

# *Environmental Risk Management*

*“The Catalyst for Sustainability  
and Business Success”*

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- Founder and President of Myers Env. Consulting, LLC
- Senior Advisor to Founder and Charter Member of Pine Bluff Env. Associates
- 45+ years of experience in engineering, env. operations & reg. compliance, executive business management, environmental risk, acquisition/divestitures, env. remediation & sustainable innovation
- Private Industry, Consulting and Insurance
- Specialize in environmental excellence, liability management and ESG strategies for business success for multinational companies

## ***Overriding Objectives:***

- 1) “... environmental excellence and business success are NOT mutually exclusive...”***
  
- 2) “... environmental problem-solving is a risk management process...”***

***(there is not enough money to solve all of the environmental problems we face!)***



# ***Look at Environmental Problems through a Risk Management “Lens”***

# What is Risk?

“...the probability or threat of damage, injury, liability or loss or other negative occurrence caused by external or internal vulnerabilities AND which may be neutralized through pre-meditated action...”

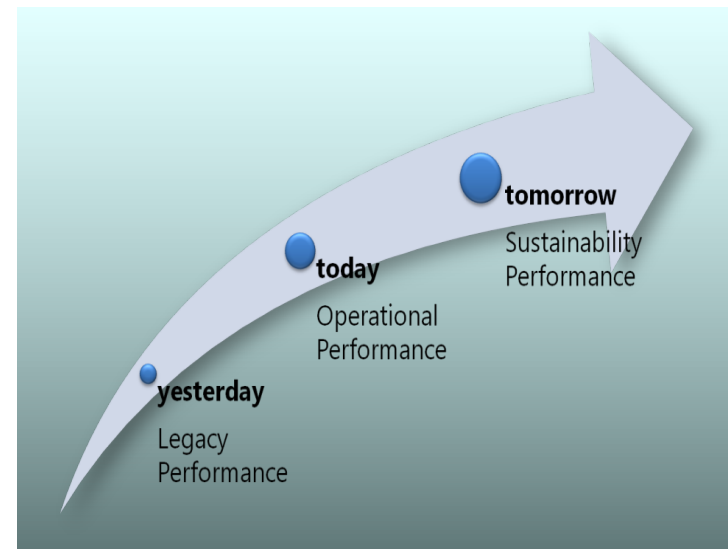
Source: *BusinessDictionary.com*

# What is Risk?

- Risk is uncertainty... not adversity
  - Outcomes are **not known** in advance
  - Risk is a function of the **likelihood** of loss & the **severity** of the loss
  - Risk is a function of **the peril, hazard, and the exposure**
- ✓ **RECOGNIZE, ANALYZE, MEASURE, PRIORITIZE**

## Uncertainty is Also a Function of Time...

- ✓ Issues, trends and events affect capital investment and deployment of resources.
- ✓ Business will respond by its decisions, resource allocation and transactional activity.



**CAPITAL FLOWS ONLY WHEN RISK IS MANAGED**

## What is Risk Management?

*... the organized and systematic **process** of identifying, quantifying and **prioritizing risks** for action and **developing a risk reduction plan** that follows an “eliminate, manage or transfer” hierarchy...*



## Turning Risks into Opportunities...

### Challenges:

- Intense competition
- Increased regulation and enforcement
- Greater public scrutiny
- Global drivers- e.g., labor, energy, raw materials
- Customer preferences
- Financial volatility
- Tort Litigation



### Opportunities:

- Competitive advantage
- Greater financial leverage
- Reduced liability
- Operational efficiency
- Reduced cycle time
- Greater transparency
- Greater stakeholder value
- **“Available risk capacity”**

*Corporate management is looking for better ways to manage risk!*

- Business transparency and governance (ESG)
- Changes to accounting and technical standards
- Changed political climate- new laws and regs
- Increased coverage by rating agencies and investor groups (Socially Responsible Investing)
- Increased shareholder petitions and lawsuits
- Intervention by government- Congress, SEC

