



COMPANY OVERVIEW

MEDACTA IN BRIEF

Medacta is an international company specializing in the design, production, and distribution of innovative orthopaedic products, as well as in the development of the accompanying surgical techniques to improve the care and well-being of patients, with a strong focus on healthcare sustainability.

VISION

Our vision is to improve the care and well-being of orthopaedic and spine surgery patients around the world through our experience and passion. With our surgical innovations and medical education programs, we strive to enable a healthy and active lifestyle for every patient, strongly focusing on healthcare sustainability.

MISSION

Our mission is to transform the patient experience by developing advanced surgical approaches, implants, and instruments through responsible innovation. With this goal in mind, we focus on increasing our collaboration with surgeons and universities worldwide, constantly investing in medical education, innovative technologies, and personalized solutions.



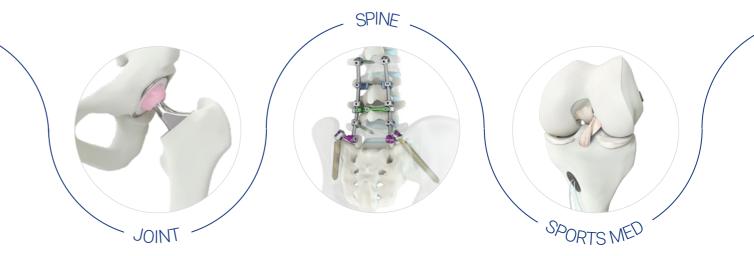
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Our ecosystem of personalized and highly technological solutions aims to bring value at every step throughout the entire treatment journey, while supporting surgeons to improve patient outcomes and maximizing value for the healthcare system.

Francesco Siccardi, Chief Executive Officer

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Medacta's innovation, forged by close collaboration with surgeon leaders globally, began with minimally invasive surgical techniques and has evolved into personalized solutions for every patient. Established in 1999 in Switzerland, Medacta is active in joint replacement, spine surgery, and sports medicine.





INNOVATION

Innovation is of paramount importance at Medacta and is expressed in the originality of our surgical techniques, products and technologies. Innovation is the foundation of all our projects and the basis of our growth strategy. Our innovation began with minimally invasive techniques and has evolved into personalized solutions for every patient.

We firmly believe in a responsible innovation, which is guaranteed by our M.O.R.E. Excellence Clinical Program, enabling us to responsibly introduce innovative products into the market.

INNOVATION PILLARS —



STRONG AND CONTINUED COLLABORATION WITH SURGEONS

Listening to surgeons, identifying patient requirements, and designing new solutions enables us to proactively respond to unmet clinical needs. We collaborate on a regular basis with internationally recognized surgeons, leading universities and hospital research institutions on innovative surgical techniques and the evolution of our products and methodologies.



RESEARCH AND DEVELOPMENT

Our R&D team is divided into three business units: Joint, Spine and Sportsmed. We have a range of research resources available in-house, including the MyBody database, 3D printing capabilities and facilities for prototype development. We have also created a long-term R&D department, which allows us to continue to evolve and innovate by defining appropriate strategic plans. To reduce infection and patient remittance rates, we have expanded our research and development focus to surface technology with the development of antibacterial treatment for our implant portfolio.



CUTTING-EDGE TECHNOLOGIES

The development of our product pipeline is further supported by our research and development of big data, cutting-edge manufacturing, smart robotics, navigation, and surface technology, which together are characterizing our new generation of product offerings. We have developed a three-dimensional advanced structure, 3D Metal, for use in our knee, hip, and shoulder implants. We are also further developing our manufacturing capabilities through the use of 3D printing, which facilitates implant fixation and increases production speed and efficiency at lower costs.

EDUCATION

Education is a key pillar for Medacta's culture and is indispensable tool for transforming innovation into concrete benefits for patients, surgeons and healthcare systems. With our M.O.R.E. Institute, the surgeon is never alone when discovering new technologies.



