
Defining Key Measurables

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Who in the world is Omnex?

Management Systems – QMS, EMS, OHSMS,
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Manufacturing Process Development

Risk Management

Supply Chain Development

Lean and Six Sigma

Enterprise Quality Software

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*Suzlon

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Chad Kymal

- Chad founded Omnex in 1985 and grew the company into one of the largest management system training, consulting and software firms with over 200 employees with offices and or consultants in 12 countries worldwide.
- Chad is a consultant and trainer with broad consulting experience in many areas including Management Systems (Quality, Environmental, Social, Health and Safety), Lean and Six Sigma, New Product Development and Risk Management. He has written numerous books on management systems and is also a recipient of the Quality Professional of the Year Award by the ASQ Automotive Division in 2005. In his role as Chief Technical Officer, Chad is instrumental in determining the strategic direction of the consulting and training organizations, as well as the product strategy for the software company - Omnex Systems.
- Under Chad's direction, Omnex has worked with some of the largest Fortune 500 companies including TRW, Ford, Pratt and Whitney and Magna, as well as semiconductor companies such as AMD, National Semiconductor, ST, Intersil, Philips Semiconductors and many more Fortune 500 companies.

Defining Key Measurables

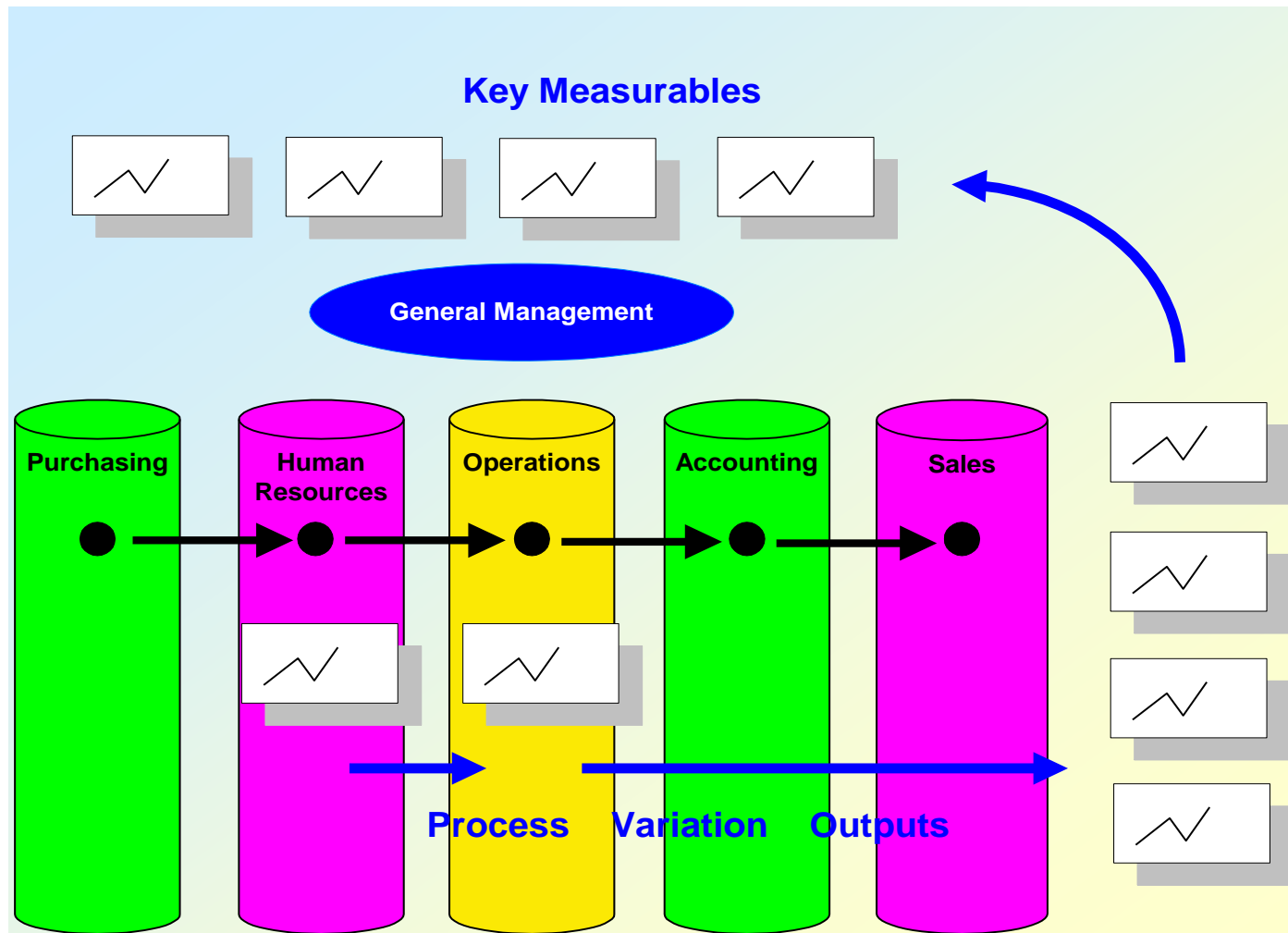


Summary: Defining Key Measurables

- Key Measurables, Key Metrics, or KPIs all refer to the “vital few” measurables that measure the pulse of an organization
