

The Advantages of Linking Management Systems

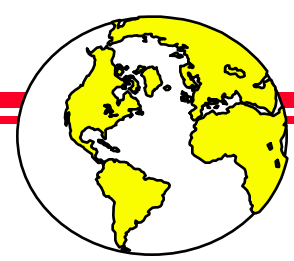
Sandford Liebesman. Ph.D.

Sandford Quality Consulting, LLC

973-898-0082

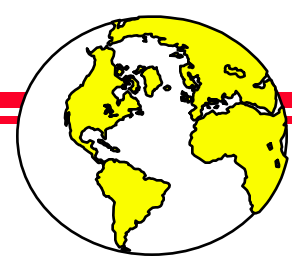
Sandfordl@msn.com

<http://www.asq.org/communities/sox>



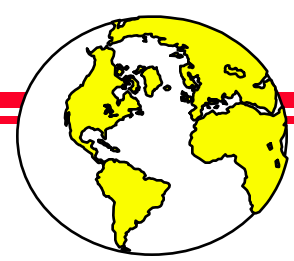
Linking Management Systems Agenda

- **Introduction**
- Management Systems Descriptions
- QMS/EMS Support of Financial Management
- Methodology for Implementing Linked Management Systems
- Conclusions
- Back-up Slides: Key Definitions



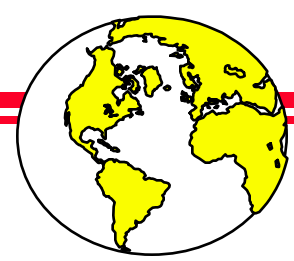
Linking Management Systems

- Link Quality, Environmental and Financial Management Systems
 - Satisfy organization's objectives
 - Improve understanding of each other
 - Reduce duplication and cost
 - For example: Doing joint audits
 - implement other standards quicker and more effectively.
- Supported by an effective IT management systems



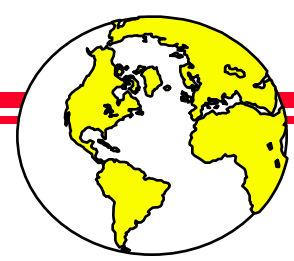
Core Operating Requirements of an Organization

- ID core processes
- Communication with customers and suppliers
- management of resources
- supply chain management
- Production methodology
- Measurements, data analysis and improvement



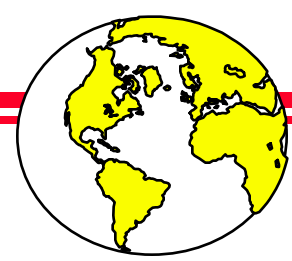
Linking Management Systems Agenda

- Introduction
- **Management Systems Descriptions**
- QMS/EMS Support of Financial Management
- Methodology for Implementing Linked Management Systems
- Conclusions
- Back-up Slides : Key Definitions



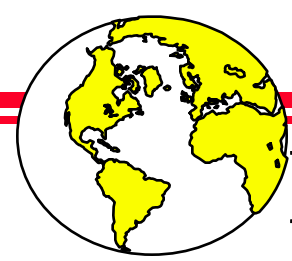
ISO 9001 Quality Management System

- Most comprehensive management system: Parent to other Quality management systems
- ISO 9001 Supports
 - Top management involvement
 - Documentation and data management
 - Product and service realization
 - Customer focus
 - Supply chain management
 - Continual improvement of products and processes
 - Resource management



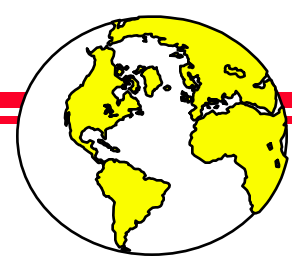
ISO 9001 Process Management

- Process approach characteristics
 - All process and interactions defined
 - Resources identified
 - Ensure information to support operation and monitoring of processes
 - Monitor, measure and analyze and continually improve processes



