MARSH

iMAP | Marsh Analytics Platform

# MARSH ANALYTICS PLATFORM — MAP

# DRIVING OPTIMAL OUTCOMES

SOLUTIONS...DEFINED, DESIGNED, AND DELIVERED.

MARSH & McLENNAN COMPANIES

# INTRODUCING... MARSH ANALYTICS PLATFORM

Over the past decade, the growth in business data and computing power has challenged companies to filter through massive amounts of available data to help guide their organizations' strategic risk planning. But with all of that data, how do you know where to begin?

We start by having a different conversation with you. One that focuses on relevant, real-time information rather than looking only at the past. One that goes beyond simply supplying data and a series of interpretations to one that provides a new level of insight that empowers you to make better decisions.

Working together, our new conversation is based on finding answers to questions such as:

- How can I include my corporate risk tolerance or appetite as a key input into decision making about insurance purchasing?
- How can I use loss simulation or other actuarial tools to test the efficiency of insurance-purchasing decisions?
- How can I compare the cost of other forms of capital, such as debt or equity, to the cost of insurance?
- How can I replicate the process that insurers use to develop the price of risk transfer?

Getting to these answers has driven us to develop our unique approach to delivering solutions through analytics — the Marsh Analytics Platform (MAP). MAP combines data, technology, and analytics into a new risk management framework that allows us to customize our analysis based on the issues most important to you.

# WHY ANALYTICS?

Risk management has quickly shifted from limited data and an insurance focus to big data and holistic risk analytics. With this shift, the demand for analytics-based decision-making support tools continues to grow.

**500+** RFOs COMPLETED

**10:1** RETURN ON INVESTMENT

**5-15%** COST SAVINGS

With the confluence of changing markets, increasingly complex regulations, and evolving technology, firms have been investing in data analytics to help them make critical risk decisions. Having completed hundreds of risk financing optimization (RFO) studies, our experience has yielded results with 10:1 returns on investment and 5-15% cost savings.

Marsh's approach leads the way by combining data, technology, and analytics to evaluate risk and inform more strategic business decisions. Read on to find out how MAP can put analytics to work for you.

# OVERVIEW OF MAP

The entire process is customized, real-time, and interactive.

Through our mobile app, iMAP, we help you navigate vast amounts of available data. MAP customizes analytics to your profile — to the issues most important to you. Our extensive experience and access to relevant data allow us to establish customized views of risk for companies of all sizes and from all industries, anywhere in the world. We begin by profiling your risk using four key dimensions: geography, industry, exposure, and size.

These dimensions enable us to create an analytical foundation based on industry-leading data. We start by examining industry-specific issues to ensure a comprehensive view of risk at the outset of the analytics process.

As we begin *risk identification*, we use risk maps to ensure a comprehensive understanding of all risk issues, and loss models from our proprietary database that fit your risk profile to drill down into a specific risk.

We then perform a *risk tolerance* analysis, which examines a company's willingness and financial capability to withstand unexpected losses.

These steps lead us to the keystone of our platform: *risk financing optimization (RFO)*. Important considerations around loss behavior, risk tolerance, capital, and market pricing all come together through the RFO framework.

Additionally, our *Product-Specific* module allows us to dig deeper into targeted areas of coverage, and our *Market Insights* module enables us to view information from our dedicated, global benchmarking portal — customized to view what's relevant for you.

The entire process is customized, real-time, and interactive.

# RISK IDENTIFICATION

*Risk Identification* is a critical step in the MAP process. Using the industry's largest library of risk maps and loss curves, iMAP identifies the risks you face and the impact they could have on your financial key performance indicators (KPIs).

Our industry focus and expertise allow us to identify both current and emerging risk issues, and we identify not just one or two risks, but your portfolio of risk issues.

As the name implies, dynamic risk mapping (DRM) allows us to *dynamically* view your insurable and non-insurable risk issues, and see how insurance responds — and what we can do to mitigate these risks. Our aggregated data, in addition to your specific losses, allows us to create custom loss distributions for a variety of risks.

This risk identification phase is the start of the deep dive into analytics for the most critical risks you face. Next, we use our risk-aggregated data and sophisticated analytics — predictive and stochastic models — to deconstruct the complexities of risk.

