Medacta International

MANAGEMENT REPORT

INDEX

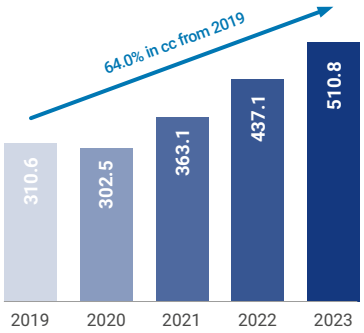
2023 KEY FIGURES

FINANCIAL FIGURES

REVENUES

EUR 510.8M

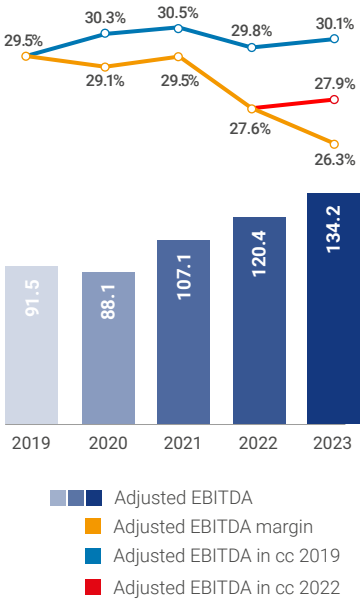
16.9% growth at reported currency (19.5% cc[1])
64.0% growth in constant currency from 2019



ADJUSTED EBITDA[2]

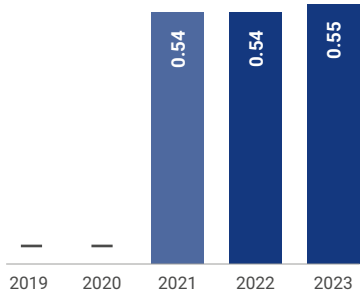
EUR 134.2M

26.3% Adjusted EBITDA margin[3]
(27.9% Adjusted EBITDA margin in cc 2022)



DISTRIBUTION DECLARED PER SHARE[4]

CHF 0.55



[1] Is calculated as the difference between the current and historical period results translated using the previous period exchange rates.

[2] Is calculated as EBITDA, adjusted for non-recurring items: extraordinary legal and MDR expenses.

[3] Adjusted EBITDA margin, is calculated as adjusted EBITDA as a percentage of Revenue for the period.

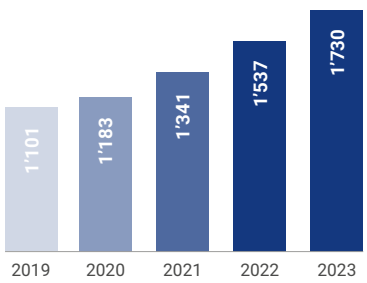
[4] Is calculated by dividing the total distribution declared equal to CHF 11.0M by the number of outstanding ordinary shares issued.

BUSINESS FIGURES

EMPLOYEES

1'730

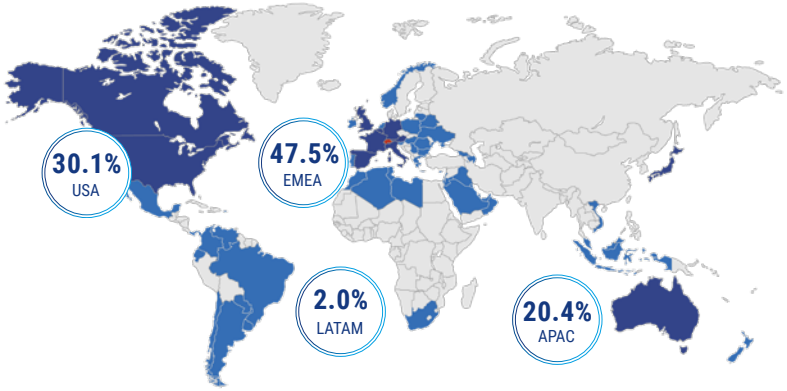
193 new jobs added in 2023



COUNTRY PRESENCE

56

3 countries added in 2023



2023 HIGHLIGHTS*

- Medacta's 2023 revenue amounts to Euro 510.8 million, equal to 19.5% growth at constant currency, or 16.9% growth at reported currency from 2022;
- Adjusted EBITDA grew to Euro 134.2 million (from Euro 120.4 million in 2022), corresponding to 26.3% margin (27.9% in constant currency);
- Profit for the year was equal to Euro 47.4 million, 9.3% on revenue;
- Adjusted Free Cash Flow at Euro 6.7 million;
- The Board of Directors is proposing a distribution of CHF 0.55 per share (CHF 0.54 in 2022);
- Outlook FY 2024: We are targeting revenue growth at constant currency in the range of 13% to 15%, and Adjusted EBITDA Margin at constant currency improving around 50 bps from 2023 reported, subject to any unforeseen events.

REPORTED PERFORMANCE MEASURES

(Million Euro)	**31.12.2023**	31.12.2022
Revenues	510.8	437.1
Gross Profit	347.8	305.3
Profit for the year	47.4	46.2
Distribution proposal to the AGM (in million CHF)	11.0	10.8

Alternative Performance Measures:		
EBITDA	132.9	113.0
Adjusted EBITDA*	134.2	120.4
Adjusted EBITDA margin*	26.3%	27.6%
Free Cash Flow	(5.5)	8.4
Adjusted Free Cash Flow**	6.7	21.6

(Million Euro)		
Total Assets	695.9	584.5
Total Equity	330.0	274.7
Equity Ratio	47.4%	47.0%
Number of employees	1'730	1'537

* Adjusted in 2023 for extraordinary legal expenses (Euro 0.5 million) and MDR transition costs (Euro 0.8 million). The reconciliation is provided in the "Alternative Performance Measures" section of this Report.

** Adjusted in 2023 for extraordinary legal expenses (Euro 0.5 million), for the settlement of legal claims (Euro 1.8 million), MDR transition costs (Euro 0.8 million), non-recurring investments for Corporate land acquisition and plant expansion (Euro 6.3 million) and international advances and deposits for future logistic expansion (Euro 2.7 million). Please see the "Alternative Performance Measures" section of this Report for the reconciliation of the "Adjusted Free Cash Flow".

* **Alternative Performance Measures:** This section and other sections of this Annual Report, contain certain financial measures of historical performance that are not defined or specified by IFRS, such as "constant currency", "EBITDA", "Adjusted EBITDA" or "CORE EBITDA", "Adjusted and Normalized EBITDA", "Free Cash Flow", "Adjusted Free Cash Flow", "Adjusted and Normalized Free Cash Flow", "Net Debt" and "Leverage". Reconciliation of these measures as well as "CORE" financial measures is provided in the "Alternative Performance Measures" (APM) section of this Annual Report. These Alternative Performance Measures (APM) should be regarded as complementary information to, and not as a substitute for the IFRS performance measures. For definitions of APM, together with reconciliations to the most directly reconcilable IFRS line items, please refer section headed "Alternative Performance Measures" of this Annual report.

SHARE INFORMATION

The registered shares of Medacta Group SA are traded on the International Reporting Standard of SIX Swiss Exchange and are part of the Swiss Performance Index.

NUMBER OF SHARES

Share capital (in CHF)	2'000'000
Number of registered shares outstanding *as of December 31, 2023*	19'927'500
Nominal value per registered share (in CHF)	0.10
Number of treasury shares *as of December 31, 2023*	72'500

2023 DATA PER SHARE

(Swiss Francs)	**31.12.2023**
2023 High (in CHF)	131.40
2023 Low (in CHF)	95.40
Closing price (in CHF)	125.60
Market capitalization (in CHF billion)	2.5

2023 RELATIVE SHARE PRICE DEVELOPMENT

Index base 100 calculation

Source: Refinitiv

LETTER TO SHAREHOLDERS

Dear Shareholders,

2023 marked an extraordinary year for Medacta, culminating in a remarkable growth of 19.5% in constant currency, exceeding the milestone of EUR 500 million. This achievement reflects our unwavering dedication to responsible and sustainable innovation, particularly through our advancements in minimally invasive techniques and personalized solutions. These innovations along with medical education are fundamental assets to our strategy and have significantly contributed to our market share expansion. Our success in navigating the year was further supported by our proactive adaptation of our supply chain, ensuring resilience and continuity in our operations. This performance once again proves the effectiveness of our strategy in achieving remarkable gains in market share and bolsters confidence in our ability to execute our long-term value creation strategy.

OUR ACHIEVEMENTS

We remain dedicated to improving patient outcomes through innovative minimal invasive techniques and personalized solutions, maintaining at the same time a strong focus on healthcare sustainability. In October 2023, Medacta announced the launch of GMK SpheriKA, marking a pioneering development as the world's first knee implant optimized for Kinematic Alignment (KA). GMK SpheriKA further reinforces Medacta's commitment to providing surgeons with personalized solutions for each of their patients. By working together with a remarkable team of globally renowned orthopedic surgeons, we have introduced a product that builds upon our clinically proven GMK Sphere and incorporates the fundamentals of Kinematic Alignment to ensure that each patient receives an implant that can accommodate their unique pre arthritic anatomy.

Within our MySolutions Personalized Ecosystem, the NextAR Augmented Reality Surgical Platform continues to be validated by research demonstrating the accuracy of our technology. A 2023 study titled "Glenoid Component Placement in Reverse Shoulder Arthroplasty Assisted with Augmented Reality Through a Head-mounted Display Leads to Low Deviation Between Planned and Post-operative Parameters" published in the Journal of Shoulder and Elbow Surgery, affirms the high accuracy of the NextAR Shoulder system. This system offers precise intraoperative guidance for the placement of the glenoid component. Furthermore, a study "Evaluating a Cutting-edge Augmented Reality Supported Navigation System for Spinal Instrumentation" underscores the efficiency, accuracy, and adaptability of the NextAR Spine system. Those studies prove that Personalised Medicine can be accurately achieved with NextAR Platform, a solution requiring a fraction of the investments and cost per case compared to other technologies in the market.

In November 2023, we announced the commencement of a new facility expansion in Rancate, supplementing the ongoing construction in Castel San Pietro. This expansion is aimed at supporting future growth and increasing in-house production to satisfy the growing demand for Medacta products. Over the next three years, the Rancate site will be expanded by approximately 9'500 square meters, while the Castel San Pietro facility will see its production area increase by about 5'300 square meters, becoming operational in the first half of 2024. This development is expected to create numerous new jobs, effectively doubling Medacta's production capacity across these two technological hubs, supporting Medacta's future needs.

Management made strategic investments in strengthening our supply chain, enhancing our logistics and distribution framework to guarantee more efficient worldwide product delivery. In March 2023, we inaugurated a new distribution center in Memphis, Tennessee, named Medacta Americas Operations, dedicated to serving the US market.

Throughout 2023, Medacta bolstered its operational and sales teams across various regions and business segments, adding 193 new roles to accommodate our expansion and ongoing market penetration.

OUTSTANDING GROWTH IN ALL REGIONS AND BUSINESS LINES*

In 2023 Medacta's revenue saw a remarkable increase of 19.5% in constant currency and 16.9% in reported currency from the previous year, reaching EUR 510.8 million. This significant growth was uniformly driven by positive performance across all business sectors and regions, attributed largely to the acquisition of new customers worldwide. In addition to our commercial development efforts, in 2023 we experienced some tailwind thanks to the recovery of the accumulated backlog primarily in the USA and Australia, contributing to our momentum.

Currency development had a negative impact with a headwind of 2.6%, predominantly due to the Euro strengthening against major currencies such as the US Dollar, the Japanese Yen, and the Australian Dollar. This was only slightly mitigated by the Euro's depreciation against the Swiss Franc. Since 2019, Medacta has achieved a 64.0% revenue increase in constant currency, highlighting substantial growth that surpasses a mere rebound from pre-Covid levels.

In terms of trend by business line, revenue from our Hip products rose to EUR 229.8 million, marking a 15.5% increase on a constant currency basis. This positive momentum was driven by the success of our Anterior Minimally Invasive Surgery (AMIS) approach and our Hip revision solutions. Since 2019, revenue from Hip achieved a compound annual growth rate (CAGR) of 8.8%. Revenue from our Knee offerings reached EUR 198.3 million, an increase of 23.2% on a constant currency basis; the growth was generated thanks to a solid and complete product offering based on our personalized Kinematic Alignment platform (MyKA). Since 2019, revenue from Knee offering achieved a compound annual growth rate (CAGR) of 15.4%. Our Extremities business line reported an increase in revenue of 33.8% on a constant currency basis to EUR 36.3 million; the growth was primarily attributable to Shoulder through the Medacta Shoulder System and technologies (MyShoulder and NextAR Shoulder). The Sportsmed business, which is in an early start-up phase, continued to develop its growth plan. Since 2019, revenue from Extremities offering achieved a compound annual growth rate (CAGR) of 38.9%. Revenue from our Spine offering grew by 15.2% on a constant currency basis to EUR 46.4 million, mainly driven by the good acceleration seen on NextAR Spine utilization, recently supported by a clinical study which highlights its efficiency in spine surgery. Since 2019, revenue from Spine achieved a compound annual growth rate (CAGR) of 16.4%. All the business lines benefitted from significant marketing activities and salesforce expansion.

In 2023, we strategically reorganized our key geographic areas, introducing the EMEA and LATAM regions reclassifying countries from the former Rest of the World (RoW) region**.

Overall, group performance was very positive in every market thanks to a confirmed strong growth in EMEA, North America, and APAC. In every region the growth was sustained by organically expanding our sales force and customer base together with some new product introduction.

In the EMEA region, revenue saw a remarkable increase of 22.6% on a constant currency basis, reaching EUR 242.4 million. This surge was attributed to significant customer acquisitions across all business lines.

In North America, revenue climbed to EUR 154.0 million, marking a 15.7% increase on a constant currency basis. A notable factor in this strong performance was the recovery of some patient backlog in the first half of the year.

The Asia Pacific region experienced a growth of 19.4% on a constant currency basis, amounting to EUR 104.2 million, primarily due to new customer acquisitions in Japan and Australia. In Australia, the recovery of accumulated backlog provided additional momentum.

Revenue in Latin America reached EUR 10.2 million, with an 11.9% growth on a constant currency basis, largely driven by increased purchases from stocking distributors.

GROSS PROFIT PERFORMANCE *

The Gross Profit was EUR 347.8 million compared to EUR 305.3 million in the previous year. The Gross Profit margin was equal to 68.1% compared to 69.8% in 2022. This change was primarily due to a negative impact from currency development, and temporary geographic mix effects caused mainly by a higher contribution of EMEA on total volumes. These negative effects were partially compensated by a positive leverage impact on depreciation and amortisation.

* **Alternative Performance Measures:** This section and other sections of this Annual Report, contain certain financial measures of historical performance that are not defined or specified by IFRS, such as "constant currency", "EBITDA", "Adjusted EBITDA" or "CORE EBITDA", "Adjusted and Normalized EBITDA", "Free Cash Flow", "Adjusted Free Cash Flow", "Adjusted and Normalized Free Cash Flow", "Net Debt" and "Leverage". Reconciliation of these measures as well as "CORE" financial measures is provided in the "Alternative Performance Measures" (APM) section of this Annual Report. These Alternative Performance Measures (APM) should be regarded as complementary information to, and not as a substitute for the IFRS performance measures. For definitions of APM, together with reconciliations to the most directly reconcilable IFRS line items, please refer section headed "Alternative Performance Measures" of this Annual report.

** In 2023 the Group reorganized the key geographic areas introducing EMEA and LATAM regions, reclassifying Rest of the World (RoW) region. EMEA includes revenue from the former Europe region and select countries originally included in RoW region. LATAM includes revenue from countries located in Latin America previously included in RoW region. 2022 figures have been restated accordingly.

ADJUSTED EBITDA MARGIN*

The Adjusted EBITDA amounted to EUR 134.2 million, growing by EUR 13.7 million from EUR 120.4 million in 2022, corresponding to a margin of 27.9% in constant currency (26.3% reported) compared to 27.6% in 2022. This margin expansion was achieved through effective cost management and to the leverage of fixed costs on sales volumes. The decrease of reported EBITDA margin reflects primarily the reduction in Gross Profit, the negative currency development and inflationary pressure.

ADJUSTED EBIT MARGIN*

The Adjusted EBIT for the period raised to EUR 75.7 million, 14.8% on revenues, compared to EUR 68.9 million, corresponding to 15.8% on revenues in 2022. This change in margin is attributable to the decrease in EBITDA, which was only partially offset by the leverage impact on depreciation and amortisation, which increased but at a slower pace than revenue.

PROFIT FOR THE YEAR

The Profit for the year was EUR 47.4 million, compared to EUR 46.2 million in 2022. The profitability in 2023 was significantly affected by negative financial results, mainly driven by unrealized exchange losses. Additionally, the Group's effective tax rate rose to 19.4% from 15.6% in 2022, largely due to a one-off transaction associated with establishing a logistics company in the United States, which altered the usual Group's profit mix and thus the Group's average tax rate.

SOLID BALANCE SHEET

Medacta's balance sheet remains robust, with total assets increasing to EUR 695.9 million and an equity ratio of 47.4% at the end of the reporting period (47.0% in 2022). The Adjusted Free Cash Flow generated in 2023 amounted to EUR 6.7 million (EUR 21.6 million in 2022), after significant investments in instruments, implants and manufacturing expansions to sustain the future growth of Medacta.

STOCK PRICE GROWTH AND PROPOSAL OF DISTRIBUTION

The Medacta stock price experienced a material growth in 2023, equal to 22% compared to 4% of the SMI Swiss Performance Index.

The Board of Directors, after assessing the strong economic and financial results of the year, decided to reward our shareholders through a distribution. Our Board Members are proposing to the Annual General Meeting the distribution of CHF 0.55 per share, half of it to be distributed as dividend out of available earnings and half of it to be distributed out of accumulated reserves from capital contribution.

OUTLOOK

We are targeting revenue growth at constant currency in the range of 13% to 15%, and Adjusted EBITDA Margin at constant currency improving around 50 bps from 2023 reported, subject to any unforeseen events.

GROUP EXECUTIVE MANAGEMENT TEAM (GEM) EXPANSION AND APPRECIATION

The past year has showcased the resilience and strength of our company, laying a solid foundation for growth in the years ahead. In alignment with our vision for future growth, on top of the existing GEM (composed by Francesco Siccardi - CEO, Corrado Farsetta - CFO and Alessandro Siccardi - CSCO), we have decided to expand our Group Executive Management team to include Massimiliano Bernardoni (Chief Innovation Officer), Giovanni Niccolò Galli (Chief Commercial Officer) and Asif Hussain (Chief People Officer).

We extend our heartfelt thanks to our entire team for their dedication and hard work, which have been instrumental in reaching this juncture. Together, we look forward to embarking on this exciting phase of development and achieving new milestones.

Sincerely,

Dr. Alberto Siccardi
Chairman of the Board of Directors

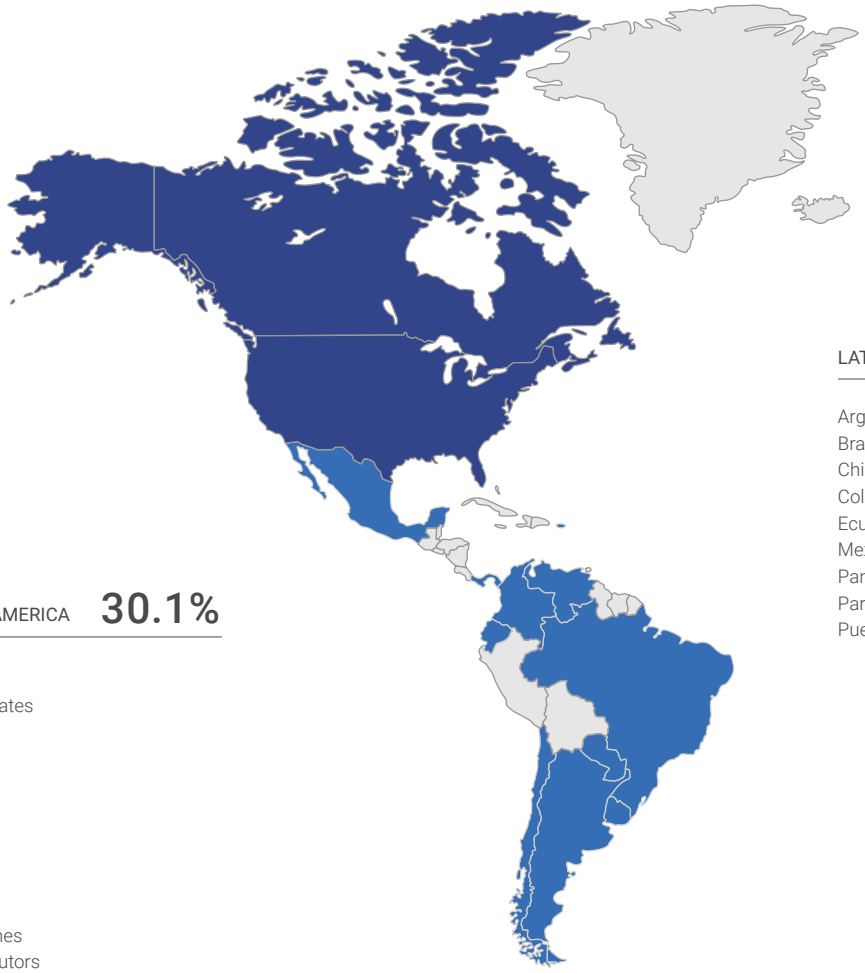
Francesco Siccardi
Chief Executive Officer

1. MANAGEMENT COMMENTARY*

CORPORATE INTRODUCTION

We are an international company specialized in the design, production and distribution of innovative orthopedic products and the development of accompanying surgical techniques for joint replacement, spine surgery, and sports medicine. Established in 1999 in Switzerland, we have grown considerably from our origins as a manufacturer of hip and knee replacement products into a global business. We are currently active in targeted regions of countries that together represent the majority of global orthopedic revenue, according to Orthoworld.

