

# MEDTRONIC MEXICO OVERVIEW

MIGUEL ROCHIN  
AUGUST 2021



**Medtronic**  
Further, Together



## Strategy for Mexico

- Continue to attract investment of global companies:
    - *Aerospace*
    - *Medical devices*
    - *Bio-technology*
    - *Logistics*
  - Member of the USMCA/T-MEC
- 
- Proximity to the US market with significant cost benefits
  - Contract manufacturing expertise

## Mexico Offers

- Educated workforce and highly trainable
- Excellent environment to protect IP
- All professional's bilingual and bicultural
- Cost efficient
- Stable inflation and wage increases
- 30+ years experience on medical devices
- Medical device cluster with >78 companies and 76k employees in the Baja region

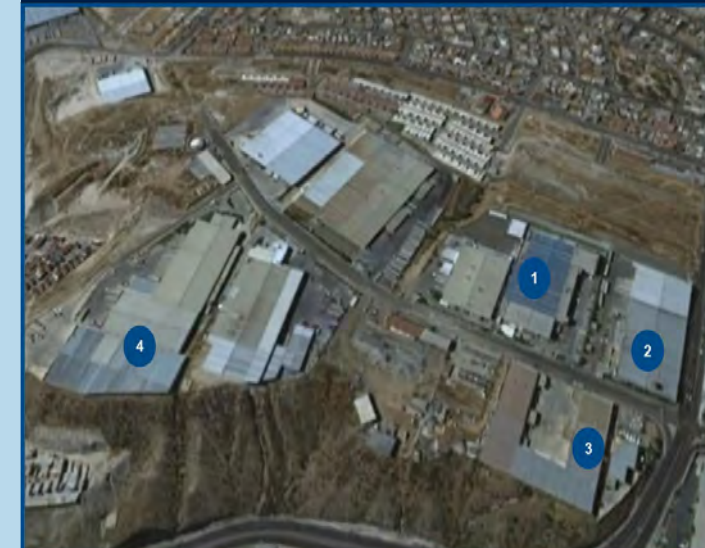
# MEDTRONIC IN MEXICO



- Global Shared Manufacturing Center at [Tijuana El Lago](#), Mexico (since 1998)
- Global Shared Manufacturing Center at [Tijuana Insurgentes](#), Mexico (since 1985)
- Global Technology Center at [Empalme](#), Mexico (since 2004)
- Global Technology Center at [Juarez](#), Mexico (since 1996)
- Sales office in [Mexico City](#)
- 127 million population (Emerging Market)

# MDT MANUFACTURING PLANT PROFILE

## TIJUANA-EL LAGO



**DOB:** 1998

**Address:** Parque Industrial El Lago

**Division:** IV SH Shared site

**Site Leader:** Miguel Rochin



**Staffing – 6,326**

Direct – 5, 577

Indirect – 749



**FY22 Organizational Health Survey:**

**80%**



**Product Line / Technology**

Product Lines:

- Aortic, Mitral and Pulmonary Tissue Heart Valves
- Aortic Stent Grafts
- Coronary & Peripheral Catheters
- Blood Perfusion Canisters
- Cardiac Surgery Drainage Kits
- Neurovascular Microcatheter
- Neurosurgery Drainage Kits

Technologies:

- Chemical & Steam Sterilization
- Plastic Injection Molding
- Chemical Bonding
- Bioactive coatings
- Manual sewing and assembly
- Automatic Inspection Systems
- Automatic Laser Welding – Metal & Polymer
- Automatic Laser Cutting – Metal
- Chemical Coating Machines
- Rotary and Static Heat Bar Sealers
- Leak & Flow Test with Air and Nitrogen



**Current Footprint: 448K ft<sup>2</sup>**

- Cleanroom – 164.5k ft<sup>2</sup>
- Non-Cleanroom – 207k ft<sup>2</sup>
- Warehouse – 75k ft<sup>2</sup>
- CEA Space Utilization – **95%**

**Future Footprint: 454K ft<sup>2</sup>**

- Cleanroom – 171k ft<sup>2</sup>
- Non-Cleanroom – 200.5k ft<sup>2</sup>
- Warehouse – 75k ft<sup>2</sup>
- CEA Space Utilization – **91%**



