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MEDICAL
Lighting the way in patient care™

PRESS KIT

LUMIBIRD MEDICAL

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2023

LUMIBIRD®
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EDITORIAL

"2020 was a significant year for our group. As with the rest of the world, our group and our employees have of course been dealing with the Covid-19 pandemic and its consequences.

However, for us, 2020 also saw the merger of Quantel Medical, Ellex and Optotek Medical, marking a major milestone in the history of these three renowned companies in the field of ophthalmology.

The merger created the Lumibird Medical group with the stated objective of becoming the world leader in laser and ophthalmic ultrasound solutions for the diagnosis and treatment of eye diseases.

Since 2020, Lumibird Medical has benefited from the complementary strengths of its three historical entities: product ranges, R&D resources and production capacities, as well as a strengthened clinical approach to meet the current and future needs of healthcare professionals.

Our development since the merger, punctuated by the opening of new subsidiaries, allows us to look forward with confidence to a future that I am convinced will bring us great growth opportunities."

Jean-Marc GENDRE
Chief executive officer
Lumibird Medical

MEDICAL TECHNOLOGICAL INNOVATION BENEFITING HEALTHCARE PROFESSIONALS AND PATIENTS AROUND THE WORLD

LUMIBIRD MEDICAL

ABOUT US

Lumibird Medical is the medical division of the Lumibird Group, an expert in fibre lasers, solid lasers, laser diodes, and medical equipment. Formed from the 2020 merger of three entities – Quantel Medical, Ellex and Optotek – specialising in diagnostic and treatment equipment for ophthalmology and other medical fields, our company is recognised for its commitment to innovation and stands out as a world leader in ophthalmic equipment.

Our mission is to improve the comfort of patients worldwide by optimising the standard of care with innovative diagnostic and treatment solutions dedicated to the medical sector.

OUR VALUES

To carry out this mission, we have developed a shared identity structured around four key values. These values are essential to us and guide us everyday in the work we do and the methods we use.

- **Customer satisfaction**

  Developing effective, reliable and convenient solutions to meet the needs and requirements of medical professionals and their patients.

- **Expertise and innovation**

  Mastering knowledge, techniques and environmental conditions related to our sector, monitoring and anticipating trends, and constantly reinventing ourselves by looking towards the future.

- **People-oriented culture**

  Ensuring that all stakeholders in our sector – employees, partners, suppliers, customers, and patients – are treated with respect and dignity and fostering a collaborative spirit, communication, and mutual support.

- **Appetite for challenge**

  Fuelling a desire to always go further and take up new challenges by encouraging curiosity, agility and boldness.

OUR COMMITMENTS

Placing our CSR policy at the heart of our strategy

At Lumibird Medical, we contribute to the ecological and social transition to support sustainable development through the implementation of a Corporate Social Responsibility (CSR) policy. As an integral part of our strategy, it helps us improve our operational and strategic decision-making processes.

Its objective is clear: it is to strike a balance between environmental preservation, with a virtuous social model, and the economic performance essential to the company's long-term survival.