Today, our primary focus is on our high-volume Hip and Knee business lines (which generated 45.0% and 38.8%, respectively, of our reported revenue in 2023), complemented by our offerings in Shoulder, Spine and Sports Medicine ("Sportsmed") business lines. Our products and surgical techniques are supported by an extensive program of surgeon education and engagement initiatives, enabling our offerings to be used to the best advantage of both the patient and surgeon. All our products and surgical procedures are designed to improve patient well-being, facilitate the work of our surgeons and increase the sustainability of the healthcare system by improving efficiency while reducing healthcare costs. Our financial results confirm the validity of our business model and prove our success: in the year ending December 31, 2023 we achieved a 64.0% constant currency revenue growth from 2019, generating revenues amounting to Euro 510.8 million and an Adjusted EBITDA Margin of 26.3%.



NORTH AMERICA **30.1%**

Canada
United States

LATIN AMERICA** **2.0%**

Argentina
Brasil
Chile
Colombia
Ecuador
Mexico
Panama
Paraguay
Puerto Rico

Branches
Distributors

* **Alternative Performance Measures:** This section and other sections of this Annual Report, contain certain financial measures of historical performance that are not defined or specified by IFRS, such as "constant currency", "EBITDA", "Adjusted EBITDA" or "CORE EBITDA", "Adjusted and Normalized EBITDA", "Free Cash Flow", "Adjusted Free Cash Flow", "Adjusted and Normalized Free Cash Flow", "Net Debt" and "Leverage". Reconciliation of these measures as well as "CORE" financial measures is provided in the "Alternative Performance Measures" (APM) section of this Annual Report. These Alternative Performance Measures (APM) should be regarded as complementary information to, and not as a substitute for the IFRS performance measures. For definitions of APM, together with reconciliations to the most directly reconcilable IFRS line items, please refer section headed "Alternative Performance Measures" of this Annual report.

** In 2023 the Group reorganized the key geographic areas introducing EMEA and LATAM regions, reclassifying Rest of the World (RoW) region. EMEA includes revenue from the former Europe region and select countries originally included in RoW region. LATAM includes revenue from countries located in Latin America previously included in RoW region. 2022 figures have been restated accordingly.

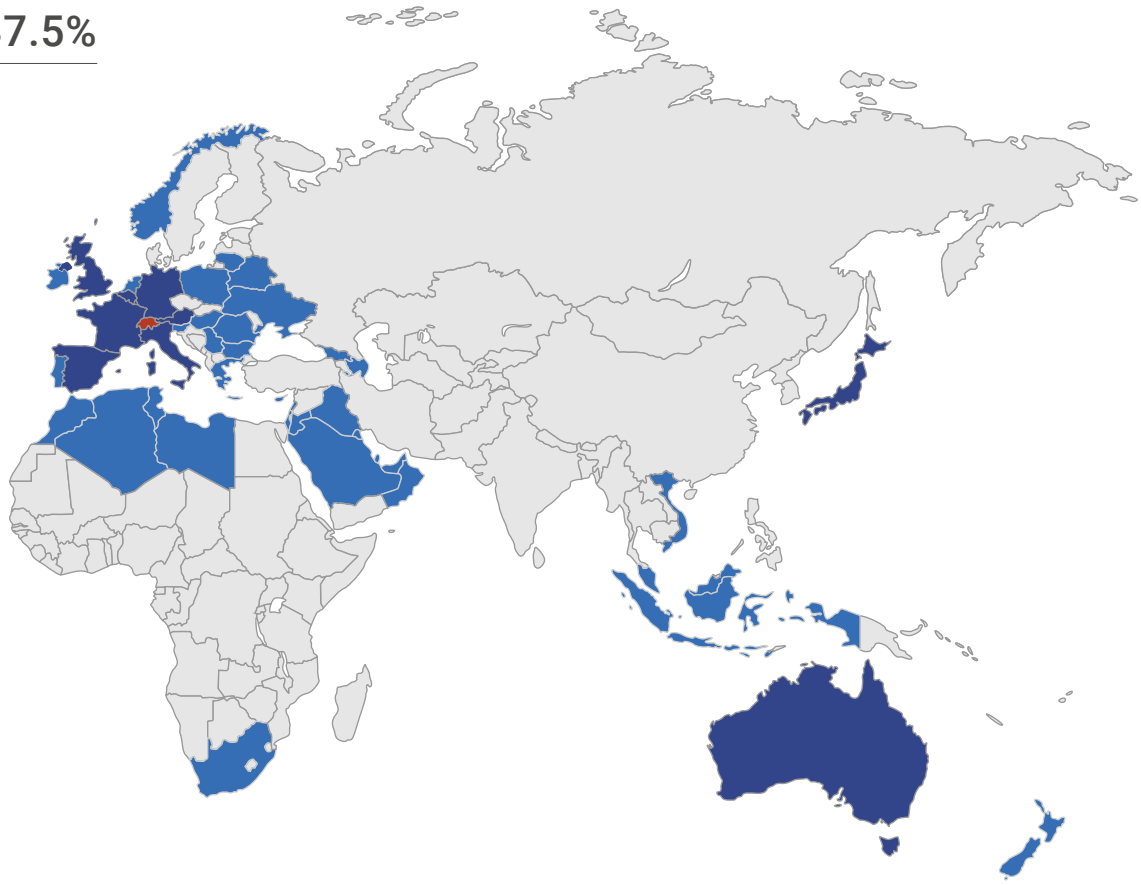
Our products and surgical techniques are characterized by innovation. We are a pioneer in developing new offerings on the basis of our minimally invasive surgical techniques, in particular our Anterior Minimally Invasive Surgery (AMIS) technique for hip replacements, which involves an anterior approach to the hip and has been carried out in over 500'000 cases worldwide since 2004.

We believe that education is an indispensable tool for transforming innovation into concrete benefits for patients, surgeons and healthcare systems. For our surgeon customers, we have introduced a range of training and technical support initiatives through our 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 and no limit on the number of interactions that customers can benefit from. Also, we relaunched the MyPractice Development Plan to further support surgeons in their patient education efforts and improve patient understanding and experience of our products and techniques.

Our headquarters and manufacturing facilities are in Castel San Pietro and Rancate, Switzerland, where we have 951 employees in the aggregate as of December 31, 2023. Our sales organization operates in 12 countries through our local subsidiaries and we serve 44 additional countries through stocking distributors, allowing the Group to pursue its strategy in the attractive markets of EMEA, North America and Asia Pacific, where we generated 47.5%, 30.1% and 20.4% of our revenue, respectively, for the year ending December 31, 2023. Our experienced salesforce enables us to achieve international adoption and deployment of our products and techniques.

EMEA** **47.5%**

Algeria
Austria
Azerbaijan
Bahrain
Belarus
Belgium
Bulgaria
Cyprus
France
Jordan
Georgia
Germany
Greece
Hungary
Iraq
Ireland
Israel
Italy
Kuwait
Lebanon
Libya
Lithuania
Netherlands
Norway
Oman
Poland
Portugal
Qatar
Romania
Saudi Arabia
Serbia
Slovenia
South Africa
Spain
Switzerland
Tunisia
UAE
Ukraine
United Kingdom



ASIA PACIFIC **20.4%**

Australia
Indonesia
Japan
Malaysia
New Zealand
Vietnam

Branches
Distributors

BUSINESS PERFORMANCE

EXECUTIVE OVERVIEW

In 2023, Medacta achieved an extraordinary milestone, recording a significant growth of 19.5% in constant currency and surpassing Euro 500 million in revenue. Despite challenging macroeconomic conditions, this accomplishment underscores the effectiveness of our strategic focus to responsible and sustainable innovation. Our advancements in minimally invasive techniques and personalized solutions played a pivotal role in this success. Moreover, our ability to proactively adapt our supply chain contributed to operational resilience and continuity.

Our impressive top-line growth was across all business sectors and regions, primarily fueled by acquiring new customers globally. The year also saw a beneficial tailwind from the recovery of the backlog accumulated, especially in the USA and Australia, further contributing to our momentum.

Profitability was heavily affected by currency exchange rates developments. Our 2023 Adjusted EBITDA Margin decreased by 130 basis points from 27.6% in 2022 to 26.3% in 2023. The strengthening of EUR mainly against USD, AUD and JPY reduced our marginality by 160 basis points (Adjusted EBITDA Margin in constant currency was equal to 27.9%). Also, the remaining reduction in performance reflects primarily the reduction in Gross Profit due to negative price erosion and geographic mix, all partially compensated by the leverage on fixed costs from higher sales volumes. The 2023 Adjusted Free Cash Flow amounted to Euro 6.7 million, decreasing Euro 15.0 million from 2022 mainly due to the substantial increase in investments in implants (up to Euro 44.1 million in 2023, from Euro 20.8 million in 2022) and instruments (Euro 49.1 million in 2023, Euro 44.9 million in 2022) to sustain the Group's growth. Based on the performance achieved in 2023, the Board of Directors decided to propose to the Annual General Meeting a distribution of CHF 0.55 per share.

The past year has showcased the resilience and strength of our company, laying a solid foundation for sustained growth in the years ahead. Despite the possibility of ongoing macroeconomic challenges in 2024, we remain optimistic and are committed to continuing our investments in our people, products, and cultural values to preserve this momentum of record-level results.

SALES VOLUME, PRICING AND GEOGRAPHICAL MIX

Our revenue increased by Euro 73.7 million, or 16.9%, from Euro 437.1 million in 2022 to Euro 510.8 million in 2023 on a reported currency basis (19.5% on a constant currency basis), with positive contribution from all business lines and geographies. Pricing pressure from governmental healthcare systems and geographic mix sales had a negative effect on our global selling price. In addition, our revenue growth experienced a 2.6% setback due to negative exchange rate headwinds. Specifically, in 2023, the EUR appreciated against the USD, JPY, and AUD (our most significant currency exposures) adversely affecting the Euro-translated revenue from operations in those countries. This impact was only partially offset by the EUR's depreciation against the CHF. We analyse sales by four geographies (EMEA, North America, Asia Pacific and Latin America) and by the following product categories: Hip, Knee, Spine and Extremities.

(Million Euro)	31.12.2023	% of total	31.12.2022	% of total	Reported Growth	Constant Currency Growth
Hip	229.8	45.0%	203.6	46.6%	12.9%	15.5%
Knee	198.3	38.8%	164.5	37.6%	20.6%	23.2%
Extremities*	36.3	7.1%	27.5	6.3%	31.9%	33.8%
Spine	46.4	9.1%	41.5	9.5%	11.7%	15.2%
TOTAL REVENUES	**510.8**		**437.1**		**16.9%**	**19.5%**

* Extremities include Shoulder and Sportsmed revenues.

Revenue from our Hip products increased by Euro 26.2 million, or 12.9%, from Euro 203.6 million in 2022 to Euro 229.8 million in 2023 on a reported currency basis (15.5% on a constant currency basis); the growth was driven by our Anterior Minimally Invasive Surgery Approach (AMIS) and Hip revision.

Revenue from our Knee offerings increased by Euro 33.8 million, or 20.6%, from Euro 164.5 million in 2022 to Euro 198.3 million in 2023 on a reported currency basis (23.2% on a constant currency basis). The good momentum was thanks to a solid and complete product offering based on our personalized kinematic alignment solutions (MyKA).

Our Extremities business line, which includes Shoulder and Sportsmed, reported an increase in revenue by Euro 8.8 million, or 31.9%, from Euro 27.5 million in 2022 to Euro 36.3 million in 2023 on a reported currency basis (33.8% on a constant currency basis). Extremities product offerings growth was primarily attributable to Shoulder through the Medacta Shoulder System and Technologies (MyShoulder and NextAR). The Sportsmed business, which is in an early start-up phase, continued to develop its growth plan.

Revenue from our Spine offerings increased by Euro 4.8 million, or 11.7%, from Euro 41.5 million in 2022 to Euro 46.4 million in 2023 on a reported currency basis (15.2% on a constant currency basis). The Group's full year Spine results are primarily driven by the performance recorded in EMEA and North America. Growth in APAC was partially offset by price pressure in Japan. Good acceleration seen on NextAR Spine utilization, recently supported by a clinical study which highlights its efficiency in spine surgery.

All the business lines benefitted from significant salesforce and marketing expansion.

We also monitor the development of our revenue in key geographies based on the location of our customers invoiced, as set forth in the table below.

(Million Euro)	31.12.2023	% of total	31.12.2022	% of total	Reported Growth	Constant Currency Growth
EMEA*	242.4	47.5%	196.7	45.0%	23.3%	22.6%
North America	154.0	30.1%	136.8	31.3%	12.6%	15.7%
Asia Pacific	104.2	20.4%	94.4	21.6%	10.4%	19.4%
Latin America*	10.2	2.0%	9.3	2.1%	9.0%	11.9%
TOTAL REVENUES	**510.8**		**437.1**		**16.9%**	**19.5%**

Revenue in EMEA* increased by Euro 45.8 million, or 23.3%, from Euro 196.7 million in 2022 to Euro 242.4 million in 2023 on a reported currency basis (22.6% on a constant currency basis). The 2023 growth rate in EMEA is in line with our reported Group-wide average revenue growth rate. All our European countries registered a solid growth, mostly driven by customer acquisition in all of our business lines. As a percentage of our total revenue, sales generated in EMEA increased compared to prior year at 47.5% in 2023 (compared to 45.0% in 2022).

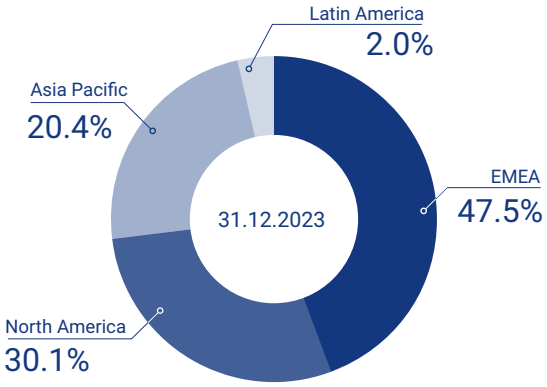
Revenue in North America increased by Euro 17.2 million, or 12.6%, from Euro 136.8 million in 2022 to Euro 154.0 million in 2023 on a reported currency basis (15.7% on a constant currency basis). North America's performance was strong thanks to our customer acquisition strategy and boosted by some patient backlog recovery in the first half of the year. However, our reported revenue in North America was affected by a negative headwind from the exchange rate. Specifically, during the course of 2023, the EUR strengthened against the USD by an average of 2.7% (compared to the average 2022 exchange rate), negatively impacting revenue translated into Euro. As a percentage of our total revenue, North America decreased to 30.1% (compared to 31.3% in 2022).

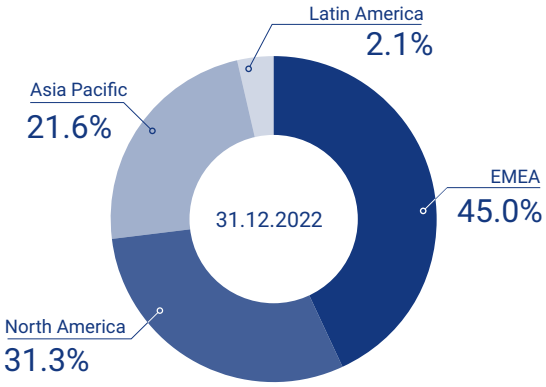
Revenue in Asia Pacific increased by Euro 9.8 million, or 10.4%, from Euro 94.4 million in 2022 to Euro 104.2 million in 2023 on a reported currency basis (19.4% on a constant currency basis). This result was mainly driven by the attainment of new customers in Japan and Australia. In Australia, the recovery of accumulated backlog provided additional momentum. Our reported revenue in Asia Pacific was heavily offset by a negative headwind from the exchange rate. Specifically, in the course of 2023, the EUR strengthened against the JPY by an average 9.1% (compared to the average 2022 exchange rate), negatively impacting revenue translated into Euro from our Japanese operation. This negative translation was also increased by the strengthening of the EUR against the AUD by an average of 6.9% (compared to the average 2022 exchange rate). As a percentage of our total revenue, Asia Pacific decreased to 20.4% in 2023 (compared to 21.6% in 2022).

Revenue in LATAM* increased by Euro 0.8 million, or 9.0%, from Euro 9.3 million in 2022 to Euro 10.2 million in 2023 on a reported currency basis (11.9% on a constant currency basis). The growth in LATAM is mainly sustained by the increase in purchases from stocking distributors. As a percentage of our total revenue, sales from LATAM are in line with prior year (2.0% in 2023 compared to 2.1% in 2022).

* In 2023 the Group reorganized the key geographic areas introducing EMEA and LATAM regions, reclassifying Rest of the World (RoW) region. EMEA includes revenue from the former Europe region and select countries originally included in RoW region. LATAM includes revenue from countries located in Latin America previously included in RoW region. 2022 figures have been restated accordingly.

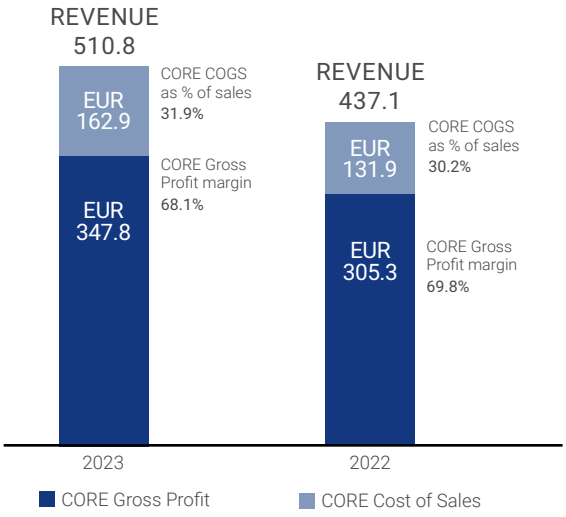
The graphics below provide an overview of our revenue by geography* for the year December 31, 2023 and 2022.





COST OF SALES AND GROSS PROFIT

Our Gross Profit as a percentage of revenue decreased from 69.8% in 2022 to 68.1% in 2023. This reduction was significantly influenced by adverse currency developments, which contributed to a 1.5% decrease in the margin. Additionally, we faced challenges due to price erosion and a less favorable geographic mix, primarily due to a reduced contribution from the USA and Australia to our total volumes. However, this decline was partially mitigated by leveraging depreciation and amortisation.



CORE EBIT PERFORMANCE**

(Thousand Euro)	31.12.2023	31.12.2022	Delta	Delta %
CORE Research and Development expenses	(19'565)	(15'596)	(3'969)	25.4%
CORE Sales and Marketing expenses	(186'671)	(159'594)	(27'077)	17.0%
CORE General and Administrative expenses	(66'808)	(61'683)	(5'125)	8.3%
CORE Other income	2'150	1'570	580	37.0%
CORE Other expenses	(1'233)	(1'013)	(220)	21.7%
CORE OPERATING EXPENSES (OPEX)	**(272'127)**	**(236'316)**	**(35'811)**	**15.2%**
CORE OPERATING PROFIT (EBIT)	**75'720**	**68'940**	**6'780**	**9.8%**

CORE Research and Development expenses

Expensed research and development costs are mainly related to base research, maintenance projects, depreciation and amortisation expenses (including impairments), business expenses and other non-capitalized expenses. During 2023, we continued investing in research and development, and in particular in certain long-term research initiatives, to support our strategy of broadening our product portfolio. Our CORE Research and Development costs that were expensed increased by Euro 4.0 million, or 25.4%, from Euro (15.6) million in 2022 to Euro (19.6) million in 2023.

* In 2023 the Group reorganized the key geographic areas introducing EMEA and LATAM regions, reclassifying Rest of the World (RoW) region. EMEA includes revenue from the former Europe region and select countries originally included in RoW region. LATAM includes revenue from countries located in Latin America previously included in RoW region. 2022 figures have been restated accordingly.

** For a reconciliation of our CORE results to our reported IFRS figures, please see the "Alternative Performance Measures" section of this report.

In 2023, we increase the expenses related to the adaptation to the European Medical Devices Regulation which fully entered into force in the first semester 2021. Currency development had a negative impact in our operational costs by 0.2%.

CORE Sales and Marketing expenses

Our CORE Sales and Marketing expenses increased by Euro 27.1 million, or 17.0%, from Euro (159.6) million in 2022 to Euro (186.7) million in 2023. In 2023, CORE Sales and Marketing expenses as a percentage of total revenue remained stable at 36.5%.

Variable expenses, particularly in commissions and transportation costs, experienced an increase, albeit at a slower pace than our revenue growth, contributing positively to our EBIT margin. However, this improvement was entirely offset by a rise in wages, salaries, maintenance, and training costs. In 2023, we continued our commitment to medical education, offering surgeons valuable online resources to enhance their expertise and familiarity with our solutions. Additionally, currency fluctuations had a marginal negative impact of 0.1% on our operational costs.