**Business Systems:**

- ERP (SAP),
- MES (in-house developed),
- Labeling (in-house developed Print on Demand system, Zebra printers)
- CM (Agile)

**Sterilization:**

- Sterigenics Los Angeles, CA - EO
- Sterigenics Corona, CA – Gamma
- Sterigenics San Diego, CA - eBeam
- Midwest Jackson, MO - EO
- Steris Tullamore Ireland - EO / eBeam
- Avantti Tijuana Mexico – eBeam
- Sterigenics Germany – EO
- Steris San Diego - EO
- Parter Ster Services Carson, CA, EO
- Chemical Liquid Sterilization on Site
- Moist Heat Sterilization on Site



**Production Transfers**

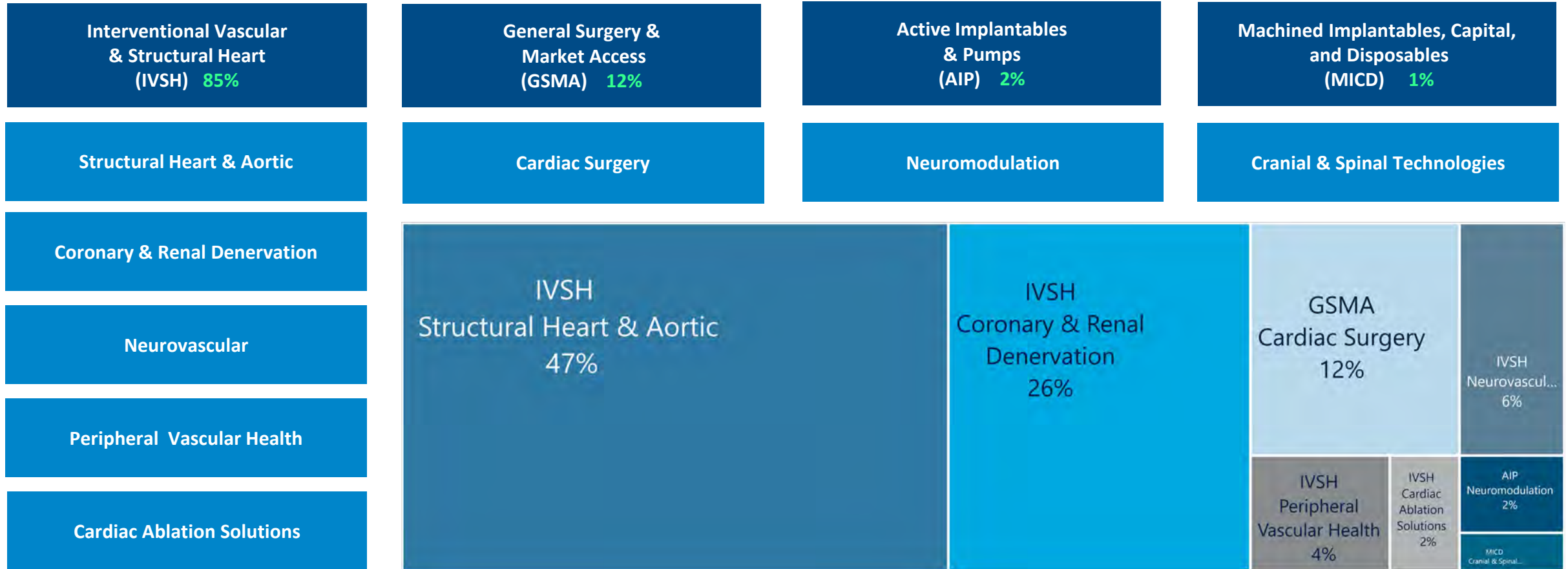
- IVSH: Cryobaja, Foundation stage 2
- GSMA: Connector cap, 20MRK, Scoop Size 2.

