

## Understanding and Addressing Hidden EHS Risks

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# Risks vs. Opportunities

IS THE GLASS HALF  
FULL OR HALF  
EMPTY?



# Agenda

What is a hidden EHS risk?

Types of hidden EHS risks

Causes, triggers, and escalation

Reducing these risks

- Measurement and quantification
- Awareness
- Prioritization
- Risk reduction

Tools, services and support for mitigating risk

Final thoughts

## Hidden EHS Risk

*A risk that has the potential to result in an unanticipated or unplanned and significant impact on business operations; something that is not factored into and accounted for in a business plan.*

# Types of Hidden EHS Risks

Systemic non-compliance

Competitor advantage

Tort liabilities

Property contamination

Contractual liability

# Impacts of Hidden EHS Risks

Payment of money

Jail time

Litigation – time, money, distraction

Constraints on business operations

Adverse impacts on image

Uncertainty

# Systematic Non-Compliance

## Los Angeles Times




### **Wal-Mart to pay \$27.6 million to settle California environmental case**

Wal-Mart has agreed to pay \$27.6 million to settle charges that it violated California environmental laws in its handling and disposal of hazardous materials, prosecutors involved in the case announced Monday in San Diego.

The settlement was signed by Superior Court Judge Linda B. Quinn. The San Diego County district attorney's office and the state attorney general's office had filed a civil complaint last month alleging that all of Wal-Mart's 236 stores, Sam's Club stores, distribution centers and storage facilities were in violation of environmental laws.

Among the materials being improperly transported, stored and dumped were pesticides, chemicals, paint, acid, aerosols, fertilizer and motor oil.

# Systemic Non-Compliance

	<h1>WANTED</h1>	
by the <b>U.S. Environmental Protection Agency</b> <b>CRIMINAL INVESTIGATION DIVISION</b>		
<b>Name:</b>	Valenzuela, Mauro	
<b>Alias:</b>		
<b>Sex:</b>	Male	
<b>Race:</b>	White	
<b>Date of Birth:</b>	04/18/1969	
<b>Place of Birth:</b>		
<b>Height:</b>	6'00"	
<b>Weight:</b>	175 lbs	
<b>Eyes:</b>	Brown	
<b>Hair:</b>	Black	
<b>Scars/Tattoos:</b>		
<b>FBI #:</b>		
<b>NIC #:</b>	W860126244	
<b>Last Known Address:</b>		
<b>Case Summary:</b>		
	<ul style="list-style-type: none"> <li>• Valenzuela was charged in the Southern District of Florida on a multiple count indictment for transportation of hazardous containers onboard a commercial aircraft.</li> <li>• Alleged violations include:             <ul style="list-style-type: none"> <li>○ Hazardous Materials Transportation Safety Act</li> <li>○ Making false statements</li> <li>○ Conspiracy</li> </ul> </li> </ul>	

# Systemic Non-Compliance



# Systemic Non-Compliance

Big fines

Criminal prosecution

Mandated EHS management systems

Injunctive provisions

“Innovative” order requirements

Triggers more litigation – shareholder suits, tort suits

# Competitor Advantage

Compliance costs are significantly less

Products or processes appear superior from a public image standpoint

Permits provide more business flexibility

Competitor can operate with few government approvals or can get approvals more quickly

Selective enforcement

# Competitor Advantage

Absolute Impact	Relative Impact
How much will the new regulation cost my organization?	How will my organization be impacted by the new regulation compared with my competitors' facilities?
What are the restrictions in my facility permit?	How do the restrictions in my permits compare with those in competitor permits?

