

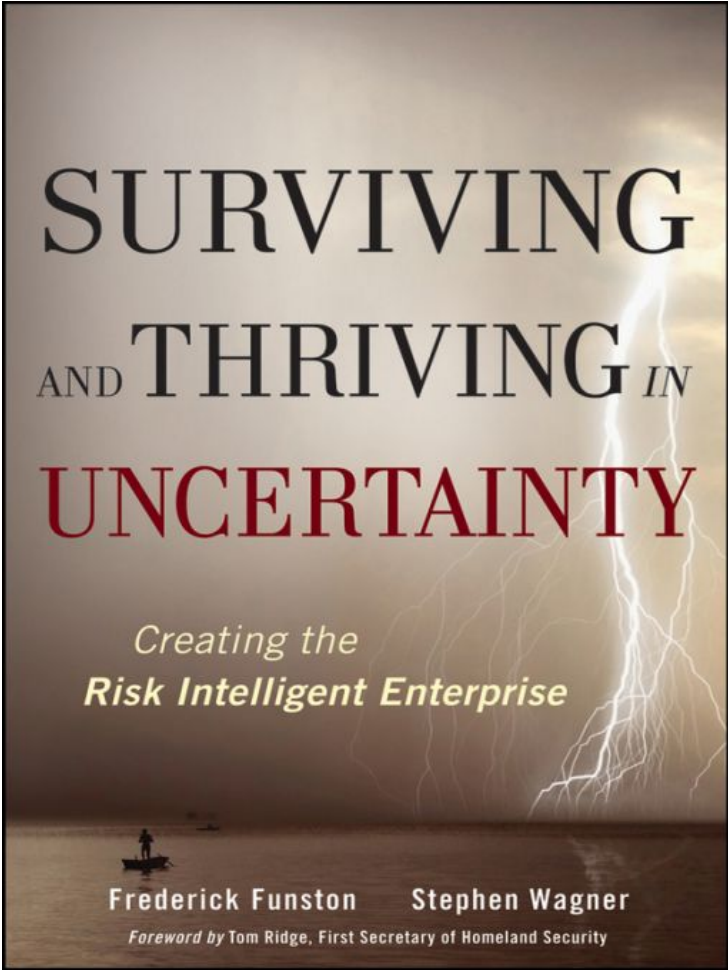
**SURVIVING**  
**AND THRIVING** *IN*  
**UNCERTAINTY**

*Creating the  
Risk Intelligent Enterprise*

**Frederick Funston**

**Stephen Wagner**

*Foreword by Tom Ridge, First Secretary of Homeland Security*



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# **More Praise for *Surviving and Thriving in Uncertainty***

*“Surviving and Thriving in Uncertainty* is proof that effective risk intelligence doesn’t have to be an arcane venture requiring a Ph.D. The authors’ practical, common sense insights and actionable methods make efforts to improve decision quality and manage enterprise value not only achievable, but oddly enjoyable. Simplifying complexity is perhaps one of the book’s biggest strengths. Whether you’re an experienced director, a seasoned executive, or just starting out, this book is a must-read.”

—Chris DePippo, ERM Director and Chief Compliance Officer, Computer Sciences Corporation (CSC)

“Funston and Wagner’s excellent user’s guide for managing risk in today’s rapidly changing global business world is also a great tool for how to win in high-threat competitive environments. As skilled practitioners, they provide just the right mix of insightful reflection and timely practical guidance for readers to incorporate into their own disciplines.”

—William O. McCabe, former B-52 commander, Pentagon official, and DuPont executive

*“Surviving and Thriving in Uncertainty* provides a refreshing risk-management framework. Funston and Wagner provide unique insights into creating the Risk Intelligent Enterprise. Their focused questions and real-world examples transferred easily to our own risk program. The common sense approach resonated with our board and staff and rapidly advanced the WSIB’s risk program.”

