



EHS Return on Investment Strategies and Beyond: Building EHS Value in Your Organization Through Strategic Planning

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Seminar Objectives



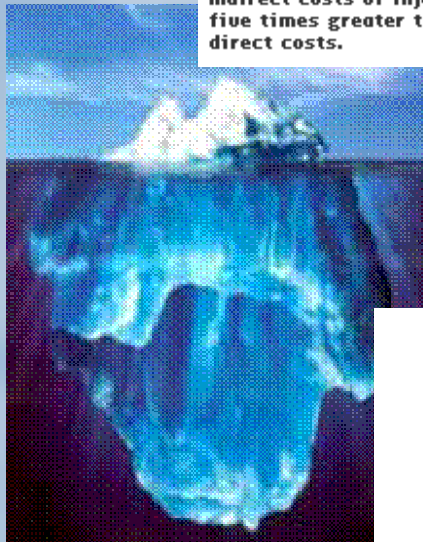
- **At the end of this seminar, you will:**

- **Understanding Value**
- **Understand the Measurement of EHS ROI**
- **Understand the process of Strategic Planning**
- **Know how to create EHS Value through Strategic Planning**
- **Be able to identify ways to use Strategic Planning in your job**



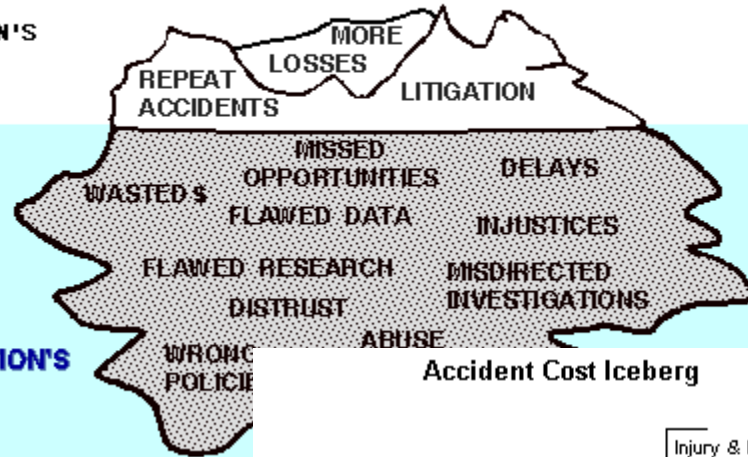


Indirect costs of injuries are five times greater than the direct costs.



SAFETY'S HIDDEN DEFECT: ACCIDENT INVESTIGATION

IDENTIFICATION OF INVESTIGATION'S PROBLEMS



ACCIDENT INVESTIGATION'S HIDDEN PROBLEMS

The Costs of Carrier Incidents

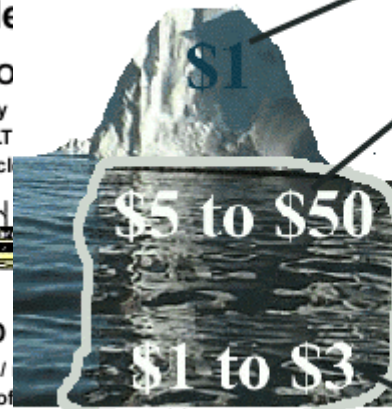


INSURED COSTS

- Injury or Fatality
- Illness - STD / LT
- Liability & Vehicle - ICBC, other

UNINSURED COSTS

- Staff retraining /
- Reassignment of
- Overtime & temp
- Investigation time
- Clerical time
- Loss of expertise
- Loss of reputation



- Injury & Illness Costs
 - * Medical
 - * Compensation Costs (Insured Costs)
- Building damage
- Tool & equipment damage
- Product & material damage
- Production delays & interruptions
- Legal expenses
- Expenditure of emergency supplies & equipment
- Interim equipment rentals
- Investigation time
- Wages paid for time lost
- Cost of hiring &/or training replacements
- Overtime
- Extra supervisory time
- Clerical time
- Decreased output of injured worker upon return
- Loss of business & goodwill





