Risk Intelligent governance
A practical guide for boards

Risk Intelligence Series
Issue No. 16

Preface

This publication is the 16th whitepaper in Deloitte's series on Risk Intelligence. The concepts and viewpoints it presents build upon those in the first whitepaper in the series, *The Risk Intelligent Enterprise™: ERM Done Right,* as well as subsequent titles.

The series includes papers that focus on roles (chief audit executive, board of directors, etc.); industries (energy, life sciences, etc.); and issues (corporate social responsibility, global uncertainty, etc.). You may access electronic versions of all the whitepapers in the series free of charge at **www.deloitte.com/RiskIntelligence**. For complimentary print copies, contact your Deloitte practitioner. (See contact information on pages 16-17.)

Unfettered communication is a key characteristic of the Risk Intelligent Enterprise. We encourage you to share this whitepaper with colleagues — executives, board members, and key managers at your company. The issues outlined herein will serve as a starting point for the crucial dialogue on raising your company's Risk Intelligence.

Contents

A note to readers

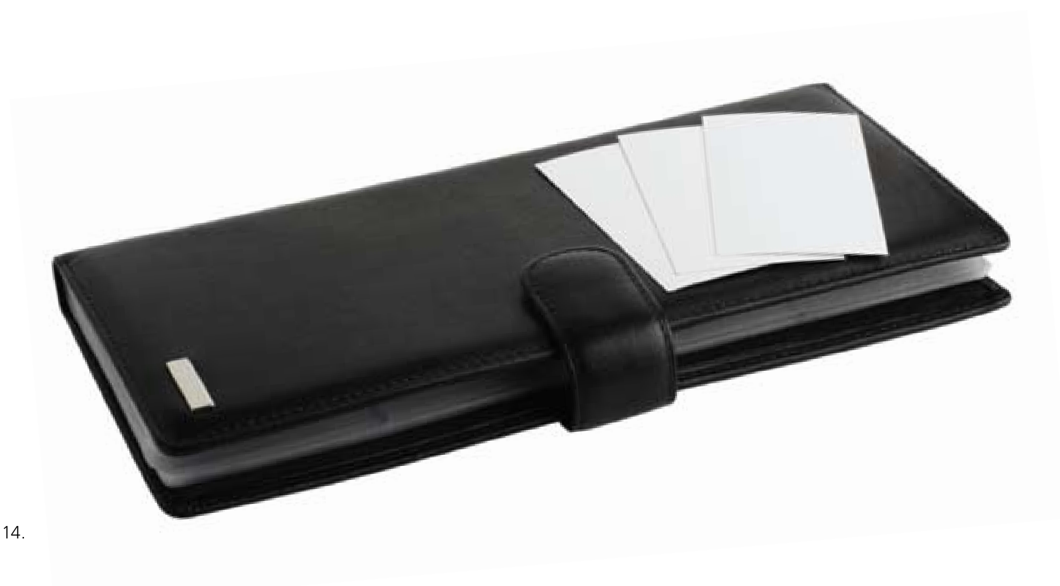
If you're like many corporate directors, you've long since accepted — even embraced — the responsibility for risk governance as a fundamental part of your corporate oversight role. But awareness and acceptance are one thing; effective action can be quite another. Many directors we've spoken with are still getting their arms around *how* to put risk governance into practice: how to broach the subject with management, how to build risk into the overall governance process, how to push through changes and make them stick. If the boards you sit on have been wrestling with issues like these, then this paper is for you.

In this paper, we aim to give board members a practical, action-oriented guide to enabling and executing Risk Intelligent governance. At the heart of the paper are six sections describing "areas of focus," each of which represents what we view as a key facet of risk governance. In each section, you'll find a brief description of the intended goals of that area of focus; a list of suggested actions that can help you pursue those goals; a sampling of questions that can help jump-start discussions among yourselves and with management; and a list of selected tools, proprietary to Deloitte, that we believe can facilitate the execution of your responsibilities.*

Because the whole discussion is set in the context of Deloitte's Risk Intelligent Enterprise™ framework, several themes central to our concept of Risk Intelligence — risk-taking as a means of value creation, candid communication and collaboration between boards and management, the bridging of organizational silos — surface repeatedly among the actions, questions, and tools we suggest for all six areas of focus. The intent is not to imply a lack of reader attention, but to reflect and reinforce the importance of these themes across multiple aspects of achieving Risk Intelligent governance.

We offer this "practical guide and toolkit" to directors not as a comprehensive solution or a universally applicable formula, but as food for thought and a catalyst for focused action. You can use each individual section as a reference and a guide to your efforts in that particular area of focus. You can read the entire document for a more comprehensive view of the essential steps we think boards can take to enable risk governance. And you can share it with management and other key leaders to help them understand your expectations and goals.

If you want to dig deeper into any or all of the topics we've presented, please don't hesitate to contact us with questions and comments. We hope you find this document useful in helping you guide your organization towards Risk Intelligence.



* A complete list of tools is available on page 14.

