



The specialist in laser technologies

Corporate presentation, December 2023

MEDICAL systems



Expert in innovative medical technology benefiting health care professionals and patients



PHOTONICS



Fiber lasers & fiber amplifiers



Solid-state & dye lasers



Laser diodes, diode modules & components



Laser rangefinders for military applications

LiDAR systems



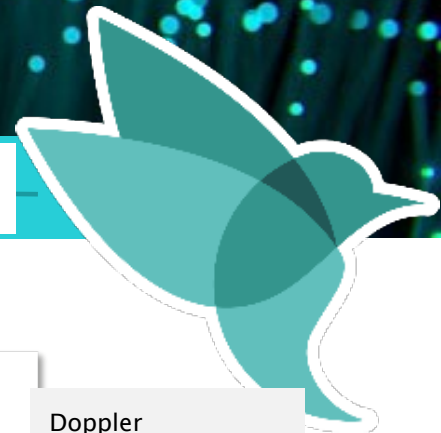
Doppler wind LiDAR systems for remote sensing



Time of Flight LiDAR for harsh environments



Photonics solutions for time-of-flight LiDAR & telemetry





1000 + employees



Worldwide

13 production & R&D sites



France (Lannion, Le Barp, Cesson-Sévigné, Cournon d'Auvergne, Talence, Villejust), **Italy** (Turin), **Slovenia** (Ljubljana), **Sweden** (Göteborg), **USA** (Bozeman, Chicopee), **Canada** (Ottawa), **Australia** (Adelaide)

191 M€ revenue



in 2022

Euronext stock exchange

Listed under the LBIRD code



Production Sites

MEDICAL



Cournon



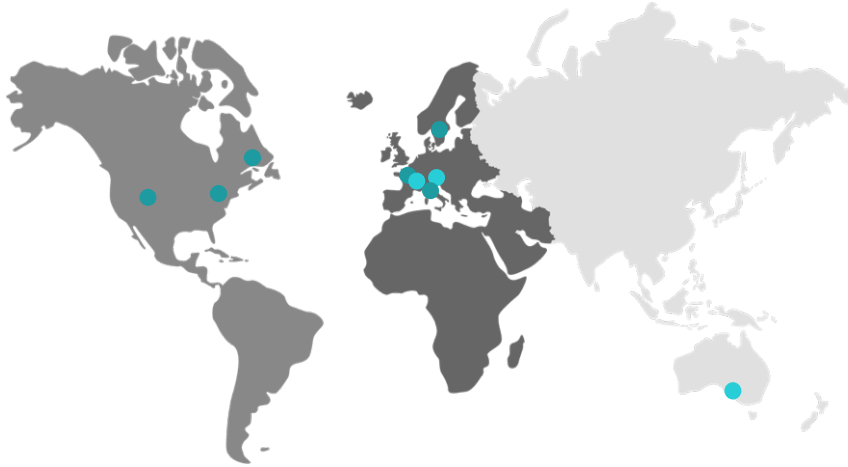
Ljubljana



Adélaïde

13

Production & R&D Sites



+2 R&D sites :
Talence (Bordeaux)
Cesson (Rennes)