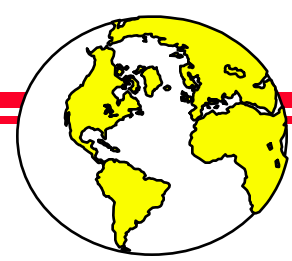
ISO 14001:2004 Environmental Management System

- ISO 14001:2004 and 9001 are matched pair
 - 14001:2004 was patterned after ISO 9001:2000
 - 14001:2004 contains add-on activities
- 14001:2004 processes should work in unison with those of 9001



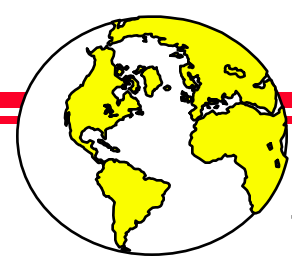
Information Security Management System

- A key to effective quality, environmental and financial management
- The operating system (OS) software manages and provides access to shared resources.
- Applications software: tasks central to the functioning of the IT system.
- Security software protects operational software



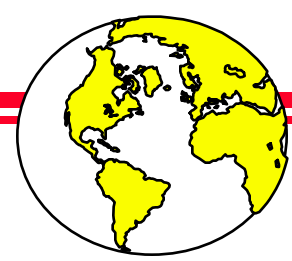
ISO/IEC 27001:2005

- ISO/IEC 27001: information security management system
 - Data warehouse consolidates data across the enterprise
 - Document and records management supports ISO 9001:2008 and ISO 14001:2004 records management
 - Transaction systems collect and store system transactions
 - Examples of transaction managed by IT system.
 - Supply Chain Management (SCM)
 - Enterprise Resource Planning (ERP)
 - Business Continuity Planning (BCP)



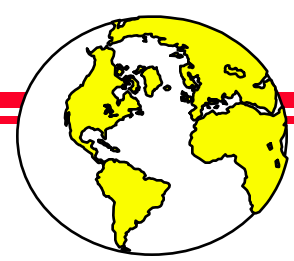
Financial Management System

- Investments
- Statement of Cash Flow
 - Day to day business operations
 - Sources of funds
 - Use of funds
- Profit & Loss Statement
 - Measures performance of business over time
 - Income
 - Expenses
 - COGS
 - Operating expenses



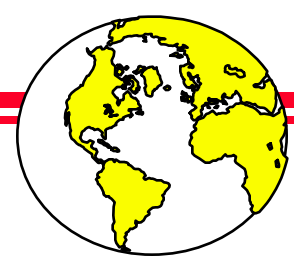
Financial Management System (Cont.)

- Balance Sheet
 - Measures financial health and liquidity
 - Current and Long-term Assets
 - Cash
 - Accounts Receivable
 - Inventory
 - Capital
 - Liabilities and equity
 - Financial obligations
 - Accounts payable (Invoices & bills)
 - Taxes
 - Short-term debt
 - $\text{Equity} = \text{Total assets} - \text{total liabilities}$
 - Common and preferred stock
 - Retained earnings



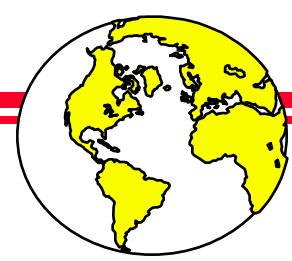
Financial Management System (Cont.)

- General Ledger
 - Where all accounting transactions are posted
- System of Internal Control (Sarbanes-Oxley)



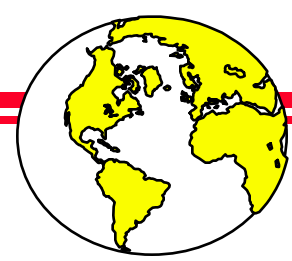
Linking Management Systems Agenda

- Introduction
- Management Systems Descriptions
- **QMS/EMS Support of Financial Management**
- Methodology for Implementing Linked Management Systems
- Conclusions
- Back-up Slides : Key Definitions