# Competitor Advantage

## Reasons Competitors Face Different EHS Risks:

Geography

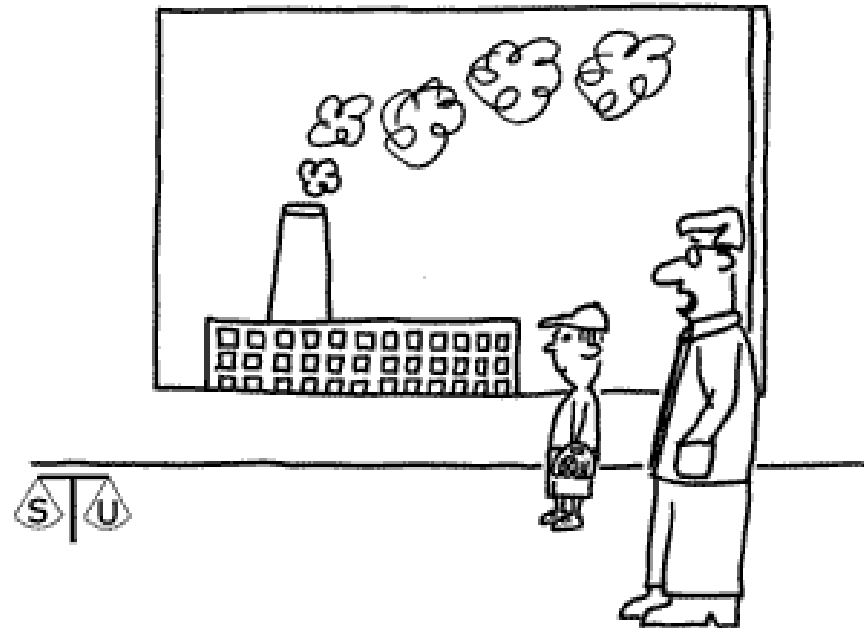
Technology

Stringency and timing of permits

Quality of baseline data

Profile of company

# Tort Liabilities



"Son, someday  
this will all be yours,  
unless we're sued."

# Tort Liabilities

Property damage or personal injury

Current conduct or historical conduct

Damage awards and punitive awards

Examples

# Property Contamination



# Property Contamination

Acquisitions

Divestitures

Leases

Toll manufacturing

Joint venture agreements

Many types of onsite contractors

# Contractual Liability

Document wording

Data limitations

Clear responsibilities

## Causes, Triggers, and Escalation

Failure to track EHS requirements

Failure to understand EHS requirements

Inadequate resourcing

Inadequate training

Inadequate integration of EHS and business operations

Inadequate EHS disclosures

# Causes, Triggers, and Escalation

Disgruntled employees, contractors, neighbors

Accidents

Union disputes

Poor relationships with regulators

New government enforcement priorities

New information on EHS risks

# Causes, Triggers, and Escalation

Patterns and practices across locations

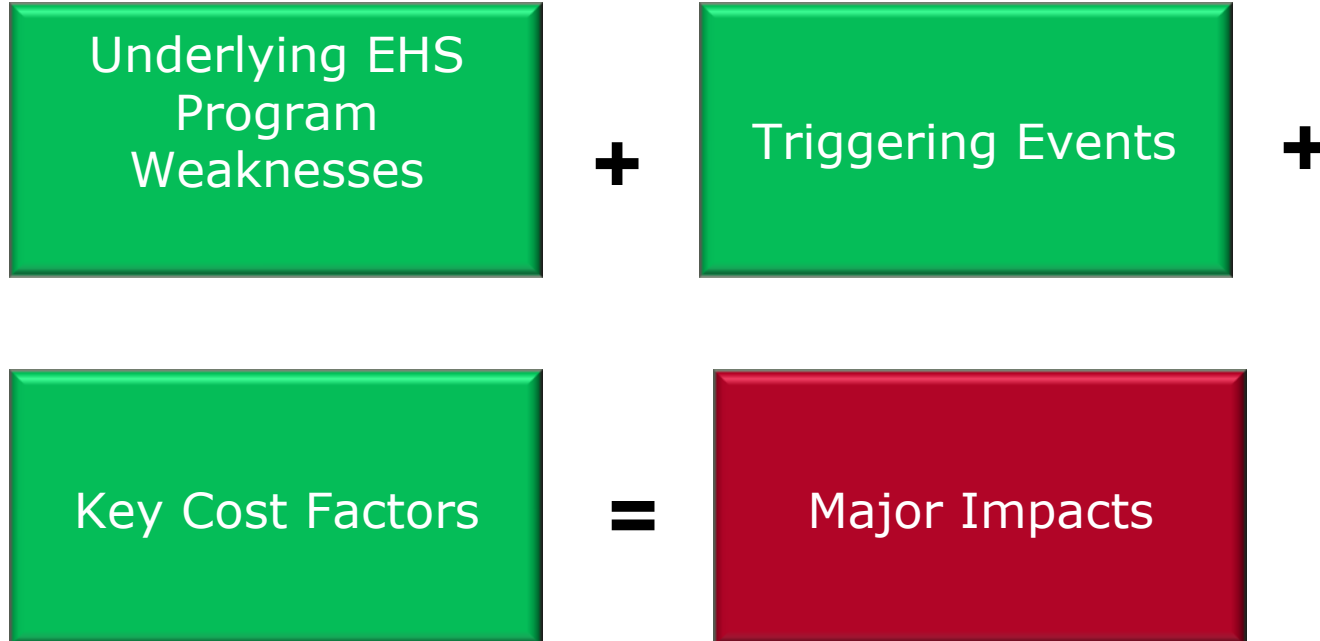
Use of different performance standards at different locations