PHOTONICS



Ottawa



Bozeman



Chicopee



Turin



Göteborg



Le Barp



Lannion



Villejust



R&D workforce and Investment



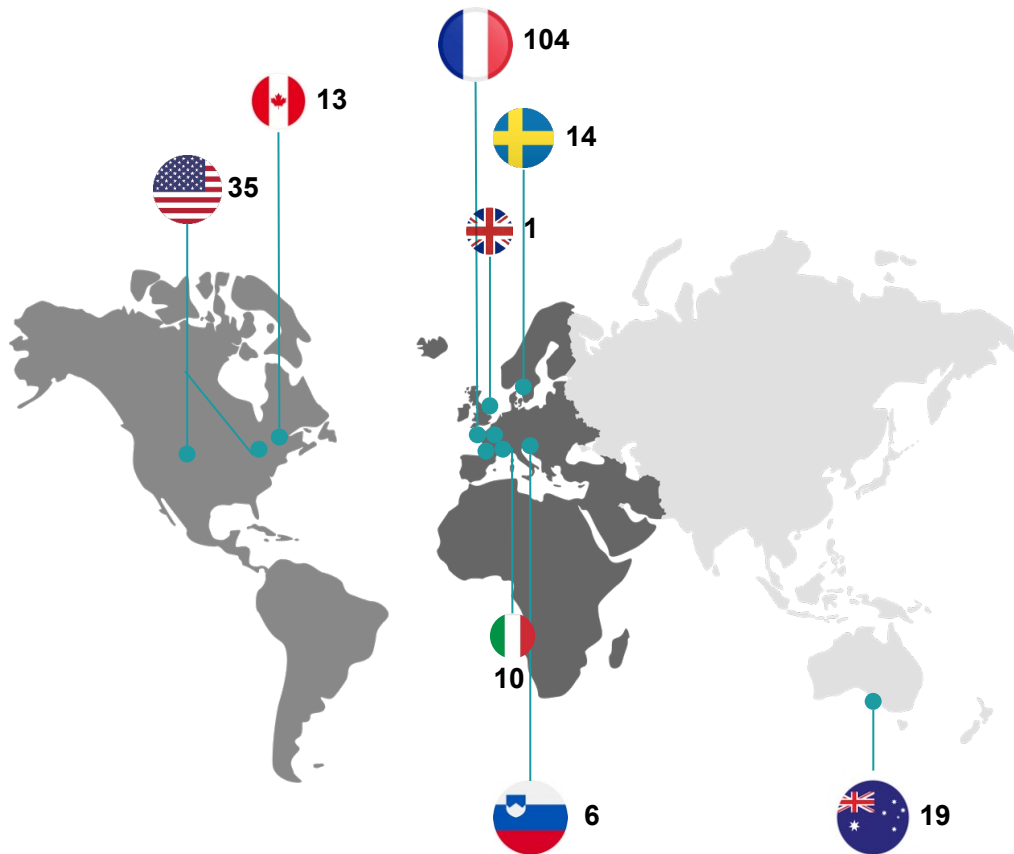
Over 200
pers.

R&D 2023

17 M€

9 % Rev 2022

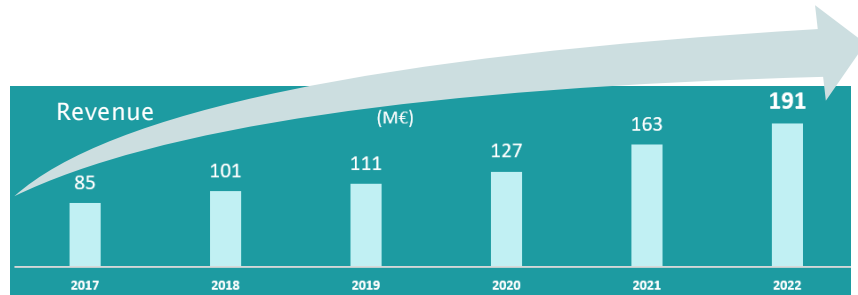
R&D spent
2022



LUMIBIRD at a glance



A fast-growing innovative company



 **EURONEXT**
Tech Leaders

Photonics

Lasers and laser systems for industrial integrators, R&D centers and universities, defense

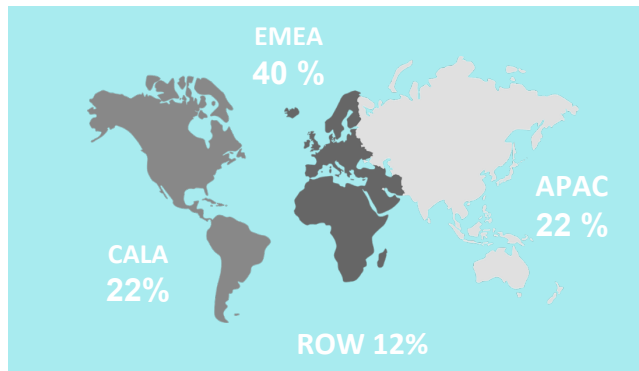
93,5 M€ +22,5 %
49% of 2022 revenue

Medical

Medical systems for professionals

97,5 M€ +13,1 %
51% of 2022 revenue

With a worldwide footprint

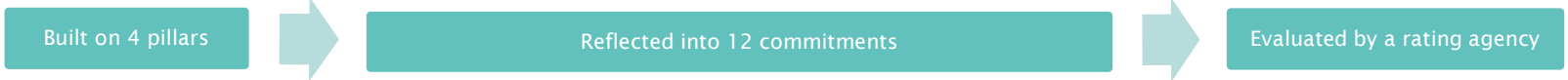


The group is present in Europe, America, Asia and Oceania through its subsidiaries and offices, and has a large network of distributors covering a total of 110 countries