M.O.R.E. INSTITUTE

Since its founding in 2004, the M.O.R.E. Institute has become a global education platform tailored to the needs of the individual surgeon, with courses addressing each of our business lines. We provide our surgeons with personalized, structured and accessible education on our technologies and procedures.

MORE.MEDACTA.COM



MEDACTA TV

Medacta TV is the M.O.R.E. Institute streaming platform that provides access to thousands of hours of medical education, supporting the scientific community and assisting surgeons in continuing their work while discussing and developing ideas.

MORE.MEDACTA.TV



MEDACTA ACADEMY

Our team members have the opportunity to benefit from tailored professional development and training programs to expand their knowledge, develop their careers, and acquire management skills, focused on serving the surgeons and their patients.



MYPRACTICE DEVELOPMENT PLAN

This unique package of services was created to provide necessary support to enhance the patient's understanding and experience. Its goal is to assist surgeons in the promotion of their practice and patient education through a series of patient-oriented documents and marketing tools.

HEALTHCARE SUSTAINABILITY

Sustainability is at the heart of our vision and is supported by our innovation and medical education. Our products and surgical procedures are designed to improve the patient well-being, facilitate the work of our surgeons and increase the sustainability of the healthcare system by improving efficiency while reducing surgical costs.

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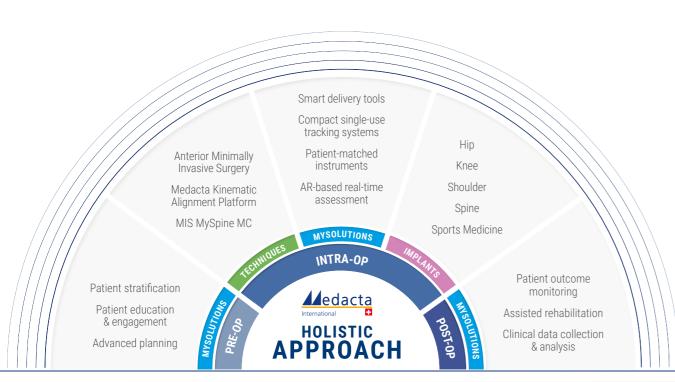
FROM MINIMALLY INVASIVE SURGERY TO PERSONALIZED MEDICINE AND BEYOND

MINIMALLY INVASIVE TECHNIQUES

Since our founding, we have recognized that minimally invasive surgery offers a range of benefits for patients, surgeons and healthcare systems, including short hospitalization, reduced postoperative pain, immediate muscle tone preservation, reduced risk of dislocation and shorter rehabilitation time. Hence, we have developed new offerings on the basis of minimally invasive techniques. For example, in 2004 we have introduced the AMIS technique for hip replacements, which - together with our range of targeted AMIS education initiatives, dedicated implants and instruments, and complementary services and tools offers a holistic approach to hip procedures and improved patient outcomes.

PERSONALIZED SOLUTIONS

The patient's well-being is at the heart of our vision and, therefore, it is of paramount importance in our activities. Considering that each patient is different and has specific needs and expectations, it is fundamental for us to improve the entire patient experience through a personalized journey. MySolutions Personalized Ecosystem enables us to offer surgeons patient-matched surgical guides, advanced planning and verification software, as well as an augmented-reality-based surgical platform that can be used for the different anatomical regions.



NEXTAR: AUGMENTED REALITY SURGICAL PLATFORM

NextAR is the first platform to offer Augmented Reality solutions for both spine and joint replacement procedures. An innovative solution that features advanced planning tools, revolutionary tracking system, and augmented reality to potentially improve surgery accuracy and efficiency, with low upfront capital investment and cost per case compared to other technologies.

Augmented reality (AR) is the core of our innovative NextAR Surgical Platform. AR is the use of displays, cameras, and sensors to overlay digital information onto the real world. In the surgical sector, augmented reality can project three-dimensional representations of the patient's anatomy and surgical plan into the surgeon's field of view and guide them to reach the target for each surgical step, helping them to improve accuracy and patient outcomes.



