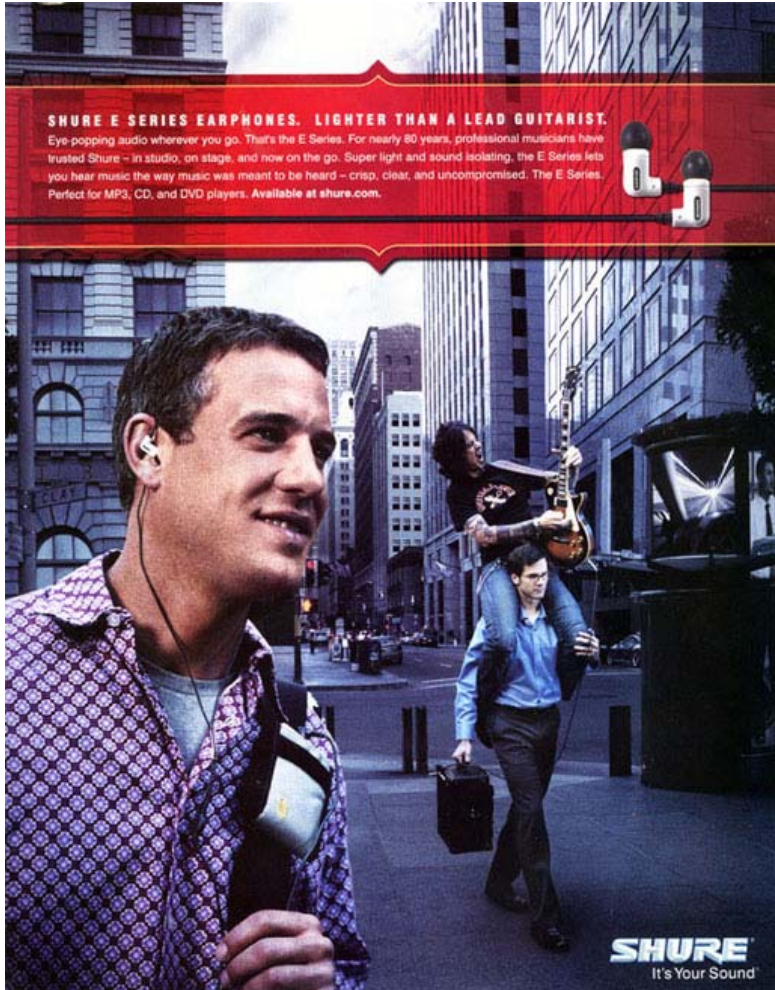



# Global Outsourcing at Shure-Lessons Learned April 10, 2008

Barry Zuckerman CPIM C.P.M.



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## Our Business: Audio!

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# Our Company: Shure Incorporated



- Privately-held company, founded in 1925 by S.N. Shure
- Chairman: Rose L. Shure
- 82 years of experience in professional and consumer audio

- Offices:
  - Shure USA: Niles, Illinois
  - Shure Europe:
    - Heilbronn, Germany
    - London, England
  - Shure Asia:
    - Hong Kong
    - Shanghai
    - Japan
- Manufacturing facilities:
  - Wheeling, Illinois
  - Juarez, Mexico
  - Suzhou, China
- Distribution Centers in 146 countries

# Shure Operations

**US  
Headquarters**

**US & IA Sales,  
Marketing &  
Distribution**

**European Sales,  
Marketing &  
Distribution**



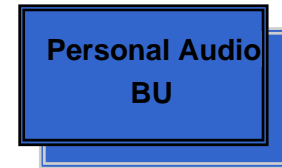
**North American  
Manufacturing & Warehousing**

**Asian Sales  
& Marketing**

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# Organization

- Matrix organization from Sales & Marketing side
  - Geographic and Market Based Business Units



- Heavy use of cross-functional teams – focused on 3 segments



Entertainment



Commercial



Consumer



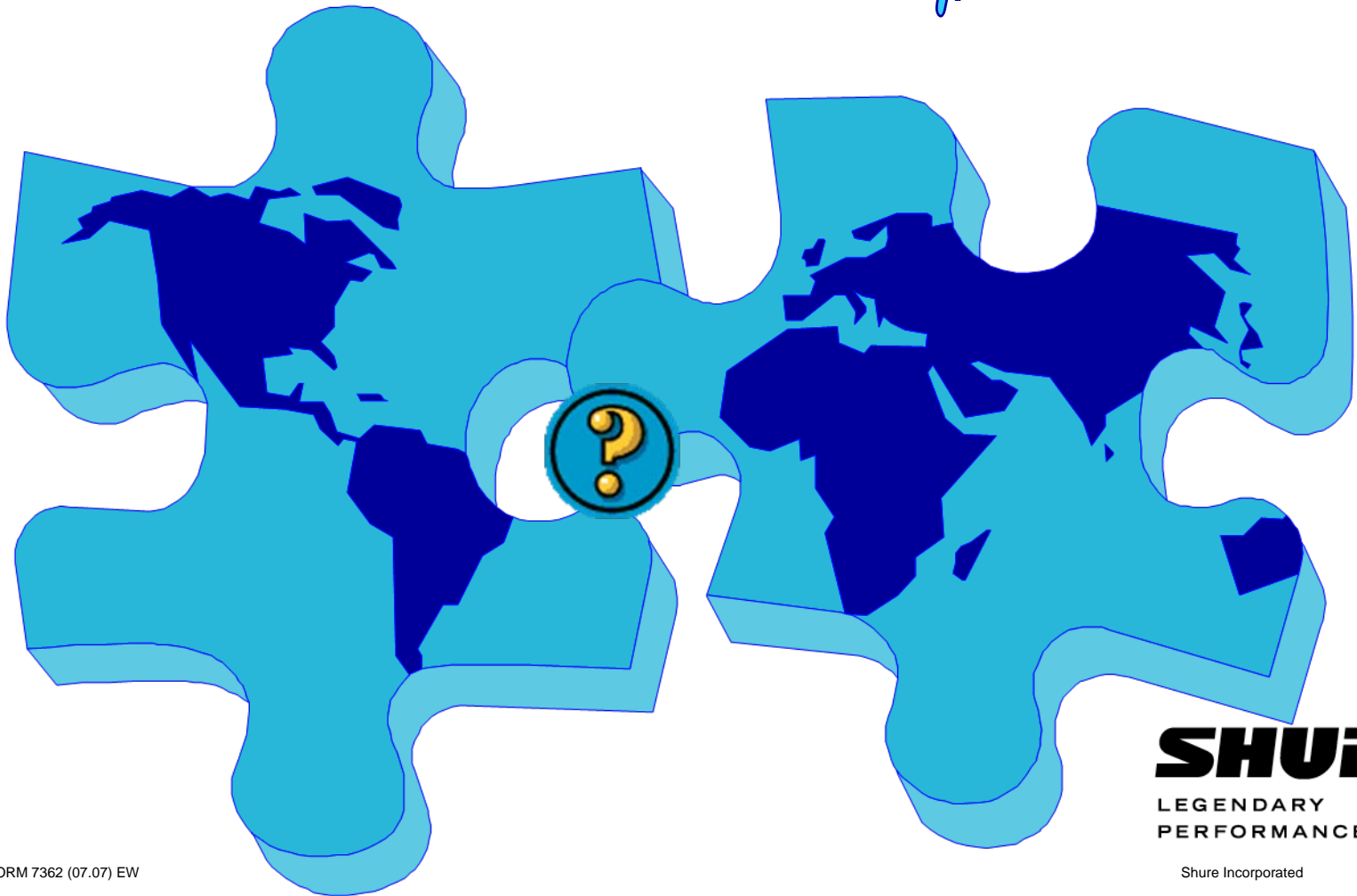
# Shure's Globalization Activities

- Has been purchasing components and PCBA's in Asia for many years
- Opened manufacturing facility in Mexico many years ago
- Opened manufacturing facility in Suzhou, China in June 2005
- Shure is heavily into new product introduction, either through development within Shure, collaboration with supplier or supplier development/manufacturing