Bad documents in files

Failure to effectively handle an incident

Poor internal controls

# Causes, Triggers, and Escalation



# Reducing Risks

Measurement and quantification

Awareness

Prioritization

Risk reduction actions

# Measurement and Quantification

Internal data

Assessments and audits

Government inspection data

Surveys (if external, can also measure comparison with competitors)

- Internal
- Customers
- Regulators
- Neighbors

# Facility Risk Profiles

Risk Area	Y/N	#/desc
Significant near-term expansions in physical plant?		
Significant near-term changes in production processes or technology?		
Significant near-term changes in staff size?		
Facility adjacent to or < ¼ km of a school?		
Facility < ¼ km of residential or public drinking water wells?		
Reportable spills in last year?		
Permit renewals scheduled in next 12 months?		
New laws or regulations?		
Chemicals of concern?		

Compare over time and across the organization

# Internal Risk Review Meeting

Annual basis

Chaired by senior EHS official

Participation by key business managers

Review covers previous 12 months and  
upcoming trends

# Internal Review Meeting

## Sample topics

- Compliance performance (inspections and internal audits)
- Upcoming compliance challenges – permit renewals, changing business operations, etc.
- Impact of upcoming legislation, regulations, new product introduction, plant expansions, new acquisitions or divestitures
- Identification of potential EHS-related litigation
- Existing progress on remediation activities and potential future uncertainties and issues
- Other potential risk concerns
- Competitive positioning with regard to EHS

# Prioritizing Risk Reduction Opportunities

For each facility, product line, or company unit, begin identifying hidden EHS risks by type of risk

- Strengths/weaknesses in the risk category
- Probability of a risk manifesting itself in the next 1 year, 3 years, 5 years
- Dollar impact

# Prioritizing Risk Reduction Opportunities

	Risk Probability	Size (\$)	Expected Value
Non-compliance			
Competitor advantage			
Tort liabilities			
Property contamination			
Contractual liability			

# Prioritizing Risk Reduction Opportunities

Prioritize by performing expected value analysis

For high priority risks, identify potential risk reduction options and costs of options

Compare expected value of risk cost with cost of risk reduction options

Select actions

Measure effectiveness of risk reduction results

# Risk Reduction Actions

Regulatory agency outreach

Chemical phase-out

Equipment phase-out

Enhanced due diligence

Divestiture

Revised contracts with vendors

Documentation retention policy

Improved EHS tools, services and support

Many more. . .

# EH&S Tools, Services and Support for Mitigating Risk



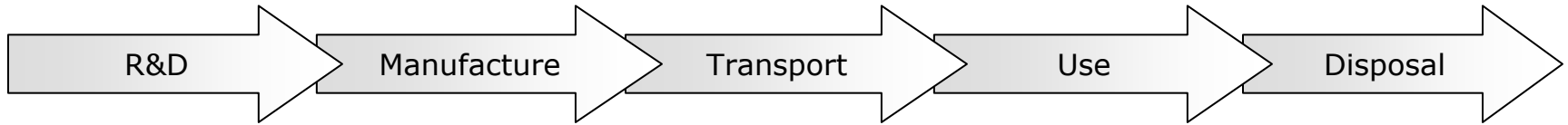
- Hazardous Material Information Management & Regulatory Compliance
- Tools, Services and Support designed to manage this information throughout the chemical life cycle, across the supply chain
- Identifying options and opportunities to
  - Reduce costs
  - Increase compliance
  - Mitigate risk

# Compliance Considerations

- The RIGHT Stuff
  - Tools
  - Information
  - Services
- Scalability
  - Internal needs (current and future)
  - Expanding regulatory landscape
- Portability - easily implemented & transferable
  - From location to location
  - Organic growth / M & A's
- Leveragability

# Regulatory Landscape

Hazardous chemical regulations cover the entire product life cycle.