—Theresa Whitmarsh, Executive Director, Washington State Investment Board



Surviving and Thriving  
in Uncertainty

*Creating the Risk Intelligent  
Enterprise*

**FREDERICK FUNSTON  
STEPHEN WAGNER**



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# Foreword

During my tenure as the first Secretary of the U.S. Department of Homeland Security, much of what we did to secure the country and its citizens centered on risk assessment and risk management. Dealing with risk, whether in the public or private sector, is a daunting but critical task. At the Department of Homeland Security, of course, risk management is required in order to keep the country adequately protected while simultaneously contributing to its capacity to be competitive and productive. What you will see in the following chapters is an insightful view of how risk management, when intelligently applied, can help the private sector achieve the same outcomes.

Every day, people, businesses, and governments assess, manage, and prepare for risks. Any business, in my view, that does not have some measure of risk assessment and risk management embedded in its operational structure and culture is most likely a static and non-innovative enterprise. It has no true situational awareness and thus, in the long term, will have no long term—because it will have neither means for preventing and mitigating crises nor for identifying and optimizing opportunities.

At the governmental level, one of the challenges of risk management is building bridges and promoting shared communication among the intelligence community. Consider the National Security Agency, the Federal Bureau of Investigation, the Central Intelligence Agency, and the Department of Defense. Each has its own set of intelligence sources. But if these separate agencies don't share information, their effectiveness in identifying and managing

risks is diminished. The same is true of different business units or departments within any corporation.

It isn't easy to run any federal department as a business, particularly when you consider that 535 people, the Congress, act as an informal board of directors, appropriate dollars, and dictate where the department or agency spends them.

However, it is possible and even necessary for government to apply certain business principles to its overarching and departmental missions. That begins with identifying risks. Each day, on the way to the White House, I would receive a matrix that addressed potential threats. Homeland Security doesn't generate intelligence information; it is a consumer of information provided by various intelligence agencies. But the question for the leadership of any enterprise is how do you evaluate risks and the impact each could have on your business or enterprise?

The first consideration is credibility. How credible are your sources? Have you received information from a given source before, and did that information prove to be accurate? Second, can this intelligence be corroborated? Can you verify this information with another source? Third, how exposed are you? How vulnerable are you at that particular point? Have you performed certain preparedness training? Have you built security and safety measures to substantially mitigate the risk? Fourth, what's the actionable threat? What are the most important things you can do to deter the risk immediately? Is this action consistent with your culture, your reputation, and how you do business? Will it have a good or bad economic impact on your enterprise? Will taking action make your enterprise safer or more productive? The answer is usually both.

Effective risk management is not about forecasting events with 100 percent accuracy. That would be a fruitless and impossible goal. But in many cases, erring on the side of caution, even when your information might not be as reliable as you would like or when your intelligence cannot be verified by a second source, is simply the smart thing to do. Before and during the 2003 holiday season, Homeland Security cancelled a number of flights due to intercepted “chatter” that al Qaeda had plans to hijack an airplane and attack a target in the United States. Was this information credible? We thought so. Was it corroborated? Not really. Yet the context and content were so unique that the threat could not be overlooked. We found out roughly nine months later that the intelligence we intercepted was, in fact, not accurate. But given the potential risks, we couldn’t afford to ignore the possibility that such an attack was being planned.

Finally, an aspect of risk management that is often overlooked is the notion of being too cautious—walling up like a fortress, precluding opportunity. An example, perhaps, of being overly vigilant can be seen in the obstacles U.S. businesses face as they attempt to bring in professionals from other countries. In a post-9/11 world, it has become increasingly difficult for foreign professionals to navigate the rules and regulations that would allow them to enter this country to do business.

The key to risk management is managing risk before it manages you. Individuals, national governments, and international enterprises face this challenge every day. But it’s a challenge that is becoming increasingly complex and complicated, particularly given today’s global and interdependent marketplace. Additionally, the concept of risk as a two-edged sword is as true at the corporate level as it is at the governmental level. However, risk management, when done intelligently, not only allows



businesses to build in resiliency and protections but also to inspire innovation and create value. The following pages provide practical strategies and approaches that can help enterprises do just that.

**THE HONORABLE TOM RIDGE**

First Secretary of the U.S. Department of Homeland Security  
Former Governor of the Commonwealth of Pennsylvania

# Preface

Any clear-eyed assessment of the state of risk management today would have to conclude that the field is more notable for its spectacular failures than its ability to keep businesses—and the executives who run them—out of trouble. Innumerable organizations have been staggered by risks that, in hindsight at least, could have been recognized and mitigated; their names are well known and need not be repeated here. Equally disturbing perhaps, these organizations often touted their risk management processes as state of the art, an assessment frequently seconded by analysts and commentators and accepted at face value by eager investors.