# Global Outsourcing As a Strategic Initiative

# Why Do We Outsource ?

## Internal & External Key Drivers



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*Need for Flexibility*

*Intellectual Property*

*People*

*Capital Equipment*

*Design and Product Concept*

*Geography*

*NPI*

*Technology*

*Capacity*

*New Markets*

**SP**  
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# Key Factors Supporting Insourcing/Outsourcing Decisions

## *Factors Support Insourcing:*

- 1. Cost Considerations favor the buyer*
- 2. A need or desire exists to integrate internal plant operations*
- 3. Excess plant capacity is available that can absorb fixed overhead*
- 4. A need exists to exert direct control over production and quality*
- 5. Product design secrecy is an important issue*
- 6. A lack of reliable suppliers characterizes the supply market*
- 7. Firm desires to maintain a stable workforce in a declining market*
- 8. Item or service is directly part of a firm's core competency, or links directly to the strategic plans of the organization*
- 9. Item or technology behind making the item is strategic to the firm. The item adds to the qualities customers consider important.*
- 10. Union or other restrictions discourage or even prohibit outsourcing*

# Key Factors Supporting Insourcing/Outsourcing Decisions

Continued

## *Factors Support Outsourcing:*

- 1. Cost considerations favor the supplier*
- 2. Supplier has specialized research and know-how, which creates differentials in cost and quality*
- 3. Buying firm lacks the technical ability to build an item*
- 4. Buyer has small volume requirements*
- 5. Buying firm has capacity constraints while the seller does not*
- 6. Buyer does not want to add permanent workers*
- 7. Future volume requirements are uncertain— buyer wants to transfer risk to the supplier*
- 8. Item or service is routine and available from many competitive sources.*
- 9. Short product life cycle requirements discourage new investment by the buyer— using existing supplier assets is logical.*
- 10. Adding capacity at the buyer requires high capital start-up costs.*

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# Insourcing/Outsourcing Decision and Implementation Process

## *Company Strategy Formulation - In/Outsourcing Opportunity Identification*

### **Capital Markets**

- Market's evaluation of success
- State of economy
- Company image within the market

### **Item/Service Market**

- Competitive market
- Innovation and growth
- Economies of scale and scope
- Customer base
- Supplier evaluation
- Global/local market incentives
- Long term prospects

### **Competitors**

- Competitor strategies
- Company's competitive advantage
- Possible competitor reaction

### **Core Business / Competency**

- Determine core skills / activity
- Non-core activity separability from core
- Demand variability for non-core
- Current metrics / costs of non-core

### **Technology**

- Technology affects on item / service market
- Universal accessibility
- Competitor utilization
- Growth markets

### **Customers**

- Identify current/potential users
- Understand user business strategy
- Understand user needs
- Affect on service they receive
- Consider final customer

### **Internal Resources**

- Current and future employee strategy (skills/ competencies/ experiences)
- Value added activities
- Management capabilities

### **Partners**

- Current contract obligations
- Affect on relationship
- Ability to expand relationship

- ❑ A variety of factors need to be examined just to *identify opportunities* for insourcing/outsourcing analysis



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# **Business Model & Strategies in Outsourcing**

# Strategies

- Outside Design House – Outside Manufacturer (CEM)
- Inside Design – Outside Manufacturer (CEM)
- ODM – Original Design Manufacturer
- OEM-In (Off the shelf/branding)

# Spectrum of Supplier Integration

<b>None</b>	“White Box”	“Gray Box”	“Black Box”
<b>No supplier involvement. Supplier “makes to print.”</b>	Informal supplier integration. Buyer “consults” with supplier on buyer’s design.	Formalized supplier integration. Joint development activity between buyer and supplier.	Design is primarily supplier driven, based on buyer’s performance specifications.



Increasing Supplier Responsibility

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# Shifting of Risk/Accountability Who Owns?

- Design of the product? Manufacturability?
- Product Roadmaps and families?
- NPI to Low Cost Geo transfer?
- Test the product? Who's test plan?
- Management of the material and AVL?
- Ownership of the supply chain?
- Ownership of Tax/License/Customs and Logistics?
- Branded Packaging/Collateral?
- Post Sales Support/Warranty/Repair?
- Market Analysis & Feedback?

# Systems Outsourcing Strategies

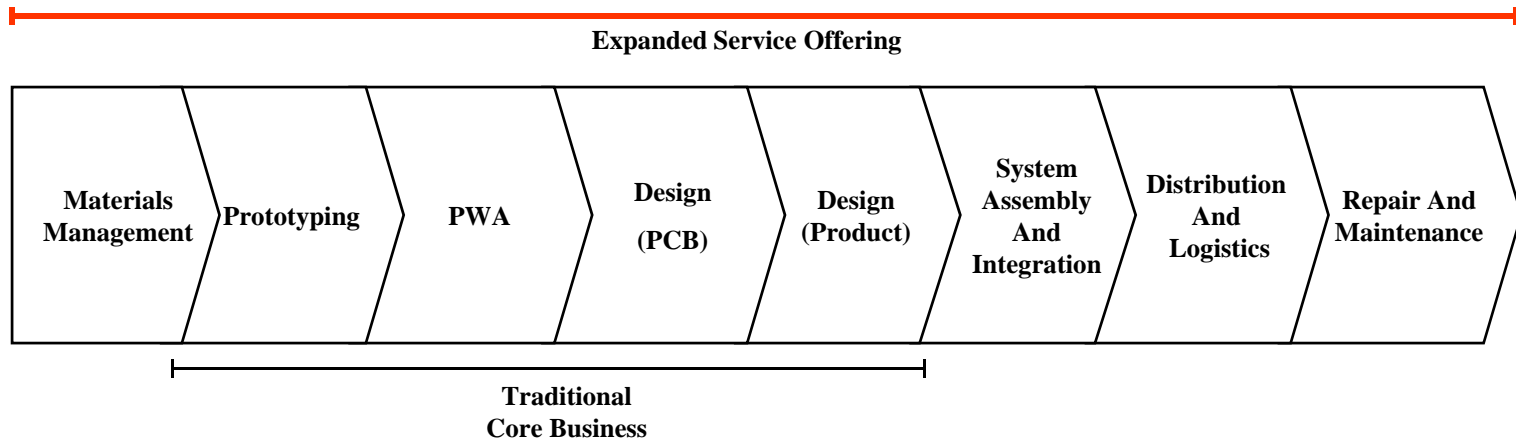
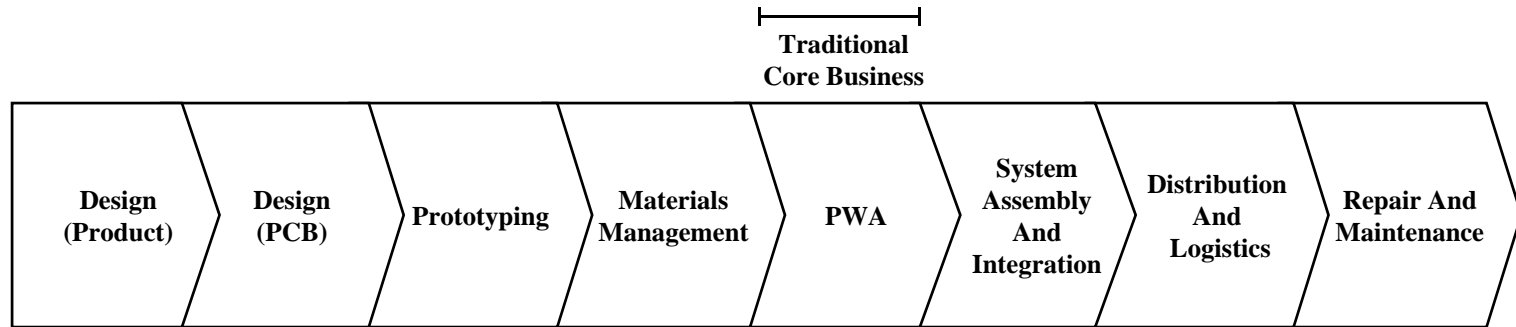
- OEM-in
  - Take a competitive view of the shelf product, modify industrial design to create specific 'look and feel', distribute to market place
    - Manufacturer, by definition, makes similar product
      - Manufactured , turn key, external to Shure
      - Manufacturer owns AVL (Approved Vendor List)
      - Manufacturer owns Quality
      - Manufacturer's product is #1, #2 or excellent
- ODM (Original Design Manufacturer)
  - Find Manufacturer with technical/process expertise, co-develop product according to internal spec.
    - Manufacturer does not have similar product in production or it must be significantly altered
    - IP (Intellectual Property) may be jointly owned or owned singularly by Shure or Manufacturer
    - AVL (Approved Vendor List) is jointly owned/developed
      - Shure may specify particular components of the BOM, may do pass through pricing or consignment