Supporting innovation, the cornerstone of our business

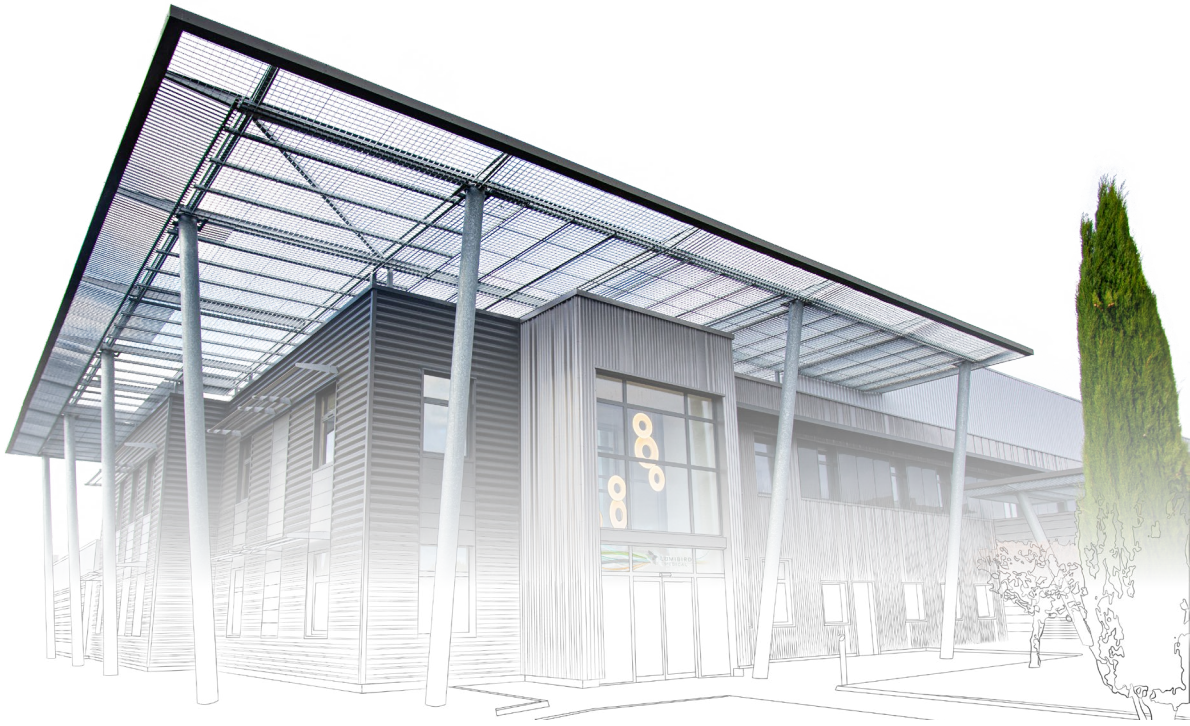
Innovation is a cornerstone of our development and is omnipresent in our operations. This crucial asset allows us to be agile when faced with changes in the sector and put forward proposals to provide healthcare professionals with ever more effective solutions.

At Lumibird Medical, innovation is driven by a team of approximately 50 people – engineers, scientists, and experienced technicians – spread out across three sites in France, Slovenia, and Australia. Within three laboratories specialising in ultrasound, optical/laser/imaging and electronic/mechanical solutions and benefiting from our software development expertise, the work of the entire R&D team focuses on two aspects:

- Technological breakthroughs whose results are highlighted in scientific articles and international journals, give rise to several patent applications per year.
- Product development, from the idea phase to the industrialisation phase, to improve the diagnosis and treatment of patients and provide phisicians with more precise, high-resolution and ergonomic equipment. Several new Lumibird Medical products are placed on the market each year, at a particularly high pace.

Ensuring compliance with the regulatory and quality requirements of the medical sector

As an international medical company, we are committed to developing and marketing products that meet stringent quality process and regulatory requirements in France and abroad. Behind the CE marking affixed to our entire collection and our ISO 13485 certification, a whole department works to guarantee the sustainability of our approach.



Headquarters in Cournon d'Auvergne, France

A WORLDWIDE REPUTATION

An international company with French DNA, Lumibird Medical innovates and extends its operations beyond mainland France to disseminate its expertise and better meet the expectations of healthcare professionals around the world. In addition to our head office in France, we have three production sites, including two abroad, eight international subsidiaries, and two representative offices in Brazil and Thailand. This global presence is supplemented by a network of distributors covering a total of 110 countries.

1
head office
in France

3
production sites:
France, Slovenia et Australia

8
subsidiaries:
USA, Poland, Sweden, Norway, Finland, India, Australia, and Japan

2
representative offices:
Brazil and Thailand

1
network of distributors
covering 110 countries

KEY FIGURES

97.5 M€
Revenue in 2022

430
Employees in the world

79 710
Devices installed worldwide

3 STRONG BRANDS

To remain attuned to the needs of our sector, we offer products sold under three brand names. All three brands are internationally recognised and specialise in diagnostic and treatment equipment for ophthalmology and other medical fields. They offer a comprehensive and tailor-made range of innovative solutions designed to revolutionise healthcare practices.

QUANTEL MEDICAL

A French brand created in 1993, Quantel Medical specialises in lasers, including retinal lasers for which it is particularly renowned, and medical ultrasound machines dedicated to the diagnosis and treatment of eye diseases.

Since 2018, it has also had a range of interventional imaging systems that meets needs in the areas of general, emergency and musculoskeletal medicine and anaesthesia/resuscitation.

