



cailabs

SHAPING THE LIGHT

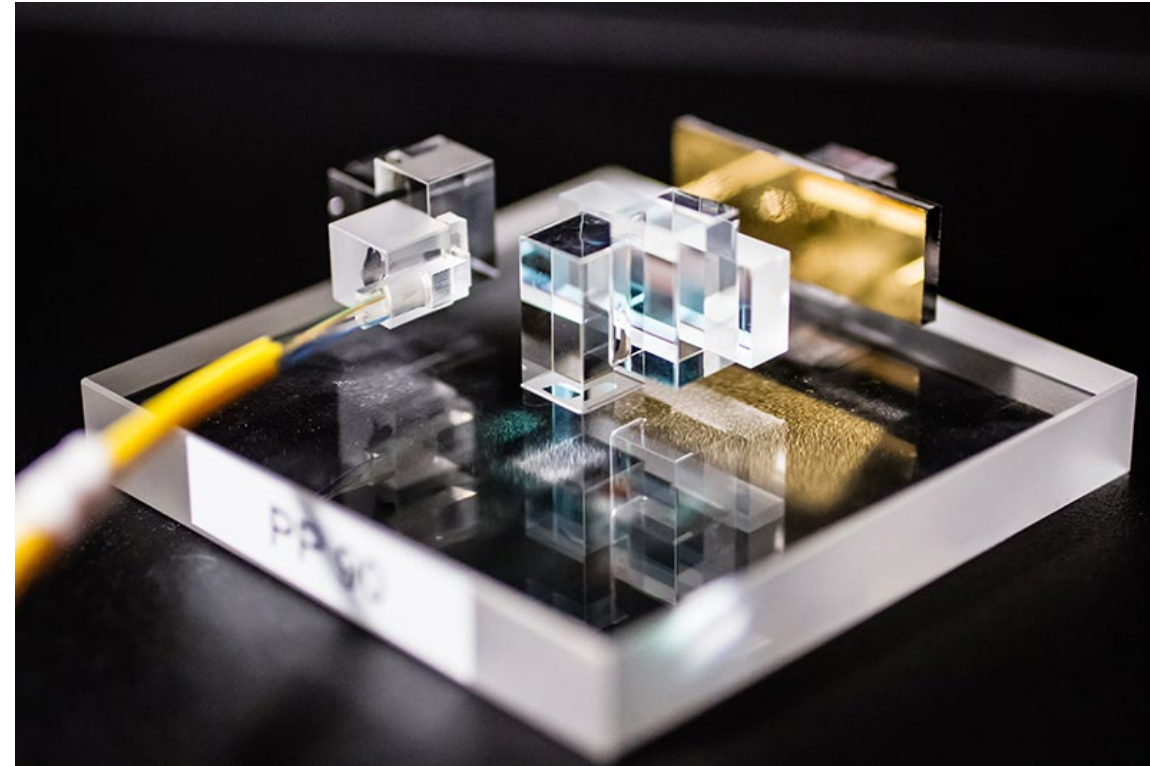
Stable, high-quality beam shaping for femtosecond lasers

EPIC online meeting

1st April 2020

Gwenn PALLIER – Product Line Manager

Gwenn@cailabs.com



A few words about Cailabs

We develop, manufacture & sell innovative optical components

cailabs



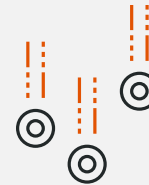
Unique technology (MPLC)
and **expertise** in beam shaping



20 +
patent families



48 + employees
(**18** PhDs)



16.6 M€
raised

Stories:

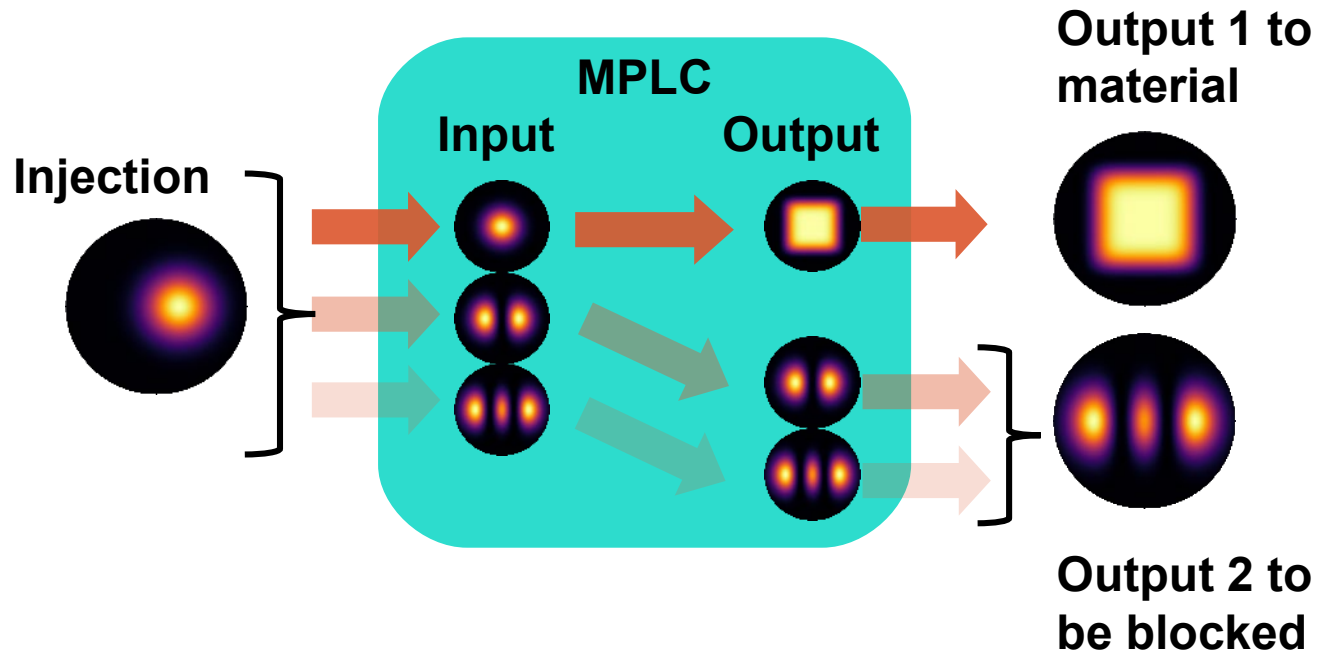


What do we do for femtosecond lasers processing?

MPLC provides high quality beam shaping and mode cleaning

2 functions implemented thanks to Cailabs' MPLC beam shaping technology:

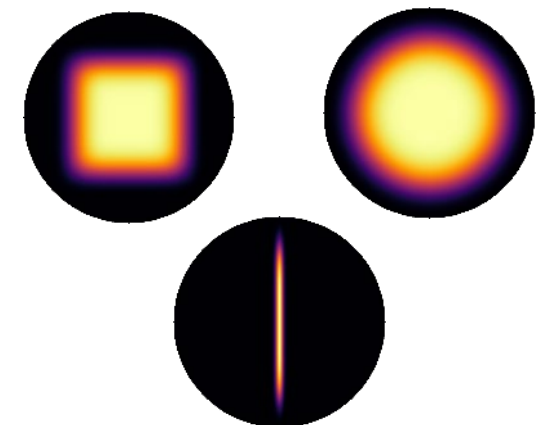
MODE CLEANING



All beam drifts and imperfections handled: tilt, shift, defocus, ellipticity, astigmatism etc.

BEAM SHAPING

- Free-form, high quality shaping
- Preserved depth of field
- Preserved pulse duration



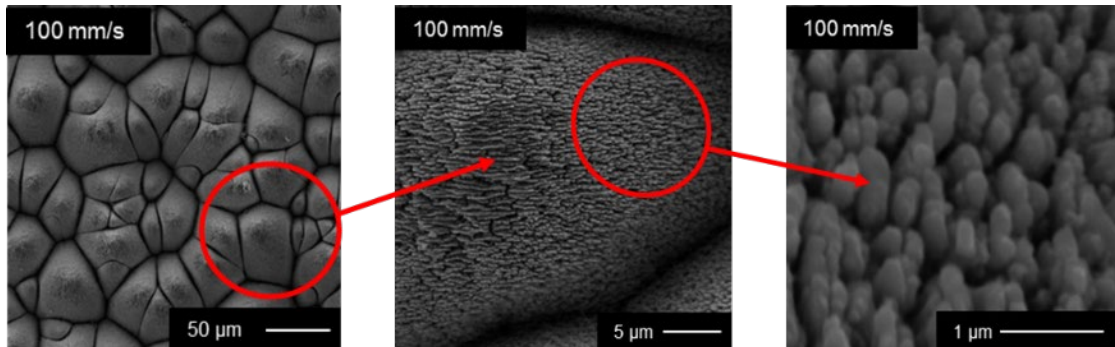
What do we offer?

CANUNDA offers yield improvement in industrial fs processes



Line shaping: **yield x5** in LIPSS generation

- Mode cleaning + line generation
- **LIPSS generation** achieved with morphology of highest quality
- **Reflectivity < 5%**



Beam splitting: **yield x9** in thin film removal

- High quality beam splitting with $\pm 2\%$ homogeneity
- No chromatic effect
- Single-pass molybdene decoating over steel



Canunda **catalog** references already available

What are we looking for?

Partners to test our new shapes & suppliers for coating



We are looking for challenges to take on:

- **End users** who need new shapes or new features
- **Partners** who want to collaborate and innovate within large projects

We are looking for partners:

- **Application labs** who wish to look for novel applications (kW !)
- **System integrators** who need to improve processes quality or yield
- **Laser manufacturers** who wish to increase laser stability

We are also looking for new suppliers for coating: handling high power and managing induced stress



Thank you for your attention!

gwenn@cailabs.com