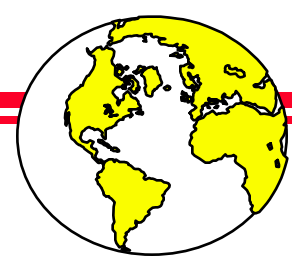
QMS/EMS Support of Financial Management

- Decision Making
 - Budgeting
 - A management not an accounting process
 - Forecasting
 - Help accountants understand business operations
 - Breakeven analysis
 - Understand profitability of individual products.
 - Analyze products and product mix
 - Strategic planning and management
 - Customer management
 - Supply chain management
 - New product strategy
 - Marketing strategy
 - R & D analysis and justification



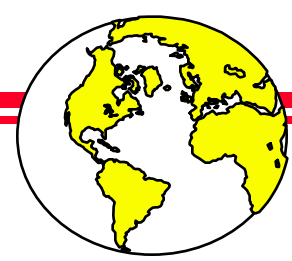
QMS/EMS Support of Financial Management (Cont.)

- Inventory Management
- Using Lean-Six Sigma to support financial management
 - Reduce costs
 - Improve customer experiences
 - Grow revenue
 - Change the culture to make decisions based on facts and data
 - Etc.



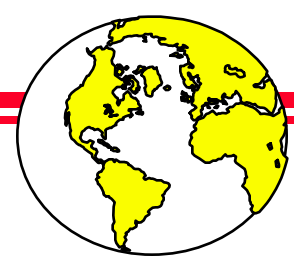
QMS/EMS Support of Financial Management (Cont.)

- Hard Savings: impact on bottom line and top line of P&L
 - Quality effect on:
 - Reduction in operating & production costs
 - Reduction in transaction costs
 - Reduced head count
 - Reduce cycle time
 - Increased throughput (Increased sales or revenue)
 - Reduce cost of supply
 - Inventories
 - Logistics



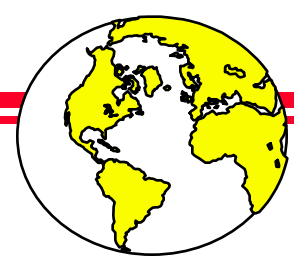
QMS/EMS Support of Financial Management (Cont.)

- Soft Savings: more difficult to quantify
 - Examples
 - Shorter lead time, Faster to market
 - Manage risk
 - Single suppliers
 - Financial Reliability
 - Reduction in cash tied up in inventory or decreased spending of capital
 - Avoidance of planned capacity enhancement
 - Eliminating budgeted staff increase

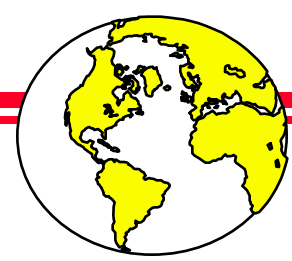


QMS/EMS Support of Financial Management (Cont.)

- Very soft examples (Intangibles)
 - Increased customer satisfaction
 - Increased employee satisfaction
 - Increased safety in workplace

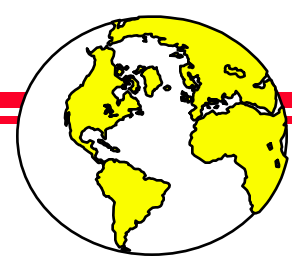


Applying Quality Management tools To Financial Management Activities



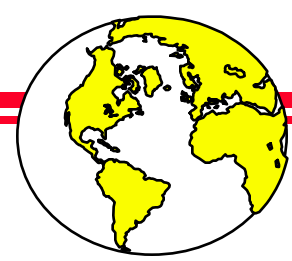
Corrective Action and Remediation Plans

- Corrective action plans drafted by process owners and responsible officials,
 - Progress monitored
- Remediation plans for non-conformances prepared and monitored
- Senior Audit Team reviews & Updates plans
 - Plans made available to Board of Directors



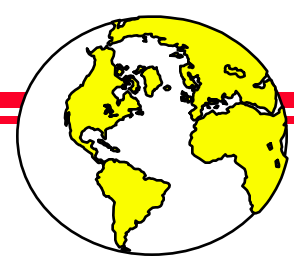
Monitor the Implementation

- Prompt implementation of corrective actions of
 - internal control deficiencies
 - material weaknesses
 - See Definition in slide # 46
- Monitor the progress of the implementation
 - Report progress to senior management
- Adjust implementation / completion dates as necessary