Standing amid the rubble of the latest financial ruin, two troubling questions arise:

1. Why can't the cycle of scandal, speculation, greed, and recklessness be broken? Devastating business failures have occurred frequently throughout the last century, yet the most-recent wave always seems to catch the business community off guard.
2. With countless sums spent on conventional risk management, why does it consistently fail at critical junctures? Executives, investors, and regulators are justifiably skeptical about continuing to invest in approaches apparently so fundamentally flawed.

The answers to these questions, as you might have guessed, can be found within these pages. Rick Funston and Stephen Wagner have spent most of their careers helping top executives, boards of directors, and audit committee members bring clarity and efficiency to their risk management programs. In this book, the authors clearly

describe the risks unaddressed and the warning signs unheeded that have brought erstwhile respectable companies to their knees. More important, the authors devote much of the book to practical advice that allows companies not simply to survive in a risk-fraught business environment, but to thrive in a climate of uncertainty and peril that sinks poorly prepared organizations.

However, perhaps the greatest value of this book lies in its power of demystification. As the authors note, the failure of enterprise risk management (ERM) can often be tied to needless complexity. Business executives frequently complain that ERM is too complicated and too big; that a typical ERM infrastructure is by its nature bulky, creaky, and likely to collapse under its own weight. Due to the misconception that it's virtually impossible to get one's arms around ERM, many organizations take a piecemeal approach, with risk specialists in various business units lacking a harmonizing, oversight, or "big picture" view and approach. This "silo" phenomenon often yields predictably fragmented results, as it is unable to address aggregate or cascading risk scenarios. (For example, a credit risk that impacts treasury that in turn affects cash flow, accounts payable, supply chain, production, inventory, and sales.)

Yet, as Funston and Wagner convincingly demonstrate, a risk infrastructure need not be bloated. Indeed, the best risk management programs are often the simplest, in both design and execution.

The full picture has been carefully drawn by the authors in this book. Their insights and practical knowledge will benefit those directors and executives who seek to tame the risks and capture the rewards that await their enterprises.

HENRY RISTUCCIA  
Managing Partner

Governance, Regulatory & Risk Strategies Services  
Deloitte and Touche LLP

# Introduction

*There is no security on this earth. Only opportunity.*

*—Douglas MacArthur*

The pursuit of opportunity in any human endeavor means leaving the security of the status quo, the safe haven, the tried and true. General MacArthur's statement above implies that fact of our professional and personal lives. Moreover, his statement explicitly describes security itself as nonexistent. Efforts to achieve security by standing still, hunkering down, or attempting only that which has been attempted in the past will not produce security. Indeed, such actions will generate risks of their own. Yet, as we all know, risks also accompany the pursuit of opportunity.

Managing the risks that accompany the pursuit of opportunity—or, more precisely, the pursuit of value—is the main subject of this book. Executives and board members understand that risk accompanies this pursuit, yet they often misjudge, mismanage, or simply avoid that risk. Indeed, risk avoidance has traditionally been the foundation of risk management as commonly practiced in enterprises. As a result, events in the business and financial world over the past decade clearly demonstrated that risks encountered in the pursuit of value are rarely fully appreciated or properly managed.

Executives and boards mainly accustomed to risk avoidance—or to gauging and addressing risk by means of mathematical models—often failed to identify, appreciate, and manage the risks that attended the pursuit of value.

This occurred across a range of industries, and it was chiefly a result of conventional approaches to risk management.

## **Conventional Risk Management**

Relatively few board members and senior executives, including those of many major corporations, take what we call a risk intelligent approach to managing the risks their organizations face. Conventional risk management, with its focus mainly on avoiding risk and protecting existing assets, is necessary but not sufficient. Worse, risk management as practiced rarely focuses on ways to identify, develop, seize, and exploit the most promising opportunities for the enterprise to create value. Indeed, most leaders and risk managers do not see risk management as part of value creation, and that is a major reason we've written this book.