ELLEX

Since 1985, the Australian brand Ellex has been developing high-tech laser platforms in the field of ophthalmology. Recognised as a benchmark on the market of anterior chamber lasers, it also owns «Reflex TechnologyTM», a light transmission system that ensures optimal illumination during treatment and a precisely positioned aiming beam.

OPTOTEK

Optotek is a Slovenian brand founded in 1990 that is dedicated to medical equipment featuring laser technology. Thanks to its ISO-certified production unit based in Ljubljana, it also offers OEM solutions on buoyant markets such as dermatology and ENT surgery.

ELLEX

1985
Creation of Laserex

1992-2012
OEM manufacturer of YAG for Alcon

1995
Ellex creates a subsidiary in United States

1999-2005
OEM manufacturer of YAG and SLT for Coherent and Lumenis

2003
Ellex creates a new subsidiary in Japan

2005
Adopted the name Ellex to signal transition to direct supply to end users

2013
Ellex creates the patented Reflex technology, a revolutionary light transmission system that guarantees optimal illumination during treatment and precise positioning of the laser beam

QUANTEL MEDICAL

1993
Quantel Group acquired Biovision and created a subsidiary becoming Quantel Medical

1999-2004
OEM manufacturer of 532nm laser cavities for Coherent

2017
Quantel and Keopsys groups merged (Lumibird Group)

2018
- Entrance into the market of general ultrasound system for point-of-care, musculoskeletal and various other medical
- launch of a range for the diagnosis and treatment of dry eye
- Quantel Medical creates a new subsidiary in Poland

OPTOTEK MEDICAL

1990
Creation of Optotek, initially dedicated to the OEM business

2000
Start of business collaboration with OEM customer Quantel and ARC Laser

2002
Start of Articulated arms production

2008
Market launch of Optotek brand products (LacriMax, OptoYag, OptoSLT, OptoYag&SLT)

2019
Quantel Medical acquired Optotek Medical

2020
2020: Creation of Lumibird Medical, medical division of Lumibird group

LUMIBIRD MEDICAL

2020 Lumibird Medical completes acquisition of Ellex

2021 Creation of a new subsidiary, Lumibird Medical Nordics (Sweden, Finland, Norway)

2022 Creation of a new subsidiary, Lumibird Medical India

OUR SPECIALITIES

In a changing medical landscape, we work alongside healthcare professionals to develop solutions that make a real difference in the areas of ophthalmology and interventional imaging.

OPHTHALMOLOGY

Our group manufactures and markets innovative solutions intended to diagnose and treat the **four main causes of blindness** – cataracts, glaucoma, age-related macular degeneration (AMD), and diabetic retinopathy – as well as **dry eye**.

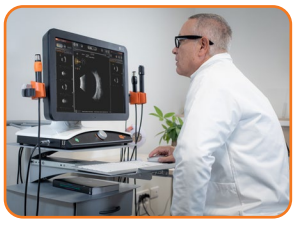
- **Diagnosis**

  Essential for the screening and prevention of eye diseases, diagnosis depends on the ability of the equipment used to recreate images of extremely complex and tiny structures. We have chosen to address this challenge by developing diagnostic devices using cutting-edge technologies. Thus, while our high-performance ultrasound machines support the diagnosis of cataracts, glaucoma and retinal diseases, our dry eye analyser offers new possibilities for the contactless diagnosis of one of the main reasons for consulting an ophthalmologist in recent years: dry eye.

- **Treatment**

  Whether it completely cures a disease, stabilises it or limits its progression to reduced vision or blindness, the goal of treating eye conditions is to improve the comfort of patients. Retinal and anterior chamber lasers drawing from the group's unique technological expertise are just some of the solutions we have developed for the optimal management of diseases such as cataracts, glaucoma, diabetic retinopathy, and even age-related macular degeneration. We also offer pulsed light as an effective treatment for dry eye.

ULTRASOUND



DIAGNOSIS

Diagnosis

LASER

Treatment

DRY EYE

Diagnosis and treatment

INTERVENTIONAL IMAGING

Used to prepare, supplement or even sometimes replace surgery, interventional imaging has become crucial in all fields of medicine. Aware of its importance, we offer a whole range of solutions to meet medical needs.