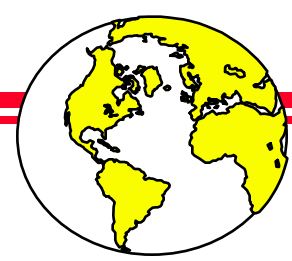
Statements of Assurance

- Statement of assurance over the effectiveness of internal control
 - Included in the Performance and Accountability Report
 - Organization head can sign off with confidence
- Statement of assurance includes three sections:
 - Overall internal control
 - Financial management systems
 - Financial reporting



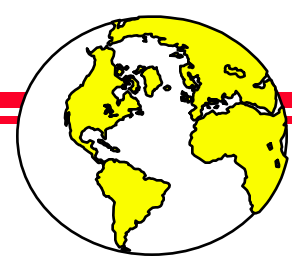
Conclude on the Effectiveness of Controls

- Testing internal control supports management's judgment
- In assurance statement, management concludes whether or not the organization's controls over financial reporting are effective



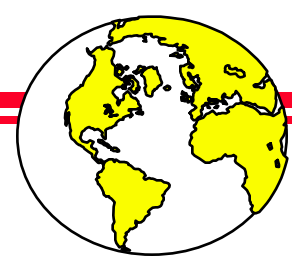
Conclude on the Effectiveness of Controls (Cont.)

- Management can't conclude that internal control over financial reporting is effective if there are one or more material weaknesses
- Management must disclose all material weaknesses that exist as of June 30 of the current fiscal year