Expenses Contributing to Accident Costs

- Experience rated insurance premiums
- Workers' compensation claim cost
- Repairing damage to the organization's property
- Replacement equipment cost
- Damage to products
- Insurance deductibles
- Administrative cost for investigation/processing claim
- Lost workdays
- Legal fees
- Punitive damages
- Other liability costs



Expenses Contributing to Accident Costs



- Stress
- Lost productivity due to:
 - Scheduling delays
 - Breaking in new employees (training and integration into process unit)
 - “Water cooler” talk
 - Loss of skilled workers
- Re-starting (sometimes re-validating) processes vs. continuing process
- Negative Public Image
- Audits/Fines/Unsatisfactory Rating
- Lost Business (renewals, reorders and government contracts)





We know this, but we have not quantified it adequately.



The Paradigm



- **EHS has the High Moral Ground**



- **...but EHS Management is seldom seen as a true business partner**
 - EHS requests are compared with competing business objectives
 - We are not seen as balancing EHS objectives with business reality



- **We seldom make a credible business case**





EHS is a Business Unit

- **Why should EHS be any different from other operating units?**
 - **Does anyone else operate under the “it’s the right thing to do...” model?**
 - **No (but we do get some leniency there)**
- **Demonstrate the link between what we do and key aspects of the business**
- **Learn to compete for resources with other parts of the business**
- **Learn to communicate with other parts of the business in business terms**



Business Plans



- **Is an IH/EHS department a good investment?**

- Measurement
- Contribution to the bottom line



- **You must align the department with the organization's business goals.**

- Well defined? (organization's and yours)
- EHS value match with Organization?





Measurement



- **Direct costs are easy**
- **Strengthens our moral case**
- **Models**
 - **Traditional cost reduction (cost/benefit) analysis**
 - **Isolate impacts on key business indicators**
 - **Demonstrate positive impacts on business strategy**





What is “Value”?



- A fair return or equivalent in goods, services, or money for something exchanged



- Relative worth, utility, or importance



- Something (as a principle or quality) intrinsically desirable



Merriam Webster



What is Value?



Business Value = Importance





1. Simple ROI Example

- **Quantify Implementation Costs**
 - **Capital Equipment**
 - **Personnel Time**
 - **S&H**
 - **Operations**
 - **Design & Engineering**
 - **PPE**
 - **Safety Equipment/Supplies**
 - **Training**



Reduction of Losses

- **Workers' Compensation**
 - **Fines and penalties, etc.**
- Dig Deeper:**
- **Replacement labor**
 - **Emergency response**
 - **Remediation expenditures**
 - **Third party administration**
 - **Production downtime*****
 - **Employee health insurance and medical costs*****



2. Isolation of impacts on key business indicators



- Key is to measure these impacts and take credit for them. For example, consider:



- Quality
- Productivity
- Human resources





-EHS as a Revenue Generator???



- **Example: Ergo Accelerated Improvement Workshop (AIEW)**

- **3-5 day team based problem solving session**

- Define the problem

- Gather critical data to measure performance

(Ergonomic risk, Production data, Employee input)