## The Benefits of a Risk Management Process

- **Focuses** on various risks- physical, strategic, operational, reputational, regulatory, and financial risks
- Shared knowledge and strategy maximizing compliance and **reducing the risk footprint**
- **Accountability** is explicit and can be monitored
- Improves **allocation** of resources
- Identifies what **risk management process** to use and when

***Result-*** an effective business process with continuous monitoring to reduce the impact of risk



# ***Environmental Risk***

## Environmental Risk- Why it's important...

“...the chance of injury, damage or loss caused by an environmental exposure...”

- Greater uncertainty = Greater overall risk
- Greater stress on resources
- Reduces the funds available from cash flow
- Increases cash flow volatility (earnings)
- Increases the cost of capital

Conclusion:  
Environmental risks can directly decrease a firm's valuation

## And Because....

- Environmental exposures are more pervasive than believed.
- Assessing environmental risk requires a systematic technical evaluation.
- Third party risks could have the biggest impact.

Environmental Risk Assessment should be a core element of the overall company's risk management program.

# The Strategic Environmental Risk Assessment Process

① Identify Environmental Risks and Exposures

② Establish risk threshold for the business

③ Define the risk severity and frequency criteria

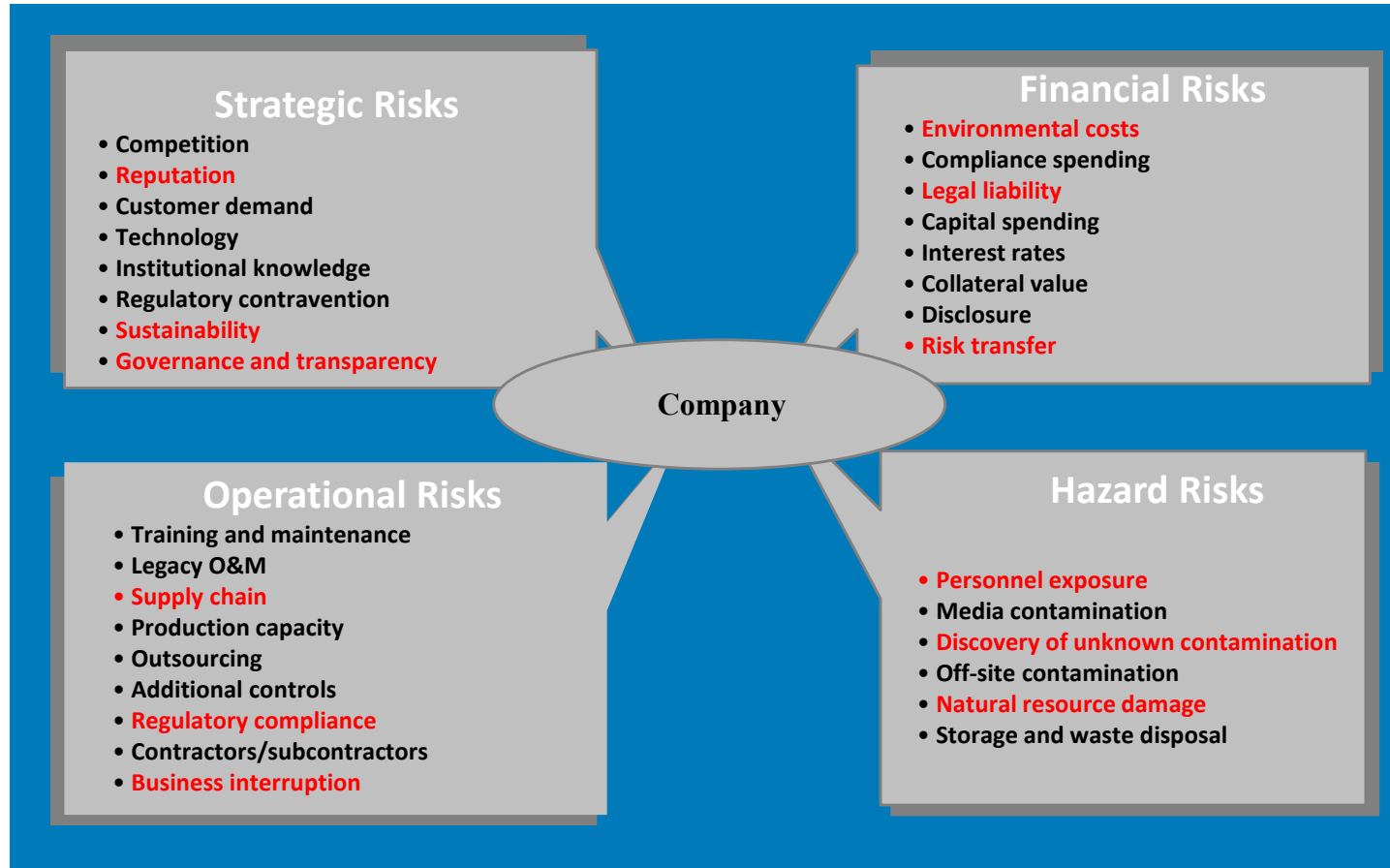
④ Evaluate each environmental impact for severity and frequency