 - They are what the organization and top management focus on as “vital to the success of the organization”
- This presentation will discuss the following:
 - Methodology to drive “customer focused” measurables linked to the goals and objectives of the organization
 - Standards for running the business reviews, visual management, linking improvements and teams to the measurables, and linked measurables
 - Using these same Key measurables and business reviews to satisfy the management review responsibilities for QMS, EMS or OHSMS
- Omnex helped the Ford Motor Company develop the current methodology known as QOS and has conducted thousands of implementations worldwide in QOS / QOS Assessment as well as QMS, EMS and OHSMS



Key Measurables vs. Process Measurables



What are Measurables?

- Types of Measurables
 - Result Measurables
 - Process Measurables — Effectiveness and Efficiency
- Quantifiers
 - Track Measurable Performance
 - Provide a Unit of Measure
 - Plot in Trend Charts

Results Measurables Examples

- Examples
 - Cost
 - \$ per Unit
 - Quality
 - PPM
 - \$ Returns
 - Delivery
 - % On Time
 - % Late



Key Measurables

- Key Measurables
 - Performance Indicators
 - Continual Improvement Catalysts

Key Measurables are the focus of the top management business review.

They measure the pulse of the business. They align the entire organization.

They are Customer focused.



Finding Key Measurables – Two Methods

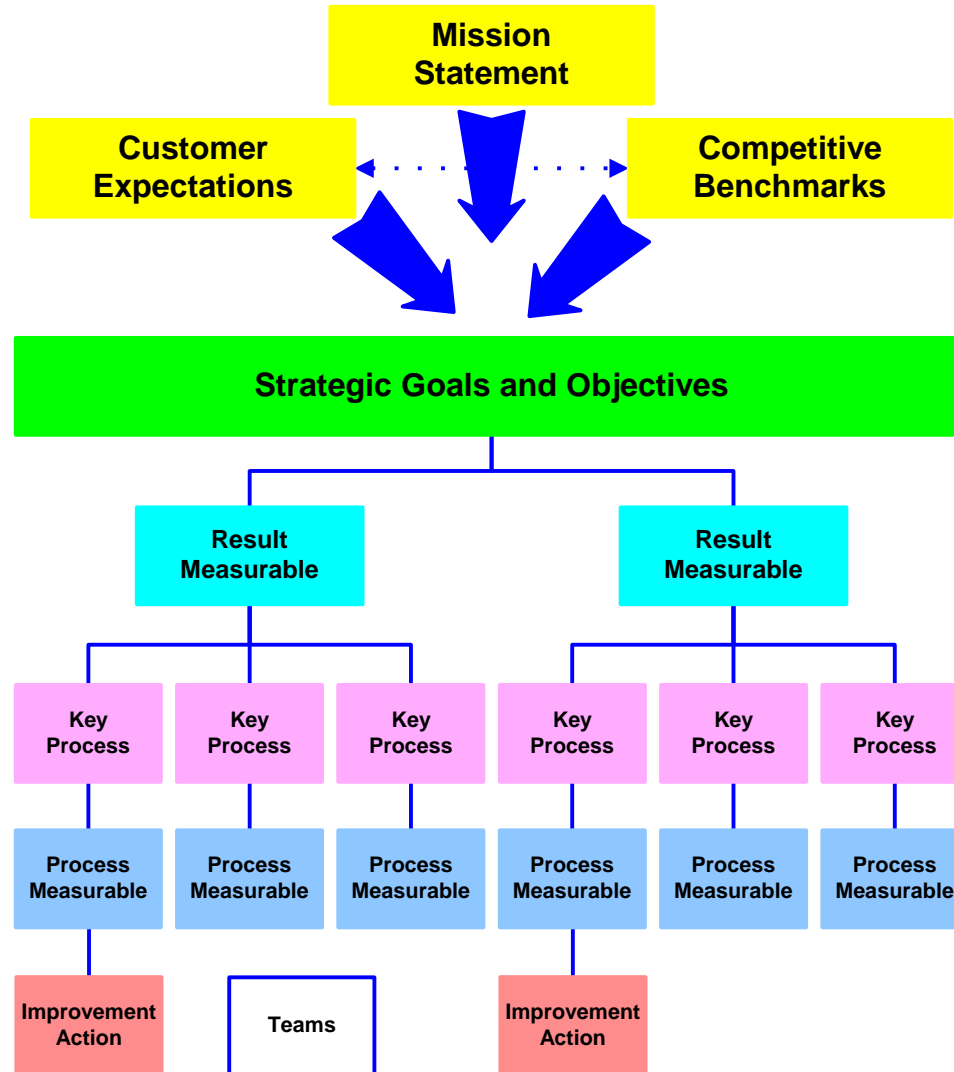
- Brainstorming Key Measurables
- Developing Customer Focused Key Measurables

Defining Customer Focused Key Measurables

- Based Upon Customer Expectations and Performance Benchmarks
- Provide Inward Focus
- Help Establish Policy



Developing Customer Focused Objectives



Key Measurables?

