



GLOBAL  
**ENTERPRISE RISK MANAGEMENT**  
SURVEY '10





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# INTRODUCTION

As the world's leading risk advisor and insurance broker, Aon is proud to provide clients with superior service and thoughtful insights supported by the highest quality risk management data contributed by leading risk professionals across the globe.

One of the benefits of Aon's unmatched global network is our ability to leverage our size and scope to create the industry's most comprehensive data reports, like this 2010 Enterprise Risk Management Survey. Through Aon Analytics, we provide clients with the latest business intelligence to enable more informed and fact-based decision making regarding risk and risk management.

This report is based on survey data collected in the third quarter of 2009 and captures the perspectives of principal risk professionals from leading organizations around the world. Through all of the survey findings, one theme is clear: the path to enterprise risk management maturity requires a careful balance between corporate vision, stakeholder commitment and risk philosophy.

Staying fully-informed and up-to-date with the latest industry trends is the best way to remain competitive and relevant in evolving global markets. This survey report reveals how organizations view themselves against Aon's five-stage ERM maturity model and highlights nine hallmarks of advanced risk management practitioners.

If you have any comments or questions about the survey, or wish to discuss the findings further, please contact your Aon account manager or visit [www.aon.com](http://www.aon.com).

Best regards,



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AON SITUATION ROOM



AON GLOBAL RISK INSIGHT PLATFORM





## EXECUTIVE SUMMARY

The 2010 Enterprise Risk Management (ERM) Survey was conducted during the third quarter of 2009 as a follow up to Aon's inaugural Enterprise Risk Management Survey conducted in 2007. Uncertainty surrounding the global economy has significantly increased since the previous survey, and an awareness of the need to manage and leverage risk has never been higher. How do or will you answer key internal and external stakeholders' questions such as: What are our top risks? How is the organization's risk profile changing? Which business lines bring the most risk? What is the potential financial impact of key risks? What is our risk appetite and tolerance? Have we allocated our resources the right way to manage key risks? Do employees understand their risk management roles? How is risk incorporated into strategy development?

The study was designed to show the extent to which ERM has been successfully implemented across organizations globally; the effect ERM has had on harmonizing organizational needs, culture and stakeholder requirements; and how ERM is being used proactively to balance risk, opportunity and value.

Aon's five-stage ERM maturity model has been used to help organizations benchmark their progress in driving value through ERM. Survey respondents were asked to identify their rankings among the model definitions, and the resulting data uncovers the nine hallmarks of top-performing enterprise risk management programs. The 2010 survey also indicates a distinct paradigm shift as ERM continues to evolve to an accepted and required process that provides immediate value in today's global economy, and Aon's new ERM maturity model has been redesigned to reflect this change. Appendix A includes an ERM maturity self assessment enabling managers to assess their organization's ERM maturity level.

Many of this year's respondents are now past the basic stages of ERM program development, and overall ERM maturity has improved since the 2007 survey. Fifty-five percent of this year's respondents describe themselves at the "Defined" or "Operational" level, meaning that they have policies and techniques in place to identify, measure, monitor and manage some risk components; this represents a healthy 20 point increase over the 2007 level. The number of respondents who have matured to the "Advanced" level since 2007 has more than doubled from 3% to 7%, and

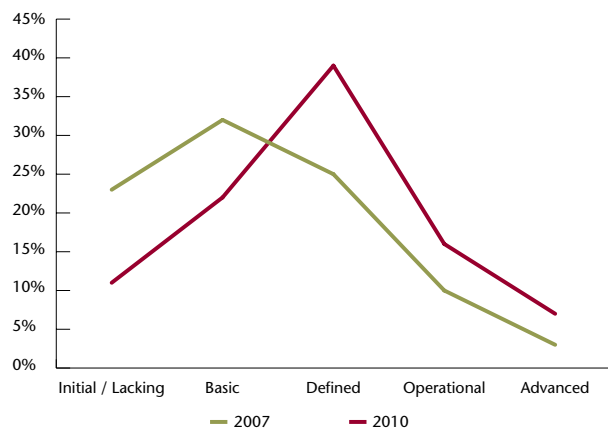
respondents in this stage of maturity report they now have dynamic ERM processes that allow adaptation to changing risks and opportunities (Figure 1).

Respondents indicate that the primary drivers for investment in ERM are improving governance and transparency, adopting best practices, and improving performance and decision making. The number of organizations seeking improved performance and decision making with ERM has risen dramatically since the 2007 survey.

Of course it is not surprising that survey respondents continue to focus on deriving value from their ERM investment. It is therefore encouraging that organizations in the more mature stages of ERM report that they are able to drive significant value through ERM in areas such as enhancing shareholder value, optimizing / reducing total cost of risk, strengthening business resiliency and increasing operational efficiency. This is promising in light of the financial challenges that many of the organizations have faced since the last survey.

Figure 1

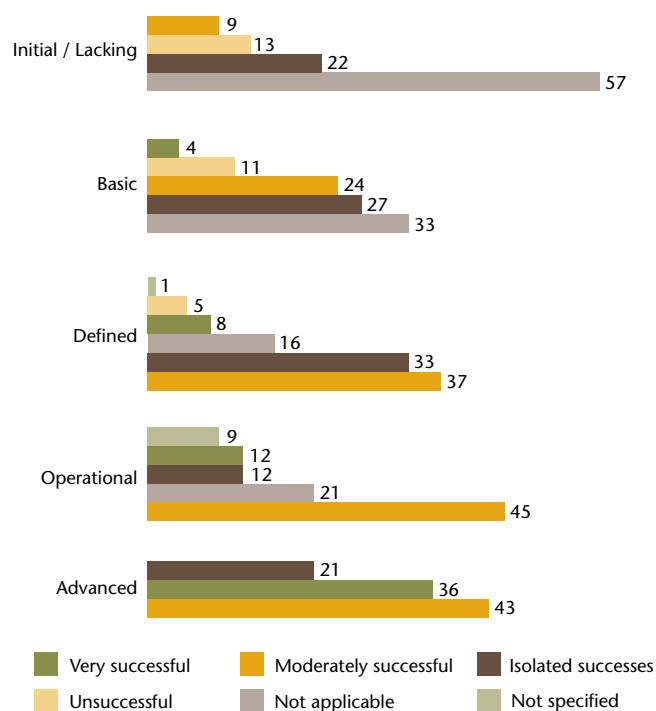
### Growth in ERM Program Maturity Levels



The primary drivers for maturity in ERM programs include improved performance, enhanced risk governance and the integration of known risk management best practices—which all link directly to enhancing shareholder value (Figure 2). Survey respondents report that the impact of ERM on an organization's value increases significantly as ERM programs mature.

Figure 2

Success of ERM Program in Enhancing Shareholder Value (%)



Finding ways to demonstrate the value from ERM helps build understanding and momentum for further investment in the approach. Immediate value can result from improved efficiency as existing risk-related activities are aligned into a coherent ERM framework or from short-term improvements in how risk management resources are allocated against high-priority risks. Longer term value can be found in the year-on-year improvement in risk understanding and “readiness”, including alignment of risk appetite with the resources used to manage risk across the organization. In the big picture, ERM will help manage and improve cost (of debt, credit, insurance, and the like) and opportunity (through enhanced governance, reputation and decision making).

In addition to the survey results, the following six organizations were interviewed to get first-hand accounts of their experiences using enterprise risk management strategies:

**AZ Electronic Materials:** Developing a global ERM culture that imparts customer confidence (*see the complete story on page 35*)

**Clariant International:** Using ERM as a performance and accountability tool (*see the complete story on page 36*)

**Eli Lilly:** Leading the industry toward ERM supply chain modeling (*see the complete story on page 37*)

**Origin Energy:** Translating robust risk systems into market and investor confidence (*see the complete story on page 38*)

**Phoenix Park Gas Processors Ltd:** Combining leading safety practices and ERM to support industry excellence (*see the complete story on page 39*)

**Pirelli Group:** Using ERM to manage its tradition and reputation and create value for its shareholders (*see the complete story on page 41*)

Each has met and overcome roadblocks on their ERM journeys. And collectively, they illustrate the varying experiences of advanced enterprise risk management.

This year's responses also reveal the best practices of an advanced ERM program and the work that is required to progress successfully through the five-stage maturity process (Figure 3). It is clear from the survey findings that the ERM journey is organic in nature and unique for each organization; it cannot be completed with a cookie-cutter approach. The objective is to have ERM rooted in an organization's individual culture, management processes and strategic vision, leading to enhanced risk-based decision making. Advanced practitioners have honed this capability and are better positioned to capitalize on emerging opportunities.

An examination of the ERM journey reveals nine hallmarks of a successful ERM approach. These hallmarks are common among all ERM practitioners, regardless of size, industry, sector or region. Each hallmark is described based on survey findings with specific case study examples that illustrate practical suggestions for the ERM practitioner to leverage at any stage of the ERM maturity curve.

Figure 3

## Aon Enterprise Risk Management Maturity Model

Scale:		
1.	Initial/ Lacking	Component and associated activities are very limited in scope and may be implemented on an ad-hoc basis
2.	Basic	Limited capabilities to identify, assess, manage and monitor risks
3.	Defined	Sufficient capabilities to identify, measure, manage, report and monitor major risks; policies and techniques are defined and utilized (perhaps independently) across the organization
4.	Operational	Consistent ability to identify, measure, manage, report and monitor risks; consistent application of policies and techniques across the organization
5.	Advanced	Well-developed ability to identify, measure, manage and monitor risks across the organization; process is dynamic and able to adapt to changing risks and varying business cycles; explicit consideration of risk and risk management in management decisions

## THE HALLMARKS OF ADVANCED ENTERPRISE RISK MANAGEMENT

### 1. Board-level commitment to ERM as a critical framework for successful decision making and for driving value

Survey respondents with advanced ERM programs report strong board buy-in of their risk management efforts. Additionally, advanced practitioners are more likely to use risk-based information for board-level functions like strategic planning or mergers and acquisitions, and to use risk management to protect and enhance shareholder value. Of those in the advanced stages of ERM activity, 100% report their boards either significantly or entirely understand and support risk management activities. Only 4% of respondents in the early stages of ERM activity report the same levels of board support. Nearly all of the advanced organizations (92%) consider risk management information in their strategic planning, and 71% integrate risk management information in their merger and acquisition decisions. In contrast, none of the novice respondents use risk information for these decisions. Seventy-nine percent of the advanced organizations report success in using ERM to enhance shareholder value versus 9% of the newer practitioners.

**Aon expert advice:** Provide board members with ongoing information about risk management best practices and encourage an understanding of risk assessment as a visible aspect of business planning, operations and risk monitoring.

### 2. A dedicated risk executive in a senior level position who drives and facilitates the ERM process

Today, there is a movement toward appointing a senior level executive with the responsibility of risk oversight. Some organizations have created a Chief Risk Officer (CRO) position; in many others the role is held by the Chief Financial Officer or General Counsel. Regardless of the actual title, a successful “de facto” CRO has the support of the board, understands the strategic direction of the organization, is forthright in discussions with the board and the rest of the executive leadership team, has a broad view of the organization’s risks and opportunities, and can translate the ERM program into a meaningful context at every level of the organization.

The importance of an effective dedicated risk executive to the success of an organization’s ERM program is clear in the data. The most-cited barriers to ERM progress include lack of tangible benefits, senior management sponsorship, skills to embed ERM, a clear implementation plan and communication strategy—all of which can be linked back to executive leadership for risk.

**Aon expert advice:** The ERM leader’s title is less important than recognition of the individual’s role within the organization and the importance that is placed on risk management as a strategic tool.



### 3. An ERM culture that encourages full engagement and accountability at all levels of the organization

Increasingly, ERM is being seen as a core business practice with broad implications for strategy as well as day-to-day operations. There is a need to educate the board, leadership and employees at all levels as to what this means. While many organizations are considering how best to measure and report risk, few have directly tied risk management metrics to employee performance measures. Many organizations have been fairly successful in engaging senior management in the ERM process, but the same organizations report less success in engaging middle management effectively. Instituting clear accountabilities for risk is important in changing or creating a risk culture. While tailoring an ERM program to each organization's culture, processes and structure is important, only 15% of all respondents indicate that their ERM programs have been entirely adapted to suit their individual cultures, and only 33% of respondents have significantly adapted their programs to their cultures. Leveraging risk management to meet corporate objectives and integrating ERM into decision making processes are important indicators that risk management is being embedded in the culture of an organization.

**Aon expert advice:** Align risk assessments with business unit and functional objectives to promote thinking about risk from both operating and strategic perspectives. This will also encourage middle management to focus on risks that they can influence and control.

### 4. Engagement of all stakeholders in risk management strategy development and policy setting

More advanced ERM organizations have adopted collaborative techniques to understand risk and risk management options, which involve both internal and external stakeholders such as key customers and suppliers. This enables organizations to understand potential vulnerabilities and coordinate key risk management processes. The involvement of key stakeholders enhances the quality of information used in core decision processes such as strategic planning, mergers and acquisitions, and budgeting. While the data indicate there is still progress to be made for most respondents, organizations with mature ERM programs have successfully integrated risk-based information into their decision making processes. Governance and transparency, best practices, and improved performance and decision making are the primary drivers for implementing ERM, all of which are linked to strategy development and policy setting.

**Aon expert advice:** It is important to engage all key stakeholders in your ERM program. The owner of your next critical risk might be a plant manager at one of your vendor's facilities.

### 5. Transparency of risk communication

Engaging stakeholders in the risk management process includes a transparent exchange of information that supports effective strategy and management decisions. Internal and external stakeholders are requiring increased information about risk to support their own decisions regarding how to manage their risks while also understanding how risk across the value chain can affect business objectives and ultimately performance. Fifty-one percent of all survey respondents indicate they have been very successful in their efforts to achieve transparency of risk information. Fifty-one percent also report integrated risk information as a contributor to success in creating a cohesive culture. And 93% of the advanced practitioners engage stakeholders in developing risk information; 71% of this group also report success engaging and communicating with stakeholders in an effort to embed a risk culture within their organizations.

**Aon expert advice:** Customize risk reporting and communications to gather and deliver the right information to the right people at various levels of the business, internally and externally.

### 6. Integration of financial and operational risk information into decision making

Organizations that develop an understanding of risk across the enterprise, and at all levels, also develop a competitive advantage by aligning risk taking with strategic and operational plans. Successful ERM programs "fit" risk tools and processes into existing management practices. As organizations move up the ERM maturity scale, they rely less on intuition and incorporate both quantitative and qualitative data into their decision making. Fifty percent of advanced practitioners integrate quantifiable data, including industry benchmarks, for risk decisions at the enterprise level. This is good news since 55% of all respondents seek to enable informed risk-based decisions with their ERM programs.

**Aon expert advice:** Streamline data reporting by focusing on the most critical risks and decision points. Use a "risk dashboard" approach that delivers relevant information at various levels of the organization to support risk-based decision making.



## 7. Use of sophisticated quantification methods to understand risk and demonstrate added value through risk management

Organizations with mature ERM programs use a number of tools to leverage risk-based information to support decision making, particularly when they are working with risks that exhibit high volatility. Regardless of the type of risk, the goals are the same: understand risk, and ensure that risk management strategies are effective and add value to the organization. Organizations that demonstrate value from their risk management strategies over time will be in a better position to convince stakeholders that both the risks that the organization takes—and the risk management strategies it employs to manage those risks—are the right strategies. It should be clear to senior management which risks could prevent the achievement of objectives. These should be monitored closely, and management should intervene where appropriate. Protecting the value of the organization by monitoring risk and adjusting management strategies where needed maintains a fresh perspective on both risks and opportunities to add value over time.

Respondents indicate they utilize a variety of quantification tools to measure and evaluate both risk and the value of their ERM efforts. The integration of more sophisticated quantification techniques increases with the maturity level as does reported success in improving operational efficiencies, enhancing business resiliency and optimizing / reducing total cost of risk, all of which are good indicators of the value of ERM.

**Aon expert advice:** Use quantification tools and techniques to measure the value of risk mitigation options including financial (such as insurance) and operational (such as supply chain management) risk mitigation tools.

