



Dynamic Risk Assessment (DRA)

Life Sciences

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Life sciences

Companies in the life sciences sector continue to face unprecedented and accelerating change. A highly regulated environment, a flurry of merger and acquisitions activity, fierce competition, declining margins, and rapidly emerging technologies are creating new complexities for medical device, biotechnology, and pharmaceutical companies. Further, there is growing scrutiny on drug prices along with lengthy and costly research and development cycles.

In this rapidly changing world, many life sciences companies are taking new approaches, such as changing business models and adopting disruptive technologies and innovative data analytics, to achieve growth and improve performance, all while focusing on managing risk and maintaining compliance.

As healthcare and life science organizations innovate and position themselves for the demands of today's dynamic marketplace, they are under pressure to be more agile and efficient, which introduces more risk.

Leadership needs to understand and better predict trends; the correct portfolio of products, services, and markets will need to be identified; and—based on this

information—investments will need to be concentrated on the opportunities and threats that best align with the growth and portfolio ambitions of the organization.

Risk Management 1.0—the traditional approach—does a good job of generating defensive responses to risks or threats and developing governance disciplines to safeguard stakeholders' interests. But typically, it doesn't do a great job of identifying opportunities or "mega trends" and formulating responses to them. Responsibilities are stuck in the defensive mind-set. The risk organization is seen as responsible for covering the downside of risk. Auditors, legal counsel, and risk committees are set up as the "no" guys. But who is responsible for the upside of risk?

That's why KPMG developed a new approach designed to help organizations transform risk into value. Dynamic Risk Assessment (DRA) is designed to focus on both upside and downside of risk. We focus in on both sides of the coin, helping clients analyze observable "mega trends" to find the opportunities in risk that allow them to gain a competitive edge.

What makes DRA unique

DRA is a proprietary methodology developed by KPMG to help bring a better understanding of the risks organizations face in today's complex world. DRA takes an unprecedented approach to gaining insights into clients' risk environments by pinpointing central risks and shedding new light on the risk mitigation strategies.

In today's highly interconnected and volatile world, dominated by new technology and emerging business models, the past is no longer a reliable guide to the future. Past data is a poor fit for the future as the forces and trends that shape our future have increasingly not manifested themselves before. Moreover, risks combine. They spill over into each other—they don't manifest neatly in isolation—and we no longer have the luxury of dealing with risks discretely.

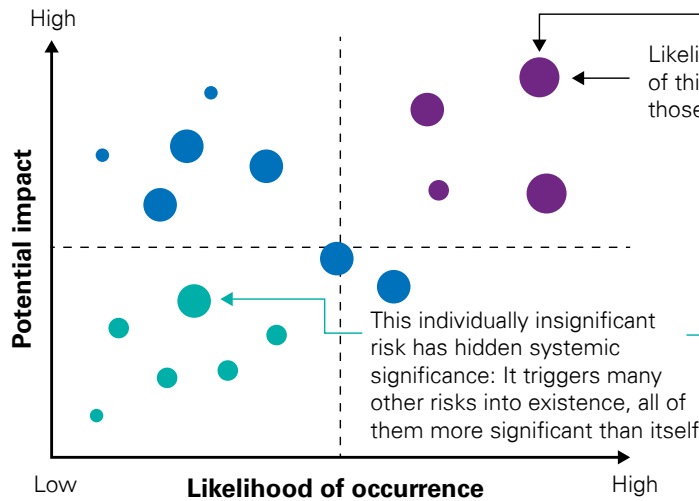
There is a need to advance beyond historical risk analyses comprising two-dimensional depictions of expected probability and severity, and consider a third, and indeed a fourth dimension: velocity and contagion. This, together with the consideration of global trends that are shaping our world, is what DRA encompasses.