- Quality
- Delivery
- Cost
- Safety

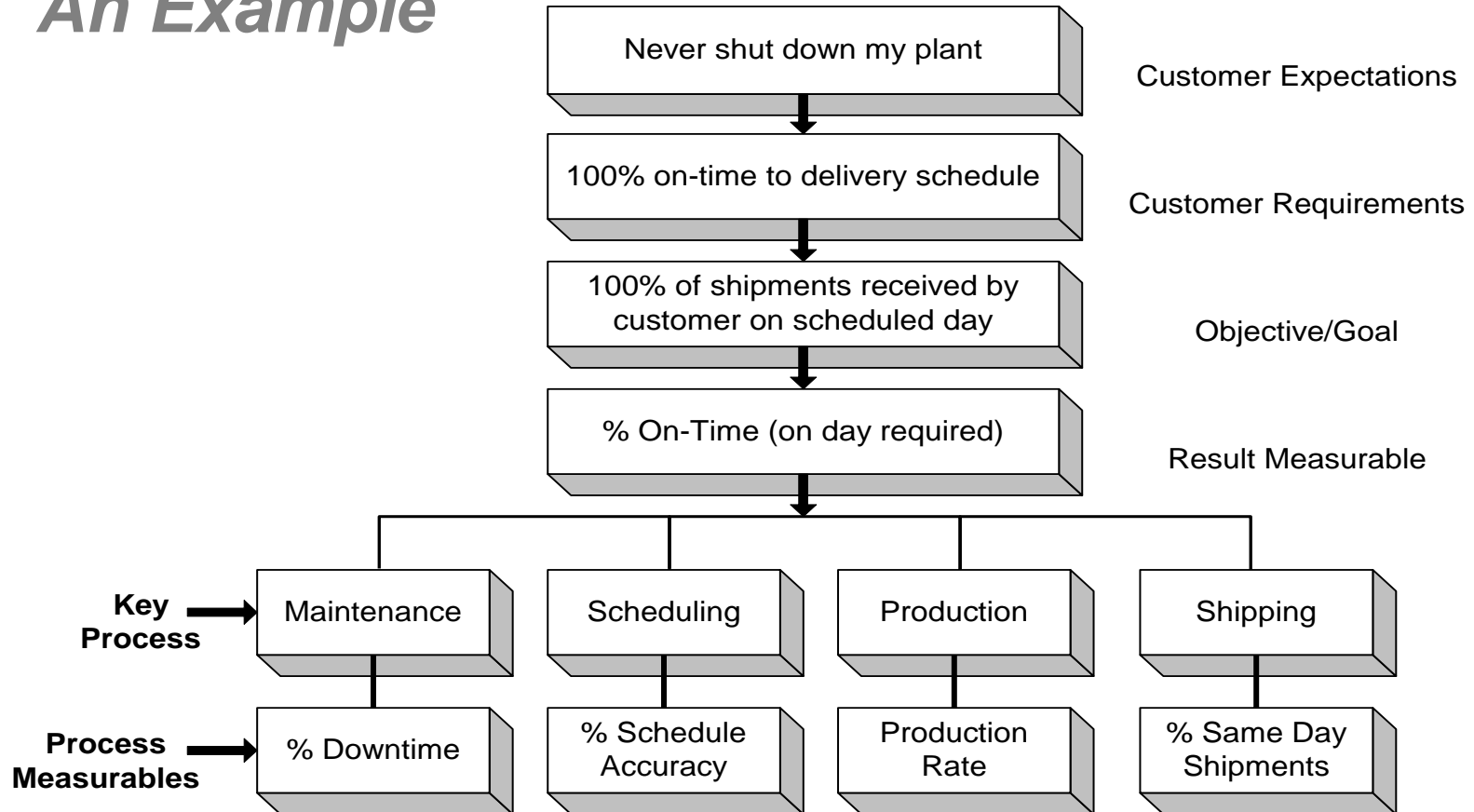
These are guaranteed to be Key Measurables of the organization.

What about the others?