## 8. Identification of new and emerging risks using internal data as well as information from external providers

Clients, suppliers, external news feeds and shop floor employees all hold valuable information about risks on the horizon. The identification of new and emerging risks requires some degree of crystal-ball gazing and continual tweaking of what-if scenarios, and is one of the most difficult components of ERM. Companies that are successful in identifying hidden risks both internally and externally often cultivate risk management cultures that extend down to the employee level. The survey

indicates that organizations are achieving only mixed success putting this into practice. For organizations with advanced ERM programs, 93% engage stakeholders and 79% use internal data and knowledge. However only 36% of all respondents are using suppliers and customers as sources for information on risks on the horizon, 23% have seen success in the analysis of unexpected events, 12% do not have a method of identifying new and emerging risks, and many still find themselves triaging day-to-day crises rather than planning strategically.

**Aon expert advice:** Ensure that the board and the leadership team have set aside time at least once annually to consider both new and emerging risks in the context of the organization's strategic plan, operating plan, and external environment.

## 9. A move from focusing on risk avoidance and mitigation to leveraging risk and risk management options to extract value

The final judgment on the merit of ERM is whether it creates value for the shareholders. Companies that are mature in their ERM efforts have moved beyond problem identification into opportunity recognition, requiring themselves to weigh the benefit and likelihood of achieving growth against potential risk impact and cost of mitigation. These organizations are better positioned to manage foreseeable and unpredictable events, giving them a strong competitive advantage in the marketplace. Sixty-five percent of all survey respondents report at least isolated success in using risk management to protect or enhance shareholder value, and the level of success improves considerably as organizations progress along the maturity scale. As organizations become better at ERM, the benefits increase substantially, and ERM becomes a powerfully competitive tool.

**Aon expert advice:** Encourage colleagues to think about risk in terms of competitive advantage—the better you understand your risk landscape, the more you can leverage opportunities.

The 2010 Enterprise Risk Management Survey was conducted during July and August 2009 and is based on 201 responses.



## RESPONDENT PROFILE

The 2010 Enterprise Risk Management Survey was conducted during July and August 2009 and is based on 201 responses.

Figure 4

### Survey Respondents Domicile by Region

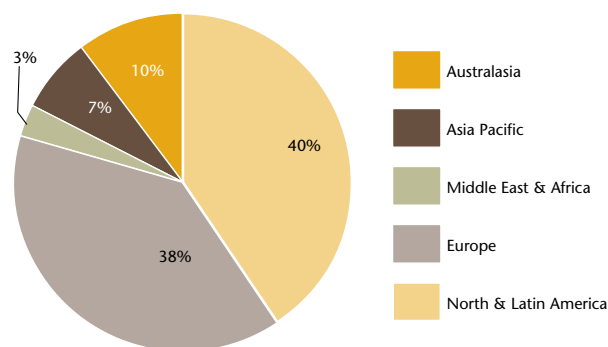


Figure 5

### Survey Respondents by Revenue

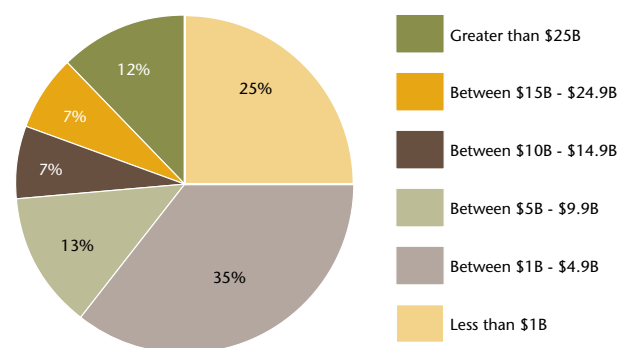
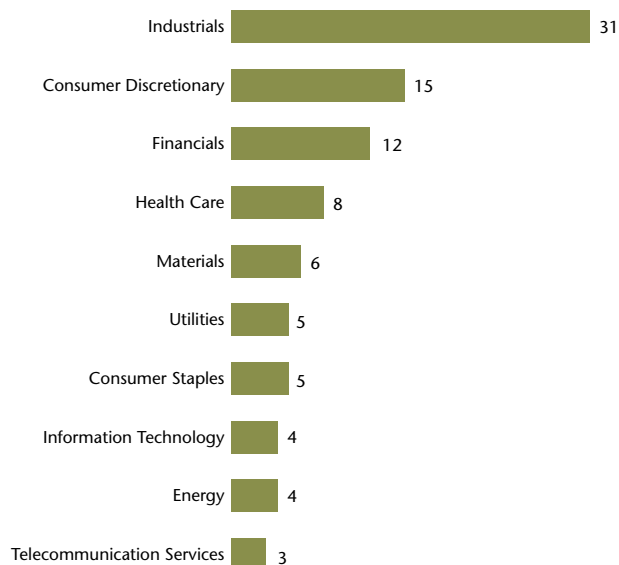


Figure 6

### Survey Respondents by Industry (%)



# HALLMARK #1

## Board-level commitment to ERM as a critical framework for successful decision making and for driving value

### BACKGROUND

Board-level commitment to an enterprise risk management initiative is absolutely critical to achieving the highest value from ERM efforts and investment. Not only does board buy-in establish priorities and sanction resource allocation, it is a key factor in establishing and maintaining an appropriate risk culture and embedding ERM throughout the chain of command.

Best-practice organizations ensure that boards and management have defined risk management responsibilities and delegations of authority. Responsibility for risk management, including internal and external reporting of risk, should be embedded into the organization's governance structures and discussions, with emphasis at the board level on:

- Confirming the organization's risk management objectives and strategies.
- Approving the organization's risk appetite and tolerances.
- Confirming the organization's risk profile and approving management's approach for responding to the most critical enterprise-level risks.
- Overseeing the organization's risk governance framework and ensuring that risk management roles, responsibilities and expectations are defined at the senior management level.

Boards that are successful at ERM have established approaches for managing the workload associated with risk governance—including setting expectations for the quality and timeliness of risk reporting from management. When a board is mired in details regarding risk and risk management, decision making can be slow and ineffective. Best-practice boards are able to find an appropriate balance between oversight of risk and risk management (through effective dialogue with and delegation to management) and the board's practical use of risk information to enhance decision making.

Effective ERM approaches help organizations answer the big-picture questions, such as: What are the biggest risks to the organization? How are we going to manage these risks? How do we know that we've identified the right risks? Have we invested the right resources, time and attention? Answering these questions requires allocation of resources—in both manpower and funding—as well as adequate time and attention from both the board and management to ensure understanding and responsive decision making. Without senior-level investment and support, the work of “risk management” may easily be perceived as a bureaucratic exercise that fails to achieve significant value for the organization—while often absorbing resources to gather and process data that may or may not be used by management or the board.

### SUPPORTING EVIDENCE

Having a board that clearly grasps the value of and utilizes good risk management practices is the hallmark of top-tier practitioners, but getting there is a function of time and commitment.

- Of the survey respondents considered to be at the advanced ERM maturity stage, 100% indicate that their boards understand and support the objectives of ERM versus only 4% of the organizations in the early stages of risk management programs (Figure 7).
- As organizations move up the maturity scale, they report that their boards are more apt to grasp, support and utilize ERM concepts.

Figure 7

### ERM Objectives Understood and Supported Entirely or Significantly (%)

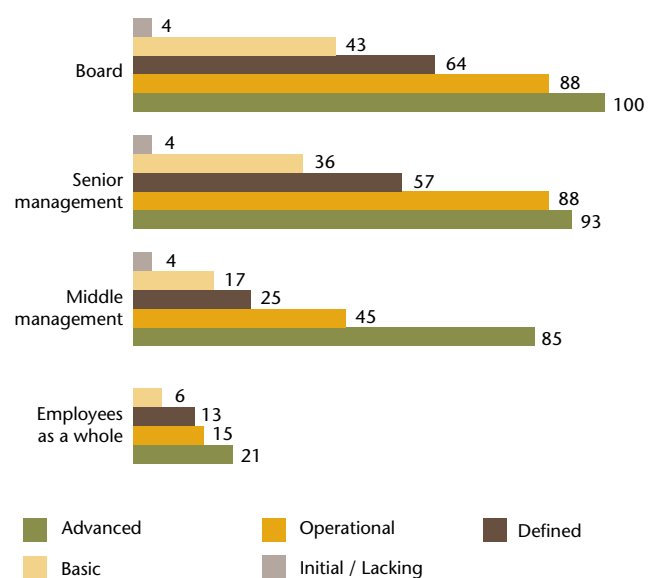
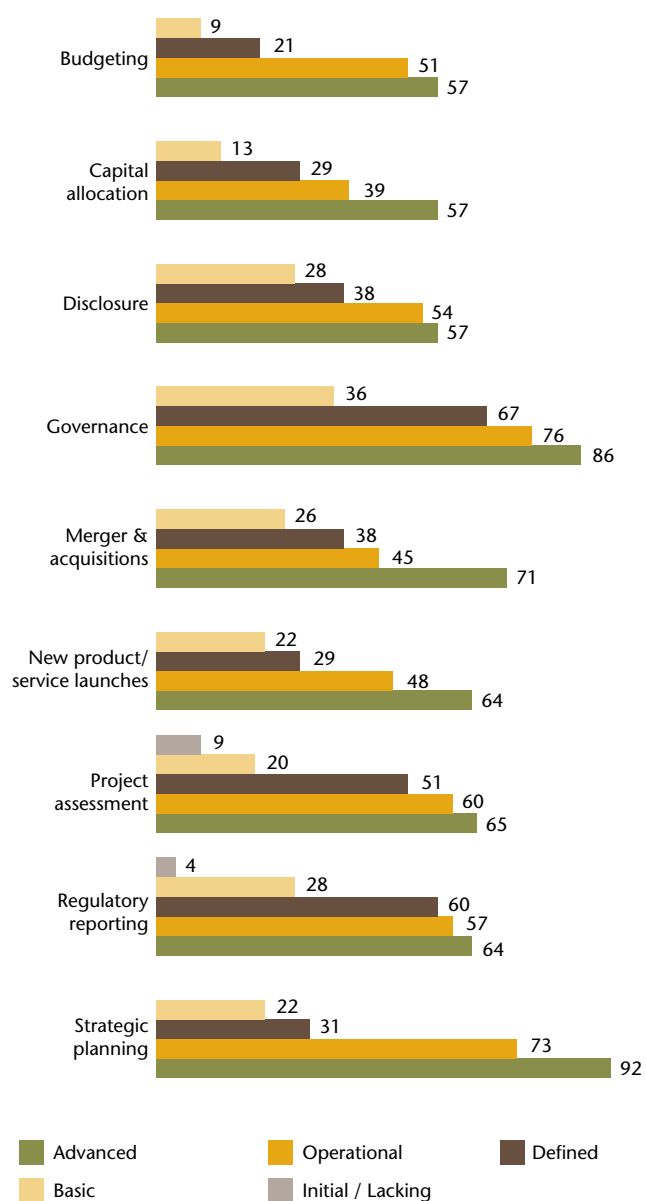


Figure 8

### Integration of Risk-based Information into Business Processes (%)



Advanced ERM practitioners report significant success in applying ERM strategies to board-level responsibilities.

- 92% of the advanced ERM organizations use risk management in their strategic planning processes.
- 71% use ERM for their mergers and acquisitions decision making.
- 57% use risk management for capital allocation.

Since the amount of capital available for allocation is finite, and especially constrained in the current economic environment, organizations with more mature ERM programs are better able to manage this process. In contrast, organizations in the early stages of the process report that they do not use ERM at all in their strategic planning, capital allocation, or mergers and acquisitions due diligence (Figure 8). These results are not surprising as it takes time and commitment to fully integrate risk into board-level discussions.

Additional data support the conclusion that organizations in advanced stages of ERM maturity leverage risk management to create a more robust and vital organization.

- 79% have been very or moderately successful at protecting and enhancing shareholder value.
- 86% report that they have been very or moderately successful in improving corporate governance.
- 79% have been very or moderately successful at facilitating change.

## CLIENT EXPERIENCE EXCERPTS

Taking a problem-solving approach as well as having the backing of the executive committee helped pharmaceutical giant Eli Lilly promote a positive and thorough introduction of ERM into the organization. “We moved from a compliance initiative to more of a strategic initiative when we found that there was tremendous value in the process beyond the reporting requirements,” explained Mark Saltsgaver, Eli Lilly’s Director of Corporate Risk Management. *(See the complete story on page 37.)*

## AON EXPERT ADVICE FOR BEST-PRACTICE STRATEGIES

- Provide board members with ongoing information about risk management best-practices.
- Encourage an understanding of risk assessment as a visible aspect of business planning, operations and risk monitoring.
- Include ERM in the formal corporate governance framework as a documented practice, with clear lines of responsibility and authority at board and management levels.





## HALLMARK #2

A dedicated risk executive in a senior level position who drives and facilitates the ERM process

### BACKGROUND

Historically, as ERM evolved from traditional risk management, the responsibility of ERM was housed in an organization's audit, finance, legal or insurance function. The focus of the ERM program, the types of tools and approaches that were used to initiate the ERM work and management's expectations of results tended to be influenced by the discipline that sponsored it. For example, ERM initiatives that grew out of the finance discipline were often focused initially on financial risk management and reporting. ERM initiatives originating in audit tended to be compliance driven, with a focus on adherence to existing risk controls as well as understanding of how risk could affect the organization's regulatory responsibilities and initiatives. Risks that were not well understood outside of the particular sponsoring function were sometimes missed or downplayed. An effective ERM program requires coordinated and cross functional approaches to identifying, understanding and managing risk and should achieve an appropriate balance of risk understanding across all corporate functions and operations.

Today, there is a movement toward appointing a senior level executive with the responsibility of risk oversight. In many organizations, this role is held by a member of the C-suite, such as the Chief Financial Officer (CFO) or General Counsel. Some organizations (particularly in certain sectors such as finance and energy) have created a senior level position in charge of risk—the Chief Risk Officer (CRO). Regardless of the actual title, a successful de facto CRO has the support of the board, understands the strategic direction of the organization, is forthright in discussions with the board and the rest of the executive leadership team, has a broad view of the organization's risks and opportunities, and can position the ERM program in a meaningful context at every level of the organization.

### SUPPORTING EVIDENCE

The CFO position is most often cited by survey respondents as the leader of their ERM efforts on a global basis, overwhelmingly so for those with advanced ERM operations (50%). Differences do exist by sector: 42% of respondents in financial services report that the CRO is the ERM sponsor. This has remained unchanged from 2007. However, 39% of the 2010 respondents in the initial stages of enterprise risk management report they do not have an identified ERM champion (Figure 9).

Figure 9

#### Prime Sponsor of ERM (%)



How important is an effective dedicated risk executive (whether CRO or other position) to the success of an organization's ERM program? The most-cited barriers to ERM are lack of tangible benefits (40%), lack of skills to embed ERM (34%), lack of senior management sponsorship (31%), lack of a clear implementation plan (28%), and failure to communicate the case for change (27%)—all of which can be linked back to executive leadership for risk (Figure 10). Anecdotal evidence suggests that ERM programs falter or fail without clear executive leadership.

Figure 10

## ERM Implementation Barriers

Lack of tangible benefits	40%
Lack of skills and capability to embed ERM business	34%
Lack of senior management sponsorship	31%
Unclear ownership and responsibility for implementation	30%
Lack of a clear implementation plan	28%
Failure to clearly communicate the business case for change	27%
Lack of capital to invest in risk management	24%
Lack of access to key people	12%
Other	7%

Survey data further indicate that the job of the CRO is not without its challenges. When asked about their success in facilitating change within their organizations, very few respondents indicate overwhelming victory. Only 9% of all respondents (29% at the advanced stages of ERM) report they have been very successful in facilitating change. Fifty percent of the most experienced ERM practitioners report moderate success. And although the CRO should be tasked with assigning risk responsibility, 30% of all respondents indicate that unclear ownership and responsibility for risks remain barriers to successful implementation of their ERM programs. For more experienced practitioners, however, that number falls to 7%.

## CLIENT EXPERIENCE EXCERPTS

For a company like world-renowned Pirelli Group that has an illustrious history to uphold, the challenge for its risk director has been to convince the traditionalists that ERM is not just a fad but a new approach to decision making that should become second-nature. According to Jorge Luzzi, Pirelli's Group Risk Management Director, "People across the entire company started to think differently, to see if there was another way of thinking that wasn't just a check-list approach to decision making." (*See the complete story on page 41.*)

## AON EXPERT ADVICE FOR BEST-PRACTICE STRATEGIES

- Appoint an executive-level leader responsible for driving ERM strategy and implementation—someone with a detailed understanding of the business and the ability to leverage risk information from a diverse set of sources.
- Consider having the risk function report directly to the board.
- The ERM leader's title is less important than recognition of the individual's position within the organization and the importance that is placed on risk management as a strategic tool.