Corporate Social Responsibility (CSR)

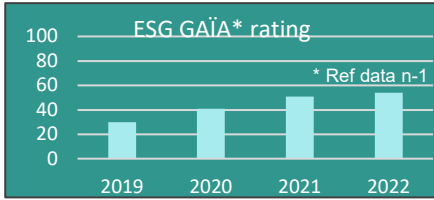
A policy at the heart of our strategy



Social	Environment
Governance	Stakeholders

Our CSR approach is based on 12 sustainable Development Goals (SDGs) set by the United Nations

- # 1: Provide all employees with occupational hygiene & safety conditions that promote their health and well-being
- # 2: Ensure that all employees have equal access to high-quality training, and promote learning opportunities
- # 3: Achieve gender equality
- # 4: Optimize the water consumption of our industrial facilities
- # 5: Use renewable energy on our various industrial and commercial sites
- # 6: Contribute to shared and sustainable economic growth
- # 7: Promote eco-design for responsible innovation
- # 8: Ensure fairness between employees in the different countries where we operate
- # 9: Develop sustainable production methods
- # 10: Reduce our greenhouse gas emissions
- # 11: Promote actions for all employees to protect the planet
- # 12: Fight all behaviors that are incompatible with our business ethics



Gaia Research is the rating agency of the Ethifinance group specialized in rating the ESG performance of small and medium-sized companies listed on the European markets

Our markets



Medical / ophthalmology



Diagnosis

Treatment

Photonics



Industrial & Scientific

Defense & Space

LiDAR sensors & instruments



Ophthalmologists



General practitioners, sport doctors...



Hospitals



Specialized distributors



Universities



Laboratories



Industrial integrators



Research centers



Defense Industrial sector



Space



Autonomous vehicles



Wind turbines



Drones



Meteorology & Airport

Verticalization strategy



Duality of sources and components

Raw materials

External suppliers

Internal supplier
Wafers - Fibre - COC

Components

CIVIL	DEFENSE

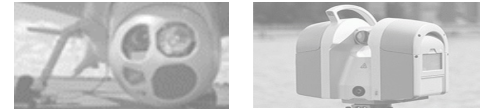
Sources

CIVIL	DEFENSE

Functional blocks

CIVIL	DEFENSE

Equipments



LIDAR



MEDICAL

External customers



LUMIBIRD MEDICAL



Global solutions in ophthalmology

Lasers



Dry eye



Brands

ELLEX
QUANTEL MEDICAL
OPTOTEK MEDICAL

Applications

Diagnosis & treatment of
- cataract
- glaucoma
- dry eye

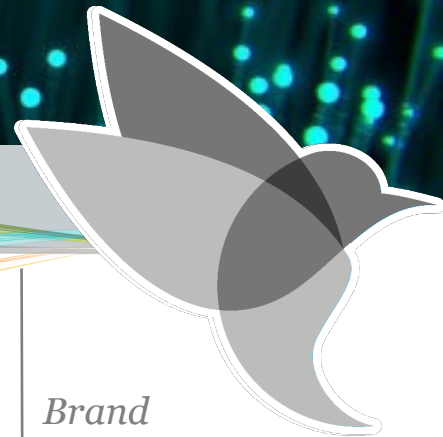
Treatment of
- diabetic retinopathy
- Aged-related Macular
Degeneration (AMD)

Ultrasound





LUMIBIRD
MEDICAL



Interventional imaging

Portable ultrasound platforms + Micro-endoscope



EvoTouch



EvoTouch +



EvoTouch +
75tarScope

Brand
QUANTEL MEDICAL

Applications

Anesthesia - intensive care

Musculoskeletal

General medicine - emergency



A Global Customer Care Organization



01

Worldwide Presence

- 6 Service Centers : France/Australia/USA/ Sweden/Japan/Poland
- Network of 130 Distributors Worldwide with over 350 Certified Trained Technicians



