

Los Angeles | Toronto | Montreal | Edinburgh

Bridging the gap between Projects and Enterprise Risk Management

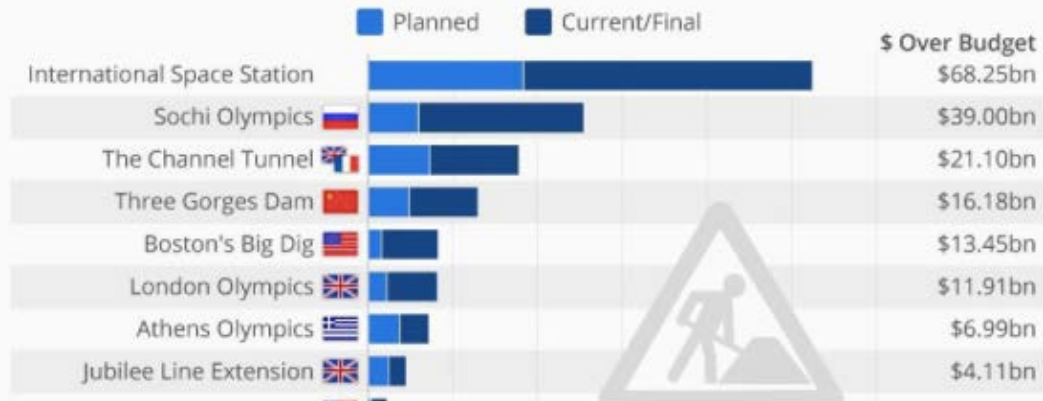


January 2019 | Kuwait

Projects...

Major Projects That Went Catastrophically Over-Budget

Selected over-budget construction projects worldwide (billion U.S. dollars)*



Project Grading

Do you know your projects?

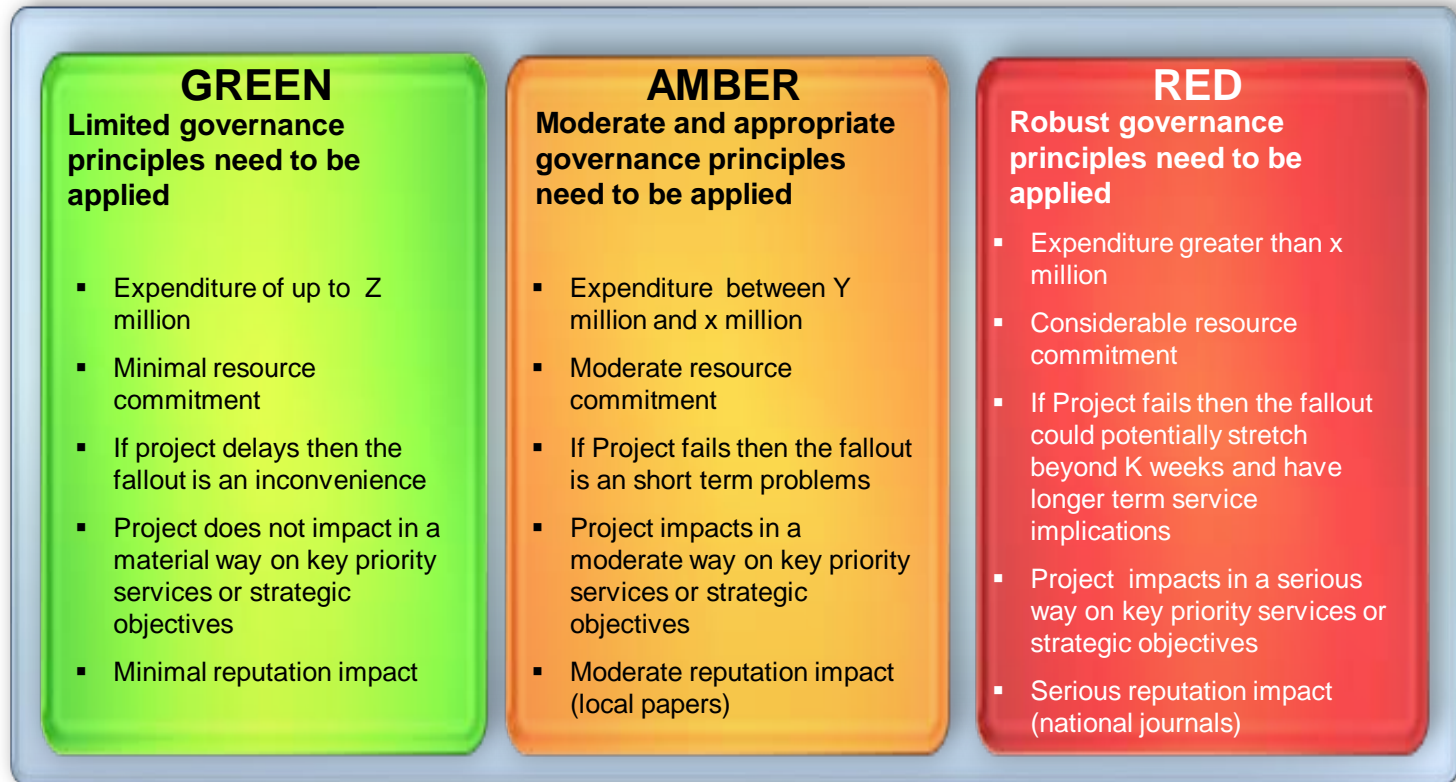
Do you prioritise your projects?