## HALLMARK #3

An ERM culture that encourages full engagement and accountability at all levels of the organization

### BACKGROUND

Understanding of risk management differs widely from organization to organization, and within each organization, from silo to silo. In most organizations, there is a need for education regarding risk management best practices, capabilities and value to truly establish ERM as a corporate discipline; this is not unlike what the business community experienced in establishing or strengthening other corporate disciplines such as internal control, quality or compliance. Increasingly, risk management is being seen as a core business practice with broad implications for strategy as well as day-to-day operations. There is a need to educate the board, leadership and employees at all levels as to what this means, in terms of establishing an ERM program and achieving meaningful value from the ERM investment.

There continues to be a debate over the right approach to developing and maintaining risk management metrics and accountability in terms of how risk is reported and measured, how the metrics are defined, and how to incorporate the metrics into employee priorities and reviews. While many organizations are considering how best to measure and report risk, very few have directly tied risk management metrics to employee performance measures.

Building understanding and awareness of the value of ERM takes time. Often, it is most helpful to identify areas in which the organization has already established tools and processes to understand and manage risk—regardless of whether those tools and processes are identified as “risk management”. This provides the organization with an opportunity to leverage existing best practices in building an overall ERM framework while also encouraging engagement and accountability at all levels.

### SUPPORTING EVIDENCE

Companies have been fairly successful in engaging senior management in the ERM process, but less so for middle management (Figure 11).

- 57% of the respondents with advanced ERM programs report that senior management entirely understand the organization’s ERM objectives, and an additional 36% report their senior management significantly understand the objectives.
- Of organizations just beginning ERM programs, 48% report that senior management partially understands risk management objectives (Figure 12).
- Only 3% of all respondents report that senior management do not understand their ERM objectives at all.

Figure 11

#### Level of Understanding of ERM Objectives (%)

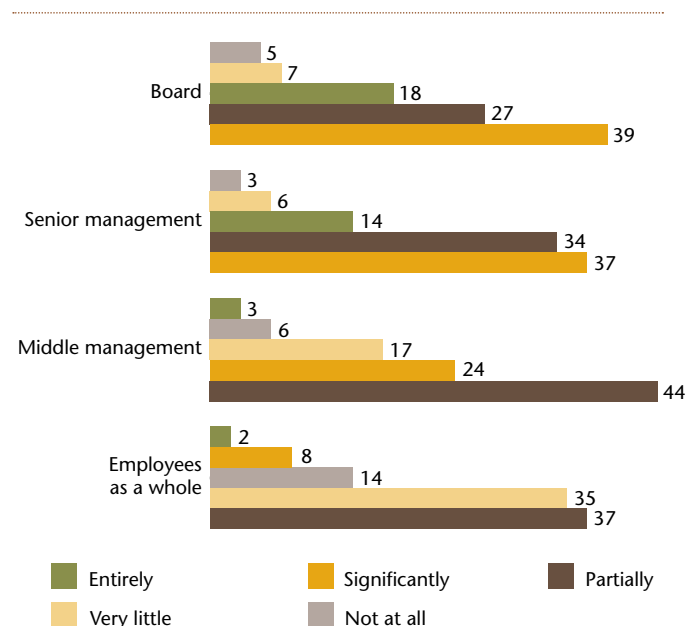
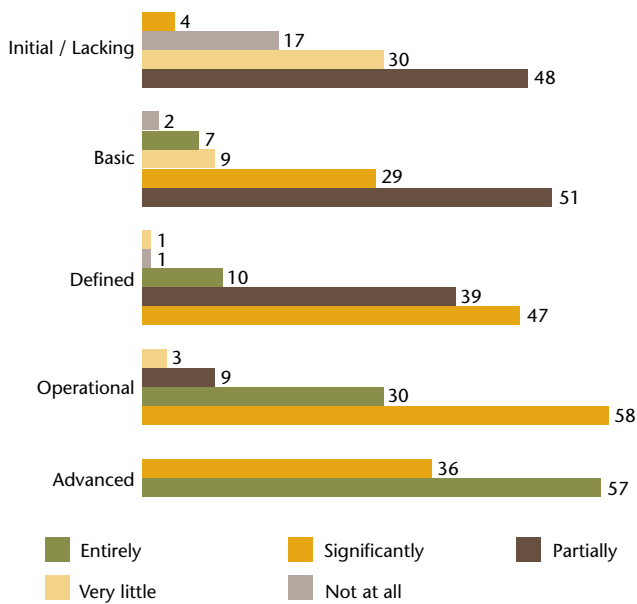


Figure 12

## Senior Management's Level of Understanding of ERM Objectives (%)



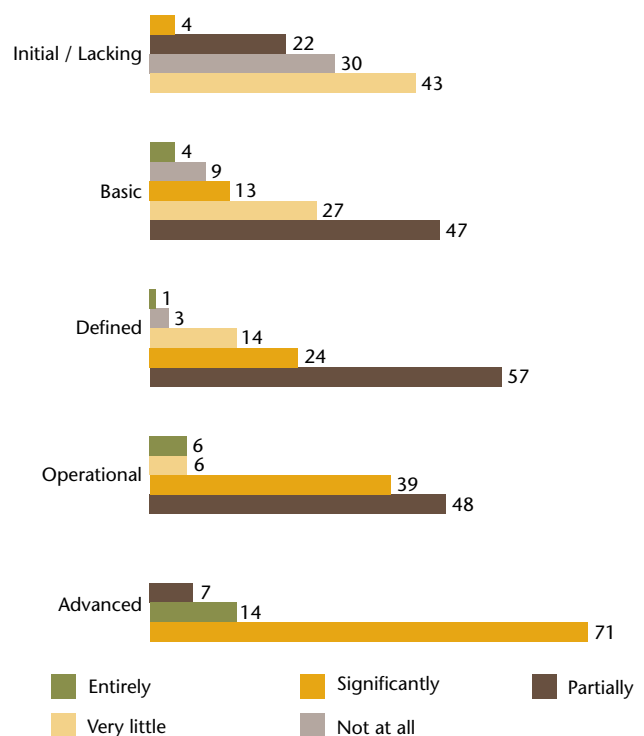
However, results are less positive relative to middle management levels (Figure 13).

- Only 14% of those with advanced programs report middle management *entirely* understand the objectives, although 71% report middle managers significantly understand.
- 43% of middle managers in organizations just beginning ERM programs have very little understanding of the objectives.

There is considerable progress to be made as ERM programs mature from initial implementation to incorporation as a day-to-day corporate discipline throughout the ranks.

Figure 13

## Middle Management's Level of Understanding of ERM Objectives (%)



Additionally, few organizations have seen success in meshing risk into their performance management processes—this linkage is important for driving desired behaviors and corporate culture.

- 23% of survey respondents report that they reward appropriate risk taking behaviors, or challenge inappropriate risk taking behaviors, in their performance management processes.
- While the success rates increase for organizations in the later stages of ERM maturity, 64% of advanced ERM practitioners still have not seen success in this area.

When asked what approaches have been successful in changing or creating a risk culture, 56% of all respondents report success instituting clear accountabilities for risk. Use of this technique grows with the ERM program maturity (Figure 14). Twenty-two percent of new ERM practitioners use this approach, and 71% of organizations with advanced ERM programs incorporate clear risk accountabilities into their operating plans and metrics.

Companies are able to drive the most value through ERM when it is tailored to each organization's culture, processes and structure, and many are taking advantage of this flexibility, with 48% of all respondents indicating that their ERM programs have been entirely or significantly adapted to suit their individual cultures (Figure 15). There is some variability by sector in this area. Seventy-nine percent of financial services organizations indicate they have entirely or significantly adapted their ERM programs to their cultures.

Leveraging risk management to meet corporate objectives provides an indicator that ERM has been successfully embedded into an organization's culture (Figure 16).

- 8% of all responding organizations report they are very successful in leveraging risk management to meet corporate objectives; 36% report moderate success and one third report only isolated success.
- However, the data also indicate that 93% of organizations with advanced ERM programs are moderately successful or very successful in using ERM to meet corporate objectives, providing further evidence that when ERM is embedded in an organization's culture, it helps drive value.

Integration of ERM into decision making processes is another important indication that risk management is being embedded in the culture of an organization. Thirty-four percent of all organizations report partial use of risk management tools for budgeting, 37% for capital allocation and 32% for project assessment (Figure 17).

Companies with advanced ERM programs report a substantial increase in the integration of ERM into decision making processes.

- 57% report utilizing ERM risk-based information significantly or very significantly in budgeting decisions as well as capital allocation decisions.
- 65% use ERM risk-based information in project assessments.
- 86% use ERM risk information in governance and 92% incorporate it into their strategic planning processes.

Figure 14

#### Success Ranking in Changing / Creating a Risk Culture: Clear Risk Accountabilities

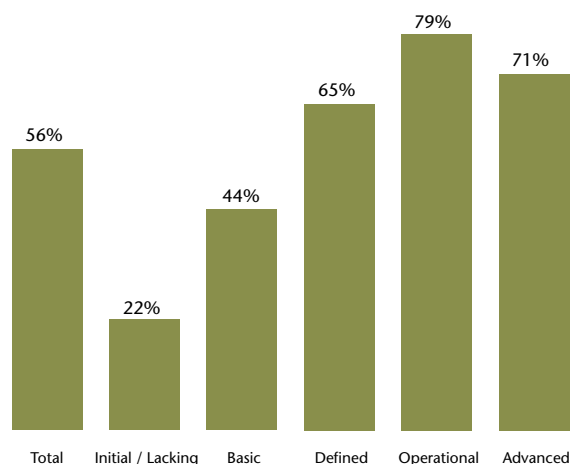


Figure 15

#### Extent Organizational Culture is Designed into ERM Approach

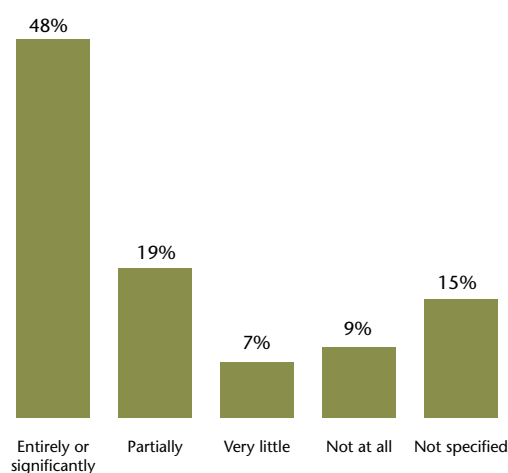




Figure 16

### ERM Program's Success in Helping to Meet Corporate Objectives

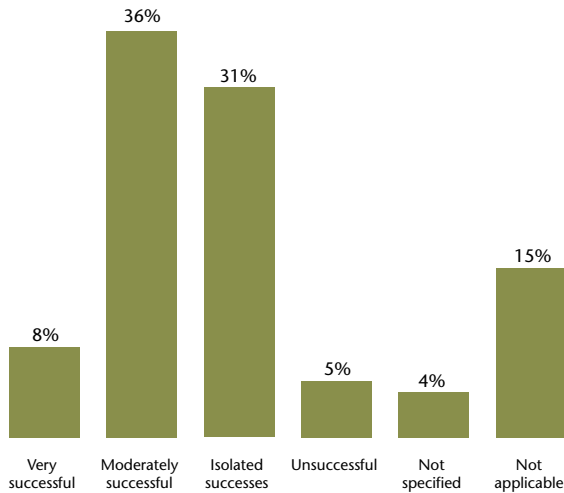
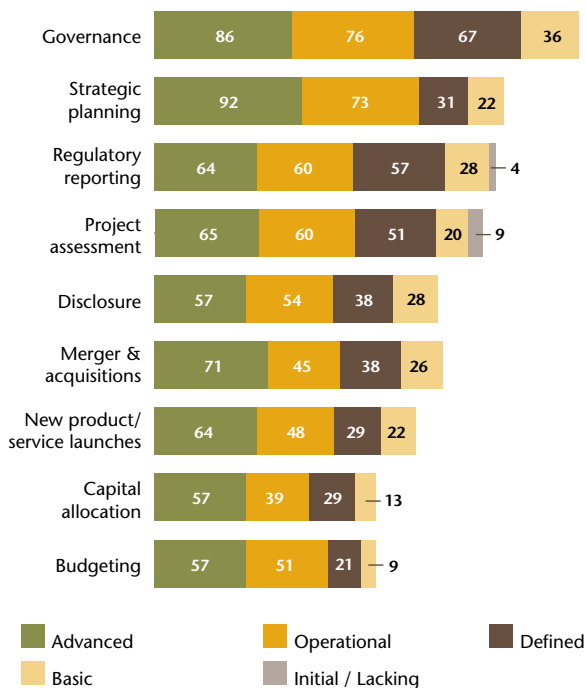


Figure 17

### Integration of Risk-based Information into Business Processes (%)



## CLIENT EXPERIENCE EXCERPTS

The concept of enterprise risk management was new to the country of Trinidad and Tobago when it was introduced at energy processor Phoenix Park. So the company took a “stepping stone” approach to implementing ERM best practices, introducing a few concepts at a time to build understanding and let the results highlight value over effort. This practical approach to ERM implementation showed respect for existing practices. Now, “risk” has become a mainstay word in daily conversations up and down the line of hierarchy. (See the complete story on page 39.)

## AON EXPERT ADVICE FOR BEST-PRACTICE STRATEGIES

Align risk assessments with business unit and functional objectives to promote thinking about risk from both operating and strategic perspectives; this will also encourage middle management to focus on risks that they can influence and control.

- Build risk thinking into corporate culture by integrating risk into existing decision making processes.
- Consider a well-executed pilot within a section of the enterprise (such as a business unit or process) to demonstrate the concrete value of an ERM program.
- Use existing business metrics to help all levels of the organization make better risk-based decisions.

## HALLMARK #4

### Engagement of stakeholders in risk management strategy development and policy setting

#### BACKGROUND

Companies in the early stages of ERM are often focused on compliance with external regulatory requirements and the need to meet immediate expectations from their boards, analysts, auditors and other stakeholders. In these cases, information regarding the organization's risk profile is generally communicated in one direction (up) and often used for a single purpose (to determine the state of the organization's risk management practices).

More advanced ERM organizations have adopted collaborative techniques to support cross-functional understanding of risk and risk management options. By establishing productive dialog with internal (and where appropriate, external) stakeholders to determine risks and opportunities, these organizations are able to develop consensus regarding risk management priorities as well as the metrics that will be used to both measure and monitor risk over time. Stakeholders at all levels (board, management and staff) are involved in identifying existing and emerging risks. This may include analysis of external partners such as customers and suppliers in order to identify business relationships that may have the most significant impact on the value of the organization. This enables organizations to understand potential vulnerabilities and coordinate key risk management processes as well as communicate the quality of its overall risk management program to key external stakeholders such as institutional investors, rating agencies, lending facilities and customers.

In addition, by establishing the ERM program throughout the organization so that risk-based information is gathered in a consistent manner, the organization also develops the capability and data to integrate risk management into core decision processes such as planning and budgeting.

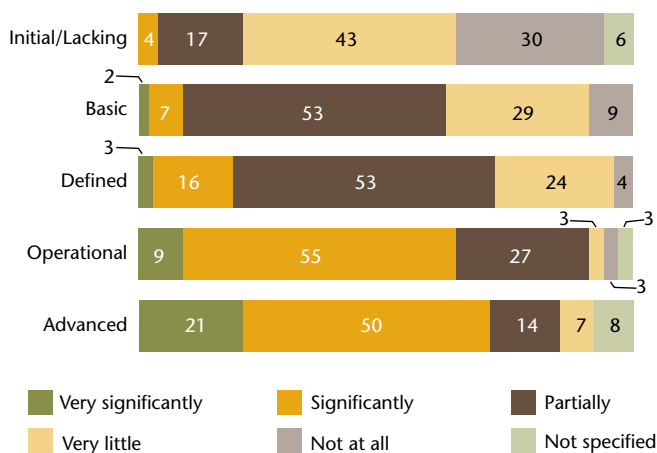
#### SUPPORTING EVIDENCE

The goal of stakeholder engagement in ERM is to enhance the quality of information used in decision making and strategic planning processes. The survey results indicate that there is still progress to be made for most respondents, as little has changed since the 2007 survey.

- 26% of all respondents report their ERM initiatives significantly or very significantly influence their overall strategic planning processes.
- The majority of respondents (41%) indicate that ERM only partially influences their strategic planning.
- As ERM programs mature, it is clear from the survey that ERM is integrated into strategic planning. ERM influences strategic planning either significantly or very significantly in 64% at the operational maturity stage and 71% at the advanced stage (Figure 18).