**New Product Launches with R&D:**

- IVSH: Evolut FX, Janus, Poseidon, ONYX NG Frontier, ONYX Plus, Andreas, POBA 018, INPACT 018
- GSMA: Avalus Ultra, E-Sets

# MEDTRONIC MEXICO-EL LAGO

## OPERATING UNITS SUPPORTED



# PRODUCTS

## MEDTRONIC TIJUANA EL LAGO



Coronary Bypass Heart Surgery



Coronary Bypass Heart Surgery



Hydrocephalus



Intracranial aneurysm



Atrial Fibrillation



Coronary Delivery Therapy



Coronary Dilatation



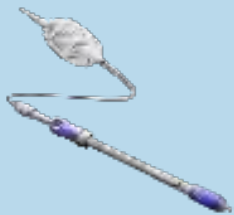
Peripheral Drug Therapy



Coronary Delivery Therapy



Peripheral Dilatation Therapy



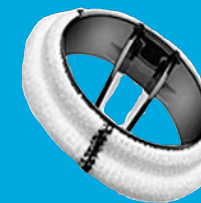
Aortic Aneurysm treatment.



Aortic Valve Replacement.



Mitral & Tricuspid Valve Repair.



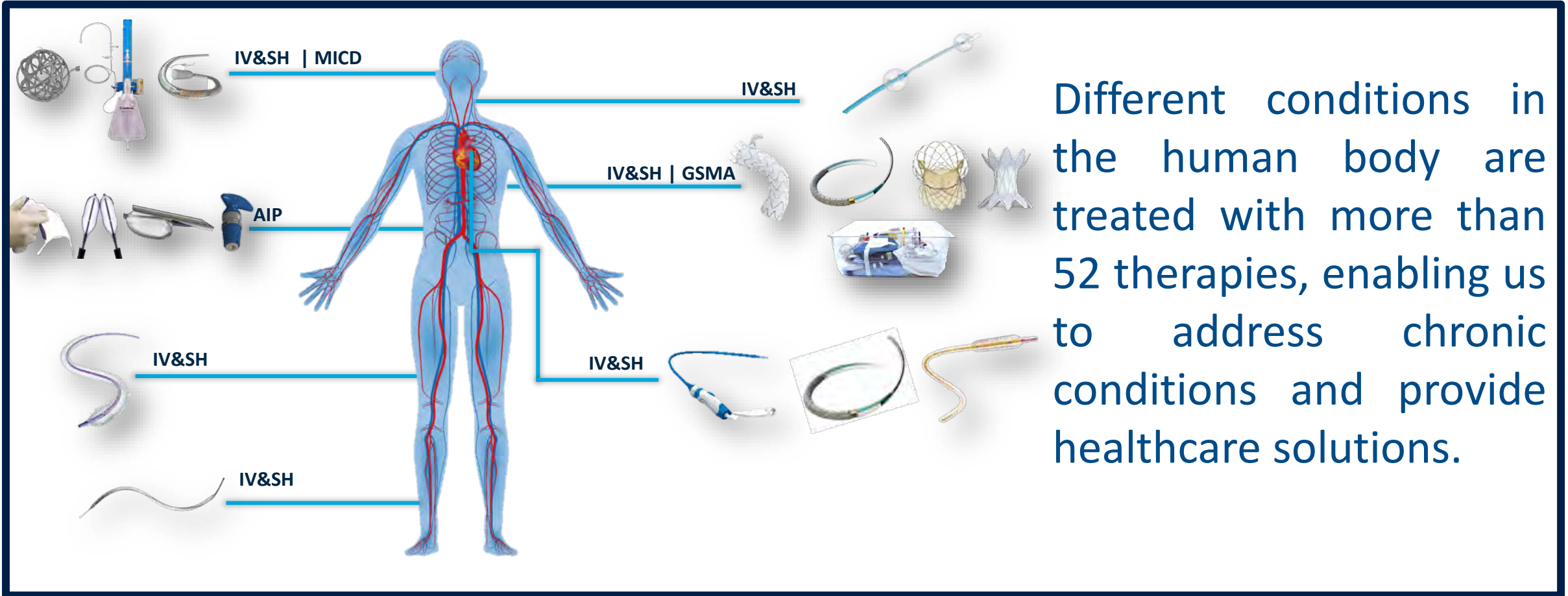
Mitral & Aortic Valve replacement.