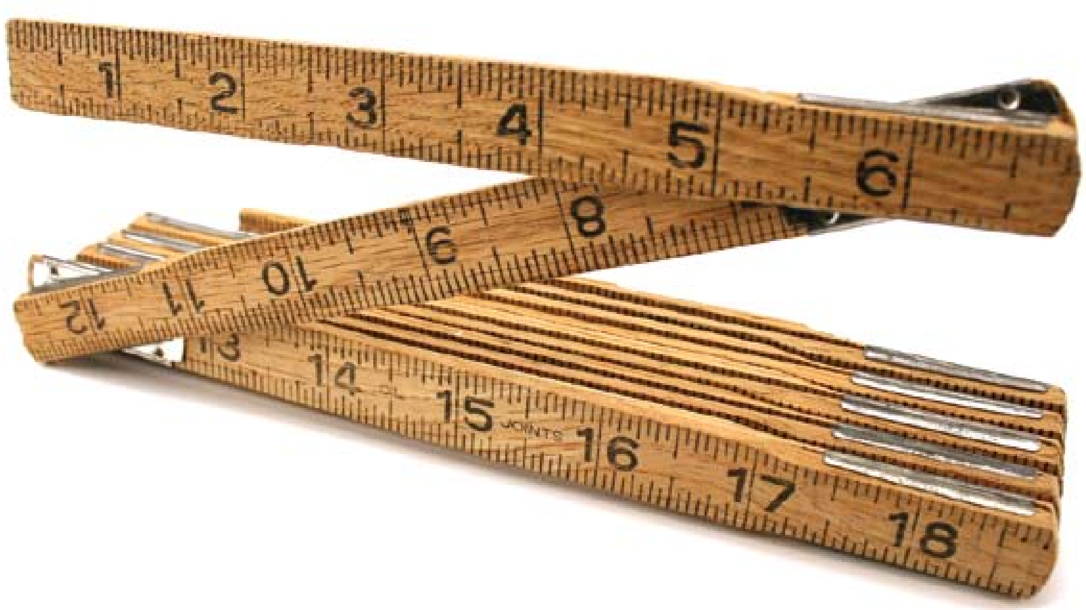
Foreword: A sixfold approach to Risk Intelligent governance

At many organizations, risk governance and value creation are viewed as opposed or even as mutually exclusive, when in fact they are inseparable. Every decision, activity, and initiative that aims to create or protect value involves some degree of risk. Hence, effective risk governance calls for *Risk Intelligent* governance — an approach that seeks not to discourage appropriate risk-taking, but to embed appropriate risk management procedures into all of an enterprise's business pursuits.

Deloitte's concept of the Risk Intelligent Enterprise integrates nine principles related to the responsibilities of the board, senior management, and business unit leaders into a cohesive risk management framework. Risk governance is at the apex of the framework: the unifying touchstone and guide to all of the organization's risk management efforts. But on a more detailed level, what does effective Risk Intelligent governance entail? Based on our experience working with boards in their risk governance efforts, we have identified six distinct actions a board can take to help enable a Risk Intelligent governance approach:

1. **Define the board's risk oversight role**
2. **Foster a Risk Intelligent culture**
3. **Help management incorporate Risk Intelligence into strategy**
4. **Help define the risk appetite**
5. **Execute the Risk Intelligent governance process**
6. **Benchmark and evaluate the governance process**

Collectively, these "areas of focus" reflect the view that risk-taking for reward and growth is as important as risk mitigation to protect existing assets. By treating risk as intrinsic to the conduct of business, Risk Intelligent governance elevates risk management from an exercise in risk avoidance to an essential consideration in every decision, activity, and initiative.



A practical guide to Risk Intelligent governance

Area of focus #1: Define the board's risk oversight role

Effective risk oversight begins with a solid mutual understanding of the extent and nature of the board's responsibilities as compared to those of management and other stakeholders. Key board-level responsibilities include setting the expectations and tone, elevating risk as a priority, and initiating the communication and activities that constitute intelligent risk management. The ultimate goal is to assist management in creating a cohesive process in which risks and their impacts are routinely identified, evaluated, and addressed.

A board should possess enough collective knowledge and experience to promote a broad perspective, open dialogue, and useful insights regarding risk.

Actions to consider in defining the board's risk oversight role:

Define the board's risk governance roles and responsibilities. The entire board is accountable for overseeing risk management and should be involved in the risk oversight process. Depending on the organization's needs and the board's structure and composition, however, it may make sense to allocate specific aspects of risk oversight responsibility to specific board committees (for instance, the board may form a special purpose committee of members with extensive background in a certain risk area to discuss risks of that type as they are brought to the board's attention). Having various committees play complementary roles in risk oversight — and share their findings and insights with each other and the entire board — can help set the tone that risk oversight is important to all board members. Even in boards where the nominal responsibility for risk oversight rests with a single committee, such as the audit committee or a risk committee, all board members should recognize that risk oversight is broader than that single committee. In any case, all such roles and responsibilities should be formally defined and clearly understood.

Consider board composition.