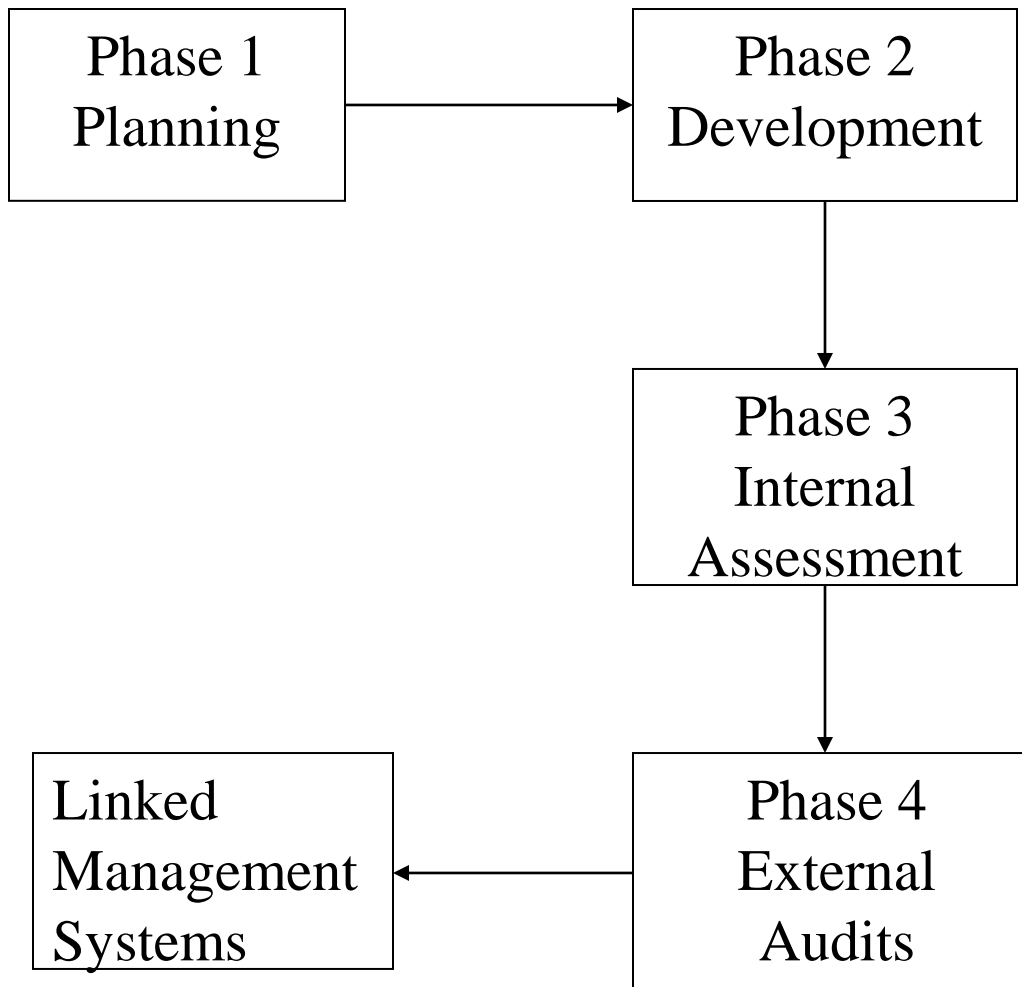


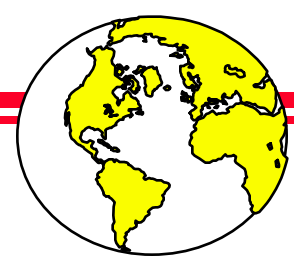
Linking Management Systems Agenda

- Introduction
- Management Systems Descriptions
- QMS/EMS Support of Financial Management
- **Methodology for Implementing Linked Management Systems**
- Conclusions
- Back-up Slides : Key Definitions



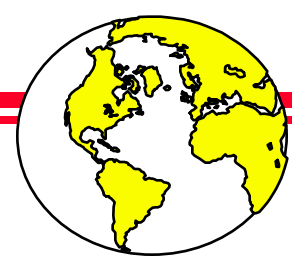
Implementing a Linked Management System





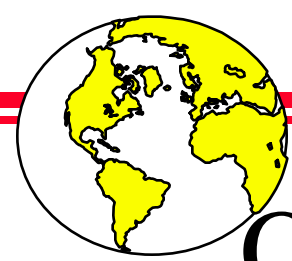
Phase 1: Planning

- Establish a governance team
- Understand the current business and management processes
- Train staff on requirements of SOX and ISO standards
- ID key business, financial and quality processes
 - ID gaps
- Developing a fully detailed schedule



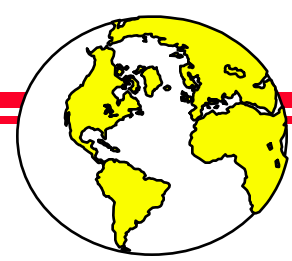
Documentation

- Documentation should be
 - Current
 - Contain enough detail to fully describe each process
 - Relation of processes to:
 - Major programs
 - Financial reporting assertions
 - Potential errors or misstatements
 - Control Objectives



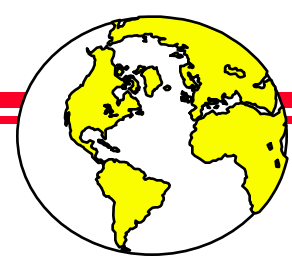
Other Activities During Phase 1

- Assess risk of not satisfying the control objectives
- Run comprehensive workshop
 - Understand components of COSO
 - Link financial and Quality processes to internal controls
 - Do gap analysis of management systems
- Develop documented plan for phases 2,3 and 4



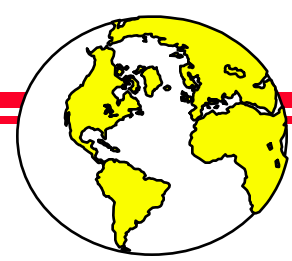
Phase 2: Development Phase

- Update the quality manual, SOP's and work instructions
 - Based on inputs from Phase 1
- Create record keeping to satisfies SOX system of internal control
- Train internal auditors and other members of the organization



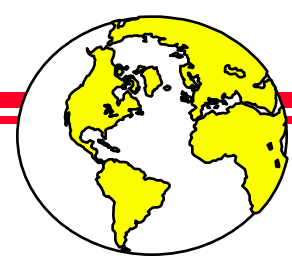
Phase 2 deliverables

- Revised quality manual, SOPs, records and work instructions.
- Document internal control system and its relationship to ISO 9001 and 14001.
- ISO 9001, ISO 14001 and internal controls training of personnel responsible for the provision of products/services, risk management and financial activities.



