



Risk Managment: Anticipating and avoiding a Black Swan event

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Anticipating & Avoiding Black Swan Events

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Outline

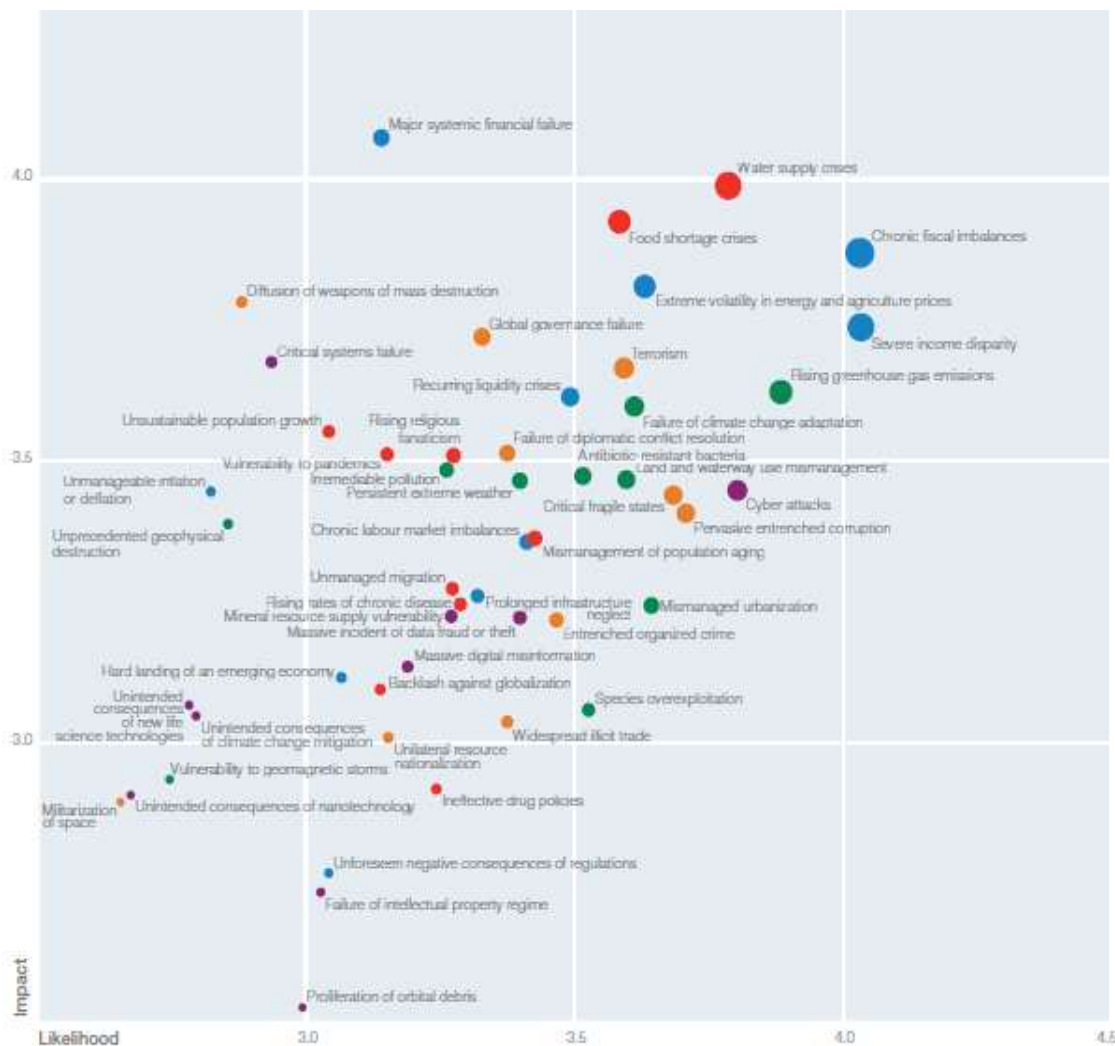
- Changing risk landscapes – global emerging risks
- Enterprise Risk Management
 - Best practice & risk maturity
- Black Swan events as part of your ERM process
- Summary and conclusions

“Underscored by an unprecedented pace of change, stakeholders from across business, government and civil society face a new imperative in understanding and managing emerging risks.”