- Develop & analyze potential improvements

- Develop value statement for each solution

- Implement final plan

- Verify results





Cap Bonding

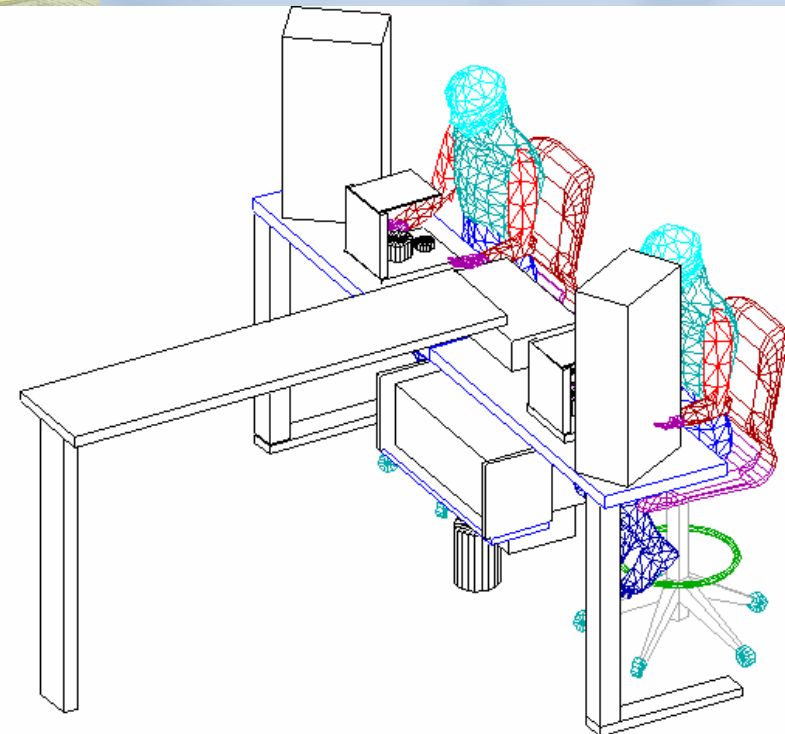


Current Workstation

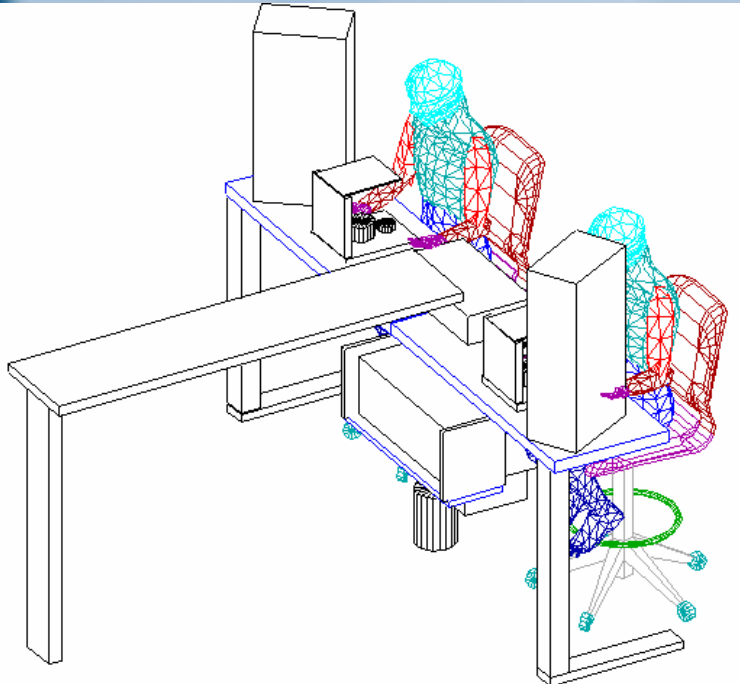
- 46" long reaches
- Elbow & shoulder issues

Template Workstation

- Reaches are 9" or less
- Parts stacked in bins
- Reduced elbow and shoulder issues
- Developed in an AEIW



Cap Bonding AEIW



33% reduction cycle time
30% reduction risk



Customized Value (Impact) Statement

- Cost of Improvements = \$400K per cell -14 cells = \$5.6M
- Benefits = \$303+M
- 30% Ergonomic Risk reduction
- 11.2% reduction in Work Content projected
- 33% reduction in cycle time projected
 - which generates a possible extra 3,456 units/week = 172,800 per year per line= \$302M in potential extra sales.
- 28.5% reduction in Space projected with new layout
- Reduction in the use of Pebax generates a saving of \$187,425 per year (scrap)





Demonstrating Value



Old Profit Equation

- Total Cost + Profit Margin = Customer Price



New Profit Equation

- Customer Price – **Cost** = Profit Margin



Costs

Lagging



Leading

- Direct Costs
 - Medical & Workers Comp
- Indirect Costs (0.5-2x direct costs)
 - Lost time & associated costs
 - Replacement worker, absenteeism, turnover
- Performance Loses (2-10x)
 - Downtime, bottlenecks, poor quality, re-draws
- Performance Gains (2-10x)
 - Quality, productivity, maintainability
- Human Error Costs





3. Positive Impacts on Business Strategy



- Many organizations in the US today are not benefiting from the value that comes from EHS Strategic Planning.