Alignment of Key Processes and Measurables

An Example

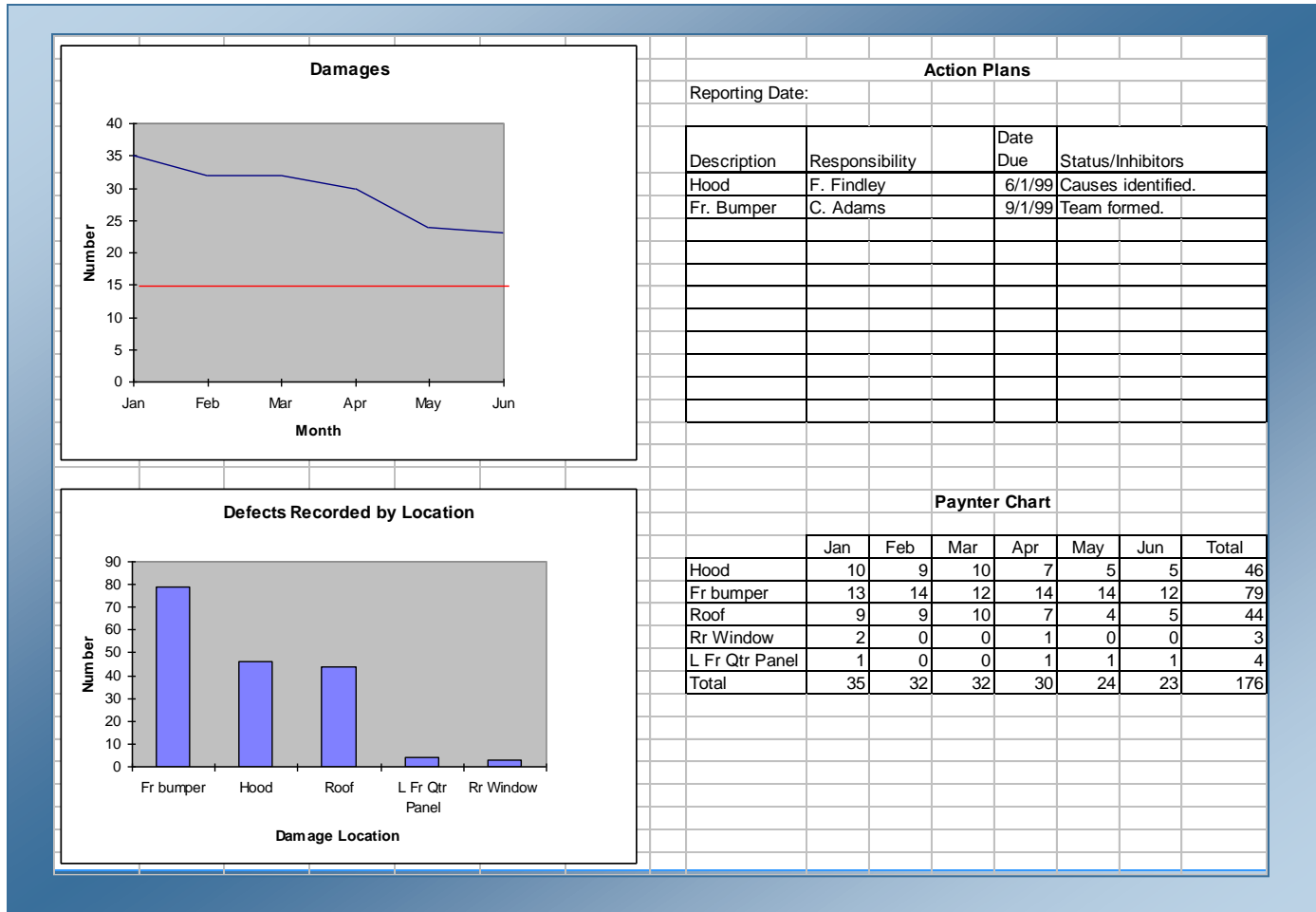


Key Measurables Standards

- Four Panel Chart
- How many Key Measurables?
- What is the focus of the meeting?

Visual Management

Data presented visually in a “Four-Panel Chart”



BOS Assessment

Yes	No	Evaluation criteria
<input type="checkbox"/>	<input type="checkbox"/>	<p>Communication</p> <ul style="list-style-type: none"> <input type="checkbox"/> Employees at all levels are aware of the QOS process. <input type="checkbox"/> Senior management has communicated clear expectations of the QOS process. <input type="checkbox"/> On-going performance is communicated regularly. <input type="checkbox"/> The QOS methodology has been communicated to your supply base if applicable.
<input type="checkbox"/>	<input type="checkbox"/>	<p>Teamwork</p> <ul style="list-style-type: none"> <input type="checkbox"/> A champion is identified for each measurable and is actively involved with teams. <input type="checkbox"/> Teams are allocated the resources necessary to function effectively. <input type="checkbox"/> Cross-functional problem solving and quality improvement teams have been established to work on opportunities identified by the QOS process.
<input type="checkbox"/>	<input type="checkbox"/>	<p>Management Review</p> <ul style="list-style-type: none"> <input type="checkbox"/> Regularly scheduled reviews are held. <input type="checkbox"/> Evidence exists to support the QOS process. <input type="checkbox"/> On-going performance is tracked. <input type="checkbox"/> Status of action plans and problem solving activities are reviewed.