Klaus Schwab
Founder and Executive Chairman
World Economic Forum

Global risks landscape 2012

World Economic Forum



Economic Risks

- 1 Unmanageable inflation or deflation
- 2 Chronic labour market imbalances
- 3 Prolonged infrastructure neglect
- 4 Hard landing of an emerging economy

Environmental Risks

- 1 Unprecedented geophysical destruction
- 2 Persistent extreme weather
- 3 Antibiotic-resistant bacteria

Geopolitical Risks

- 1 Entrenched organized crime
- 2 Widespread illicit trade
- 3 Unilateral resource nationalization

Societal Risks

- 1 Vulnerability to pandemics
- 2 Rising religious fanaticism
- 3 Mismanagement of population aging
- 4 Unmanaged migration
- 5 Rising rates of chronic disease

Technological Risks

- 1 Massive digital misinformation
- 2 Unintended consequences of new life science technologies
- 3 Unintended consequences of climate change mitigation
- 4 Unintended consequences of nanotechnology
- 5 Failure of intellectual property regime

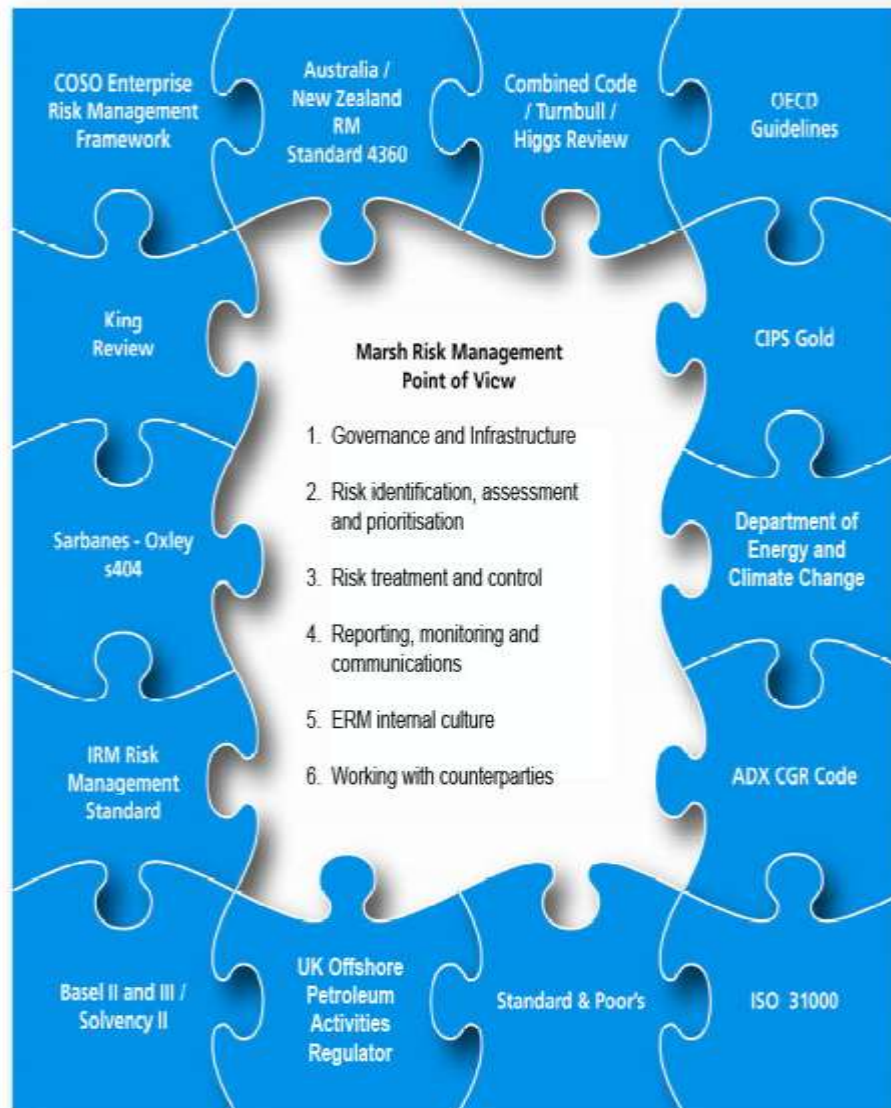
Enterprise Risk Management Review

ERM Blueprint

1. Board sponsorship
Resourcing and accountability for risk management
Risk management embedded in core decision making
Continuous improvement
Documented ERM framework
Alignment to other assurance activities
Consolidated view of risk

2. Identification at operational and strategic levels
Consistency in approach
Management of interdependencies
Risk identification and assessment is a continuous process
Emerging risks are identified
Qualitative and quantitative techniques
Risk is both positive and negative

3. Group wide, consistent risk treatment
SMART action plans
Interdependencies accounted for to exploit efficiencies
Cost-benefit analysis applied
Net risk and target risk categorisations
Financial provisioning for contingencies

