“Embracing Change: The Evolving Global Medtech Opportunity”
Boston Scientific's Ireland Sites

No. Employees 2,600
Revenue $1.7B
Key Products
- Drug Eluting Stents
- Structural Heart
- Endoscopy Stents
- Vascular Balloons

No. Employees 850
Revenue $0.5B
Key Products
- Hypertension
- Bronchial Thermoplasty
- Inflation Devices

No. Employees 830
Revenue $1.6B
Key Products
- Pacemakers
- Defibrillators
- Sub-cutaneous ICD
Products – A Rich History of Innovation
Our industry is being disrupted by the convergence of multiple trends, creating a new set of opportunities:

1. **Population Health Mgmt / Value Based Care**
   - Care coordination and information-powered clinical decisions
   - Primary care-led clinical workforce, patient engagement and community integration

2. **Shifting Customer (Partner) Base**

3. **Increasing Regulatory Pressure**

4. **Lack of Innovation Capital**
   - Medical device VC funding continues to contract; down 20% in Q2 ‘13 vs. prior year
   - VC investment going to early stage companies is only 15% of total, down from 30% in 2008

These trends are being driven by rising health care costs
If current trends persist, by 2050, healthcare spending will double, claiming 20-30% of GDP in some economies.
Across industries, business model innovation drives the most value, yet receives the least attention and effort…

Med Tech innovation effort focuses primarily on technology innovation.

Across industries, the biggest return often comes from business model and process innovation…
Market trends will strain existing business models

Value Based Healthcare

Population Mgmt

Shifting Customer Base

Lack of Innovation Capital

Increasing Regulatory Pressure

How should the business model evolve and what will and expanded offering look like? (“beyond the implant”)

What will the new innovation model look like? (funding? Partners?)

How should we react?
Traditional source of funds are shrinking, new capabilities are required, and new players are emerging…

• VC funding is down 20%+ this year with most of the funding going to later stage companies
• Corporate VC’s are filling some of the void; 25% of all VC $’s are now corporate VC’s (but not surprisingly corporate R&D is declining)

• Business model innovation will require new capabilities
• Some must be developed (or acquired) but most will likely come from partnerships
• Many “non-healthcare” companies are investing in healthcare
• The companies bring new capabilities, but lack many others

What SHOULD the new business funding model look like?
Embracing Change – Evolving Business Model

Old Medtech Model
- Unmet Clinical Need
- Safety/Effectiveness
- Ease of Use
- Product cadence

Additional Criteria
- Human Factor Design
- Low Cost Mfg. Design
- Cost-effectiveness
- Synergistic w/core
“If change is happening on the outside faster than on the inside the end is in sight.”
- Jack Welch
The Global Spread of Technologies

4.8 billion people own a cell phone...

4.2 billion people own a toothbrush...
From Fitness to Chronic Disease Management…
Value based healthcare trends are driving investment away from treatment and towards prediction and monitoring…

Healthcare Spending by Type of Activity

- **2007**
  - Monitor, 10%
  - Treat, 70%
  - Diagnose, 15%
  - Predict, 5%

- **2012**
  - Monitor, 12%
  - Treat, 60%
  - Diagnose, 19%
  - Predict, 9%

- **2025**
  - Monitor, 16%
  - Treat, 35%
  - Diagnose, 27%
  - Predict, 22%
New investment is increasingly focused on a broader set of “solutions”, specifically prevention and monitoring.

**BSC Historical Strategy**
“Growth through Innovative Products”

**New Trends in Medtech**
“Innovative Solutions: lower costs, better outcomes”

Synergistic “upstream and downstream” additions to core businesses.
Which stages in the “care continuum” have the greatest un-met need and thus are ripe for innovation/disruption?

Precipitating Factors for Disease or Hospitalization
- Traditional Diagnostics
- Molecular Diagnostics
- Sensors; Implantable and Non-Implantable
- Personalized Medicine
- Big Data, Clinical Intelligence

Hospitalization
- **Treatment**
- Cost management
- Resource utilization
- Appropriate therapy and adherence to guidelines
- Length of stay optimization

Discharge / Post Discharge Mgmt
- Reduce readmissions
- Early warning to pre-empt problems
- Handoff of patient to PCP
- Adherence and compliance to plan

Chronic Mgmt / Monitoring
- Prevention and early detection
- Drive patient compliance
- Reduce lifetime costs
- Drive population based outcomes
- Patient driven solutions

In the near term (0 – 5 years) where can the most value be created?
What about “Emerging Markets”?

Revamped BRIC Strategy:

1. Business leadership
2. Required in-country “footprint” capability
3. Market potential by major target segment
4. Tailored commercial selling models
Implications for Ireland Medtech

• **Expand** R&D competencies and increase capacity

• **Continue to demand** best in class R&D and manufacturing

• **Continue excellence** in Quality, Lead Times, Cost Reduction

• Evolving market requires **new** manufacturing competencies/processes

• Embrace IT and medical device **integration** – innovate

• “**Stay true**” to your core competencies

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**Early stage development will continue to accelerate**
Implications for Ireland Medtech

- **SUSTAIN**
  - Manufacturing competencies; people strength
  - Tax advantages - BIG PLUS - stay competitive

- **INCREASE**
  - VC funding; investment in R&D and IP
  - Education in Science, Technology, Biostats, Clinical Research, IT

Maintain your reputation for “getting it right – first time”!
Closing Thoughts and Bias’s

- **LEADERSHIP** is based on vision, values and inspiration
- **PEOPLE** are THE company – motivate them to WIN
- **CONTINUOUS IMPROVEMENT** – you NEVER ARRIVE!
- **COMMITMENT** – strive to do your BEST every day
- **FEAR** – give employees permission to “fail”; to take informed risks
- **CHANGE** is ONE constant in life – embrace it; demand it
- **CORE BUSINESS** – stay true to it, but expand it, differentiate it
- **PATIENT** - ALWAYS maintain a “patient first” mindset in all you do
THANK YOU