Webcast Logistics

- Audio lines are muted until Q&A session

- Submit your questions via the Live Meeting Chat window at any time

- Slides available within 24 hours for Manufacturing Insights clients and attendees

- All other requests:
  - Email info@manufacturing-insights.com

- Problems?
  - Email dstark@idc.com
Introducing our Speakers

- **Simon Ellis, Practice Director, Supply Chain Strategies**
  - Responsible for research and analysis on applications and best practices related to manufacturing, supply chain, RFID, lean/six-sigma and risk management.
  - Extensive experience as a supply chain practitioner with over 20 years experience at global CPG giant Unilever.

- **Kimberly Knickle, Practice Director, Emerging Agenda**
  - Responsible for research and analysis on emerging applications related to sustainability, supply chain, RFID, sensor networks and more.
  - Extensive experience as both a practitioner and market researcher at companies such as AMR Research, Hurwitz Group, Inc., and Charles River Strategies, Entre Computer Center, Boston Center for Computer Applications, and Underwriters Laboratories, Inc.
About IDC and Manufacturing Insights

IDC

- Founded 1964
- Leading provider of fact-based market research, custom research and strategic advisory services
- 900+ analysts
- Located in 90+ countries
- Survey more than 250,000 decision makers and technology users worldwide, every year

Manufacturing Insights

- An IDC Company
- Focus on the strategic business application of information technologies for manufacturing companies
- Provide unique insights on how to improve business processes through the use of technology
- Cross the gap between IT and business with a global perspective
Today’s Agenda

- What is Profitable Proximity?
- Impact of Sustainability
- Value Chain Differentiation
- Summary and Guidance
- LIVE Questions
Profitable Proximity Sourcing

“Low-cost country sourcing" as a primary cost-mitigation strategy is coming to an end.

1. Significant global growth coming from current low-cost regions
2. Low-cost countries transition to emerging markets
3. Increasing expectations for "globally-fair" wages in emerging markets
4. More companies are taking a more strategic "customer service" view in their global network design and sourcing processes
5. Distribution costs grow as a percentage of total cost

“Total supply chain cost" perspective offers a far more sensible approach to making sourcing decisions today

At Manufacturing Insights, we call this strategic approach Profitable Proximity!
Context: Modernizing Your Supply Chain

- Defining the ‘Modern Supply Chain’ with an emphasis on the practical challenges of demand side and supply side.

- Improved planning capabilities have left supply chains with execution challenges.

- Evolution of the global, distributed supply network.

- Data and information challenges.
Reconciling Supply and Demand

Interface ‘Rules’:
1. Network Sourcing Strategy (Profitable Proximity)
2. Capacity Constraints
3. Inventory Policy
4. Cost/Lead-time Tradeoffs
A Few Points to Consider ……

1. Profitable proximity sourcing does not eliminate ‘low-cost country sourcing’.

2. Profitable proximity addresses the ‘tug of war’ that results between influencers within supply chain and manufacturing processes.

3. The primary trade-offs are cost, lead-time, and proximity to demand.
Global demand growth – from ‘low-cost countries’ to ‘emerging markets’

- Lead-time considerations may be prioritized above cost for certain products
- External influencers
- Ties into key performance metrics
Profitable Proximity Defined – Influencers!

Profitable Proximity

- Cost-Optimized Sourcing
- Lead-time-Optimized Sourcing
- Demand/Supply Balanced Sourcing

Quality (Product Integrity)

- Sustainability (Green)
- Risk Management (Continuity Planning)

- Expertise/Talent
- Inventory Optimization
- Portfolio Differentiation
- Network Planning/Optimization

Performance:
Metrics – Perfect Order, Cost, Quality, Time-to-Recovery
Profitable Proximity Influencers!

- **Sustainability** - A strategic sourcing strategy will have to consider environmental impact, especially as regulations proliferate.

- **Quality/Brand equity** - Balancing manufacturing cost of quality with warranty expenses and the challenges of counterfeiting and IP protection drive companies to re-think how and where they source.

- **Risk Management/Business continuity planning** - ‘Time to recovery’ becomes a key metric in corporate scorecards to measure cost of protracted service failures. This becomes central to balancing cost versus lead-time equilibrium and key input to the sourcing strategy.
Profitable Proximity Influencers!

- **Inventory optimization** - Sophisticated multi-echelon (components, WIP, finished goods) planning tools allow companies to take a broader perspective on inventory cost and optimizing across distributed supply networks.

- **Portfolio differentiation** - With growth in product types individualized for a region and nation, coordinating regional or national supply with demand is a challenge.

- **Expertise/Talent** - Relates to quality and business continuity planning, but often overlooked in the pursuit of low cost. Reliability and consistency are as important as cost.
Cost Implications

1. Manufacturing cost (labor) advantages in ‘low-cost countries’ have fallen by almost 50% over the last 5 years for many product categories due to labor rate increases and the expectations for ‘globally-fair’ wages. We expect this to continue.