**Workplace Hazardous Materials Information System (WHMIS)**



**Transport Canada**

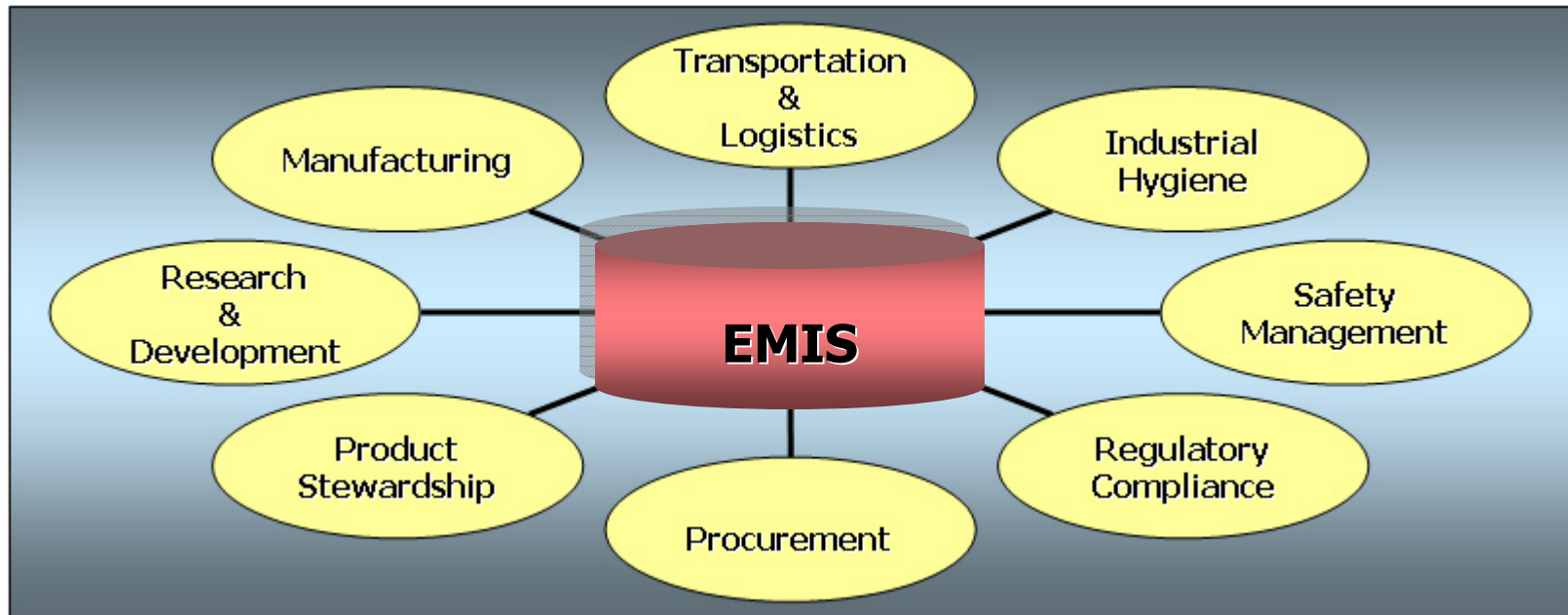
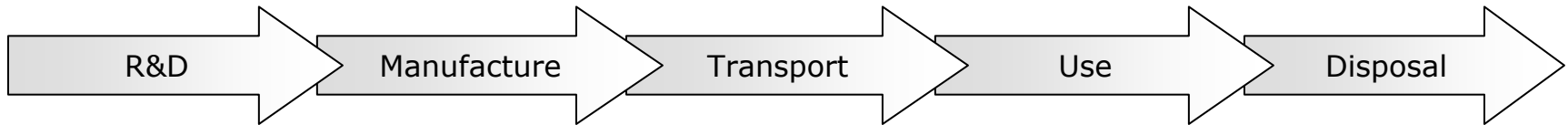