Melody Pulmonic Valve replacement.

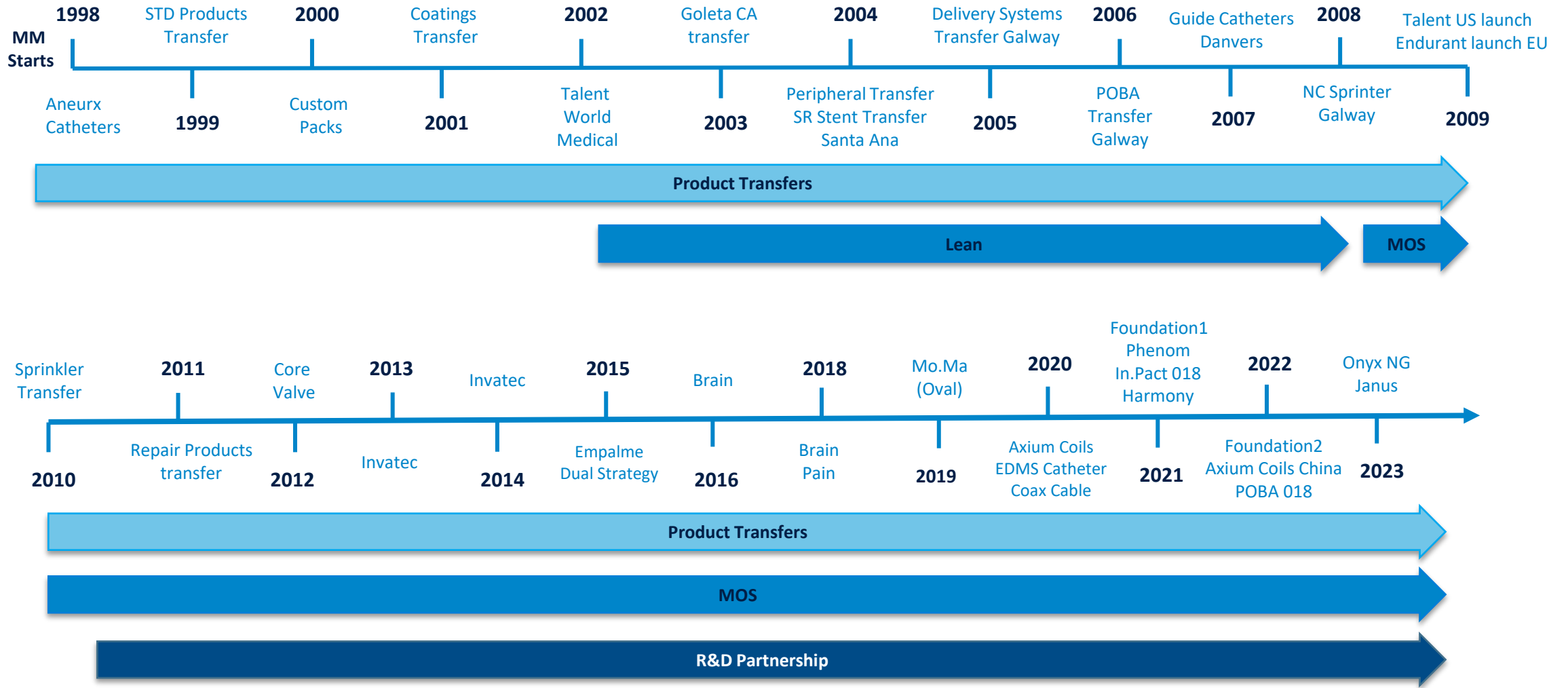


# OUR THERAPIES AND SOLUTIONS SAVE AND IMPROVE LIVES



Different conditions in the human body are treated with more than 52 therapies, enabling us to address chronic conditions and provide healthcare solutions.

