JOURNEY INTO UNCHARTED TERRITORIES

How are owners, contractors and suppliers adapting to successfully execute projects and reposition their businesses in the ever evolving project environment?

SEPTEMBER 7-10, 2011
JW Marriott Desert Ridge, Phoenix, AZ

REPOSITIONING THE PROJECTS BUSINESS IN A WORLD WITH CHANGING BOUNDARIES
The Supply Game: Successfully Meeting Project Supply Needs in a World with Changing Boundaries

MIKE McATEE
BASF Corporation

Program Co-Chair
Enabling a Predictive Supply Chain

CRAIG REED
SVP – Supply Chain Management, Eaton Corporation

JOURNEY INTO UNCHARTED TERRITORIES
PLENARY SESSION 2

REPOSITIONING THE PROJECTS BUSINESS IN A WORLD WITH CHANGING BOUNDARIES
Agenda

• Eaton
• Business Challenges
• Business/Supply Chain Continuity
• Sustainability
Mission: To provide safe, reliable, efficient and sustainable power management solutions for our global customers.

• Founded in 1911 by J.O. Eaton
• Regional Headquarters in Shanghai, China; Morges, Switzerland; Sao Paulo, Brazil
• Innovation Centers in the USA, China and India
• Customers in more than 150 countries
• 2010 sales of $13.7 billion, 55% of sales outside the U.S.
• Approx. 70,000 employees
Power Distribution
- Circuit breakers
- Switchgear
- Panelboards and switchboards
- Transformers
- Assemblies

Power Quality
- Uninterruptible power supplies
  - Single phase
  - 3 phase
- Power distribution units
- Meters and software

Control and Automation
- Drives
- Sensors
- Human machine interface
- Control components

Services and Aftermarket
- Engineering and consulting services
- Turnkey design, build and management
- Maintenance and aftermarket
- Power audits and studies
Industrial Sector - A Leader in Mechanical & Fluid Power

Aerospace
- Hydraulic Systems
- Conveyance Systems
- Electrical, Sensing and Controls
- Fuel Systems

Hydraulics
- Controls
- Fluid Conveyance
- Power
- Filtration Systems

Oil and Gas
- Integrated Hydraulic Systems
- Integrated Power Systems
- Filtration Systems
- SubSea Umbilicals
- Control Systems

Vehicle
- Valvetrain
- Supercharger
- Torque Control
- Fluid Connectors
- Fuel and Powertrain
- Clutch
- Hybrid
Business Challenges

• **Increased Customer Expectations**
  – Delivery, Quality, Service & Cost
  – Predictability, Innovation, Speed & Sustainability

• **Regulations**
  – Trade & Environmental – by Country

• **Globalization**
  – Increased Volatility
  – Length of Supply Chains
  – Geopolitical Environment
Manufacturing Regionalization - Sales by Region

- U.S.: 80% in 2000, 45% in 2010
- International: 20% in 2000, 55% in 2010
Manufacturing Regionalization - 
# of Employees (2002 - 2011)

Europe
7.4K → 19.6K
Employees
60 mfg sites

APAC
2.3K → 14.9K
Employees
33 mfg sites

America’s
37.1K → 40.1K
employees
89 mfg sites
Enterprise Risk Management

Regulatory Risk

Sustainability

Regionalization

Business Continuity

Business Risk

Supply Chain Continuity
Enterprise Risk Management Elements

- Starts with CEO & Board
- Enterprise Risk Management Team
  - Regionalization
  - Business Continuity
  - Supply Chain Continuity
  - Sustainability
- Changing Roles & Responsibilities
- Global Learning, Sharing, and Alignment
Business Continuity

• Event Summary
  – March 31, 2010
  – Record 500-year flood hits Rhode Island yielding unprecedented disaster
  – Warwick Plant under 4 feet of water and no power
  – $38M property damage

Warwick, Rhode Island
## Business Continuity

### Protection of assets via a systematic process

**RISK**

- Customer Impact - Delivery, Quality & Cost Predictability
- Manufacturing
  - Employee safety
  - Equipment condition
  - Supply chain continuity
  - Natural disaster
    - Floods, hurricanes, etc.