# Life Cycle Approach

- Meet the hazardous material information management objectives of the entire Supply Chain
- Account for all applicable data sources
- Deploy tools and decision making processes to
  - Create or establish access to central repositories for required information
  - Streamline the collection and flow of EH&S information
  - Improve workflows (operational, technical and administrative)
  - Integrate regulatory and chemical content with chemical inventories (RM, intermediates, finished goods)
  - Identify actionable regulatory data, proactively when possible
- Establish control points to maintain compliance
  - Internal Operations
  - Procurement Practices

# Supply Chain

## Stakeholders



# Compliance Systems Analysis

- Evaluation of Existing Tools
  - Data repositories
  - Internal Processes
- Does Your Current Program...
  - Enable access to all required information?
  - Ensure that information is updated regularly?
  - Leverage data across the supply chain?
  - Integrate organizational data and internal business rules with regulatory and chemical content?
- Are Compliance program requirements on your Infrastructure Team's radar?
- Can outsource options provide the most optimal solutions?

# Essential Information



EH&S Foundation: Timely access to accurate information, applicable to business objectives and corporate mandates

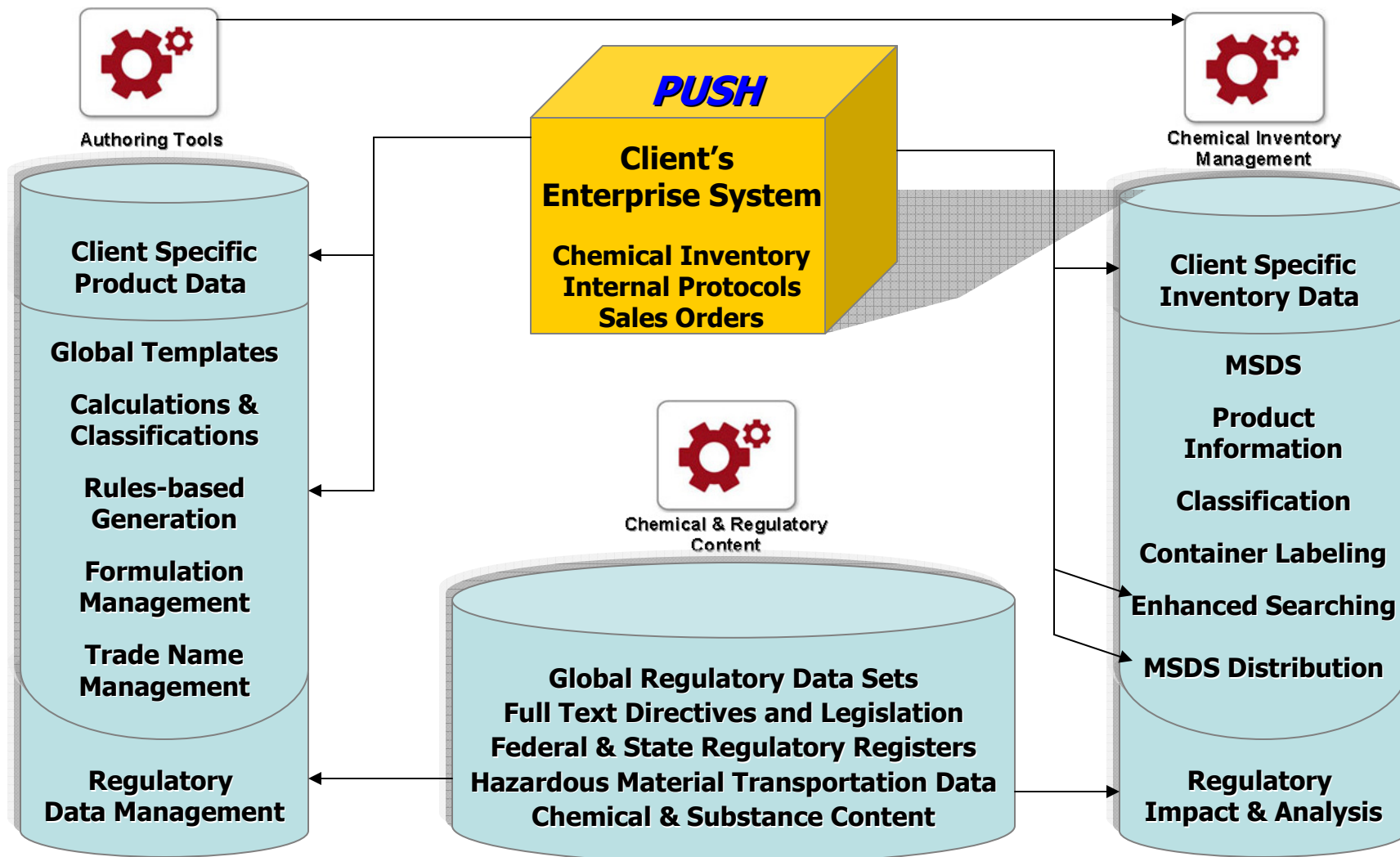
- Regulatory Information
  - Workplace & Community Safety
  - Environmental Impact
  - Transportation
  - Global Inventories
- Substance, Raw Material and Product Data
  - Chemical and Physical Properties
  - Chemical hazard classifications
  - Exposure standards and regulations
  - Tox, Ecotox, and Biomedical effects
  - Safety and handling information
- Organizational Data
  - Inventory of hazardous materials
  - Quantity and usage data

