

A large teal graphic frame consisting of two L-shaped brackets, one at the top and one at the bottom, framing the central text.

40 YEARS OF
TRANSFORMING
PATIENTS'
LIVES



40 YEARS OF MEDICAL DEVICE INNOVATION IN EUROPE

PHIL EBELING, VP & CHIEF TECHNOLOGY OFFICER

IMPACTING PATIENTS WORLDWIDE

40 YEARS OF
TRANSFORMING
PATIENTS'
LIVES



ABOUT ST. JUDE MEDICAL

FOUNDED IN 1976

FORTUNE 500
COMPANY

GLOBAL HEADQUARTERS
ST. PAUL, MINNESOTA, USA

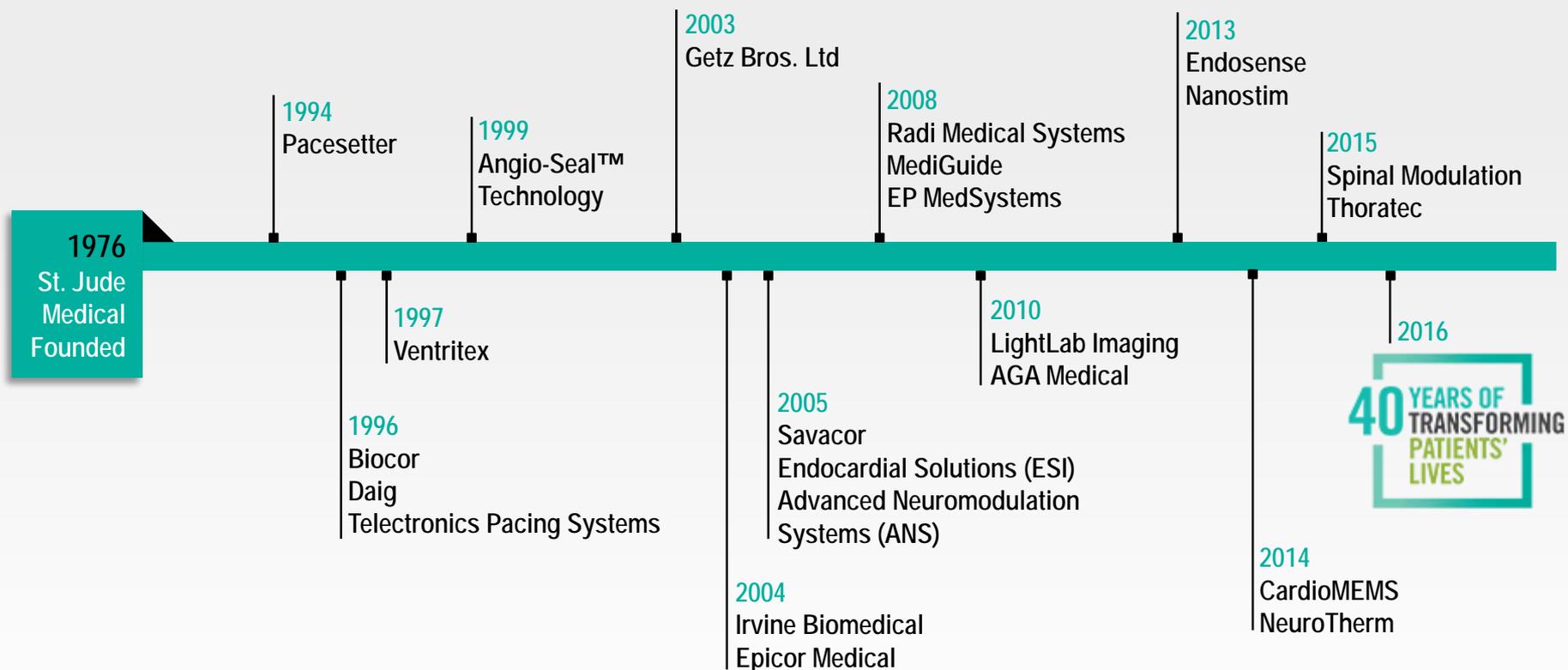


We help more than
20,000 patients around the
world with a medical
device every single
business day

We invest
12% of revenue
in RESEARCH &
DEVELOPMENT

INNOVATIVE TECHNOLOGY FOR COMPREHENSIVE SOLUTIONS

We invest in acquisitions that offer comprehensive solutions for heart diseases, chronic pain and movement disorders.