Figure 18

#### Influence of ERM on Strategic Planning (%)



Primary drivers for implementing ERM are linked to strategy development and policy setting at the corporate or enterprise level. When asked to indicate their primary ERM drivers, respondents most often selected governance and transparency, best practices, and improved performance and decision making. Other drivers include regulatory pressure, CEO impetus, rating agency requirements and stakeholder pressure. It is interesting to note that the number of organizations seeking improved performance and decision making with ERM has risen dramatically since the 2007 survey, from 39% to 49%, and fewer organizations are driven to ERM practices by peer or external stakeholder pressure, down from 16% in 2007 to 9% this year.

Fifty-five percent of all respondents indicate the goal for their ERM program is to incorporate risk-based information into management processes so that they can make more informed business decisions, which increases the likelihood of delivering on the organization's strategic plan. Seventy-one percent of mature ERM practitioners identify this as a goal. Additionally, 45% of all respondents want to integrate new functional approaches to risk management, pointing to a desire to engage internal stakeholders in risk strategies and decision making. However, the number of organizations selecting this as a key ERM objective is down significantly since the 2007 survey, from 55% to 45%.

In order to fully engage internal stakeholders, risk management must be an integral part of the corporate culture. To accomplish this, survey respondents point to a number of techniques that have been successful in developing an embedded risk culture (Figure 19).

- 45% of all respondents (and 79% of those in the advanced stages of their ERM programs) have found success by aligning risk strategies with other management decision and corporate governance processes that were already in place.
- Other techniques have been less useful. Twenty-three percent of the respondents indicate that training and awareness have contributed positively to embedding a risk culture. It is unclear if the training itself has been unsuccessful or if the lack of training programs is behind these low numbers.

Figure 19

#### Successful Techniques Used to Embed ERM in Corporate Culture

Risk assessment and analysis	60%
Internal relationship management and facilitation	51%
Risk reporting and governance	48%
Risk management strategy development and policy setting	46%
Stakeholder engagement and communication	46%
Alignment with other processes	45%
Assessments and decisions on risk mitigation	30%
Quantification and definition of risk appetite	23%
Analysis of unexpected events	23%
ERM awareness and training programs	23%
Evaluation of key vendor ERM programs	11%
Change and improvement program management	10%
Actuarial based quantification techniques	7%

## CLIENT EXPERIENCE EXCERPTS

For high-performance tire manufacturer Pirelli Group, the ERM objective was to show shareholders as well as the market that the company was a unified whole, working from the same roadmap, and maintaining its tradition of excellence while positioning itself in a changing world. "When you are able to think of risk as something positive, something that can be managed, then you are able to move from a defensive to an offensive position against the competition," according to Jorge Luzzi, Pirelli's Group Risk Management Director. *(See the complete story on page 41.)*

## AON EXPERT ADVICE FOR BEST-PRACTICE STRATEGIES

- Directly link the ERM program with strategic planning to deliver the maximum value for your ERM investment.
- Leverage your strategic partnerships to create a competitive advantage, actively working together to more effectively manage the risks that are associated with each relationship.
- It is important to engage all key stakeholders in your ERM program. The owner of your next critical risk may be a plant manager at one of your vendor's facilities.
- When communicating risks to stakeholders, align that risk information with core business objectives that are shared by both parties. If the same outcome is not desired, it is unlikely that the stakeholder will share the responsibility for risk mitigation.



# HALLMARK #5

## Transparency of risk communication

### BACKGROUND

Strategic information about risk and risk management opportunities can present a competitive advantage to organizations regardless of geography, size or sector. Increased expectations regarding risk disclosure often affect strategic stakeholder relationships. Internal and external stakeholders require increased risk information to help them manage their own vulnerabilities. Additionally, they seek to understand how risk across the value chain affects business objectives and ultimately performance.

Managing risk disclosures requires an understanding of what each group of stakeholders expects and how the information will be used. Internal stakeholders need to understand their roles in the process, as well as the anticipated outcomes. External stakeholders want to understand the types of risk taken by the organization, how risk will be governed, the relationship between risk and compliance (particularly in a regulatory context), and generally how risk will be managed at all levels of the organization. ERM provides an effective approach to gathering, assessing and disclosing the information required to create or maintain robust strategic partnerships with both suppliers and customers.

Regular communication of risk status and risk strategy is a key component of this maturity indicator. Communications with stakeholders, including information about best practices and lessons learned, will help the ERM program continue to “fit” with key management processes over time.

### SUPPORTING SURVEY DATA

Fifty-one percent of all survey respondents say that they have been very successful in their efforts to meet expectations regarding transparency of risk information, and for those with the most ERM experience, the number jumps to 86%. Similarly, 51% of all respondents report success with internal relationship management and facilitation, and 46% report success in their engagement and communication with external stakeholders. However, the responses from advanced ERM practitioners are unclear. Although the hallmark of a mature ERM program is full engagement with stakeholders, 29% of respondents categorizing themselves as mature indicate less than complete success with stakeholder engagement.

Disclosure, regulatory reporting and governance are all indicators of basic risk management communication. However, the numbers suggest that activity in these areas is not extensive for most respondents (Figure 20, 21 & 22). It is clear, however, that the use of ERM for these functions increases with the maturity of an organization’s ERM program.

Figure 20

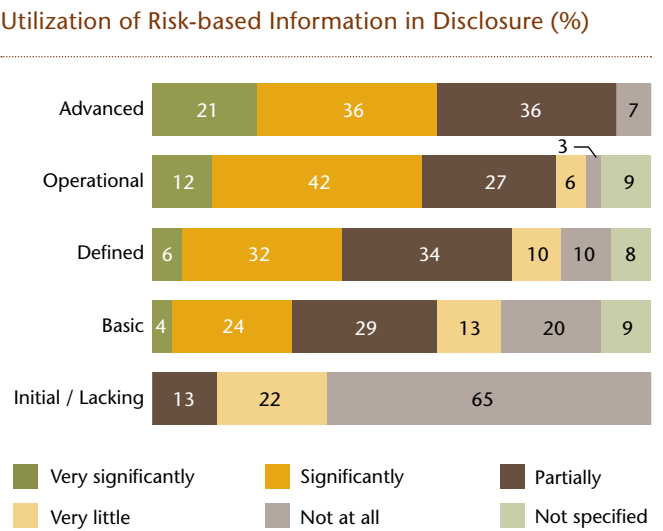
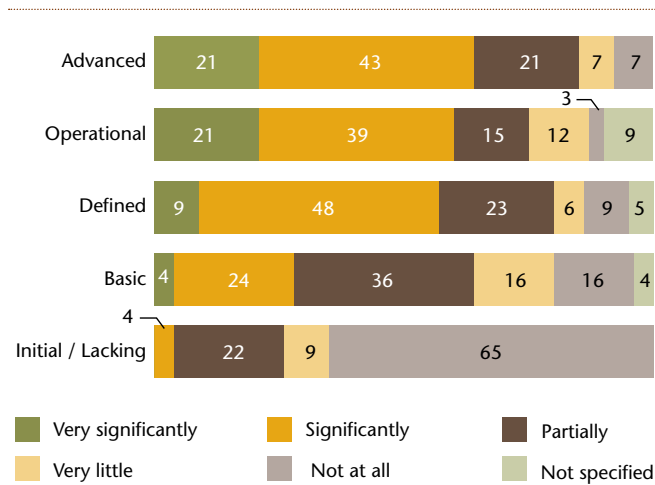


Figure 21

### Utilization of Risk-based Information in Regulatory Reporting (%)



Valuable information can be gathered from employees with direct product, vendor and / or customer contact, and educating all levels of employees on the value of identifying and managing risk is critical. The 2010 survey suggests that some strides have been made in this area, with significant room for improvement.

- While the majority of organizations have partially educated their workforces beyond the senior level, 61% of those in the initial stages of their ERM process have not educated employees at all.
- More companies report better understanding of their ERM objectives at the employee level. Ten percent of all respondents indicate significant or partial employee understanding of ERM versus 4% in 2007.
- As expected, there is an improved understanding of ERM objectives as organizations climb the maturity scale. For example, the number of employees that significantly understand their company's objectives increases by 17% when graduating from the basic to advanced level of ERM maturity (Figure 23).

Figure 22

### Utilization of Risk-based Information in Governance (%)

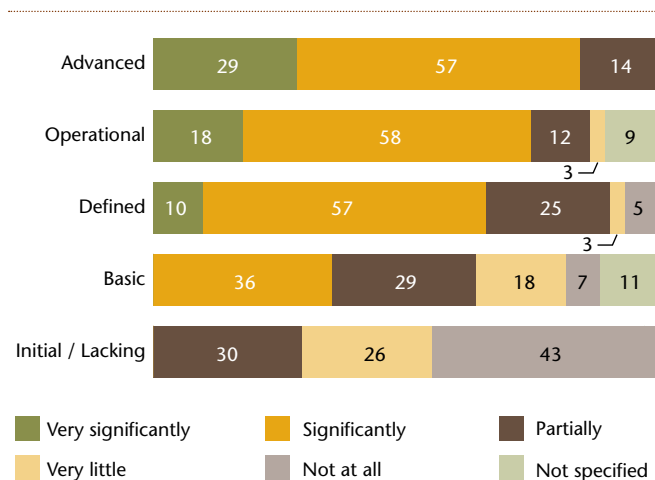
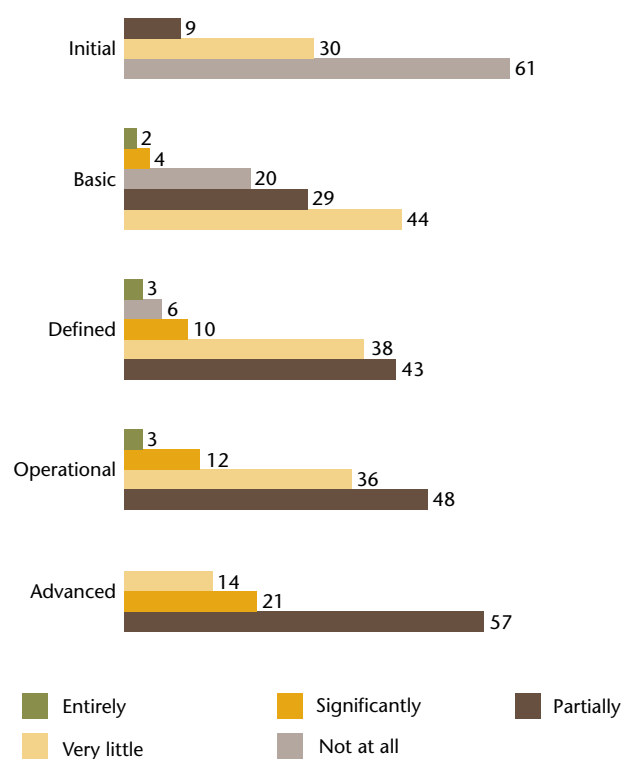




Figure 23

## Employees' Level of Understanding of ERM Objectives (%)



## CLIENT EXPERIENCE EXCERPTS

A recent corporate restructuring provided an opportunity for Swiss chemicals manufacturer Clariant International to address the issue of accountability and transparency. "Information will be more specific, as there will be clearer links between a Business Unit performance and measurements of risk assessments as well as risk visibility across the entire organization," explained Clariant's Group Risk Manager Creighton Twiggs. (See the complete story on page 36.)

## AON EXPERT ADVICE FOR BEST-PRACTICE STRATEGIES

- Establish and maintain an efficient process and tools to gather, refresh and access relevant risk data. Ensure that risk information is relevant and credible by establishing risk ownership with defined timeframes for updates.
- Encourage individual comment and expert views during the development of cross-functional understanding of risks and risk management strategies.
- Customize risk reporting and communications to gather and deliver the right information to the right people at various levels of the business, internally and externally.

## HALLMARK #6

### Integration of financial and operational risk information into decision making

#### BACKGROUND

One aspect of risk management that is a challenge when making key decisions is balancing the value of individual subject-matter expertise versus personal perception. By leveraging individual experience through a disciplined data-driven ERM approach for identifying and understanding risk, organizations can gain the benefit of both worlds. This approach avoids common pitfalls including “group think” and reliance on, or bias from, dominant individuals who may influence whether circumstances are viewed as a cause for concern or an opportunity to be explored, and it also supports consensus on risk mitigation strategies. ERM presents an opportunity to pursue a balanced approach to decision making about risk, with a framework and tools to avoid individual biases in risk-seeking or risk-aversion.

ERM provides an approach to encourage decision making based on quantitative and qualitative data rather than gut feeling, thereby lessening subjective views on risks and opportunities. Companies in the mature stages of ERM base decisions on information from both internal and external sources, rather than intuitive or incomplete information requiring individual interpretation.

To be successful, an ERM program will fit risk tools and processes with existing management practices. One key component of this approach is to ensure that risk reports deliver the right level of information to the right people at the right time. At the operating levels, information that is too high-level is not particularly meaningful, because it may not provide the information that is needed to support decisions at that level. Having too much detail at the higher levels of an organization can confuse the message by failing to focus on the key decision points, resulting in ineffective understanding of risk and delayed decision making.

Organizations that develop an understanding of risk across the enterprise and at all levels also can exploit a competitive advantage by aligning risk taking with strategic and operating plans, and enhancing risk management activities. This boosts the ability of organizations with mature ERM programs to identify and respond to risk proactively, and to deal with surprises more effectively when they occur.

#### SUPPORTING EVIDENCE

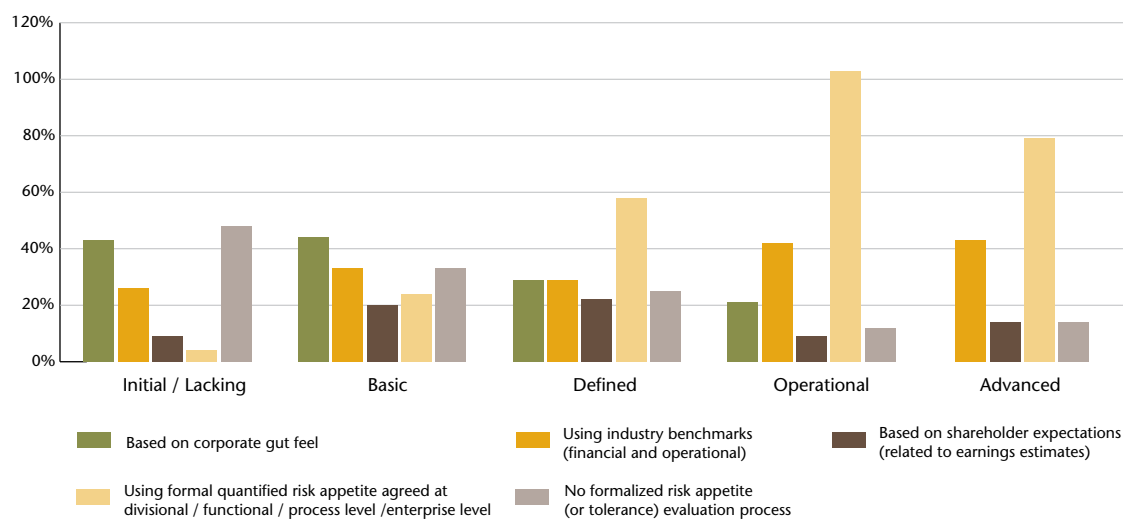
As organizations climb the ERM maturity scale, they rely less on intuitive decisions in favor of performance benchmarks and indicators (Figure 24).

- When asked to describe their implementation of a formal risk appetite or tolerance statement, 43% of the organizations new to ERM still base their risk decisions on gut feeling practices.
- However, none of the advanced ERM practitioners report using gut feeling as a decision making tool. Fifty percent of organizations in the advanced stages of their ERM programs have switched to quantifiable data for risk decisions at the enterprise level, and 43% report they use financial and operational industry benchmarks as well.
- Few organizations at any ERM maturity stage are using formal quantified risk information at the divisional level, with only 20% of all respondents reporting success with this indicator.
- And 26% of survey participants do not have a formalized risk appetite evaluation methodology, including 14% of those organizations at an advanced ERM stage.



