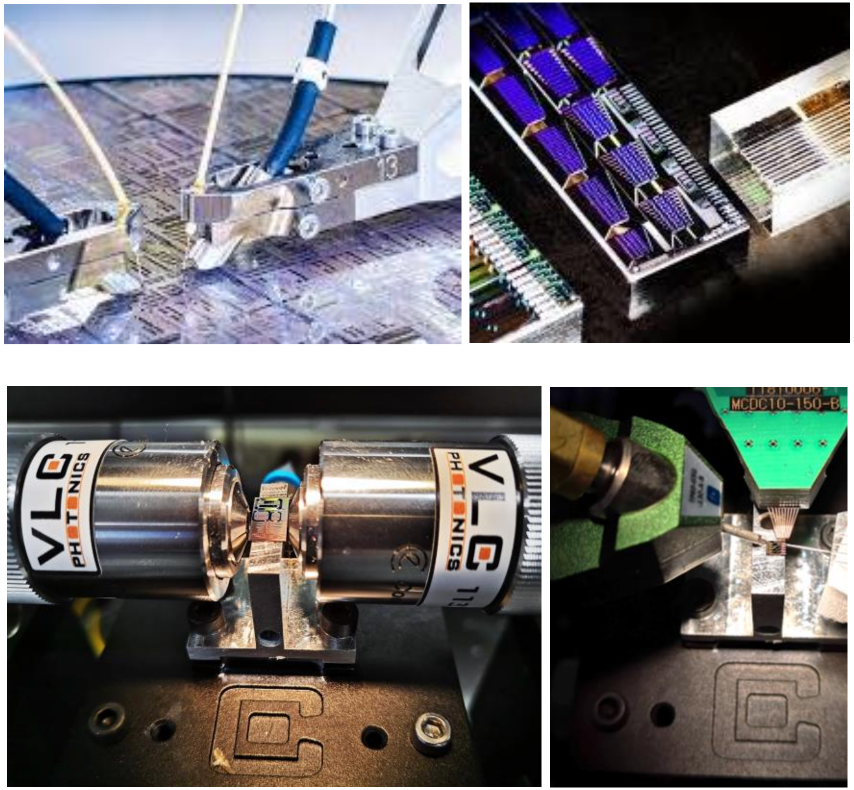
How to characterize?

- Characterize after fabrication at two levels



- Coupling and Propagation losses
- Spectral measurements
- PDL
- Laser output power
- PD Dark Current
- etc

Characterize
Wafer/Bar and
Bare Die
KGD

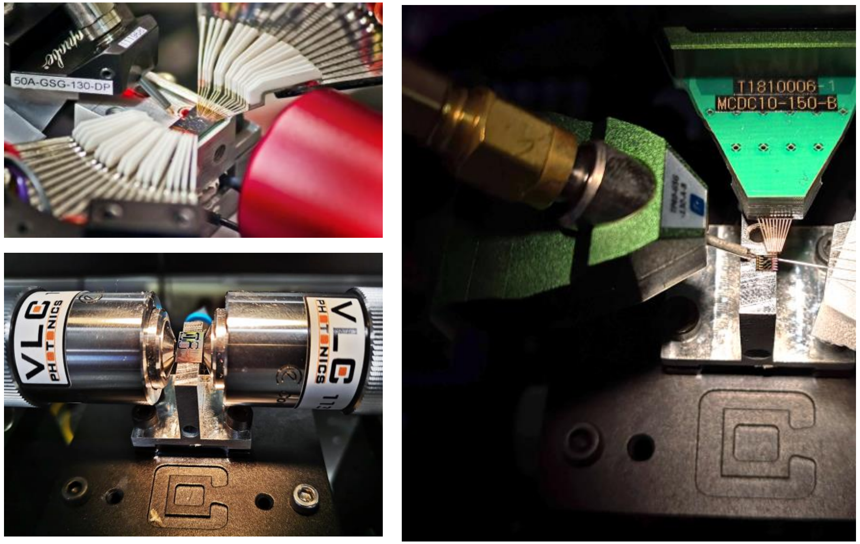


What we offer

- Full characterization at VLC Photonics' facilities at cleanroom:
  - Bare die level
  - Package level
  - Wafer level (soon)