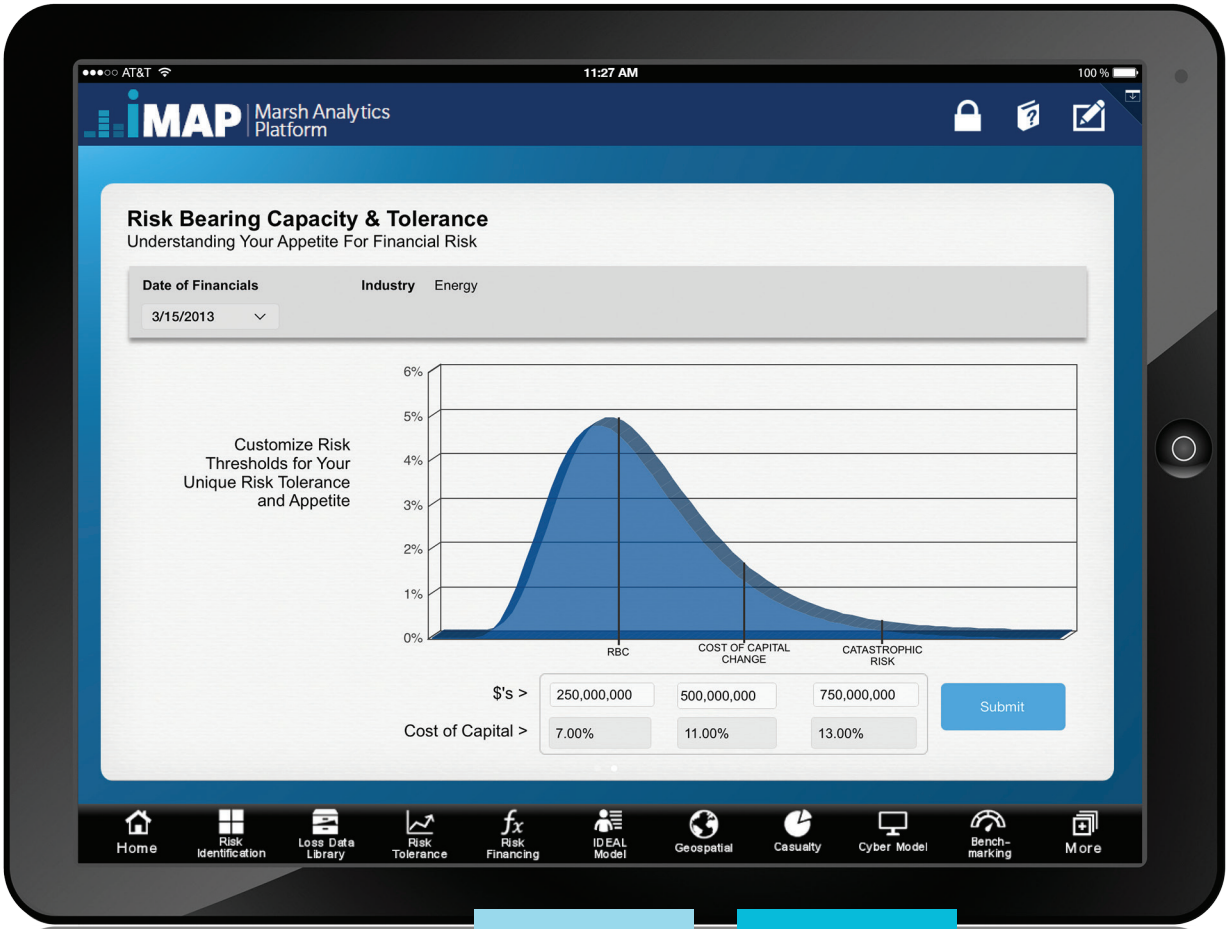
# RISK TOLERANCE

Our highly interactive approach to assessing risk tolerance = empowerment to make the best choices.

By analyzing financial data, we are able to create a threshold for *risk tolerance* based on your company's appetite for risk. This analysis establishes the inflection points where unexpected losses are more volatile and, potentially, more costly. Knowing your risk tolerance allows you to determine how much risk you can or want to take without impacting your KPIs, and how confident you should be around the expected outcome. This knowledge can also help you justify current decisions — and ones you may make in the future.

Our approach is highly interactive, allowing you to compare as many options as you like. You can compare various risk-tolerance levels and expected pricing to your current structure, which empowers you to make the best choices.

As we move to *risk financing optimization (RFO)*, the thresholds for risk are used to value the reduction of volatility.



# RISK FINANCING OPTIMIZATION

The keystone of our platform is our *risk financing optimization (RFO)* approach. RFO distills the statistics that describe risk profiles into your economic cost of risk (ECOR) — the best measure to describe the cost for retaining and transferring risk and the volatility surrounding expected losses. RFO allows you to structure insurance programs in the most economically efficient manner, while also meeting the risk-tolerance goals of the organization as a whole.

An additional benefit from RFO analysis is that you can gain significant insight into how the market is pricing your insurance placements. We perform an exercise similar to the one that many insurers perform through their underwriting process. As a result, we will be in a position to approximate market calculations of expected loss, expected margin, and, ultimately, return on investment (ROI). This insight gives both you and Marsh significant negotiating power.

Through RFO, we dynamically consider dozens of possible financing structures, choosing the one that best protects you while lowering your overall economic cost. RFO is used for all types of risks and provides you with an overall view of your company's entire portfolio of hazard-based risks — and more.