# Systems Outsourcing Strategies

- CEM – Contract Electronic Manufacture Model
  - Buyer owned IP (Intellectual Property)
  - Buyer and supplier jointly own AVL (Approved Vendor List)
  - PTP (Pass Thru Pricing) and Consignment are used
  - Focus is on conversion
  - Supplier does not market products or services to consumers

# Industry Analysis: CEM's Vs. ODM's

**Contract Electronics Manufacturing (CEM)** companies provide a range of services including traditional Printed Wiring Assembly (PWA) along with a growing suite of integrated services and business solutions



**Original Design Manufacturing (ODM)** companies provide a range of services including traditional Product Design to basic Printed Wiring Assembly (PWA) along with a growing suite of integrated services

OEMs and ODMs continue to close the gap between services



# Pro's & Con's

- OEM-In Model
  - Pro's – TTM, min. investment, cost
  - Con's – Licensing, limited flex to mfg, bundle, change, reconfigure, limited WW capability
- ODM Model
  - Pro's – DFM (Design for Mfg), flexibility in design/configure, mfg solutions, IP ownership
  - Con's – Slower TTM than OEM-In, more investment – operationally/supply management, limited WW capability (Ex: Taiwan)
- CEM Model
  - Pro's – Design Control, cost at volume, WW capability, supply chain
  - Con's – TTM, cost with lower volumes, heavy investment

