Value Chain Transformation & Customer Supply Chain Integration
Sheri Henck is currently Vice President, Global Supply Chain and Device Value Stream Operations for Medtronic. Sheri and her organization are responsible for leading and executing all strategic and tactical operational efforts to achieve the company’s delivery and asset management objectives worldwide. This includes creating a global supply chain strategy, designing supply chain processes, manufacturing excellence, utilizing operational excellence tools and insuring process integration and measurement to create a competitive advantage for the business. Global manufacturing occurs in Puerto Rico, Switzerland, Ireland, the US and Singapore. Sheri has been a leader at Medtronic since September, 2009. Sheri also is involved in leading many other teams and organizations at Medtronic. She serves on the Medtronic Women’s Network leadership team, leads the Cardio & Vascular Group Women’s VP Network, and also serves as the GIDE (Global Inclusion and Diversity Engagement) leader for the CRHFDM business. Prior to Medtronic, Sheri spent 19 years with Honeywell in a variety of leadership positions, including Vice President of Materials, Planning and Procurement in the Materials Management organization for the Aerospace business.
Value Chain Transformation & Customer Supply Chain Integration

Collaborate. Integrate. Deliver.
Living Our Mission in All We Do

alleviate pain

restore health

extend life

—written in 1960
Strengthened by Our Breadth

FY2014 Revenue by Business
$17 Billion

Restorative Therapies Group
$6.5B
- Spine
- Neuromodulation
- Surgical technologies

Cardiac and Vascular Group
$8.8B
- Cardiac rhythm disease management
- Coronary
- Structural heart
- Endovascular

Diabetes Group
$1.7B
Transforming to Meet Changing Needs

- Growing chronic disease
- Broadening stakeholders
- Rising cost and healthcare reform

Universal healthcare needs
- Improved clinical outcomes
- Expanded access
- Optimized cost and efficiency

Medtronic strategies
- Therapy innovation
- Globalization
- Economic value

Market dynamics
Alleviating Chronic Conditions

**Neurological**
- Severe spasticity
- Parkinson’s disease
- Essential tremor
- Dystonia*
- Hydrocephalus
- Obsessive-compulsive disorder*
- Brain tumors and lesions
- Chronic pain
- Subdural hematomas
- Cranial trauma

**Spinal and orthopedic**
- Cervical degenerative disc disease
- Scoliosis
- Degenerative disc disease
- Spinal fracture
- Lumbar spinal stenosis
- Tibial fractures
- Orthopedic trauma

**Diabetes**

**Cardiac rhythm**
- Heart valve disease
- Congenital heart disease

**Structural heart**
- Coronary
- Coronary artery disease

**Coronary**
- Heart failure
- Asymptomatic heart rates

**Cardiovascular**
- Atrial fibrillation
- Slow heart rates (bradycardia)
- Fast heart rates (tachycardia)

**Endovascular**
- Peripheral vascular disease
- Aortic aneurysms

**Urological, urogynecological and gastroenterological**
- Overactive bladder and urinary retention
- Nausea and vomiting associated with gastroparesis*
- Fecal incontinence

**Ear, nose and throat**
- Sinus diseases
- Thyroid conditions
- Otologic disorders
- Sleep-disordered breathing
- Pediatric conditions
- Ménière’s disease

* Humanitarian device in the United States – the effectiveness for this use has not been demonstrated as of FY14.
Delivering Innovative Solutions Around the World

9 strategic regions
46% international sales
140+ countries
260+ locations

United States
Latin America
Western Europe / Canada
Middle East / Africa
Central / Eastern Europe
Greater China
Japan
South Asia
Asia Pacific
Leading the Way

$17B revenue

10M+ lives improved

27,000+ patents

5,600 scientists & engineers

Every 3 seconds another life is improved

350+ clinical trials

40+ medical conditions

$67M total charitable contributions

49,000+ employees
Supply Chain Transformation….Key Points of Discussion…

• Work with the willing
• Credibility and performance is key to build momentum
• Spend time educating internally with your business stakeholders
• Mutual benefits will be realized – expand your ability to “see” across the extended value stream
• Talent will be required - over-hire, focus on bench building
• Growth & expansion can be fast! Get ready! Be Prepared

Get your Supply Chain Seat at the Table
Key Drivers

EXTERNAL BUSINESS DRIVERS
- US Healthcare reimbursement changes, pricing pressures, desire to differentiate service as a competitive advantage

INTERNAL DRIVERS
- Improve Execution, Optimize Innovation, Accelerate Globalization
- Supply Chain organizations and processes becoming increasingly cross-functional and interdependent – holistic supply chain vision needed

BENCHMARKING
- What are customers asking for? What is happening in other industries?
- What does “good” look like? Or “great”?