The objective is to help you better understand your risks, evaluate your alternatives, and, ultimately, reach the best decisions backed by data and analyses.

The importance of quantifying uncertainty and volatility has led to the creation of a new measure of risk: the economic cost of risk (ECOR).

# PRODUCT-SPECIFIC MODULES

In addition to the analytical pillars of risk identification, risk tolerance, and RFO, our analytical approach allows deep dives into the key risk issues such as property (for example, natural catastrophe), casualty (for example, workers' compensation), and financial and professional (for example, directors and officers and cyber). Our proprietary framework provides the best foundation for analyzing the full portfolio of risk issues, leveraging specific analytical models for individual risk issues.

Our peerless product-specific tools — such as IDEAL for directors and officers (D&O) liability and cyber risk, MPACT[SM] for workers' compensation, and geospatial analysis for property — deliver unparalleled product insight.

# MARKET INSIGHTS

Informed risk management decisions are built on benchmarking. By providing points of comparison that give insight into other organizations' risk management and insurance programs, our Global Benchmarking Portal and iMAP platform can help you to negotiate effectively and efficiently with insurers to make certain that your insurance costs remain competitive. With credible data, you can identify strengths and areas for improvement, justify investments needed to drive costs down, and prove the return on investment. The benchmarking database is embedded in Marsh's electronic data-capture systems and grows by more than 3,000 placements a month.

Through our benchmarking, you are able to gain insight into how insurance companies use your loss profile to price your business, and identify, in advance of any market discussions, the insurers that are most competitive for the risk.

Essentially, iMAP allows companies to lower their cost of risk.

# WHY MARSH ANALYTICS PLATFORM?

Optimal results are achieved when critical risk management and insurance issues are considered in a holistic, analytical framework. MAP was built with this goal in mind — achieving optimal results.

With the iMAP application, companies can harness their data together with Marsh's proprietary benchmarking information to identify risks and their potential impact, determine risk tolerance and appetite levels, simulate loss potential for their unique risk profile, and dynamically model risk-transfer alternatives to evaluate effectiveness and identify optimal solutions. Essentially, iMAP allows companies to lower their cost of risk.

We strongly believe our data, analytical approach, and iPad delivery system create a best-in-class platform for advising you on your risk financing options.

# THE MARSH DIFFERENCE

Marsh is a global leader in insurance broking and strategic risk advisory. We offer a single destination for solutions across the full spectrum of the risk life cycle, from risk assessment and analysis to mitigation and transfer.

We continue to invest in risk advisory intellectual capital and hone our expertise to offer companies a rigorous, analytical approach to every phase of the risk life cycle, including uninsurable risk. With uncertainty reduced, you have the confidence to take advantage of more opportunities.

Our scale and experience, along with our broader view of the risk landscape, mean that we can offer companies a deeper, more complete approach to managing risk and turning it into competitive advantage. We deliver a level of service and performance that is unrivaled in the industry.

Ultimately, our goal is to help you succeed by understanding your needs and delivering effective risk solutions. To achieve this goal, we continually strive to deliver the full value of Marsh to you.

MARSH

For further information, please contact your local Marsh office or visit our website at marsh.com.


CLAUDE YODER
Head of Global Analytics
claude.yoder@marsh.com
+1 212 345 8297

KEGAN CHAN
Asia Analytics Leader
kegan.kc.chan@marsh.com
+852 2301 7205

TIM GARDNER
Global Risk Management and
MAP Sales Leader
timothy.gardner@marsh.com
+1 212 345 8294

RICHARD GREEN
Asia MAP Sales Leader
richard.d.green@marsh.com
+65 6922 8136



Marsh is one of the Marsh & McLennan Companies, together with Guy Carpenter, Mercer, and Oliver Wyman.

This document is not intended to be taken as advice regarding any individual situation and should not be relied upon as such. The information contained herein is based on sources we believe reliable, but we make no representation or warranty as to its accuracy. Marsh shall have no obligation to update this publication and shall have no liability to you or any other party arising out of this publication or any matter contained herein.

Any statements concerning actuarial, tax, accounting, or legal matters are based solely on our experience as insurance brokers and risk consultants and are not to be relied upon as actuarial, accounting, tax, or legal advice, for which you should consult your own professional advisors.

Any modeling, analytics, or projections are subject to inherent uncertainty, and the Marsh Analysis could be materially affected if any underlying assumptions, conditions, information, or factors are inaccurate or incomplete or should change.

Marsh makes no representation or warranty concerning the application of policy wordings or the financial condition or solvency of insurers or re-insurers. Marsh makes no assurances regarding the availability, cost, or terms of insurance coverage.

Copyright 2014 Marsh LLC. All rights reserved.

Compliance MA14-12839 6716