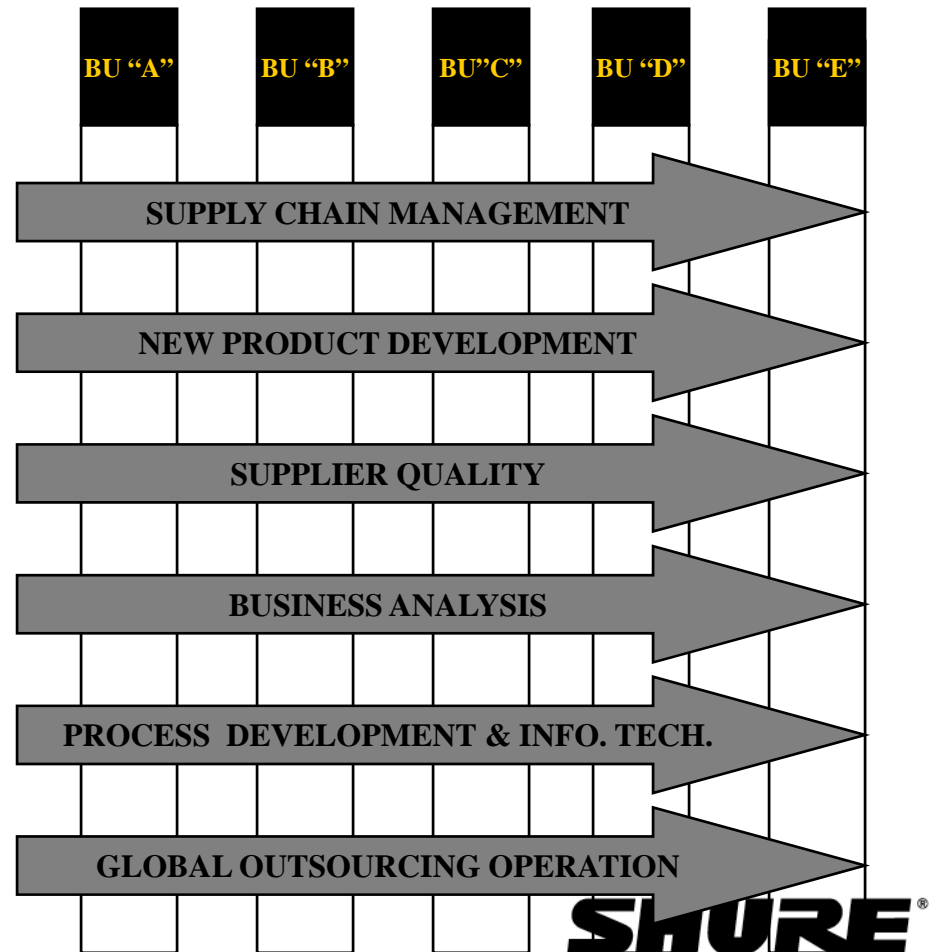
# Operational Considerations

# Operational – The Organization

## Organization Benefits

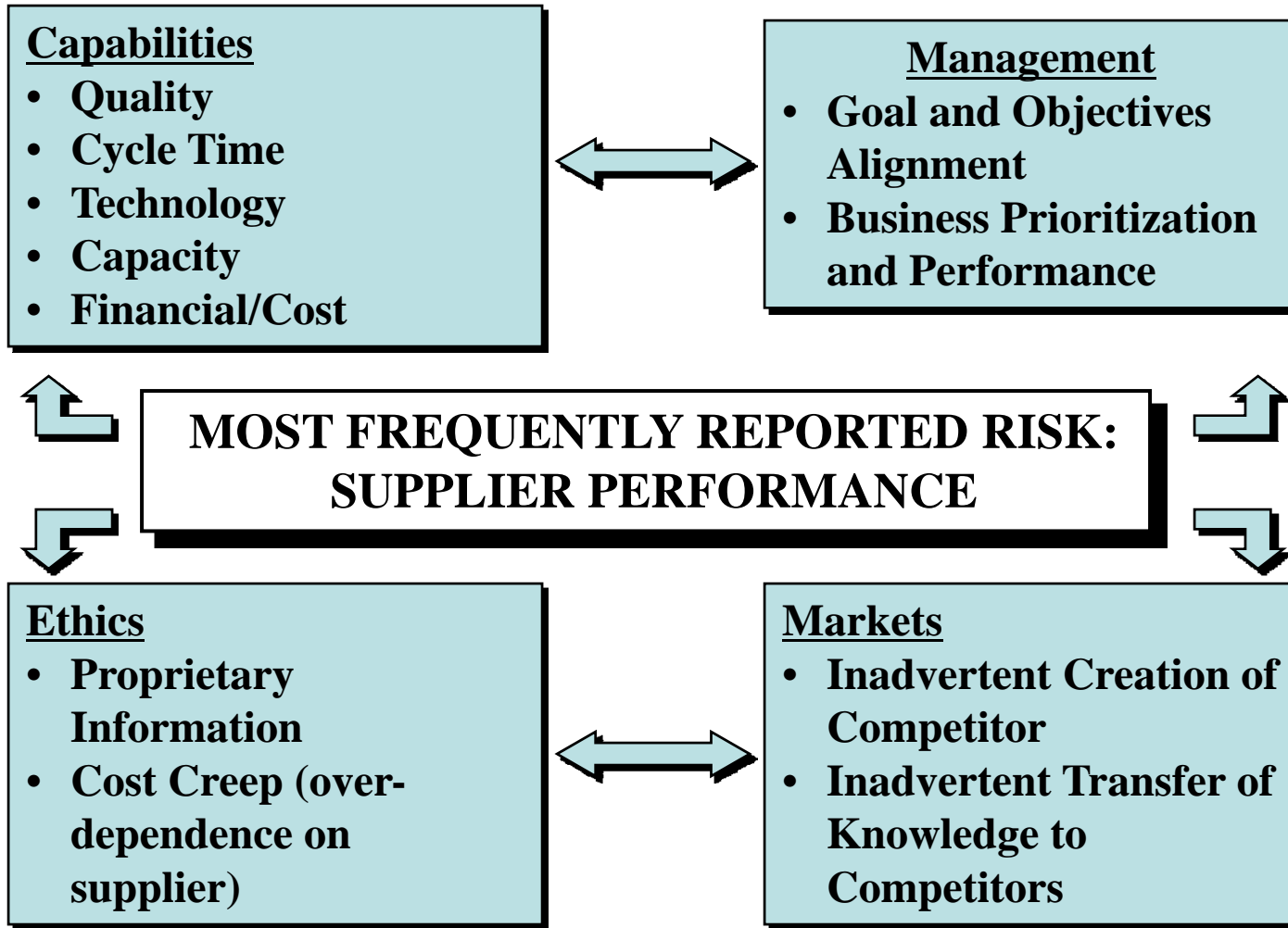
- Use Organization to Focus on Achieving Key Driver: Time-To-Market
- Alignment of Business Unit Goals and Objectives with Outsourcing Goals's & Objective's Achieved Through Process Orientation
- Communication About the Organization is vitally important and is augmented in this model
- Teaming Provides Leadership Building and a Funnel for the Future
- Facilitate Competitive Advantage Through External Resource Management & Internal Integration
- Sustained Competitive Advantage

## Future State (Process Orientation)



# Typical Pitfalls / Risk Management

# Risk Management – Supplier Performance



# Risk Assessment

Intel Confidential

Design: CSR/Mfg.:TBD



## Risk Assessment Summary

Risk Assessment  
25GS-1032 Rev. 0.0

Key Milestones:	-100	-99	-79	-59	-49	-2	-1	0	TC	6		
Date:												
Platform Name:	(Exploration/Planning)				Development Program				Deployment (Production/EOL)			
Actuals:												

1: Show Stopper 2: High Risk 3: Medium Risk 4: Low Risk 5: Qualified					
Attributes:	Risk	Issue	Plan	Owner	Completion Date
Design	2				WW 10
Quality & Reliability	3				WW 11
Cost	3				WW 10
Availability	3	ABC			WW 07
Manufacturability	3	ABC			WW 04
Supplier	3				WW 07
Legal	3				WW 05
EHS	3				WW06

Example

Roll Up #: 2 Stakeholder Sign-off: \_\_\_\_\_

RA\_CSR\_rev01.xls

Completed by: \_\_\_\_\_

Date: 1/14/00

# *Supplier Performance – Key Takeaways*

- ❑ *Other “supplier performance” risk management techniques besides effective supplier selection*
- *Only outsource items non-critical to competitive advantage*
- *Clearly defined objectives, requirements and metrics in contracts (i.e., target cost, target quality, target cycle time, etc.)*
- *Use of indicators/milestones to continuously monitor performance*
- *Use of specialized project managers/in-house oversight groups to monitor performance*
- *Contingency plans/exit strategies in all contracts*
- *Use of multiple suppliers, each with different level of responsibility or percentage of production volume*
- *Confidentiality/non-disclosure/IPRs in all contracts - general and specific*
- *Licensing agreements/exclusivity agreements/non-compete clauses*
- *Incentives and penalty clauses in all contracts based on target performance*
- *Ongoing benchmarking/competitive analysis*



**DON'T  
FORGET TO  
PROTECT  
YOUR IP!!!**

**Licensing**

**Design**

**Joint Development**

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# Other Typical Pitfalls

- Selecting the right suppliers
  - Scope now and for the future (design, low cost geo's, volume, PSS, etc.)
  - Right geographies (logistics considerations, customer location, TLC, etc.)
  - Size of supplier (avoid detrimental reliance)
  - Mix of suppliers (expertise, technology, capacity, capital equipment, etc.)
  - Culture match with Buyer – agreement on outsourcing approach
  - EHS/HR Considerations – labor restrictions, etc.
  - C-TPAT Considerations-is supplier good partner for Homeland Security/US Customs risks
  - Country of Origin Issues-insuring all documentation is correct coming in

# Global Outsourcing/Licensing

- **Outsourcing supplier licensed to use your Intellectual Property (IP) to:**
  - Manufacture and sell only to you
  - Manufacture and sell to you and your authorized customers/suppliers; or to anyone they choose (enablement)
- **Protect your IP appropriately**

# GLOBAL Outsourcing Intellectual Property Concerns

- **What Intellectual Property (IP) do you have to provide to the Supplier**
  - Adequate Nondisclosure Agreements (NDA) in place?
  - Right to export outside US
- **Will Supplier need to sublicense to anyone**
  - Subcontractors
  - Your authorized customers
  - Any supplier customer (if enabled)
- **Joint Design/Development**
  - Who Pays? Who Owns? NRE Structure
  - Have made rights? Portable IP (Internal/External)
  - Right of first refusal and conditions associated

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# Global Outsourcing - Licensing