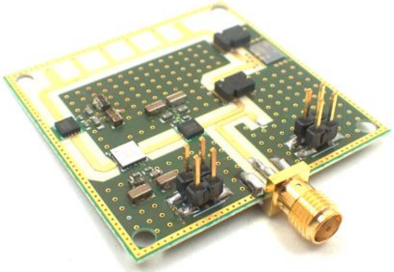
- 4 complete photonic characterization and test setups for bare chips, and 2 setups for wafer level testing.

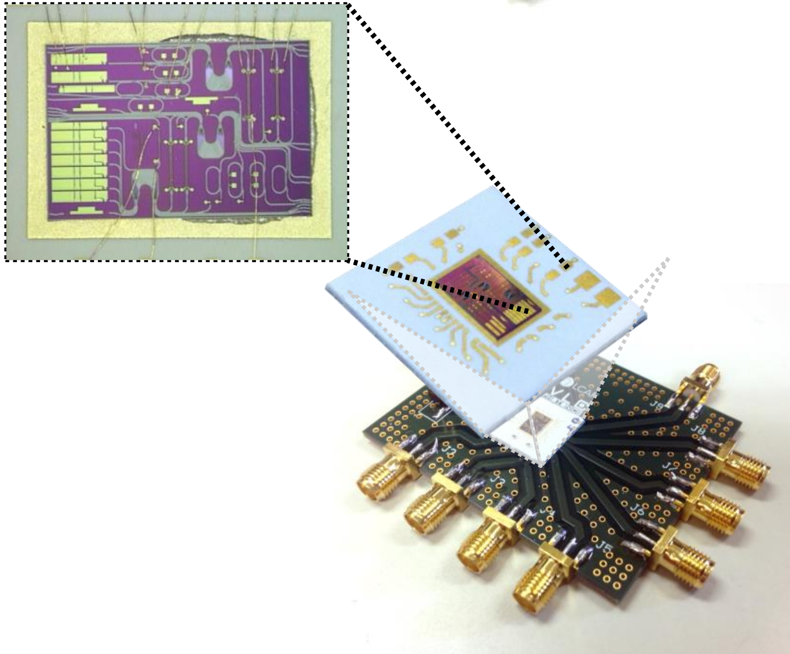
- Basic thermal testing and cycling capabilities.

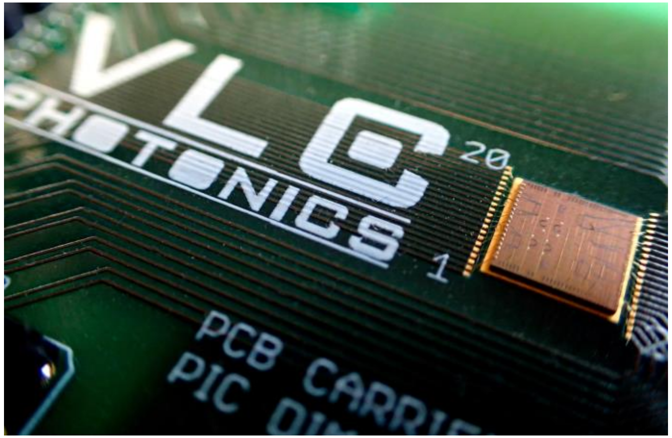


What we offer (II)

- Assembly boards for PIC testing
  - PCB and RF carriers
  - Manual and automated wirebonding
  - Basic fiber/array pigtailing







Thank you for your attention!

VLC PHOTONICS

Contact details

info@vlcphotonics.com

www.vlcphotonics.com

@vlcphotonics

linkedin.com/company/vlc-photonics