CORE General and Administrative expenses

Our CORE General and Administrative expenses increased by Euro 5.1 million, or 8.3%, from Euro (61.7) million in 2022 to Euro (66.8) million in 2023. In 2023, CORE General and Administrative expenses, as a percentage of total revenue, decreased to 13.1% in 2023 from 14.1% in 2022. This improvement was largely due to the leverage effect on wages and salaries, depreciation, and other fixed costs. Additionally, currency fluctuations negatively impacted our operational costs by 0.3%, primarily because of the CHF strengthening by 3.4% against EUR, partially offset by USD, JPY, and AUD weakening against EUR by 2.7%, 9.1%, and 6.9%, respectively, compared to the previous period.

CORE Other income and expenses

Our CORE Other income increased by Euro 0.6 million, or 37.0%, from Euro 1.6 million in 2022 to Euro 2.2 million in 2023. CORE Other income as a percentage of total revenue remained largely stable at 0.4%. Our CORE Other expenses increased by Euro 0.2 million, from Euro (1.0) million in 2022 to Euro (1.2) million in 2023 largely as a result of lower write-offs and loss on sale of tangible assets.

FINANCIAL INCOME AND COSTS

Our financial income increased by Euro 5.1 million, from Euro 2.8 million in 2022 to Euro 7.9 million in 2023, mainly due to the increase of exchange gain in the amount of Euro 3.9 million. Our financial costs increased by Euro 14.1 million, from Euro 9.5 million in 2022 to Euro 23.6 million in 2023, primarily as a result of both increased exchange losses for Euro 11.3 million and increased interests on borrowings, leasing and bank charges for Euro 3.2 million.

INCOME TAXES

The Group effective tax rate increased to 19.4% from 15.6% in 2022. The 2023 total reported tax is equal to Euro 11.4 million, increased by Euro 2.8 million from Euro 8.5 million in the previous year. The Group's average tax rate before deductions and one-off effects increased from 19.1% in 2022 to 21.0% in 2023, negatively affected by a change in the profit mix. This effect is the consequence of a one-off transaction that occurred in the half-year 2023, related to the creation of a logistic company in the United States; this transaction resulted in lower taxable income in Medacta International SA. Medacta International SA benefits, since 2020, from a special tax deduction from taxable profits for qualifying profits arising from patent rights ("Patent Box deduction"), which has a positive impact in the full year 2023 amounting to around Euro 0.4 million (around Euro 1.7 million as of December 31, 2022), corresponding to a positive impact on the effective tax rate for 0.6% (3.2% as of December 31, 2022).

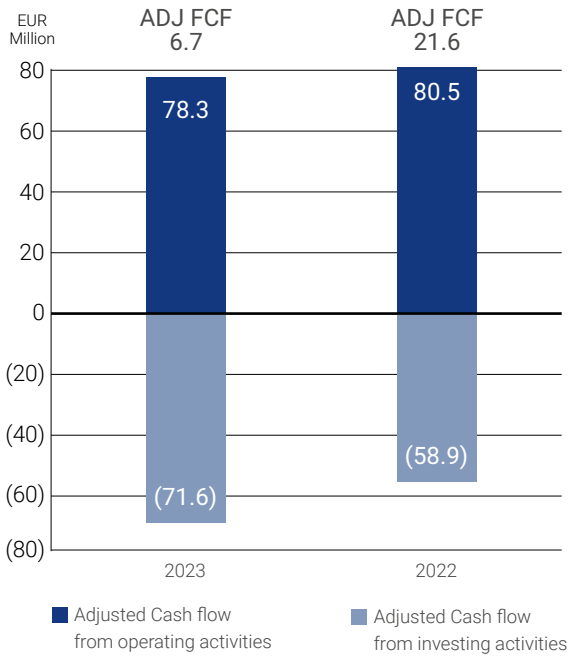
ADJUSTED FREE CASH FLOW

The Adjusted Free Cash Flow decreased from Euro 21.6 million in 2022 to Euro 6.7 million in 2023 primarily as a result of the surge in implants in stock and investments in surgical instruments to sustain the Group's growth, which increased respectively by Euro 23.3 million and Euro 4.2 million. Adjusted for abnormal transactions, 2023 cash flow from operating activities was equal to around Euro 78.3 million, compared to Euro 80.5 million as of December 31, 2022. The profit for the year 2023 is substantially in line with 2022 (Euro 1.1 million higher than prior year) mainly driven by profit before taxes. The reported cash flow from operating activities is equal to Euro 75.1 million. and it is then adjusted to exclude non-recurring legal costs for Euro 0.5 million, MDR transition costs for Euro 0.8 million and payments relating the settlement agreement with MicroPort amounting to Euro 1.9 million.

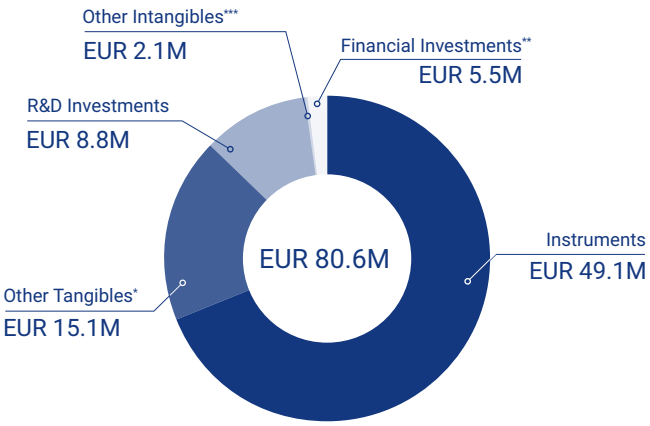
Reported cash flow from investing activities as of December 31, 2023 amounting to Euro 80.6 million mainly reflects net investments in surgical instruments, for Euro 49.1 million and in the research and development of new implants and instruments, for Euro 8.8 million. In 2023 cash flow from investing activities has been adjusted for the investments made to finalize the production area in Castel San Pietro site for approximately Euro 6.0 million, for the expansion in Rancate for Euro 0.3 million and for advances and deposits paid out in 2023 to establish a new distribution center in northern Italy. The previous year Adjusted cash flow from investing activities, equal to Euro 58.9 million, was adjusted for the investments made to finalize the new offices in our Rancate site for approximately Euro 1.2 million, for the land acquisition in Castel San Pietro for Euro 4.8 million to increase our production area by about 5'300 square meters and for the investment made to acquire Levante Medica for Euro 0.2 million.

CAPITAL STRUCTURE

Group Net Debt in 2023 was equal to Euro 135.2 million, compared to Euro 111.6 million as of December 31, 2022. The reported Free Cash Flow in 2023 was negative for Euro 5.5 million compared to positive Euro 8.4 million in 2022. The decrease in Free Cash Flow was largely attributable to increased investments in surgical instruments, aimed at satisfying both the current and anticipated demand for our products. Despite the increase in Net Debt, our 2023 leverage ratio stood at 1.01, remaining relatively consistent with the previous year's ratio of 0.93.



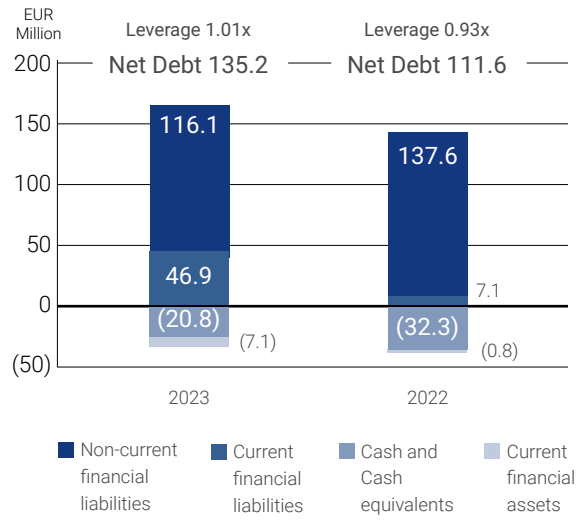
2023 CASH FLOW FROM INVESTING ACTIVITIES



* Other Tangibles includes: Land, Buildings, Plants & Machinery, Other fixture and fittings, tool and equipment and Assets under construction.

** Financial Investments include advances on deposits paid for the acquisition of Property, Plant and Equipment.

*** Other Intangibles includes: Customer lists, trademarks, software and other.



1.1 ALTERNATIVE PERFORMANCE MEASURES

The financial information provided in the selected sections of the 2023 Annual Report, including "Highlights year 2023", "Letter to Shareholders", "Management Commentary" and elsewhere in this document, include certain Alternative Performance Measures (APMs) which are not accounting measures defined by IFRS. The Group believes that investor understanding of Medacta's performance is enhanced by disclosing core measures of performance (i.e., CORE or Adjusted), since they exclude items which can vary significantly from year to year. Therefore, the CORE results exclude effects related, for example, to extraordinary legal expenses, release of prior-year provisions, one-time tax duty and other one-time items that may vary significantly over periods.

These APMs should not be considered as alternatives to the Group's consolidated financial results based on IFRS. These APMs may not be comparable to similarly titled measures disclosed by other companies. The definitions of the main KPI disclosed in the Annual Report are reported at the end of this section.

CORE RESULTS

The following tables provide the reconciliation of the CORE results with the Consolidated Financial Statements as of December 31, 2023 and 2022. In addition to the CORE ratios we did not identify any normalization for the December 31, 2023 results.

2023 CORE RESULTS RECONCILIATION

December 31, 2023 (Thousand Euro)	IFRS	Legal costs[1]	MDR costs[2]	CORE[3]
Revenues	510'778	-	-	510'778
Cost of Sales	(162'931)	-	-	(162'931)
GROSS PROFIT	**347'847**	**-**	**-**	**347'847**
Research and Development expenses	(20'318)	-	753	(19'565)
Sales and Marketing expenses	(186'671)	-	-	(186'671)
General and Administrative expenses	(67'332)	524	-	(66'808)
Other income	2'150	-	-	2'150
Other expenses	(1'233)	-	-	(1'233)
OPERATING PROFIT (EBIT)	**74'443**	**524**	**753**	**75'720**

OPERATING PROFIT (EBIT)	**74'443**	**524**	**753**	**75'720**
Depreciation, amortisation and impairment	58'442	-	-	58'442
EBITDA	**132'885**	**524**	**753**	**134'162**
EBITDA MARGIN	**26.0%**			**26.3%**

[1] Legal costs incurred in 2023 are related to the extraordinary expenses incurred by the Group on litigations, refer to Note 6.25 "Litigations".

[2] MDR costs in 2023 refer to the extraordinary expenses incurred by the Group on the transition to comply the EU Medical Devices Regulation (MDR).

[3] References to "Adjusted" are the equivalent to "CORE" references (i.e. Adjusted EBITDA and CORE EBITDA are interchangeable).

2022 CORE RESULTS RECONCILIATION

December 31, 2022 (Thousand Euro)	IFRS	Provision on Litigations[1]	Legal costs[2]	MDR costs[3]	Italian Payback[4]	CORE[5]
Revenues	437'122	-	-	-	-	437'122
Cost of Sales	(131'866)	-	-	-	-	(131'866)
GROSS PROFIT	**305'256**	**-**	**-**	**-**	**-**	**305'256**
Research and Development expenses	(16'223)	-	-	627	-	(15'596)
Sales and Marketing expenses	(159'594)	-	-	-	-	(159'594)
General and Administrative expenses	(65'447)	2'540	1'224	-	-	(61'683)
Other income	1'570	-	-	-	-	1'570
Other expenses	(4'098)	-	-	-	3'085	(1'013)
OPERATING PROFIT (EBIT)	**61'464**	**2'540**	**1'224**	**627**	**3'085**	**68'940**

OPERATING PROFIT (EBIT)	**61'464**	**2'540**	**1'224**	**627**	**3'085**	**68'940**
Depreciation and Amortisation	51'510	-	-	-	-	51'510
EBITDA	**112'974**	**2'540**	**1'224**	**627**	**3'085**	**120'450**
EBITDA MARGIN	**25.8%**					**27.6%**

[1] Provision on litigations related to the accrual for the patent matters with Conformis (Euro 2'208 thousand) and RSB (Euro 332 thousand), both settled in 2022.

[2] Legal costs incurred in 2022 are related to the extraordinary expenses incurred by the Group on litigations.

[3] MDR costs in 2022 refer to the extraordinary expenses incurred by the Group on the transition to comply the new regulation.

[4] Italian Payback is related to the provision accrued in 2022 after the introduction of a payback scheme in Italy.

[5] References to "Adjusted" are the equivalent to "CORE" references (i.e. Adjusted EBITDA and CORE EBITDA are interchangeable).

ADJUSTED FREE CASH FLOW RECONCILIATION

(Thousand Euro)	31.12.2023	31.12.2022
CASH FLOW FROM OPERATING ACTIVITIES (IFRS BASIS IN ACCORDANCE WITH IAS 7)	**75'127**	**73'510**
Adjustments for:		
Legal costs	524	1'224
Settlement of legal claims[1]	1'850	5'147
Extraordinary MDR Costs[2]	753	627
ADJUSTED CASH FLOW FROM OPERATING ACTIVITIES	**78'254**	**80'508**

CASH FLOW FROM INVESTING ACTIVITIES (IFRS BASIS IN ACCORDANCE WITH IAS 7)	**(80'606)**	**(65'106)**
Adjustments for:		
Levante Medica asset purchase acquisition[3]		220
International advances and deposits for future logistic expansion[4]	2'711	
Corporate land acquisition and plant expansion[5]	6'305	6'000
ADJUSTED CASH FLOW FROM INVESTING ACTIVITIES	**(71'590)**	**(58'886)**

FREE CASH FLOW	**(5'479)**	**8'404**
Total adjustments	12'143	13'218
ADJUSTED FREE CASH FLOW	**6'664**	**21'622**

[1] Settlement of legal claims is related to the payment for the settlement agreements with MicroPort, amounting to Euro 1'850 thousand in 2023. In 2022, it was related to the payment of the settlement agreements with MicroPort (Euro 1'901 thousand), Conformis (Euro 2'914 thousand) and RSB (Euro 332 thousand).

[2] EU Medical Devices Regulation (MDR).

[3] In 2022 Medacta paid out Euro 220 thousand for the asset acquisition of Levante Medica 2008 S.L., following the agreement signed in 2021.

[4] The Group in 2023 paid out advances and deposits for future logistic expansion to establish a new distribution center in Italy.

[5] Corporate land acquisition and plant expansion include the investments made in 2023 for the strategic expansion of facilities and corporate offices in Switzerland of both Castel San Pietro and Rancate sites.

KPI DEFINITIONS

CORE

In accordance with the directives of the Swiss Stock Exchange, the Group adopted the reporting of Alternative Performance Measures (APM), which facilitates the assessment of the underlying business performance but may differ from IFRS reported figures. The 'CORE' (i.e., Adjusted) figures used in this document exclude extraordinary legal expenses, legal provisions, release of prior-year provisions, one-time tax duty and other one-time items that may vary significantly over periods. A reconciliation table of the reported and CORE ratios with additional descriptions is provided on paragraph 1.1 "Alternative Performance Measures" of this report.

EBITDA

EBITDA is a non-IFRS measure that represents profit or loss for the year before finance costs, finance income, income taxes, depreciation and amortisation. EBITDA margin is defined as EBITDA divided by revenues, expressed as a percentage. We define EBITDA as profit or loss for the year before net interest expense, income taxes, depreciation and amortisation.

ADJUSTED EBITDA (I.E., CORE EBITDA)

Represents EBITDA before additional specific items that are considered to hinder comparison of the trading performance of the Group's businesses either year-on-year or with other businesses. Management considers Adjusted EBITDA to be a key measure of financial performance and believes that this measure provides additional useful information for prospective investors on performance and is consistent with how the business performance is measured internally. Adjusted EBITDA Margin is calculated as Adjusted EBITDA divided by revenue, expressed as a percentage.

CONSTANT CURRENCY

The Group has presented certain information that it refers to as "constant currency", which is a non-IFRS financial measure and represents the total change between periods excluding the effect of changes in foreign currency exchange rates. The Group believes that the reconciliations of changes in constant currency provide useful supplementary information to investors in light of fluctuations in foreign currency exchange rates. Furthermore, the Group believes that constant currency measures provide additional useful information on the Group's operational performance and is consistent with how the business performance is measured internally. In calculating constant currency figures, the current period amount is translated at the foreign currency exchange rate used for the previous period to get a more comparable amount.

OPEX

Opex include the sum of Research and Development expenses, Sales and Marketing expenses, General and Administrative expenses, Other income and expenses. In the Management Report commentary "CORE" operative expenses are adjusted for specific items (reconciled in the tables above) in order to enhance the understanding of the Group's performance.

EQUITY RATIO

The equity ratio is calculated dividing Total Equity by Total Assets.

NET TRADE WORKING CAPITAL

Net Trade Working Capital is capital invested in the Group's operating activities. The variation in Net Trade Working Capital is an indicator of the operational efficiency of the Group. Net Trade Working Capital is the sum of trade receivables, trade payables and inventory.

FREE CASH FLOW

Free Cash Flow is used to assess the Group's ability to generate the cash needed to conduct and maintain our operations. It also provides an indication of the Group's ability to generate cash to fund dividend payments, repay debt and to undertake merger and acquisition activities. Free Cash Flow (post investing activities) is calculated as IFRS cash flow from operating activities plus IFRS cash flow from investing activities. The Adjusted Free Cash Flow is calculated as Free Cash Flow adjusted for certain non-recurring items that management believes are not indicative of operational performance.

NET DEBT

Net Debt is used as a metric to indicate the overall debt situation of the Group and is measured by netting the non-current and current financial liabilities with our cash and cash equivalents and current financial assets.

LEVERAGE

Leverage ratio is used to assess our ability to meet our financial obligations and is calculated as Net Debt divided by Adjusted EBITDA.

2. MEDACTA AT A GLANCE

Medacta is an international company specializing in the design, production, and distribution of innovative orthopedic products, as well as in the development of accompanying surgical techniques. Established in 1999 in Switzerland, Medacta is active in joint replacement, spine surgery, and sports medicine, operating in over 50 countries.

Our vision is to improve the care and well-being of orthopedic and spine surgery patients worldwide 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.

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.

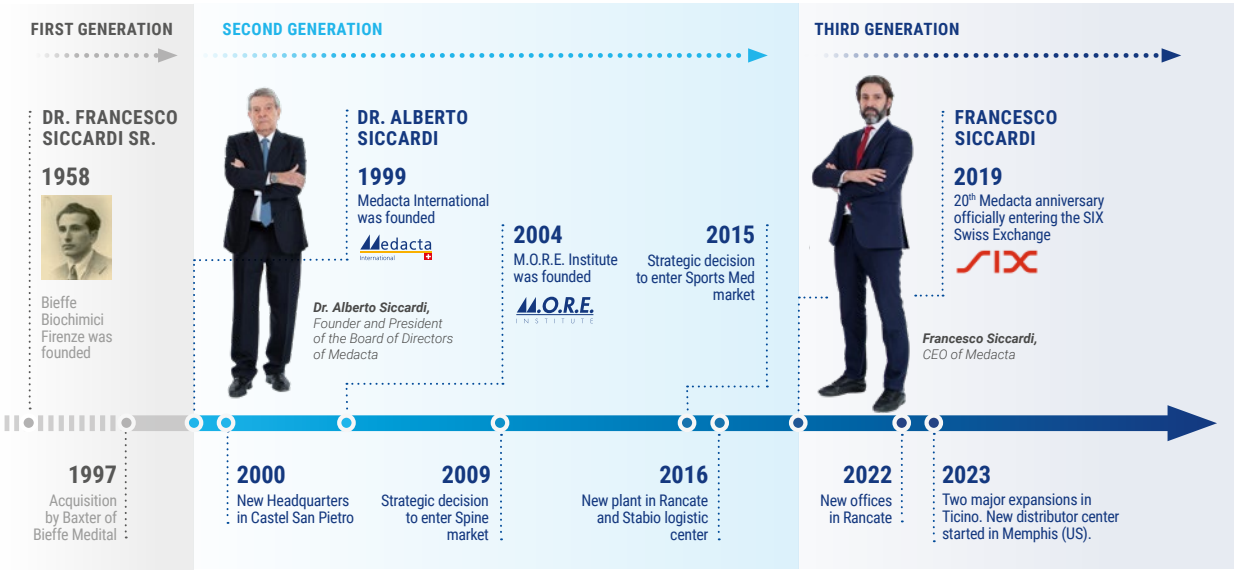
3. A UNIQUE HISTORY: FOUNDED BY A PATIENT

ONE FAMILY, THREE GENERATIONS COMMITTED TO ADVANCING HEALTHCARE

Our journey centers around the Siccardi family's unwavering commitment to improving patient outcomes and healthcare sustainability. This dedication spans three generations, with each bringing a unique perspective, experience, and passion. It began in the 1950s when Francesco Siccardi Sr. acquired Bieffe Biochimici Firenze, a manufacturer of intravenous therapy and dialysis solutions, which was sold to Baxter, an American healthcare company, in 1997. In 1999, Alberto Siccardi, our founder, chairman, and former CEO, established Medacta after his own patient experience convinced him of the importance of pioneering an innovation-centered approach to joint replacement. In 2000, we inaugurated our Headquarters, manufacturing facility, and research and development site in Castel San Pietro, Switzerland. Introduced in 2004, AMIS (Anterior Minimally Invasive Surgery) debuted as Medacta's first minimally invasive hip technique. To date, over 650'000 procedures have been performed worldwide, making it a crucial element of our history. In the same year, we established the M.O.R.E. (Medacta Orthopaedic Research and Education) Institute to educate and engage with our surgeons. Initially focused on optimally performing the AMIS technique, it has evolved into a global medical education platform tailored to fulfill the needs of individual surgeons across all our business lines.