- **If licensed to sell to others, you should get something in return:**
  - **Will they pay you royalties?**
    - If so, how will you audit?
    - If not, what will you get in return (for example, lower pricing, time to market, have made rights?)
  - **You should disclaim all liability (including IP infringement), warranty obligations**
    - Everything is “as is”
    - You do not participate in any negotiations of any kind with their customers – whether or not “enabled”
  - **Get it in writing**
- **Will they need to share your IP or Confidential Information, or portions of it, with subcontractors/customers?**

# Typical Pitfalls/Other Areas of Concern

# FY09 Outsourcing (Mitigating Cost Increases)

- Currency issues will likely only get worse, no relief within the next year is expected-Buying futures
- To obtain and exceed stated cost reductions goals:
  - Annual volume cost negotiations when you have volume
  - Competitive bidding and re-sourcing efforts will be required.
  - Value engineering wherever possible, through support from engineering
- Use of Supply Agreements to stabilize pricing. Commodity prices will continue to be volatile
- Continued localization of suppliers, especially as we transition manufacturing locations for our products

# FY09 Outsourcing (Mitigating Cost Increases) (continued)

- Supplier rationalization → supplier expansion → supplier reduction/consolidation-establishing economy of scales and leverage
- Multi-year contracts
- Value added services
- Further PCB re-sourcing
- Make-buy analysis
- Further low cost country (LCC) sourcing

# FY09 Outsourcing (Cost Pitfalls) (continued)

**Labor cost, pension, health care, and house allowance will drive China material cost higher in 2008**

2008 minimum wages in China tier one cities to be raised as food prices soar (I.e. 5% in Suzhou-area)

Starting from 2008 Chinese government will enforce pension, health care, and house allowance – 3 employee benefits which deterred foreign investors for years.

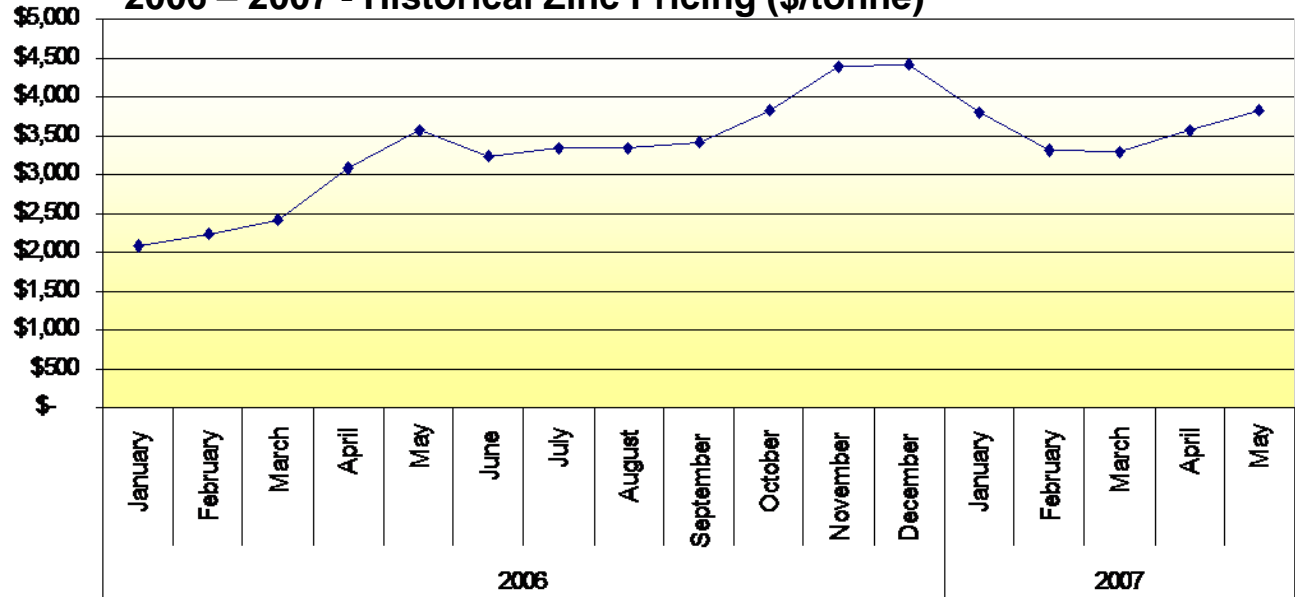
# FY09 Outsourcing (Other Cost Pitfalls) (continued)

- Commodity pricing-see upcoming slides
- Duties and freight-Continue to be a challenge. Assist issues when shipping products off new tooling. Pay duty for new tooling after production parts are first produced and sent back to US
- Currency challenges-see upcoming slides

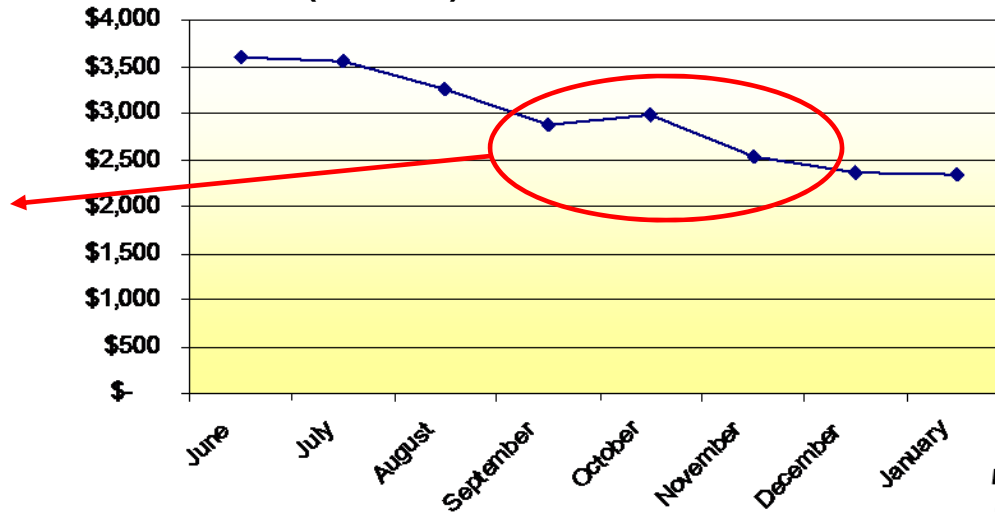
# Zinc (LME)

Supplier	\$ Changes
ABC	Will revisit zinc pricing in April '08
CDE	Reductions beginning in March '08

2006 – 2007 - Historical Zinc Pricing (\$/tonne)



FY08 (\$/tonne)



