



**Quanta System** is a 100% Italian company that brings laser technologies for surgery, aesthetic medicine and art conservation to the global market since 1985. Designed for surgeons, professional operators or art conservators, Quanta laser systems represent today the Gold Standard for a huge variety of applications.

The manufacturing process is entirely made in Italy: from the Research & Development stages to assembling, all the production phases take place in the futuristic headquarters located in Samarate (Varese province) that hosts laboratories, electro-optic factories and an advanced research centre.

Here, its 150 employees work united in the mission of bringing the Italian high quality to the world, with laser systems created according to a hi-tech craftsmanship logic that combines the respect to the maximum international standards with the flexibility of platforms that are tailor made under the surgeon's needs. All this with attention paid to design and details, typical of a handcraft production.

**Quanta System** represents a trusted partner for surgeons around the world in their everyday workflow through listening and direct confrontation. Indeed, it is with the surgeons that new systems are developed, increasingly responding to their real needs to improve their patients' care.



## Quanta System

THE ITALIAN LASER  
CARING FOR PEOPLE  
AND ARTWORKS



### El. En. Group SpA

Since 2004, Quanta System joined El. En. Group SpA (Electronic Engineering), leading high-tech industrial group all Italian and among the biggest ones for lasers in the world. El. En. Group is listed on the STAR segment of Borsa Italiana (Italian Stock Exchange) and is led by Paolo Salvadeo.

## Quanta's Laser Systems

### The applications

Quanta System is among the main manufacturer of high quality lasers in the surgical sector, providing solutions for the traditional or the endoscopic surgery, Urology (specifically for the treatment of benign prostatic hypertrophy and kidney stones), in Gastroenterology, Pneumology, Thoracic Surgery, Otorhinolaryngology, Neurology, Spine Surgery, Gynaecology, Dentistry, Urology and Proctology for the resection and vaporisation of malignancies.

The usage of laser system in surgery enables **minimally invasive treatments**, reducing as a result the percentage of complications, hospitalisation, and post surgical problems. Quanta System laser systems introduced the **dusting of kidney stones** (Dusting Effect), international Gold Standard to present date, for the first time in the world.

Quanta System laser systems are also in line with the latest trends in cosmetic medicine such as **permanent hair removal, wrinkles and scars reduction, benign dermatological lesions** (both vascular and pigmented) **removal, multicolour tattoo removal and rejuvenation treatments.**

Aiming at delivering quality and service benefits without neglecting the costs side, Quanta System, with the its multi-platform solutions, is strongly positioned to transform the aesthetic medicine market worldwide.

## DERMATOLOGY AND AESTHETIC MEDICINE

- Acne scars
- Benign vascular lesions (e.g. Rosacea, hemangioma)
- Benign pigmented lesions (e.g. sun spots/ age spots)
- Facial rejuvenation (wrinkle and age signs)
- Permanent hair removal
- Multicolour tattoo removal
- Dermatological surgery
- Stretch marks treatment
- Scars treatment

## SURGERY

- Urology and Gallstones
- Gastroenterology
- General/Thoracic Surgery
- Oncology
- Pneumology
- Otorhinolaryngology
- Prostatic Surgery
- Soft tissue Surgery
- Neurosurgery
- Gynaecology
- Bronchoscopy

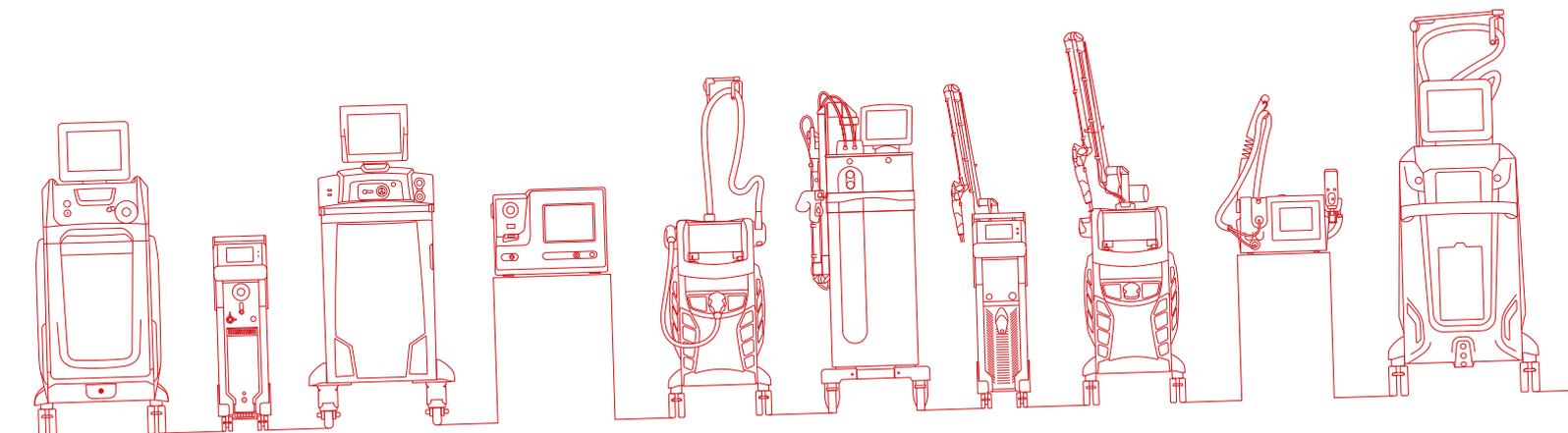
The attention to details and to the real clinical effectiveness enables operators to use laser technologies at their full potential also for restoring art masterpieces of invaluable value.