**MITIGATION**

- Business Continuity Teams
- Mfg. Site Risk Assessments
  - Customer recovery req.
  - Equipment, suppliers & people resource backup
  - IT recovery
- Plant Recovery Strategy/Plan
Global Commodity Pricing

Copper and Nickel

Nickel (left)

Copper (right)

Source: London Metal Exchange
Daily data through May 6, 2011

Aluminum and Lead

Primary Aluminum (right)

Lead (left)

Source: London Metal Exchange
Daily data through May 6, 2011

North America Steel Prices

$/CWT

Source: Steel Business Briefing
Weekly data through May 2, 2011
Supply Chain Continuity

Supply Chain process to ensure predictable material flow

<table>
<thead>
<tr>
<th>RISK</th>
<th>MITIGATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Consistent Performance</td>
<td>• ProLaunch</td>
</tr>
<tr>
<td>– Delivery</td>
<td>• Sourcing Strategy</td>
</tr>
<tr>
<td>– Quality</td>
<td>– Dual source</td>
</tr>
<tr>
<td>• Commodity</td>
<td>– Global sourcing</td>
</tr>
<tr>
<td>– Raw material</td>
<td>– Localization</td>
</tr>
<tr>
<td>– Qualification lead times</td>
<td></td>
</tr>
<tr>
<td>• Financial</td>
<td>• Financial Health Monitoring</td>
</tr>
<tr>
<td>– Solvency/Cash flow</td>
<td>• Commodity and Currency Hedging</td>
</tr>
<tr>
<td>• Region</td>
<td>• Assessments</td>
</tr>
<tr>
<td>– Lack of standards</td>
<td>– Financial, Quality, Sustainability</td>
</tr>
<tr>
<td>– Political/Economic</td>
<td>– Contingency planning</td>
</tr>
</tbody>
</table>

Journey Into Uncharted Territories

43rd Annual ECC Conference
Global Oil and Diesel Fuel Prices

Retail Diesel Prices (left)
Brent Crude (right)

Source: U.S. DOE, Energy Information Agency
Weekly data through June 13, 2011
## Logistics

### Management of transportation & distribution of materials

<table>
<thead>
<tr>
<th>RISK</th>
<th>MITIGATION</th>
</tr>
</thead>
</table>
| - Long, Complex Supply Chains with More Hand-Offs and Hubs  
  - Variable product delivery  
  - Congestion & scheduling  
  - Cargo security & theft  
- Government Legislation  
  - Environmental & security | - Manufacturing  
  - Regionalization  
  - Flexible Manufacturing  
  - EMEA, APAC, America’s  
- SCM  
  - Increased SIOP velocity  
  - Consignment inventory  
  - Strategic use of 3PL  
  - Increased visibility to customer  
  - CTPAT certified |
# Trade Management

Compliance with export laws i.e., documentation, duties, taxes & technology controls

## RISK

- Rapidly Changing Regulatory Landscape
  - More country export laws
  - Unnecessary Duties/Taxes
  - Fines/Penalties
  - Clearance Delays
  - Seizure of Goods
  - Loss of Import/Export Privileges
  - Audits/Investigations/Litigation

## MITIGATION

- Focus - Organizational Excellence
  - Regionalization
  - Functional experts
  - Strategic use of 3rd parties
- Standards
  - Enterprise-wide policies and procedures
  - Routine assessments
- Technology
  - ERP controls – product/country
Sustainability

Increasing Regulatory Complexity...

- Climate Change, GHG, Energy Efficiency
- Traffic/Motor Vehicle Safety, Federal Aviation, Consumer Product Safety
- Packaging & Transport
- Other Product End of Life Programs - Batteries
- Government Contract
- Import/Export (ITAR, EAR, OAC, NAFTA, etc.)
- Product Design-for-Safety
- Product Marking, Labeling, Machinery Directives
- EU End of Vehicle Life
- EU, China WEEE
- EU, China, Japan, Korea, CA RoHS
- REACH and equivalents

The task of getting and staying compliant is increasingly complex

Number of Regulations is Exploding
Sustainability

Meeting of today's world needs in ways that protect tomorrow

**RISK**

- Customer Requirements
- Regulatory Requirements
- Social Requirements

**MITIGATION**

- Internal
  - Global Code of Ethics
  - Global site MESH assessments
  - Global Energy/GHG, waste, water reduction goals
  - Metals, packaging, & chemical recycling programs
- External
  - Supplier Code of Conduct
  - Assessments - financial, quality, environmental
  - Carbon Disclosure Plan
The Eaton Business System (EBS) is the embodiment of our Integrated Operating Company philosophy.

- It is based on our belief in standard processes and a teachable point of view
- It ensures that we transfer best practices and key learning across the organization
- It encourages continuous improvement

EBS enables us to:

- Respond quickly to customer needs
- Deliver more cost-effective solutions
- Keep customers and businesses on the leading edge of change
Enterprise Risk Management Elements

Regulatory Risk

Business Risk

Sustainability

Regionalization

Supply Chain Continuity

Business Continuity
Journey Into Uncharted Territories

How are owners, contractors and suppliers adapting to successfully execute projects and reposition their businesses in the ever evolving project environment?

Repositioning the Projects Business in a World with Changing Boundaries