In our view, a board should possess enough collective knowledge and experience to promote a broad perspective, open dialogue, and useful insights regarding risk. Consider performing a periodic evaluation, perhaps carried out by the nominating or governance committee, of the board's overall composition as well as each member's experiences, knowledge, and special characteristics and qualities. Having the right mix of board members at the table will allow for discussions that are founded on Risk Intelligent knowledge and perspective.

Establish an enterprise-wide risk management framework.

Like any organizational process, risk management requires a framework that defines its goals, roles, activities, and desired results. Deloitte's concept of the Risk Intelligent Enterprise describes an approach to risk that can strengthen an existing framework or constitute a framework itself. If the enterprise lacks a risk management framework, you can ask management to develop one with your input. Several organizations, such as the Casualty Actuarial Society, the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and the Treasury Board of Canada Secretariat, among others, have developed risk management frameworks that can serve as a useful starting point. Ideally, the chosen framework will help management establish goals, terms, methods, and measures, as well as gauge the need for specific programs (such as a contract risk and compliance program or training programs on risk awareness).

Perform site visits.

Consider touring the organization's facilities to enhance your understanding of work processes and the risks associated with value creation and preservation. A number of boards today are indeed using site visits to broaden their knowledge of — and demonstrate their interest in — the work of the enterprise.

Questions to ask about risk oversight:

- How is risk overseen by our various board committees? Is there appropriate coordination and communication?
- Are we getting the information and insights we need for key decisions?
- Which framework has management selected for the risk management program? What criteria did they use to select it?
- What mechanisms does management use to monitor emerging risks? What early warning mechanisms exist, and how effective are they? How, and how often, are they calibrated?
- What is the role of technology in the risk management program? How was it chosen, and when was it last evaluated?
- What is the role of the tax function in the risk management program? Are we taking steps to demystify tax by gaining a high-level understanding of not only the downside consequences of tax risks, but also the upside potential that a robust tax risk management program can offer?

Tools to use in defining the board's oversight role:

- Risk Intelligence Map
- Board-Level Risk Intelligence Map
- Board-Level Documentation of Risk Oversight
- Board Members' Skills Matrix

Steps some boards have taken to improve risk governance:

- Revised committee charters to include risk-related concerns
- Benchmarked their practices against peer companies
- Obtained guidance from associations of directors and similar sources
- Focused more attention on risk management and its value and shortcomings
- Reviewed ethical guidelines and codes of conduct

Area of focus #2: Foster a Risk Intelligent culture

In a Risk Intelligent culture, people at every level manage risk as an intrinsic part of their jobs. Rather than being risk averse, they understand the risks of any activity they undertake and manage them accordingly. Such a culture supports open discussion about uncertainties, encourages employees to express concerns, and maintains processes to elevate concerns to appropriate levels.

Actions to consider in fostering a Risk Intelligent culture:

Lead by example in communicating about risk.

Ask management about the risks of specific decisions, activities, and initiatives. Set expectations with senior executives and business unit leaders about what information the board expects and how it will be conveyed. Set the tone for an open and candid dialogue. Also, work with management to develop appropriate messaging about the risk environment for the rest of the organization.

Build cohesive teams with management.

Culture change occurs not by decree but through interactions with management. Create opportunities to engage with management and to learn more about their risk management practices. These interactions can form the basis of a continual, iterative process of alignment that both allows you to refine your views and priorities, and enables management to adjust its practices to reflect your guidance.

Reward Risk Intelligent behavior.

Consider incorporating risk-related objectives into your company's executive compensation structures. You may also wish to urge management to weave risk management practices into job descriptions, training, work processes, supervisory procedures, and performance appraisals.

Consider a third-party assessment.

In addition to self-assessment, commissioning an independent external review of your risk governance policies, procedures, and performance can yield useful benchmarking information and shed light on leading risk governance practices.

Questions to ask about the organizational culture:

- How are we communicating our Risk Intelligence messages and assessing the extent to which Risk Intelligence is understood throughout the enterprise?
- Are people comfortable in discussing risk, or are they afraid to raise difficult issues? How quickly do they raise issues?
- How might our compensation programs encourage inappropriate short-term risk taking? How can we change these programs to encourage Risk Intelligent risk-taking instead? What mechanisms exist to recover compensation when excessive risk-taking occurs?
- Has the organization developed a common language around risk that defines risk-related terms and measures and that promotes risk awareness in all activities and at all levels?
- How have we demonstrated the significance of risk governance in our documentation and communications?
- What tools are we using to gauge our risk governance effectiveness, and with what results? What benefit might we derive from an independent evaluation?

Tools to use in fostering a Risk Intelligent culture:

- Illustrative Risk Management Policies
- Cultural Assessment
- Risk-Focused Board Self-Assessment

Area of focus #3: Help management incorporate Risk Intelligence into strategy

Since one of a board's main responsibilities is to oversee the strategy-setting process, helping management incorporate Risk Intelligence into strategy is an inherent part of your overall corporate governance role. Drawing on a solid practical understanding of the enterprise's efforts around value creation and preservation, you can work with management to collaboratively move from a negative "incident" view of risk to a more positive "portfolio" view that considers risks and rewards in a broader strategic context.