Figure 24

## Methods Utilized to Evaluate Risk Appetite / Tolerance



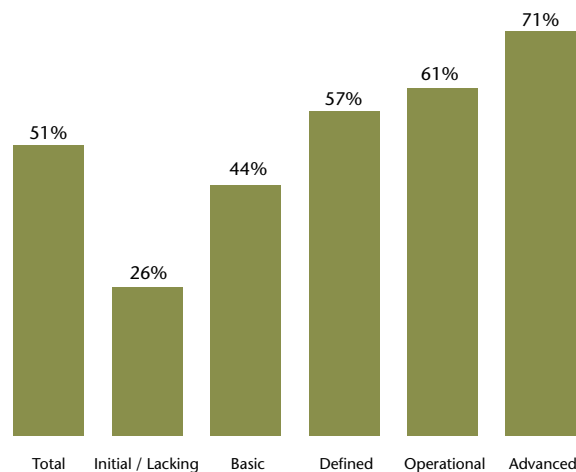
It is clear from the data that organizations with more mature ERM programs integrate risk information into decision making. It is equally clear that a portion of the organizations reporting themselves at the operational and advanced maturity levels do not have a formalized process to evaluate risk appetite, which may indicate that these organizations do not fully understand their own tolerance for volatility.

One of the biggest challenges in implementing an effective ERM program is developing a common risk management framework to facilitate accumulation, assessment and reporting of quantified data to support risk-based decisions. Companies seem to be progressing well overall in this task.

- 51% of all survey respondents report integrated risk information as a contributor to their success in creating a cohesive risk management culture (Figure 25).
- That number increases to 71% of the advanced ERM practitioners, and 26% of survey respondents in the early stages of ERM development also report this as a contributor.

Figure 25

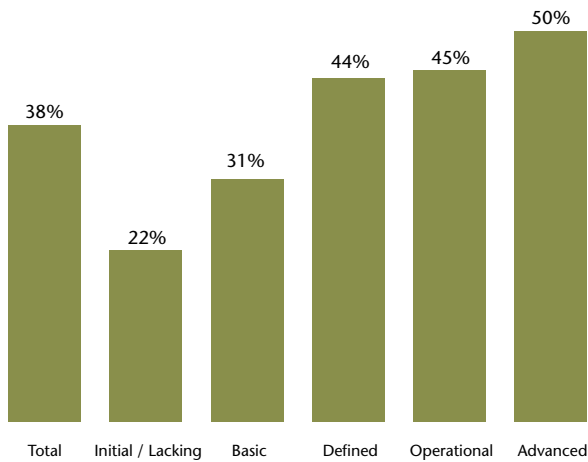
## Success Ranking in Changing / Creating a Risk Culture: Risk Information Integration



The data are also encouraging for organizations who report achievements in analyzing and managing risk across the organization. Fifty percent of the advanced ERM practitioners indicate success here, along with 22% of respondents just starting their efforts (Figure 26).

Figure 26

### Success Ranking in Changing / Creating a Risk Culture: Analyzing & Managing Risk Across the Organization



This is good news, since 55% of all respondents seek to enable informed risk-based decisions with their ERM programs. This is the second-most cited objective behind embedding a risk management culture.

### CLIENT EXPERIENCE EXCERPTS

Pharmaceutical giant Eli Lilly credits its upfront information gathering approach with achieving nearly corporate-wide ERM success. Before implementing ERM, they interviewed 25 to 30 managers throughout the company to gain an understanding of the key risk-related concerns and issues impacting each part of the operation. Now the company is leading the industry in using ERM to create an improved business model that will mitigate product pipeline gaps due to supply and demand volatility as well as price fluctuations. (See the complete story on page 37.)

### AON EXPERT ADVICE FOR BEST-PRACTICE STRATEGIES

- Integrate ERM reporting and analysis with other management processes to ensure an efficient and timely use of risk information.
- Use proxy data, scenario analyses or simulations to supplement historical information and encourage an objective view of the risk.
- Streamline data reporting by focusing on the most critical risks and decision points. Use a risk dashboard approach that delivers relevant information at various levels of the organization to support risk-based decision making.

## HALLMARK #7

### Use of sophisticated quantification methods to understand risk and demonstrate added value through risk management

#### BACKGROUND

Organizations with mature ERM programs use a number of tools to leverage risk-based information to support decision making, particularly when they are working with risks that exhibit high volatility. Regardless of the type of risk, the goals are the same: understand risk, and ensure that risk management strategies are effective and add value to the organization.

The expectations of shareholders, investors and other stakeholders can encourage decisions based on short-term results rather than long-term considerations. Organizations that demonstrate value from their risk management strategies over time will be in a better position to convince stakeholders that both the risks that the organization takes—and the risk management strategies it employs to manage those risks—are the right strategies.

Organizations with advanced ERM programs generally tie risk management information and strategy to strategic planning, capital allocation and budget processes. This ensures that risk information is considered when big-picture corporate decisions are made. Conversely, operating managers are generally tasked with the responsibility of assessing and managing risk within their operations while also reporting this information to more senior levels. By combining these perspectives into an overall enterprise-level profile, the organization achieves a best practice perspective on risk while delivering valuable information to support decision making. It should be clear to senior management which risks could prevent the achievement of objectives. These should be monitored closely, and management should intervene where appropriate. Protecting the value of the organization by monitoring risk and adjusting management strategies where needed maintains a fresh perspective on both risks and opportunities to add value over time.

#### SUPPORTING EVIDENCE

Respondents indicate they utilize a variety of quantification tools to measure and evaluate both risk and the value of their ERM efforts (Figure 27). The integration of more sophisticated quantification techniques increases with the maturity level. However, the survey indicates that organizations are struggling with this maturity indicator. While most of defined, operational and advanced respondents utilize qualitative tools to assess risk, the responses drop significantly for utilizing sophisticated quantification tools including value at risk, actuarial analysis and stochastic modeling.

- 14% of organizations that rate themselves as advanced and 12% of those rated as operational do not quantify risks at all.

Twenty-three percent of all respondents have been successful in quantifying and having a clear definition of their risk appetites and tolerances (Figure 28). Only 36% of organizations with more experience in ERM report success in this area.

Improving operational efficiencies, enhancing business resiliency and optimizing / reducing total cost of risk are all good indicators of the value of ERM.

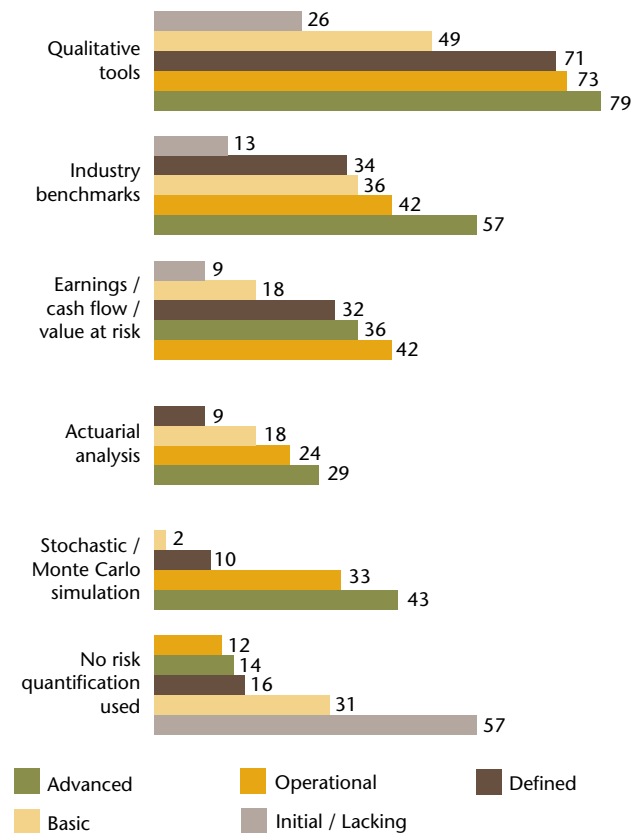
- For organizations with advanced ERM programs, 7% report they are very successful in optimizing / reducing total cost of risk and another 71% report moderate success (Figure 29).
- 40% of all organizations respond they are very successful or moderately successful in using ERM to improve operational efficiencies and business resiliency, with 78% of organizations in the advanced stages of ERM reporting success (Figure 30).

Companies that do not use sophisticated modeling tools to quantify risk may not have this expertise in-house. An alternative would be to partner with outside firms providing consulting services in this area.



Figure 27

## Risk Quantification Tools Utilized to Measure Value of ERM (%)

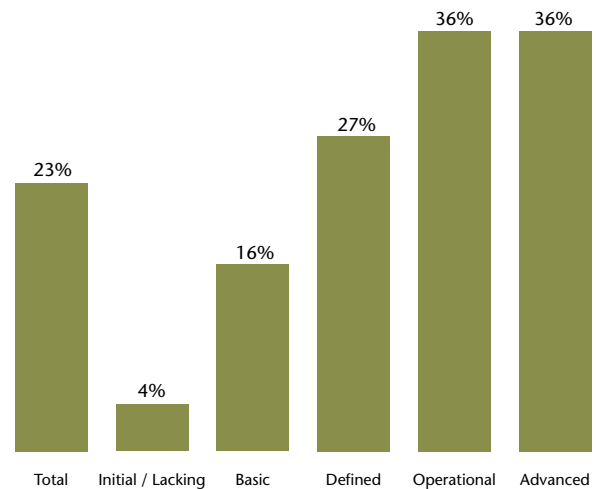


## CLIENT EXPERIENCE EXCERPTS

Australian-based Origin Energy responded to a recent takeover attempt by consolidating its insurance, compliance and information technology risk activities into a single, holistic risk management directive. According to John Rodda who oversees risk strategies at the multi-national gas, oil and electricity producer, "Origin Energy now takes a very quantitative approach to risks and expresses them in terms of the volatility they introduce to key financial measures reflecting profitability, liquidity and our equity position." (See the complete story on page 38.)

Figure 28

## Success Quantifying Risk Appetite / Tolerance (%)



## AON EXPERT ADVICE FOR BEST-PRACTICE STRATEGIES

- Use quantification tools and techniques to measure the value of risk mitigation options including financial (such as insurance) and operational (such as supply chain management) risk mitigation tools.
- Determine instances in which detailed quantification will be beneficial. Sometimes it is enough to identify a high risk in order to develop an appropriate management response.
- Use risk quantification approaches to improve understanding of current and emerging risks.
- Understand your risk portfolio so that you can answer, "Is this something that is going to go beyond my risk appetite? Is it too risky and should it be avoided altogether?"

Figure 29

## Success Optimizing / Reducing Total Cost of Risk (%)

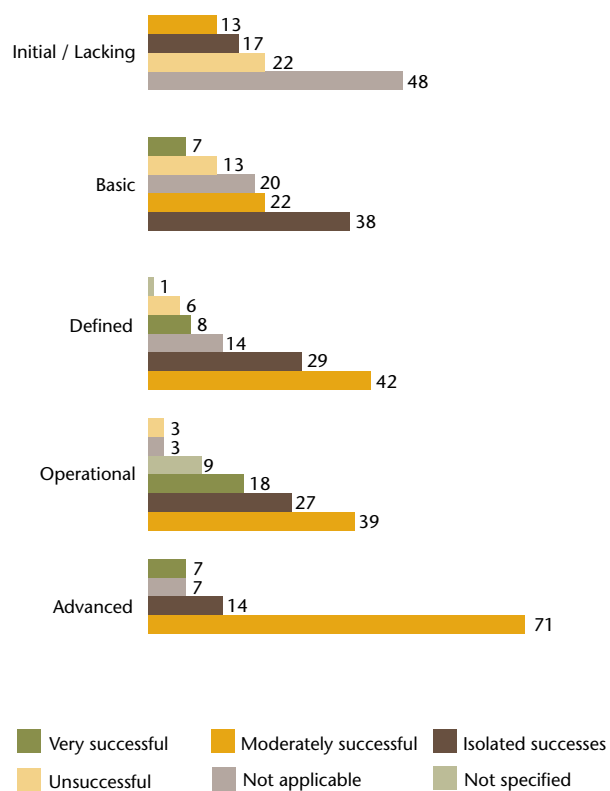
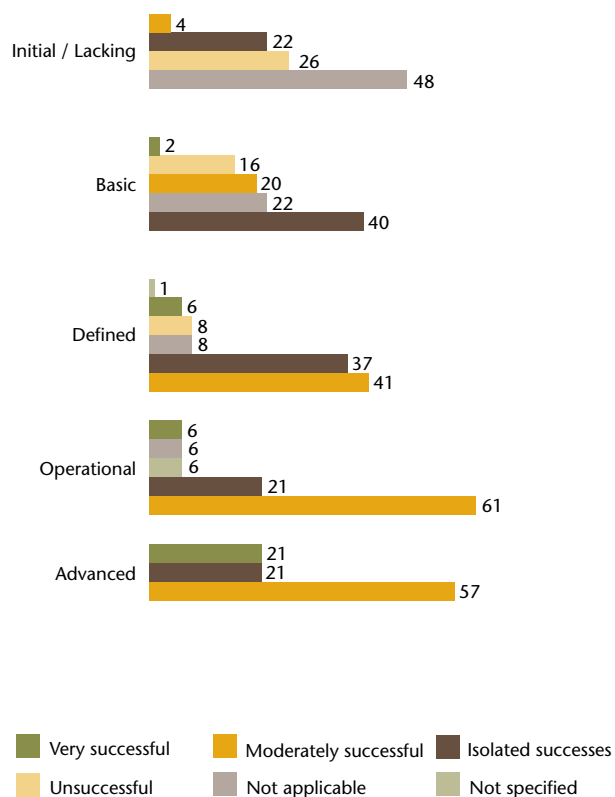


Figure 30

## Success Improving Operational Efficiencies and Resiliency (%)



## HALLMARK #8

### Identification of new and emerging risks using internal data as well as information from external providers

#### BACKGROUND

While monitoring and managing current risks is the keystone of any successful enterprise risk management program, an advanced practitioner will look beyond what is known to attempt to see emerging risks and prepare for events that have no historic documentation. The identification of new and emerging risks requires some degree of crystal-ball gazing and the continual tweaking of what-if scenarios, and is one of the most difficult of the ERM components. In looking to the past, organizations may know what has happened to them, to a competitor, or to a peer. But they rarely step outside their doors to think about what tempests might be gathering force on the horizon.

Companies that are linked to industry information providers have a better understanding of external trends. However, even organizations that look externally for direction may not find or understand risk information easily. A risk scenario may never have occurred before, or if it occurred in the past it might be so distant or relatively small that it does not resonate with current leadership. Although it is common to consider natural disasters, worldwide economic and political events, and competitive discoveries as harbingers of new and emerging risks, many future risks develop internally as well.

Companies that are successful in identifying hidden problems both internally and externally often cultivate risk management cultures that extend down to the employee level. New and emerging risks are often identified within operations—for example, a plant floor supervisor noticing a part quality issue that may affect product liability, a procurement manager hearing of a potential supply chain interruption, or a sales manager learning through the grapevine that a key customer is taking business elsewhere. Companies that approach risk assessment with a strong blend of top-down and bottom-up risk awareness are best suited to see the potential impact of isolated and siloed risk information and use this information to enhance corporate strategy and operating plans.

#### SUPPORTING SURVEY DATA

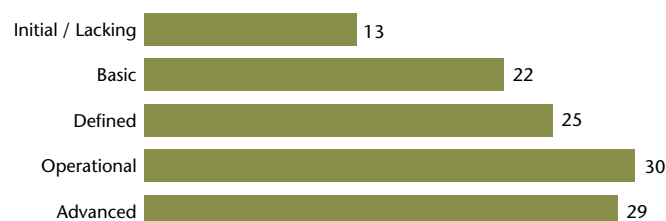
The survey results show that many of the respondents are achieving mixed success for this maturity indicator.

- When asked how their organizations identify new and emerging risks, 79% of those at the advanced stage use internal data and knowledge.
- 57% of those same organizations look to external information sources for clues on emerging risks that may affect their operations.
- 43% of the all respondents look to data supplied by project and program managers, a good indicator that risk management strategies are being assessed at various levels of management in many organizations.
- Still, only 36% of all respondents are using suppliers and customers as sources of information on risks coming down the road.
- 43% of the respondents in the initial or basic stages of ERM do not have any methods for identifying new and emerging risks.

Perhaps not surprisingly, only a quarter of all respondents have seen success in the analysis of unexpected events (Figure 31), and this does not change with experience as might be expected. Only 29% of those respondents with advanced ERM programs report success handling unexpected events. Since risks can only be monitored if they are on the radar, this data would indicate that a great majority of organizations are falling short in emerging risk management.