EMPOWER YOUR VISION



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MYSOLUTIONS PERSONALIZED ECOSYSTEM

Every patient is different. At Medacta we look beyond the ordinary, and this has led us to design an advanced network of digital solutions to improve patient outcomes and healthcare efficiency – the MySolutions Personalized Ecosystem.

In a world where technology advances very fast, MySolutions Personalized Ecosystem embodies our vision to never stop improving the experience for patients, surgeons and care facilities. This platform is constantly evolving and is based on cutting-edge technologies fine-tuned in collaboration with an international network of expert surgeons. Patient engagement, personalized 3D planning, precise execution and efficient case management are the pillars which guide us in building and improving this advanced platform.

PATIENT ENGAGEMENT

PERSONALIZED 3D PLANNING

PRECISE EXECUTION

EFFICIENT CASE MANAGEMENT

MySolutions Personalized Ecosystem is designed around the patient needs and expectations, with the aim to delivering value throughout the entire patient journey. This platform is based on patient-matched surgical guides, advanced planning and verification tools, augmented reality-based personalized execution, patient optimized pathway and clinical data collection and analysis.

PRE-OP

Engage and educate your patients, create tailored plans based on advanced 3D analysis and collaborate dynamically with medical teams.

INTRA-OP

Improve the efficiency and accuracy of surgery with 3D printed patient-matched guides and unique augmented reality real-time surgical guidance.

POST-OP

Communicate and stay connected with your patients with advanced education and monitoring tools, and record and analyze clinical outcomes.

PATIENT OPTIMIZED PATHWAY (POP)

ADVANCED PLANNING & VERIFICATION TOOLS

PATIENT-MATCHED SURGICAL GUIDES

AUGMENTED REALITY SURGICAL PLATFORM

CLINICAL DATA COLLECTION & ANALYSIS



PATIENT OPTIMIZED PATHWAY (POP)

Optimize safe and efficient communication with patients, in order to improve their satisfaction with the overall treatment experience through the POP application. An easy-to-use interactive tool designed to support patient education, preparation, rehabilitation, and monitoring, before and after surgery.



ADVANCED PLANNING AND VERIFICATION TOOLS

Design the optimal surgical strategy based on each patient's unique anatomy and biomechanics. Enhance confidence and reproducibility using semi-automated 3D planning and non-invasive intraoperative assessment of implant positioning.



PATIENT-MATCHED SURGICAL GUIDES

Improve accuracy and operating room (OR) efficiency with our award-winning 3D printed patient-matched guides based on more than 10 years of clinical evidence.



AUGMENTED REALITY SURGICAL PLATFORM

Empower your vision with NextAR, our Augmented Reality Surgical Platform. A unique real-time surgical guidance superimposed onto the operative field to enhance precision and enable data-driven decision-making. This innovative solution can increase efficiency with limited capital investment and per-case disposable cost.



CLINICAL DATA COLLECTION & ANALYSIS

Exploit meaningful insights into outcomes using MyClinical Data, our platform for data collection and analysis.

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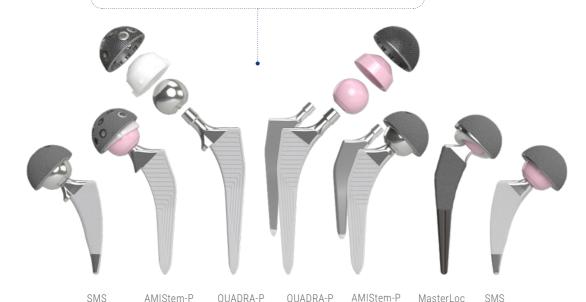
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HIP IMPLANTS

Our hip offering is based on a comprehensive product portfolio, which can be used for primary procedures as well as revision procedures and includes – among others – our P-Family and our M-Vizion Femoral Revision System.

PRIMARY

Medacta's wide ranging portfolio of femoral and acetabular products honor the clinical heritage of the industry's most prominent design concepts, while also implementing modern advances to reach highest standards of implant performance.