BOS Assessment

Yes	No	Evaluation criteria
<input type="checkbox"/>	<input type="checkbox"/>	Measurables <ul style="list-style-type: none"> <input type="checkbox"/> Internal and external customer expectations are identified. <input type="checkbox"/> Selected measurables relate to key processes and predict internal and external customer satisfaction.
<input type="checkbox"/>	<input type="checkbox"/>	Quantifying Tools <ul style="list-style-type: none"> <input type="checkbox"/> Performance analysis over time used. <input type="checkbox"/> Performance targets identified. <input type="checkbox"/> Problem prioritization used. <input type="checkbox"/> Structured problem solving used.
<input type="checkbox"/>	<input type="checkbox"/>	Continual Improvement <ul style="list-style-type: none"> <input type="checkbox"/> The QOS process provides examples of quantifiable improvements which are significant and sustainable. <input type="checkbox"/> Improvement trends correlate to measurables of internal and external customer satisfaction.
<input type="checkbox"/>	<input type="checkbox"/>	Dynamic Process <ul style="list-style-type: none"> <input type="checkbox"/> Senior management champions the QOS process and ensures its on-going effectiveness. <input type="checkbox"/> Periodic contact is made with internal and external customers to verify or update expectations. <input type="checkbox"/> Periodic reviews of key processes and measurables are made to ensure their continued suitability and effectiveness.



Key Measurables Implementation Steps

- Step 1:** Organize Leadership Team
- Step 2:** Define Mission, Vision and Values
- Step 3:** Identify Customer Expectations and Result Measurables
- Step 4:** Establish Strategic Objectives
- Step 5:** Identify Key Processes and Measurables
- Step 6:** Formulate Data Management Plans
- Step 7:** Selecting Improvement Projects



Key Measurables and Management Reviews



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Continual Improvement Focus

- Remain Focused
 - Performance Measures
 - Improvement Actions
- BOS Management Review Meetings
 - Assess Performance Measures
 - Assess Measures of Customer Satisfaction
 - Assess Effectiveness of Improvement Actions
 - Assess Management System
- Improvement Teams
 - Work on Improvements
 - Guided by Leadership Team



The BOS Management Review Process

- Establish Good Meeting Discipline
 - Calendar
 - Agendas
 - Action Plan
- Frequency
 - At Least Once per Month
- Length
 - Do not Problem Solve.
- Responsibilities
 - Chairperson
 - Champions
 - Recorder



Preparing for a BOS Management Review

- Prepare the Meeting Agenda
 - Prior Meeting Action Items
 - Measurable Reviews
 - Management System Reviews (Periodically)
 - Presentation of Lessons Learned
 - Update and Approve Action Plans
- Distribute the Agenda



A Sample Meeting Agenda

Logo				F-GEN-03	
Team	BOS Leadership Team		Chair	Bob Smith	
Location	Conference Room	Date	3 May 01	Recorder	Mary Adams
Time	Topic		Presenter		
9:00 am	Prior Meeting Action Plan		Bob Smith		
9:10 am	Product Cost		Frank Hartwick		
9:20 am	Productivity		Dick White		
9:30 am	Manufacturing Scrap		Jan Lewis		
9:45 am	Steel Cost*		Sam Watson		
10:00 am	Overhead Cost		Mary Adams		
10:05 am	External Quality		Larry Williams		
10:10 am	Process Capability		Jan Lewis		
10:20 am	Training		Joe Goebel		
10:30 am	Delivery*		Mary Adams		
10:45 am	Walk-ins		Bob Smith		
10:50 am	Setup next meeting		Bob Smith		
10:55 am	Adjourn				
Required Materials			Attendees		
Measurable Presentations - Champions			B. Smith		
Copy Board			M. Adams		
			F. Hartwick		
			D. White		
			J. Lewis		
			S. Watson		
			L. Williams		
			J. Goebel		
Upon completion: Keep this form with team documentation as required by Procedure Number P-GEN-06.					
Approved by: Alice (QA Manager)			Revised: 1 Nov 95		