Figure 31

## Success Using ERM in the Analysis of Unexpected Events (%)



An important hurdle to overcome in tackling this indicator is resource availability. Many organizations find themselves triaging day-to-day crises rather than planning strategically, although there have been improvements from the 2007 survey when 25% of the respondents reported moderate success reducing management time fighting fires. That number has jumped to 36% in the latest survey. Only advanced practitioners show significant progress in this area, with 21% indicating they have been “very successful” in reducing management time fighting fires. Not surprisingly, those in the early stages of their ERM programs are still working from a short-term window, with 30% indicating no success in this area.

## CLIENT EXPERIENCE EXCERPTS

For high-tech chemicals manufacturer AZ Electronic Materials (AZEM), the payoff in ERM has been a reinterpretation of supply chain threats to maintain quality control standards and an understanding of business continuity that has blossomed into a more confident customer base. “We know far more what is coming from our suppliers, their structures, their potential capacities and the opportunities for savings as a result of the risk management work we do,” said AZEM Chief Financial Officer Ken Greatbatch. (See the complete story on page 35.)

## AON EXPERT ADVICE FOR BEST-PRACTICE STRATEGIES

- Broaden your organization’s understanding of risk to include both emerging risks and potential future risks. Avoid over-reliance on historical data to identify and assess risk by considering what has happened to other organizations and what could happen as internal and external conditions develop over time.
- Link your business continuity management to your ERM program so that planned responses are aligned and communicated throughout the organization
- Look at what is changing in the external environment and determine the potential impact on your organization.
- Ensure that the board has set aside time at least once annually to consider both new and emerging risks in the context of the organization’s strategic plan, operating plan and external environment.

## HALLMARK #9

A move from focusing on risk avoidance and mitigation to leveraging risk and risk management options that extract value

### BACKGROUND

As professional risk management has entered the mainstream and become a standard management practice, many organizations have made or are making the transition from a culture of risk avoidance to risk optimization. Accepting risk encourages growth, and not all risks can or should be mitigated back to zero. Understanding risks as well as their quantified impact on risk appetite and risk capacity is a necessary condition for effective risk acceptance.

Best-practice organizations that are mature in their ERM efforts have moved into opportunity recognition, weighing the benefits and likelihood of achieving growth against potential risk impact and cost of mitigation. In effect, risk management becomes opportunity management, with leadership teams choosing not necessarily the path with the least risk but the path with the best return for an acceptable amount of risk—bearing in mind the organization's abilities to identify and manage financial and operational exposures.

Risk management becomes a very strong competitive advantage when organizations can identify risks and opportunities earlier than competitors, and when they are better positioned to manage foreseeable and unpredictable events. These organizations can:

- Assess the impact of opportunities on strategic objectives as well as the likelihood of success with those objectives.
- Develop robust scenarios for the future based on critical factors such as market trends, evolving customer needs, technological developments and political and social trends.
- Apply risk-based metrics for decision making.
- Apply portfolio management to compare any selection of opportunities within the overall risk appetite of the organization.

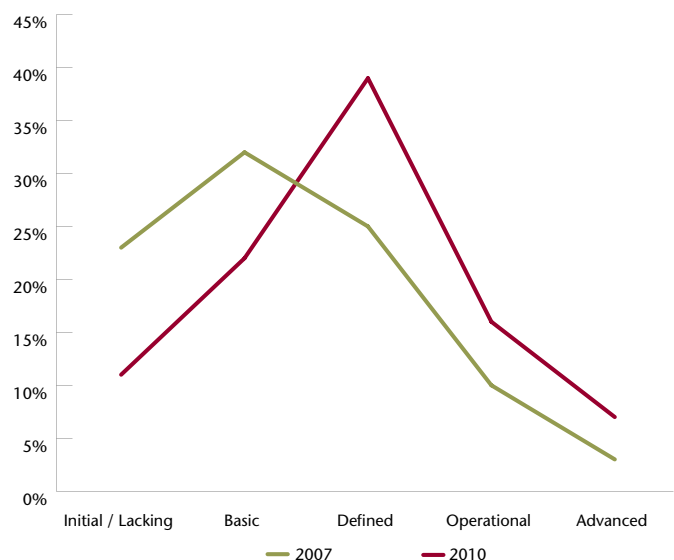
### SUPPORTING EVIDENCE

Most respondents to the 2010 survey are past the basic stages of ERM program development, and program maturity has improved since 2007 (Figure 32).

- 58% of 2010 respondents describe themselves at the “Defined” or “Operational” level, meaning that they have policies and techniques in place to identify, measure, monitor and manage some risk components. This is a healthy 20 point increase over the 2007 level.
- The number of respondents that have matured to the “Advanced” level since 2007 has more than doubled from 3% to 7%. These organizations have a dynamic ERM process that allows adaptation to changing risks and opportunities.

Figure 32

#### Growth in ERM Program Maturity Levels



More revenue may contribute to ERM implementation:

- 36% of organizations with an annual revenue of \$10 billion or more are at the Advanced or Operational stage, compared with only 18% of smaller organizations (revenues of <\$5 billion).
- Conversely, 41% of organizations with annual revenue of below \$5 billion are still at the Initial / Lacking or Basic stage, compared with only 19% of larger organizations (revenue \$10 billion and over).

There are also differences according to industry sector.

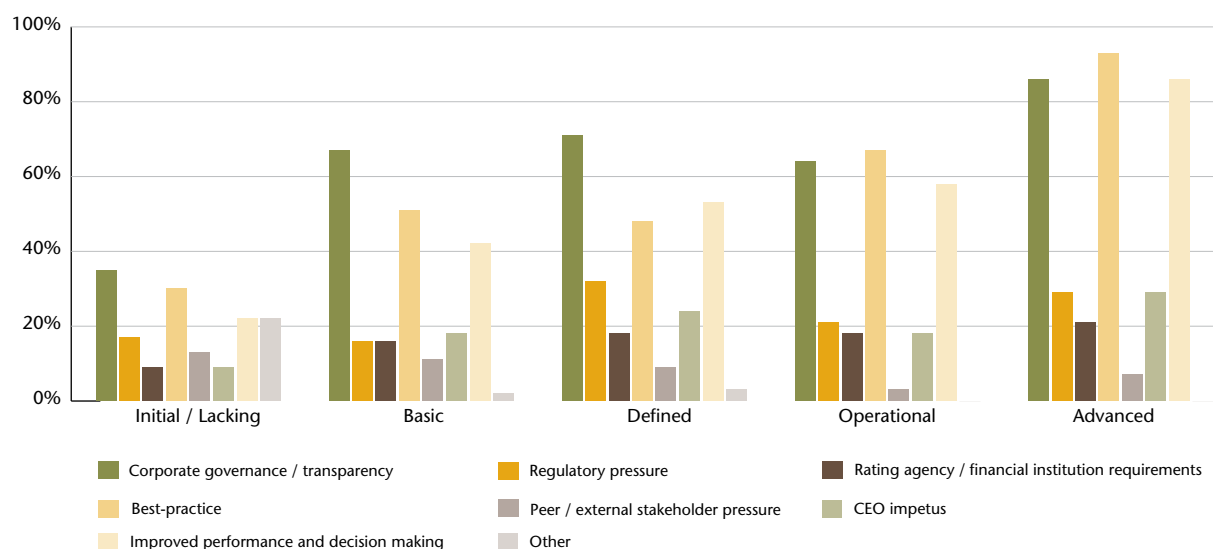
- Those in financial services tend to be a little further progressed through the stages of development, with 32% at the Operational or Advanced stage, compared with only 13% of retail organizations.
- Manufacturing tends to have slightly more organizations that are still at the Initial / Lacking or Basic stage (43%).
- Respondents from the financial services industry also has the highest percentage (89%) of any sector with dedicated ERM functions.

To be a mature performer for this core competency, organizations must move from a defensive posture on risk to incorporating an offensive approach to taking risk.

- An overwhelming 93% of the respondents in the advanced stages of their ERM efforts are driven by their desire for “best practice” positioning, and 86% of those same organizations use ERM for improved performance and decision making (Figure 33).
- Companies whose risk management efforts are still driven by regulatory, rating agency or financial institution pressure are reacting defensively, and these are not considered positive motivators for an integrated ERM approach. There was a slight decrease in the number of organizations citing these influences as drivers of their ERM programs, down from 18% in 2007 to 16% this year. This is a positive, albeit slight, trend.

Figure 33

### Prime Drivers of ERM Implementation





The final judgment on ERM is whether it creates value for the shareholders. Ninety percent of all survey respondents report at least isolated success in using risk management to protect or enhance shareholder value, and the level of success improves considerably as organizations progress along the maturity scale. ERM's ability to provide tangible and relevant business benefits is a recognized success factor that correlates with additional survey data indicating 64% of the advanced group is using ERM to drive value creation. Additionally, 29% also use ERM to manage volatility to earnings along with other key financial metrics. This is clear confirmation that ERM protects and creates shareholder value. Moreover, as organizations become better at ERM, the benefits increase substantially, and ERM becomes a powerful and competitive tool.

### CLIENT EXPERIENCE EXCERPTS

Caribbean-based energy producer Phoenix Park took advantage of overlaps between safety processes and new risk management initiatives, incorporating ERM best practices into existing Phoenix Park systems. "We found that for Phoenix Park to have excellence in everything that we do, we needed to have excellence in risk management as well," explained Dominic Rampersad, Phoenix Park Vice President of Finance & Information Technology. (*See the complete story on page 39.*)

### AON EXPERT ADVICE FOR BEST-PRACTICE STRATEGIES

- Risk management becomes much more relevant and engaging for both senior leadership and operating management when it deliberately addresses both risk and opportunity, enabling the business to take the risks it wants to take and then manage those risks effectively.
- Encourage colleagues to think about risk in terms of competitive advantage—the better you understand your risk landscape, the more you can leverage opportunities.
- Fortune favors those who are well prepared: companies that are advanced in risk management clearly generate substantial benefits in managing earnings volatility and driving value creation. ERM also helps demonstrate shareholder value by taking appropriate risk and managing it well.



## CASE STUDIES

In addition to the survey results, six organizations representing the pharmaceutical, manufacturing, energy and chemicals industries were interviewed to share first-hand accounts of their experiences using enterprise risk management strategies.

- Eli Lilly and Pirelli use ERM to model production and distribution channels in an effort to protect their long-standing reputations.
- Origin Energy uses ERM to instill market and investor confidence as well as manage value in a volatile industry.
- Phoenix Park Gas Processors strives to be best-in-class by aligning ERM with existing safety initiatives that create a common platform for handling corporate risk.
- AZ Electronic Materials manages its supply chain to be positioned for quick responses to external events.
- Clariant Chemicals created a culture of risk accountability and ownership.

Each of these organizations has met and overcome roadblocks on their ERM journeys, and each continues to develop its ERM approach to fit its current and developing business requirements. And collectively, they illustrate the varying experiences of advanced enterprise risk management.

# AZ ELECTRONIC MATERIALS

## Developing a global ERM culture that imparts customer confidence

AZ Electronic Materials, a company backed by private equity and focusing on chemicals for the electronics industry, introduced enterprise risk management concepts four years ago. The strength of the ERM program at AZEM has been tested once and again during the past several years as one supplier was devastated by a catastrophic accident, another struggled to remain financially solvent, and AZEM itself was forced to reprioritize during the recent economic unrest. Yet an ERM culture established well in advance of these events positioned the company to respond quickly with decisions that protected its mission and focus on product quality and customer satisfaction.

Establishing an ERM presence robust enough to cope with repeated turbulence didn't happen overnight.

The initial process, based on a series of brainstorming risk assessment sessions, was met with early management support due to its simplicity and straightforward action responses. However, as the process and reporting requirements became formalized, skepticism grew. The emphasis on data collection over action started to lose management commitment, according to AZEM Chief Financial Officer Ken Greatbatch. Once managers were shown how risk analysis would translate into a practical examination of risk exposures that in turn drove action on key threats to the business' supply chain, there was a turnaround in support.

A further hurdle was introducing the concept amid a variety of international business styles and philosophies, according to Fred Mundt, AZEM's Global Quality Vice President. Greatbatch and Mundt chose a patient and persistent platform, using logic over hype to spread the ERM message. "We showed that ERM wasn't a new philosophy, it was a natural extension of familiar planning strategies like just-in-time inventories" Mundt explained. He added, "My experience has been that if you are asking an organization to do something new that requires a cultural change, showing the logic behind the effort will more likely bring about cooperation."

After just four years, ERM culture has been infused throughout the company's global ranks. The payoff has been a reinterpretation of supply chain threats to maintain quality control standards and an understanding of business continuity that has blossomed into a more confident customer base. "We know far more what is coming from our suppliers, their structures, their potential capacities and the opportunities for savings as a result of the risk management work we do," said Greatbatch. Customers perceive the competitive advantage that ERM brings to AZEM. When word spread of an explosion at a supplier's facility, AZEM customers were quick to phone with their concerns over product interruptions. But thanks to a corporate-wide risk management culture, callers worldwide were assured of AZEM's preparedness, resulting in priceless customer loyalty.

### RESULTS:

- Quality control management
- Customer confidence and loyalty

# CLARIANT INTERNATIONAL

## Using ERM as a performance and accountability tool

Clariant International, a Swiss speciality chemicals manufacturer, began enterprise risk management in 2003 as part of its compliance activities. After developing a reporting system over a number of years to fulfill the requirements for publicly-traded companies, in 2008 Clariant decided to expand its risk management strategies using the Aon Risk Profiler modeling tool.

“Compliance was the original driver for our risk management work,” according to Group Risk Manager Creighton Twiggs, who is also responsible for insurances and pensions worldwide. But at about the same time, the company’s new CEO wanted additional and meaningful risk management details at the division level. Commenting on the cultural issues encountered during the introduction of ERM methods, Twiggs explained that Swiss culture favors a collegiate approach to responsibility rather than identifying one individual who is accountable for decision making. This created an additional but critical organizational challenge to implementing risk management in terms of driving down ownership for individual risks.

The recently announced corporate restructuring by Clariant is intended to create unambiguous lines of management responsibility. Each Business Unit will be a complete business and will be required to use the Risk Profiler for performance evaluations. “Information will be more specific, as there will be clearer links between a Business Unit performance and measurements of risk assessments as well as risk visibility across the entire organization,” Twiggs explained. Clariant intends to identify strengths that can be applied as best-practices corporate-wide and deal with local weaknesses before they develop into significant bottom-line impact.

The company is committed to using ERM as part of its objective to improve Group performance, not only meeting its targets but exceeding them across the board.

### RESULTS:

- Created targets and benchmarks for decision making visibility
- Drove culture change toward increased accountability down to the individual level

## ELI LILLY

### Leading the industry toward ERM supply chain modeling

As a key player in the worldwide pharmaceuticals industry where the average cost-to-market can exceed \$1 billion, Eli Lilly is no stranger to high-stakes risk acceptance. So when top management began to explore enterprise risk management techniques five years ago, the philosophy quickly and naturally trickled down through the ranks. And now the company is leading the industry toward a new business model using ERM techniques to predict supply chain needs.

Risk assessment at Eli Lilly began in response to federal regulations and market pressures. "The main driver was in the compliance area, primarily Sarbanes-Oxley, when the company was required to provide an assessment of our risk management components and controls," according to Mark Saltsgaver, Eli Lilly's Director of Corporate Risk Management. "We then moved from a compliance initiative to more of a strategic initiative when we found that there was tremendous value in the process beyond the reporting requirements."

The company credits its upfront information gathering approach with achieving nearly corporate-wide ERM success. Before implementing ERM, they interviewed 25 to 30 managers throughout the company to gain an understanding of the key risk-related concerns and issues impacting each part of the operation. The initial result was a list of close to 200 risks that were identified through the internal survey. This was then culled down to 35 or 40 of the highest priorities that could be addressed and managed through ERM techniques. Taking a problem-solving approach as well as having the backing of the executive committee helped to promote a positive and thorough introduction of ERM into the organization.

One area of the company that has seen a lot of ERM activity lately is supply chain analysis, and Eli Lilly is leading the industry in using ERM to create an improved business model that will mitigate product pipeline gaps due to supply and demand volatility as well as price fluctuations. The company is using quantitative analysis to streamline its supply chain processes without introducing additional risk. ERM techniques will also help to predict responses to natural disasters and economic events that might affect raw material costs, emergency distribution needs or product liability concerns. And risk management analysis further helps the company quickly analyze and respond to shifting manpower needs. A recent product launch pointed to additional manpower requirements for handling customer call-ins while the company was ramping down staff in other areas.