OUADRA-P

AMIStem-C



Collared

Collared

Collared



M-Vizion

REVISION

Medacta's revision portfolio includes multiple implant and instrument options designed to meet the high standards of today's orthopedic surgeon. Featuring both femoral and acetabular options, Medacta's products accommodate the increasing interoperative demands commonly presented today.

HIP TECHNOLOGIES





MyHip PLANNER

MYHIP PLANNER / VERIFIER

MyHip Planner and MyHip Verifier are two personalized solutions which are intended to be used in primary total hip replacement for patient-matched 3D preoperative planning and fluoroscopy based intraoperative verification. Designed to predict and minimize surgical complexity, as well as to improve overall surgical outcomes and patient satisfaction, these applications can be used as standalone tools or together, and are intended to deliver a personalized approach to THA, optimizing the surgical experience.

MyHip VERIFIER

INSTRUMENTATION

HIP TECHNIQUES

AMIS EXPERIENCE

The anterior approach is the only approach that follows both an intermuscular and internervous path, potentially reducing the risk of damage to periarticular structures, including muscles, tendons, vessels and nerves.



OFFICATED INSTRUMENTATION

AMIS BIKINI

As part of the AMIS Experience platform, surgeons can experience the AMIS Bikini as an advanced technique within our tailored and comprehensive AMIS Educational Program, taking advantage of the support of a network of world-renowned experts as well as of a dedicated set of instruments specifically designed to optimize and simplify the bikini approach procedure and facilitate the soft tissue preservation.

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KNEE IMPLANTS

We believe that our offerings in the Knee business line provide surgeons with an innovative, effective approach to partial, total, and revision knee replacement. The Knee business line is also a perfect example of our commitment to providing personalized solutions.

PARTIAL

The MOTO Partial Knee System offers multiple implant options designed to address the unique needs of patients and surgeons. Implants and instruments are designed to be soft tissue friendly and provide patients with a joint preservation option.





TOTAL

GMK Sphere is the core of the system, is an innovative Medially Stabilized Knee implant, designed to deliver maximum functional stability and improved knee kinematics with the goal of increasing TKA patient satisfaction during daily activities and potentially decreasing post-operative knee pain.

REVISION

The GMK Revision System consists of a wide range of implant solution combinations to address ligament instability and bone defects that allows the surgeon to find the best solution for each patient. Each revision option offers modular instrument and implant solutions to facilitate and deliver the flexibility to accommodate the interoperative demands even in the most challenging surgical scenarios.



KNEE TECHNOLOGIES

PATIENT-MATCHED TECHNOLOGY

Medacta's patient matched instrument platform facilitates accurate implant positioning while providing surgeons with an advanced 3D pre-operative planning tool and patient-specific surgical instrumentation for partial, total and revision knee replacement.





SINGLE USE INSTRUMENTS

GMK Efficiency is conceived to optimize logistics and instrument management, providing significant logistical and financial benefits in the O.R. and throughout the hospital supply chain.

AUGMENTED REALITY

NextAR Knee, the first FDA-cleared Augmented Reality Surgical Platform for total knee replacement, has been CE-marked in 2021. NextAR Knee allows direct tracking of the collateral ligaments and a 3D analysis of soft tissue behavior throughout the whole range of motion during surgery, bringing patient-specific ligament balancing to the next level.



KNEE TECHNIQUES

MyKA

The Kinematic Alignment Platform (MyKA) is based on the Kinematic Alignment surgical approach. Kinematic Alignment Total Knee Arthroplasty aims to personalize joint line reconstruction through anatomic resurfacing, with little to no ligament releases. Studies show the potential of KA to improve knee function and patient satisfaction.^[1,2] Medacta offers the most comprehensive platform for Kinematic Alignment. This platform includes a particularly suitable implant for Kinematic Alignment, GMK Sphere, supported by dedicated instruments and technologies and a tailored M.O.R.E. Education Program.

