Company Profile

IVIS TECHNOLOGIES

Leading innovation in Customized Corneal Surgery

COMPANY OVERVIEW

iVis Technologies, together with LIGI Tecnologie Medicali, is a company of the COCAD Group, founded by Engineer Giuseppe D'Ippolito. All the companies have their headquarters in Taranto, Italy.

iVis was born in 2008 as a spin-off of LIGI to deal with the Research & Development, manufacturing and sales of the iVis-Suite, our leading platform for therapeutic and refractive corneal surgery.

In 1996, ahead of times, LIGI launched its CIPTA™ corneal surgery customisation software; after almost 20 years the majority of surgeries worldwide are still executed in standard mode.

Since then, the Company has always devoted utmost consideration to minimizing the invasiveness of refractive surgery and automating surgeries thus making them the pillars of its R&D effort. This work led to develop a safer alternative to Lasik, our customised trans-epithelial no-touch surgery cTen™, executed with the iVis Suite™ platform and also an automated phacoemulsification device to reduce intraoperative risks.

Currently, the iVis Suite™ is installed in some of the most prestigious ophthalmology hospitals and clinics worldwide.

GROUP HISTORY

LIGI Tecnologie Medicali began its extensive R&D program back in 1993.

LIGI was founded as a software house by engineer Giuseppe D'Ippolito still currently our CEO, to implement the CIPTA™ project.

LIGI recognized early the potential in small spot scanning refractive lasers and the fundamental importance of the real shape of the cornea in order to customising ablations and minimising invasiveness.

LIGI always believed that proper planning of corneal therapeutic and refractive surgery could not rely solely on refraction data, like in standard ablations or Wavefront, but needed to integrate a detailed knowledge of the shape of the cornea and pupil dynamics.

In 1996, the CIPTA™ software was launched and licensed to manufactures of excimer laser hardware.

In 2001, LIGI started a full-scope R&D program to design a complete platform.
This was to overcome the technical limitations of the hardware on the market that was not allowing to perform truly customized low-invasiveness therapeutic and refractive corneal surgery.

GROUP HISTORY

With these key concepts in mind and in collaboration with the ophthalmic clinics of prestigious universities, after 6 years of research and development the iVis Suite™ was born.

In 2006, the iVis Suite™, as a complete customized therapeutic and refractive platform, was introduced to the ophthalmic community, extending iVis business activities also outside Europe.

In 2008, iVis Technologies started operations as a spin-off of LIGI to manage R&D activities and to market and maintain all iVis products in the global markets.

In 2011, iVis added the iVerify™ function to its iVis Suite™ platform. The iVerify™ allows surgical to carry out a transparent and objective evaluation of the achieved surgical results vs. the intended surgical plan.

In 2013, the Wi-Fi Transfer was introduced in the iVis Suite™ for the complete Remote Management of the System.

PHILOSOPHY

iVis, the Innovative Free Thinkers in Corneal Surgery!

Being a small independent company always gave the freedom to pursue our scientific and ethical goals, free from the financial and corporate constrains that are often imposed on companies that are part of big multinational corporations or were acquired by multination corporations in multi-million deals.

That is why the we call ourselves the “innovative free thinker in refractive surgery!”

The Three Pillars of iVis R&D work are:

- Customisation
- Low Invasiveness
- High Automation

THE 3 PILLARS OF iVis R&D WORK

CUSTOMIZATION

The iVis Suite™ is an integrated system of devices and software which are used to customize refractive and therapeutic surgery. Each of them is optimized in a specific way based on each patient's unique and individual corneal morphology.

The iVis Suite™ can deliver ***truly customized TCS (therapeutic corneal surgery) and LVC (laser vision correction) in 100% of treatments.***

The high level of customization achieved allows the Suite, *first in the world*, to be also employed for a variety of TCS laser procedures, including corneal customized lamellar transplantation, an innovative approach to treat keratoconus and surface re-shaping to improve quality of vision. This includes patients with congenital or induced corneal irregularities - surgical complications or traumatic events - corneal injury.