⑤ Develop the risk map for all env. exposures

⑥ Define and execute the risk management plan based on the results

⑦ Compare the risk footprint to the risk threshold- "available risk capacity"

# Types of Environmental Risks





## Establishing the “Risk Threshold”

- How much risk can I retain before it negatively affects the business, division and/or company? (per occurrence/aggregate)
- How will I define risk tolerance measurement criteria? (% of budget? assets? earnings? revenue?)
- What risk management techniques will I consider for risks exceeding the threshold
  - Elimination/avoidance?
  - Mitigation?
  - Contractual transfer?
  - Insurance?

# “The Risk Map”

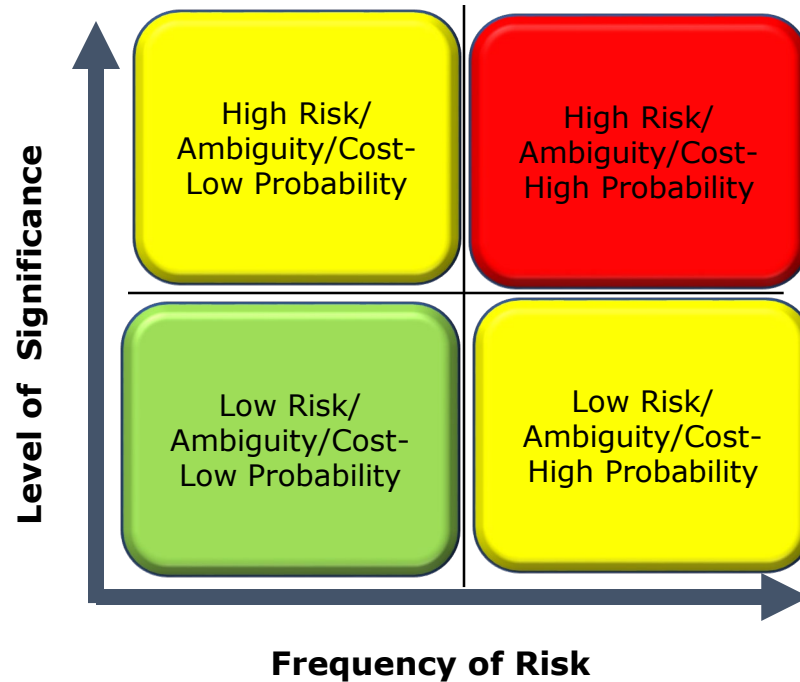
## KEY PARAMETERS:

Time

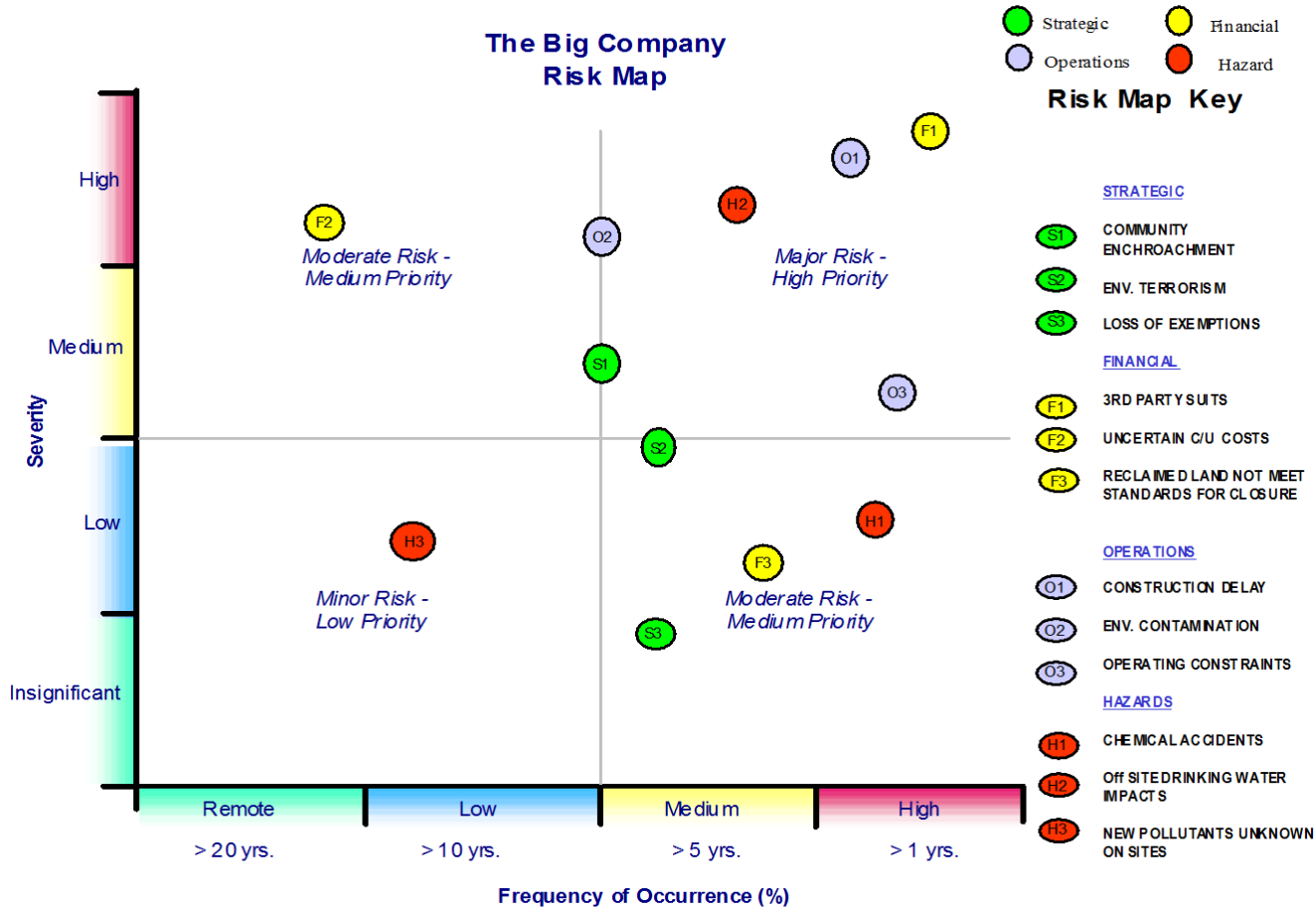
Probability/Likelihood

Significance

Risk vs. Consequence



# Develop the Risk Map





## Risk Management Actions



✓ **Avoidance:**

*don't take the risk in the first place*

✓ **Elimination:**

*implement engineering solution*

✓ **Mitigation:**

*reduce the exposure, loss control*

✓ **Transfer via contract:**

*to another party*

✓ **Transfer via insurance:**

*to an insurance company & retain some*



# Risk Management Actions Based on Certainty



## **Certainty ⇒ Risk Elimination (Quantification)**

- 1) Remediation of a refinery using an approved remedial action plan