02

Global mission to maintain device performance

- Technical assistance to customers and distributors via voice/video/email/remote PC connection
- Monthly technical training classes to improve service scope of distributors and updates to new / existing devices



03

Regulatory and safety environment

- Performance and Safety of each device is continuously checked throughout the life of the device to ensure patient/user safety and device performance
- A Service Report is issued at every service or maintenance visit



04

Customer care and service offers

- Maintenance contracts with various customizations to maintain customers satisfaction and device performance
- Clinical training to optimize the use of the devices



PHOTONICS



Fiber lasers & fiber amplifiers

A full range of OEM, scientific & industrial fiber lasers / fiber amplifiers – CW & pulsed



CTFL-TERA-HP
(CW Thulium Fiber Laser, high power)



CYFL-TERA-HP
(CW Ytterbium Fiber Laser, high power)



Benchtop Instrumentation



PEFL-KULT
(Pulsed Erbium Fiber Laser, ultra compact)



PGFL
(Pulsed Green Fiber Laser)



PEFL-EOLA
(Pulsed Erbium Fiber Laser, long pulse)



PYFL-PICO
(Pulsed Ytterbium Fiber Laser, picosecond pulse)



CVFL-GIGA
(CW Visible Fiber Laser, GHz linewidth)



Main Applications

- LiDAR
- Wind sensing
- 3D scanning
- Automotive (ADAS & robotaxi)
- Bio & medical
- Atom cooling
- Range-finding
- Remote sensing
- Telecommunications
- Space & defense
- Material processing

PHOTONICS



Main Applications

- LiDAR
- Velocimetry
- Spectroscopy
- Photoacoustic imaging
- Ti:Sa or OPO pumping
- Semiconductor processing
- Flat panel repair
- Remote sensing
- Industrial process control
- Defense

Solid-state & dye lasers & rangefinders

Flashlamp-pumped Nd:YAG

Diode-pumped Nd:YAG & Erbium Glass



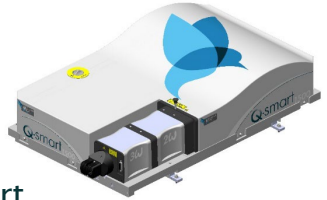
EverGreen (Double pulse)



Ultra & CFR



Q-smart



Q-scan (Dye)



Peacock (OPO)



ODIPRO (rangerfinder)



Viron



Centurion+



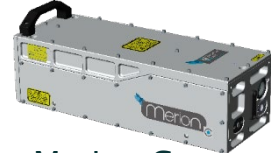
Merion MW



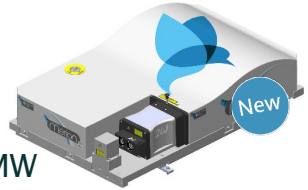
VIDAR (rangerfinder)



Shrike



Merion C



New

PHOTONICS



Laser diodes & components

ITAR free

Expertise – Reliability – Customization – Space qualification on request

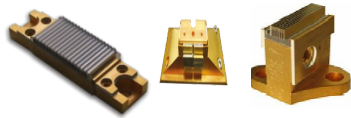


Multi-emitter laser diodes



Lyrae

QCW laser diode stacks



Small, medium & large

Components

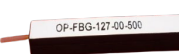


APD

Avalanche photodiode



Pump combiner

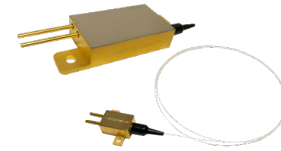


Fiber Bragg Grating

Diode modules



HF-APF
(Fiber-coupled
QCW diode stacks)



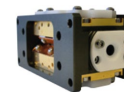
UCH (High-grade
fiber coupled
multimode diodes)



Illuminators
(Short pulses)