Developing a shared Supply Chain Future State Goal + Understanding our Current Capability = Key to developing a 5 year roadmap
Value Chain Transformation Journey

Responsive to Demand
- Cost to Deliver
- Perfect Orders

Growth and Profitability
- Cost to Serve
- Profitable Perfect Orders

Demand Driven
- Build and Extend Core Demand Management Processes

Value Driven
- Joint Value, Outcome-Focused Performance Management

Cost Focused
- Integrate and Consolidate Business Process Infrastructure

Business Unit Focused
- Acquire, merge, partner Legacy growth Business Units and functions

Externally Focused

Internally Focused

Source: Gartner
What Can Cost To Serve (CTS) Do for you?

- Full Transparency to total cost drivers and profitability
  - Activity based costing vs. “peanut butter” approach

- Customer Profitability
  - Provide P&L visibility by customer
  - Enables sales team to define which services to provide customers vs. “one size fits all approach”

- Supply Chain Segmentation
  - GSC will develop a menu of supply chain services, that enable differentiation for key customers, while reducing overall costs

- Sku Profitability can highlight lower profitable items and the business can make decisions on those items
Servicing most customers and products in this manner increases complexity & reduces overall profitability. Cost to Serve will model these trade-offs.
Medtronic GSC & Customers… “Why now?”

• Trading partners both faced with trying to prepare to address industry drivers that are redefining healthcare.

• Project Example between Medtronic and a Customer
  – Why was it initiated?
    • Drive cost and inefficiency out of our organizations
    • Go beyond simple contracting
    • Looking for opportunities to improve patient safety
    • Reduce redundancy, improve visibility, optimize product delivery and tighten P2P processes

  – Why is the focus CRM?
    • Work was completed with the FDA on a UDI pilot, Cath Lab using POU scanning technology
    • CRM service line is equally a high volume procedural area for both parties, so it was a logical pilot focus

  – What was different in the approach?
    • End to end approach to supply chain including clinical processes
    • Collaborative and transparent discussions on critical issues
    • Need for end result scalability and repeatability for both partners
Collaborative Current State

Customer

Schedule Case

Perform Case

Consigned Inventory

Medtronic

Trunk Inventory

Medtronic

Case Schedule

Lack of Data

Lack of Visibility

Data Exceptions

Manual Reconciliation

Transaction Exceptions

Invoice

Payment Billing

Schedule Case

Perform Case

Capture Usage

Validate Data

Send PO

Validate Data

Pay

Provide Service

Capture Usage

Process PO

Validate Data

Invoice

Consigned Inventory

Perform Case
Identifying Opportunities Together

– What are the key opportunities and how do you collaboratively set priorities?

• Transaction accuracy
• Process variability and deficiencies
• Data synchronization
• Demand visibility
• Product availability and inventory
• Right sizing solutions
• Reduce administrative and Supply chain tasks to focus on patient care
Medtronic GSC Capability Roadmap
### Medtronic CRDM Capability Roadmap