- 2) A secondary containment system to prevent releases
- 3) Emission control systems to reduce air and water discharges

## **Some Certainty ⇒ Risk Mitigation (Loss control)**

- 1) Environmental management systems
- 2) Acquisition/Divestiture due diligence
- 3) Regulatory compliance programs- monitoring, audit findings, NOV's
- 4) Emergency response procedures
- 5) Energy efficiency and conservation

## **Little Certainty ⇒ Risk Transfer (Underwrite)**

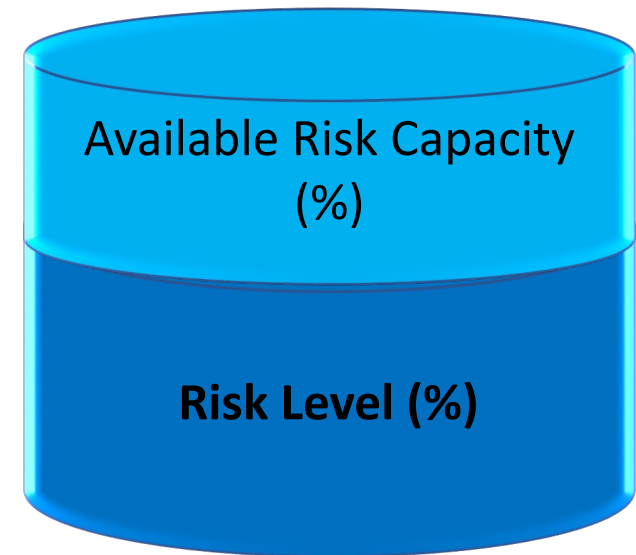
- 1) Legislative and regulatory changes
- 2) Disposal at non-owned sites
- 3) Unknown operational releases
- 4) Cross-boundary impacts and toxic tort