Actions to consider in helping management incorporate Risk Intelligence into strategy:

Design processes for integrating risk management into strategic planning.

Consider augmenting the overall strategic planning process with processes for considering risks across the organization, prioritizing the risks, and appropriately allocating risk management resources. Consider the scenario-planning process and whether it incorporates both upside and downside risks, as well as a view into the overall risk exposures and opportunities. You may wish to develop processes that help verify that risk management incorporates value creation as well as preservation, that the risk appetite is defined and risk tolerances are identified, and that risk is handled accordingly. Also, you can include discussions about risk at retreats devoted to strategy.

Monitor strategic alignment.

Monitoring strategic alignment involves analyzing the risk-return tradeoff in setting the company's financial goals, the proposed means of reaching those goals, and likely constraints. To execute this monitoring, you will need to maintain visibility into strategic planning and risk-reward decisions. Make it clear that any changes or events with potentially significant consequences for the organization's reputation, as well as its financial position, are to be brought to your attention and considered at the board level.

Establish accountability.

As the company's overall governing body, the board should establish and reinforce executive accountability for risk management. One way to do this is to expect full disclosure by management of the risks associated with each aspect of the strategy. Give management ongoing feedback about your satisfaction with their level of disclosure and the quality of risk-reward analyses. You might also consider a formal evaluation process, led by the board chairman, lead director, or governance committee, for specific executives.

Questions to ask when helping management incorporate Risk Intelligence into strategy:

- How can we build Risk Intelligence into decisions about capital allocation, acquisition, succession planning, and other strategic initiatives?
- How should risk-return tradeoffs be weighed in strategic planning and review sessions? How can we generate more meaningful discussion of these tradeoffs?
- What is the process for identifying and evaluating changes in the external environment? How are these findings considered in strategic planning?
- How realistic is the strategy? Under what scenarios would the strategy be achieved — or fail to be achieved — and what are the intended results or plans if it fails?
- What would it take — in resources, knowledge, alliances, or conditions — to increase the likelihood of achieving the desired results and to reduce the chances of failure?

Tools to use in helping management to incorporate Risk Intelligence into strategy:

- Board Members' Skills Matrix
- Risk Environment Snapshot
- Illustrative Risk Management Policies
- Board Risk Oversight Process Map

Steps some boards have taken to encourage a Risk Intelligent approach to strategic planning:

- Increased the frequency of discussions of risk with management
- Engaged in defining high-level risk indicators with management
- Evaluated risk appetite and tolerances with management
- Identified activities, decisions, and transactions (typically by size) to be brought to the board's attention
- Obtained information on risk-related leading practices for their industry

Area of focus #4: Help define the risk appetite

Risk appetite defines the level of enterprise-wide risk that leaders are willing to take (or not take) with respect to specific actions, such as acquisitions, new product development, or market expansion. Where quantification is practical, risk appetite is usually expressed as a monetary figure or as a percentage of revenue, capital, or other financial measure (such as loan losses); however, we recommend that less quantifiable risk areas, such as reputational risk, also be considered when setting risk appetite levels. While the CEO proposes risk appetite levels, the board ought to approve them — or challenge them and send them back to the CEO for adjustments — based on an evaluation of their alignment with business strategy and stakeholders' expectations.

Risk appetites may vary according to the type of risk under consideration. Using a Risk Intelligent approach, companies ought to have an appetite for rewarded risks such as those associated with new product development or new market entry, and a much lower appetite for unrewarded risks such as non-compliance or operational failures. Some risks just come with the territory. If you are in the chemical business, there will inevitably be environmental spills and health and safety incidents. If you don't have the appetite for those types of risks, then you probably shouldn't be in that business. Once you have accepted this reality, you should do everything to prevent, rapidly detect, correct, respond to, and recover from any such incident.

Once the risk appetite is defined, management then should define specific risk tolerances, also known as risk targets or limits, that express the specific threshold level of risk by incident in terms that decision-makers can use (for instance, in completing an acquisition, the risk tolerance may be defined as a stop-loss threshold of a specified value). Management may have no tolerance for unethical business conduct or for environmental, health and safety incidents by adopting a zero incidents policy.

One important management responsibility is to continually monitor the company's risk exposures, evaluate actual risk exposure levels against the stated risk appetite, and adjust risk tolerances and policies as necessary to align actual risk exposure with the desired risk exposure as defined by the risk appetite. By having management report on this process to the board, board members can gain insight into whether there may be opportunities for further risk-for-reward strategies or, conversely, if the organization is overly "stretched" in its risk levels.