<table>
<thead>
<tr>
<th></th>
<th>Q3’14</th>
<th>Q4’14</th>
<th>1H’15</th>
<th>2H’15</th>
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</thead>
<tbody>
<tr>
<td><strong>Segmentation/Strategy</strong></td>
<td>Segmentation - Q3 Discovery &amp; Q4 Pilot</td>
<td>Larger Scale Segmentation Implementation</td>
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<tr>
<td><strong>Demand Forecast Accuracy</strong></td>
<td>Improve Statistical Forecast – Exploring capability &amp; executing pilots</td>
<td></td>
<td>Enhanced “sensing” – Start Collaborating with external partners</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ownership/Accountability to forecasts at a regional leader level</td>
<td></td>
<td>Enhanced “shaping”</td>
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<tr>
<td><strong>Perfect Order</strong></td>
<td>Customer Fulfillment Metrics</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Shift to CDD measure</td>
<td></td>
<td></td>
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<tr>
<td><strong>Supply Chain Cost</strong></td>
<td>Define Perfect Order</td>
<td></td>
<td>Accurate RDD. Perfect Order</td>
<td></td>
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<tr>
<td></td>
<td>CTS Pilot Model</td>
<td></td>
<td>Expand/Refine CTS Pilot</td>
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<tr>
<td><strong>Pipeline Inventory</strong></td>
<td>EIO Finished Goods</td>
<td></td>
<td>EIO – RM/WIP</td>
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<tr>
<td></td>
<td>Component SiOP</td>
<td></td>
<td>IT solutions &amp; Mobile Apps</td>
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</table>

- **Segmentation**: Improving statistical forecast by exploring capabilities and executing pilots.
- **Demand Forecast Accuracy**: Enhancing “sensing” by collaborating with external partners.
- **Perfect Order**: Customer fulfillment metrics, shift to CDD measure.
- **Supply Chain Cost**: Defining perfect order, accurate RDD, perfect order.
- **Pipeline Inventory**: EIO finished goods, EIO – RM/WIP.
## Medtronic CRDM Capability Roadmap – cont’d

<table>
<thead>
<tr>
<th>Cycle Time</th>
<th>Q3’14</th>
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<th>H1’15</th>
<th>H2’15</th>
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<tbody>
<tr>
<td></td>
<td>Align CRDM/Supplier Planning Cycles by TBD</td>
<td>(Influence) Reduced Manufacturing Cycle Time</td>
<td>Reduced Supplier Lead Times</td>
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<thead>
<tr>
<th>Line Utilization/Prod Schedule Variance</th>
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<th>Q4’14</th>
<th>H1’15</th>
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<td>Capacity Planning</td>
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<td>Capital Planning</td>
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<td>Need input from extended staff</td>
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<th>Q4’14</th>
<th>H1’15</th>
<th>H2’15</th>
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<tbody>
<tr>
<td>Doc to Stock leadtime</td>
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<tr>
<td>PRB &amp; MRB</td>
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<tr>
<td>Inspection Elimination</td>
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<thead>
<tr>
<th>DSO /DPO</th>
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<tbody>
<tr>
<td>Finance and Credit Services Input</td>
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<thead>
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<th>Org. Culture /Talent</th>
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<th>Q4’14</th>
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<tr>
<td>Centurian Behavior</td>
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<td>Competency Roadmaps</td>
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<table>
<thead>
<tr>
<th>Enablers</th>
<th>Q3’14</th>
<th>Q4’14</th>
<th>H1’15</th>
<th>H2’15</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales pipeline visibility discussion with Sales in SiOP</td>
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<tr>
<td>Employee Roadshow/s</td>
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<tr>
<td>Continuing Comms re: Org/EE initiatives</td>
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Next Steps: What and How
Global Architecture, Multiyear Journey

1. Engage all the stakeholders – Sourcing /Manufacturing/Logistics/Supply Chain/Sales...

2. Design a measurement strategy
   - Identify Current vs Future state metrics
     - Future state: define 3 levels of aligned metrics
     - Design migration strategy that includes metrics, process, technology, and change management
     - Multiyear
     - Start small, build incrementally and be pragmatic
     - Pilot
   - For each supply chain you operate, set targets that support your strategy for that supply chain

3. Change the way you use metrics you have today
   - Decide where and how metrics will be used on an ongoing basis: S&OP is key
   - Strategy/Target setting process
   - Use metrics to tell the story of the supply chain
Going Forward…