- The EHS activities of many organizations in the US today are not clearly aligned with the overall business strategies of the organization.





What is "Value" to your Organization?

- Could vary greatly
- Mission, Vision & Values

The screenshot shows the Merck website's Mission Statement page. At the top, there is a navigation bar with links for "Patients & Consumers", "Healthcare Professionals", and "Worldwide". Below this is a search bar. The main navigation menu includes "HOME", "ABOUT MERCK", "PRODUCTS", "NEWSROOM", "INVESTOR RELATIONS", "CAREERS", "RESEARCH", "LICENSING", and "THE MERCK MANUALS". The page is titled "Mission Statement" and features a sidebar with links to "About Merck", "Mission Statement", "Code of Conduct", "Compliance Program", "Corporate Responsibility", "Public Policy", "Corporate Governance", "Executive Committee", "Diversity at Merck", and "Feature Stories About Merck". The main content area contains the Merck logo and the text: "Merck & Co., Inc. is a global research-driven pharmaceutical company dedicated to putting patients first. Established in 1891, Merck discovers, develops, manufactures and markets vaccines and medicines to address unmet medical needs. The company also devotes extensive efforts to increase access to medicines through far-reaching programs that not only donate Merck medicines but help deliver them to the people who need them. Merck also publishes unbiased health information as a not-for-profit service. For more information, visit www.merck.com." Below this is a section titled "OUR MISSION" with the text: "The mission of Merck is to provide society with superior products and services by developing innovations and solutions that improve the quality of life and satisfy customer needs, and to provide employees with meaningful work and advancement opportunities, and investors with a superior rate of return." At the bottom, there is a section titled "OUR VALUES" with a list of values, starting with "1. Our business is preserving and improving human life. All of our actions must be measured by our success in achieving this goal. We value, above all, our ability to serve everyone who can benefit from the appropriate use of our products and services, thereby providing lasting consumer satisfaction."





What is "Value" to your Organization?



- Could vary greatly
- Mission, Vision & Values
- Determine stakeholders
 - Owners/shareholders
 - Top management (corporate)
 - Customers
 - Plant management
 - Community
 - Employees
- Stakeholder values
 - Speak to them
 - Communication is key





What is Strategic Planning?



- The formalized, long-range business planning process that drives change, creates organizational vision, enables setting of multi-year goals and objectives, and establishes how to accomplish those goals in the coming years.





Strategic Planning Basics-

“Hierarchy” of Strategic Planning

- “Business of the Business”
 - Highest level of strategic planning
 - Organization-wide strategic planning drives all other strategic planning in the organization

- Support Organizations (e.g., EHS, Facilities, Purchasing, etc.)
 - Do not usually drive the overall business strategy
 - Rather, align with the organization-wide business strategy (but you need to understand the strategy)





Strategic Planning Basics



■ Why do strategic planning?

– Vision (picture of the future) and Direction

– Efficiency and Focus

- If you don't know where you're going, any road will get you there.

- Lewis Carroll

– Moves organizations from Reactive to Proactive

– Great organizations do it!





Strategic Planning Basics-

Why is Organizational Vision Important?

- Provides long term focus; something to strive towards
- Gives us measurable, long term goals
- Helps define what the organization is striving towards in a consistent way, both internally and externally
- Creates organizational confidence and momentum by showing that the organization continue to evolve and plan for our future



Strategic Planning Basics-

What is Strategic Planning?