Price decrease

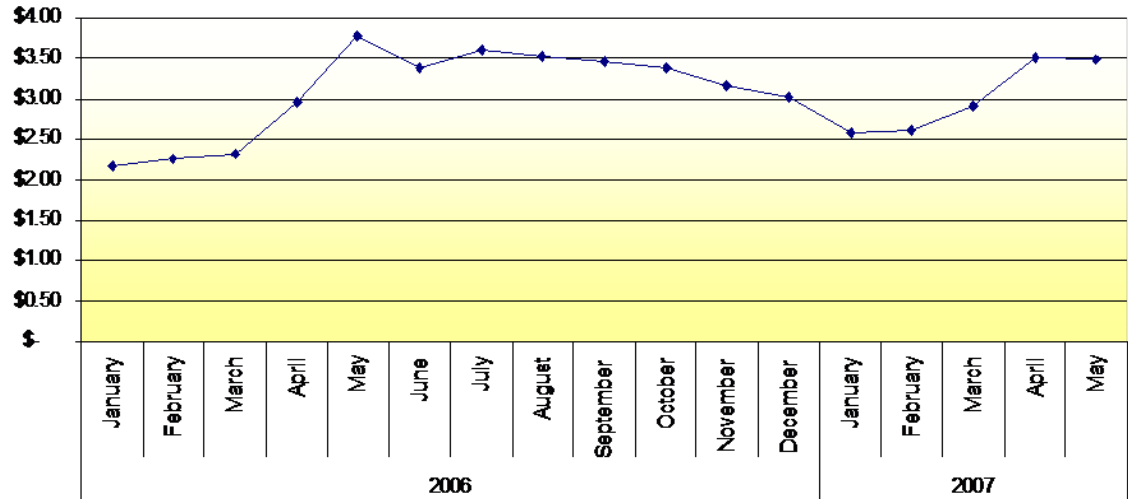


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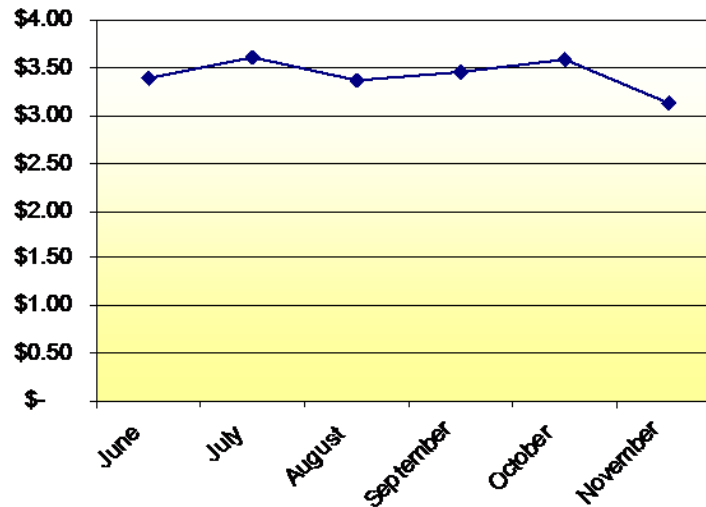
# Copper (COMEX)

Supplier	\$ Changes
XYZ	No changes in 2007 YTD
QRS	<b>Price increases taken in FY08</b> – delayed impact from Mogami to Park Fortune
ABC	No changes. Working on fixed pricing for cables for new Supply Agreement.

2006 – 2007 - Historical Copper Pricing (\$/lb.)



FY08 (\$/lb.)



Seems to be stabilizing

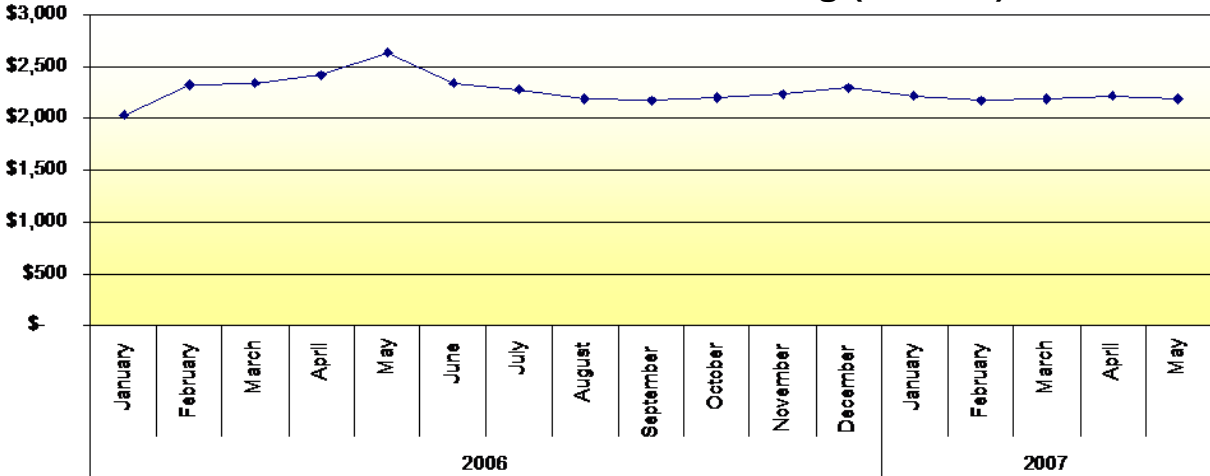


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# Aluminum (LME)

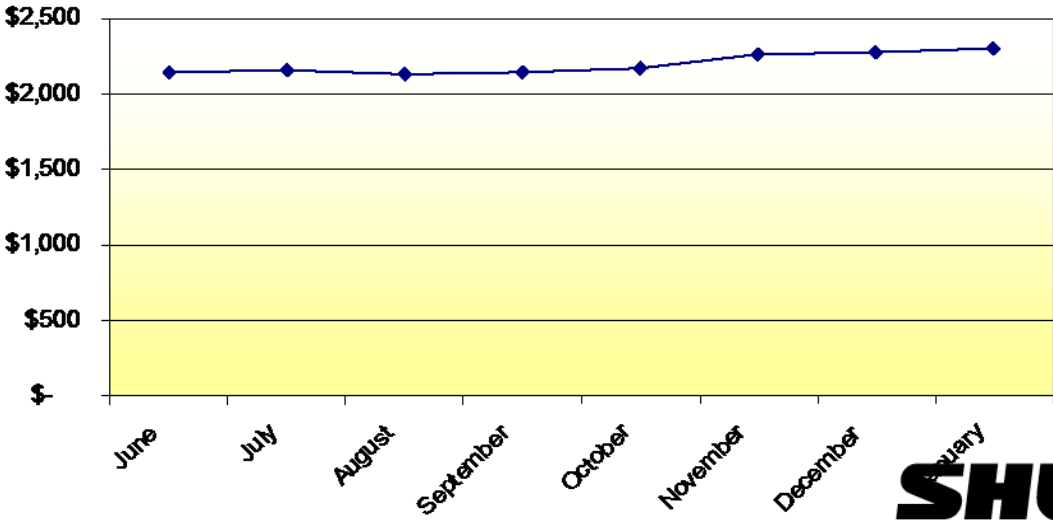
Supplier	Changes
ABC	No changes since 2006

2006 – 2007 - Historical Aluminum Pricing (\$/tonne)



Increasing concerns on Aluminum trend

FY08 (\$/tonne)