Bone Joint J 2014; 96-8:907–13 - [2] Lee et al. Early Outcomes of Kinematic Alignment in Primary Total Knee Arthroplasty: A Meta-Analysis of the Literature, The Journal of Arthroplasty 32 (2017) 2028-2032



SHOULDER IMPLANTS

Since the first successful surgery in December 2016, performed by Ralph Hertel, MD, in Bern (CH), we have recently announced the milestone of 10'000 Medacta Shoulder System devices implanted worldwide. This promising achievement has been reached in less than 5 years, including the responsible introduction of our innovative system ahead of its full market release, according to the plan of action of the M.O.R.E. Excellence Clinical Program.

MEDACTA SHOULDER SYSTEM

The Medacta Shoulder System is an innovative shoulder replacement system that features a broad range of options and allows the surgeon to choose the best implant for the patient. It is a modular system that offers the flexibility, if necessary, to move from a hemiarthroplasty to a total or reverse arthroplasty.





The anatomic configuration of Medacta Shoulder System provides a wide implant selection to help reproducing the native geometry of the humerus and the glenoid. The robust implant offering and the double eccentricity technology greatly assist in recreating each patient's native anatomy.



REVERSE CONFIGURATION

The reverse configuration is characterized by a semi-inlay design that reduces risks correlated with onlay platforms and overcome the limitations of previous inlay designs. Moreover, with an innovative design of the liner, the surgeon has the opportunity to adapt the system to the patient with options for reverse neck shaft angle.



SHOULDER TECHNOLOGIES

AUGMENTED REALITY

NextAR Shoulder, the first CE-marked and FDA-cleared Augmented Reality surgical application with intraoperative guidance for total shoulder replacement, enhances the preoperative implant-bone preparation with unique intraoperative orientation assessments, allowing surgeons to track real-time positioning



MYSHOULDER

Medacta's patient matched instrument platform for Shoulder Replacement includes a set of 3D printed patient-specific guides to deliver accuracy and adherence to pre-operative 3D plan. The MyShoulder is based on CT images of the patient's shoulder and dedicated humeral cutting guide and glenoid pin guides are designed and manufactured with consideration of patient morphology and surgeon preferences. The system delivers accurate and reproducible implant placement.



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SPINE IMPLANTS, TECHNOLOGIES AND TECHNIQUES

Our spine systems are designed to embrace minimally invasive techniques and open surgeries in order to treat degenerative spine diseases, deformities, trauma, and tumors. Our current range of spine products, implants and instruments complement one another, creating comprehensive platforms for most spine stabilization and fusion applications.

AUGMENTED REALITY

NextAR Spine, the first CE-marked and FDA-cleared Augmented Reality surgical application with intraoperative guidance in spine surgery, assists the surgeon in precisely locating the anatomical structures in either open, mini-open or percutaneous spine procedures for the safe placement of spine implants.



MYBALANCE

In order to provide complete solutions in spine surgical treatments, we also offer MyBalance, the newly added solution in our advanced planning platform, specifically designed to assist the surgeon through all the steps of an accurate surgery planning and evaluation of the patient's sagittal balance, to provide personalized treatment.



MIS DEGENERATIVE



MectaLIF Anterior



MectaLIF System



M.U.S.T. LT



M.U.S.T. SI



M.U.S.T. MC



MySpine MC

MEDTECH SREAKTHROUGH AMARDS

MYSPINE MC

MySpine MC is a 3D printed patientmatched solution in the midline cortical approach. Posterior lumbar fusion is performed in a minimally invasive, muscle sparing way, allowing for shorter operating times and a substantial reduction of both radiation exposure and costs.

CERVICAL



M.U.S.T. Mini



Mecta-C Stand Alone



Mecta-C System

DEFORMITY



M.U.S.T.



MySpine S2AI



MySpine

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SPORTSMED IMPLANTS, TECHNOLOGIES AND TECHNIQUES

Our Sportsmed business line, started in 2016, aims to provide minimally invasive procedures in order to allow patients to quickly return to their daily activities. Our engineers collaborate with an international team of expert surgeons to create specific and innovative products for the treatment of ligament, tendon and muscular injuries of the knee, hip and shoulder. In 2021, we obtained multiple worldwide registrations and further expanded our indications in arthroscopic knee, shoulder, and hip surgery.