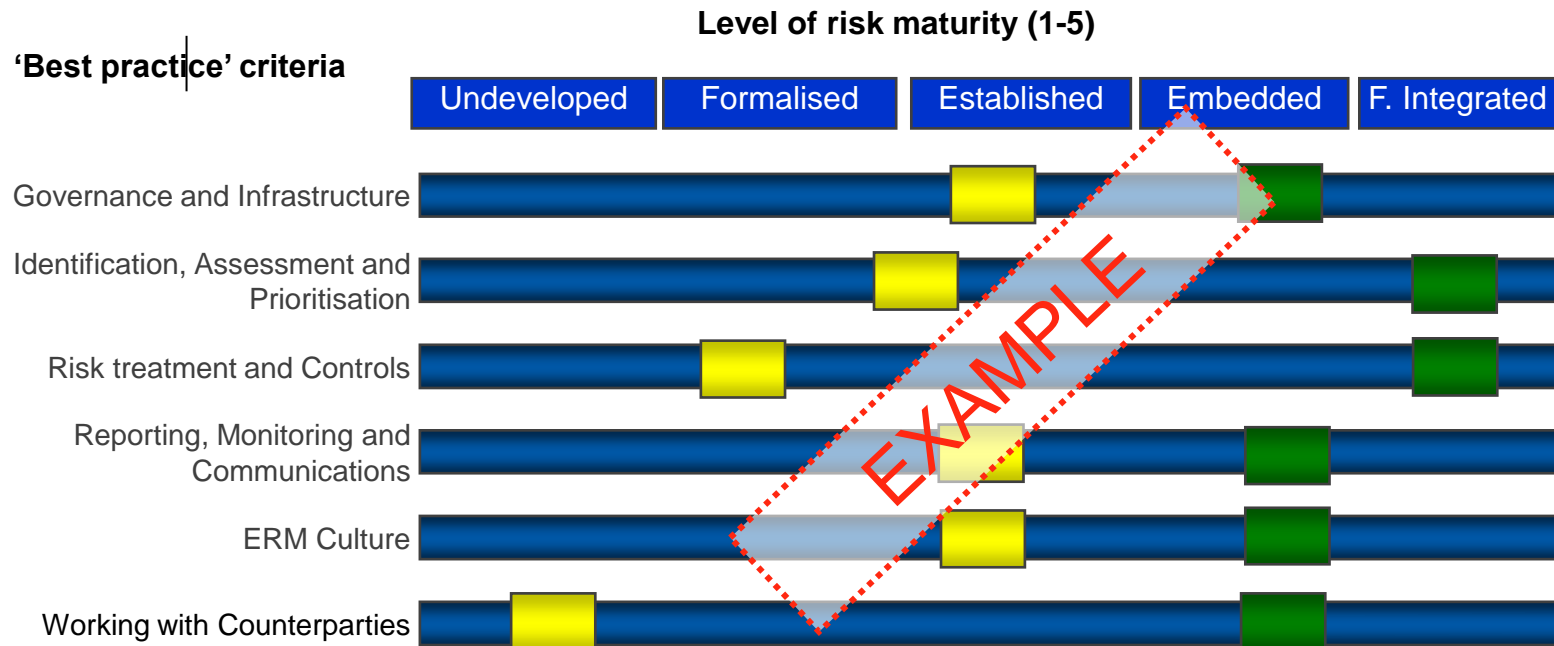


4. Regular reporting on risks, controls and mitigation
Cross business information flow
An "early warning" system for emerging risks
Learning from Incidents (LFI) culture
User friendly and relevant reporting to support decision making
Alignment of ERM and Internal Audit

5. Incentivisation at a business and personal level
ERM training
An effective internal and external network to exchange risk management best practice

6. A strong due diligence process to manage risk in joint working
Reliable and regular information available to monitor risk of partner organisations
Consistent management of partner relationships
Management of the aggregate partner portfolio risk
Joined up treatment plans

Best Practice Standards Relative to Risk Maturity



Key

	- Current status		- Future state vision
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Black Swan Events



What is a Black Swan?

