

SHAPING THE LIGHT

## Cailabs: a deeptech company

## Who developed and industrialized the key MPLC technology brick

### cailabs

Cailabs key figures



Created in 2013



19 patent families



65 employees (23 PhDs)



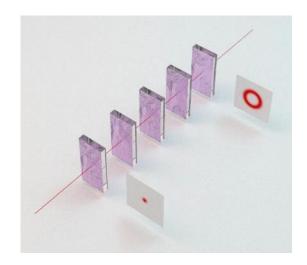
**70%** export

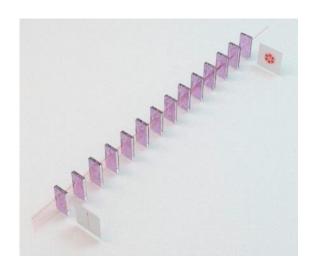
Unique core technology

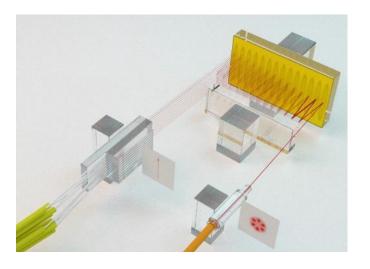




- Derived from quantum optics at Kastler Brossel Lab (Paris)
- Complex beam shaping through a succession of spatial phase profiles
- Passive optical beam shaping with no intrinsic loss and no moving parts









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Declined into three product lines











Improve laser machining processes with high-power beam shaping



Future-proof multimode fiber infrastructure of LANs



Ensure the reliability and increase the range of laser communications



Invent the optical networks of the future and optical solutions for emerging applications

**Markets** 

## Industrial Cutting, welding, surface structuring

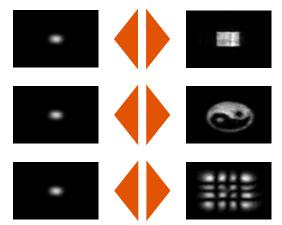


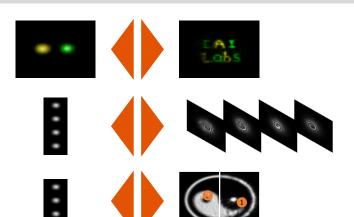
#### Laser communication

Point to point (satellite, terrestrial, ...) Telecom satellite constellation

#### **Explore new markets**

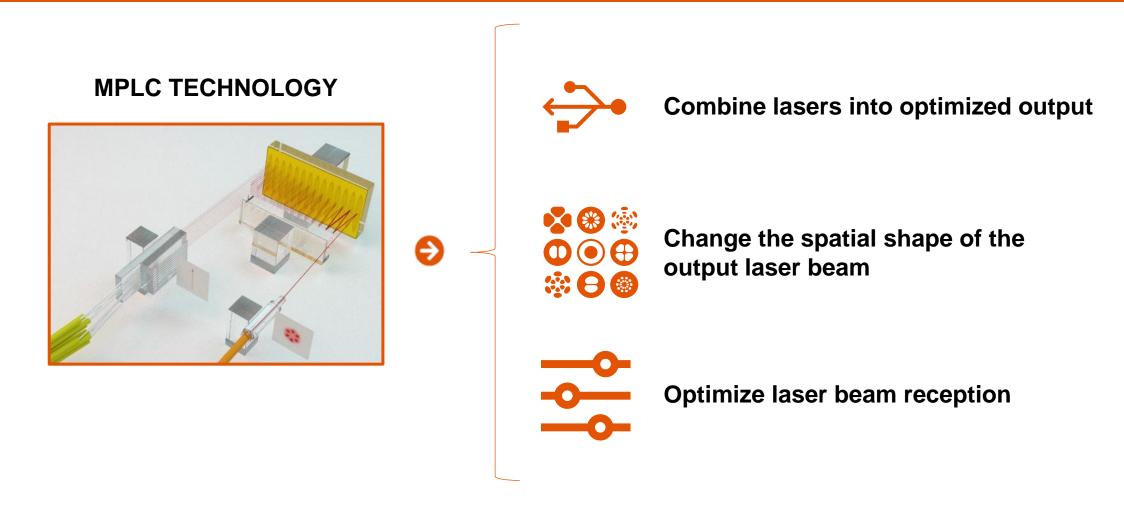
Aeronautics, sensor, microscopy, quantum





# What can be done with the Cailabs technologies? Light beam shaping at all levels.

#### cailabs



## Cailabs's benefit to Smart Optronic Detectors

#### cailabs Directional Infrared Laser 3D Lidar **Telemeter** Counter communication Measures Combination Efficient More distance More distance **DIRCM** Beam shaping Harsh **Position** More distance environnement tolerance Reception More More data rate sensitivity



Thank you for your attention!

arnaud.rigny@cailabs.com

www.cailabs.com