SHOULDER



HIP



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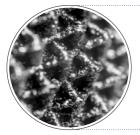
ADVANCED MATERIALS

Innovation and ongoing advances in materials can help improve the performance of medical devices, providing patients with a better quality of life by restoring mobility and reducing pain, thereby enabling them to return more quickly to an active lifestyle.



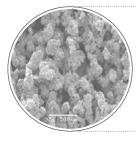
SENSITIN

Materials commonly used in orthopaedics consist of metal alloys which can release metal ions.^[3,4] Metal ions might elicit hypersensitivity reactions and expose the patient to inflammatory states which might lead to implant removal and revision surgery. [3, 5, 6] SensiTiN, a ceramic-like coating of titanium nitride, acts as a barrier against the potential release of metal ions, reducing the risk of hypersensitive reactions, as opposed to uncoated implants.



3D METAL

3D Metal is an engineered biomaterial structure made of Titanium alloy, obtained by means of 3D printing technology, an innovative one-step layer-by layer additive manufacturing process featuring maximized initial stability, structural and functional connection with bone and unparalleled versatility.



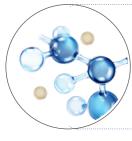
MECTAGRIP

Mectagrip is Medacta's plasma sprayed titanium coating designed to enhance initial stability due to its high coefficient of friction and potential long-term fixation inherent to titanium plasma sprayed devices. Plasma spray coating is one of the most clinically proven surfaces to achieve sound fixation in cementless total hip arthroplasty. Since its introduction in the 1980s, it has become one of the gold standards in cementless fixation.



TI-PEEK

Medacta's Titanium Coated Peek cages (Ti-PEEK) represent the next generation of plasma sprayed Ti-Coated interbody fusion device designed for optimal surgical practice. Ti-PEEK incorporates the advantages of both PEEK polymer and Titanium ensuring Improved Biomechanical Spine support, biocompatibility, and a clear fusion assessment.



E-CROSS

E-CROSS is highly crosslinked UHMWPE blended with Vitamin E, a powerful antioxidant that stabilizes free radicals and improves oxidation resistance. [7,8] E-CROSS specific blend allows for an excellent performance in terms of wear and oxidation resistance without compromising the mechanical properties.[9]

[3] Hallab N. et al., «Metal Sensitivity in Patients with Orthopaedic Implants», The Journal of Bone and Joint Surgery, vol. 83A, n. 3, pp. 428-436, 2001. [4] Eftekhary N. et al., «Metal Hypersensitivity in Total Joint Arthroplasty», JBJS Reviews, vol. 6, n. 12, p. e1, 2018. [5] Haddad S. F. et al., «Exploring the Incidence, Implications and Relevance of Metal Allergy to Orthopaedic Surgeons», Journal of the American Academy of Orthopaedic Surgeons, vol. 3, n. 4, p. e023, 2019. [6] Malikian R. et al., «Four Station Knee Simulator Wear Testing Comparing Titanium Niobium Nitride with Cobalt Chrome», J Bioengineer & Biomedical Science, vol. 3, n. 3, 2013. [7] Malito L. G. et al., «Material properties of ultrahigh molecular weight polyethylene; Comparison of tension, compression, nanomechanics and microstructure across clinical formulations». Journal of the Mechanical Behavior of Biomedical Materials, pp. 9-19, 2018. [8] Bracco P. et al., «Stabilisation of ultra-high molecular weight polyethylene with Vitamin E», Polymer Degradation and Stability 92, pp. 2155-2162, 2007. [9] Haider H. et al., «Does Vitamin E–Stabilized Ultrahigh-Molecular Weight Polyethylene erns of Cross-Linked Polyethylene in Total Knee Arthroplasty?», The Journal of Arthroplasty, vol. 27, n. 3, pp. 461-469, 2012