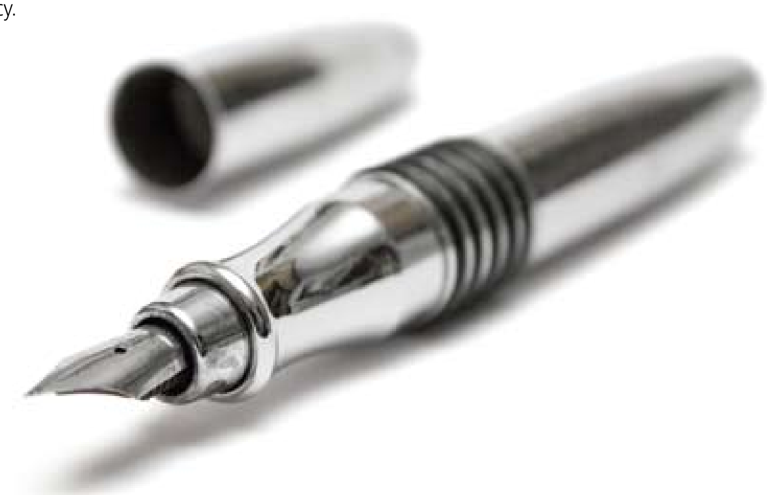
Actions to consider in helping to define the risk appetite:

Distinguish between risk appetite and risk tolerance.

Many business unit leaders and some senior executives fail to distinguish between risk appetite and risk tolerance. As a result, many organizations either set arbitrary risk tolerances that do not track back to an overall risk appetite, or wrongly assume that a general statement of risk appetite gives decision-makers enough operational guidance to stay within its parameters. You can help your organization steer clear of these traps by assisting management in developing a cogent approach to defining the risk appetite, specifying risk tolerances, and communicating them across the enterprise.

Serve as a sounding board.

Make yourself available as a resource for helping senior executives understand and reconcile various views of risk within the organization. One way to do this is to ascertain how management balances and aggregates the business units' risks as well as how management sets various risk tolerances, particularly in relatively risky businesses or markets.



Questions to ask regarding risk appetite:

- What size risks or opportunities do we expect management to bring to our attention?
- How does management determine the organization's risk appetite? Which risk categories are considered, and how do they relate to management's performance goals and compensation metrics?
- In developing the risk appetite, how did management incorporate the perspectives of shareholders, regulators, and analysts — and experiences of peer companies?
- How are risk tolerances set? How does that process account for risk appetite? How do risk tolerances relate to the risk appetite and to risk categories?
- What scenario-planning or other models are used in setting the risk appetite and tolerances? How do these tools account for changing circumstances and for the human factor?

Tools to use in helping to define the risk appetite:

- Risk Intelligence Map
- Risk Environment Snapshot
- Illustrative Risk Management Policies
- Board-Level Documentation of Risk Oversight

Companies ought to have an appetite for rewarded risks...and a much lower appetite for unrewarded risks.

Area of focus #5: Execute the Risk Intelligent governance process

A Risk Intelligent governance process should be strategic in design, promote awareness of the relationship between value and risk, and efficiently and effectively allocate the company's risk management resources. Effective execution of the process depends on maintaining a disciplined, collaborative approach focused on process design, process monitoring, and accountability.

Actions to consider in executing the Risk Intelligent governance process:

Work with management on process design.

A joint approach to process design can help establish processes that both you and management feel are effective, yet not overly burdensome. Collaborate with executives to develop value creation and risk management objectives, board responsibilities, and mechanisms for elevating key risk issues. It's often useful to establish policies that detail the circumstances under which management must obtain board approval for decisions, while noting that the board's role is risk governance rather than risk management.

Monitor the overall risk management process.

Set up procedures for evaluating and overseeing the processes by which risks are systematically identified, reported, and managed. To execute effective monitoring, it's important for you as board members to keep abreast of the company's vulnerabilities, risk appetite, and risk tolerances; understand the risk management system; and bring an integrated view of the organization's risk management methods to discussions with the executive team.

It's important for the board and the CEO to maintain a constructive, collaborative relationship.

Conduct formal risk management program assessments.

A risk management program assessment can include questions about risk governance, risk infrastructure and management, and risk ownership. This provides a comprehensive view of the process and enables all stakeholders to see how they fit into both the basic process and any improvement efforts.

Clarify accountability at the board and management levels.

Complete, ongoing disclosure of major risk exposures by the CEO to the board is fundamental to a Risk Intelligent governance process. We suggest that you work with the CEO to verify that responsibility for specific risks and related activities has been assigned to specific members of the management team. In doing this, it's important for the board and the CEO to maintain a constructive, collaborative relationship — but that need not stop you from discussing difficult issues with management and questioning practices when doubts arise.

Questions to ask when executing the governance process:

- Are people at all levels — across silos — actively engaged in risk management? If so, how? If not, why not?
- What criteria does management use to prioritize enterprise risks? How well does the company's allocation of risk management resources align with those priorities?
- How is management addressing the major opportunities and risks facing the company? How do we know that these are, in fact, the major opportunities and risks, and that the steps management is taking to address them are appropriate?
- How do we know when risks are increasing, holding steady, or decreasing? What processes does management use to identify and monitor these trends over time?
- How often do we discuss risk with management? What issues have been brought to our attention in the past six to twelve months?