Project Grading

PROJECT	COST (INVESTMENT, RESOURCES)	IMPORTANCE FOR STRATEGY (COMPETITIVE ADVANTAGE, RETENTION RATES, REPUTATION)	POTENTIAL RETURNS (AND TIME TAKEN)	URGENCY (LEGAL, REGULATORY?, PENALTIES, NEGATIVE REPUTATION, DEPENDENCIES OF OTHER PROJECTS)
PROJECT 1	5	3	3	2
PROJECT 2	3	5	4	2
PROJECT 3	3	2	2	2

Project Grading



Energy Publication



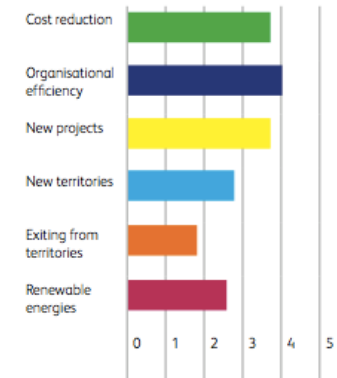
What will be the main area of focus with regards to Risk Management within your organisation over the coming years?
(1-5 where 5 is a priority focus)



How mature is the company in the following areas?
(1-5 where 5 is very mature)



What will be the main area of focus for your organisation in the coming year?
(1-5, where 5 is a priority focus)

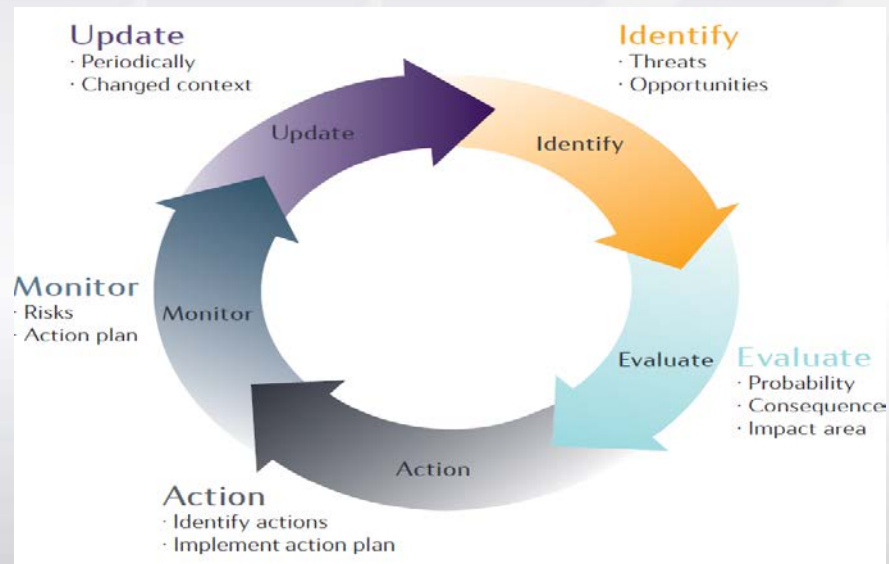


Join the IRM Energy Special Interest Group and join the conversation by emailing:

Marketing@theirm.org

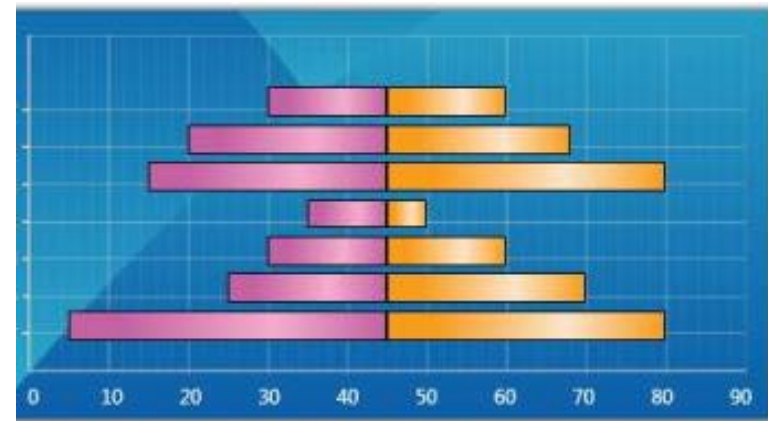
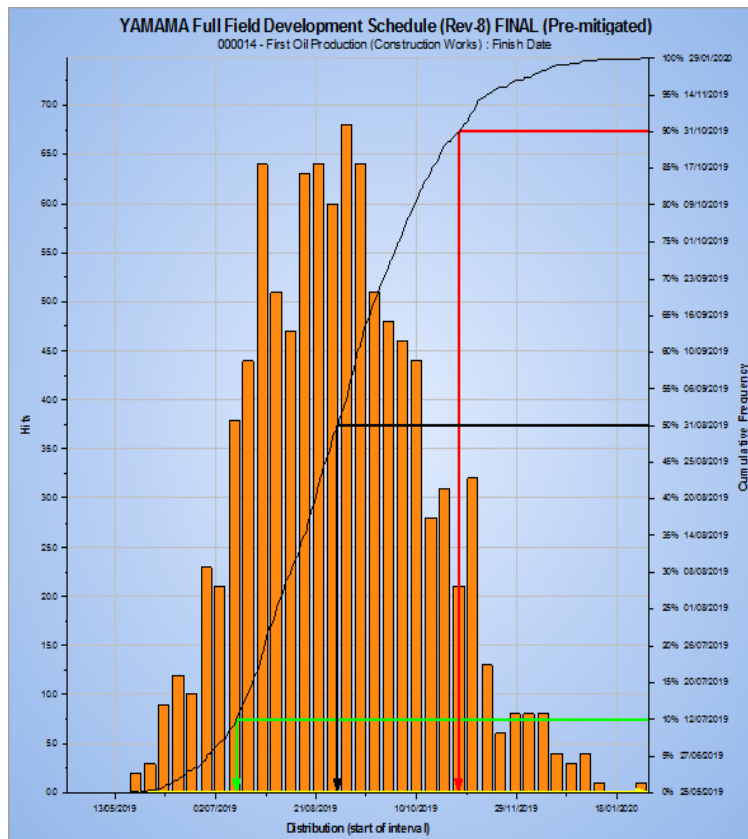
<https://www.theirm.org/events/special-interest-groups/oil-gas.aspx>

Risk Management



Quantitative Risk Analysis

Montecarlo Analysis plots potential finish dates for each activity/milestone over 1000 iterations and creates an S-curve of probabilistic outcomes.