THE 3 PILLARS OF iVIS R&D WORK

LOW INVASIVENESS

The iVis Suite™ minimises invasiveness of the treatments, thus the undesired surgical effects for the post-op well-being of our patients.

iVis fully-automatic customized trans-epithelial no-touch procedure cTen™ is a low invasive alternative to Lasik.

Higher order corneal visual defects are eliminated by achieving the ideal aconic shape starting from the true anterior corneal shape. This approach delivers less invasive treatments that merely removes the irregularities that cause the refractive defects.

THE 3 PILLARS OF iVis R&D WORK

HIGH AUTOMATION

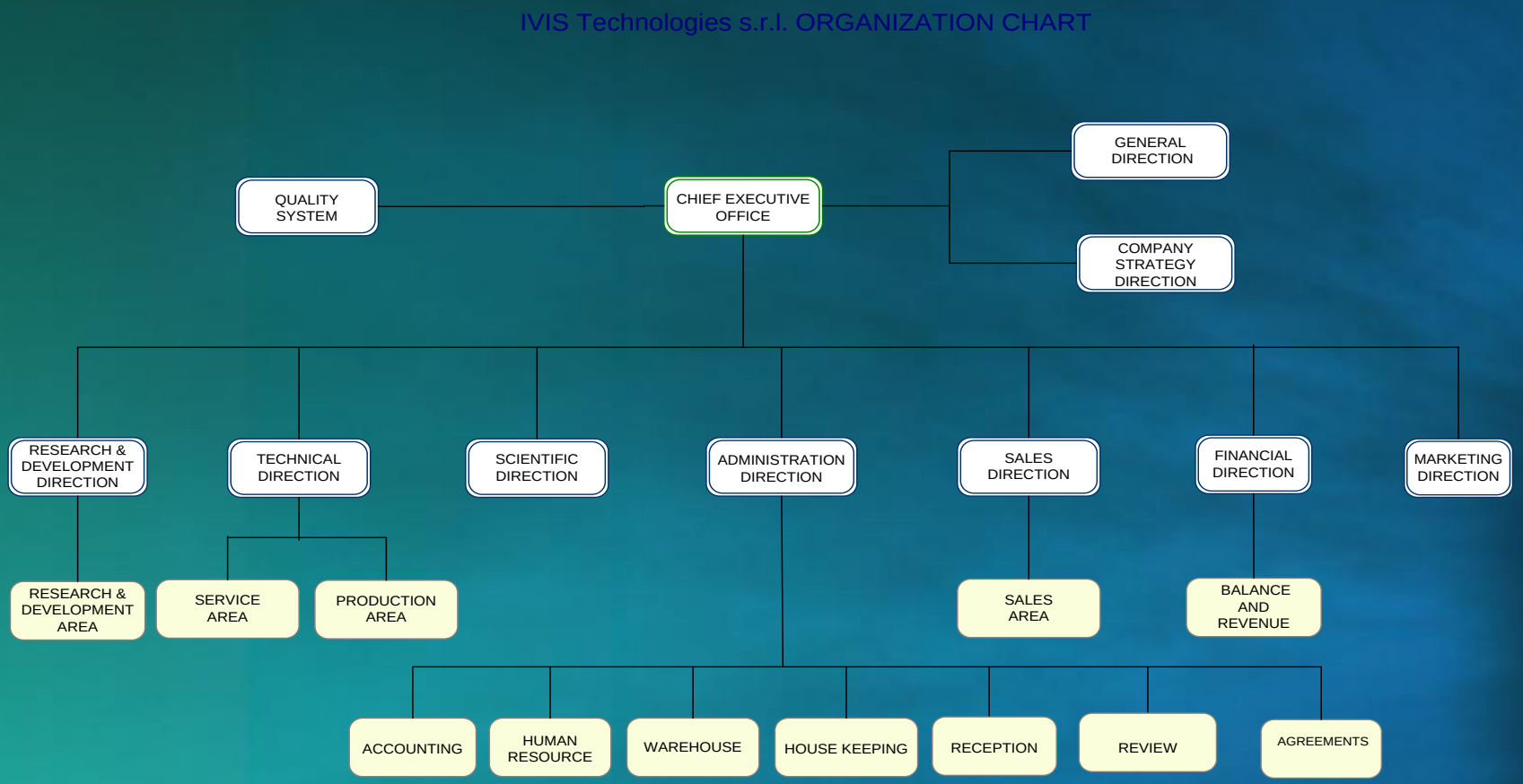
The iVis Suite™ reduces surgical intraoperative risks for our surgeons.

cTen™ is a totally automatic no-touch procedure that can reduce all intra-operative and surgeon-induced complications by avoiding all manipulation of the cornea.