Conducting the Meeting

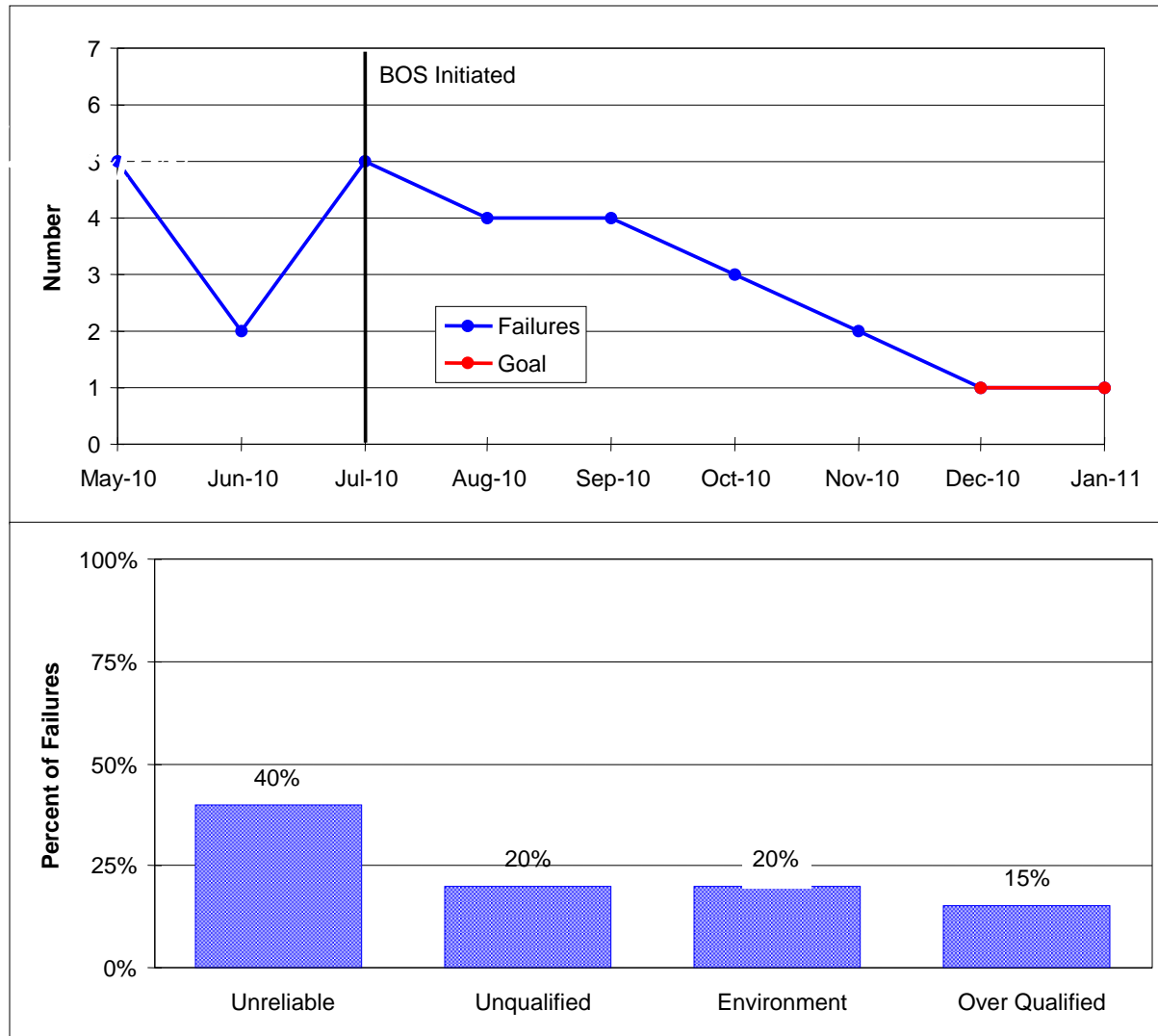
- Review Prior Meeting Action Items
- Present Measurables
 - Monitor Progress
 - Authorize Improvement Actions
 - Allocate Resources
 - Remove Roadblocks
 - Log Lessons Learned
- Periodically Review Management System
- Review and Approve Action Plans
- Update BOS Documentation
- Capture Lessons Learned