In 2019, we became a publicly listed company, officially entering the SIX Swiss Exchange. Adding to this significant milestone, a generational shift occurred as Francesco Siccardi assumed the role of CEO within the company.

In 2023, to support our constant growth, we began construction on two major expansions in Ticino. To strengthen our supply chain, we also opened a new distribution facility in Memphis, USA. Additionally, we launched GMK SpheriKA, the world's first knee implant optimized for Kinematic Alignment (KA), and celebrated the completion of the 500th M.O.R.E. Learning Center dedicated to our AMIS technique.



MEDACTA FURTHER EXPANDS IN RANCATE, SWITZERLAND, DOUBLING ITS PRODUCTION CAPABILITY TO SUPPORT THE FUTURE GROWTH

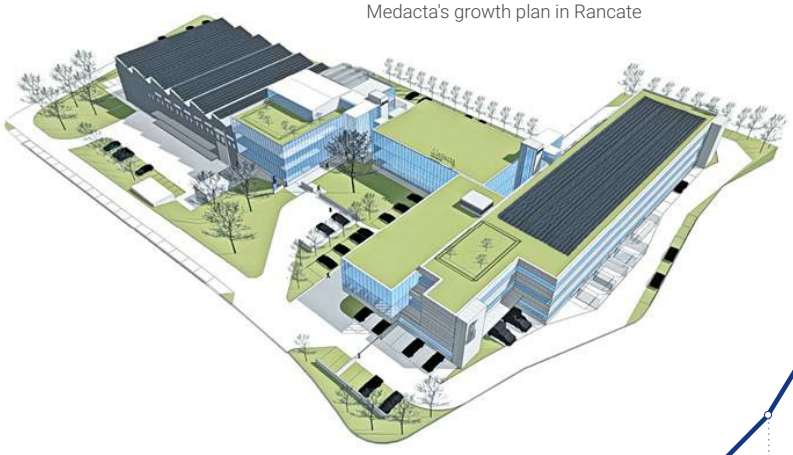
Medacta started the expansion of the new facility construction in Rancate, complementing the one already underway in Castel San Pietro, supporting future growth, and increased in-house production, needed to meet the high demand for Medacta products.

"In 2023 we celebrate another important milestone for Medacta. Built on strong values, our growth confirms our dedication to fostering our international expansion to meet patients, medical professionals, and healthcare systems' needs and expectations. We are excited to keep making investments in our future here in Ticino, Switzerland, where our company was founded," says Francesco Siccardi, CEO of Medacta.

Medacta's continuous investment and commitment to the Castel San Pietro and Rancate facilities is fundamental for the Company's forecasted growth. The Rancate expansion will add approximately 9'500 square meters over the next three years, while the Castel San Pietro growth will extend the production area by about 5'300 square meters and will be operational in the first quarter of 2024, with the creation of numerous new jobs. With this expansion, the two hubs of cutting-edge technology will double Medacta's production capability, enabling it to continue innovating responsibly for the benefit of patients, medical professionals, healthcare systems, and the local community.

In total, Medacta plants in Ticino are foreseen to cover more than 36'800 square meters.

Medacta's growth plan in Rancate



*Extremities include Shoulder and Sportsmed revenues.

4. GROWTH CAPEX MODEL

GROWTH CAPEX MODEL

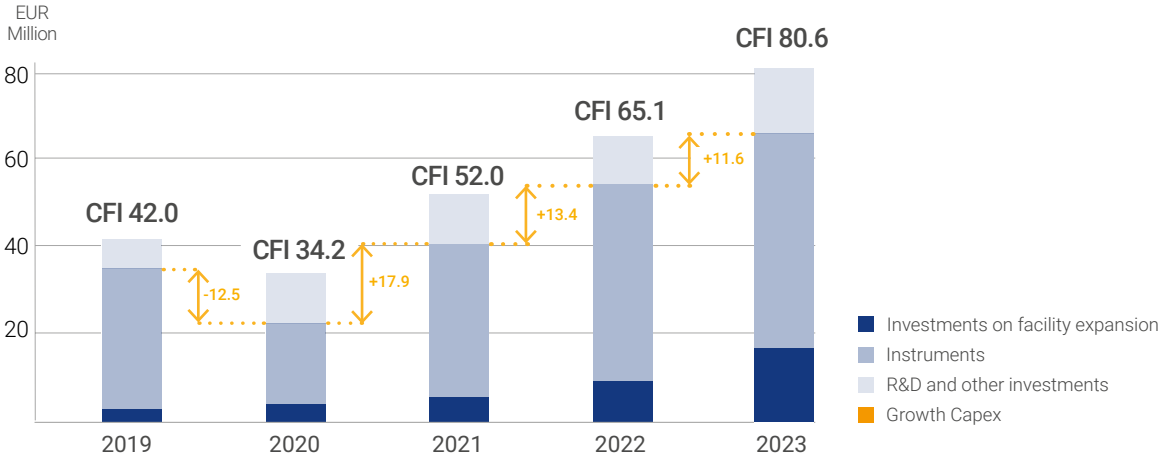
Within our strategic planning process, we annually assess the amount of CAPEX needed to help foster the planned growth.

A secure and steadily improving supply chain is essential for a high level of customer service and quality performance. To facilitate this, two primary investment categories have been strategically utilized:

- **Instrument sets** – to serve new customers and achieve the planned sales volumes.
- **Plant expansions** – to increase manufacturing capacity aligned to the growth strategy.

Here below we report the cash flow for investing activities (CFI) from 2019 to 2023, broken down by facility expansions (e.g. land & buildings, plants & machinery, assets under construction and leasehold improvement), instrument sets and R&D and other investments, showing the CAPEX change year-over-year:

GROWTH CAPEX 2019-2023



INSTRUMENT SETS

Surgical instruments are key components of the orthopedic industry. They are reusable devices which represent major investments for orthopedic companies. Surgical instruments for orthopedic procedures, primarily made from medical-grade stainless steel, involve a wide array of configurations to support all clinical needs and surgeon preferences. The standard cost for an instrument set can range from Euro 30 to 50 thousand depending on the specific surgical requirements and level of procedural complexity.

The Medacta instrument distribution model is primarily a consignment program. To ensure that our instruments are optimally employed, the usage rate of each set is monitored on a monthly basis.

Our CAPEX model for instrument growth is funded by the following two elements:

- **Organic growth materially above market** - Medacta growth in volume is mostly due to a significant increase of our customer acquisition. Supplying new customers requires a flow of instrumentation that is significantly above the volumes needed to maintain the existing pipeline. On average, supplying new customers with at least one kit could require an investment ranging from Euro 30 to 50 thousand, based on the business lines involved and the specific needs of the new customers.
- **Timing difference** - from a supply chain perspective an up-front investment in instrument sets is essential to enable implant sales. The timing of the revenue generation ramp could range from 6 to 12 months, based on several factors which depend mainly on the respective surgical planning.

PLANT EXPANSIONS

Along with the major expansions in Ticino, we are strategically investing in our logistics and distribution infrastructure to ensure the efficient delivery of our products worldwide. In March 2023, we celebrated the opening of a new distribution facility in Memphis, Medacta Americas Operations, to serve the US market. With this expansion, we now occupy over 108'000 square meters and have implemented a new operating model to minimize costs while enabling more effective central distribution.

This expanded footprint allows for greater stocking levels and on-hand inventory and features new offices, meeting spaces, and a demonstration room to accommodate tours and training. It also works in complete synergy with the headquarters of Medacta USA in the greater Nashville area, providing cutting-edge medical devices to surgeons throughout the United States. Additionally, we have identified a potential location in northern Italy, to establish a second Distribution Center, Medacta Europe Operations, which will serve the European market. This new facility is expected to have up to 10'000 square meters of space and should become operational in mid-2025.

Memphis (TN) US Distribution Facility

5. PEOPLE AND CULTURE

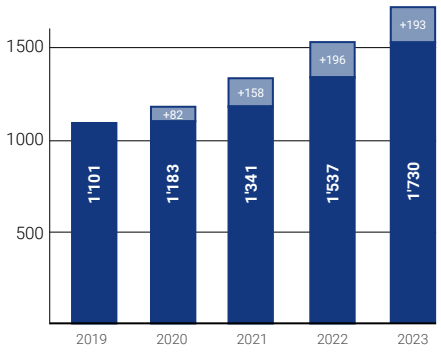
HUMAN CAPITAL AT THE HEART OF OUR BUSINESS

Medacta's constantly expanding organization requires a business structure designed to provide resiliency over the years across business cycles. Therefore, one of our most valuable assets is human capital. To fully harness its potential, we adopted a people-centered strategy and cultivated an engaging, productive, and rewarding work environment. At Medacta, human capital is made up of an ecosystem of talented people who actively collaborate and rely on each other's strengths and contributions, to sustain the authenticity and competitiveness of our company. Our worldwide team, which has surpassed the milestone of 1'700 members, is the backbone of our company and the powerful engine that drives us forward, through diverse experiences and perspectives. This enables us to tackle challenges, foster our pursuit of excellence, and effectively help surgeons enhance patient outcomes and satisfaction. Moreover, we regularly interact with a network of expert surgeons to exchange ideas, develop new solutions, and advance our techniques. This network continues to grow and contributes to guiding new surgeons in discovering the benefits of our innovative solutions. Our vision of improving patient care, and our culture, inspires and empowers our employees to achieve the company's strategic goals, providing value for the stakeholders, and ensuring long-term success.

HUMAN RESOURCES ORGANIZATION

Our Human Resources (HR) function is responsible for the centralized control of all global HR policy and process formulation and has developed an HR framework setting out the strategic priorities that will support the business needs today and in the future. This was essential for the tremendous expansion our company is experiencing, which is evident in the number of employees, that has increased by more than 50% over the past four years.

Global Headcount Evolution



Employee Value Proposition (EVP)

In today's competitive landscape, cultivating a well-defined Employee Value Proposition represents a powerful tool for differentiating the company and attracting the best talents. Our strong Employee Value Proposition has been designed to offer tangible and intangible benefits, opportunities, and experiences available for employees to receive when working at Medacta.

Talent acquisition

In a company experiencing rapid growth like ours, talent acquisition is crucial. New personnel bring fresh ideas, perspectives, skills, and expertise, positively contributing to the team's development and advancement. Therefore, we are committed to attracting the best talent in the industry by offering them the opportunity to build a successful career with us. We provide the professional training and support they need to reach their full potential, and a challenging and rewarding work environment. Moreover, we leverage our Employee Value Proposition with a strong organizational culture and an impactful onboarding process.

Total rewards

Our program has been developed to provide comprehensive & competitive strategies, encompassing both financial and non-financial rewards. By aligning total rewards with the organization's overall goals, we aim to foster a positive and engaging work environment that encourages employee growth and development.

Talent & performance management

We constantly refine our system to support optimal performance of our employees. It includes a structured process to gather information about the employee's engagement and commitment to our values, and jointly develop objectives for the year to ensure performance aligns with expectations.

Professional development

For us, complete and continuous professional training is the basis of a conscious and responsible approach to work. Through our Medacta Academy and HR function, we offer the opportunity to consolidate and increase professional and personal skills through tailor-made training programs for each employee. Professional development contributes to individual growth, new talent attainment, increased engagement, a sense of loyalty among the workforce, and organizational success.

A STRONG IDENTITY SUSTAINED BY A SOLID CULTURE

At Medacta, we are committed to protecting and managing our human capital by maintaining a solid identity, supported by a strong culture.

MEDACTA IDENTITY

A solid corporate identity is what makes a company unique and recognizable. Medacta's identity is based on the company's unique history. In fact, we are the only orthopedic company founded by a patient, Alberto Siccardi, whose own journey as a hip patient convinced him of the importance of pioneering a new approach to joint replacement. Our company's vision and mission reflect the passion, courage, and trust of our founder. These qualities create a sense of belonging and inspire everyone in the company's daily operations.

MEDACTA CULTURE

At Medacta, we always strive to strengthen our #beMedacta culture, a key to sustainable success, actively contributing to our growth. We want to ensure that all our employees understand and demonstrate our culture and values to build and sustain our continuous improvement processes successfully. We believe it is of the utmost importance that these values are kept alive and, above all, transferred to all the people who have joined and will join our company in the coming years. Our values and their evaluation are integrated into our talent acquisition process, as well as our onboarding activities, Code of Business Conduct and Ethics, and within our performance and talent management processes.

INTEGRITY
Always be honest and upright

TRUST AND ACCOUNTABILITY
See it, Own it, Solve it, Do it

RESULTS ORIENTATION
Know your goal, focus on it

TEAM WORK
Leverage collective genius

LOYALTY
Be Medacta

MEDACTA FAMILY OPEN DAY

On Saturday, April 22, 2023, we celebrated the first Medacta Family Open Day, an event dedicated to our local team in Ticino and their families. The event took place in Riva San Vitale, Canton Ticino, Switzerland. During the Open Day, many participants competed passionately in several sports tournaments organized for both adults and kids. In the morning, we opened the doors of our facilities at Castel San Pietro and Rancate to allow a site visit to our employees and their families.

what we do matters

WHAT WE DO MATTERS

During the year, we continued to promote the inspiring "What We Do Matters" awareness campaign, with the aim to bring the stories of our patients to the forefront and showcase how our solutions have a positive impact on their lives, ensuring that all employees see the value of their work and remain inspired to develop improved solutions.

> ***"I'm back to normal life because I feel very stable. I have a good balance and I don't even think about my knee. That's perfect!"***
> *Knee patient*

6. VALUE CREATION STRATEGY

AN OVERVIEW OF THE ORTHOPEDIC MARKET

The orthopedic market is a large and growing industry that encompasses the development, manufacturing, and distribution of medical devices and implants used to treat musculoskeletal disorders. The market is driven by factors like the aging global population, rising incidences of orthopedic diseases, and advancements in medical technology. This led to growth in procedural volumes, frequent new product introductions, and evolving industry standards resulting from innovation and scientific discoveries. Furthermore, orthopedic patients have direct and easier access to information online, which has empowered them to become more informed about their conditions and treatment options. This evolving situation is exerting pressure on healthcare systems worldwide, compelling them to grapple with various challenges. These include minimizing costs while simultaneously providing high-quality care, all in alignment with the heightened expectations of patients.

Currently, healthcare sustainability is garnering considerable attention globally, especially in the US market. Ambulatory Surgery Centers (ASCs) play a crucial role in this landscape by offering same-day surgical care, including diagnostic and preventive procedures, without the need for hospital admission, representing a significant growth driver. These facilities can perform surgeries at a lower cost, with shorter waiting times and potentially better outcomes (e.g., early mobilization and lower risk of infection), which benefits both patients and the entire healthcare system. At Medacta, we focus on a differentiated approach to the opportunities within the ASC environment.

A DIFFERENTIATED APPROACH

Our differentiated approach centers on responsible and sustainable innovation that provides significant benefits for surgeons, the healthcare system, and patients. We combine innovative, minimally invasive, and personalized treatment options with a comprehensive product portfolio and cutting-edge technologies to provide solutions that positively impact patient well-being and enhance healthcare efficiency.

To address any potential learning curves, the M.O.R.E. Institute provides our existing and new surgeons with ample educational opportunities to develop and refine their skills with our innovative products, techniques, and technologies.

INTEGRATED STRATEGY

At Medacta, our value creation strategy is basically built on three fundamental and deeply integrated assets: responsible and sustainable innovation, medical education, and healthcare sustainability. By combining these assets with a holistic approach to personalized medicine, we can foster long-lasting relationships with surgeons, hospitals, and healthcare providers, and achieve our vision of improving the care and well-being of orthopedic patients worldwide.

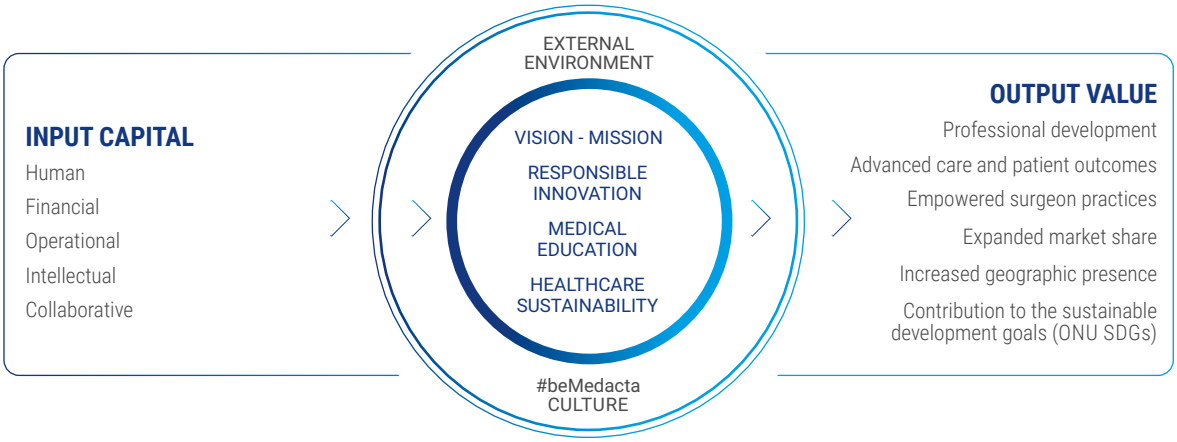
- RESPONSIBLE INNOVATION
  is the foundation of all our projects and the basis of our growth strategy. We drive our innovation by providing minimally invasive surgery and personalized solutions designed for every patient, with the aim to improve their care pathway and potentially enable better outcomes. We are convinced that innovation requires medical education.

- MEDICAL EDUCATION
  is an indispensable tool for transforming our innovation into concrete benefits for patient well-being and healthcare system efficiency. We provide surgeons with personalized, structured, and accessible education programs on our innovative technologies and procedures, to help them accelerate the learning curve to become proficient in the use of our products and solutions.

- HEALTHCARE SUSTAINABILITY
  is a key element in making our innovation and training programs as accessible as possible. It guides the design of our solutions to make them more efficient, reducing costs and complementing operative workflow efficiently.

BUSINESS MODEL

Our business model embodies the way we generate value. We leverage different resources, defined as input capitals, and turn them into outcomes, defined as output capitals, through a series of processes with the aim of having a positive impact and enhancing value for all our stakeholders over the short, medium, and long term. The external environment, including economic conditions, technological change, and societal and environmental challenges, sets the context within which we operate. The vision, mission, and fundamental assets encompass the whole organization, identifying the complete scenario in which we operate.



INPUT CAPITAL

The input capital comprises diverse areas in continuous interaction.

HUMAN

We can count on more than 1'800 specialized and talented employees worldwide. They are motivated and share strong identity, solid culture, and ethical values. The investments in training programs allow for the continuous updating of their knowledge, competencies, and expertise.

FINANCIAL

We have a healthy balance sheet which highlights the strength of our business and its ability to weather any economic storms and fund significant investments.

OPERATIONAL

We have full in-house capabilities, in our two production sites in Castel San Pietro and Rancate, designing and producing our products, assuring excellent quality, flexibility, continuity, and efficiency. The extensive use of advanced technology allows to minimize operational cost, increase control over the process, assure quality, and shorten production lead times.

INTELLECTUAL

In the orthopedic industry, legal compliance, agreements, and intellectual property rights are essential. New techniques, products and technology handled by the R&D department, as NextAR our proprietary Augmented Reality Surgical Platform, represent intellectual capital that we are committed to protecting.

COLLABORATIVE

We comply with certifications and registrations in all of the countries where we operate for each new product, partnering with various certification agencies, such as the Food and Drug Administration ("FDA") in the United States. We collaborate with top universities, technological consortiums, expert surgeons, and centers of excellence throughout the world.

OUTPUT VALUE

The input capital follows a transformational process, to generate tangible results as output value.

PROFESSIONAL DEVELOPMENT

Through our Medacta Academy we contribute to consolidate and increase professional and personal skills through tailor-made training programs for each employee.

ADVANCED CARE AND PATIENT OUTCOMES

We are dedicated to improving patient well-being by constantly evolving and innovating our products and techniques by leveraging cutting-edge technologies, prioritizing minimally invasive and personalized solutions.

EMPOWERED SURGEON PRACTICES

We are completely committed to supporting surgeons in their practice by providing them with innovative solutions that enhance accuracy, efficiency, and sustainability throughout the whole patient journey, from preoperative to intraoperative to postoperative care.

EXPANDED MARKET SHARE

We continue expanding our market share in all of our business lines, focusing on meeting our customer's needs while investing in R&D, experienced sales force and personalized solutions.

INCREASED GEOGRAPHIC PRESENCE

As part of our growth strategy, we continue to make considerable investments to expand our geographic presence in significant markets, upscaling our operational opportunities.

