



mirSense
laser is smart

Quantum Cascade Laser systems

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Ceo

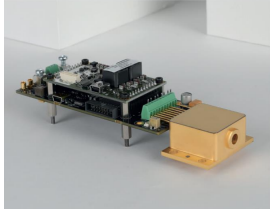
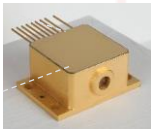
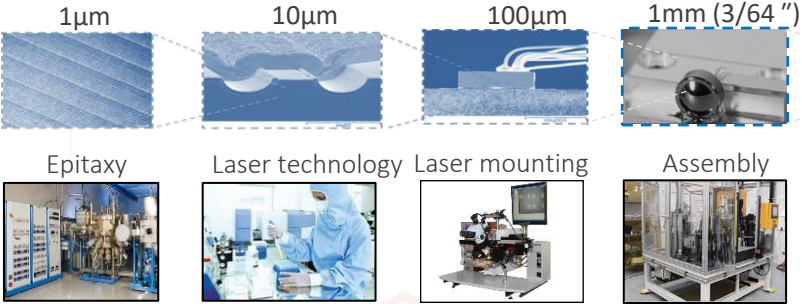
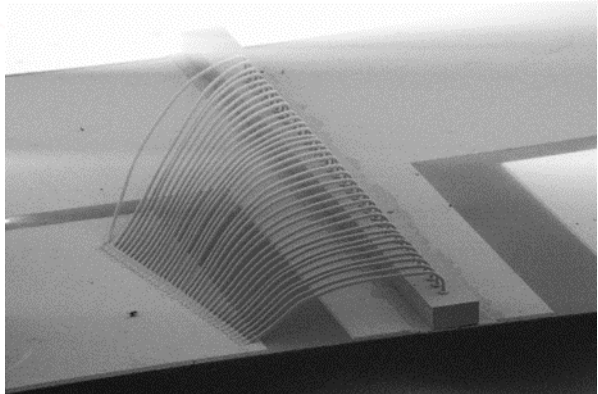