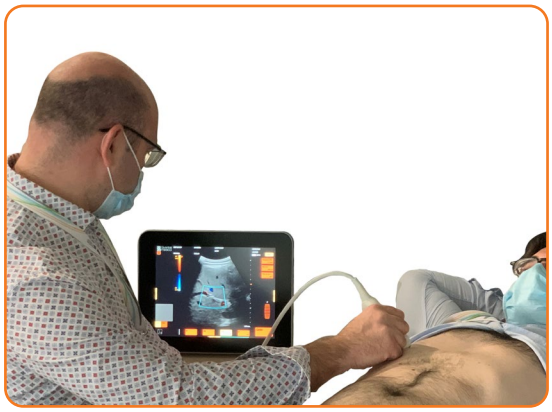
- **Ultrasound**

  Ultrasound is a non-irradiating imaging technique used to visualise the body's various organs. By tapping into technological breakthroughs allowing ultrasound machines to be miniaturised and transported close to patients, we have developed a range of compact, precise and versatile portable devices that perfectly meet the needs of healthcare professionals.

- **Microendoscopy**

  Coupling an ultrasound platform and a percutaneous micro-endoscope in a single device, the EvoTouch+7StarScope brings new functionalities to interventional imaging. With this unique device, procedures that were previously performed blind are now carried out with direct vision.

ULTRASOUND



MICROENDOSCOPY

THE SPECIALIST IN LASER TECHNOLOGIES

LUMIBIRD GROUP

PRESENTATION

With more than 50 years of experience and expertise in 3 key technologies – solid-state lasers, laser diodes and fiber lasers – the group designs, manufactures and markets high performance lasers for the scientific (laboratories and universities), industrial (manufacturing, defense, LiDAR sensors), and medical (ophthalmology).

LUMIBIRD shares are listed on the Euronext Paris B Compartment. FR0000038242 – LBIRD

Website: www.lumibird.com.

KEY FIGURES (IN 2022)

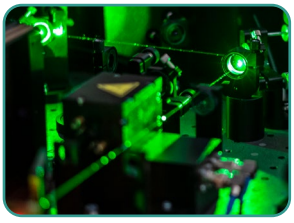
191 M€
Turnover

11
Production and R&D sites

+ 1000
Employees in the world

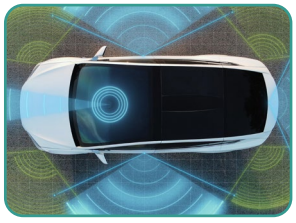
FIELDS OF APPLICATION

PHOTONICS



Industrial and scientific

Defense and Space



LiDAR sensors

MEDICAL

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RÉSEAUX SOCIAUX

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GLOSSARY

AGE-RELATED MACULAR DEGENERATION (AMD)

Age Related Macular Degeneration is a degenerative disease affecting the central part of retina called macula. The macula is responsible for sharp and central vision. The central vision: precise vision involved in reading, writing, recognition of details and of colours.

AMD is the third cause of legal blindness worldwide and the first one in industrialized countries. It affects more specifically people over 50 years old.

There are two forms of AMD, the atrophic one most commonly called the “dry form” and the exudative one also called the “wet form”. Both forms are generally progressive, not painful and develop in both eyes.

In early stages, AMD does not affect vision. Later, if the disease progresses, people experience wavy or blurred vision, and, if the condition continues to worsen, central vision may be completely lost.

ANTERIOR CHAMBER

The anterior chamber is the space between the cornea and the iris inside the eye.

CATARACT

Primary cataract is an opacification of the naturally crystalline lens that focuses the light entering the eye onto the retina. This clouding of the lens develops either in the totality of the lens, the anterior capsule, the posterior capsule or the lens nucleus.

Primary cataract often develops gradually and painlessly, so vision can be affected with-out a person realizing it. It is the first cause of legal blindness worldwide and is responsible for the loss of vision of 20 million people. It can be treated by replacing the cloudy lens with an artificial one.

Secondary cataract (opacification of the posterior capsule of the lens) may appear after a few months or years of having undergone a cataract extraction.

DIABETIC RETINOPATHY

Diabetic retinopathy is a complication of diabetes (type 1 & 2). It is a degenerative disease that affects the blood vessels present at the back of the eye: retina.

There are two forms of diabetic retinopathy: the non-proliferative and the proliferative one.