REDEFINING "INVESTMENT"

Every year, we reinvest 12% of our net sales into research and development.





THE GROWING EUROPEAN MED TECH MARKET

THE EUROPEAN MEDICAL TECHNOLOGY MARKET

- The European medical technology market is estimated at roughly **€100 billion**.
 - Based upon manufacturer prices the European medical technology market is estimated to comprise approximately **30% of the world market**.
- R&D
 - Products typically have a lifecycle of only **18-24 months** before an improved product becomes available
 - In 2014, more than **11,000 patent applications** were filed with the European Patent Office in the field of medical technology—7% of the total number of applications—still more than any other sector in Europe.
 - 41% of these patent applications were filed from European countries (EU28, Norway and Switzerland) and 59% from other countries, with the majority of applications filed from the US (39%).



Source: The European Medical Technology Industry | In Figures. MedTech Europe.

EMPLOYMENT IN THE EUROPEAN MEDICAL TECHNOLOGY INDUSTRY

- The European medical technology industry employs more than 575,000 people.
- There are almost 25,000 medical technology companies in Europe.
- 95% are small and medium-sized companies, the majority of which employ fewer than 50 people.



Source: The European Medical Technology Industry | In Figures. MedTech Europe.

ST. JUDE MEDICAL GERMANY

- St. Jude Medical Germany was **founded in 1990**.
- Germany has the highest number of people employed in the medical technology sector compared to all other European countries.
- St. Jude Medical's We Heart Kids™ program shines a spotlight on **pediatric cardiology**.
- In February we expanded the program to Germany.
- The global campaign recently donated to two German organizations that help children with **congenital heart disease**.



WE ♥ KIDS™



Herz für
Kinderherzen

ST. JUDE MEDICAL BRUSSELS, BELGIUM

- St. Jude Medical Belgium Coordination Centre was established in 1990 as the **regional head office** for the Europe Middle East & Africa region.
- The state-of-the-art **Advanced Technology Center** was inaugurated in 2008.
- St. Jude Medical Brussels trains an average of **1,000 physicians annually**.
- SJM employs nearly **320 workers** in Belgium spread across two sites in Zaventem, representing:
 - Clinical Affairs
 - Education
 - Health Economics & Reimbursement
 - Marketing
 - Regulatory & Quality Affairs
 - Human Resources
 - Information Technology
 - Finance
 - Legal Affairs





**WE CAN TRANSFORM THE
TREATMENT OF THE
WORLD'S MOST
EXPENSIVE EPIDEMIC
DISEASES**

ISSUES THE HEALTH CARE INDUSTRY FACES

With more patients and tighter budgets, we need to work more efficiently than ever before.

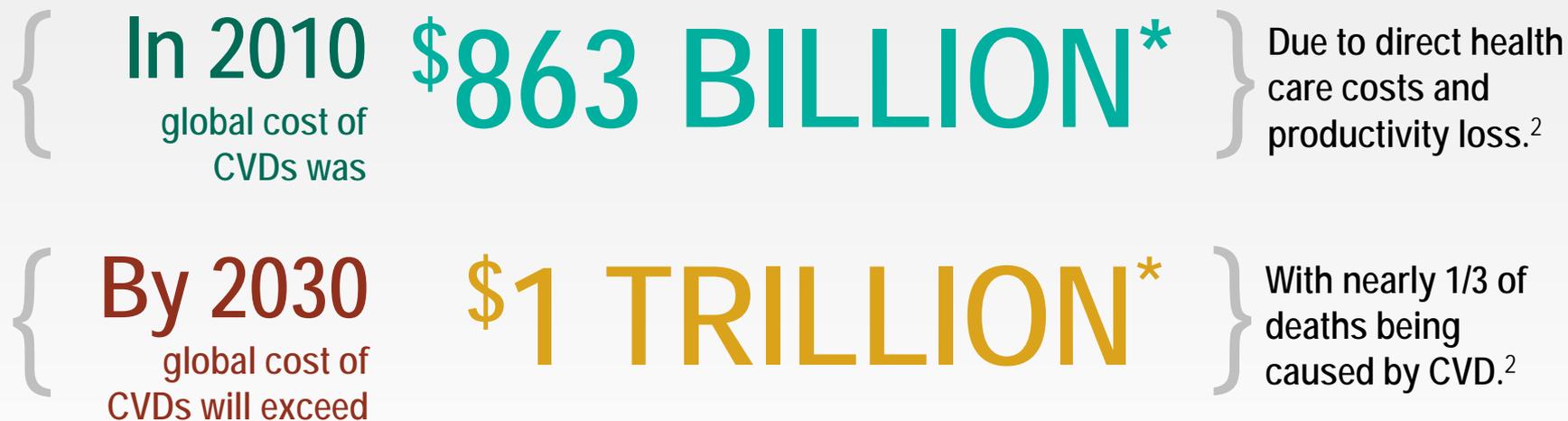
- Many major European countries have been able to reduce their health care spending as percent of Gross Domestic Product (GDP) in recent years (Germany, France, Italy, United Kingdom).
- Physicians and hospitals must manage tightening budgets, downward reimbursement pressure and the impact of clinical outcomes and quality of care measures on reputation and reimbursement.
- Hospitals must be prepared for government and regulatory audits.
- Clinicians expect a safe, effective work environment.
- Medical device companies must become partners with health care providers and payers to meet clinical and economic goals.