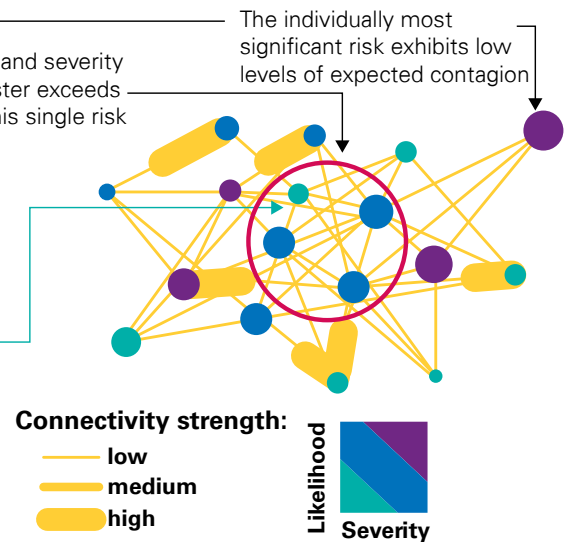


DRA vs. Traditional Risk Assessment

Traditional, two dimensional risk map



Inter-connected view

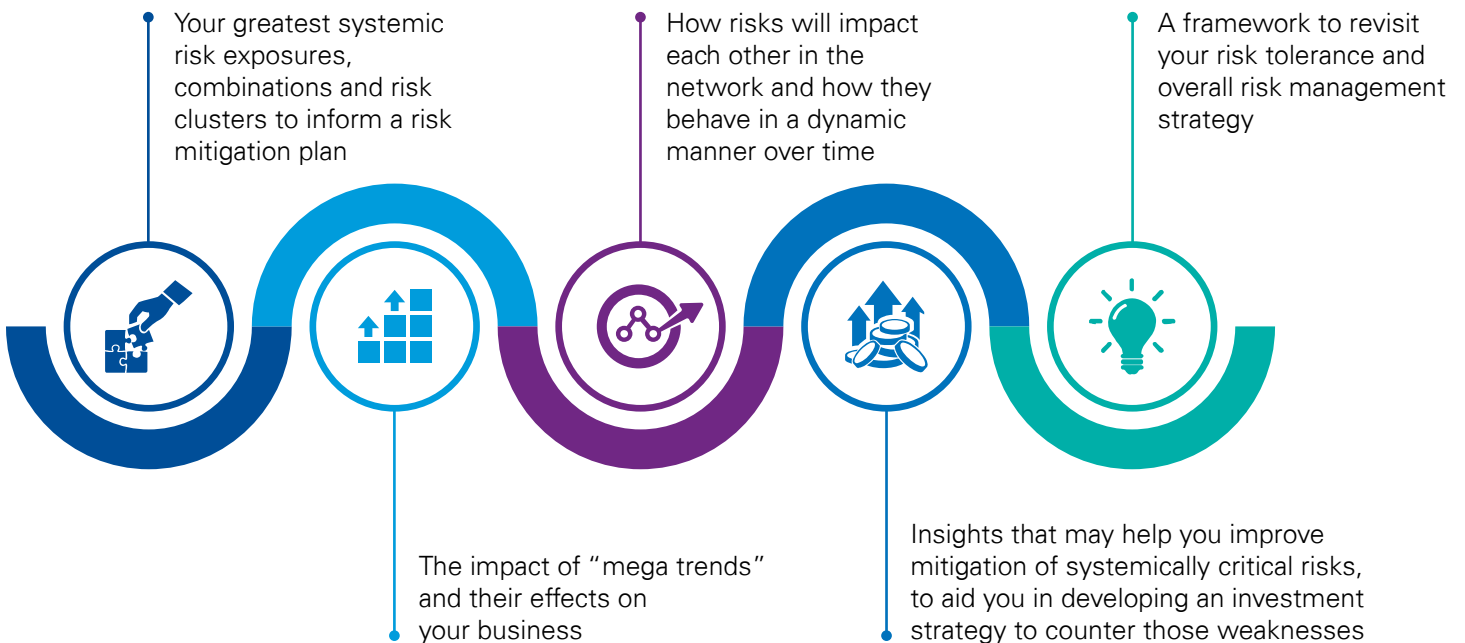


Certain risks connect more to each other than all other risks in the network, forming clusters.