CONTRIBUTION TO THE SUSTAINABLE DEVELOPMENT GOALS (ONU SDGS)

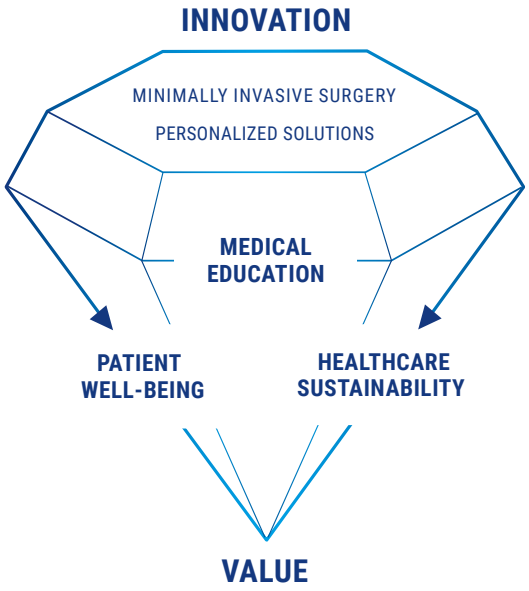
We constantly improve our contribution to innovative solutions, caring for people, for the environment and for our community, according to the "SDGs" defined by the United Nations. More details are available in our Sustainability Report.

6.1 RESPONSIBLE AND SUSTAINABLE INNOVATION

We are fully committed to improving patient outcomes and satisfaction through responsible and sustainable innovation. We envision innovation as a valuable asset, much like a diamond, which can address unmet clinical needs and solve challenges, positively impacting patient well-being and healthcare sustainability.

Our commitment to innovation is reflected in our unique surgical techniques, products, and solutions. We prioritize minimally invasive techniques and personalized solutions to meet each patient's needs. Through personalized high-level medical education programs, we transform cutting-edge innovation into tangible benefits for patient well-being and healthcare sustainability, striving to create value for our stakeholders.

We strongly advocate for responsible and secure innovation. Our dedication to upholding the utmost standards of quality and compliance in the production and distribution of safe, effective products is reinforced by the M.O.R.E. Excellence Clinical Program. This program ensures the responsible market introduction of innovative products, gradually progressing toward their full release after obtaining regulatory approvals.



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, and shorter rehabilitation time. Hence, we have developed new offerings based on minimally invasive techniques such as AMIS, MIS MySpine MC, and NextAR Spine MIS LT.

PERSONALIZED SOLUTION

Each patient is different and has specific needs and expectations. Therefore, it is fundamental for us to improve the entire patient experience through a personalized journey, designed for their unique anatomy and expectations. Personalized techniques such as Kinematic Alignment and cutting-edge solutions like those included in the MySolutions Personalized Ecosystem can help surgeons improve patient outcomes and satisfaction.

M.O.R.E. Excellence CLINICAL PROGRAM

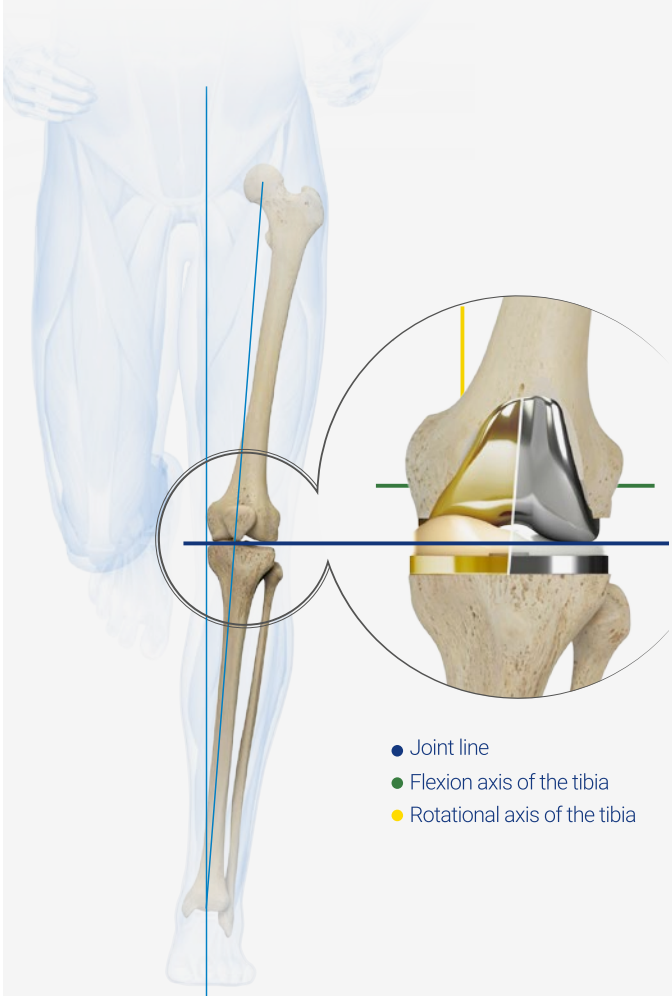
This program enables us to responsibly introduce innovative products to the marketplace by defining the applicable steps and milestones ahead of their full release. We typically release new products on a restricted basis to conduct voluntary clinical programs, following the guidelines recommended by independent organizations, such as the Orthopedic Data Evaluation Panel or the Beyond Compliance Program.

We continuously monitor and assess the clinical performance of all our products by way of our post-market surveillance program, which channels data to an internal group of experts who compile a report to ensure the system performance is fully evaluated. Moreover, we sponsor and participate in clinical post-market studies conducted by leading international experts to continuously improve our knowledge and make these results available to the scientific community through peer-reviewed publications.

KINEMATIC ALIGNMENT MEETS KINEMATIC DESIGN

For a decade now, we've been at the forefront, paving the way in redefining how knee arthroplasty is approached. Therefore, we have collaborated with our surgeons to develop an innovative personalized technique to improve knee patient outcomes and satisfaction: Kinematic Alignment.

Compared to traditional surgeries using Mechanical Alignment (MA), which intends to give every patient a straight "knee alignment", even if the patient's leg wasn't naturally straight when healthy, with Kinematic Alignment (KA), the surgeon aims to restore the natural knee shape and alignment that each patient had when their knee was still healthy - matching the knee replacement to each patient's individual anatomy. It operates by custom-positioning the knee implant to the native joint line of the knee as it was in its pre-arthritic state while preserving the surrounding tissues and ligaments. Medacta's unique Kinematic Alignment Platform (MyKA), provides surgeons with the most comprehensive solution to safely and reproducibly perform Kinematic Alignment.

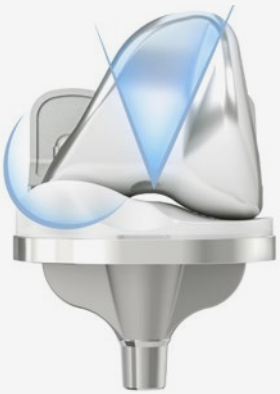


- Joint line
- Flexion axis of the tibia
- Rotational axis of the tibia

In 2023, we officially launched GMK SpheriKA, the first knee implant optimized for Kinematic Alignment with the intention to further improve Kinematic Alignment results and, ultimately, patient satisfaction. The GMK SpheriKA has been built on extensive scientific anthropometric research that includes more than 150'000 CT and MRI scans of different demographic patient parameters. Moreover, this innovative implant leverages more than 10 years of clinical experience and evidence in successful implant design for knee replacement.*

GMK® SPHERIKA

THE FIRST KA-OPTIMIZED IMPLANT



MyKA™
KINEMATIC ALIGNMENT PLATFORM

A COMPREHENSIVE PLATFORM FOR PERSONALIZED TKA

* Peter F. Choong et al., "A Randomized Controlled Trial Comparing a Medial Stabilized Total Knee Prosthesis to a Cruciate Retaining and Posterior Stabilized Design: A Report of the Clinical and Functional Outcomes Following Total Knee Replacement", The Journal of Arthroplasty Jan 2020: 1-8

SCOTT, David F.; GRAY, Celeste G. Outcomes are better with a medial-stabilized vs a posterior-stabilized total knee implanted with kinematic alignment. The Journal of Arthroplasty, 2022, 37.8: S852-S858.

G. Pandy et al., "Comparison of posterior-stabilized, cruciate-retaining, and medial-stabilized knee implant motion during gait", J Orthop Res. Jan 2020: 1-16

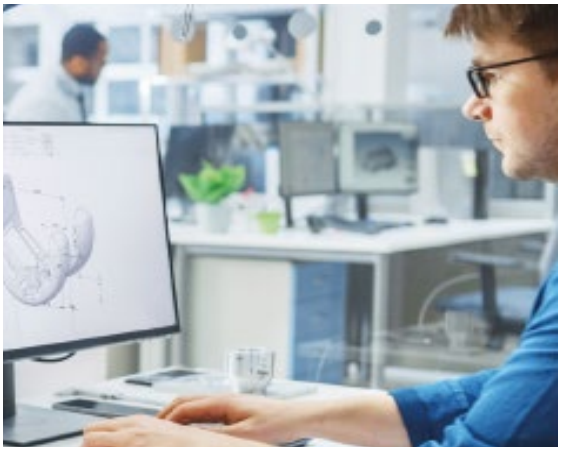
SCHÜTZ, Pascal, et al. Kinematic evaluation of the GMK sphere implant during gait activities: a dynamic videofluoroscopy study. Journal of Orthopaedic Research®, 2019, 37.11: 2337-2347.

INNOVATION PILLARS

At Medacta, innovation is based on three pillars: a strong and continued collaboration with surgeons, continuous investments in long-term and short-term research and development (R&D), and the adoption of cutting-edge technologies.

STRONG COLLABORATION WITH SURGEONS

Listening to surgeons, identifying patient requirements, and designing new solutions enables us to respond to unmet clinical needs proactively. 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. A successful example of this collaboration is our GMK Sphere, a total knee implant designed to deliver maximum functional stability with the goal of increasing total knee arthroplasty (TKA) patient satisfaction. The development of this innovative device has been substantially supported by the knee anatomy and kinematics studies by Prof. Freeman and Prof. Pinskerova.



RESEARCH AND DEVELOPMENT

Research and Development (R&D) is vital for our innovation at Medacta. We continuously invest in R&D to explore novel approaches, surgical techniques, technologies, and product improvements that enhance patient outcomes and satisfaction. Our well-prepared, competent, and rapidly evolving team is focused on achieving high standards of quality, flexibility, continuity, and efficiency. Additionally, we have a range of in-house research resources, including MyBody, which contains over 150'000 CT and MRI scans of different demographic patients' parameters. We also have advanced 3D printing capabilities and facilities for prototype development.

CUTTING-EDGE TECHNOLOGIES

We are enhancing our robust product pipeline by strategically integrating advanced, cutting-edge technologies. This is driven by using big data, harnessing the power of state-of-the-art manufacturing techniques, utilizing smart robotics, embracing Augmented Reality (AR), and incorporating precision surface technology.

NEXTAR AUGMENTED REALITY SURGICAL PLATFORM

The NextAR Platform leverages patient-specific, unique real-time data to efficiently complement operative workflow. Through advanced 3D planning tools, a revolutionary, compact, integrated single-use tracking system, and the latest advancements in Augmented Reality, the platform enables data-driven decision-making allowing the surgeon to perform personalized adjustments based on each patient's unique anatomy and biomechanics. Since its official introduction in 2021, NextAR is a personalized, proprietary and sustainable solution successfully used to treat thousands of patients worldwide in high demand in all our markets. NextAR is part of the MySolutions Personalized Ecosystem.

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.

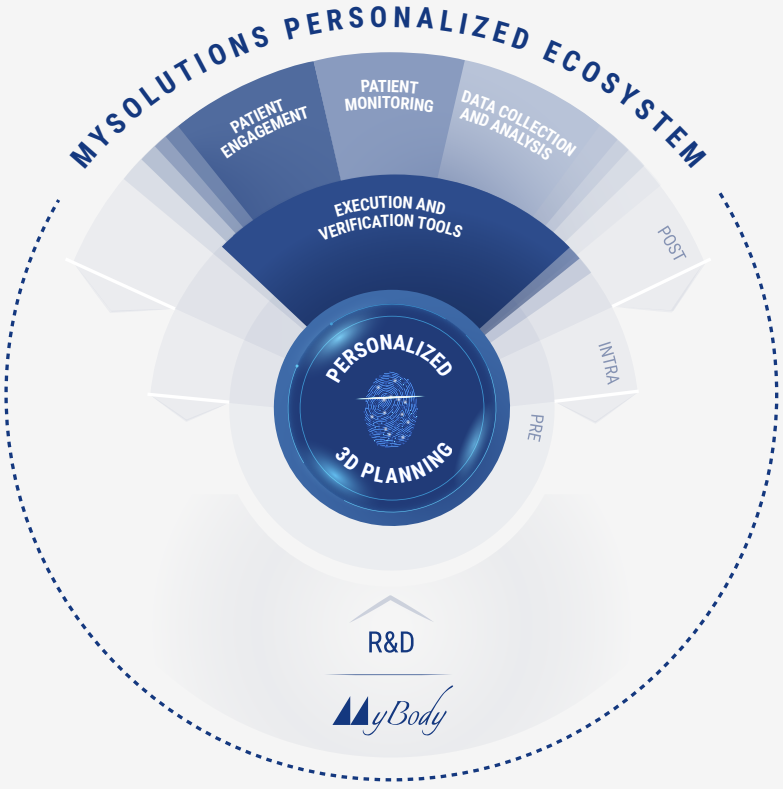
Leveraging the latest technological advances, we are committed to constantly developing innovative solutions to empower the surgeon's practice, enabling data-driven decisions to provide more personalized, accurate, and efficient procedures aiming at better patient satisfaction and outcomes. This has led us to design a network of advanced digital solutions to improve patient outcomes and healthcare efficiency, the MySolutions Personalized Ecosystem. With more than 220'000 procedures performed worldwide, this constantly evolving platform has been designed around the patient's needs and expectations in collaboration with an international network of expert surgeons, with the aim of delivering value throughout the entire patient journey in joint replacement and spine surgery.

Surgeons' advanced 3D planning is at the core of our platform, followed by highly accurate execution tools such as patient-matched surgical guides, as well as an augmented-reality-based surgical platform and verification software. To improve the patient experience and support them during the continuum of care, we set up a patient-optimized pathway tool. To let surgeons record and measure their clinical outcomes we offer a validated web-based archiving and analyzing system. Together with our comprehensive implant portfolio and surgical techniques, MySolutions Personalized Ecosystem empowers our holistic approach to personalized medicine.

In 2023, we enhanced our MySolutions Personalized Ecosystem even more. We announced the first European and US Peri-Acetabular Osteotomy procedures using the MyPAO Platform, a unique solution for acetabular realignment, and the official launch of the NextAR Spine MIS LT procedure, efficiently complementing the operative workflow for spine surgery.

A NETWORK OF ADVANCED DIGITAL SOLUTIONS DESIGNED TO IMPROVE PATIENT OUTCOMES AND HEALTHCARE EFFICIENCY

- PERSONALIZED 3D PLANNING
- PRECISE EXECUTION
- PATIENT ENGAGEMENT
- EFFICIENT CASE MANAGEMENT



6.2 MEDICAL EDUCATION

We strongly believe that medical education is a fundamental asset of our long-term value-creation strategy and is an indispensable tool for transforming our innovations into tangible benefits for patient well-being and enhancing the efficiency of the healthcare system.

THE M.O.R.E. INSTITUTE: A PLATFORM DESIGNED TO SHARE EXPERIENCE

Aware of the importance of education, we established the M.O.R.E. (Medacta Orthopaedic Research and Education) Institute in 2004. This global medical education platform provides surgeons with personalized and structured education programs and continuous support to facilitate them becoming proficient with our innovative products, techniques, and technologies. The M.O.R.E. Institute relies on an international network of expert surgeons to create interactive networking opportunities and a variety of educational events, facilitating the learning and sharing of experiences, including one-to-one visits, online webinars and Meet the Experts, wet labs, scientific evenings, and international symposia. The M.O.R.E. Institute also supports fellowship programs worldwide, with a strong focus on young and promising surgeons. "With the M.O.R.E. Institute, the surgeon is never alone when discovering new technologies" is our educational motto.

2ND EUROPEAN KINEMATIC ALIGNMENT SUMMIT

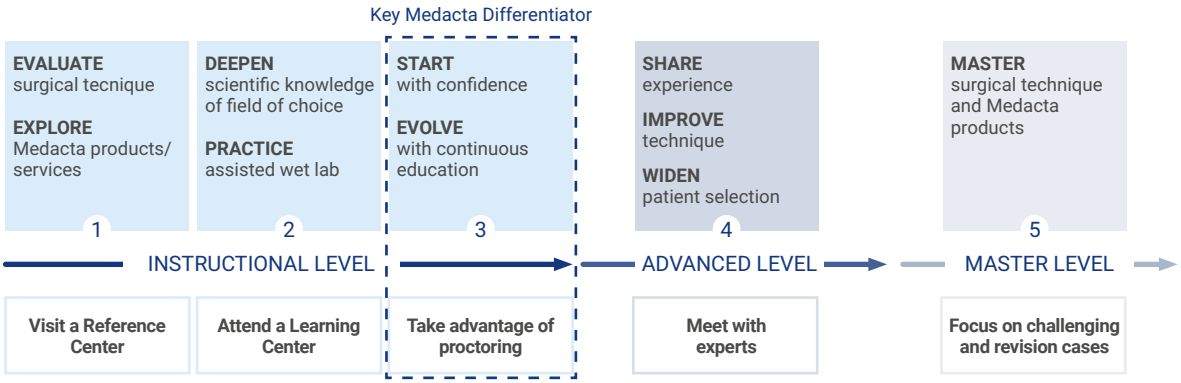
In September 2023, over 100 participants from 11 countries around the world attended our 2nd European Kinematic Alignment Summit at the Keble College of Oxford University. This immersive educational event allowed participants to share their experiences about Kinematic Alignment and its ultimate impact on patient outcomes.

Moreover, this event was the perfect occasion to share initial data on GMK SpheriKA, the first knee implant optimized for Kinematic Alignment. This product offers tremendous potential to further improve kinematic alignment results and positively impact patient satisfaction.

> *" It is very exciting to see this level of enthusiasm especially because at the beginning it was not easy to see the advantages of this technique. My feeling is that Kinematic Alignment is changing dramatically the way total knees are going to be done in the years to come "*
>
> ***Francesco Siccardi***
> *CEO of Medacta*

THE CHALLENGE OF THE LEARNING PROCESS

Introducing new techniques, products, and technologies requires time to adapt and often involves a learning curve. This is why we believe that "innovation requires education" and offer our surgeons personalized and structured educational opportunities focused on improving patient outcomes through enhanced surgical proficiency. Through the M.O.R.E. education path, participants can visit experienced surgeons to learn more about our innovative portfolio, attend Learning Centers to practice during wet labs, and deepen their knowledge through discussions with our international surgeon experts, progressively advancing from instructional, to advanced, and finally to the master level. Surgeon-to-surgeon proctorship is a crucial part of this learning process, providing unparalleled support to surgeons during their first surgeries at their own hospitals.



THE VALUE OF OUR EDUCATION PROGRAMS

During 2023, we witnessed increased interest in our educational programs, with a high number of participants from around the world. Additionally, we celebrated the completion of the 500th M.O.R.E. Learning Center for our AMIS technique.

It all started in 2004 when we collaborated with an international group of expert surgeons to create the unique AMIS Education Program. This program, which over the years has been extended to all Medacta business lines, provides surgeons with a tailored and comprehensive training path, which allows for technique proficiency and encourages the sharing of knowledge and experiences, thereby reducing potential challenges in the early phase of the learning curve[1,2]. This program has become a dynamic global platform with an education community including more than 260 AMIS Reference Centers worldwide to date.

Furthermore, in 2023, we released a comprehensive education program dedicated to NextAR, which allows surgeons to have a proficient use of this technology and encourages the sharing of knowledge and experiences among the scientific community. We also completed the certification process for NextAR Experts all around the world to effectively support new surgeons.

A STRONG PARTNERSHIP WITH SURGEONS

Education initiatives enable us to forge robust partnerships with surgeons, fostering the widespread adoption of our products and solutions and contributing to their retention and loyalty. Additionally, we believe that our close collaboration with surgeons benefits us in developing and refining our products and techniques, staying up-to-date with and influencing the latest advancements in the orthopedic field.

EDUCATIONAL ACTIVITIES AND OPPORTUNITIES

In 2023, we continued our commitment to medical education with more than 2'900 surgeons attending educational activities. Complimenting the in-person scientific events, the M.O.R.E. Institute programs offer surgeons valuable online resources to deepen their knowledge and discover more about our solutions, including eLearning Classes, webinars, and online "Meet the Expert" exclusive events. Moreover, surgeons can access many hours of on-demand medical education through Medacta TV, our streaming platform, along with our whole education library, available 24/7 on iOS or Android-based tablets or mobile devices, both online and offline through the specially designed M.O.R.E. App.

1 Müller DA, Zingg PO, Dora C. Anterior minimally invasive approach for total hip replacement: five-year survivorship and learning curve. Hip Int 2014.

2 Zing P. AMIS using Versafitcup and Quadra to overcome tissue response: 5-year results. Podium presentation at the 7th M.O.R.E. International Symposium, Lugano, Switzerland, April 11-12, 2014.