As one component of the life sciences community, Eli Lilly dedicates most of its resources to medical research and product development. To that end, the company is using ERM analysis to create scenarios that will direct the delivery of cost-competitive products with the least amount of risk to the company's shareholders and the end user. And with a 130-year history hanging in the balance, Eli Lilly is using ERM strategies to protect its reputation of innovation and quality.

#### RESULTS:

- Enhanced customer response analysis
- Risk management of supply chain channels



## ORIGIN ENERGY

### Translating robust risk systems into market and investor confidence

Australian-based Origin Energy felt the effects of its turbulent industry in 2008 as the object of a hostile takeover attempt that inaccurately undervalued the company's net worth. The multi-national gas, oil and electricity producer escaped and emerged with a renewed sense of mission, market presence and growth, and has turned to ERM to better manage its value in the face of fluctuating supply and a fickle market.

Shocked into action, the company quickly regrouped and within a matter of months consolidated all of its insurance, compliance and information technology risk activities into a single, holistic risk management directive, according to John Rodda who oversees the company's risk strategies. "Origin Energy now takes a very quantitative approach to risks and expresses them in terms of the volatility they introduce to key financial measures reflecting profitability, liquidity and our equity position," Rodda explained.

Managing risk events is only part of the picture. Origin Energy wants to be able to translate risks into opportunities. Looking forward, the risk directive is to identify the real cost of capital, determine market positioning and break down funding costs versus funding opportunities. That involves making observations of the company as a utility operation as well as a resource operation and then compiling a set of expectations for risks and opportunities between the two.

In just a few short months, the company has turned its mindset around so that all parts of the business are embedded with a risk mindset. "Now the risk group is invited to every management meeting across the organization. That is a clear indication that we are getting consistent quality risk information," Rodda said. The information exchange is two-way as well, in that the department managers turn around and ask the risk group for help in developing priority action lists. "We are becoming much more seamless because of the transparency we have created. This cultural change is our single biggest achievement."

That and making sure the company is better positioned to protect itself from any other sheep-clothed wolves that come knocking on its door. For an operation that is doubling in size every few years and venturing into new business segments within a volatile industry, determining corporate worth now and in the future is no small feat. But the goal is to demonstrate to the market that Origin Energy has in place "genuine and robust" risk systems that can be translated into value through business process efficiencies and new resource opportunities.

#### RESULTS:

- Better evidence of asset worth in a volatile economic environment
- Full-on embedded risk culture

# PHOENIX PARK GAS PROCESSORS LTD

## Combining safety and risk management to attain industry excellence

As a natural gas processor, Trinidad and Tobago-based Phoenix Park is no stranger to risk. “At any point in time, we have over a million barrels of flammable liquid stored in our facility,” said Dominic Rampersad, the company’s Vice President of Finance & Information Technology. But for the 10th year in a row, the company has been recognized for its best-in-class safety record by the Gas Processors Association. “The reason we’ve achieved those awards is because of the culture we’ve created in managing safety risks. And it is that culture that we have extended into all of the other functions of the organization by integrating some of the tools from our ERM Program into other areas of the company and other existing management processes.”

In fact, the commitment toward excellence in safety was one of the company’s primary ERM drivers. In the past, Phoenix Park’s success over time had resulted in a temporary lessening of collaborative, cross-functional focus on potential safety-related events, and this translated into potentially high-risk scenarios. According to Rampersad, “Some of the key risks in the organization were not being actively managed, and more so they were not being focused on day-to-day, creating high risk.” A second driver was an occasional lack of consistency in the expectations between the shareholders, the board and the company’s owners. However, Phoenix Park has addressed these tendencies through attention to best-in-class management practices throughout the organization, including use of ERM to identify, assess and manage risk. Through ERM, risks can be discussed and prioritized across the organization, with risk management objectives agreed upon by the leadership team. Disagreements can be vented openly as well. A third driver was the company’s push for excellence, including its focus on external metrics such as its credit ratings. “We found that for Phoenix Park to have excellence in everything that we do, we needed to have excellence in risk management as well.”

Phoenix Park’s efforts have paid off. “Risk” has become a mainstay word in daily conversations at Phoenix Park, throughout the hierarchy. Items from its risk register (a risk management database that includes standard information about each risk including risk management strategies) are

now being integrated into its corporate work plan, and further into department goals and objectives, individual goals and objectives, budgets, and even the overall corporate governance approach. One tangible outcome is in the three-year plan for a new internal audit function. The company’s risk register has been coordinated with internal audit’s plans and process. A second outcome is an integrated way of thinking about and discussing risk across the company. In a telling example at Phoenix Park, risk analysis in the project management and engineering functions begins in the conceptual stage of a project; the responsibility for ongoing risk identification analysis and management is transferred from project development staff at the handoff to the implementation team. This analysis and planning is further refined at the project implementation stage; and responsibility is once again transferred at the next handoff from the implementation team to operations, where the company’s standard ERM system kicks in.

Of course, unfamiliarity with any new concept can breed uncertainty about its value, and the idea of enterprise risk management was new to the country of Trinidad and Tobago when it was introduced at Phoenix Park. In developing its risk management procedures, the company tried to avoid creating a separate, foreign ERM framework that might energize skeptics, instead focusing its educational efforts on ERM’s seamless fit with existing corporate objectives. The company took a stepping stone approach as well, introducing a few concepts at a time to let the results highlight value over effort. This practical approach to ERM implementation showed respect for existing practices while also giving time and space to both identify and address any cultural or technical barriers to the initiative.

With its zero tolerance position on safety, Phoenix Park was used to tracking safety data and reporting safety trends at all levels of the organization. This focus on safety risk information and analysis provided a strong foundation for ERM, and not surprisingly given Phoenix Park’s operations, many of the high-significance or high-priority items on its risk register are related to safety. The company took advantage of the overlaps between the existing safety





processes and the new ERM initiatives, borrowing safety best practices to form the backbone of the new ERM approach while also incorporating ERM best practices back into existing Phoenix Park systems. The result is a consolidated risk management system that ‘fits’ with Phoenix Park’s culture.

Phoenix Park views risk management as the essence of its operational culture. As Rampersad put it, “Your policies and procedures, your tools and techniques, your rituals and habits, your different behaviors—those are things that comprise your organization’s culture. And if risk management is not a part of your tools and techniques, your rituals, your habits, your behaviors, then I think you really are sitting on the edge of a disaster.”

As a result of Phoenix Park’s commitment to excellence, including excellence in Risk Management, the ERM program at Phoenix Park delivers risk awareness to all levels from the Board to the Leadership team, down to the individual employee level. As well, the ERM framework established by Phoenix Park provides consistent methods and metrics for risk analysis and risk reporting through the life cycle of any individual department, risk scenario or individual project. It is this integration of the ERM framework and tools that have enabled Phoenix Park to achieve success through leveraging risk information to support business decision making—always with an eye toward the organization’s culture, values and overall business objectives.

## RESULTS:

- Risk awareness down to the individual level
- Risk analysis through the life cycle of a program

# PIRELLI GROUP

## Using ERM to manage its tradition and reputation and to create value for its shareholders

Pirelli Group, most visible through its high-performance tire brand, is an Italian enterprise with worldwide operations that include stakes in the telecommunications and environmental technologies industries. With its century-old reputation for excellence as a highly-prized corporate asset, Pirelli uses enterprise risk management techniques to maintain the value of its market presence.

The company's diverse culture and far-reaching businesses drove the move into ERM to find a common path between conservative directives and the more aggressive approaches favored by the new ventures, according to Jorge Luzzi, Pirelli's Group Risk Management Director. The goal was to show Pirelli shareholders as well as the market that the company was a unified whole, working from the same roadmap, and maintaining its tradition of excellence while positioning itself in a changing world.

Despite its complex business model, Pirelli can use ERM to evaluate risks as potential opportunities and to understand how an event in one part of the world may impact, positively or negatively, on one or more of its businesses. With ERM, risk can be viewed not always as something to be avoided but perhaps as something to be embraced. Such potential benefits can only be envisioned by looking at outcomes as a whole, visualizing intricate relationships and interactions. "When you are able to think of risk as something positive, something that can be managed, then you are able to move from a defensive to an offensive position against the competition," Luzzi explains.

As a large multi-national company, Pirelli sometimes finds itself pushing political boundaries in order to serve its markets. Decisions need to be weighed analyzing the risk of moving product through inhospitable areas versus supplying long-time customers who may not have access to a trusted manufacturer if Pirelli were to pull out of the market. In the end, with the help of ERM strategies, Pirelli often decides that its reputation for customer service is worth the potential dangers inherent in serving all of its markets.

With a company like Pirelli that has such an illustrious history to uphold, the challenge has been to convince the traditionalists that ERM is not just a fad but a new approach to decision making that should become second-nature. Pirelli's ERM proponents recently tested their techniques when the company won the bid to be the official supplier of tires for the World Rally Championship beginning in 2010. Pirelli's first approach was to assign production to only one of its facilities. But an ERM assessment created a number of "what if" scenarios that placed a value on the cost of ramping up more than one facility versus the cost of lost reputation if the supply from a single facility were interrupted. It was a turning point for ERM skeptics. According to Luzzi, "People across the entire company started to think differently, to see if there was another way of thinking that wasn't just a check-list approach to decision making."

However, Luzzi is quick to point out that it was a small victory, and he equates the future of ERM with the transformation of information technology from a service to a culture. "Thirty to 35 years ago, the ADP department was in a separate room, confined and cold to keep the environment stable. The rest of the company simply received the department's product but didn't interact with it. Now you see how IT is an integral part of every employee. We see ERM following that process. It should be part of the life of the company." He admits it will be a long process, full of trial and error. And he warns that an organization not fully understanding that process will have serious problems in trying to introduce and sustain an ERM culture.

### RESULTS:

- Back-up plans to preserve production flow
- ERM as a corporate lifestyle

## METHODOLOGY

This web-based survey addressed both qualitative and quantitative risk issues. Responding risk managers, CROs, CFOs, treasurers and others provided feedback and insight on their insurance and risk management choices, interests and concerns.

Aon's Global Enterprise Risk Management practice conducted this survey with the support of Aon Analytics and Aon's survey research specialists, who collected and tabulated the responses. Other Aon insurance and industry specialists provided supporting analysis and helped with the interpretation of findings. Survey data were analyzed and summarized according to industry and regional groupings, as well as by maturity stage within Aon's revised ERM maturity model. Additionally, trends were identified when comparing the latest responses with those from the 2007 survey.

Findings indicated clear progress along the Aon ERM maturity scale. Trends indicating success in ERM implementation and development were organized into nine "hallmarks" of advanced Enterprise Risk Management. Consultants from Aon's Global Enterprise Risk Management Practice then offered expert advice for readers to consider as they move forward with their ERM practices. To support the survey data, individual case studies were derived from phone interviews with six Aon clients.

All survey responses for individual organizations are held confidential, with only the consolidated data being incorporated into this report. Data percentages reflect the number of respondents who answered each indicated question. Percentages for some of the responses may not add up to 100 percent due to rounding or respondents' ability to select more than one answer. All revenue amounts are shown in U.S. dollars.

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## AON AT A GLANCE

Aon Corporation (NYSE: AON) is the leading global provider of risk management services, insurance and reinsurance brokerage, and human capital consulting. Through its more than 36,000 colleagues worldwide, Aon readily delivers distinctive client value via innovative and effective risk management and workforce productivity solutions. Aon's industry-leading global resources and technical expertise are delivered locally through more than 500 offices in more than 120 countries.

Named the world's best broker by Euromoney magazine's 2008 and 2009 Insurance Survey, Aon also ranked highest on Business Insurance's listing of the world's largest insurance brokers based on commercial retail, wholesale, reinsurance and personal lines brokerage revenues in 2008 and 2009. A.M. Best deemed Aon the number one insurance broker based on brokerage revenues in 2007, 2008, and 2009, and Aon was voted best insurance intermediary, best reinsurance intermediary and best employee benefits consulting firm in 2007, 2008 and 2009 by the readers of Business Insurance.

For more information on Aon, log on to <http://www.aon.com>.



Aon Analytics provides clients with forward-looking business intelligence, comprehensive benchmarking and total cost-of-risk analysis as well as global market insights using proprietary technology like the Aon Global Risk Insight Platform to enable more informed and fact-based decision making around risk management, risk retention and risk transfer goals and objectives.



Aon Global Risk Insight Platform (Aon GRIP<sup>SM</sup>) is the world's leading global repository of global risk and insurance placement information. By providing fact-based insights into Aon's USD \$54 billion in global premium flow, Aon GRIP helps identify the best placement option regardless of size, industry, coverage line or geography.

The Web-accessible data produced by Aon GRIP helps Aon brokers evaluate which markets to approach with a placement and which carriers may provide the best value for clients. It also gives Aon brokers a leg up when it comes to negotiations, making sure every conversation is based on the most complete, most current set of facts.



Based in Dublin, Ireland, the Aon Centre for Innovation and Analytics provides Aon colleagues and their clients around the globe fact-based market insights. As the owner of the Aon Global Risk Insight Platform (GRIP), one of the world's largest repositories of risk and insurance placement information, the Centre analyzes Aon's USD \$54 billion global premium flow to identify innovative new products and to provide Aon brokers insights as to which markets and which carriers provide the best value for clients.



As the world's leading insurance broker and risk advisory firm, Aon is committed to helping clients respond quickly and effectively to changing market conditions that may impact their businesses. The Aon Situation Room<sup>TM</sup>, accessible at [www.aon.com](http://www.aon.com), provides clients with fact-based information to help guide their businesses through this volatile period.

In the Aon Situation Room, clients will find current insurer financial strength ratings and the most recent updates from Aon's Market Security Committee on specific carriers. The latest news, legislative action, and earnings information is included on the site as well. Clients can also register to receive up-to-date e-mail alerts.



## APPENDIX A

The following ERM Maturity Self-Assessment summary is provided to help the reader quickly assess an organization's present ERM maturity level.

Assessment Criteria	Basic	Defined	Operational to Advanced
<b>HALLMARK #1</b> Board-level commitment to ERM as a critical framework for successful decision making and for driving value	<input type="checkbox"/> The Board receives informal updates on corporate risks, typically focused on compliance and regulatory filing requirements.  <input type="checkbox"/> The management of risks is seen by the Board as being the responsibility of corporate and divisional management.	<input type="checkbox"/> The Board receives formal updates on the major corporate and business segment risks on a periodic basis.  <input type="checkbox"/> The Board questions management on the risk issues and selected risk management responses.  <input type="checkbox"/> The Board reviews the ERM framework and receives assurance that individual components are effectively implemented and managed.	<input type="checkbox"/> The Board receives formal updates on business segment, aggregated and organizational risks on an on-going basis.  <input type="checkbox"/> The Board is committed to ERM; the Board supports risk management activities with defined responsibilities including managing organizational risks in line with the risk appetite, and accounting for risk information in the evaluation of strategic plans and objectives.
<b>HALLMARK #2</b> A dedicated risk executive in a senior level position who drives and facilitates the ERM process	<input type="checkbox"/> Resources are assigned to ERM on a part-time basis, without formal responsibility for developing and managing the ERM framework.  <input type="checkbox"/> ERM activities tend to be ad-hoc, reactive and uncoordinated.	<input type="checkbox"/> A formal ERM function or defined resource exists and has responsibility for developing and improving the ERM framework. Senior management supports an ERM approach but may not have defined a long term ERM strategy or vision to guide the ERM function's (or resource's) activities.	<input type="checkbox"/> ERM is sponsored by a member of the senior management team who understands the strategic direction of the organization, has a broad view of the organization's risks and opportunities, and translates this to a meaningful and strategic ERM program.
<b>HALLMARK #3</b> An ERM culture that encourages full engagement and accountability at all levels of the organization	<input type="checkbox"/> Employee risk management roles and responsibilities are informally defined and not well communicated.  <input type="checkbox"/> Employees may not understand the need for or benefit of ERM.	<input type="checkbox"/> Risk management roles and responsibilities are understood at most management levels with successful ERM participation by senior management.	<input type="checkbox"/> Key areas of risk-related responsibility and accountability are clearly defined and understood by employees at all levels, enabling effective ERM.
<b>HALLMARK #4</b> Engagement of all stakeholders in risk management strategy development and policy setting	<input type="checkbox"/> The bottom-up internal risk profile is developed and communicated upward in the organization to demonstrate point-in-time effectiveness of risk management practices. The information is informally referenced during strategy and policy decisions.	<input type="checkbox"/> Internal stakeholders are actively involved in the development of risk management priorities, and use key metrics to monitor and communicate the risk profile over time.  <input type="checkbox"/> Risk information is formally incorporated into strategy and policy decisions.	<input type="checkbox"/> Both internal and external stakeholders (e.g., suppliers, partners, etc.) are involved in the assessment and management of risks and the risk profile on an on-going basis.  <input type="checkbox"/> Risk information is formally incorporated into strategy and policy decisions.
<b>HALLMARK #5</b> Transparency of risk communication	<input type="checkbox"/> Communication of risk information is sporadic and largely reactionary, often prompted by significant events or near misses.	<input type="checkbox"/> Efficient processes and tools to gather, refresh and access relevant risk data are established and maintained to provide needed risk information internally across the organization.  <input type="checkbox"/> Information is provided in a timely manner to relevant stakeholders.	<input type="checkbox"/> Internal and external stakeholders receive required information about organizational risks to support decisions regarding how to manage their risks.  <input type="checkbox"/> Processes are mature and efficient.