- GSC has the E2E view of putting it all together - what are you sharing?
- Is your GSC performance where it needs to be to drive to the next level of integration?
- Talent capability is real – what is your current state assessment and future state needs?
- Do you have a strategy that includes stakeholder alignment?
- What and where must we leverage together?
Every 3 seconds another life is improved
Jessica Delia is a Technology Lead in Raytheon’s Integrated Defense Systems (IDS) Sourcing Organization. In this role, Jessica is responsible for the management and sourcing for Electrical components and for the implementation and management of supplier managed inventory (SMI) replenishment systems across IDS. Prior to her current role, Jessica worked in diverse areas of supply chain. She was the Procurement Lead for IDS’s deployment of SAP Enterprise Resource Planning (ERP). She was also a Purchasing Manager responsible for procurement and implementing long term agreements for multiple commodities, and held various roles in Planning responsible for Master Scheduling and Inventory Management. Prior to joining Raytheon, Jessica worked for the United States Army as a Logistics Management Specialist. Jessica holds a Master of Science in Supply Chain Management from the University of San Diego, in addition to a Bachelor of Science in Business Administration from Northwestern State University. Jessica also holds several professional certifications, including CPSM (Certified Professional in Supply Management), CPM (Certified Purchasing Manager), and Raytheon’s Six Sigma Specialist.

<table>
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<tr>
<th>Title:</th>
<th>Senior Manager Sourcing</th>
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<tbody>
<tr>
<td>Company:</td>
<td>Raytheon</td>
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<tr>
<td>Email:</td>
<td><a href="mailto:C_Delia@Raytheon.com">C_Delia@Raytheon.com</a></td>
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</tbody>
</table>
Junior Jabbie is the Sales and Marketing Manager of Banneker Industries, Inc. a world-class provider of supply chain management solutions headquartered in North Smithfield, R.I. In this role, Jabbie is responsible for the business development, sales, marketing, training, and continual improvement activities. He is an expert in supply chain management; 3PL and 4PL strategies; inventory control and management; logistics management; value-added warehousing; procurement and purchasing; commercial and MIL-SPEC packaging and fulfillment; government property management; and distribution services. Jabbie earned a B.S. degree in business administration and an MBA from Bryant University. He is a qualified Lean Six Sigma Internal Auditor (Green Belt). He serves on the board of directors for Grow Smart Rhode Island and the Northern Rhode Island Chamber of Commerce; a member of the Southeastern New England Defense Industry Alliance (SENEDIA) serving on their Strategic Planning subcommittee; and a co-chairman of the Supply Chain Management Summit Planning Committee.
Agenda

• SMI Program Objectives

• History of Relationship

• Process and Benefits of Supplier Managed Inventory (SMI)

• Value Proposition
SMI Program Objectives

Financial
- Reduce working capital in Circuit Card Assembly (CCA) component supply chain
- Reduce Raytheon’s total cost of ownership
- Maximize utilization of Enterprise Agreements

Operational
- Drive productivity and operational efficiencies related to managing component material
- Provide a single supplier solution for franchised and non-franchised product
- Standardize one process for component commodity management

Other
- Continuously manage and mitigate program risk during implementation and execution
- Test SMI program for expansion to other suppliers/commodities at IDS and across the enterprise
History of Relationship

2006: RFP
- Looking for an affordable SMI solution focusing on Circuit Card Assembly Center of Excellence
- Supplier to warehouse material in “proximity” to COE
- Pipeline presentation ready material to reduce lead time

2007: Pilot
- Arrow Electronics/Banneker Industries was selected as SMI supplier
- Pilot program through local Arrow Electronics warehouse

2008 – Today: Live
- Proximity Warehouse live with warehousing location at Banneker Industries

Team selected for their solution to Raytheon’s program objectives
Process and Benefits of SMI

Benefits

- Banneker utilizes Raytheon’s Warehouse Management System
- Raytheon has visibility into inventory at Banneker
- Use of SAP Scheduling Agreements eliminates need for purchase requisitions/orders to be processed
- Sharing of MRP forecast enables Arrow to pipeline material
- Supply base optimization
- Overall cycle time reduction
  - Planning, RFP, procurement, receiving, inspection
Value Proposition

Raytheon
- Improved cycle times
- Near instant access to inventory
- Enhanced supply chain flexibility
- Increased utilization of Enterprise Agreements

Arrow Electronics
- Line card depth
- Market expertise
- Grow market share
- Top distributor

Banneker Industries
- Logistics expertise
- Warehouse management
- Product presentation
- Robust delivery Support
- Value added services

Value added services
Keys to Successful Relationship

• Set clear expectations

• Share common goals and measure

• Communicate regularly

• Supplier investment

• Dedicated team