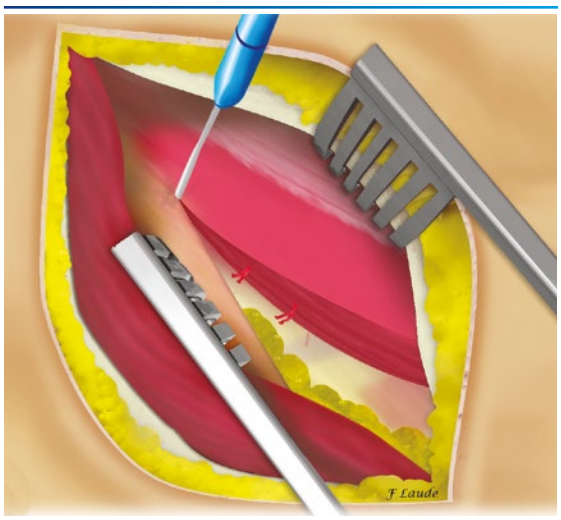
6.3 HEALTHCARE SUSTAINABILITY

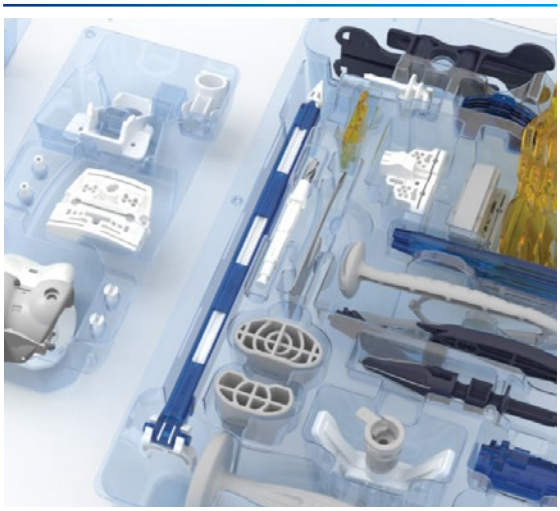
The growing and aging population is placing an increased demand on healthcare, putting pressure on healthcare systems around the world to reduce costs while meeting patient expectations. We remain committed to designing products, solutions, and surgical procedures to improve patient well-being and satisfaction, facilitate the work of our surgeons, and increase healthcare sustainability by improving efficiency while reducing surgical costs.

Through ongoing communication with hospitals and surgeons worldwide, we strive to understand how we can streamline treatments and provide solutions that can positively impact their processes and operations. Furthermore, we are dedicated to continuously improving the R&D process to promote integrated sustainability in all of our projects. Minimally invasive techniques, single-use instruments, patient-matched solutions, and cutting-edge technologies remain our key areas of focus.

MINIMALLY INVASIVE TECHNIQUES

The AMIS technique represents a streamlined and reproducible technique that delivers significant benefits to patient well-being while optimizing costs and efficiency for the surgeon. With our range of targeted AMIS education initiatives led by global surgeon experts, along with dedicated implants, instruments, and additional services and tools, it provides a comprehensive offering to successfully perform minimally invasive hip procedures.





SINGLE-USE INSTRUMENTS

GMK Efficiency is a complete single-use instrument set developed to optimize instrument management, providing significant clinical, logistical, and economic benefits to hospitals and, in particular, outpatient surgical centers. It does not require preoperative sterilization, saves the use of clean water, and also has the potential to reduce infection risks because of its single-use nature and the fact that it is delivered terminally sterile. Since its market introduction, we have been offsetting the amount of CO_2 related to its lifecycle, supporting environmental sustainability projects initiated by Swiss Climate. Procedures that combine patient-specific instrumentation with single-use instrumentation have proved to save time in the Operating Room (OR) and simplify the OR scheduling.[3,4,5,6]

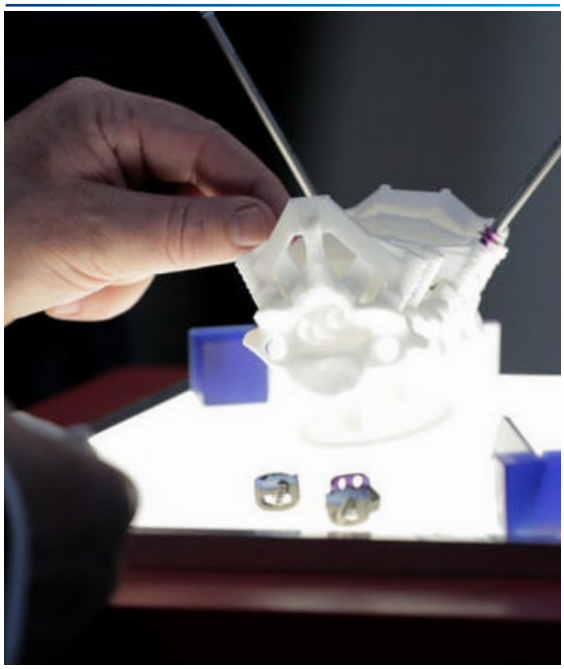
GMK Efficiency is also part of the Efficiency KneePack, a complete solution to perform Total Knee Replacement, that also includes MyKnee patient-matched guides and GMK Sphere medially stabilized total knee implant. Delivered terminally sterile in a single, lightweight box, to streamline instrument management and reduce surgery time, it provides huge economic and logistical benefits to every healthcare stakeholder.

3 Dell'Osso G, Celli F, Bottai V, Bugelli G, Citarelli C, Agostini G, Guido G, Giannotti S Single-Use Instrumentation Technologies in Knee Arthroplasty: State of The Art, Surg Technol Int. 2016 Apr 27;XXVIII. pii: sti28/727

4 Attard, Andre, Gwenllian Fflur Tawy, Michiel Simons, Philip Riches, Philip Rowe, and Leela C Biant. 2019. "Health Costs and Efficiencies of Patient-Specific and Single-Use Instrumentation in Total Knee Arthroplasty: A Randomised Controlled Trial." BMJ Open Quality 8 (2): e000493.

5 Tawy, Gwenllian F, and Leela C Biant. 2020. "Improving Intra-Operative Efficiency of Total Knee Arthroplasty with Patient-Specific and Single-Use Instrumentation." Journal of Orthopaedic Experience & Innovation, September.

6 Tyler D. Goldberg, MD, John A. Maltry, MD, "Logistical and Economic Advantages of Sterile-Packed, Single-Use Instruments for Total Knee Arthroplasty", The Journal of Arthroplasty 2019.



PATIENT-MATCHED SOLUTIONS

Backed by more than 10 years of clinical evidence, patient-matched technology facilitates accurate implant positioning and operating room efficiency. This solution combines a dedicated personalized 3D preoperative planning tool, based on CT or MRI scans of the patient's anatomy, with patient-matched 3D-printed guides that enable the surgeon to accurately replicate intraoperatively the validated planning. MIS MySpine MC is a patient-matched solution for spine surgeries that use the midline cortical approach. It allows for posterior lumbar fusion to be carried out in a minimally invasive, muscle-sparing way, resulting in shorter operating times and a substantial reduction of both radiation exposure and cost. The goal of MIS MySpine MC is to maximize the fusion rate and the predictability of clinical outcomes, thus positively impacting patient well-being. Our patient-matched solutions are available for hip, knee, shoulder, and spine procedures and are regularly used by thousands of surgeons around the world and are part of our MySolutions Personalized Ecosystem.

CUTTING-EDGE TECHNOLOGIES

Leveraging the latest advances in Augmented Reality, the NextAR Platform harnesses patient-specific, unique real-time data to efficiently complement the operative workflow. These valuable insights are displayed through the NextAR Smart Glasses directly onto the operative field to give the surgeon enhanced visualization and control during the procedure. The increased level of data may provide more precision and could lead to improved patient outcomes. In line with Medacta's philosophy of healthcare sustainability, the NextAR platform is offered as a hardware system with limited capital investment and single-use instrumentation at a low cost per case and provides the capability to host software for a variety of applications.

NEXTAR™

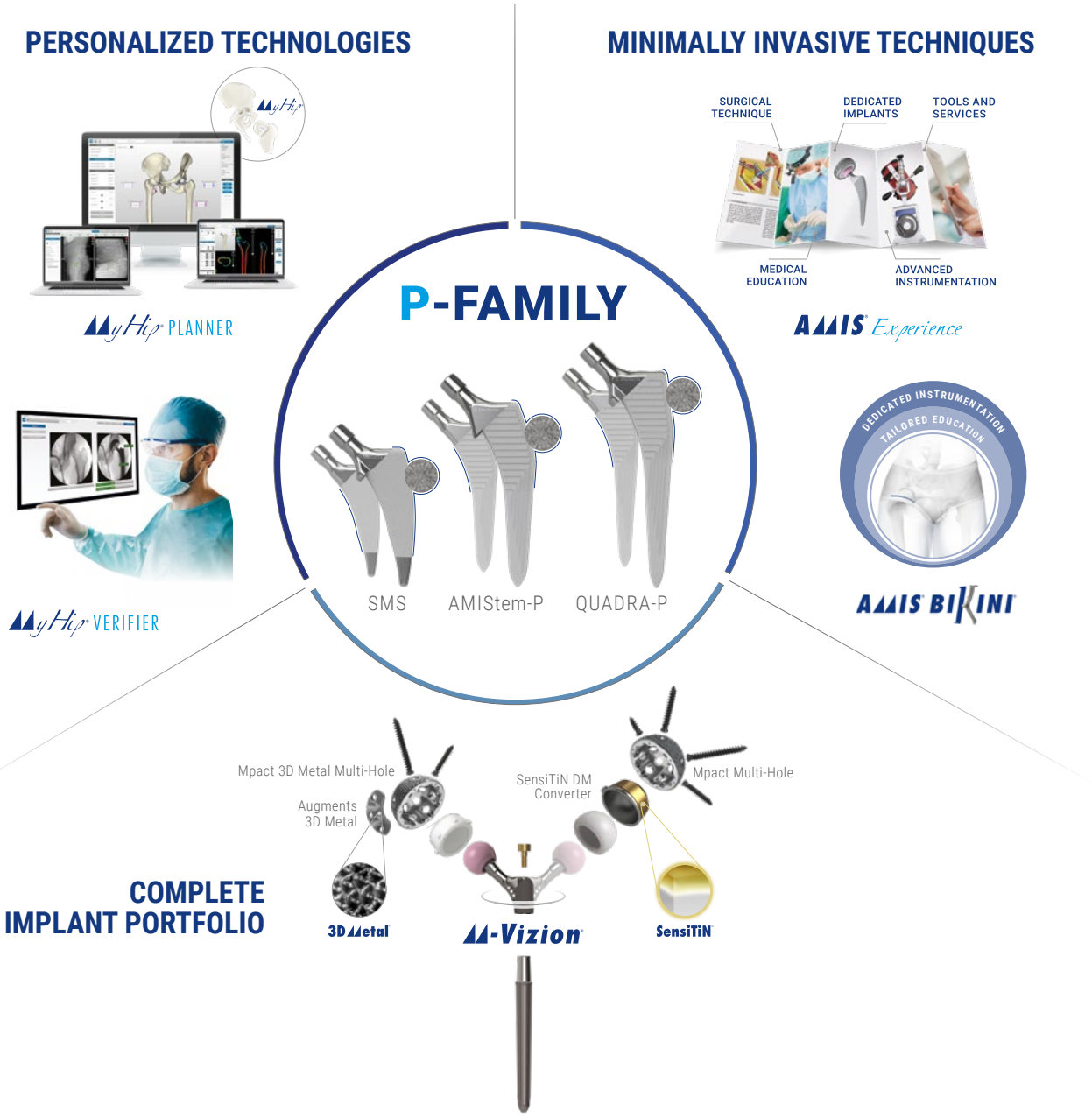
AUGMENTED REALITY SURGICAL PLATFORM

8. BUSINESS LINES

8.1 HIP

THE OVERALL HIP STRATEGY

Since our founding in 1999, we have been driven to advance the care and the satisfaction of our patients, bringing value throughout their entire orthopedic journey through minimally invasive and personalized solutions. We focused on developing new and improved products, techniques, and technologies for the hip segment of the orthopedic market. We created a comprehensive offering designed in collaboration with a network of international expert surgeons, based on three complementary assets: a complete implant portfolio that can be used for primary procedures (i.e., first-time hip replacements), as well as revision procedures (i.e., secondary hip replacements), minimally invasive techniques and personalized technologies. Our hip offering is supported by the M.O.R.E. Institute, which provides tailored high-level educational pathways through an international network of expert surgeons.



THE MEDACTA P-FAMILY HIP SYSTEM

The Medacta P-Family Hip System, the core of our hip offering, is a comprehensive set of tapered rectangular stems, which includes Quadra-P, AMIStem-P, and SMS, all of which are designed to meet today's surgical challenges. P-stems are the evolution of successful and proven femoral stem concepts and are based on the remarkable legacy and clinical heritage of Quadra-H and AMIStem-H. Both stems demonstrate solid ODEP ratings in 2023, respectively 13A* and 10A, and survivorship data[7]. AMIStem-P has been awarded in 2023 3A* ODEP rating. It was developed on the basis of the remarkable clinical heritage of AMIStem-H, with the goal of providing an improved load transfer through the application of a state-of-the-art coating (MectaGrip) on the proximal part of the stem, to be able to better address the modern challenges in THA. While preserving the characteristics which are important to the success of existing systems, the P-Family was developed using innovative key features to bring solid clinical performance to the current landscape of total hip arthroplasty (THA). A state-of-the-art coating (MectaGrip) on the proximal portion is designed to enhance initial stability, due to its high coefficient of friction and long-term fixation, thanks to its open and interconnected pores, which create a favorable environment for bony fixation. Progressive neck lengths, provide surgeons with a better tool to restore the native hip joint biomechanics in a broader patient population. Different lengths and canal-filling dimensions, as well as a comprehensive size range, give surgeons the ability to match an implant to the patient's current bone morphology.

MINIMALLY INVASIVE TECHNIQUES

Since our founding, we have become a pioneer in developing new offerings for hip replacement patients because of our minimally invasive surgical techniques, which are supported by our extensive surgeon training and education initiatives. In particular, we developed the AMIS technique, which can potentially deliver several advantages for the patient.[8,9,10,11] The AMIS technique, with more than 600'000 procedures performed worldwide, is a surgical technique involving an anterior approach to the hip that has been fine-tuned to minimize soft tissue damage, pain, and recovery time, reducing the dislocation rate and providing excellent patient satisfaction scores. By following both an intermuscular and an internervous path, the AMIS technique potentially reduces the risk of damage to periarticular structures and can improve overall patient outcomes. The AMIS technique is complemented by a unique package of supporting products, including dedicated implants, specifically designed instruments, and the AMIS Mobile Leg Positioner (a patented surgical table extension that allows for a simpler and reproducible procedure), as well as a specifically trained sales force. We believe that the AMIS Education Program, developed with the aim of optimizing and standardizing the implementation of the AMIS technique, has contributed to making the AMIS technique a preferential and easily reproducible hip replacement surgical technique for surgeons worldwide.

Our education opportunities are designed to master the AMIS technique from the simplest primary hip arthroplasties to the most complex cases. In 2023, The M.O.R.E. Institute reached remarkable milestones, including the completion of the 500th M.O.R.E. AMIS Learning Center, the inauguration of the 1st M.O.R.E. AMIS Learning Center Brasileiro, and the establishment of the 1st Italian M.O.R.E. Hip Revision Learning Center. Since 2004, we have welcomed surgeons from across the globe to our AMIS Learning Centers, providing a platform for them to immerse themselves in our Anterior Minimally Invasive Surgery (AMIS) technique. These accomplishments stand as testaments to our unwavering dedication to advancing medical education and promoting minimally invasive hip replacement procedures.

Our AMIS offering has been further enhanced by new packages that allow surgeons to take the anterior approach to the next level, such as the comprehensive AMIS Bikini offering. The bikini incision features a short, oblique skin incision within the inguinal skin fold, resulting in an aesthetically pleasing cosmetic scar that can be narrower and lighter in color, and remains hidden when wearing a bikini.[12,13,14,15] This technique may also help lessen wound healing concerns in obese patients or patients with a large abdomen pannus. [12,13,14,15] 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.

7 Australian Orthopaedic Association National Joint Replacement Registry (AOANJRR), Automated Industry Report System (AIRS), ID No.9245 for Medacta Australia, Quadra-H Total Conventional Hip, (Procedures from 1 September 1999 - 20 February 2023), Accessed 21 February 2023

8 Laude F. Total hip arthroplasty through an anterior Hueter minimally invasive approach. Interact Surg (2006) 1: 5-11.

9 Dora C. Minimalinvasive Zugänge an der Hüfte. Orthopäedie Mitteilungen 6/07, 574-576.

10 Vasina PG, Rossi R, Giudice GM, Palumbi P. Hip arthroposthesis through the anterior minimally invasive approach. Sphera 2010;6(12) – Speciale Ortopedia.

11 Jayankura M, Roty M, Potaznik A, Rooze M, Cermak K, Remy P, Gillard B, Biltiau N, Schuind F. Isokinetic and isometric muscle strength recovery after total hip arthroplasty implanted by direct anterior approach. Podium presentation at the 10th Annual Congress of the EFORT, Vienna, Austria, June 3-6, 2009.

12 Menzies-Wilson, Richard & Mahalingham, Karuppiah & I, Tamimi & Field, Richard. (2019) "Retrospective cohort study comparing the functional outcomes of direct anterior approach hip arthroplasty. Oblique "bikini"vs longitudinal skin incision ".

13 Menzies-Wilson, Richard & Mahalingham, Karuppiah & I, Tamimi & Field, Richard. (2019)." Functional Outcomes of direct anterior approach hip arthroplasty: Oblique 'bikini' versus longitudinal skin incision. 10.1177/2210491719890883.

14 Leunig, Hutmacher, Ricchiardi, Impellizzeri, Rüdiger, Naal. (2018)" Skin crease 'bikini' incision for the direct anterior approach in total hip arthroplasty: a two- to four-year comparative study in 964 patients. Bone Joint J.

15 Manrique, MD, Paskey, BS a, Tarabichi, MD, Restrepo, MD, Foltz, PhD Hozack, MD. (2019) "Tota l Hip Arthroplasty Through the Direct Anterior Approach Using a Bikini Incision Can Be Safely Performed in Obese Patients". J Arthroplasty

PERSONALIZED TECHNOLOGIES

The hip portfolio is further enhanced by innovative technologies that deliver a personalized approach to hip replacement. As part of our MySolutions Personalized Ecosystem, MyHip provides 3D printed patient-matched guides allowing for more accurate positioning and sizing of the hip implant, MyHip Planner empowers the surgical decision-making process through a 3D preoperative planning tool with advanced analytical features, and MyHip Verifier allows for intraoperative non-invasive assessment of implant positioning.

MyHip Planner is an intuitive and reliable 3D preoperative planning tool with advanced analytical features. It empowers the surgical decision-making process in defining the optimal surgical strategy for each patient. Starting from a CT scan, the MyHip Planner algorithm recreates a 3D model of the patient's anatomy. Thanks to its advanced 3D planning and functional assessment features, this software allows the surgeon to base the implant selection and position on the patient's anatomy, hip joint biomechanics, and functional performances. Surgeons could thus carry out evaluations and make accurate decisions specifically for each case, potentially helping anticipate possible complications, instability or impingement, and reduced range of motion. Moreover, the MyHip Planner software features a spinopelvic analysis, which is a topic that has become increasingly in demand for better evaluating the relationships between hip and spine anatomical structures and optimizing mutual treatments for improving patient outcomes. Through the software is possible to request MyHip 3D printed patient-matched guides according to the elaborated planning has been integrated, further increasing the value of this tool. MyHip Verifier is an easy-to-use, non-invasive, fluoroscopy-based platform providing an intraoperative assessment of implant positioning. Engineered to seamlessly integrate into the surgeons' existing workflow and preserve operating room efficiency, MyHip Verifier allows for intraoperative fluoroscopy by providing a real-time numerical evaluation of the actual influence of implant positioning on the patient's anatomy.

PRIMARY IMPLANTS PORTFOLIO

Complementing the P-Family, our cementless stem portfolio includes MasterLoc and MiniMAX. With a tapered wedge femoral stem design, the MasterLoc Hip System is available in three versions (standard, lateralized, and lateralized plus), which allow for easier and more effective management of the patient's anatomy, completely independent from the leg length. This distinctive feature helps achieve good restoration of the hip joint biomechanics in nearly all patients. MiniMAX is an anatomical cementless stem engineered to provide the best fit and fill following the natural shape of the femoral canal. On the acetabular side, our solutions include among others, Versafitcup and Mpact System. Versafitcup is a complete system of elliptical cementless acetabular cups that share the same instrumentation, offering stability, as well as load and stress distribution. The Mpact System consists of hemispherical cementless acetabular cups that provide different solutions according to the patient's needs and can be used in primary and revision hip replacements. The SensiTiN Double Mobility (DM) Converter, a high-nitrogen-stainless steel completely cobalt-free modular DM device with an outer Titanium Nitride coating (SensiTiN), further enriches our acetabular platform. It is compatible with both Versafitcup and Mpact System and available for both primary and revision procedures and provides a viable solution to address the risk of instability and dislocation, which are still major challenges in hip replacement. In 2023, the Mpact and Versafitcup Systems have achieved a 7A* ODEP rating. These excellent ratings are in line with the study published by Rahm et al.[16], reporting an excellent survival rate of 99.6% at 10 years for aseptic loosening for the construct of Quadra - Versafitcup with the data of the Australian Registry (AOANJRR), which reports a survival rate of 99.0% at 7 years with any reason for the Mpact cup.[17] We also offer a comprehensive cemented portfolio with femoral and acetabular solutions. Within the cemented femoral portfolio, Quadra-C was given a rating of 7A* ODEP in the year 2023, while X-ACTA was given a rating of 5A*.