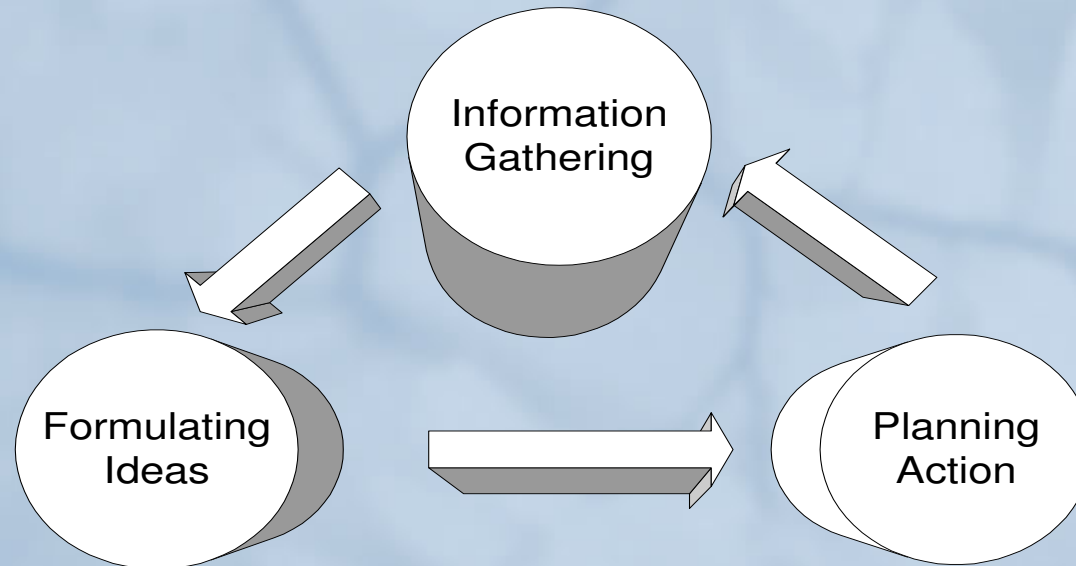


- A cognitive process used to create change
- A process for identifying long term (e.g., 3-5 years) goals/objectives, and creating a roadmap for achieving them
- Strategic Planning is a “Cornerstone of Proactive Management”





Strategic Planning Process Concept





Strategic Planning Basics-

What does it help you do?



- Aligns strategy-related management decisions at all organizational levels
 - *Example: Debt Reduction*
- Helps guide business decisions
 - *Example: Investments, ROI Model*
- Enables performance measurement and continuous improvement
 - *Example: Organization-wide performance metrics*
- Creates a proactive, rather than reactive management environment
 - *Example: Integration of strategy elements into individual MBOs*





Strategic Planning Basics-

Strategic Planning Is Not:

- Your Annual budgeting process
- Your Annual employee objectives setting process (e.g., MBO)
- A Tactical Business Planning Process (e.g., 30/60/90 day to 1 Year Business Planning)
- Creating a Prioritized Daily Task List
- Changing Focus to Please Your Boss





Strategic Planning Basics –

Why organizations Invest in the Strategic Planning Process?

- To Create Competitive Advantage
- To Meet Demands for Continuous Growth and Profitability
- To Increase and Sustain Productivity
- To Identify and Capitalize on Emerging Markets
- To Leverage Changes in Business and Technology
- To Proactively Manage Capital Assets and Resources
- To Anticipate and Respond Quickly to Client Requirements



Measuring Value



- The value a business creates can be measured by the amount buyers are willing to pay for a product or service.



- A business is profitable if the value it creates exceeds the cost of creating that value.





EHS Value

“The actual, measured and/or perceived worth, importance and bottom line contribution of EHS to an organization”.

Examples of Value in EHS Performance



- **Top Line**
 - Effect on Balance Sheet- Contingent Liabilities
 - Effect on sales/growth markets- Green Products and Packaging/EU Requirements (ISO14001 and OHSAS & VPP are good marketing tools)
 - Sustainability/Maximizing the value of assets
- **Cost Savings**
 - Conserving Resources/Waste Minimization
 - Increase Efficiency
 - Reduce Pollution
 - Reduce Insurance costs by controlling hazards/liabilities
- **Cost Avoidance**
 - Business Interruption
 - Accidental Releases
 - Regulatory Penalties
 - Remediation
 - Personnel Injuries
 - Unexpected Legal Expenses
 - Inability to gain access to certain markets (e.g. EU)