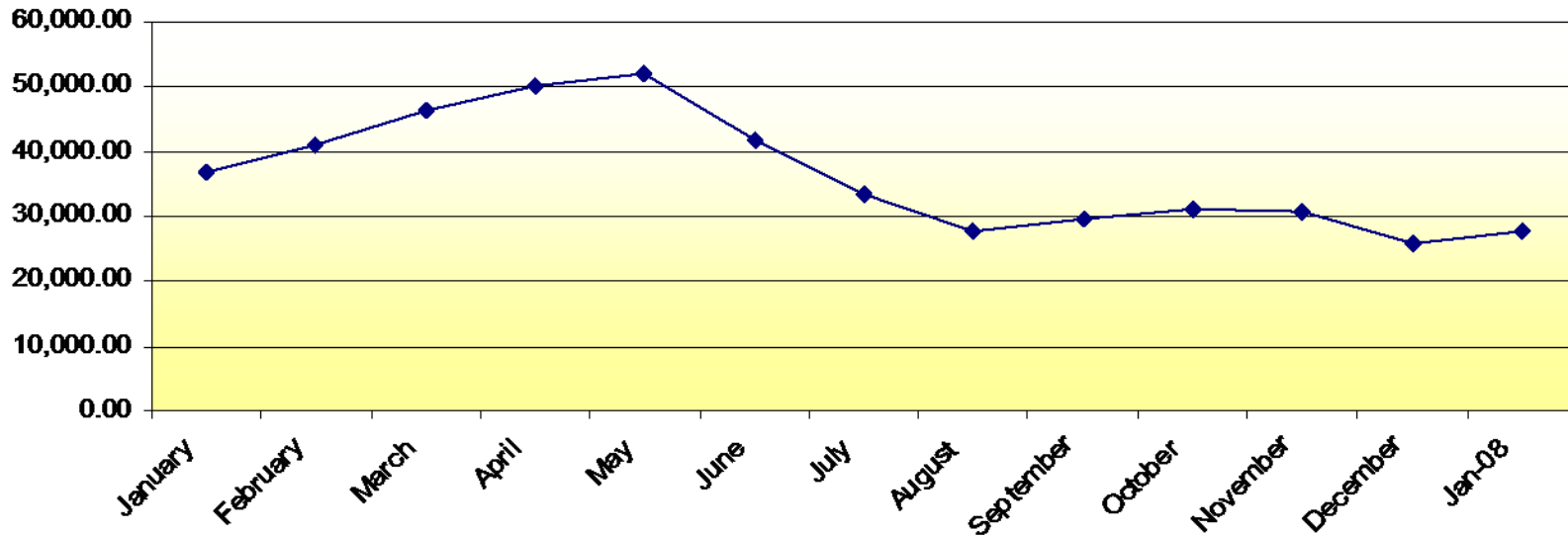


# Nickel (LME)

Supplier	Changes
XYZ	Expecting decreases for end of 2008

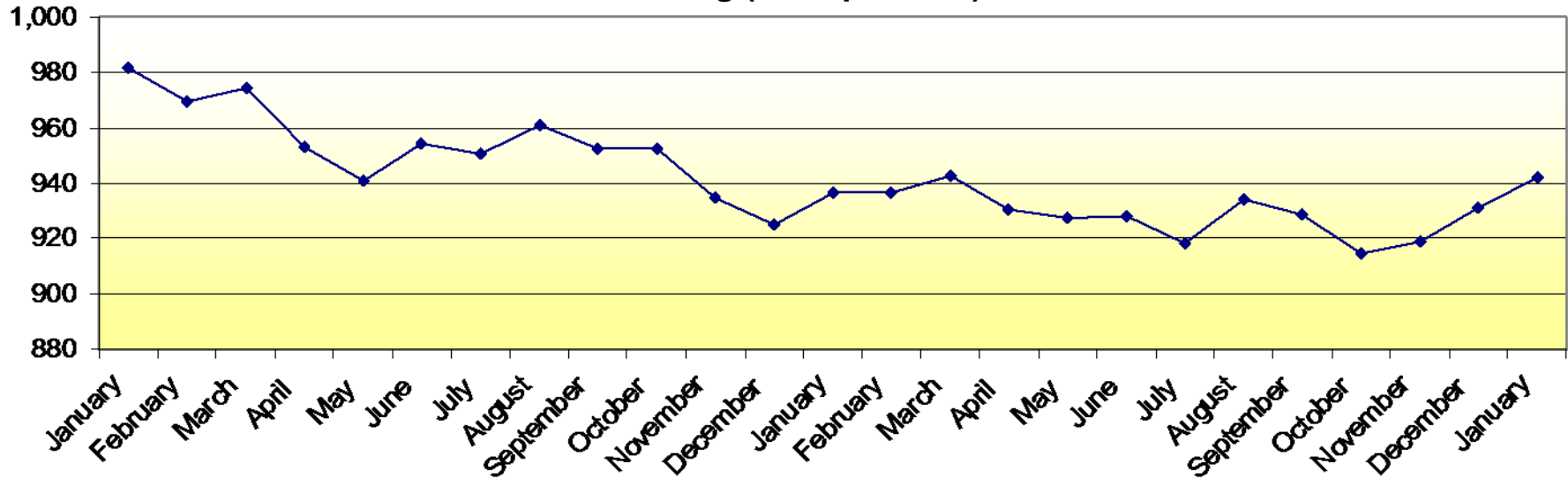
Seeing much relief on Nickel - should hit our pricing at end of 2008

Jan 2007 – Jan 2008 - Historical Nickel Pricing (\$/tonne)



# Korean Won – US dollar (effects \$8.5MM ABC contract)

Jan 2006 – Jan 2008 - Historical Pricing (KRW per USD)



- No changes to Shure pricing due to currency fluctuations since currency clause was negotiated and implemented in June 2006 (baseline of 940 used)

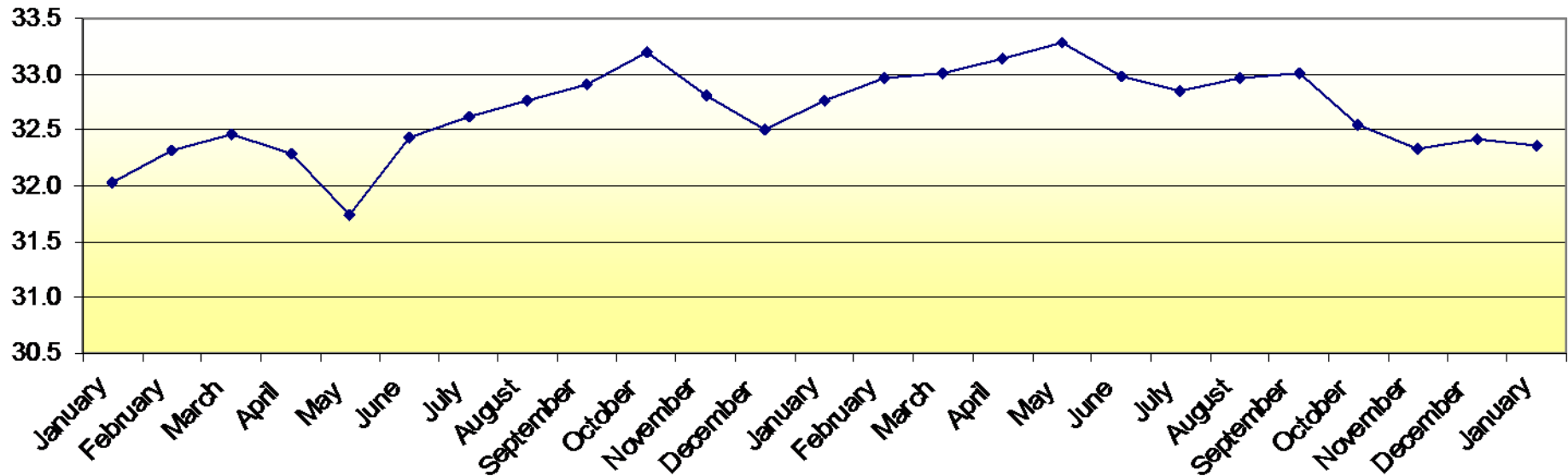
- WILL EFFECT PPV UNFAVORABLY IF BELOW 846/USD.