# MDT MEXICO EVOLUTION



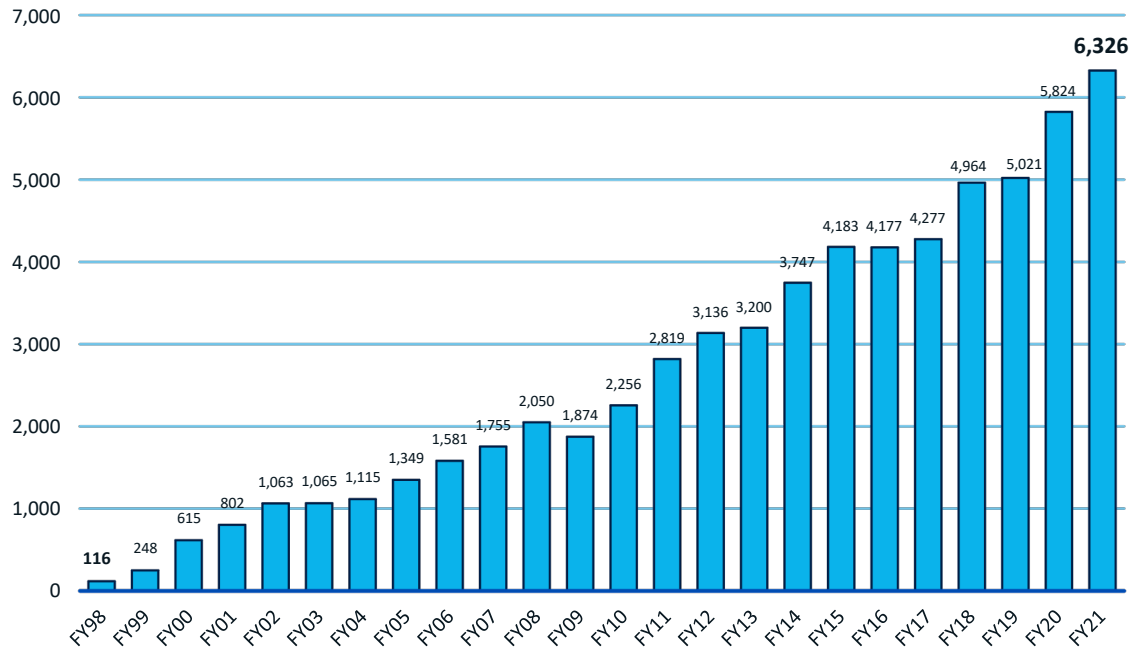


# MEDTRONIC MEXICO - EL LAGO

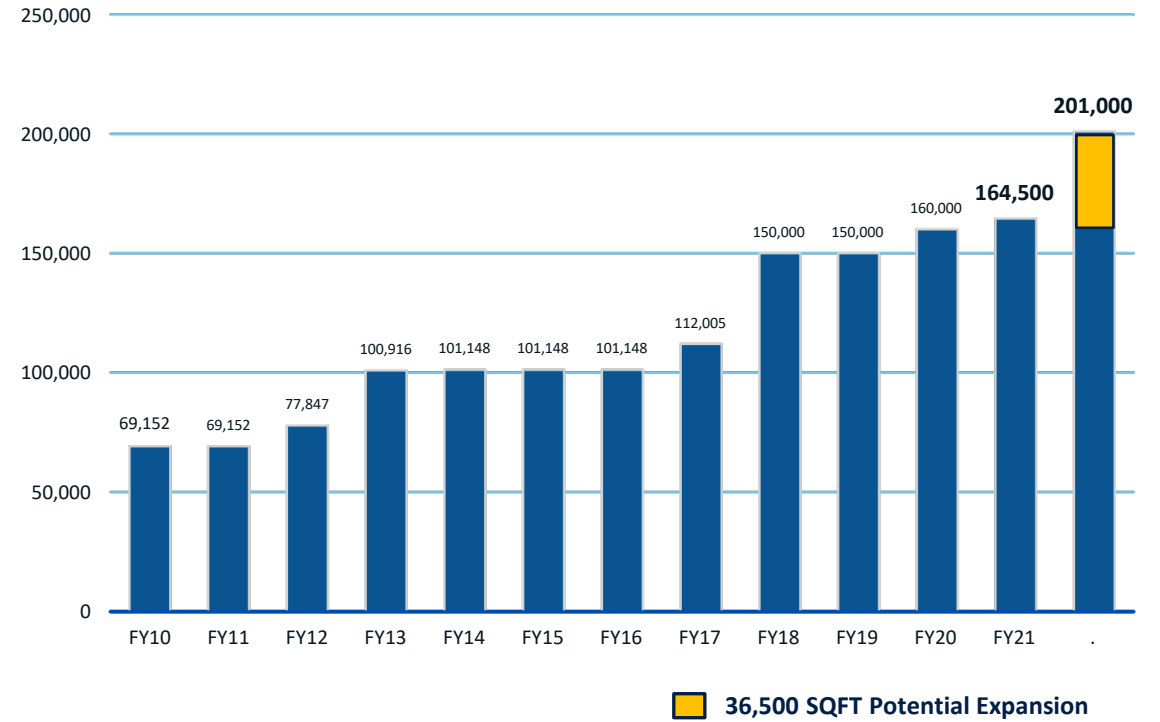
## GROWTH



### Headcount



### Total CEA Space ( ft<sup>2</sup> )



# OUR EDUCATIONAL PARTNERSHIPS

## BACHELOR DEGREE

- Industrial Engineering
- Biomedical Engineering
- Nanotechnology Engineering
- Chemical Engineering
- Electromechanical Engineering
- Environmental Engineering
- Biochemical Engineering
- Aerospace Engineering
- Pharmacobiologist Chemist

## MASTERS DEGREE

- Master's Degree in Engineering
- Master's Degree in Engineering and Innovation
- Master's Degree in Design Sciences and Manufacture Processes
- Master's Degree in Biomedical Science
- Masters Degree in Bioengineering Manufacturing
- Masters Degree in Chemistry
- Masters Degree in Industrial Engineering

## DOCTORATES DEGREE

- Doctorate in Engineering Sciences
- Doctorate in Chemical Sciences



# COLLABORATING FOR THE BEST TALENT



TAKING  
HEALTHCARE  
FURTHER,  
**TOGETHER**



Point 5 of our mission seeks to recognize the effort and promote the development of our employees. On this occasion, **Medtronic**, in collaboration with **CETYS University** and **St Cloud State University**, is proud to present the 1<sup>st</sup> generation of the Master of Engineering and Innovation of Medical Devices Specialty 2017-2019.