How to use the data for Projects & ERM



Benefits of Project Risk to ERM

1. Insurance
2. Risk Treatment & Cost Benefit – Securing funding
3. ERM Escalation – Leading to more effective.....
4. Reporting
5. Portfolio Reserve Pools – Successful projects

1. Insurance

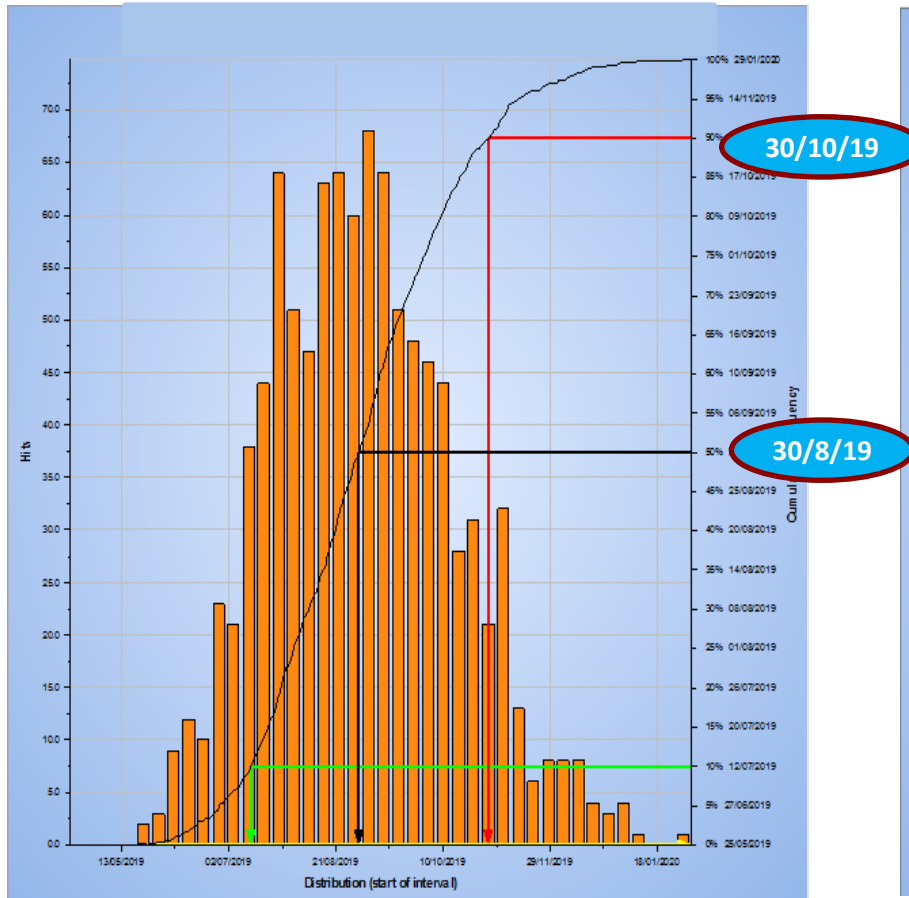


Insurable Risk & Insurance Optimisation

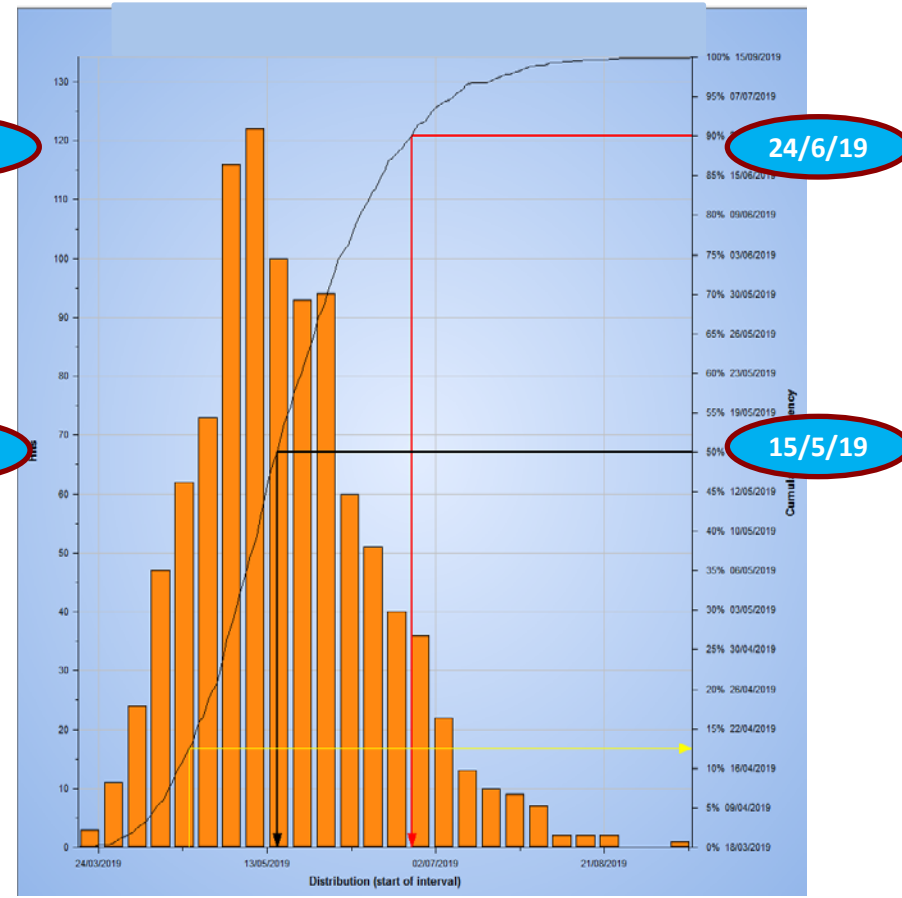
- Identify:
 - Insurable Risk
 - Gaps in insurance
 - Uninsurable risks for further mitigation
- Insurance Optimisation
 - Risk exposure vs Insurance premiums and coverage
- Projects:
 - Schedule analysis allows cover extension agreements