Tools to use in executing the governance process:

- Risk Intelligence Map
- Cultural Assessment
- Board-Level Documentation of Risk Oversight
- Risk Environment Snapshot

Area of focus #6: Benchmark and evaluate the governance process

Risk governance is a continual process, and systematic mechanisms for evaluating and improving risk governance proficiency can greatly benefit your efforts to identify, prioritize, and implement improvements as well as give you visibility into the organization's progress toward a Risk Intelligent governance approach. Such mechanisms allow you to gauge your current stage of development relative to peers; they can also help track the progress of your governance program along a Risk Intelligence "maturity model." You might also consider obtaining periodic independent assessments of your risk governance processes.

Actions to consider in benchmarking and evaluating the governance process:

Use internal monitoring and feedback.

Periodically ask for feedback from senior executives on how well you and your fellow board members have played your risk oversight role. As part of this effort, you may wish to request relevant reports from internal audit and/or the risk management team. You may also review the methods by which management assesses the risk management program.

Participate in continuing education and updates.

To keep your own knowledge up to date, it's helpful to receive ongoing updates on approaches to risk management and on risks developing in the internal and external environment.

Solicit independent viewpoints.

An independent review of your risk governance program can help you identify what is working, locate any gaps, and prioritize areas for improvement. Consider having management present the summary results along with a plan for any corrective actions.

Include risk as a topic in the annual board self-assessment.

The board's annual self-assessment process provides a broad view into how the full board feels that it is performing in its overall governing body role. Including questions in the assessment form focused specifically on risk governance effectiveness can be a valuable guide to measuring your effectiveness in providing Risk Intelligent governance. Your nominating and/or governance committee may wish to consider reviewing the assessment form to verify that it includes such language.

Ask for feedback from senior executives on how well you and your fellow board members have played your risk oversight role.

Questions to ask when benchmarking and evaluating the governance process:

- How have we gone about assessing our risk governance and management programs? What other tools might we use in this assessment?
- To what extent are our compliance, internal audit, and risk management teams employing Risk Intelligent approaches? How are risks aggregated across our businesses?
- What value might we derive by engaging a third party to assess our organization against leading practices, industry peers, and other benchmarks?
- How can we improve our risk governance proficiency, stay current, and share knowledge about risk governance — both individually and collectively?
- What steps can we take to improve the quality of our risk governance and management processes?

Tools to use in benchmarking and evaluating the governance process:

- Risk Intelligence Diagnostic Tool and Maturity Model
- Cultural Assessment
- Risk Environment Snapshot
- Risk-Focused Board Self-Assessment