The proper aims of risk management in business are to preserve existing value and to enable the creation of new value. Implicit in this view of risk management is the recognition of the reality that value and risk are inseparable. Risk attends every attempt to protect and create value.

Yet conventional risk management takes value preservation as its main purview and leaves risk taking for value creation (the reason that the enterprise exists) largely out of risk management. This leaves most directors and executives with a skewed view of risk and with only one set of tools—asset preservation tools—when they need another set to deal with the risks that accompany their efforts to create new value.

Conventional risk management has failed, most recently and spectacularly, in the well-chronicled housing bubble, subprime crisis, and credit crisis of the 2000s, with exacerbating effects on the business cycle. When we began

writing this book in late 2007, we set out to warn that conventional approaches to risk management presented serious dangers and that leaders' understanding of risk management—and risk itself—had to change.

Now that we all have experienced what by many measures was the worst financial and economic crisis since the Great Depression, those “warnings” have been issued. We also set out to offer a more pragmatic approach to risk management through a deeper understanding of value and risk. That approach and that understanding is what you will find in this book.

## **A Risk Intelligent Approach**

Executives and boards must make important decisions in the present, without complete information in a complex and rapidly changing environment characterized by uncertainty and turbulence. Uncertainty is a state in which the outcomes are unknown and perhaps unknowable; the more distant in time, the greater the uncertainty. University of Chicago economist Frank Knight described two types of uncertainty: first, that in which probabilities are known or knowable, which he called risk; and, second, uncertainty, which is not known or knowable.

This bifurcation has led to much of the current wisdom on which conventional risk management is founded—that is, probabilities based on normal distributions. Thus extreme cases are typically ignored. Unfortunately, such wisdom has failed us, as improbable and extreme events have occurred while probable events have failed to occur.

Turbulence is a state of extreme instability characterized by sudden and violent change. It cannot be modeled outside of the laboratory. It is characterized by high speed.

Together, uncertainty and turbulence generate risk, that is, the potential for failure. In the case of the enterprise, it is both the failure to protect its existing assets and the failure to create future value.

Thus, improving ways of anticipating and managing risk in uncertainty and turbulence is the subject of this book. To help leaders operate effectively in that environment, we present—under the rubric of risk intelligence—proven methods from a wide variety of disciplines by which they can exercise better judgment and make superior decisions under risky, uncertain, and turbulent conditions.

The risk intelligent enterprise recognizes that risk intelligence and risk management are not ends in themselves but a means toward the ends of creating and preserving value and surviving and thriving in uncertainty. Risk intelligence is an approach to conducting business that improves decision making and judgment in vital areas and initiatives. After all, to be enterprising means to be bold and willing to undertake new initiatives that involve risk.

In fact, according to Webster's New Collegiate Dictionary, the word *enterprise* means "a project or undertaking that is esp. difficult, complicated, or risky" or "a unit of economic organization or activity, especially a business organization." Too many enterprises appear to bear the second definition in mind but not the first.

Risk intelligence is dynamic. There is no set of rules to follow, no permanent certification, no way to insulate the organization from the forms that uncertainty and turbulence will take in the future. Rather, there is only a path to creating value and managing risks that enables better decisions.



## **The Approach of This Book**

This book aims to stimulate and contribute to the discussion of risk by presenting factual, informative, provocative, and sometimes challenging views on the subject. In that spirit, we present a number of realities that organizations must confront if they are to survive and thrive.

In addition, we provide a multifaceted, panoramic way of viewing risk, one that encompasses both asset preservation and value creation. We have repeatedly heard directors and senior executives express their desire for new skills and their need for updated tools for addressing risk proactively rather than reactively. We introduce such skills and tools in this book and provide a context in which to use them in the form of the risk intelligent enterprise.

A risk intelligent enterprise takes a broad view of risk, assesses the full range of risks across the enterprise, matches risk management resources to the priority of the risk, and thus more effectively manages the risks of value creation as well as asset preservation.