2. Risk Treatment & Cost Benefit

Pre mitigation



Post mitigated

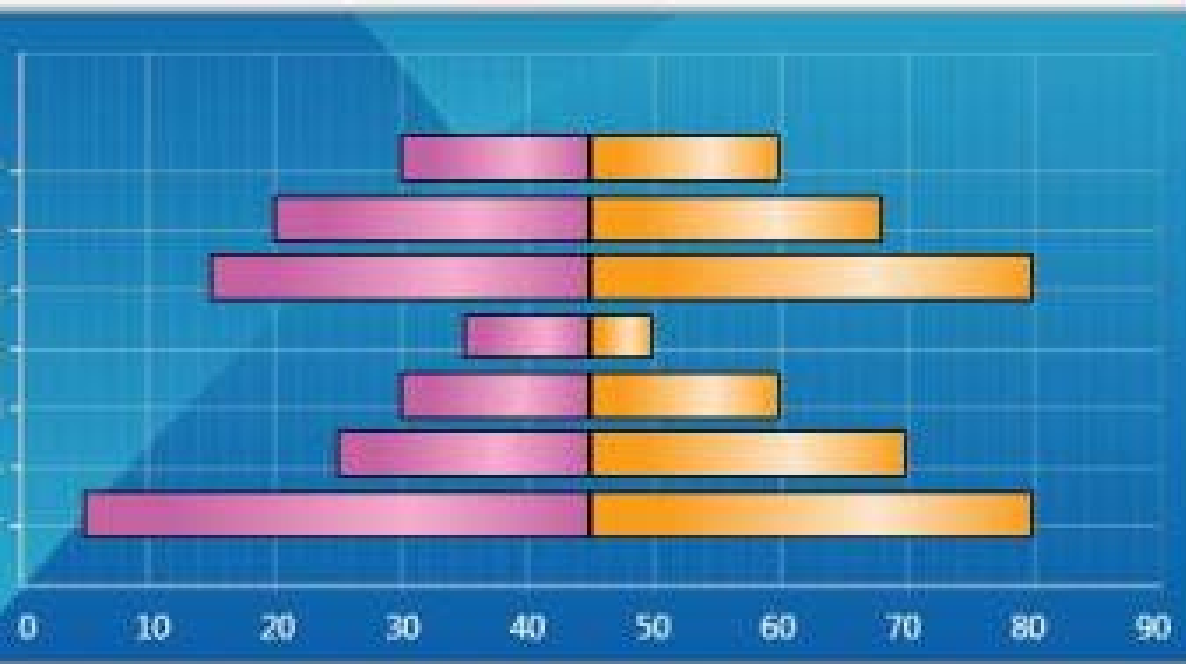


How to secure funding if the Mitigation cost is higher than project budget or contingency?