REVISION IMPLANTS PORTFOLIO

The Medacta Hip Revision Platform is an innovative and comprehensive offering for both the femur and the acetabulum, with tailored solutions to individual patient needs. Across the whole acetabular revision portfolio, featuring various solutions such as Mpact Multi-Hole, Iliac Screw Mpact and B-Cage, the 3D Metal – a state-of-the-art advanced biomaterial structure engineered for the bone – is the master. 3D Metal is obtained by means of advanced 3D printing technology, which allows for engineering implants featuring maximized initial stability and enhanced connection with bone, key aspects in revision hip arthroplasty. By leveraging a single cutting-edge technology, different advanced net structures have been designed and manufactured to face most clinical cases efficiently, addressing different patient anatomies and surgical scenarios. On the femoral side, the M-Vizion Femoral Modular Revision System is the core of the Medacta Hip Revision Platform. Designed to deliver maximum stability and versatility with a simplified and streamlined procedure, M-Vizion allows surgeons to feel confident in the operating room (OR) when undertaking simple to complex femoral revision cases. The comprehensive proximal and distal product range is now further enriched with the 4° angle tapered distal stem, offering additional flexibility while reconstructing the hip joint to adapt to different patient anatomies and surgical scenarios. The Medacta Hip Revision Implant Portfolio is supported and complemented by a complete range of dedicated instruments to facilitate the removal of failed implants and cement.

16 Rahm S, Tondelli T, Steinmetz S, Schenk P, Dora C, Zingg PO. Uncemented Total Hip Arthroplasty Through the Direct Anterior Approach: Analysis of a Consecutive Series of 275 Hips with a Minimum Follow-Up of 10 Years. J Arthroplasty. 2019;34(6):1132-1138. DOI: 10.1016/j.arth.2019.01.062

17 Australian Orthopaedic Association National Joint Replacement Registry (AOANJRR), Automated Industry Report System (AIRS), ID No.9246 for Medacta Australia, Mpact Total Conventional Hip, (Procedures from 1 September 1999 - 20 February 2023), Accessed 21 February 2023

NEW CLINICAL EVIDENCE HIGHLIGHTS THE POSITIVE PERFORMANCE OF OUR HIP IMPLANTS

QUADRA-H hip stem was awarded 13A* by the Orthopaedic Data Evaluation Panel (ODEP), an independent panel of experts in the United Kingdom assessing objective evidence on the performance of medical implants. This valuable result is based on data from national registries pertaining to several thousand cases, which showed an excellent cumulative survivorship of 96.1% at 13 years. [7]

With 20 years of clinical history, QUADRA-H represents the first stem designed by Medacta. It features a triple-tapered design and is made of Titanium-Niobium alloy with an HA (hydroxyapatite) coating. This design allows for an effective rotational and axial stability, which is further enhanced by the HA coating, potentially leading to long-term fixation and to better patient outcomes.

Other achievements related to our comprehensive implant portfolio are listed in the report.

> *" The QUADRA-H stem has been my implant of choice for over a decade. The compatibility of this stem with the AMIS approach has consistently resulted in positive patient outcomes. Its reliability and effectiveness have made it an invaluable tool in my practice. "*
>
> ***Dr. Jonathan Young***
> *Australia*

Medacta's strong heritage in hip treatment has also been awarded the following ODEP ratings:

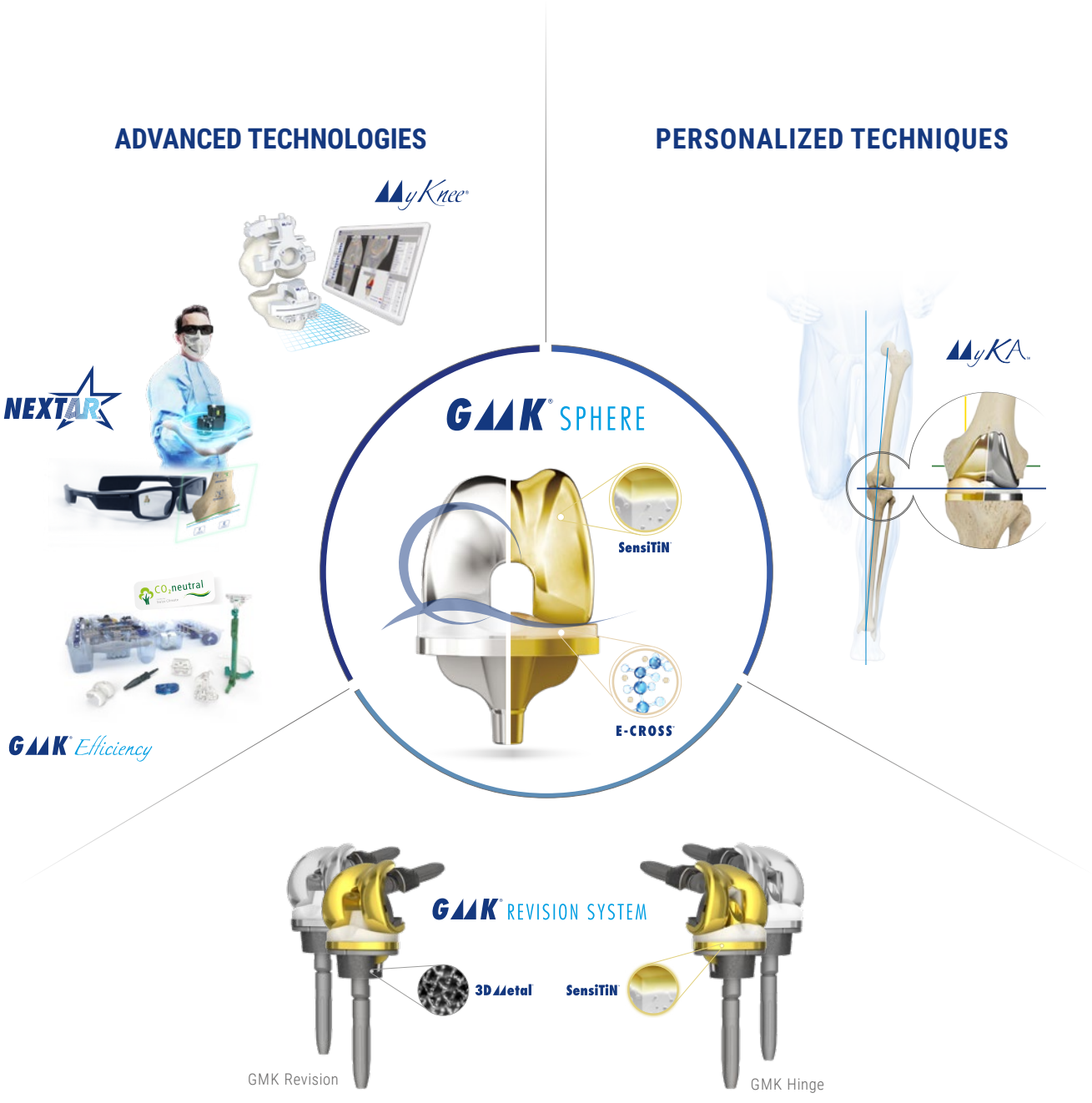
- QUADRA-C has been awarded 7A* ODEP rating
- AMIStem-H has been awarded 10A ODEP rating
- AMIStem-C has been awarded 7A* ODEP rating
- AMIStem-P has been awarded 3A* ODEP rating
- X-ACTA has been awarded 5A* ODEP rating
- MPACT and VERSAFITCUP CUP SYSTEMS has been awarded 7A* ODEP rating.

[7] Australian Orthopaedic Association National Joint Replacement Registry (AOANJRR), Automated Industry Report System (AIRS), ID No.9245 for Medacta Australia, Quadra-H Total Conventional Hip, (Procedures from 1 September 1999 - 20 February 2023), Accessed 21 February 2023

8.2 KNEE

THE OVERALL KNEE STRATEGY

Driven by our vision to advance the care and the satisfaction of our patients, bringing value throughout their entire orthopedic journey through personalized solutions, we focused on developing innovative products, techniques, and technologies for the knee segment of the orthopedic market. We designed a comprehensive and effective platform in collaboration with a network of international expert surgeons, based on three complementary assets: personalized techniques, with the growing focus on Kinematic Alignment, advanced technologies, such as the NextAR Knee Augmented Reality surgical application, and a complete implant portfolio that can be used for partial procedures (i.e., first-time knee replacements for only one portion of the knee) primary procedures (i.e., first-time complete knee replacements), as well as revision procedures (i.e., secondary knee replacements). The GMK Sphere is at the core of our complete knee offering. Our knee offering is supported by the M.O.R.E. Institute, which provides tailored high-level educational pathways through an international network of expert surgeons.



GMK SPHERE

Backed by a strong educational network of over 100 international experts, and more than 10 years of successful clinical experience, GMK Sphere is an innovative Ball-in-Socket Knee prosthesis designed to provide maximum functional stability while also restoring natural knee motion, with the purpose of improving patient comfort during everyday activities and reducing postoperative knee pain. The orthopedic community has welcomed this innovative implant, and surgeons have chosen it for more than 200'000 patients worldwide. According to the Orthopedic Data Evaluation Panel (ODEP) rating criteria, in 2023, GMK Sphere has been awarded 10A rating based on the evaluation of data pertaining to several thousand cases, which showed cumulative survivorship well in line with the required projection of more than 90% at 10 years.

Moreover, GMK Sphere highlights synergies with advanced material options, providing surgeons with the possibility of tailoring the implant choice to the patient's needs. MectaGrip is a Medacta solution for cementless application. It consists of a plasma-sprayed titanium coating designed to enhance initial stability and potential long-term fixation[18,19]. E-CROSS is a highly crosslinked UHMWPE (Ultra-High Molecular Weight Polyethylene) blended with Vitamin E, a powerful antioxidant that improves oxidation resistance[20,21]. SensiTiN is a ceramic-like coating of titanium nitride, designed to reduce the release of metal ions. GMK Sphere has shown the potential to improve functional and patient-reported outcomes also when combined with the Kinematic Alignment technique.

PERSONALIZED TECHNIQUES

Kinematic Alignment aims to custom-position the knee implant to the native joint line of the knee as it was in its pre-arthritic state, while preserving the surrounding tissues and ligaments. MyKA, Medacta's Kinematic Alignment Platform, provides surgeons with the most comprehensive solution to safely and reproducibly perform Kinematic Alignment. It features the GMK Sphere, a particularly suitable implant for this technique that is supported by dedicated instrumentation designed to improve efficiency and reproducibility. It also includes MyKnee KA, an advanced technology that utilizes web-based 3D preoperative planning to kinematically align the implant using 3D printed patient-specific instruments. Moreover, the platform includes tailored surgeon training and education initiatives supported by an established network of international experts. This platform is continuously enriched with new options and tools to further streamline surgeons' operative workflow.

Rising data and evidence are fueling the growing popularity of Kinematic Alignment among the scientific community, resulting in an increase in the number of surgeons embracing this procedure and patients successfully treated. Medacta is leading the way in collaboration with the biggest experts worldwide.

18 Khanuja HS, Vakil JJ, Goddard MS, Mont MA. Cementless Femoral Fixation in Total Hip Arthroplasty. J Bone Joint Surg Am. 2011;93:500-9.

19 WALSH, William Robert, et al. Bone ongrowth and mechanical fixation of implants in cortical and cancellous bone. Journal of Orthopaedic Surgery and Research, 2020, 15.1: 1-10.

20 Malito L. G. et al., «Material properties of ultra-high 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.

21 Bracco P. et al., «Stabilisation of ultra-high molecular weight polyethylene with Vitamin E», Polymer Degradation and Stability 92, pp. 2155-2162, 2007.

ADVANCED TECHNOLOGIES

Through our MySolutions Personalized Ecosystem, we offer enabling technologies that deliver a personalized approach to knee replacement, improving accuracy and efficiency, while promoting healthcare sustainability. MyKnee is a complete platform for partial, total, and revision knee replacement that combines 3D preoperative planning and 3D printed patient-matched guides to accommodate many surgical approaches, including bone referencing, ligament balancing, and muscle sparing. NextAR Knee Augmented Reality surgical application empowers the surgeon's vision with unique real-time surgical guidance superimposed onto the operative field to enhance precision and enable data-driven decision-making. Both MyKnee and NextAR offer a powerful synergy with GMK Efficiency single-use instrumentation. The GMK Efficiency system requires no additional preoperative sterilization and instrument management, optimizing logistics: the perfect solution for both large hospitals and ambulatory surgical centers. The GMK Efficiency system is also available as part of our Efficiency KneePack, which contains all the components needed to implant the GMK Sphere using a patient-specific single-use instrument set. It is delivered sterile in a single, lightweight box allowing to save time in the OR and simplify the OR scheduling.

PRIMARY IMPLANTS PORTFOLIO

Besides GMK Sphere for total knee arthroplasty, we offer GMK Primary, which is part of the comprehensive GMK System, ranging from GMK UNI for partial procedures to GMK Hinge for revision surgery. In particular, the system allows for a very easy transition from GMK Sphere and GMK Primary to a semi-constrained (GMK Revision) or a fully constrained (GMK Hinge) solution and allows for a combination of GMK Sphere with revision options like wedges and stems.

PARTIAL IMPLANTS PORTFOLIO

For partial knee replacement, we offer GMK UNI and MOTO Partial Knee System. Both options allow surgeons to treat osteoarthritis localized on the medial or lateral compartment of the knee. The comprehensive MOTO Partial Knee System, including MOTO Medial, MOTO Lateral and MOTO PFJ, was designed to accommodate the individual anatomy in order to achieve optimal coverage and fit and to provide correct and individualized balance and alignment at every step of the procedure with the potential of decreasing the incidence of loosening and progression of the disease. SensiTiN and E-CROSS advanced material options are available also for the MOTO System, further completing the Medacta partial knee replacement offering.

REVISION IMPLANTS PORTFOLIO

Our knee revision portfolio, the GMK Revision System, provides surgeons with a complete, modern, and versatile solution. It includes a semi-constrained implant, GMK Revision, and a totally constrained implant, GMK Hinge, which have been designed to preserve the joint functionality without dramatically altering its anatomy and kinematics, even in cases of severe ligament instability or severe bone loss. It features a unique-on-the-market technology for knee revisions, MyKnee R, the newest addition to our MySolutions Personalized Ecosystem. Beginning with a CT scan, our engineers create a 3D reconstruction of the patient's joint with a primary implant in situ. This reconstruction is then used to accurately plan the positioning of a new prosthesis from Medacta's comprehensive knee portfolio, ranging from a lower level of constraint to semi-constrained and fully constrained solutions. A set of 3D printed, patient-matched pin-positioning guides allows for guiding the implant removal and the positioning of the new implant. The GMK Revision System also features a wide range of options with advanced materials. Indeed, we have further expanded the knee revision portfolio with SensiTiN-coated implants and the 3D Metal Cones for cavitary bone defects. 3D Metal is an advanced biomaterial structure, obtained by means of Medacta's in-house 3D printing technology, which is able to deliver maximized primary stability, as well as functional and structural connection with the bone for long-term fixation.

KINEMATIC ALIGNMENT SHOWN TO IMPROVE PATIENT OUTCOMES IN TOTAL KNEE REPLACEMENT

Kinematic Alignment has been shown to improve patient satisfaction compared to the more traditional techniques. [22-24] Kinematic Alignment can potentially make recovery from surgery easier and faster [25], compared to traditional total knee replacement surgery. Kinematic alignment may also relieve your knee pain [22] and possibly improve the biomechanics of walking and daily activities. [26]

Our continuous commitment to positively impacting patients requiring a total knee procedure has evolved with the development of the concept of Kinematic Alignment, which restores the native pre-arthritic alignment through anatomic resurfacing, minimizing ligament releases, and allowing for a more natural knee kinematic. Over the past few years, clinical studies have highlighted that GMK Sphere is a particularly suitable implant for Kinematic Alignment, with the potential to further enhance patient outcomes compared to other knee designs. [27-29] Built upon the legacy of the GMK Sphere's ball-in-socket design, GMK SpheriKA offers patients an implant with the potential to feel more natural and stable during daily activities, replicating the movement of the healthy knee. In addition, GMK SpheriKA features optimized femoral coverage and patellar tracking for Kinematic Alignment procedures, making it the first implant on the market specifically designed for this technique.

GMK® SPHERIKA

THE FIRST KA-OPTIMIZED IMPLANT

" I'm thrilled to offer the GMK SpheriKA to my patients. With this implant, I have a more personalized option that addresses each patient's unique anatomy, giving them a more normal feeling knee and providing them with the opportunity to return to their lives more quickly "

Stephen Howell, M.D.
United States

[22] Dosset et al. A randomised controlled trial of kinematically and mechanically aligned total knee replacements. Bone Joint J 2014; 96-B:907–13

[23] 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

[24] Yaron, Bar Ziv et al. "Patients undergoing staged bilateral knee arthroplasty are less aware of their kinematic aligned knee compared to their mechanical knee." Journal of orthopaedics vol. 23 155-159. 20 Jan. 2021

[25] C. Rivière et al. Alignment Options for Total Knee Arthroplasty: A Systematic Review. OTSR 2017-Nov; 103(7): 1047–56.

[26] P.A. Vendittoli. et al. Kinematic Alignment in Total Knee Arthroplasty Better Reproduces Normal Gait than Mechanical Alignment. KSSTA 2019-May; 27(5): 1410–17.

[27] Scott, David F., and Celeste G. Gray. 'Outcomes are better with a medial-stabilized vs a posterior-stabilized total knee implanted with kinematic alignment.' The Journal of Arthroplasty 37.8 (2022): S852-S858

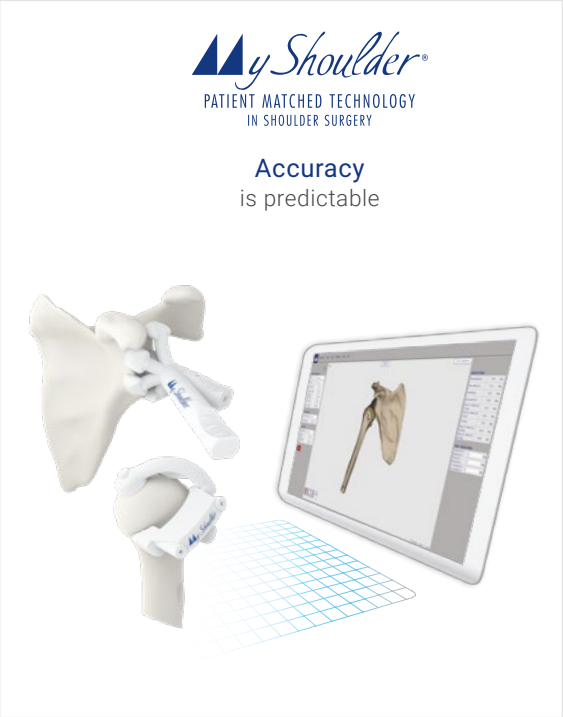
[28] Scott, David F., and Amy A. Hellie. 'Mid-Flexion, Anteroposterior Stability of Total Knee Replacement Implanted with Kinematic Alignment: A Randomized, Quantitative Radiographic Laxity Study with Posterior-Stabilized and Medial-Stabilized Implants.' JBJS 105.1 (2023): 9-19.

[29] JONES, Brett K.; CARLSON, Brian J.; SCOTT, David F. Better flexion and early recovery with medial-stabilized vs single-radius total knee arthroplasty with kinematic alignment: Two-year clinical results. The Knee, 2023, 43: 217-223

8.3 SHOULDER

THE OVERALL SHOULDER STRATEGY

The shoulder market represents a significant growing component of our success. With the collaboration of international expert surgeons, we created an innovative, complete, and personalized portfolio of implants and cutting-edge technologies designed to support surgeons in improving patient care and satisfaction. Our shoulder offering is supported by the M.O.R.E. Institute, which provides tailored high-level educational pathways through an international network of expert surgeons.



THE MEDACTA SHOULDER SYSTEM

The Medacta Shoulder System represents the core of our shoulder offering. Since the first successful surgery in December 2016, performed by Prof. Dr. med Ralph Hertel, in Bern (CH), we have recently reached the milestone of 25'000 Medacta Shoulder System devices implanted worldwide.

Medacta's innovation is reflected in the Medacta Shoulder System's design. The Medacta Shoulder System is a complete and modular solution that features a broad range of options, wide-ranging sizes, adjustable offsets, and innovative designs, both in the anatomic and reverse configuration, providing surgeons with the flexibility to treat a wide range of patient anatomies and pathologies. Moreover, this modularity allows for the conversion of a total anatomic shoulder replacement into a reverse shoulder replacement without the need to revise all the components. This is aimed at avoiding full revisions of the shoulder implant if disease progression requires conversion to a reverse configuration.

The Medacta Shoulder System offers synergies with advanced material options. Proximal fixation in the standard and short stems is achieved by means of Medacta's proprietary MectaGrip technology, a plasma-sprayed titanium coating that enhances initial stability due to its high coefficient of friction and potential long-term fixation, in conjunction with hydroxyapatite. With the most recent addition of SensiTiN, a coating of titanium nitride, the Medacta Shoulder System offers a complete solution to addressing diverse patient needs.