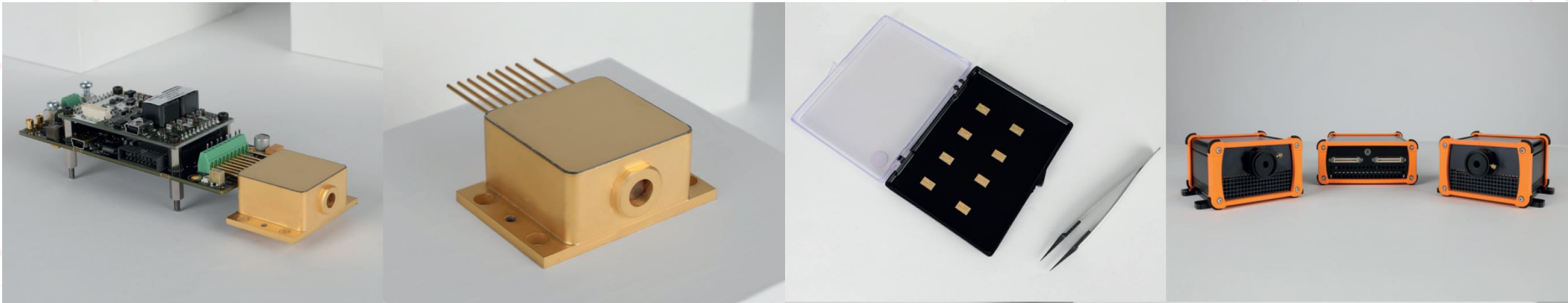
mirSense, a QCL manufacturer

- French manufacturer of Quantum Cascade Laser – based systems

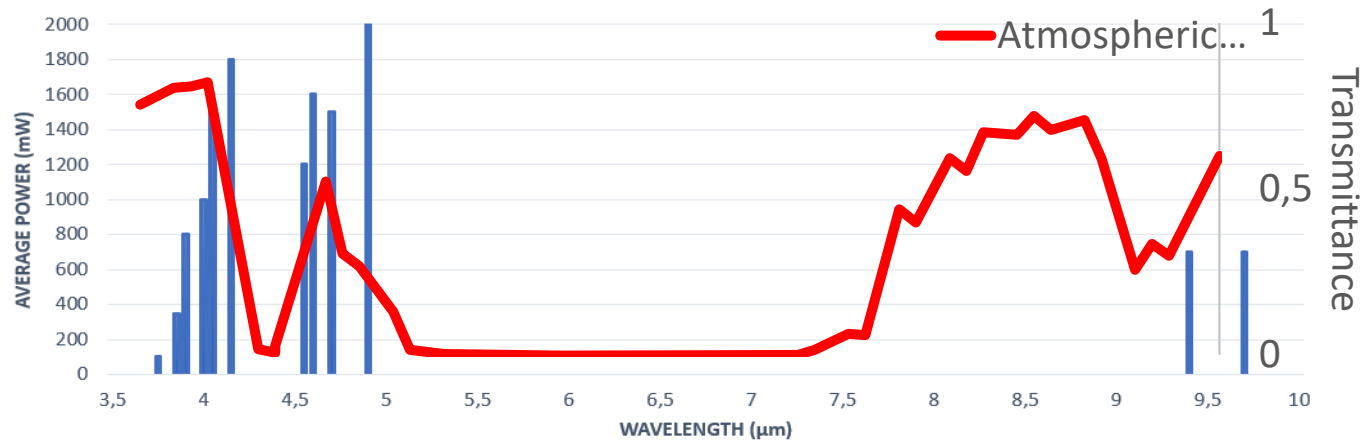
Privately owned, independent; 2mo€ raised since the founding in 2015

- Around 25 employees mostly Ph.D. s
- OEM strategy: sell key components and sub-systems to be integrated in systems
- Vertically intergrated





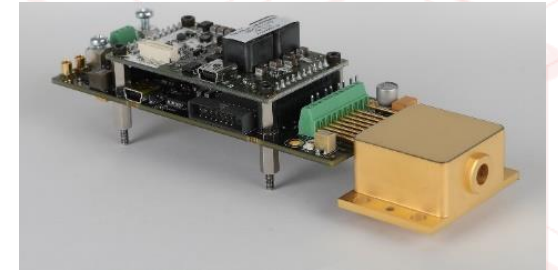
mirSense High Power QCL
POWERMIR



- SWAP sources : >10% WPE!
- Easy to electronically modulate (>GHz)
- Semiconductor technology costs
- Power few W and scalable

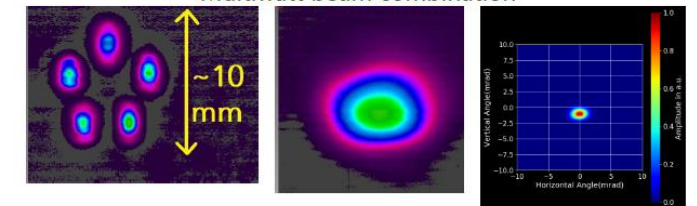
Application #1: Dircm

- Jam the detector of a missile targeting a helicopter
- Power $>1\text{W}$ @ $4\mu\text{m}$ or $4.6\mu\text{m}$ (single emitter)
- Combination schemes to generate up to 10W of combined power in the far field



Multi watt plug and play QCL system

Multiwatt beam combination



1cm from aperture

4m from aperture

Infinite distance

Application #2: Stimulate IR sensors

- Stimulate missile warning sensor to test them
- QCL lasers in 3-5 μm band and also 9-10 μm band

Application #3: Illumination in 9-10 μm band

- Illuminate a scene in 9-10 μm band
- Target an object in 9-10 μm band



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Please ask your questions

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