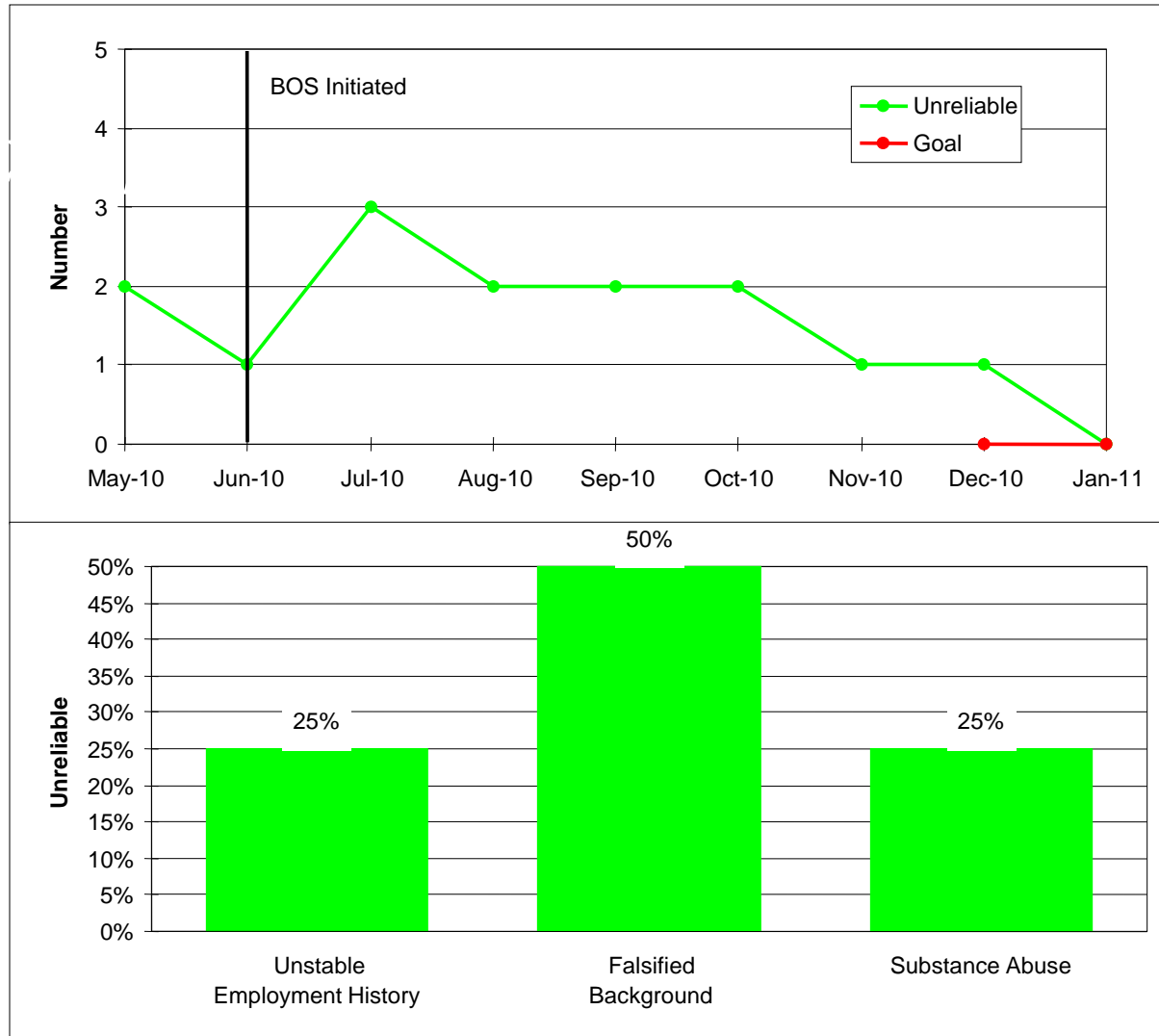
A Sample Action Plan

Action Plan				
QOS Leadership Team				
Date	Due	Item	Responsible Person(s)	Status
Jul-01	Oct-01	Meet with steel suppliers and develop plan to reduce wastes at the suppliers' facilities.	Sam Watson	Meetings are scheduled.
Jul-01	Oct-01	Correlate product Cpk with external results.	Jan Lewis	Done
Jul-01	Oct-01	Develop survey instrument to assess shop floor training needs.	Joe Goebel	In progress
Jul-01	Oct-01	Arrange off-site QOS training for shop floor.	Bob Smith	Schedule is almost done.
Jul-01	Oct-01	Investigate accuracy of scrap reporting figures.	Mary Adams	Study is underway.
Jul-01	Oct-01	Check to see if alloys are included in price break study.	Sam Watson	Waiting to hear from suppliers.

A Sample Measurable Presentation



A Sample Measurable Presentation



ISO 9001 Management Review Requirements

- The input to management review shall include information on:
 - Results of audits
 - Customer feedback
 - Process performance and product conformity
 - Status of preventive and corrective actions
 - Follow-up actions from previous management reviews
 - Changes that could affect the quality management system
 - Recommendations for improvement

ISO 9001:2008, clause 5.6.2



Why Integrate ISO 9001 Management Review and Business Reviews?

- For whom are we doing the review?
- Should the review be conducted yearly? Why or Why Not?
- Should the ISO 9001 review be improvement-oriented?
- Are the ISO 9001 Management Review Outputs aligned to Business Review Outputs?