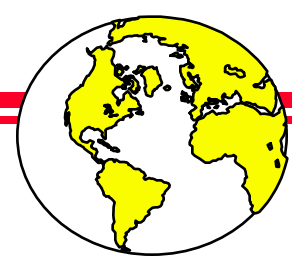
Phase 3: Internal Assessment Phase

- Internal financial audits
- Internal quality audits
- Internal Environmental audits
- Methods of linking these audits
- Corrective actions for weaknesses identified during this phase



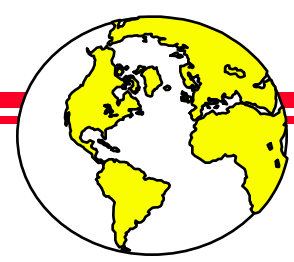
Sample Linked Audit Plan

- Assure the linkages between ISO 9001 and COSO.
- Identify key controls
- Evaluate the internal controls at the entity and activity levels
- Evaluate internal controls at service providers
- Test controls



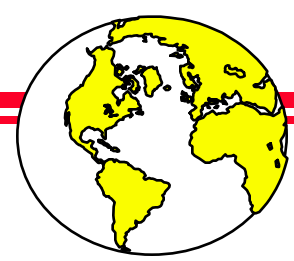
Document Audit Results

- Assure internal control are effective
- Identify key controls associated with major programs
 - ID flow of significant transactions
 - Are controls operating effectively?
 - Perform tests for design and operational effectiveness
 - ID control gaps
 - Document test results
- Audit Teams review test results and opinion on effectiveness of controls



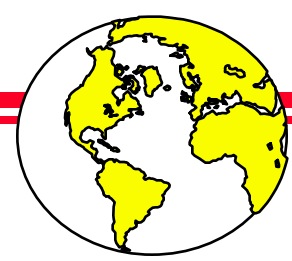
Phase 3 Deliverables

- A completed linked internal audit
- Evaluation of internal controls at supply organizations
- Results of corrective actions
- Determine whether to proceed to Phase 4



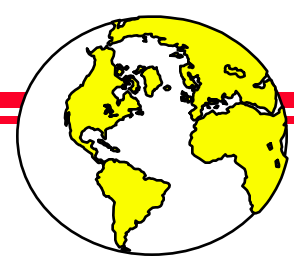
Phase 4: External Audits

- External financial audit
- External quality audit
- External environmental audit
- Audit support team for each audit
- Top manager interaction with senior auditors



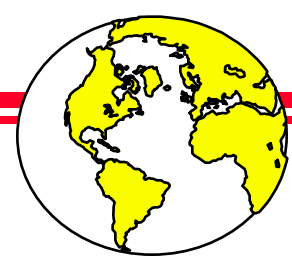
Phase 4 Actions

- Preparation for the audits
 - Pay special attention to the system of internal control
 - Review each management system
 - Prepare for each audit separately
 - Training on how to deal with auditors
 - Use role playing extensively
 - Set up command post
 - Leadership team available to interact with auditors
 - Experts available to advise leadership team



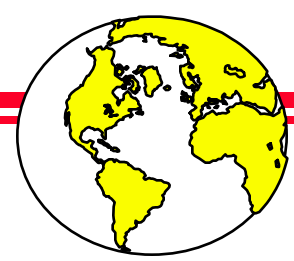
Phase 4 Deliverables

- Check lists to be used to prepare for the audits
- Training on how to deal with the auditors
- Expert support during the audits



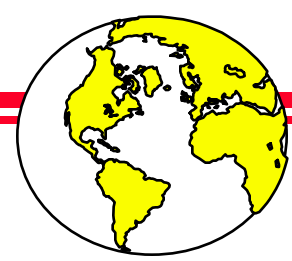
Linking Management Systems Agenda

- Introduction
- Management Systems Descriptions
- QMS/EMS Support of Financial Management
- Methodology for Implementing Linked Management Systems
- **Conclusions**
- Back-up Slides : Key Definitions



