



# **ENTERPRISE RISK MANAGEMENT AN OVERVIEW**

November 2011

# Overview

- Overview of Enterprise Risk Management (ERM)
- Risk Assessment Process
  - Identifying Business Risks
  - Consideration of Impact and Likelihood
  - Soliciting Input
  - Risk Ratings/Results
  - Risk Assessment Updates

# Why Is There So Much Interest in ERM?

- Lessons learned from recent market and industry issues
- Impact of unforeseen events can be significant
- Organizations becoming increasingly complex
- Sarbanes-Oxley
- Regulatory initiatives

# What is ERM?

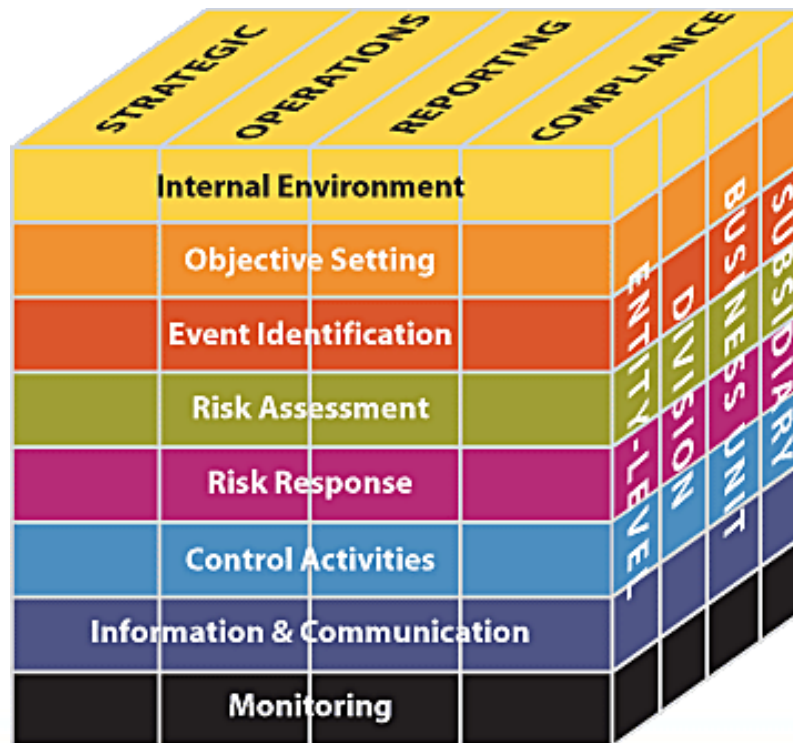
- A structured, consistent, and continuous process across the whole organization for:
  - Identifying
  - Assessing
  - Deciding on responses to
  - Reporting on opportunities and threats that affect the achievement of its objectives

# Protivity's Survey Results Major Challenges - Top 10

- Achieving true customer loyalty
- Managing supply chain risks and rising commodity costs
- Managing increasingly complex privacy and information security issues
- Managing regulatory change
- Attracting, retaining and developing top talent
- Improving business performance to enhance and sustain competitiveness
- Adjusting to changing geopolitical dynamics
- Capitalizing on the pickup in mergers and acquisitions (M&A) and realizing value
- Improving information for decision-making by focusing on data management and analytics
- Increasing the focus on enterprise risk management (ERM) as risk profiles change

# What is ERM?

*Enterprise Risk Management is a process, effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risks to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives.*



# What are these ERM Activities

Internal  
Environment

Risk focus, Boards, Executive team

Objective Setting

Company goals, Division objectives, Risk appetite

Event Identification

Influencing factors, Triggers, Risks vs. Opportunities

Risk Assessment

Specific consideration, linkage with events, Likelihood, Impact

# What are these ERM Activities

Risk Response

Prioritization, Response, Assessment, Tolerance

Control Activities

Detective, Preventive, Entity Wide, Information systems

Information and  
Communication

Communication of risks, polices, controls,  
responsibilities, accountability

Monitoring

Ongoing monitoring, assessment, verification, deficiencies

# Why ERM?

- Taking time out of busy days to think about what can go wrong
- Being proactive
- Reaching out to all levels
- Linkage of objectives to risks
- Focus on critical risk
- Assessment of procedures and linkage to risks
- Fewer surprises or crises
- Accountability
- Company and individual success
- Board communications and support
- More informed risk-taking and decision-making