Strategic Planning Builds EHS Value by:



- Integrating EHS Value Into the Strategic Plan and Measuring Progress



- Ensuring EHS Goals and Objectives are Aligned With the Overall Business Vision and Strategy



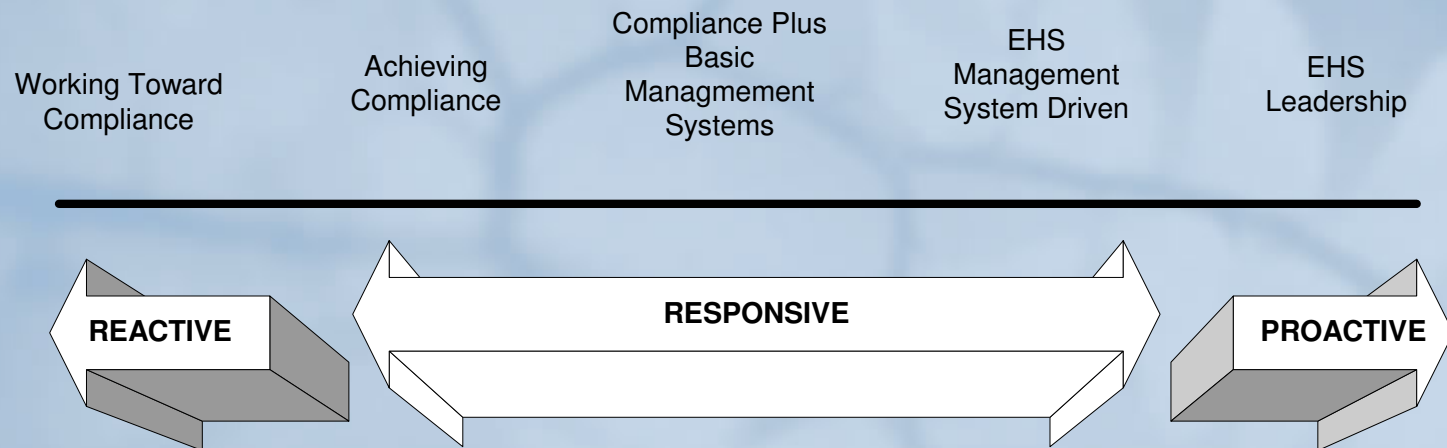
- Anticipating Potential Business Impacts of Changing EHS Requirements



- Enabling EHS Continuous Improvement



The EHS Management Continuum



(Examples of milestones on following slide)



Example Milestones



■ Working Towards Compliance

- Few written programs, little or no professional EHS management



■ Achieving Regulatory Compliance

- Many EHS programs
- EHS professional management



■ Compliance plus Basic Management Systems

- Internal Audits; regular updates of EHS programs
- Team of EHS professionals



■ EHS Management System Driven

- MS well established, multiple EHS management systems in place
- EMS, e.g., ISO 14001
- OHSMS, e.g., OHSAS 18001 certification or OSHA VPP
- Behavioral Safety
- Safety Culture Optimized, etc.
- EHS tied to organization initiatives (e.g., lean, six sigma)