The information provided here is an extract of Aon's proprietary ERM maturity model and should not be construed as full assessment of ERM maturity, but rather as an indicator of current strengths and potential gaps in ERM practices.

Assessment Criteria	Basic	Defined	Operational to Advanced
<b>HALLMARK #6</b> Integration of financial and operational risk information into decision making	<input type="checkbox"/> Little integration between ERM activities and strategic decisions at business segment and organizational levels resulting in inconsistent use of risk-based decision making.	<input type="checkbox"/> ERM risk information is consistently used in the business segments in consideration of strategic decisions (e.g., plant and manufacturing decisions, customer strategies, human resource activities, etc.), but may not be well integrated into the long-term decision making of the organization (e.g. capital allocation, market entries, new product development).	<input type="checkbox"/> Management across the organization formally considers risk information, risk tolerance and appetite, and risk mitigation strategies during decision-making activities.
<b>HALLMARK #7</b> Use of sophisticated quantification methods to understand risk and demonstrate added value through risk management	<input type="checkbox"/> Qualitative analysis is used to evaluate risks in the absence of quantitative tools and capabilities.	<input type="checkbox"/> Business segments use coordinated qualitative and quantitative methods and tools to assess risk exposures and mitigation strategies of individual risks.	<input type="checkbox"/> The organization uses both qualitative and quantitative methods and tools to assess the potential impact of risk on capital, earnings, etc.  <input type="checkbox"/> The organization's risk appetite has been determined using quantitative techniques.
<b>HALLMARK #8</b> Identification of new and emerging risks using internal data as well as information from external providers	<input type="checkbox"/> Business segments and the organization focus on the identification and management of day-to-day risks, often reacting to issues that materialize.	<input type="checkbox"/> Internal data and knowledge is used in the identification of internal and external risks within an established time horizon.	<input type="checkbox"/> Internal and external information (from partners, customers, competitor and industry research, other industry risk inventories, etc.) is used to identify hidden internal and external risks.
<b>HALLMARK #9</b> A move from focusing on risk avoidance and mitigation to leveraging risk and risk management options to extract value	<input type="checkbox"/> Risk management focuses on problem identification and mitigation.	<input type="checkbox"/> Business segments seek opportunities to leverage risk management strengths for strategic advantage.	<input type="checkbox"/> Risk management activities focus on opportunity recognition, requiring weighing the benefit and likelihood of achieving growth against potential risk impact and cost of mitigation.
Time to develop capability*	6-12 months	1-2 years	Greater than 2 years

## APPENDIX B

Complete 2010 survey response data. The 2007 survey results can be found in *Enterprise Risk Management: The Full Picture* available at [www.aon.com](http://www.aon.com)

Figure 34

### Number of Employees Dedicated to the ERM Function

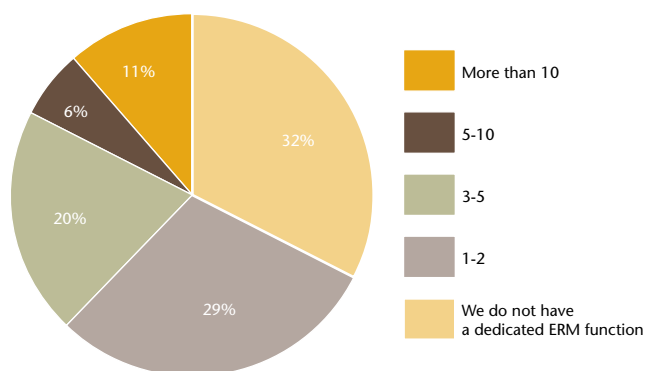


Figure 35

### Prime Sponsor of ERM

CFO	24%
VP / Director Risk Management	14%
Chief Risk Officer	13%
CEO	9%
We do not have an ERM champion	9%
Other	8%
Board	7%
Company Secretary / General Counsel	7%
Treasurer	3%
Internal Audit	2%

Figure 36

### Prime Drivers of ERM Implementation

Corporate governance / information transparency	65%
Best practice	53%
Improved performance and decision making	49%
Regulatory pressure	23%
CEO impetus	19%
Rating agency / financial institution requirements	16%
Peer / external stakeholder pressure	9%
Other	4%
Not specified	2%

Figure 37

### Key Objectives of the ERM Program

Embed risk management culture	60%
Enable informed risk-based decision making	55%
Implement process aligning risk management with compliance / governance	51%
Integrate different functional approaches to risk management	45%
Drive value creation for the organization	31%
Manage Total Cost of Risk (TCoR)	29%
Manage volatility to earnings and other key financial metrics	27%
Other	6%
Not specified	4%

Figure 38

### Extent ERM Initiative Influences Overall Strategic Planning Processes

Not specified	2%
Very significantly	4%
Significantly	22%
Partially	41%
Very little	23%
Not at all	7%

Figure 39

### Success ERM Program has had in (%)

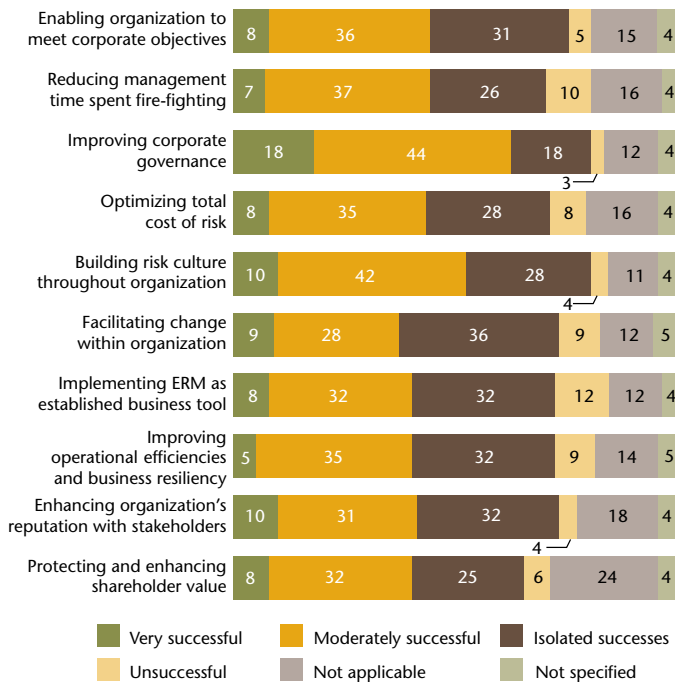


Figure 40

### ERM Implementation Barriers

Not specified	6%
Lack of tangible benefits	40%
Lack of senior management sponsorship	31%
Lack of access to key people	12%
Lack of capital to invest in risk management	24%
Lack of skills / capability to embed ERM business	34%
Lack of clear implementation plan	28%
Failure to clearly communicate business case for change	27%
Unclear ownership / responsibility for implementation	30%
Other	7%

Figure 41

### Integration of Risk-based Information into Business Processes (%)

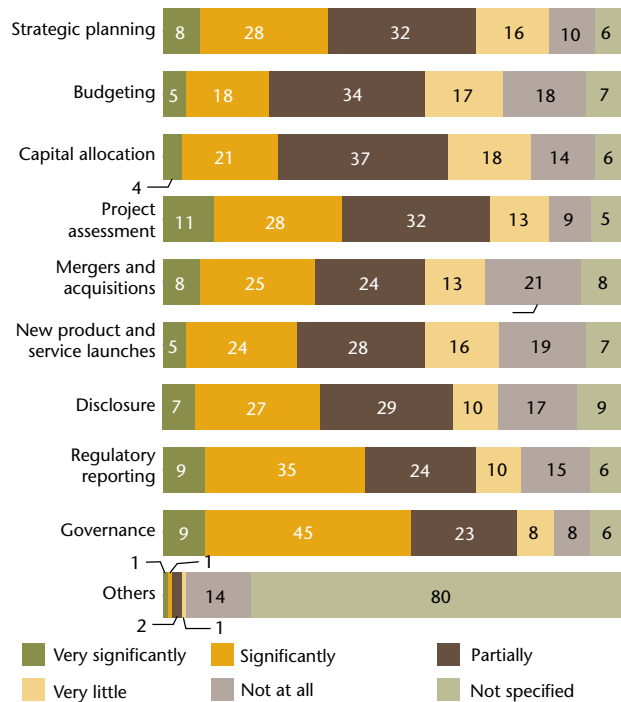


Figure 42

## Methods Used to Evaluate Risk Mitigation Strategies

Qualitative risk assessment	78%
Quantitative risk assessment	60%
Cost / benefit analysis	55%
Value at Risk (VaR)	21%
Risk adjusted Net Present Value (NPV)	19%
Real options	15%
Not specified	3%
Other	3%

Figure 43

## Level of Understanding of ERM Objectives (%)

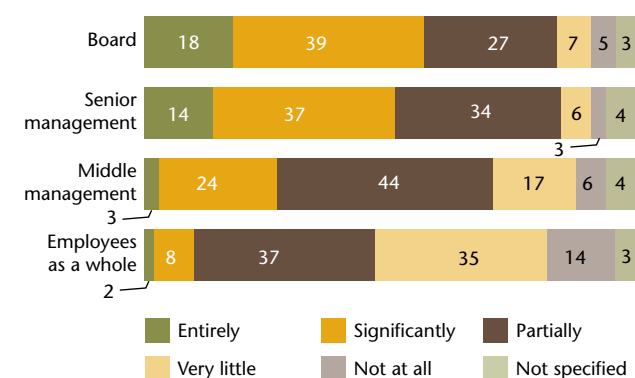


Figure 44

## Extent Organizational Culture is Designed into ERM Approach

Significantly	33%
Partially	19%
Entirely	15%
Not specified	15%
Not at all	9%
Very little	7%

Figure 45

## Success Ranking in Changing / Creating a Risk Culture

Senior management setting the 'tone at the top'	74%
Clear accountabilities for risk within overall governance framework	56%
Transparency in communicating of risk information	51%
Risk information integrated into decision making	51%
Competency in analyzing / managing risk across organization	38%
Manner in which senior management responds to 'bad news'	32%
Periodic line management training in purpose / approach / methodology of ERM	30%
Sufficient resources within risk function / adequate remit to engage, challenge senior management	24%
Appropriate risk taking behaviors rewarded / challenged through performance management process	23%
Not specified	4%
Other	2%

Figure 46

## Extent to Which Culture of Organization has Changed as a Result of ERM Program

Some significant change in particular functions / business units	35%
Some isolated changes	32%
No significant change	15%
Not specified	11%
Significant changes across organization	6%

Figure 47

## Current Stage of Development of Organization's ERM Strategy and Framework

Scale:			
1.	Initial/ Lacking	Component and associated activities are very limited in scope and may be implemented on an ad-hoc basis	11%
2.	Basic	Limited capabilities to identify, assess, manage and monitor risks	22%
3.	Defined	Sufficient capabilities to identify, measure, manage, report and monitor major risks; policies and techniques are defined and utilized (perhaps independently) across the organization	39%
4.	Operational	Consistent ability to identify, measure, manage, report and monitor risks; consistent application of policies and techniques across the organization	16%
5.	Advanced	Well-developed ability to identify, measure, manage and monitor risks across the organization; process is dynamic and able to adapt to changing risks and varying business cycles; explicit consideration of risk and risk management	7%

Figure 48

## Methods Utilized to Evaluate Risk Appetite / Tolerance

Using industry benchmarks (financial / operational)	32%
Using formal quantified risk appetite agreed at enterprise level	31%
Based on corporate "gut feeling"	30%
No formalized risk appetite or tolerance evaluation process	26%
Using formal quantified risk appetite agreed at divisional / functional / process level	20%
Based on shareholder expectations / related to earnings estimates	16%
Not specified	5%

Figure 49

## Techniques Found to be Most Successful in Embedding ERM Within Organization

Risk assessment and analysis	60%
Internal relationship management and facilitation	51%
Risk reporting and governance	48%
Risk management strategy development and policy setting	46%
Engagement and communication with stakeholders	46%
Alignment with other management decision and corporate governance processes	45%
Consistent assessment and decision making on risk mitigation options	30%
Quantification and clear definition of risk appetite / tolerances	23%
Analysis of unexpected events	23%
Awareness and training programs on ERM	23%
Evaluation of key vendor risk management programs	11%
Change and improvement program management	10%
Not specified	8%
Advanced actuarial-based quantification techniques to evaluate uncertainties (scenario analysis)	7%
Other	0%

Figure 50

### Risk Quantification Tools Used to Measure Demonstrable Value Received from ERM Efforts

Qualitative tools (frequency / severity risk map scoring)	59%
Industry benchmarks	34%
Earnings / Cash flow / Value at Risk	27%
No use of risk quantification in ERM process	23%
Actuarial analysis	13%
Stochastic / Monte Carlo simulation modeling	13%
Not specified	7%

Figure 51

### Methods Used to Evaluate New and Emerging Risks

Access internal data / knowledge regarding new, emerging, developing risks	57%
Access information from external providers	54%
Develop knowledge with major project / program managers	43%
Engage stakeholders to develop information	36%
Access information from suppliers / customers	36%
Conduct cross functional "what if" analysis	35%
Develop knowledge with externally facing marketing / strategy executives	28%
No method to identify new and emerging risks	12%
Not specified	5%
Other	1%

Figure 52

## S&amp;P Survey Groups Represented by Survey Participants

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li>■ <b>Industrials</b> <ul style="list-style-type: none"> <li>Professional Services</li> <li>Transportation</li> <li>Manufacturing</li> <li>Service Industry</li> <li>Support Services/Facilities &amp; Asset Management</li> <li>Construction &amp; Distribution</li> <li>Building Products</li> <li>Construction</li> <li>Nuclear Decommissioning Services</li> <li>Conglomerate</li> <li>Charity</li> <li>Staffing</li> <li>Building Systems &amp; Security</li> <li>Construction</li> </ul> </li> <li>■ <b>Financials</b> <ul style="list-style-type: none"> <li>Real Estate</li> <li>Financial Services</li> </ul> </li> <li>■ <b>Consumer Discretionary</b> <ul style="list-style-type: none"> <li>Education</li> <li>Hospitality</li> <li>Media</li> <li>Retail</li> <li>Apparel</li> <li>Entertainment Tour Operations</li> <li>Publishing</li> <li>Gaming</li> <li>Direct Selling Multi Level</li> <li>Travel</li> <li>Self Storage</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>■ <b>Health Care</b> <ul style="list-style-type: none"> <li>Pharmaceutical/Biotechnology</li> <li>Healthcare</li> </ul> </li> <li>■ <b>Energy</b> <ul style="list-style-type: none"> <li>Oil &amp; Gas</li> </ul> </li> <li>■ <b>Consumer Staples</b> <ul style="list-style-type: none"> <li>Agribusiness</li> <li>Food Processing &amp; Distribution</li> </ul> </li> <li>■ <b>Information Technology</b> <ul style="list-style-type: none"> <li>Technology</li> <li>Internet</li> </ul> </li> <li>■ <b>Utilities</b> <ul style="list-style-type: none"> <li>Public Entity</li> <li>Water and Waste Water Management</li> <li>Electricity &amp; Gas Transmission</li> <li>Electrical Transmission &amp; Distribution</li> </ul> </li> <li>■ <b>Materials</b> <ul style="list-style-type: none"> <li>Mining</li> <li>Chemical</li> </ul> </li> <li>■ <b>Telecommunication Services</b> <ul style="list-style-type: none"> <li>Telecommunication</li> </ul> </li> </ul> |
|--|---|





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