# Who's Responsible?

- Varies by entity
  - Typically Board has ultimate responsibility
  - Audit Committee often has oversight
  - Internal Risk Committee/Team

# Risk Assessment Process

# Risk Assessment

*Risk assessment is the identification and analysis of risks to the achievement of business objectives. It forms a basis for determining how risks should be managed.*

A Definition of Business Risk:

*The level of exposure to uncertainties that the business must understand and effectively manage as it achieves its objectives and creates value.*

- It is not just about threats;
- Risk is not about a single point estimate;
- Time frame is an important factor when evaluating risk;
- Exposure and uncertainty are important factors.

# Risk Assessment

The risk assessment process should include consideration of key risks to achieving the entity's objectives across all areas of the organization (strategic, operational, reporting, and compliance).

Typically, the focus is on inherent risk, without consideration of controls in place.



# Identifying Business Risk

- Where do you devote considerable internal effort in order to control?
- Which areas always have budget/AFE issues?
- What do you spend the most time discussing in management team meetings?
- What keeps you up at night?
- What areas receive considerable management focus?
- Where have you devoted significant resources?
- What areas always are being redirected/refocused?
- What is the critical areas in your company?
- What are the regulators most interested in?
- What would you not want on the front page of the newspaper?
- What would bankrupt your company?
- What would cause the Board to replace the management team?
- What is impeding growth?
- What do your competitors do better?

# ERM Approach

- Management level
  - Overall
  - By Division/Department
  - Compilation process
  - Executive/Management prioritization
- Audit Committee/Board presentation

## Exercise

- You are the new CFO at a privately held Louisiana oil and gas entity
- The CEO and Board are discussing several opportunities
  - Going public to major acquisitions to expanding internationally
- The CEO and Board have tasked you with identifying risks that they should think about based on how company is today and if it were to move forward on some of these opportunities

## Risk Categories

- Identify areas that impact your company
  - Regulation
  - Shareholders
  - Competition
  - Key personnel
  - Financial viability
  - Ability to obtain capital
  - Ability to develop properties

# Consideration of Impact & Likelihood

- Impact
  - How big of an impact would this risk have if it were to occur?
  - Impact could be in many areas, including financial, reputational, human resources, etc.
- Likelihood
  - Consider how likely it is that this risk would actually occur given the inherent uncertainties in the business.
  - Do not consider the mitigating effects of existing internal controls.

# Consideration of Impact & Likelihood

Descriptor	General Business <b>Impact</b> Description
High	Very significant loss and ultimately could jeopardize the ability of the organization to continue without major changes. May require regulatory communication. Potential significant impact on customer/vendor relationships. Adverse impact to personnel. Could directly or indirectly impede business operations/ability to operation
Medium	Loss is moderate, could be significant. Potential impact on third parties/internal personnel. Could impact business operations/business activities.
Low	Minimal loss. May not require attention of management. Process changes likely not required in response to risk occurrence. No or minimal impact on operations/business activities.

Descriptor	General Business <b>Likelihood</b> Description
Probable	The future event or events are expected to occur in most circumstances.
Possible	The chance of the future event or events is more than remote but less than probable.
Remote	The future event or events may occur only in exceptional circumstances.

# Soliciting Input

- Define an approach/method
- Initiate executive team meeting
- Have departmental meetings
- Consider surveys
- Consider input of third parties

# Examples

- *Inability to obtain adequate cash flow*
- *Inability to comply with debt covenants*
- *Adverse impact of restrictive terms in debt agreements to acquire properties/related to capital expenditures*
- *Risk of volatility oil and gas prices and potential adverse affect our financial condition and results of operations.*
- *Adverse impact of weather*
- *Impairment risk if crude oil and natural gas prices decrease or our exploration efforts are unsuccessful*
- *Adverse impact of market conditions and impact on our ability to collect our accounts receivable depends on the continuing creditworthiness of our customers.*
- *Inability to replace reserves*
- *Inability to obtain additional capital/funding. If we fail to obtain additional capital, we may not be able to continue our operations or the development of these projects.*
- *Risk of dry hole/unsuccessful drilling - Our exploration and development activities may not be commercially successful.*
- *Risk of system failure*
- *IT security risks*