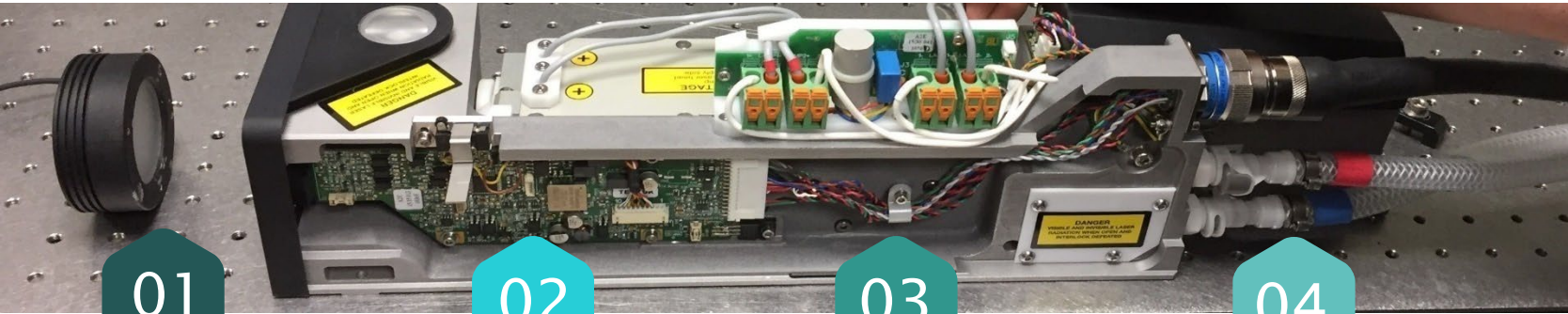
Diode pumping modules



Main Applications

- Space & defense
- DPSS laser pumping
- Fiber laser pumping
- ADAS
- Flash & 3D LiDAR
- Photoacoustic imaging
- Ultrasound generation
- Active imaging
- Medical

A Global Customer Care Organization



01

Worldwide customer support

- 6 Service Centers : France/Germany/Italy/USA/ China/ Japan
- Technical assistance by voice/video/email/internet
- Remote desktop support
- Fast response time (< 1 day)

02

Worldwide maintenance

- On site repairs
- Fast inspection and quotations (1-2 weeks)
- Short repair time (1-4 weeks)

03

Spare parts availability and quality

- Controlled and certified by engineering teams
- Shipment (consumables) < 4 days

04

Service offerings

- Maintenance contracts
- Warranty extensions
- User training (first level trouble shooting)
- Installation and assistance

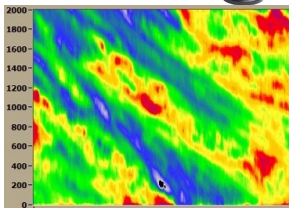
LiDAR systems



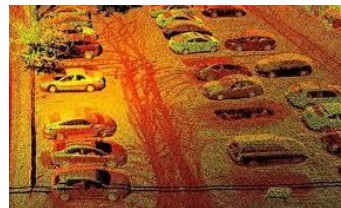
Doppler & time of flight LiDARs, laser range finders

Proven solutions for remote operations

Doppler LiDAR



Time of Flight LiDAR



Laser rangefinders



Brands:

HaloPhotonics
OPAL
SensUp

Main

Applications

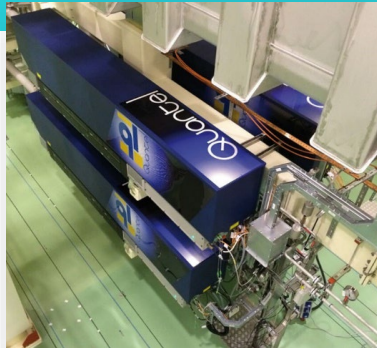
Wind energy
Climate monitoring
Meteorology
Aviation safety
Environmental safety
Defense (direct energy weapon)
3D mapping
Topography
Robotics
Autonomous systems

High-end photonics programs



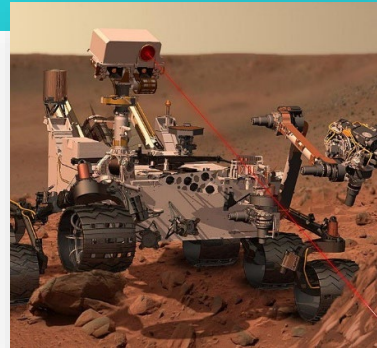
Optronics for Defense

Range-finding
(airborne, naval, land)
Designation
Obstacle warning systems



Simulation (MegaJoule Laser)

High power pre-amplifiers



Space projects

Communication
Space LiDAR



Thank you very much for your time



If you have any questions about
this document please don't
hesitate to contact us at:

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