**NO IMMEDIATE CONCERNS**

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# Taiwan Dollar – US Dollar (effects \$17.3MM PCB contract)

Jan 2006 – Jan 2008 - Historical Pricing (TWD per USD)



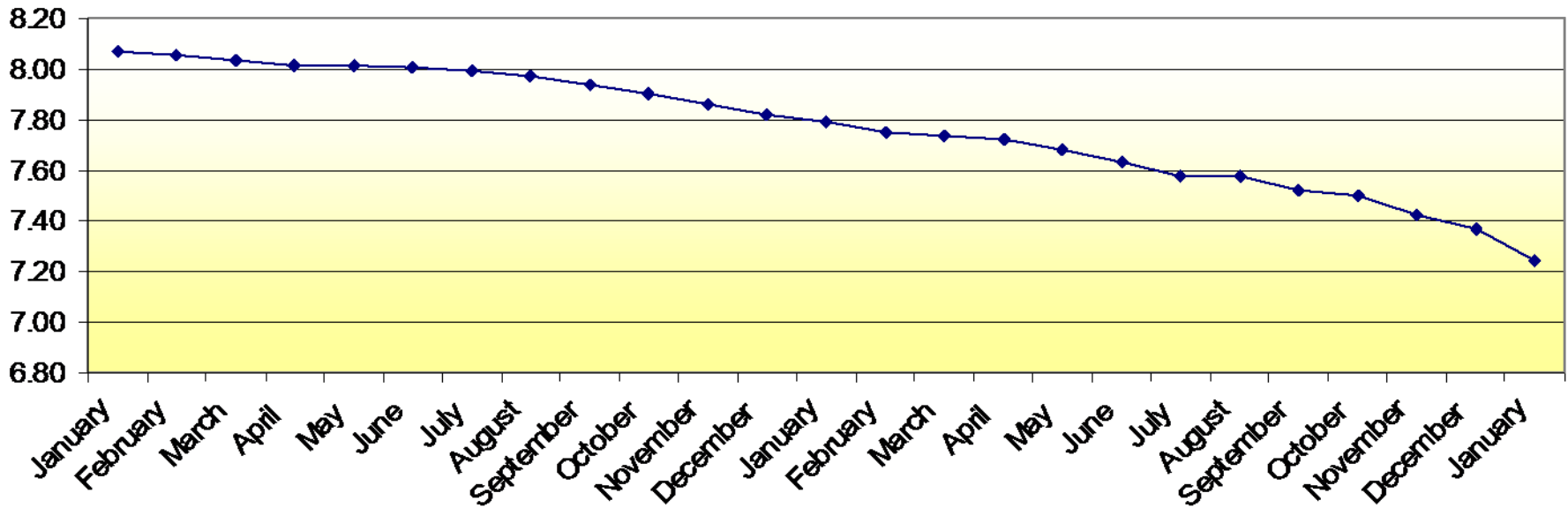
- No changes to Shure pricing due to currency fluctuations since currency clause was negotiated and implemented in June 2006
- Other major suppliers in Taiwan that currency could impact

**NO IMMEDIATE CONCERNS**

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# Chinese RMB – US Dollar (Information only)

2006 / 2007 Historical Pricing (RMB per USD)



- Chinese RMB un-pegged from USD in July 2005. Has continued to appreciate against USD since that time.
- **10.2% decline from beginning of 2006 to January 2008!**
- We do not have currency agreements with any of our Chinese suppliers

**MAJOR CONCERN GOING FORWARD – Projections are for it to hit 6.5 by December 2008**

Continued pressure on Chinese government for this trend to continue (not just a factor of USD devaluation)

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# Summary

# Summary

- Choose the right strategy
  - ensure that the strategic direction of the company and core competencies are considered concurrently with relative competitive performance
- Select the right supplier
  - Increased outsourcing will bring increased dependence on external suppliers, further highlighting the need for effective supplier evaluation, selection and relationship-building processes
- Aligning with the appropriate operational and eBusiness support models
  - Purchasing can play an increasing role at the strategic planning stage to influence Insourcing/outsourcing (make verse buy) decisions that can be eventually supported at the deployment/ramp stage

# Summary (continued)

- All items will shift risk and accountability to either the originating company/buyer or the outsourcing supplier and should be managed carefully
  - Conduct a Risk Assessment to identify major risks and drive associated contingency plans

Flawless execution can make global outsourcing a competitive advantage

- Outsourcing should be considered as both an integral component of any process to reengineer functions within the firm and to get the best value for the company – Strategic Competitive Advantage

## Spotted Behind a Shure Microphone

The Who  
Sammy Davis, Jr.  
Miles Davis  
Rolling Stones  
Aretha Franklin  
Bob Dylan  
Michael Jackson  
Bruce Springsteen  
B.B. King  
Chuck Berry  
Tony Bennett  
Boyz II Men  
Van Halen  
Eric Clapton  
Jimi Hendrix  
Led Zeppelin  
Louis Armstrong  
Ella Fitzgerald  
Joni Mitchell  
Sheryl Crow  
Prince  
Julio Iglesias  
The Eagles  
Elvis Presley  
Frank Sinatra  
The Beatles

Aerosmith  
The Beach Boys  
Billy Joel  
Christina Aguilera  
'N Sync  
James Brown  
Janis Joplin  
The Clash  
Nirvana  
Nat "King" Cole  
Natalie Cole  
Faith Hill  
Lauryn Hill  
Elton John  
Tina Turner  
Otis Redding  
Luther Vandross  
Michael Bolton  
Melissa Etheridge  
Kiss  
Korn  
Jewel  
Beck  
Axl Rose  
Weezer  
Fleetwood Mac

Madonna  
Santana  
Run-DMC  
D'Angelo  
The Bee Gees  
Ray Charles  
Smokey Robinson  
Cyndi Lauper  
Blondie  
Bonnie Raitt  
Talking Heads  
Marvin Gaye  
Peter Gabriel  
Phil Collins  
Wayne Newton  
Diana Ross  
Dixie Chicks  
Buddy Guy  
Tom Jones  
Alice Cooper  
Ozzy Osbourne  
Britney Spears  
David Bowie  
Green Day  
U2  
Violent Femmes

Roy Orbison  
Lou Reed  
Bob Marley  
The Judds  
Billie Holiday  
Duke Ellington  
Dizzie Gillespie  
Mariah Carey  
Celine Dion  
Spice Girls  
Beastie Boys  
Crosby, Stills, Nash & Young  
Simon & Garfunkel  
The Police  
The Pretenders  
Barry Manilow  
Rod Stewart  
Morrissey  
The Black Crowes  
Oasis  
AC/DC  
Henry Rollins  
Barenaked Ladies  
Ben Folds  
The Flaming Lips  
The Roots

Jimmy Buffett  
Garth Brooks  
Neil Diamond  
Dolly Parton  
David Bowie  
Iggy Pop  
Waylon Jennings  
Willie Nelson  
Yes  
Frank Zappa  
John Mayer  
Wyclef Jean  
Martina McBride  
Harry Connick, Jr.  
Wilco  
Guster  
Jane's Addiction  
Jurassic 5  
Justin Timberlake  
Kanye West  
OutKast  
Phantom Planet

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