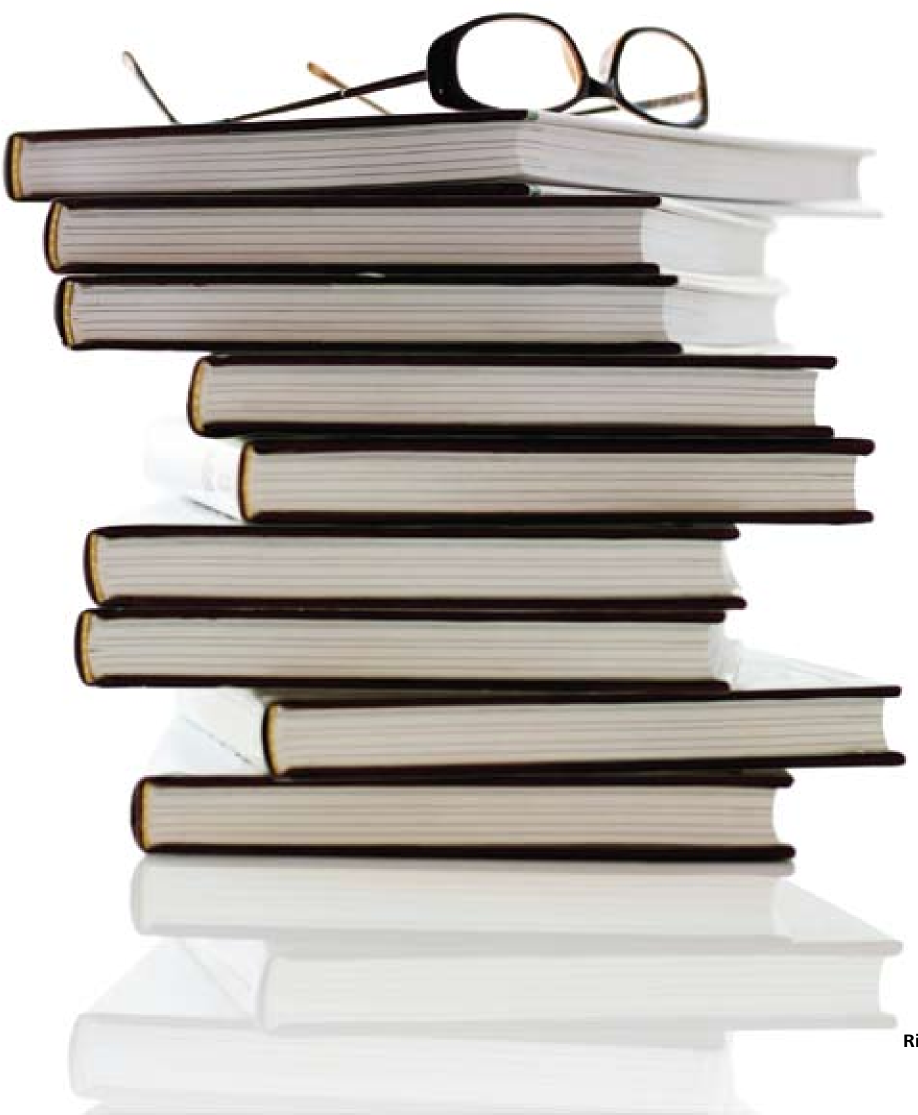
Toward Risk Intelligent governance

Afterword

Risk Intelligent governance stands among the most valuable contributions a board can make to its organization. As seasoned business leaders, your combined breadth of perspective, depth of experience, and knowledge of the enterprise can lend support to the organization's risk management efforts that is not only invaluable, but also unavailable elsewhere.

Through Risk Intelligent governance, you can help management and the enterprise:

- Allocate risk management resources in a cost-effective manner
- Assist in shaping the organization's response to regulatory issues
- Employ risk management for competitive advantage
- Drive long-term growth while preserving assets



Deloitte's Risk Intelligent governance toolkit

Risk Intelligence Diagnostic Tool and Maturity Model — a guide to assessing the current level of development of an organization's risk management approach along several key dimensions. This tool includes questions to diagnose the efficacy of risk oversight (for boards and board committees) and risk management (for senior executives and risk owners). With this tool, the board and management can identify and prioritize opportunities for further developing their risk management capabilities.

Risk Environment Snapshot — a tool designed to provide rapid insight into the organization's risk culture, risk processes, and their risk roles and responsibilities. The Risk Environment Snapshot, formulated as a brief list of questions to be answered by your executive team, provides a quick "snapshot" view into areas such as the organization's risk control environment, risk assessment processes, monitoring activities, information and communication, control activities, and the extended enterprise. It offers you a quick, high-level view of how well management is currently managing risk and how well the board is overseeing the process, establishing a meaningful baseline for further analysis and monitoring.

Board-level Documentation of Risk Oversight — a guide to help boards develop and clearly document risk oversight policies and procedures. This Deloitte-proprietary tool offers a view of peer companies' disclosed policies, identifies practices to consider, and helps the board evaluate its current documentation.

Cultural Assessment — an (at least) annual survey, more detailed than the Risk Environment Snapshot, for assessing the organization's ethical and risk climate and increasing the board's understanding of potential issues in those areas. Deloitte can conduct this proprietary survey and provide customized reports to help the board assess the effectiveness of their risk programs, identify improvements, and consider steps to further mitigate risks.

Illustrative Risk Management Policy — a guide for creating risk management policies specific to the organization. This tool aims to help leaders develop a common definition of risk and a unified risk management framework, which enable the board and management to outline a risk management policy. The resulting organization-specific policy can then help the board and management develop the organization's risk management charters and communicate policies across the organization.

Board Members' Skills Matrix — a tool to help assess the knowledge and experience of each board member in areas such as operations, finance, marketing, and risk management. The tool collects and organizes this information and relates it to the company's business objectives, allowing the board to identify existing capabilities and potential gaps. It can also help identify board education and training needs, or a need for additional capabilities.

Risk Intelligence Map — a Deloitte-proprietary guide to key risks, as well as potential interactions among risks, that may reside or arise in each area of the organization. This tool is useful in facilitating a structured discussion about risk and related priorities.

Board-Level Risk Intelligence Map — a map, derived from the Risk Intelligence Map, that helps the board identify areas of risk that it is responsible for overseeing.

Risk-Focused Board Self-Assessment — This tool provides areas for consideration and examples of questions to include with regard to Risk Intelligent governance within the board's annual self-assessment.

Board Risk Oversight Process Map — a framework that can assist the board in developing and implementing its value creation/preservation and risk oversight processes. The framework includes five elements: 1) stakeholder concerns and increased regulation, 2) oversight policies and processes, 3) education and communication, 4) board focus and monitoring, and 5) analysis and feedback. The last item might include, for example, root cause analysis of triggered risk-related warning mechanisms or past risk management failures.

Nine fundamental principles of a Risk Intelligence program

1. In a Risk Intelligent Enterprise, a common definition of risk, which addresses both value preservation and value creation, is used consistently throughout the organization.
2. In a Risk Intelligent Enterprise, a common risk framework supported by appropriate standards is used throughout the organization to manage risks.
3. In a Risk Intelligent Enterprise, key roles, responsibilities, and authority relating to risk management are clearly defined and delineated within the organization.
4. In a Risk Intelligent Enterprise, a common risk management infrastructure is used to support the business units and functions in the performance of their risk responsibilities.
5. In a Risk Intelligent Enterprise, governing bodies (e.g., boards, audit committees, etc.) have appropriate transparency and visibility into the organization's risk management practices to discharge their responsibilities.
6. In a Risk Intelligent Enterprise, executive management is charged with primary responsibility for designing, implementing, and maintaining an effective risk program.
7. In a Risk Intelligent Enterprise, business units (departments, agencies, etc.) are responsible for the performance of their business and the management of risks they take within the risk framework established by executive management.
8. In a Risk Intelligent Enterprise, certain functions (e.g., Finance, Legal, Tax, IT, HR, etc.) have a pervasive impact on the business and provide support to the business units as it relates to the organization's risk program.
9. In a Risk Intelligent Enterprise, certain functions (e.g., internal audit, risk management, compliance, etc.) provide objective assurance as well as monitor and report on the effectiveness of an organization's risk program to governing bodies and executive management.