Similarly, the planning of the surgery can be executed automatically, although surgeons may elect to adjust all surgical parameters manually if they so wish.

iVis TECHNOLOGIES ORGANIZATION CHART

The company, to achieve its planned R&D objectives, is structured in different areas all tightly integrated with each other and it is organized as follows:



THE iVis SUITE™

To know how to reach a destination, you have to know where you are starting from!

It seems obvious but it is not! This is also true in refractive surgery! Therefore the iVis Suite™ project led us to develop internally 2 revolutionary diagnostic devices and the fastest excimer currently on the market.

The iVis Suite is therefore a platform able to perform, thanks to the CIPTA™ and CLAT™ planning software, refractive and therapeutic procedures, included customised lamellar corneal transplant.

The iVis Suite™ delivers superior refractive results, the lowest invasiveness and allows to treat a wide array of corneal pathologies, previously considered as untreatable. Always customised!

The Suite ion its full configuration is composed of the following devices:

- **Precisio™**HD - Corneal Tomographer

- **pMetrics™** - dynamic pupillometer

- **CIPTA®** software (Corneal Interactive Programmed - Topographic Ablation)

- **CLAT®** software (Corneal Lamellar Ablation for Transplantation)

- **RoMA™** device to prepare the corneal grafts

- **iRes™** 1000Hz excimer laser

SURGERY VIDEO

THE iVis SUITE™: Precisio™

An innovative corneal topographer detecting the **real shape** of the corneal surface rather than interpreting it from curvature data.

Precisio™ offers, over competition, the following advantages:

- Repeatable and consistent readings of the same eye;
- Analysis of the anterior and posterior corneal shapes and anterior chamber depth;
- Three dimensional analysis of corneal thickness (pachymetry);
- Detection of the corneal vessels to enhance eye–tracking;
- Tandem camera detection system;
- Fully automatic data acquisition;
- High definition measurement:
- 40,000 points analysed per surface.

THE iVis SUITE™: pMetrics™

An innovative patented pupillometer, designed to define the area of the anterior surface of the cornea to be re-shaped.

pMetrics™ determines the **Ideal Pupil™ size** of the patient defined through a series of dynamic visual environments in which the respective pupil diameters are sensed and then weighted against the patient's lifestyle requirements.

pMetrics™ offers the following advantages over competitors:

- Analysis with both, concentrated and diffused light;
- Analysis with 6 calibrated lighting environments with dynamic assessment of the pupil;
- Weighting of the dynamic analysis to 6 pre-set lifestyles, defines the Ideal Pupil;

THE iVis SUITE™: CIPTA™

Corneal Interactive Programmed Topographic Ablation

CIPTA™ is a patented software launched in 1999 to deliver truly customised refractive surgery.

CIPTA™ plans c-Ten™ (Customised Trans-epithelial No-touch PRK), a surgical procedure exclusive to iVis, as well as standard PRK, LASIK and LASEK procedures.

Custom surgery is applied by reshaping and regularizing the anterior part of the cornea as opposed to “printing” an inverted lens on the cornea (as with competing systems);

Over 900,000 LVC and TCS have now been performed using CIPTA™.

THE iVis SUITE™: CLAT™

Corneal Lamellar Ablation for Transplantation

The CLAT™ software enables surgeons to make a fully “automatic” customised lamellar corneal transplantation.

The main advantages of CLAT™ are related to the unique preparation of the receiving “bed”, the corneal area shaped by the laser which receives the donor implant. Said donor implant is also prepared, in a customised way, with our iRes™ laser.