# Examples

- *Risk of material misstatement in the financial statements*
- *Risk of management override*
- *Risk of dependence on third party pipelines - To sell our natural gas and oil we depend upon the availability, proximity and capacity of natural gas gathering systems, pipelines and processing facilities, which are owned by third parties.*
- *Risk of inaccurate reserve estimates - The amount of oil and natural gas that we produce and the net cash flow that we receive from that production may differ materially from the amounts reflected in our reserve estimates.*
- *Risk of other property owners decisions - We cannot control the activities related to properties we do not operate.*
- *Adverse impact of environmental and regulatory risks - Compliance with environmental and other government regulations could be costly.*
- *Competition risk - The oil and gas industry is highly competitive and we face strong competition.*
- *Adverse impact to employees/safety risks - Offshore operations are hazardous, and the hazards are not fully insurable at commercially reasonable costs.*
- *Dependence/reliance on third party vendors - Shortages of supplies, equipment and personnel may adversely affect our operations.*

# Examples

- *Risk of IT failure/lack of disaster recovery planning*
- *Risk of significant fraud/theft*
- *Reliance/dependence on key personnel The loss of key personnel could adversely affect our ability to operate.*
- *Adverse impact of regulatory changes- New regulatory requirements and permitting procedures recently imposed by the BOEMRE could significantly delay our ability to obtain permits to drill new wells in offshore waters.*
- *Adverse impact of economy - We were adversely affected by a recession in the United States and global economy.*
- *Inability to obtain adequate insurance - Losses and liabilities from uninsured or underinsured drilling and operating activities could have a material adverse effect on our financial condition and operations.*
- *Risk of regulation - Climate change legislation or regulations restricting emissions of “greenhouse gases” could result in increased operating costs and reduced demand for the oil and natural gas that we produce.*
- *Income tax regulation changes - Certain U.S. federal income tax deductions currently available with respect to oil and gas exploration and development may be eliminated as a result of future legislation.*

# Risk Ratings/Results

Risks identified should be prioritized, but “*Where to draw the magic lines?*”