Source: Sauter, M., Stockdale, C., & Allen, A. (2013). The 10 countries deepest in debt: 24/7 Wall St. Huffington Post.

WORLDWIDE HEALTH CARE SYSTEM AND CARDIOVASCULAR DISEASE

Now is the time to address the rising number of cardiovascular disease patients.

- Cardiovascular diseases cause the most deaths globally.¹



1. World Health Organization. (2011). Global status report on noncommunicable diseases 2010. http://www.who.int/nmh/publications/ncd_report2010/en/

2. Bloom DE, Cafiero ET, Jané-Llopis E, et al. (2011). The global economic burden of noncommunicable diseases. Presented at World Economic Forum, Geneva.

*Figure includes both direct and indirect costs.

MEDICAL DEVICE INNOVATION – LEADLESS PACEMAKER

EVOLUTION OF PACEMAKER TECHNOLOGY



1958
Weight: 73.4g
Size: 35cc



1981
Weight: 55g
Size: 25cc



1995
Weight: 14g
Size: 6cc



2009
Weight: 23g
Size: 12.8cc



2013
Weight: 2g
Size: 1cc

Caution: Investigational Device Limited by Federal (or United States) Law to Investigational Use. Not Approved for Sale in the U.S.

Devices depicted may not be available in all countries.

Rx Only. Please review the Instructions for Use prior to using these devices for a complete listing of indications, contraindications, warnings, precautions, potential adverse events and directions for use.

The Nanostim™ leadless pacemaker is approved for CE Mark.



Caution: Investigational device. Limited by Federal (or U.S.) law to investigational use. Not available for sale in the U.S.

MEDICAL DEVICE INNOVATION – CARDIAC ABLATION TECHNOLOGIES



WORLDWIDE HEALTH CARE SYSTEM AND CHRONIC PAIN

We need to prepare for the rapidly growing number of patients with chronic pain.

- Chronic pain affects 1 in 5 people globally.³

1990: Globally, low
back pain caused



Ranking 12th among
all diseases and
injuries.⁴

2010: Globally, low
back pain caused



Moving to 7th among
all diseases
and injuries.⁴

* DALYs = Disability-Adjusted Life Years. The sum of years of potential life lost due to premature mortality and the years of productive life lost due to disability.