ISO 9001 Management Review

- Top management shall review the organization's quality management system, at planned intervals, to ensure its continuing suitability, adequacy and effectiveness. This review shall include assessing opportunities for improvement and the need for changes to the quality management system, including the quality policy and quality objectives
- Records from management reviews shall be maintained
- The output from the management review shall include any decisions and actions related to:
 - Improvement of the effectiveness of the quality management system and its processes
 - Improvement of product related to customer requirements
 - Resource needs

ISO 9001:2008, clause 5.6.1

ISO 9001:2008, clause 5.6.3

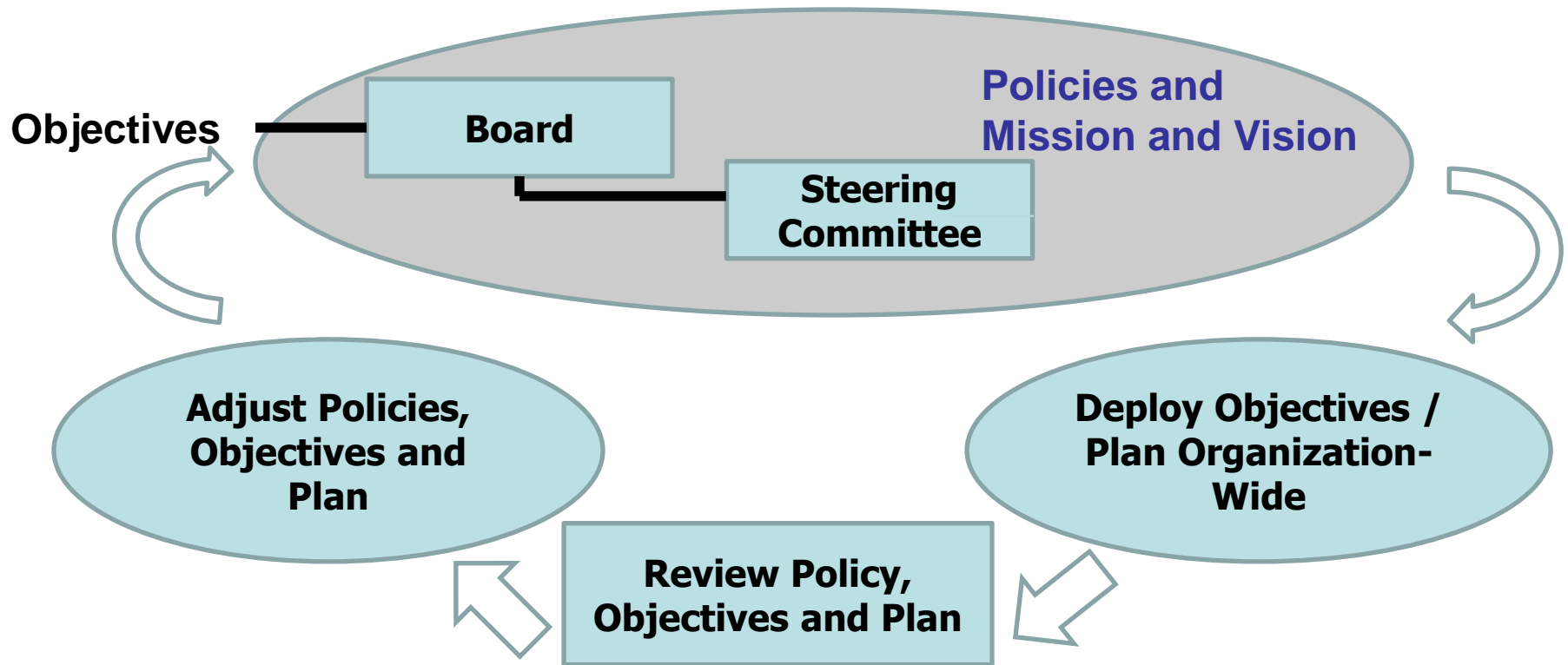


Setting Objectives, Result Measurables, and Process Measurables

- Set Policy for QMS, EMS and OHSAS including mission and vision of the organization
- Set Objectives (Q, C, D, E, H&S)
- Identify Result Measurables
- Implement Processes
- Choose Process Measurables
- Conduct Internal Audits of Processes and Systems
- Conduct Improvement Actions and Corrective and Preventive Action



Integrating QMS, EMS, and OHSAS – Policies and Objectives



Integrate quality, environmental and Health and Safety objectives – use one process for implementing the objectives and the plan for meeting objectives



Summary

- Definition of Result, Process, and Key Measurables
- Difference between Measurables and Quantifiers
- Customer Focused Key Measurables
- Standards focused on Key Measurables
- Alignment of Customer Expectations, Objectives, Result Measurables, Key Processes and Process Measurables
- Alignment of Business and Management Review
- Integrating Business Reviews, Quality, Environmental, and Health and Safety Policies, Objectives, and Reviews



Omnex QOS/BOS Training

- QOS/BOS Implementation and Improvement for Manufacturing (Aligned to ISO/TS 16949:2009 and ISO 9001:2008)
- QOS/BOS Implementation and Improvement for Service (Aligned to ISO/TS 16949:2009 and ISO 9001:2008)
- QOS/BOS Internal Assessment (Aligned to ISO/TS 16949:2009 and ISO 9001:2008)
- QOS/BOS Role of Top Management (Aligned to ISO/TS 16949:2009 and ISO 9001:2008)



Thank You!

Questions?



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