The customisation of the “bed” allows CLAT® to minimise the risk of rejection of the lamellar transplant by preserving biologically critical layers of the cornea (posterior stroma and endothelium) as opposed to current standard penetrating transplantation techniques. Furthermore it will allow to prepare a receiving bed of uniform thickness.

This procedure is exclusive to iVis.

THE iVis SUITE™: iRes™

iRES™, an excimer laser system that benefits from the following technological advances over available competing lasers:

- Industry's highest pulse rate of **1,000 Hz**. This patented system offers the shortest surgery time;
- Smallest beam spot size on the market equal to **0.6 mm** to deliver high definition customised treatments required to accurately treat corneal irregularities;
- Patented innovative **constant surgical frequency of spot delivery per mm²** of cornea. Thusly, no fan or aspiration is required;
- Improved eye tracking capabilities will use corneal vessels as references detected by Precisio™;
- **Fully automated calibration** and ablation rate verification that eliminates surgeon and technician bias, and interpretative variability;
- **The surgery is totally automated** thus reducing the risk of surgeon induced complications.

iVis CATARACT LINE - Easy™

Many efforts were also directed towards phacoemulsification with the idea to introduce new levels of safety, efficiency and user-friendliness. iVis R&D program led to the development of the patented VCM™ technology that is at the core of the EASY™ Phaco machine.

The energy management system, VCM™ (Vacuum Control Mode) that is built into EASY™, automatically and continuously releases energy as a response to the monitored vacuum level.

With EASY ™, phacoemulsification has now been brought to a new level of safety and simplicity. A full automatic **Phacoemulsifier System** having the goal to optimize the U/S emission only when U/S needs.

Fundamental features:

- an ***Artificial Intelligent system*** able to ***handle the U/S emission*** in connection with the real time vacuum level (***VCM***).
- An high speed (***1 KHz***) "***surge recognition***" that will automatically understand the real time Delta vacuum to prevent the "Surge Effect".

iVis CATARACT LINE - IOLs

ASPHERICAL OPTIMIZED IOLs

iVis IOLs, utilizing core aspheric design principles of CIPTAmax™ our custom software for refractive surgery, combines superior patented ASPHERICITY OPTIMIZED™ optics with a surgeon-friendly acrylic, single-piece lens.

Main features:

- ASPHERICITY OPTIMIZED™ experience applied to IOLs
- Minimized in-the-bag positional sensitivity
- Surgeon-friendly, one-step injection implantation
- Symmetrical bi-convex optic to minimize reflections

AWARDS

The Company has received during its life several awards that come to corroborate and nourish our business philosophy that promotes an ongoing commitment and total dedication in the field of research and innovation in corneal surgery.

The Company's desire is to ensure optimal vision and better quality of life to more and more people around the world, in line with the company's philosophy of being pioneers and innovative thinkers in corneal refractive therapy and surgery.

In 2004, CEO Giuseppe D'Ippolito was awarded the Prize "Cataldus d'Argento" by the Archbishopric of Taranto, for his activity of innovation and research in medical field. The prize is rewarded to personalities who have distinguished themselves for the progress of the town of Taranto.

In 2006 iVis Technologies was selected by MIUR, *the Ministry for Education, University and Research of Italy* and received an important Award for its innovative R&D program that lead to the development of the iVis Suite™.

In 2013, the company has been awarded by the Italian Ophthalmological Society (SOI) with its prestigious : **"2013 SOI Award for Innovation and Research ".**
This award is given by SOI to the Companies that demonstrated to be leaders in the research for innovative solutions in ophthalmology.

THANK YOU!

iVis, the Innovative Free Thinkers in Corneal Surgery!

iVis pays the utmost respect and admiration to the doctors that, in some of the most respected hospitals worldwide, continue to use its platform, contributing to its enduring development.

They demonstrated to “think out of the box” by marrying our company philosophy in the name of a better care for their patients.

Corporate Headquarter:

via Luigi Corsi, 50
74100 Taranto ITALY
T:+39 (099) 779 1680
F: +39 (099) 779 7270

General Information: info@iVistechnologies.com
Sales and Marketing: sales&marketing@iVistechnologies.com