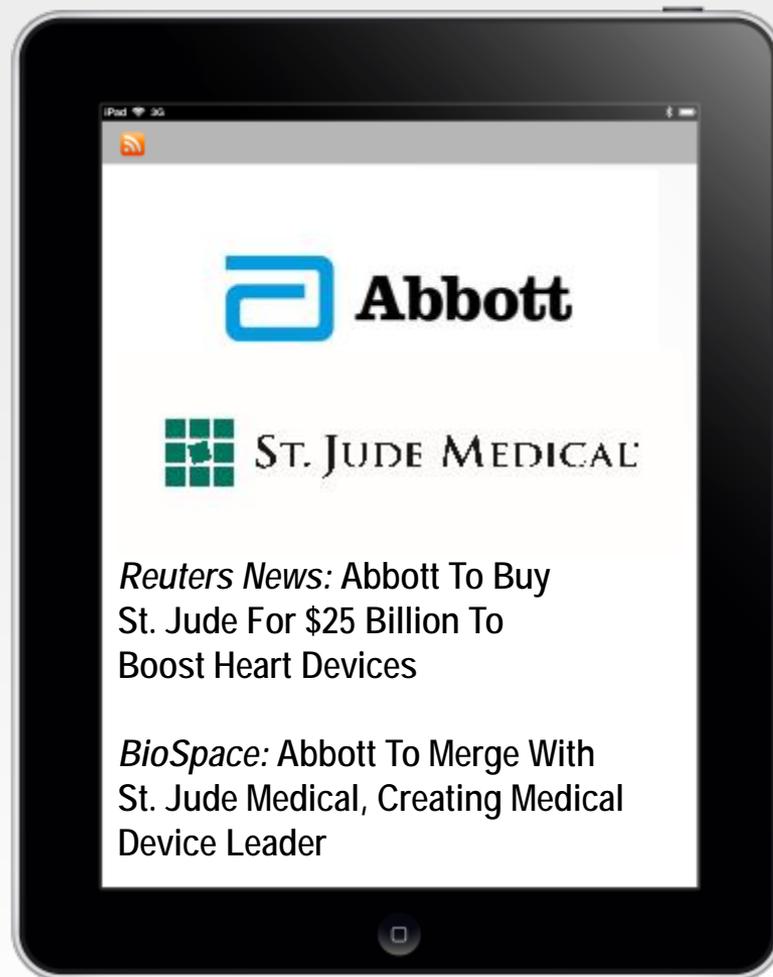
3. International Association for the Study of Pain. Unrelieved pain is a major global healthcare problem. (2012). Retrieved from <http://www.iasppain.org/AM/Template.cfm?Section=Home&Template=/CM/ContentDisplay.cfm&ContentID=2908>

4. Murray, C. J. L., & Lopez, A. D. (2013). Measuring the global burden of disease. *New England Journal of Medicine*, 369, 448-457.

MEDICAL DEVICE INNOVATION – SPINAL CORD STIMULATION



LOOKING TO THE FUTURE



QUESTIONS?



THANK YOU



REDEFINING GLOBAL

We think globally and act locally—integrating products, technology and companies from all over the world. Our localized service support, field offices and manufacturing work together to transform health care and improve patients' lives.

49% of our revenue is from
outside the United States.

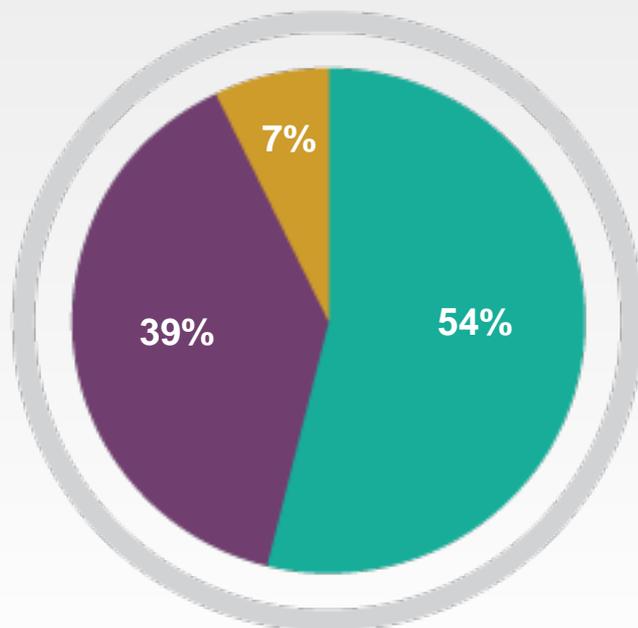
100+ Products sold in
more than 100 countries.

18,000 Employees worldwide, in addition to
**21 operations and manufacturing
facilities on four continents.**

REDEFINING “INVESTMENT”

We challenge ourselves to make a difference every day—in the lives of our patients and their families, in our experience as colleagues at work and play, and in the vibrancy of our communities.

- In 2015, St. Jude Medical and the St. Jude Medical Foundation provided more than \$23.3 million in cash and in-kind product donations to worthy causes and organizations worldwide.



- Education**
(Prof Ed, Fellowships, STEM)
- Patient Support**
(Research, Gen OP, Patient Wellness, Product Donations)
- Healthy Communities**
(Fundraisers, Galas and Events, Local Community Programs)

EDUCATION

St. Jude Medical Advanced Technology Centers help clinicians develop clinical skills in a controlled environment.

Professional Education

- Comprehensive learning opportunities
- Unique hands-on virtual reality experiences allow physicians to simulate different procedures
- Lectures from key opinion leaders and peer-to-peer teachers