# EH&S Solution Options

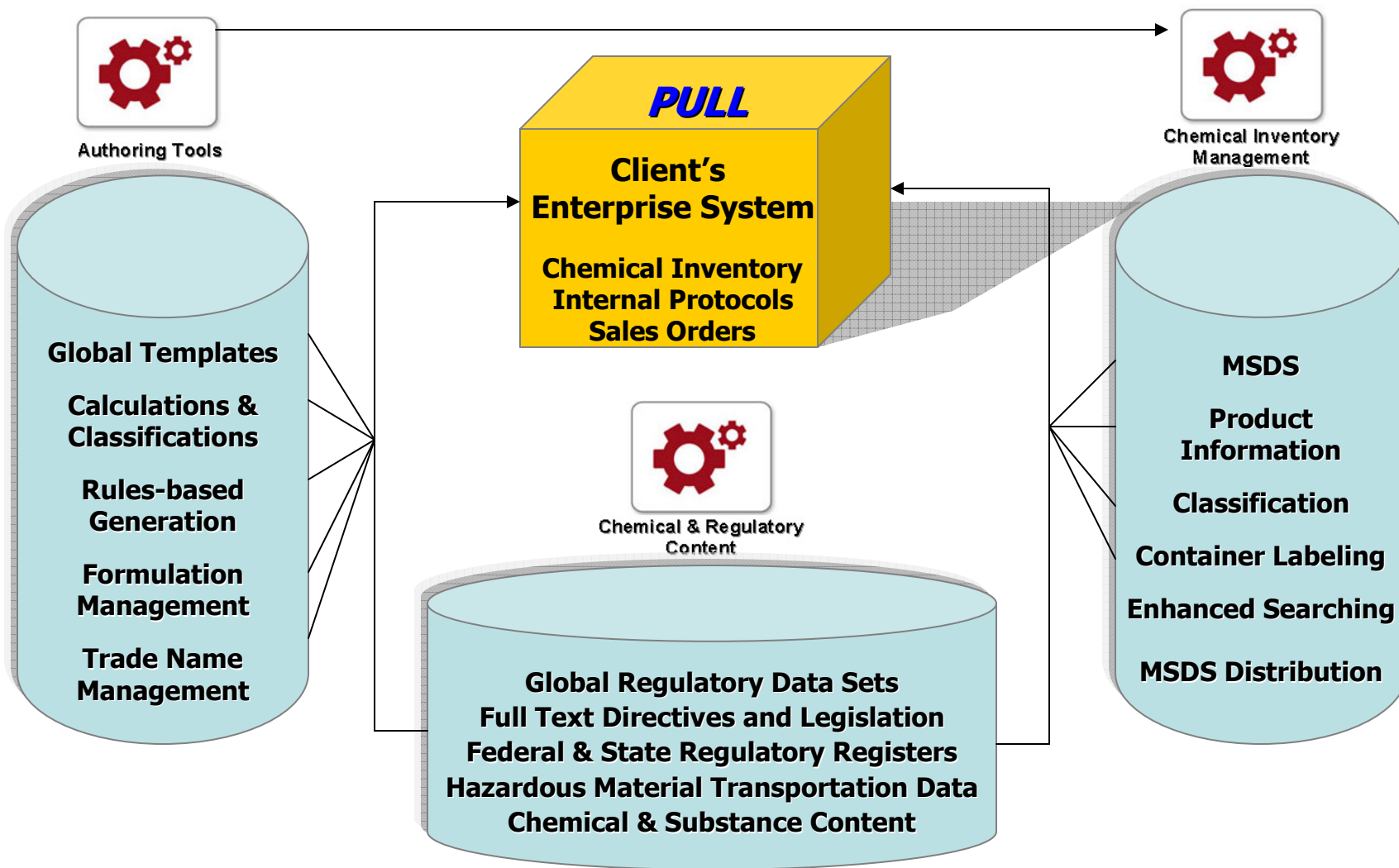


- **Application Software**
  - Installed as stand alone program (inside)
  - Enterprise integration
  - Web-accessible solution (outside)
- **Information Databases**
  - Web-hosted, with enabled integration (PUSH)
  - Enterprise data feed (PULL)
- **Service & Support**
  - Implementation & training
  - Updates and information renewal
  - Alerts and notifications
  - Back office support
  - 24-7-365 hotline support
  - Technical, regulatory consultation

# Web Hosted Integration



# Enterprise Integration



# Authoring Tools

- Specific Features & Requirements to Consider:
- Global Templates
- Authoritative Phrase & Glossary Library
- GHS Classification and Labeling
- Transportation Classification
- Other Assessments and Regulatory Analysis
- Country-specific Rules-sets / Rules Creation Capabilities
- Formulation Management
- Trade Name Management
- Integration Considerations:
- Is it advantageous for your MSDS authoring platform to interface or be integrated with existing organizational information and business process?
- Is broad integration supported?

# Regulatory & Chemical Content

- Specific Features & Requirements to Consider
- Global Regulatory Lists and Inventories
- Full Text Access and Searchability
- Transportation Classification and Labeling Data
- Substance-level hazard data
- GHS Tools
- Risk & Safety Phrases
- Integration Considerations:
- Is data fed directly into EH&S modules of ERP platforms?
- Is data integrated into stand alone MSDS-based applications?

# Chemical Inventory & MSDS Mgmt



- Specific Features & Requirements to Consider
- Site-specific Inventory Management and Maintenance
- Access to Manufacturer-original MSDS (current & archived)
- Product Information Access
- Container Labeling
- Regulatory Reporting