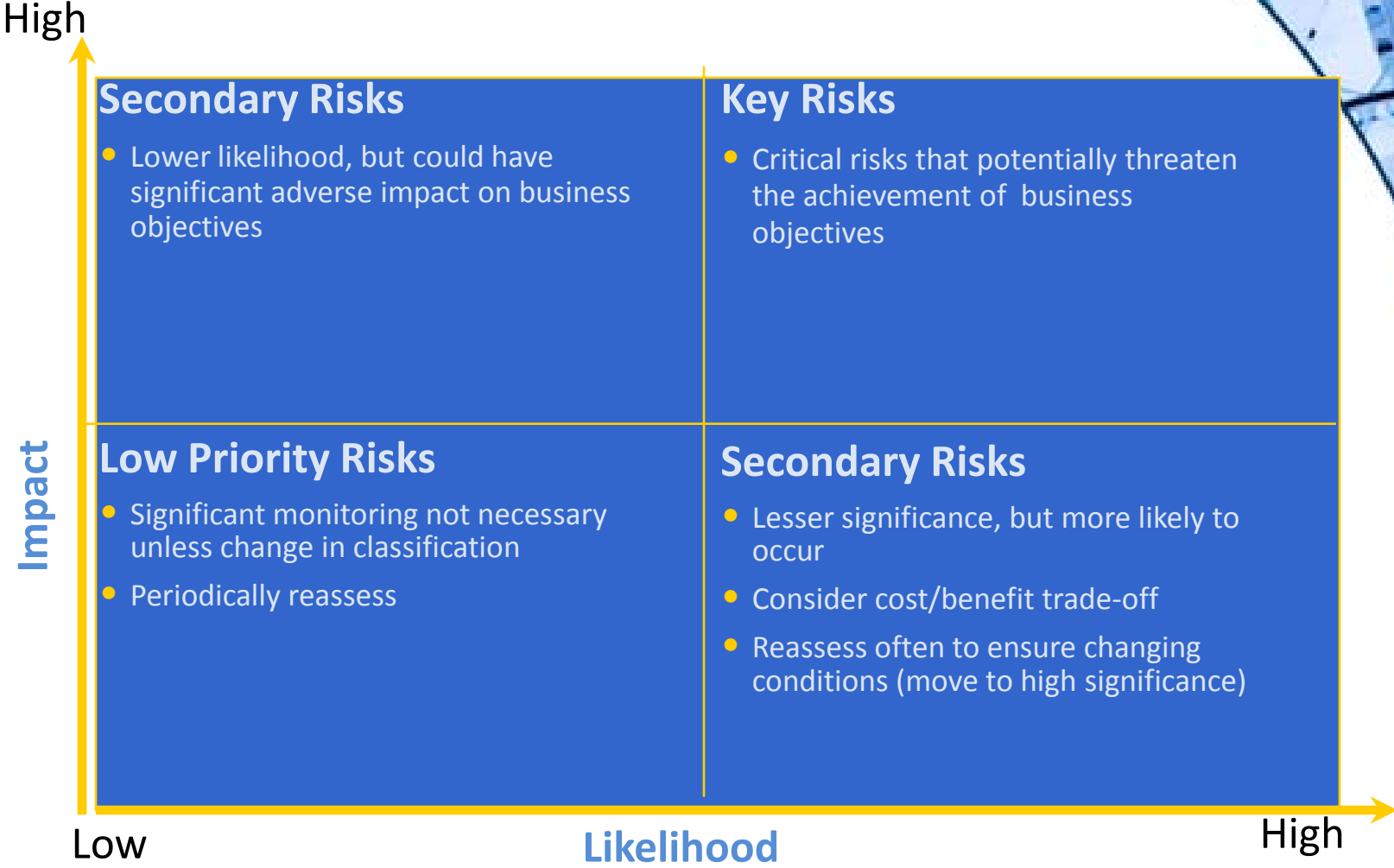
- Risks identified should be included on a risk grid for management review.
- Provide management the opportunity to observe the risk population and consider the impact and likelihood assigned by process owners.

*Evaluate:*

- Are there any surprises?
- Any additional consideration items?
  - Regulatory requirements
- Natural breaks in the risk rating results
- Management has to make the final call



# Risk Grid: Interpreting the Results



# Residual Risk

*Residual Risk is the risk that remains after consideration of internal controls in place that limit risk*

# Examples with Controls

- *Some risks are areas financial personnel can control/mitigate*
  - *Risk of material misstatement in the financial statements*
  - *Risk of management override*
  - *Risk of inappropriate journal entries*
    - *Controls include:*
      - *Established policies and procedures*
      - *External audit/Internal audit function*
      - *Requiring documented approvals/verifications*
      - *Establishing authority levels*
- *Some risks are areas operational personnel can control/mitigate*
  - *Adverse impact to employees/safety risks - Offshore operations are hazardous.*
    - *Controls include:*
      - *Safety programs/training*
      - *Safety awards*
      - *Insurance coverage*
  - *Dependence/reliance on third party vendors*
    - *Controls include vendor contracts and management programs, vendor audits, bid requirements*

# Examples with Controls

- *Some risks are inherent and ongoing monitoring/discussions/focus is critical*
  - *Risk of dependence on third party pipelines - To sell our natural gas and oil we depend upon the availability, proximity and capacity of natural gas gathering systems, pipelines and processing facilities, which are owned by third parties.*
  - *Risk of inaccurate reserve estimates - The amount of oil and natural gas that we produce and the net cash flow that we receive from that production may differ materially from the amounts reflected in our reserve estimates.*
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# Sustaining the Process

- Ideally updated quarterly, at least annually
- At least once a year have formal meeting with all key personnel involved
- Challenge risks and challenge completeness of list





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