### Quanta System's figures

2017 TURNOVER	51 millions Euro, equal to +15%
EMPLOYEES	150
PRODUCTION CAPACITY	Around 200 devices per month inside its 7.000 mq factory
WORLDWIDE	Over 95% of the turnover comes from export, managed through a network of over 110 distributors around the world. The most relevant markets are North America, Asia, Middle East and Europe
RESEARCH & DEVELOPMENT	It is the company core business, with an investment equivalent to 7% of the turnover

## The history (at a glance)

- **Quanta System was established in 1985** as spin-off of CISE, one of the main research centre for lasers and optics worldwide, taking its first steps in the high energy physics, plasma physics, spectroscopy and light-material interaction
- **In the beginning, mobile systems** are designed: they were based on trucks and aircrafts for the measurement and monitoring of environmental pollution (LIDAR, DIAL and LIBS), of air and soil pollution
- **In the early Nineties**, laser systems are designed for industrial usage including marking, drilling, welding, micro-matching and cutting (also diamond cutting)
- **In 1994** the first lasers for art restoring are developed
- **In 2004** Quanta System becomes part of the El. En. Group
- **In 2006** "Q-Plus" - Ruby 694 nm and Nd:YAG 532 & 1064 nm is born as the first laser in the world for the tattoo removal and benign pigmented lesions
- **In 2007** proprietary Mixed Technology is introduced
- **In 2008** up to date surgical lasers are developed for cutting, ablation and vaporisation of tissues
- **In 2012** the most potent and fastest Thulium laser for urology (benign prostatic hypertrophy) is born
- **In 2013** Quanta overcomes the limits of ablative and non ablative fractioned laser with the first laser that combines CO2 ablative lasers with non ablative GaAs which can be used separately or together with Mixed Technology
- **In 2015** Discovery PICO is introduced, the first picosecond laser platform with the peak power of 1,8 GW- the highest in the world
- **In 2017** THUNDER MT is introduced as the fastest and most powerful laser system for hair removal and vascular lesions



## Records and achievements

Thanks to the passionate work done by the Research & Development team featuring Italian technicians with very high know how, Quanta System scored a significant track records of worldwide primacies:

- First in the world to install RAMAN laser in Antarctica for the monitoring of the ozone hole
- First in the world to introduce the green lasers TEMoo for diamond cutting
- First in the world to have synchronised an ultrashort pulse laser with the radio-frequency cavity of a particle accelerator
- First in the world to use a Holmium laser in Art Conservation (concretion removal) to clean the statues in the Vatican Gardens, within the Holy See
- First in the world to have introduced "Dusting Effect" for the kidney stones treatment (Gold Standard for the urological segment worldwide)
- First in the world to design and carry out Mixed Technology in aesthetic medicine (simultaneous combined emission of different wavelengths). Laser platforms designed by Quanta System have introduced the concept of simultaneous emission of multiple wavelengths for the first time in the world, amplifying the range of possible applications, therefore fulfilling the real necessities of doctors and patients.
- First in the world to have produced a picosecond laser, Discovery PICO with the highest peak power: 1,8 GW ca

## Partner of big institutions for research and technological innovation

The participation of Quanta System to governmental and institutional programmes such as CEE, Eureka, Brite, EU Programmes as well as collaborations with prestigious universities worldwide, guarantee a reciprocal and continuous exchange of competences at the highest levels. Quanta System's collaborations:

- **ASI** - Italian Space Agency
- **CERN** - European Organization for Nuclear Research
- **ESA** - European Space Agency
- **ENEA** - Italian National Agency for New Technologies, Energy and Sustainable Economic Development
- **FRAUNHOFER** - Heinrich Hertz Institute
- **INFN** - National Institute for Nuclear Physics
- **VATICAN MUSEUM SCIENTIFIC LABORATORIES** - Vatican City State
- **PSI** - Paul Sherrer Institute (Switzerland)
- **THE METROPOLITAN MUSEUM OF ART** - New York
- **THE J. PAUL GETTY MUSEUM** - Los Angeles

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[www.quantasystem.com](http://www.quantasystem.com)

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