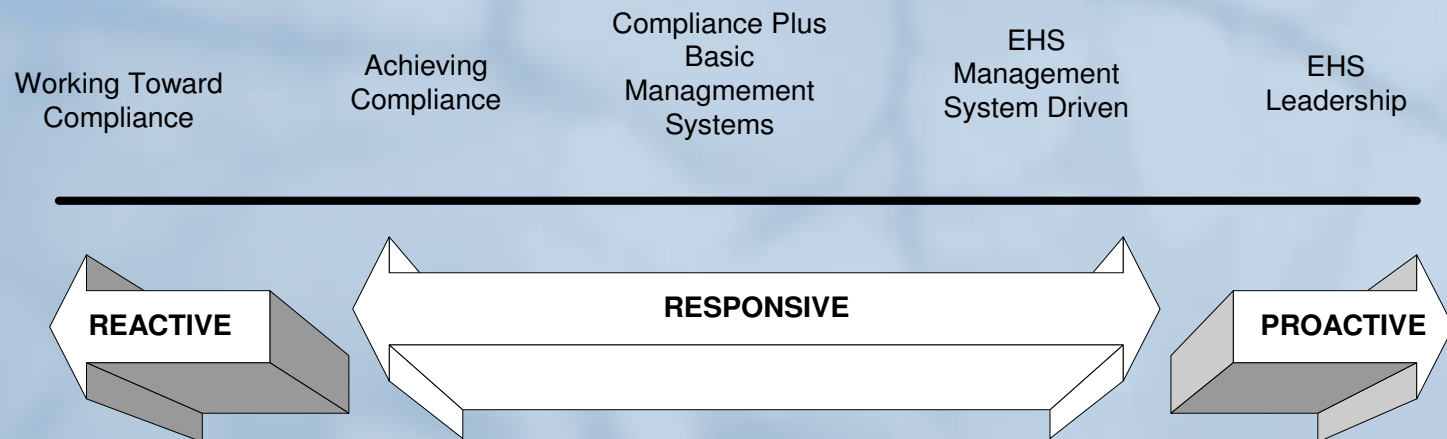
■ EHS Leadership

- Executive EHS Leadership
- EHS participates and contributes to organization's strategic plan
- EHS tied to CSR and Sustainability Programs
- Leading industry sector (via benchmarking)
- Competitive advantage documented via EHS



Exercise- EHS Gap Analysis

- Are the milestones appropriate?
- Where is your firm today?
- Where do you want to be in 3 years?
- Where do you want to be in 5 years?





Elements of the Strategic Planning Process

1. Define the Present
2. Define the Future
3. Perform a Gap Analysis
4. Develop an Action Plan
5. Implement the Plan
6. Continuously Improve



1. Define the Present

- Done in strategic planning sessions
- Requires both research and brainstorming
- Perform organization culture/climate assessment
- Determine potential strategic areas
- Determine overall organization positioning



2. Define the Future

- Done in strategic planning sessions
- Requires both research and brainstorming
- Identify business Vision
- Determine business Values
- Align EHS and Business Vision and Values
- Develop an EHS Mission
- Define Key Performance Indicators
- Define Cultural Components



3. Perform Gap Analysis

- Usually done as research before and after brainstorming sessions
- Identify and quantify gaps
- Prioritize gaps in order of criticality
- Determine which gaps to address in your strategic plan





4. Create a Roadmap

- Usually done in Focus Groups following initial brainstorming and research
- Determine EHS Strategic Plan elements
- Define milestones for each element over time
- Develop Contingency Plans
- Document the Focus Group and other planning session results



5. Write and Implement the Plan



- Focus Groups usually author the plan elements; primary author consolidates elements into a single plan document
- Integrate the plan into annual business planning process
- Empower stakeholders to implement the plan
- Measure progress by leveraging existing business systems or creating new ones
- Make course corrections to stay on path





6. Continuously Improve

- Make the plan a living document- management systems approach
- Review the plan informally at least annually, and formally every 2-3 years
- Update the plan during formal reviews



Tips on Getting Started with Strategic Planning



- Who should be involved?
 - Strategic (“out of the box”) thinkers
 - EHS Leader, executives, champions, partners, internal customers, advisors, consultants, subject matter experts, facilitator, scribe
 - Create a separate “Board of Directors” to validate your plan
- Why use a facilitator?
 - Professional skill set- must practice it to be good, like anything else
 - No hidden agendas
 - Creates efficiency and boundary conditions
- Document the Planning Sessions well