“A Black Swan is a highly improbable event with three principle characteristics: its unpredictable; its massive; and, after it has happened, our desire to make it appear less random and more predictable than it was. The astonishing success of Google was a Black Swan; so was 9/11

- Prof Nassim Nicolas Taleb

Black Swan events

Examples



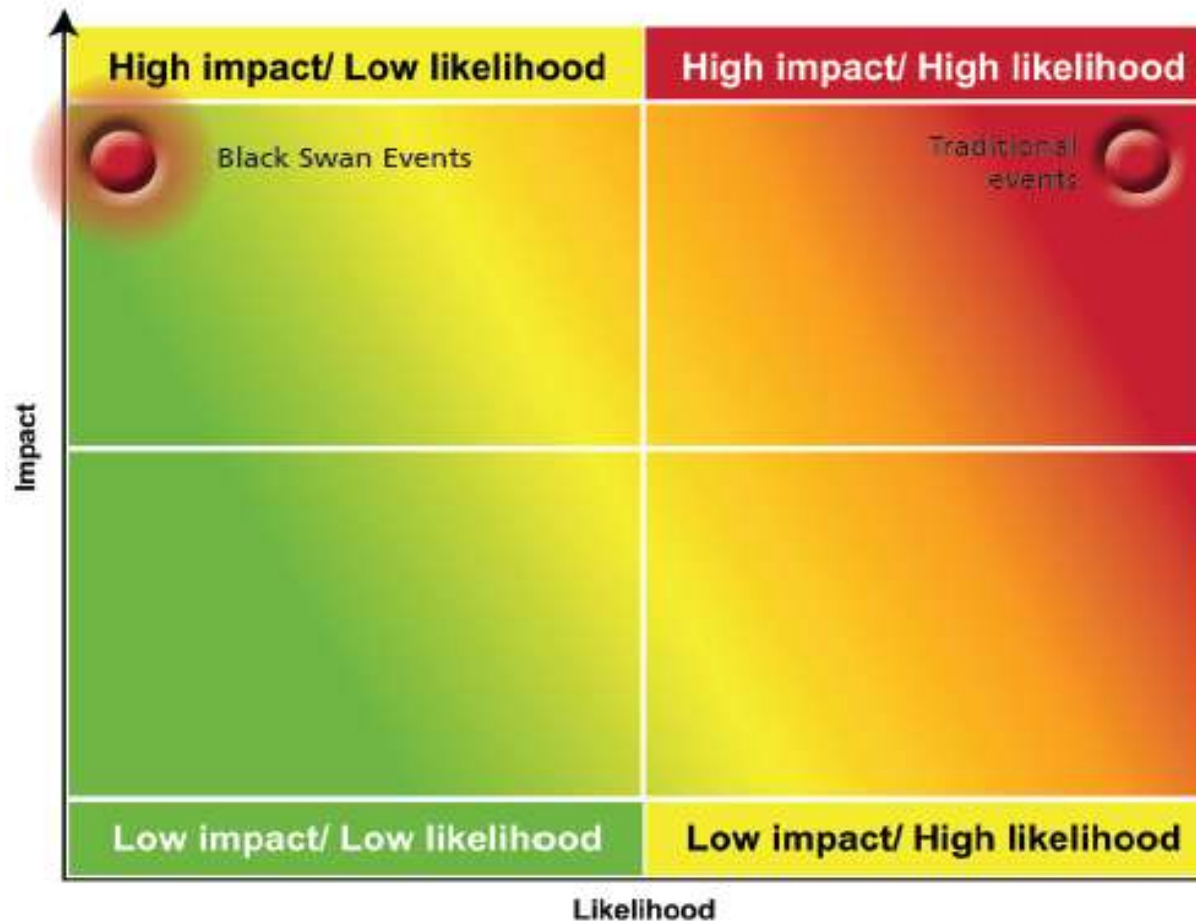
Black Swan events

Categories

1. Transformational change to the operating environment e.g. 9/11, Social media
2. Extreme events that are known to be possible but are thought to be beyond any reasonable planning horizon e.g. major meteor strike or eruption of the Yellowstone volcano (Super eruption)
3. Events that only *seemed* inconceivable because of a reliance on flawed fundamental assumptions e.g. recent global economic crisis (and reliance in the credibility of credit ratings)

'Black Swan' events

The impact



Businesses should consider Black Swan Events at Board level

Understanding the impact

- May have multiple direct or indirect consequences (brand / reputation?)
- Catastrophic damage to the infrastructure of your clients or suppliers as demonstrated by the impact on global supply chains after Fukushima
- Effects on businesses interests, both internally and externally