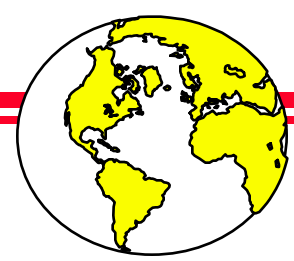
Foundation for Linking Management Systems

- Connect management systems common processes
- Implement ISO 9001 process approach throughout
- Link operations to SOX compliance
- Implement ISO 9001 continual improvement
- Ensure effective risk management process
- Conduct linked audits
- Clarify role of information Technology
- Improve corporate governance



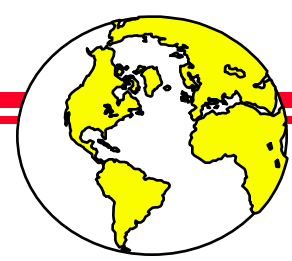
Conclusions

- Linking Management Systems
 - Goal is to Satisfy the Organizations Objectives
 - Improve understanding between Organizations
 - Remove Silos
 - Reduce Duplication and Cost
 - Example: Joint audits
- An effective 4 phase system of implementation has been developed and described in this presentation
- IT Systems are Essential to an Effective Operating System
- Lean-Six Sigma is an Effective Improvement Tool
- An eight step foundation has been defined



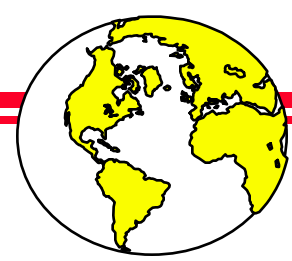
Linking Management Systems Agenda

- Introduction
- Management Systems Descriptions
- QMS/EMS Support of Financial Management
- Methodology for Implementing Linked Management Systems
- Conclusions
- **Back-up Slides: Key Definitions**



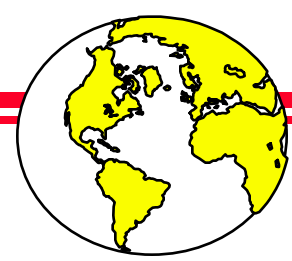
Key Definitions

- **Internal Control Deficiencies** exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis.
 - A deficiency in design exists when (a) a control necessary to meet the control objective is missing or (b) an existing control is not properly designed so that, even if the control operates as designed, the control objective would not be met.
 - A deficiency in operation exists when a properly designed control does not operate as designed, or when the person performing the control does not possess the necessary authority or competence to perform the control effectively.



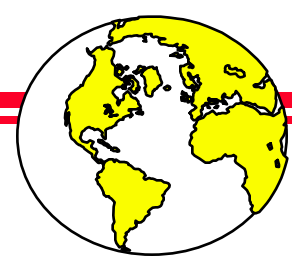
Key Definitions (Cont.)

- Significant deficiency: a deficiency, or a combination of deficiencies, in internal control over financial reporting that is less severe than a material weakness, yet important enough to merit attention by those responsible for oversight of the company's financial reporting.
- Significant Deficiency Example: The lack of controls in place to ensure reconciliation of all inter-company accounting, such as cash transfers from one department to another regardless of transaction size



Key Definitions (Cont)

- **Material Weakness:** is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis.
- **Material Weakness Examples:**
- The lack of controls in place to ensure reconciliation of inter-company material transfers, such as inventory transfers, allocation of research and development costs, and corporate charges
- Frequent failure of a single source supplier to ship key components which resulted in major losses of business



Key Definitions (Cont)

- **Entity level** typically refers to the department or organization as a whole
 - Can also include discrete units, such as regional or field offices, assessable units or significant accounts
- **Activity level** refers to the major functions within an assessable unit or significant account
- **Evaluating internal control** at the entity-wide level is generally accomplished through observation, inquiry, and inspection, rather than the detailed testing that lends itself to the Activity level internal controls