Example: Strategic Planning Session Documentation



| EHS Category | What is Plan of Record Today? | Ownership? | Where does EHSS need to be in 2 years? | Next Steps / By When? |
|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Management Commitment | Endorsement (VP of Legal) of written programs such as IIPP Annual review of EHSS conducted for CEO and staff | EHSS owns IIPP | Need an EHS policy for communication internally and externally – <ul style="list-style-type: none"> <input type="checkbox"/> signed by CEO <input type="checkbox"/> reviewed annually <input type="checkbox"/> drives goals and objectives <input type="checkbox"/> measured <input type="checkbox"/> enforced <input type="checkbox"/> recognition component/vehicle Continued visibility of EHSS Program that is reviewed annually by CEO and Exec Staff | <ul style="list-style-type: none"> <input type="checkbox"/> Develop draft policy that ties in with finalized EHSS Vision/Mission <input type="checkbox"/> Post to intranet <input type="checkbox"/> Migrate policy and adjust as appropriate for external website |
| Pre-Acquisition EHSS Review | <ul style="list-style-type: none"> <input type="checkbox"/> Nothing in place currently <ul style="list-style-type: none"> o Purchased 90 acres of land | Real Estate | Integrated into Business where EHSS liabilities are being assessed as part of pre-purchase. Value proposition for management would focus on leveraging reduced cost of acquisition through adequate assessment of: <ul style="list-style-type: none"> <input type="checkbox"/> Environmental liability <ul style="list-style-type: none"> o Competent Phase One and/or Phase Two <input type="checkbox"/> Product Compliance Status <ul style="list-style-type: none"> o Materials Compliance and Restricted Substances - i.e., RoHS/WEEE <input type="checkbox"/> Operational EHSS status | <ul style="list-style-type: none"> <input type="checkbox"/> Meet with Acquisition team to discuss concept of EHSS inclusion and cost benefits <input type="checkbox"/> Develop pre-acquisition EHSS assessment checklist <input type="checkbox"/> Conduct training |
| Health Safety and Environmental (HSE) Management System | Contract Manufacturers required to be ISO14000 certified | EHSS | Documented EHSS Management System in place that aligns with TL 9000 program <ul style="list-style-type: none"> <input type="checkbox"/> Incorporates new ISO 140001 requirements and consider 18001 Business positioned for registration to a HSE Management System | <ul style="list-style-type: none"> <input type="checkbox"/> Conduct gap analysis <input type="checkbox"/> Develop road map <input type="checkbox"/> Develop Budget proposal |



More Tips on Strategic Planning



- Put it in writing- produce an excellent document
- Use it as a Communication Tool
- Market the plan
- Use it to educate the organization
- Use it to help justify resources
- Use it to deliver key messages to Executives and Stakeholders





More Tips- Examples of aligned strategic planning elements with metrics that create EHS value



- Example Strategic Elements with metrics:
 - By 2008, achieve ISO 14001 Certification at all US manufacturing operations
 - Supports organization strategic plan elements of customer satisfaction and “Striving towards leadership in everything we do”
 - Metrics: # of certifications, customer survey scores, benchmarking





More Examples of aligned strategic planning elements with metrics that create EHS value (cont.)



- More Example Strategic Elements with metrics:
 - By 2009, fully implement centralized EHS data acquisition and retrieval software
 - Supports organization strategic plan element of reducing operating costs by leveraging technology investments
 - Metrics: \$, selection, procurement, speed, use
 - By 2010, reduce solid waste generation by 50%
 - Supports organization strategic plan elements of reducing operating costs and world class manufacturing
 - Metrics: \$, kg of solid waste





Make Strategic Planning a Priority

- Is your EHS organization moving towards a set of stated long-term goals and objectives?
- Are those goals and objectives clearly aligned with the overall strategic goals of your organization?
- Are you bringing full EHS Value to your organization?
- Are you spending at least 20% of your time working on strategic issues?
- Start your strategic planning today, to be stronger tomorrow...



Other Models related to Strategic Planning



Be aware that various models and methodologies related to strategic business planning have been developed. The “best” model for you may be the one your organization already uses.



Models you may be familiar with:

- **Balanced Scorecard (BSC)**
- **SWOT (Strengths, Weaknesses, Opportunities, Threats)**





For further Reference

- ROHSEI – *Return on HSE Investment*
– *ORC Worldwide* – www.orc-dc.com





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