2. Distribution cost (freight, inventory) disadvantages have grown over that same period of time, seriously eroding the ‘low-cost country’ advantage for many product categories. Long-term oil pricing expectations make reversal of this trend unlikely.

3. Quality cost (returns, IP, lead-time) implications are something of a ‘catch-all’, but clearly are moving towards ‘near-shoring’ rather than ‘far-shoring’.
The Impact of Sustainability

- People: Your Suppliers’ Problems Become Your Own
  - Collaboration
  - Guidelines, Service Level Agreements, & KPIs

- Planet:
  - Productivity, efficiency

- Profits:
  - Risk management
  - Profitable proximity
  - Matching business objectives: decreasing costs & improving SC decision-making

- Measuring success: Shared costs, shared benefits
“Companies that persist in treating climate change solely as a corporate social responsibility issue, rather than a business problem will risk the greatest consequences.”

Sustainability: The BIG Picture Perspective

- Material selection
- Sourcing policies
- Resource consumption and emissions
- End-of-life postponement and management
- Customer demand fulfillment
Supply Chain & MES

<table>
<thead>
<tr>
<th>Transportation management</th>
<th>Transportation evaluations based on impact to the environment, such as the trade-off between fuel consumption and arrival time and fleet optimization</th>
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<tbody>
<tr>
<td>Procurement and supplier relationship management</td>
<td>In-depth details on recycling-friendly materials, processes, or packaging, as well as supplier environmental scorecards</td>
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<tr>
<td>Manufacturing execution systems</td>
<td>Production-line efficiencies, including energy efficiencies in conveying and sorting Transition to fulfillment execution to manage operations</td>
</tr>
<tr>
<td>Supply network optimization</td>
<td>Shifting from low-cost country sourcing to profitable proximity Bigger-picture look at transportation costs and manufacturing &amp; distribution center locations</td>
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Value Chain Differentiation

- **Engineering Oriented Value Chains**
  - Automotive
  - Aerospace & Defense
  - Industrial Equipment
  - Consumer Durables

- **Asset Oriented Value Chains**
  - Bulk Chemical
  - Specialty Chemical
  - Metals
  - Pulp and Paper

- **Brand Oriented Value Chains**
  - Food & Beverage
  - Health & Beauty
  - Footwear / Apparel
  - Household Goods

- **Technology Oriented Value Chains**
  - Semiconductor
  - Electronics
  - Contract Manufacturing
  - Computing & Telecom
# Value Chain Implications of Profitable Proximity

## Technology Oriented Value Chains (Electronics)
- Use of collaboration to create visibility and link early demand feedback to supply /product requirements changes. Goal to Accelerate Time-to-Volume

## Engineering Oriented Value Chains (Automotive, R&D)
- Extensive use of PLM and front end design Collaboration. Goal to Drive Reuse

## Asset Oriented Value Chains (Oil & Gas, Chemicals)
- Use of supply chain execution tools for simple visibility and transportation Management. Goal to Maximize ROI

## Brand Oriented Value Chains (CPG)
- Use of advanced S&OP tools to adjust operational response to early demand signals. Goal to Calibrate Quickly to Demand

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<tr>
<th>Manufacturing Cost</th>
<th>Fulfillment Cost</th>
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<tr>
<td>Low</td>
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Essential Guidance

Our specific advice is to make sure that the following best practices are considered during the network/operational planning (S&OP) process:

1. Look at the total "cost of goods" and plan the network accordingly
2. Balance cost with lead time, particularly where products have a "fashion" or "fad" element
3. Don't forget about sustainability, particularly as it relates to cost and supply network responsibility
4. Consider building in greater flexibility in sourcing strategy, either with additional supplier diversification, supply scheduling, or inventory/product postponement techniques
5. Be clear about the business rules that direct the interface between the supply side and the demand side of the total supply chain — even if elements of the former are outsourced
6. Ensure your C-level executives understand the linkage between cost, service, and business continuity/network planning
Your Questions?

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Related Research:  
Profitable Proximity: Product Sourcing Decisions in the Modern Supply Chain  
Leveraging IT in Building Green Businesses  
Sustainability in Manufacturing: Innovation Brings Opportunity
Upcoming Events

- **Aerospace Manufacturing and Automated Fastening Conference & Exhibition**
  - September 16-18, 2008, Charleston, SC – Bob Parker speaking

- **CSCMP Conference 2008**
  - October 5-8, 2008, Denver, CO – Bob Parker speaking

- **Consumer Goods Technology Fall Conference**
  - October 19-22, 2008, Orlando, Florida – Simon Ellis attending

- For a one-on-one briefing with Manufacturing Insights contact Kira Shapiro
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  - Or call 508-988-7900