# MEDTRONIC MEXICO OPERATIONS STRATEGIC ROADMAP

## STRATEGIC IMPERATIVES



**ENGAGING OUR PEOPLE**

**SHAPING OUR PLANTS**

**OPTIMIZING OUR GLOBAL FOOTPRINT**



### How do we measure success?

- Safety
- DL Monthly Turnover
- Health survey
- Escapes
- COPE
- Product Availability
- FTQ phase I risk reduction
- Lead Time
- Cost down reduction
- Sustained Direct-to-Indirect Labor Ratio (DL / IDL)
- Inventory value
- Number of NPI product families moving to commercialization

## FY23 Vision

*Become the best manufacturing innovation center expanding MDT capabilities to save lives*

**Act boldly**

**Compete to win**

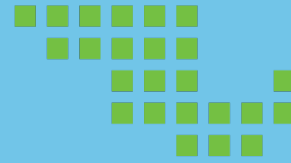
**Move with speed and decisiveness**

**Foster belonging**

**Deliver results... the right way**

# MEDTRONIC MEXICO - EL LAGO

## KEY MESSAGES



Established in **1998**  
Current Space: Total = 448k ft<sup>2</sup>, CEA = 164.5k ft<sup>2</sup>



**Largest site**  
(direct headcount) in the MDT plant network



**4** Buildings, **6,326** Employees  
**25** Product Families, **229** Workflows



**High Value / Low cost**  
efficient manufacturing process and optimized organizational structure



**Executing on growth**, complexity and technical challenges while leveraging low-cost structure



**13.8M** Units shipped past 12 months



**Progressed to Stage 3**  
(Strategic Partner) on Capability Maturity Model



Strong Commitment to the  
**Medtronic Mission**

# QUESTIONS