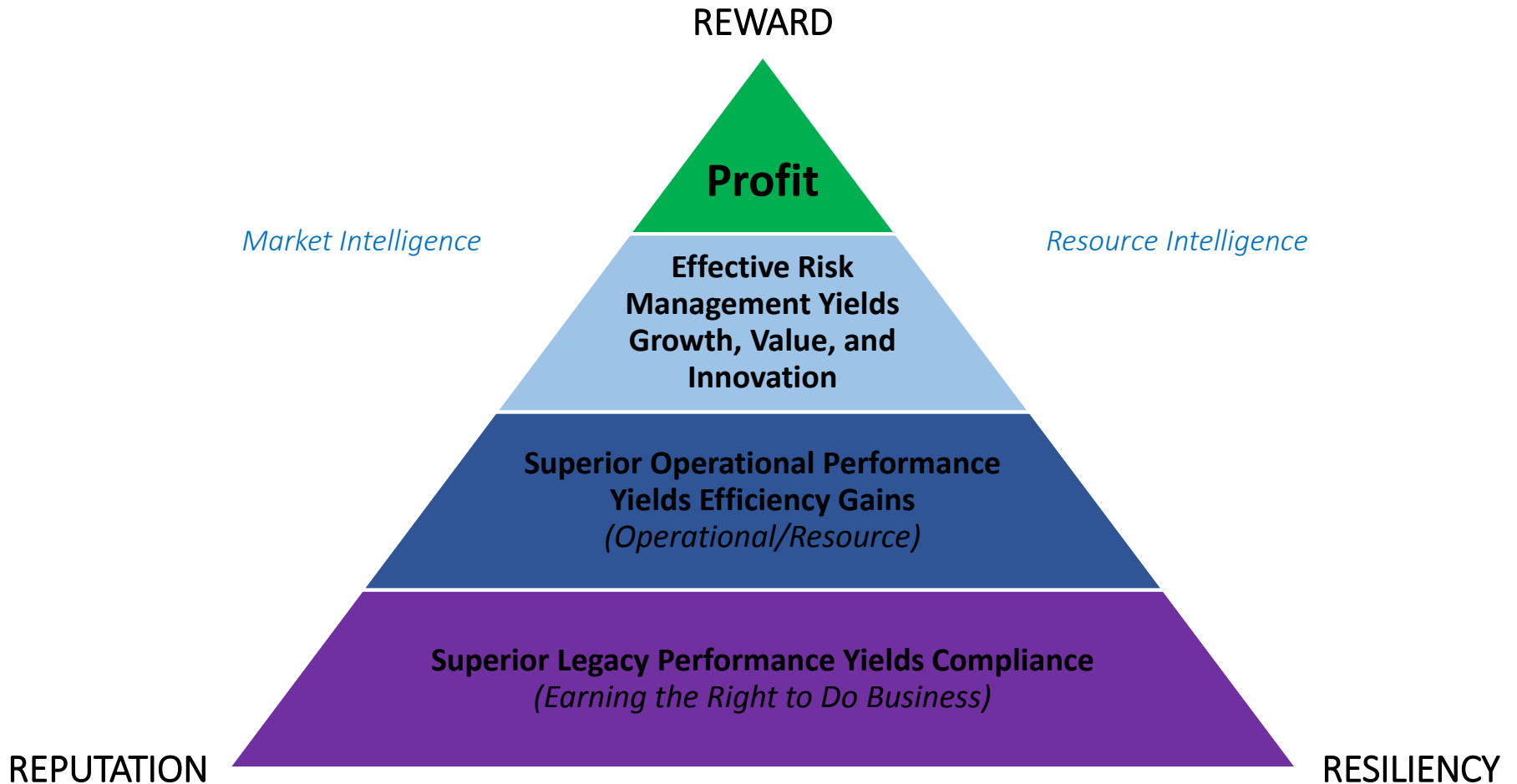
# *The “Hidden Gem”...*

- ✓ Environmental risk management can lead to a **“common language”** in valuing environmental performance
- ✓ A business’s **capital investment** follows sound risk management—prioritizes spending, cost control

**“AVAILABLE RISK CAPACITY” WITH IMPROVED ENVIRONMENTAL PERFORMANCE ALLOWS CONTROLLED SYSTEMIC GROWTH**



# Business Success Through Integrated Performance!



“competitive advantage through sustainable innovative practices”



# ***Future Environmental Risks and the Link to Sustainability***

## Sustainability can be a Risk Management Approach

*What sustainability means to those in the board room:*

*“Sustainability increases shareholder value by capitalizing on the inherent opportunity presented by economic, environmental and social developments.”*

*“Sustainability provides another lens by which to view the world, emerging markets, and existing businesses; a lens that allows one to assess the trade-offs and benefits of different approaches”*

- ✓ **Climate Change Risk**- building resiliency
- ✓ **Energy**- sources, pricing, emissions... conversion to electric vs. oil
- ✓ **Stakeholder Involvement- ESG Investing/Env. Accounting**- customers, communities, shareholders, citizens
- ✓ **Water Supply**- quantity, quality, pharmaceuticals and biologicals
- ✓ **Sediment and Ecological Issues**- natural resource impacts

*Use technical , legal and management skills and resources to advise companies on environmental risks to the enterprise!*

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***Thank You!***

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