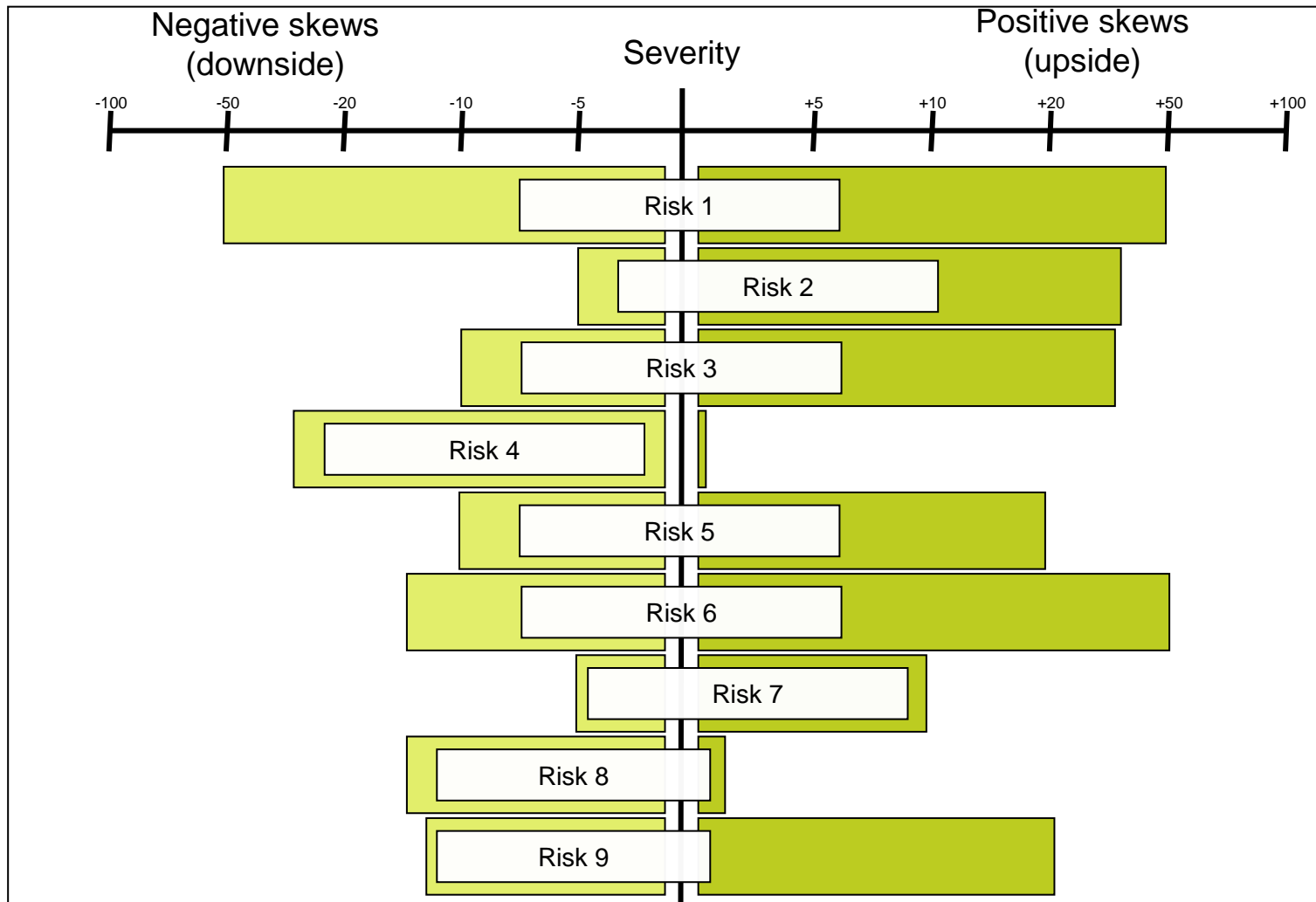
Anticipating & Managing Black Swan Events

Mitigate the impact

1. Review of risk management maturity, processes and frameworks
2. Focused review of potential Black Swan Events
3. Identification of and robust challenge to fundamental assumptions
4. Challenge to probability assessment framework, utilise statistical techniques
5. Scenario analysis and risk mitigation analysis
6. Crisis management plan (rehearsed / multi-agency tested)
7. Supply chain resilience review

Scenario Analysis - Example output

Overall view of risk issues



Summary and Conclusions

- The emerging risk landscape is more complex but there are resources and tools to help
- Consider black swans and scenario analysis as part of your risk assessment process
 - The probability may be impossible to predict but the consequences are not
- International benchmarks and maturity models are available – apply these wisely as there is no ‘one size fits all’.

“While triggered by the tragic March 11th earthquake and tsunami, the Fukushima disaster was ultimately caused by the Japanese authorities choosing to ignore risks, and make business a higher priority than safety,”
Jan Vande Putte, Greenpeace International nuclear campaigner.