U.S. contacts

Ray Lewis
Managing Partner, U.S. Center for
Corporate Governance
Deloitte & Touche LLP
+1 212 492 4006
raylewis@deloitte.com

Henry Ristuccia
U.S. Leader
Governance & Risk Management
Deloitte & Touche LLP
+1 212 436 4244
hristuccia@deloitte.com

Scott Baret
Partner
Deloitte & Touche LLP
+1 212 436 5456
sbaret@deloitte.com

Michael Fuchs
Principal
Deloitte Consulting LLP
+1 212 618 4370
mfuchs@deloitte.com

Philip Soulanille
Senior Manager
U.S. Center for Corporate Governance
Deloitte LLP
+1 212 492 4407
psoulanille@deloitte.com

Rita Benassi
Partner
Deloitte Tax LLP
+1 203 761 3740
rbenassi@deloitte.com

Rick Funston
Principal
Deloitte & Touche LLP
+1 313 396 3014
rifunston@deloitte.com

Steve Wagner
Retired Partner and Senior Advisor to
The Deloitte LLP Center for Corporate Governance
+1 617 437 2200
swagner@deloitte.com

Donna Epps
Partner
Deloitte Financial Advisory Services LLP
+1 214 840 7363
depps@deloitte.com

Sandy Pundmann
Partner
Deloitte & Touche LLP
+1 312 486 3790
spundmann@deloitte.com

Maureen Errity
Director
U.S. Center for Corporate Governance
Deloitte LLP
+1 212 492 3997
merrity@deloitte.com

Nicole Sandford
Partner
U.S. Center for Corporate Governance
Deloitte & Touche LLP
+1 203 708 4845
nsandford@deloitte.com

International contacts

Mark Layton
Global Leader
Governance & Risk Management
Deloitte & Touche LLP
+1 214 840 7979
mlayton@deloitte.com

Americas

Brazil
Gilberto Souza
Partner
Deloitte Brazil
+55 11 5185 2444
gsouza@deloitte.com

Canada
Don Wilkinson
Partner
Deloitte Canada
+1 416 601 6263
dowilkinson@deloitte.ca

Mexico
Daniel Aguiñaga
Partner
Deloitte México
+52 55 5080 6560
daguinaga@deloittemx.com

United States
Henry Ristuccia
Partner
Deloitte & Touche LLP – United States
+1 212 436 4244
hristuccia@deloitte.com

Ray Lewis
Partner
Center for Corporate Governance
Deloitte & Touche LLP – United States
+1 212 492 4006
raylewis@deloitte.com

Dan Konigsburg
Senior Manager
Global Center for Corporate Governance
Deloitte LLP – United States
+1 212 492 4691
dkonigsburg@deloitte.com

EMEA

Belgium
Laurent Vandendooren
Partner
Deloitte Belgium
+32 2 800 2281
lvandendooren@deloitte.com

Commonwealth of Independent States (CIS)
Wayne Brandt
Partner
Deloitte CIS
+7 495 787 0600 x2922
waybrandt@deloitte.ru

France
Carol Lambert
Partner
Chair, Global Center for Corporate Governance
Deloitte France
+33 1 4088 2215
clambert@deloitte.fr

Germany
Claus Buhleier
Partner
Deloitte Germany
+49 621 15901 70
cbuhleier@deloitte.de

Italy
Ciro Di Carluccio
Partner
Deloitte Italy
+39 06 3674 9325
cdicarluccio@deloitte.it

Netherlands
Jan Bune
Partner
Deloitte Netherlands
+31 88 288 18 68
jbune@deloitte.nl

Spain
Alfonso Mur
Partner
Deloitte Spain
+34 91 514 5000 x2103
amur@deloitte.es

United Kingdom
Martyn Jones
Partner
Deloitte United Kingdom
+44 20 7007 0861
mjones@deloitte.co.uk

Asia Pacific

Australia
John Meacock
Partner
Deloitte Australia
+61 2 9322 7979
jmeacock@deloitte.com.au

China
Danny Lau
Partner
Deloitte China
+852 2852 1015
danlau@deloitte.com.hk

India
Abhay Gupte
Partner
Deloitte India
+91 22 6681 0600
agupte@deloitte.com

Japan
Masahiko Sugiyama
Partner
Deloitte Japan
+81 3 4218 7283
msugiyama@deloitte.com

Singapore
Piti Pramotedham
Partner
Chair, Global Center for Corporate Governance
Deloitte Singapore
+65 6216 3222
piti@deloitte.com

#9082