RESPONSIBLE INNOVATION

The M.O.R.E. Excellence Clinical Program enables us to responsibly introduce innovative products into the marketplace by defining the steps and milestones applicable to Medacta products ahead of their full release, following the receipt of initial regulatory approvals (e.g., receipt of the CE mark in Europe). Within this program, we typically



release new products on a restricted basis to conduct voluntary clinical programs in order to further document their efficacy. Driven by an internal risk analysis, the duration and scope of each of our clinical programs can vary depending on several factors, including the degree of innovation behind the relevant product, the specific indications of the device and the possible adverse events described in scientific literature. To the fullest extent possible, our clinical programs follow the guidelines recommended by independent organizations, such as the Orthopedic Data Evaluation Panel or the Beyond Compliance Program.

Following the full market release of our products, we continuously monitor and assess the performance of our implants by way of our post-market surveillance program, which channels all data to a dedicated group of internal experts. These experts, in consultation with other internal or external experts and resources (as needed), assess the data and issue a specific report with a comprehensive analysis to ensure the system performance is fully understood and the risks carefully evaluated. Furthermore, we sponsor, support and participate in clinical post-market studies conducted by leading international experts to continuously improve our foundation of knowledge.





CORPORATE RESPONSIBILITY

#BEMEDACTA, OUR VALUES

We firmly believe that Medacta's culture is a key for sustainable success, actively contributing to our growth. We want to ensure that all of our employees understand and demonstrate our culture and values, to successfully build and sustain our continuous improvement.

#beMedacta

MEDACTA CULTURE: A KEY FOR SUSTAINABLE SUCCESS

INTEGRITY

We do all our business in an honorable manner, knowing that there is no right way to do the wrong thing 99

TRUST AND ACCOUNTABILITY



We believe in people, aware that they are the engine of our success

We work to exceed our goals 99

RESULTS TEAM WORK ORIENTATION



Great things in business are never done by one person 99



LOYALTY

We are proud to be part of Medacta 99

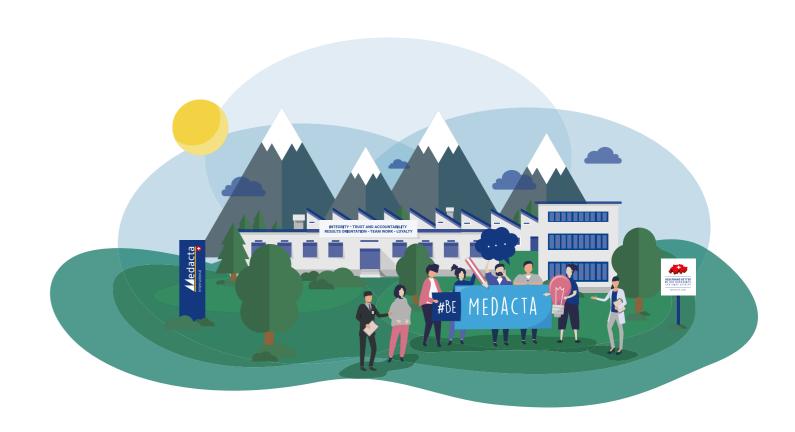
We believe it is of the upmost importance that these values are kept alive and, above all, transferred to all the people who have entered and will enter our company in the years to come.

Our values and their evaluation are integrated in our talent acquisition process, as well as our on boarding activities and within our performance and talent management processes.



CARING FOR PEOPLE

We recognise our most valuable assets to continue our success are our People. We strive to constantly support the work-life management and professional development of our employees, by providing a range of benefits, support and resources enabling them to reach their potential and grow with us.



CARING FOR THE ENVIRONMENT

We pay great attention to the environmental impact of our activities. In accordance with our Quality Management System, from raw material supply to the efficient use of resources across all stages of the production and delivery of finished goods to the market, we are fully committed to continuously reduce our environmental impact.

CARING FOR THE COMMUNITY

The passion for our work is not limited to the well-being of our patients, but we would like to extend our contribution to all parties with whom we work. For this reason, in 2011 the Medacta for Life Foundation was founded to coordinate our many and varied programs and projects of social utility at local, national, and worldwide levels.

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