The non-proliferative one is characterized by an increase in permeability and dilatation of blood vessels, as well as by micro-aneurysms, small haemorrhages, exudates, ischaemia and macular oedema.

In the proliferative form, damaged blood vessels close off, causing the growth of new, abnormal blood vessels in the retina, and can leak into the clear, jelly-like substance that fills the center of the eye (vitreous). Macular oedema is also present in the proliferative form.

Diabetic retinopathy is the leading cause of blindness among individuals between 25 and 74 years of age in the industrialized world.

DRY EYE

Dry eye is a condition affecting the surface of the eye and involving the eyelids. It is a multifactorial disease resulting into the alteration of the tear film.

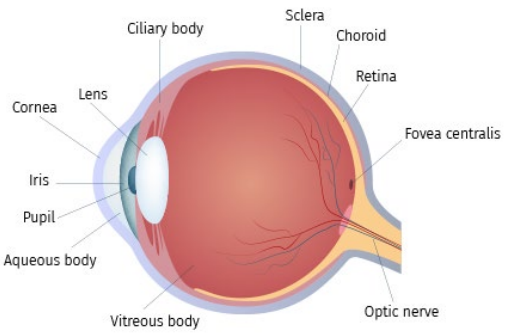
The tears are composed of three layers that are involved in the major causes of dry eye syndrom: lack of tear production, abnormal tear evaporation, imbalanced tear composition.

This disease affects all categories of population but increases with age, extensive use of screens, medica-tions, cataract and lasik surgeries, environmental condi-tions (smoke, pollution, air-conditioning...), hormonal imbalances, unsuitable diets, demodex infection, diseases which affect inflammation of the eye-lids (bleph-aritis) like rosacea, seborrheic dermatitis, psoriasis, chronic eye allergies.

More information about dry eye disease: https://mydryeyedisease.com/

EYE

The eye is the organ of sight and is often described as a darkroom fitted with a lens consisting of 2 lenses (cornea, lens) with focusing (accommodation) and a diaphragm (pupil).



Its photographic film (retina) where the image is going to be printed is digitised (signal transduction) via a cable (optic nerve) and then is interpreted by the brain.

Any abnormality in one of the components of this system may alter its functioning and be the cause of different disorders.

GLAUCOMA

Glaucoma is a group of diseases that can affect the optic nerve head and eventually lead to blindness. By destroying the fibers of the optic nerve, glaucoma will slowly deteriorate the visual field. A key warning sign of glaucoma is having a higher than normal Intraocular Pressure (IOP).

The rise of the pressure can be related to an over-production of aqueous humor (a natural fluid of the eye) and/or a lack of its evacuation. There are two major forms of this disease: open-angle glaucoma & closed-angle glaucoma. Both will result in the destruction of the optic nerve fibers leading to the deterioration of the visual field.

Glaucoma is second leading cause of blindness across the world. It affects more than 78 million people worldwide and, although it can occur at any age, it is more common in older ages.

LASER

Light Amplification by Stimulated Emission of radiation. A device used to generate a spatially and temporally coherent beam of radiation, used in the fields of weaponry, telecommunications, metrology, fundamental physics, industry, medicine, etc.

LASER: YAG

The Nd:YAG laser (neodymium-doped yttrium aluminium garnet) is a type of laser used for the treatment of secondary cataracts (capsulotomy procedure) and in some cases of glaucoma (iridotomy procedure).

LASER: SLT

SLT laser (Selective Laser Trabeculplasty) is a type of laser used to treat patients suffering from glaucoma.

OEM

An *Original Equipment Manufacturer* is a company that develops and produces products or spare parts for another company.

PULSED LIGHT

IPL technology is based on a series of pulses of light stimulating and accelerating the metabolism of the lacrimal glands. The treatment is fast and painless. It requires 3 to 4 sessions spaced between 2 weeks to 1 month.

RETINA

The retina is a thin membrane lining the back of the eye designed to receive the light impressions that deliver vision.

ULTRASOUND

Ultrasound is a non-irradiating imaging technique using ultrasound to visualise various structures of the human body, both superficial and deep, including organs, arteries, vessels, ligaments, tendons, muscles and bones.

The ultrasound examination is an in-depth, standardised, quantitative clinical examination. It can take very precise measurements and can be used to provide a detailed report, illustrated with printed images.