PERSONALIZED AND ADVANCED TECHNOLOGIES

We offer surgeons enabling technologies that deliver a personalized approach to shoulder replacement, improving accuracy and efficiency while preserving healthcare sustainability. As part of our MySolutions Personalized Ecosystem, our shoulder offering includes MyShoulder, a personalized 3D preoperative planning and 3D printed patient-matched guides, and NextAR Shoulder, the first CE-marked, FDA-cleared and MHLW-approved Augmented Reality surgical application with intraoperative guidance for total shoulder replacement, fully launched in 2022, with more than 1'500 cases worldwide

NEW EVIDENCE HIGHLIGHTS ACCURACY IN SHOULDER REPLACEMENT USING NEXTAR

The new study, "Glenoid Component Placement in Reverse Shoulder Arthroplasty Assisted with Augmented Reality Through a Head-mounted Display Leads to Low Deviation Between Planned and Post-operative Parameters" (Rojas et al.) published in the Journal of Shoulder and Elbow Surgery (2023), confirms the accuracy of NextAR Shoulder, Medacta's augmented reality surgical application, which provides precise and accurate intraoperative guidance for glenoid component placement.

NextAR Shoulder leverages the latest advances in Augmented Reality to help specially trained surgeons accurately place the shoulder prosthesis while respecting the patient's unique anatomy. Unlike traditional shoulder replacement procedures, in the weeks leading up to surgery, the surgeon can define a personalized plan for each individual patient. With this technology, the surgeon can make more informed decisions and personalize the procedure by making precise adjustments to the patient's unique anatomy, thereby enhancing the accuracy of your surgery.

> *" Accuracy is fundamental in orthopaedic surgery, because it allows the surgeon to obtain better results for the patient. Not only does NextAR Shoulder deliver a higher level of precision, but it also seamlessly integrates with the surgical workflow I apply. Because I have NextAR, I feel more at ease during the whole surgical process, from pre-op, intra-op, through post-op, "*
>
> ***Prof. Dr. med. Matthias Zumstein***
> Switzerland

8.4 SPINE

THE OVERALL SPINE STRATEGY

Since our introduction into the spine market in 2009, we have leveraged our expertise in both minimally invasive techniques and personalized solutions to improve patient care and satisfaction. Designed with a team of international expert surgeons, our innovative, complete, and effective spine offering provides surgeons with implants, instruments, and enabling technologies to perform a full range of procedures, from cervical to degenerative and deformity. Since inception, we have been providing spine implants pre-sterilized and ready for implantation. We strongly believe that pre-sterile implants can increase the efficiency of healthcare systems, reduce the risk of contamination, save time, and reduce costs. Our spine offering is supported by the M.O.R.E. Institute, which provides tailored high-level educational pathways through an international network of expert surgeons.

MINIMALLY INVASIVE DEGENERATIVE


MectaLIF Anterior


MectaLIF System


M.U.S.T. LT


M.U.S.T. SI


M.U.S.T. MC


MIS MySpine MC

CERVICAL


M.U.S.T. Mini


Mecta-C System


Mecta-C Stand Alone

DEFORMITY


M.U.S.T.


MySpine S2AI


MySpine Anchor


MySpine

ENABLING TECHNOLOGIES

Building on our proprietary MySolutions Personalized Ecosystem, our spine offering can improve surgeon and patient experience by leveraging our advanced and personalized intraoperative solutions, NextAR Spine Augmented Reality surgical application, and MySpine patient-matched technology. Using the most recent augmented reality advances, NextAR Spine empowers the surgeon's vision with unique real-time surgical guidance superimposed onto the operative field, thereby enhancing precision and enabling data-driven decision-making. A new clinical study led by Prof. Dr. med. Bernhard Meyer, evaluates the efficiency, accuracy, and versatility of NextAR Spine demonstrating that the placement of pedicle screws has been achieved with precision using both open and percutaneous approaches in both long and short constructs, indicating a lower intraoperative revision rate (1.7%)[30] compared to the rate documented in the scientific literature with other navigation systems (3.4% by Ille at al[31]; 4.7% by Ryang at al[32]). This further highlights that NextAR Spine proves to be a reliable and safe tool for 3D imaging-based pedicle screw placement while requiring minimal setup during surgery, in line with Medacta's philosophy of healthcare sustainability. The setup is reduced to a minimum by integrating the cameras into the surgical instruments and establishing a flexible platform which includes the preoperative planning.

[30] Schwendner M, Ille S, Wostrack M, Meyer B. Evaluating a cutting-edge augmented reality-supported navigation system for spinal instrumentation. Eur Spine J. 2023 Nov 14. doi: 10.1007/s00586-023-08011-w. Epub ahead of print. PMID: 37962688.

[31] Ille S, Baumgart L, Obermueller T, Meyer B, Krieg SM (2021) Clinical efficiency of operating room-based sliding gantry CT as compared to mobile cone-beam CT-based navigated pedicle screw placement in 853 patients and 6733 screws. Eur Spine J 30(12):3720–3730. https:// doi. org/ 10. 1007/ s00586- 021- 06981-3

[32] Ryang YM, Villard J, Obermuller T et al (2015) Learning curve of 3D fluoroscopy image-guided pedicle screw placement in the thoracolumbar spine. Spine J 15(3):467–476. https:// doi. org/ 10. 1016/j. spinee. 2014. 10. 003

MySpine provides surgeons with a complete platform of patient-matched 3D printed screw placement guides, to lead the surgeon through the critical steps of accurate pedicle screw placement whilst reducing the surgical time and intraoperative X-ray radiation. The MySpine platform offers enabling solutions for cervical, thoracolumbar, and sacroiliac cases. In 2023, Prof. Faldini published a retrospective landmark study highlighting the positive clinical outcomes of MySpine. The results show how the MySpine system provided safe screw placement in all locations of the spine, with an accuracy exceeding 94%. The MySpine guides are manufactured based on a preoperative low-dose CT scan, with an X-ray dose up to 80 times lower than that reported with the use of the O-arm, a technology generally used in navigation procedures, with benefits for the patient's well-being. In primary cases, the accuracy of the pedicle screw in a safe position obtained by means of the MySpine technology can be as high as 100%[33,34,35,36]. The MySpine platform offers enabling solutions for cervical, thoracolumbar, and sacroiliac cases.

Both NextAR and MySpine are part of Medacta's MySolutions Personalized Ecosystem, an advanced network of digital solutions designed to improve patient outcomes, healthcare efficiency, and sustainability, representing an optimal solution worldwide, particularly for US Ambulatory Surgery Centers (ASCs).

CERVICAL PROCEDURE

The Medacta cervical platform is an end-to-end 360° solution with improved flexibility, stability, and accuracy designed for posterior fixation and anterior cervical discectomy and fusion (ACDF). The integrated platform is comprised of three components: Mecta-C Stand Alone, M.U.S.T. Mini, and MySpine Cervical.

In posterior approaches, MySpine Cervical patient-specific guides allow surgeons to refine the preoperative 3D planning based on the patient's CT images, increasing intraoperative accuracy in pedicle screw insertion, potentially providing improved clinical outcomes. The recently added Mono-lateral guides can help in better preserving the soft tissues during the surgery. MySpine Cervical operates in synergy with the M.U.S.T. Mini posterior cervical screw system, a comprehensive solution for fixation of the occipito-cervico-thoracic spine. The variety of screws, hooks, rods, and connectors allows the surgeon to tailor the construct to the specific patient anatomy and pathology to be treated. The synergy between MySpine Cervical and M.U.S.T. Mini increases safety, stability, and accuracy in screw placement with pedicle screw trajectory, while reducing metal density and radiation levels, without initial capital investments.

In anterior approaches, we provide healthcare professionals with a complete platform that offers a modular and versatile option, to address specific anatomical requirements and pathologies. The surgeon can choose between a "stand-alone system" incorporating the benefits of an anterior plate and a radiolucent interbody spacer, or a "plate & cage system", offering effective load sharing, optimal biocompatibility, and biomechanical stability in situ. A dedicated anterior retractor supports both our cervical solutions.

33 Lamartina et al. Adolescent idiopathic scoliosis surgery with patient-specific screw placement-guide Eur Spine J. 2014 Dec;23(12). MySPINE VIDEO CASE / REDUCED DOSE RADIATION

34 Lamartina et al. Pedicle screw placement accuracy in thoracic and lumbar spinal surgery with a patient-matched targeting guide: a cadaveric study. Eur Spine J. 2015 Nov;24(7). MySPINE ACCURACY VS FREE HAND

35 Putzier et al. A New Navigational Tool for Pedicle Screw Placement in Patients with Severe scoliosis: A Pilot Study to Prove Feasibility, Accuracy, and Identify Operative Challenges. J Spinal Disord Tech. 2014 MySPINE PILOT STUDY

36 Accuracy assessment of pedicle screw insertion with patient specific 3D-printed guides through superimpose CT-analysis in thoracolumbar spinal deformity surgery J Cool, J van Schuppen, M A de Boer, B J van Royen

DEFORMITY PROCEDURE

The Medacta deformity platform is a consolidated complete system designed to assist the surgeon in all the steps of the surgery. Our enabling technologies, NextAR Spine and MySpine platform ensure an accurate screw positioning in challenging anatomies, while the M.U.S.T. instruments provide several options for performing reduction and correction maneuvers. The MectaLIF Anterior cages complete the offering for anterior cases. After the recent introduction of the MySpine S2AI, in 2022, we extended the MySpine platform with the innovative MySpine Anchor patient-specific guides, to complete the treatment of challenging spine anatomies and reinforce the fixation, and therefore the stability, for long constructs. This solution allows surgeons to accurately implant M.U.S.T. Pedicle Screws and M.U.S.T. SI Headless Screws to anchor long constructs in complex spine cases, potentially improving the thoracolumbar fixation to help reduce lower back pain.

MINIMALLY INVASIVE DEGENERATIVE PROCEDURE

Our solutions are specifically designed with a muscle-sparing approach, potentially offering fast patient recovery after spinal fusion surgery. Our degenerative procedure is based on two different approaches: "midline-cortical", fully functional with our enabling technologies NextAR Spine and MySpine platform, and "percutaneous", completely optimized for NextAR Spine.

MIDLINE CORTICAL APPROACH

MIS MySpine MC, used in the midline cortical approach, allows posterior lumbar fusion to be carried out in a minimally invasive, muscle-sparing way, resulting in shorter operating times and a substantial reduction of radiation exposure while increasing efficiency compared to conventional free-hand or navigated lumbar fusion surgery. The goal of MIS MySpine MC is to maximize the fusion rate and the predictability of clinical outcomes, thus positively impacting patient well-being. M.U.S.T. MC (Midline Cortical) is a complete and flexible system which stabilizes and facilitates the fusion of the thoracolumbar spine and the sacrum. Complementing MySpine MC, it features a dedicated retractor and distractor system offering superior performance in muscle tissue manipulation and vertebral distraction/compression maneuverers. This complete platform is further integrated by the cortical/cancellous screw threads, recently registered across our markets, which differentiate bone purchase, enhancing posterior fixation.

PERCUTANEOUS APPROACH

The NextAR Spine MIS LT procedure seamlessly integrates the cutting-edge augmented reality surgical application NextAR Spine with the M.U.S.T. LT (Long Tab Screw System) percutaneous spinal fixation platform. This unique combination optimizes workflow, versatility, personalized implant choice, and ensures the highest standards of minimally invasive surgery execution. The NextAR Spine MIS LT procedure combines NextAR Spine and M.U.S.T. LT, a minimally invasive solution for posterior spine fixation with the percutaneous approach. This versatile solution, already assembled in the sterile package, provides surgeons with a wide selection of fast-locking screws, and offers an extended reduction capacity, a crucial aspect in lumbar spondylolisthesis or thoracic kyphosis restoration. The absence of Nickel, Cobalt, and Chromium makes M.U.S.T. LT a unique solution within the M.U.S.T. pedicle screw system, providing full spine fixation with 100% Titanium alloy constructs.

NEW CLINICAL EVIDENCE HIGHLIGHTS ACCURACY IN SPINE SURGERY

The study "Evaluating a cutting-edge augmented reality-supported navigation system for spinal instrumentation" was published in the European Spine Journal and led by Prof. Dr. Med. Bernhard Meyer. It shows how the placement of pedicle screws has been achieved with precision using both open and percutaneous approaches in both long and short constructs, indicating a lower intraoperative revision rate (1.7%)[30] compared to the rate documented in the scientific literature with other navigation systems (3.4% by Ille et al[31]; 4.7% by Ryang et al [32]).

NextAR Spine is a navigation system that incorporates augmented reality to provide unique real-time surgical guidance, superimposed onto the operative field, enhancing precision and enabling data-driven decision-making in the placement of pedicle screws, and addressing different types of spine indications, such as trauma, degeneration, infection, and tumor.

> *" Precision and accuracy in spine surgery is critical. As stated in our recent study, NextAR, the new AR-assisted navigation system, greatly simplifies pedicle screw placement, ensuring effectiveness and accuracy. It's a reliable tool, straightforward to use, and it elevates our ability to provide safe and precise navigation for various spinal conditions "*
>
> ***Prof. Dr. Bernhard Meyer***
> Germany

[30] Schwendner M, Ille S, Wostrack M, Meyer B. Evaluating a cutting-edge augmented reality-supported navigation system for spinal instrumentation. Eur Spine J. 2023 Nov 14. doi: 10.1007/s00586-023-08011-w. Epub ahead of print. PMID: 37962688.

[31] Ille S, Baumgart L, Obermueller T, Meyer B, Krieg SM (2021) Clinical efficiency of operating room-based sliding gantry CT as compared to mobile cone-beam CT-based navigated pedicle screw placement in 853 patients and 6733 screws. Eur Spine J 30(12):3720–3730. https:// doi. org/ 10. 1007/ s00586- 021- 06981-3

[32] Ryang YM, Villard J, Obermuller T et al (2015) Learning curve of 3D fluoroscopy image-guided pedicle screw placement in the thoracolumbar spine. Spine J 15(3):467–476. https:// doi. org/ 10. 1016/j. spinee. 2014. 10. 003

8.5 SPORTSMED

Our Sports Medicine business line started in 2016 with the aim of providing minimally invasive personalized procedures allowing patients to quickly return to their daily activities. Our engineers collaborated with an international team of expert surgeons to develop specific and innovative products for the treatment of ligament, tendon, and muscular injuries of the knee, hip, and shoulder, focusing on new product development to expand our offering in the arthroscopic knee, shoulder, and hip surgery.

KNEE PORTFOLIO

The Medacta Anatomic Ribbon Surgery (M-ARS), first surgery performed in 2017, is an innovative surgical technique to reconstruct the anterior cruciate ligament (ACL). It is designed to distribute forces in a more natural, anatomical way, and is supported by a dedicated set of instruments and implants. To facilitate ACL reconstructive surgery, we are now able to offer an extensive portfolio of extra-articular (FairFix Adjustable Button, MectaFix Continuous Loop Button) and close to the joint-line fixation options (MectaScrew Interference Screw Family). We offer not only a standard instrument portfolio, but also innovative solutions for Quadriceps Tendon harvesting procedures (MectaQTH) and single-use instruments and sterile kits for standard ACL reconstruction procedures, as well as for the specific M-ARS Anatomic Ribbon repair.

In 2023, we received FDA and TGA clearances and started the Limited Market Releases of FairFix Adjustable Button configurations, aiming to cover various techniques (FairFix AM), graft types (FairFix QT) and improve tibial fixation for the M-ARS technique (FairFix PSP).

SHOULDER PORTFOLIO

Our shoulder anchor portfolio allows us to offer multiple solutions, according to specific indications and surgeon preferences. Different anchor sizes and materials are available, from knotted anchor designs for arthroscopic shoulder labral repair to knotless options for shoulder lateral row cuff repair. With the MectaLock Suture Anchor Family, we can provide both a non-absorbable PEEK (MectaLock PEEK) and a composite material option (MectaLock C). For surgeons who prefer soft anchor designs or are looking for solutions for the medial row repair, we offer All-Suture Anchor designs with SnugFit All-Suture. We are also able to offer Titanium anchors, either in a more traditional design (MectaLock TI) or in a unique self-rotating anchor design (MectaTap TI). To facilitate suture management in arthroscopic labral and rotator cuff repairs, the comprehensive Medacta FastShuttle Suture Passer Family is also able to supply multiple state-of-the-art single-use and reusable instruments.

We focused on developing brand new instruments to facilitate the implantation of our suture anchors (MectaLock PEEK/C slotted aimers and MectaLock All-Suture aimers and punches) and a dedicated set of curved instruments for SnugFit All-Suture portfolio. In 2023, we received the FDA and TGA clearance and started the Limited Market Release of the SnugFit All-Suture Anchor Size 1, specifically designed to treat shoulder labral instability.

SUTURE PORTFOLIO

Within our suture portfolio, we cover multiple indications in shoulder, hip, and knee procedures. PowerSuture, our all-encompassing suture family, offers a wide variety of Ultra-High Weight Polyethylene sutures, tapes, whip-stitch loops, passing loops, and double-armed sutures featuring our Black Cobra needle (available in multiple configurations). PowerKnot High Strength Suture, our strong tensile strength suture, potentially offering an improved knot grip and a useful Running Direction Indication (RDI) feature to alleviate the challenging suture management in arthroscopic shoulder surgeries.

HIP PORTFOLIO

Alongside many anchors (MectaLock Suture Anchor, MectaLock All-Suture anchors) and suture management devices (FastShuttle Suture Passer Family) shared with the shoulder product line, we also offer MectaFlip, the unique-on-the-market intra articular minimal invasive expander. In 2023 we received the FDA and TGA clearance and started the Limited Market Release of the SnugFit All-Suture Anchor Size 1, specifically designed to treat hip labral instability.

In 2023 we introduced on the US market MyPAO, a unique platform based on patient-matched technology, aiming to assist surgeons during periacetabular osteotomy procedures, allowing them to achieve the planned acetabular repositioning. MyPAO is part of our MySolutions Personalized Ecosystem, an advanced network of digital solutions designed to improve patient outcomes, healthcare efficiency, and sustainability.

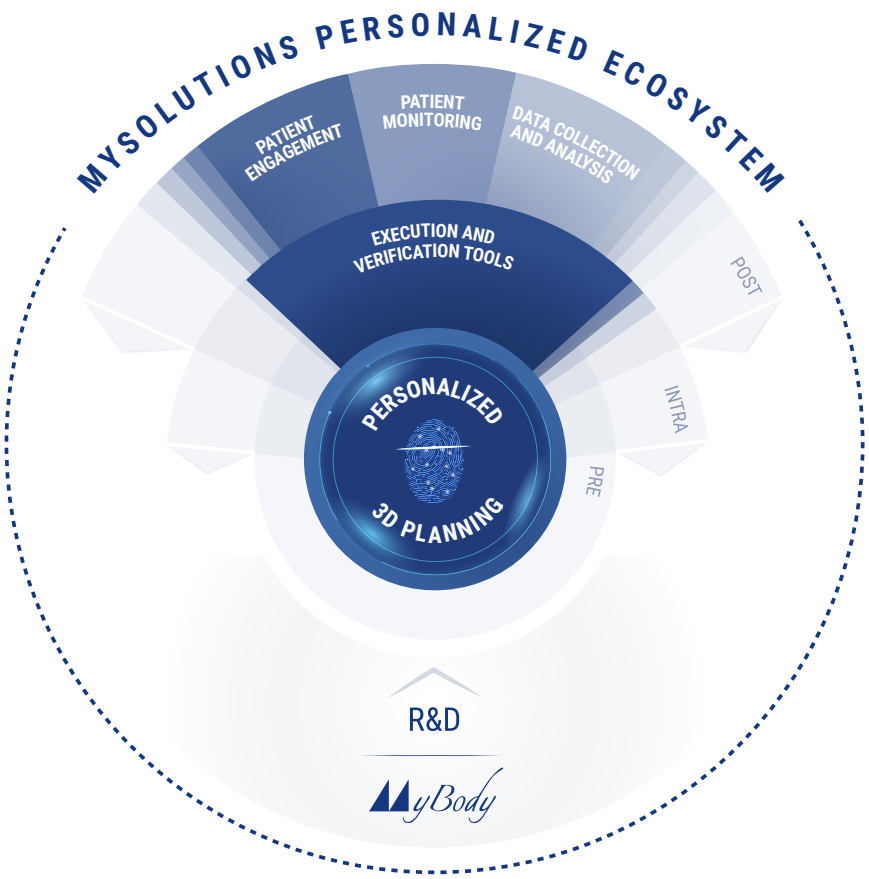
NEW MYSOLUTIONS PERSONALIZED ECOSYSTEM ADVANCES

During 2023, we announced the successful completion of the first MyPAO surgeries in Europe and United States, leveraging Medacta's long-term experience in CT-based planning and expanding the offer of patient-matched solutions for hip preservation procedures.

Designed in collaboration with a group of expert surgeons, MyPAO is an innovative and complete platform based on patient-matched technology to assist the surgeon during periacetabular osteotomy procedures. The MyPAO Platform consists of a CT-based 3D preoperative planning report, 3D preoperative and postoperative bone models, cortical screws, and patient-specific realignment guides intended to assist in the realignment of the acetabular fragment during periacetabular osteotomies.

> *" What I value the most about MyPAO is the surgical planning report, which allows me to visualize all the relevant preoperative parameters at a glance. The 3D coverage section of the report, together with 3D printed pre-op and post-op bone models, provides additional support to give a complete overview on how the realignment is going to look like "*
>
> ***Dr. med. Panayiotis Christofilopoulos***
> Switzerland

MYSOLUTIONS PERSONALIZED ECOSYSTEM



PERSONALIZED 3D PLANNING

PRECISE EXECUTION

PATIENT ENGAGEMENT

EFFICIENT CASE MANAGEMENT

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. MySolutions delivers intuitive and reliable solutions (MyKnee, MyHip, MyShoulder, MySpine, MyOsteotomy) with advanced analytical features empowering the surgical decision-making process.