- Agency Research (local, state, federal)
- Integrated Regulatory Content
- Custom List Generation
- Chemical Approval Workflow
- Integration Considerations:
- Import and Export of Inventory Data
- Cross-reference with Product Identifiers
- Integrated Regulated CAS# Lists
- Links to Applicable Regulatory Text

# Getting Started

- Define and document your EH&S information management requirements
- Identify Stakeholder roles in the information management chain
- Evaluate your EH&S data and solution options
  - Internally developed and managed
  - Targeted outsourcing opportunities
- Build a high-level transition map from as-is to the Life Cycle/Supply Chain management model
- Stakeholder Summit
  - Gain acceptance and support
  - Prioritize objectives
- Develop CBA/ROI & and draft implementation plan

# Common Misconceptions

- One Size Fits All
- Cheaper is Better
  - If you've seen one outsource solution, you've seen 'em all
  - The only difference in outsource providers is their price
- Solution components must be purchased and activated simultaneously
- Outsource solutions eliminate the need for
  - IT Support (critical to the vendor approval process and during many implementation phases)
  - Back Office & Administrative Support
    - Included in outsource solution
    - Billed transactionally
  - Decision Making (not no, but Heck NO)

# Final Thoughts

- Awareness of “hidden” risks is the starting point
- Hidden risk impacts on competitive positioning can be equally important as absolute impacts
- A quantitative risk and risk reduction analysis can help senior managers make decisions
- The regulatory landscape becoming increasingly complex and data-driven
- Well-managed tools and processes enabling access to critical information that spans the ENTIRE chemical life cycle are critical

Thank You  
Questions?