We address ourselves primarily to boards and senior executives because they hold primary responsibility for the success or failure of the enterprise. They, and only they, hold the power to promulgate risk intelligent practices in the enterprise because they define the direction and develop the strategies by which the enterprise creates value. They also make the major decisions regarding the initiatives that the organization will pursue, the resources to be allocated to those initiatives, and the risks that are inherent in those initiatives.

As to method, we draw upon our collective years of client work and research experience in Deloitte & Touche and

throughout our careers, and draw upon on the intellectual capital of the firm. We've met with hundreds of directors and senior executives to obtain their perspectives on issues such as resilience and agility, asset preservation and value creation, and corporate governance and risk management.

We also sought the perspectives of combat pilots, first responders to crises, race car drivers, sailors, mountaineers, explorers, and astronauts—people with a vital interest in managing risk. And we drew upon extensive research into news stories and historical sources in fields both related and unrelated to business.

In our research, we discovered converging themes in areas as diverse as biology, cybernetics, military operations, physics, behavioral finance, and national security, among others. Our inquiry into areas related to the natural and social sciences rested on the notion that the enterprise can be best understood as a living organism with two imperatives: to survive and to thrive.

Change and turbulence, whether they originate within the organism or enterprise or in the environment, typically present the greatest threats and the richest opportunities—provided adaptation occurs. Adaptation may be gradual or sudden, effective or ineffective, but adaptation typically occurs in unexpected ways and in response to unanticipated changes and events.

We have also dug deep into business-related disciplines such as quality and process improvement and scenario analysis to locate root causes of failure and to develop insights regarding success. However, this is no technical manual or treatise on risk. Rather it is a practical guide for directors and senior executives, as well as risk managers, business unit heads, and aspirants to these positions.

Given that directors and executives have cautioned us that a book of this type must provide compelling methods of successful application as well as a strong conceptual framework, we present numerous cases, examples, anecdotes, quotes, tools, and tactics within an overarching structure. Much in the way in which one must balance risk and reward, we have sought to balance often opposing factors, such as depth and breadth, theory and practice, and information and entertainment, in our effort to further the inquiry into risk and to foster optimal approaches to risk management.

## **The Structure of This Book**

This book consists of seventeen chapters, organized into three parts, as follows:

**Part I: When Risks Become Brutal Realities** states the problems and challenges that leaders of large enterprises confront in managing risk and creating value. It details why conventional risk management and risk governance have failed and provides a new, more useful view of both of those key leadership activities.

**Part II: Ten Essential Risk Intelligence Skills** presents ten “fatal flaws” in conventional risk management and the corresponding skill required to correct and overcome each flaw. Each chapter in this part also contains tools for exercising that skill. Not every flaw or every tool will apply to every organization; however, collectively they amount to an intellectual approach, a mind-set, and a set of practical steps to improve risk management in your enterprise. These skills and tools address needs that repeatedly arose in our experience, our research, and our discussions with interviewees. These skills improve people’s awareness of and responses to risks and opportunities, immediately and in the long term, at every level of the organization.

**Part III: Creating the Risk Intelligent Enterprise** describes the characteristics of the risk intelligent enterprise and provides a framework for developing such an organization. This part explains the roles of directors and executives and the leadership challenges they face in this endeavor. It also shows

how to orchestrate people, processes, and systems toward that end. A risk intelligent enterprise incorporates risk intelligence into the ways it understands and manages the business. As result, it is better positioned to make superior decisions under conditions of uncertainty and turbulence and thus increases its chances of survival and competitive success.

Two additional features of this book warrant a mention. First, to reinforce specific points, we have presented verbatim views of our interviewees in sidebars titled Voice of Experience. These views illustrate the needs and concerns of these individuals as they pertain to the subject at hand (and not necessarily the views of their organizations, which many preferred not to have identified in these pages). Second, we have included Questions to Ask at the end of selected chapters. These questions, which are by no means exhaustive, are intended to focus discussion and prompt further inquiry into the related topic.

At this point in the development of business, of capitalism, and of the global economy, risk management presents the greatest challenges and opportunities for leaders in enterprises of every stripe. We trust that this book achieves our aim of inspiring leaders to accept those challenges and to pursue those opportunities, and to do so with greater effectiveness, efficiency, and enthusiasm.

# **PART I**

## **When Risks Become Brutal Realities**