DRA applies graph theory, the science of expert elicitation, actuarial modeling, sophisticated mathematics and financial mathematical algorithms, advanced data & analytics (D&A) and accounting science to assessments from experienced

risk and non-risk frontline and back-office individuals within the business. This is done in a KPMG proprietary (and patent pending) methodology to identify, connect and visualize risk in four dimensions.

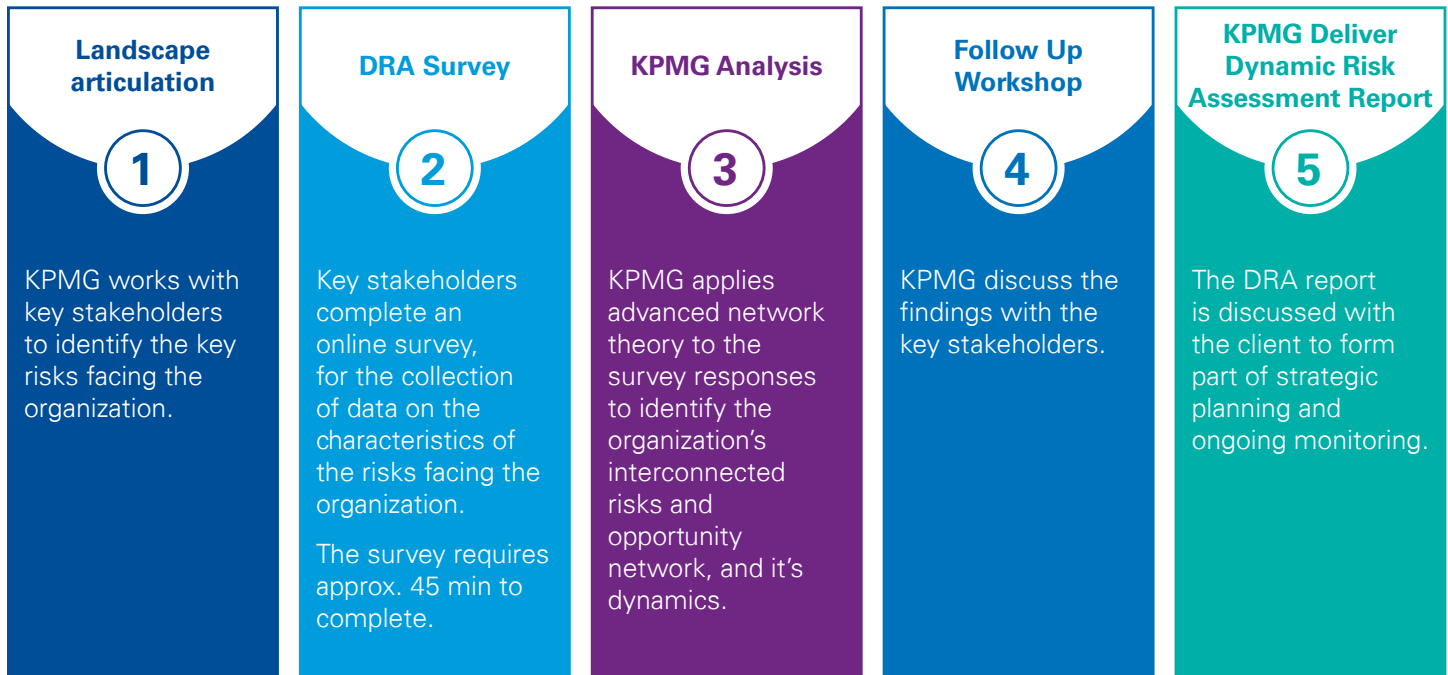
The DRA methodology combines qualitative and quantitative data to help identify:





The DRA process

Typically, the end-to-end DRA process takes six to eight weeks, with the key steps outlined below:



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