2. Risk Treatment & Cost Benefit

- “What If” Scenarios

- Tool to understand effect of mitigations and schedule changes



Mitigation option 1:

Cost to implement 400,000 USD
Schedule days saved: 60 days
Cost saved: 500,000 USD

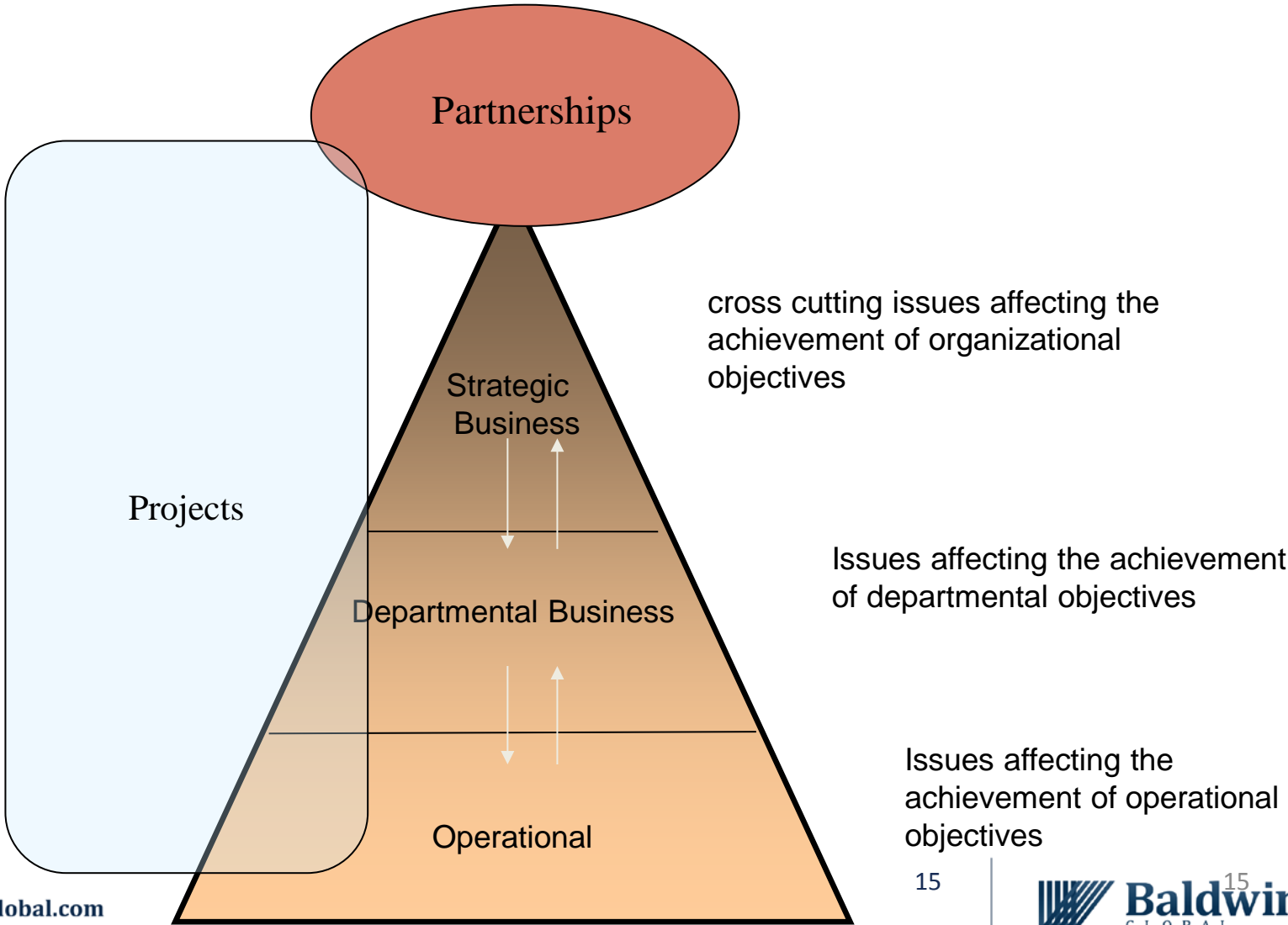
Mitigation option 2:

Cost to implement 300,000 USD
Schedule days saved: 10 days
Cost saved: 150,000 USD

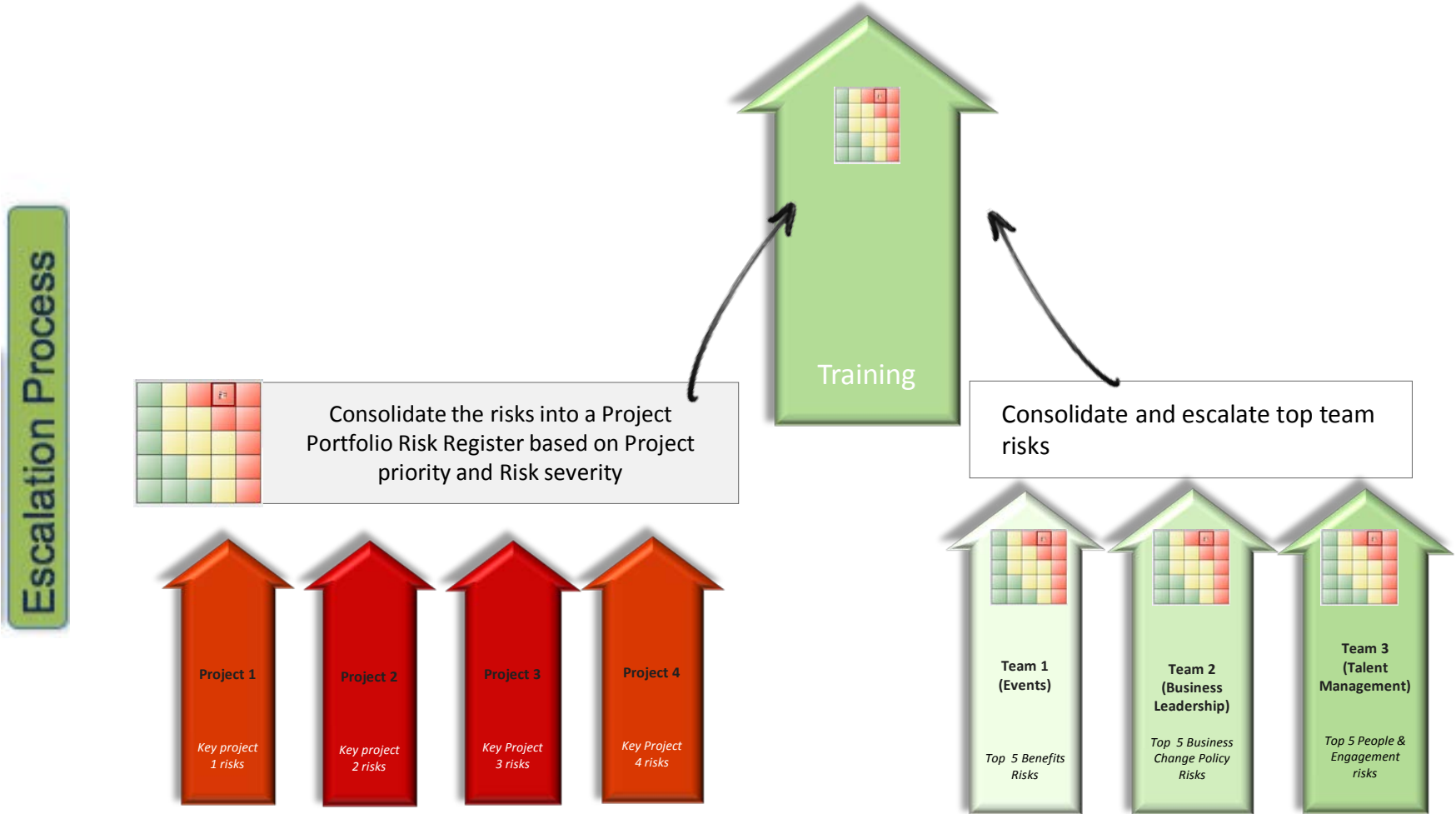
3.ERM Escalation



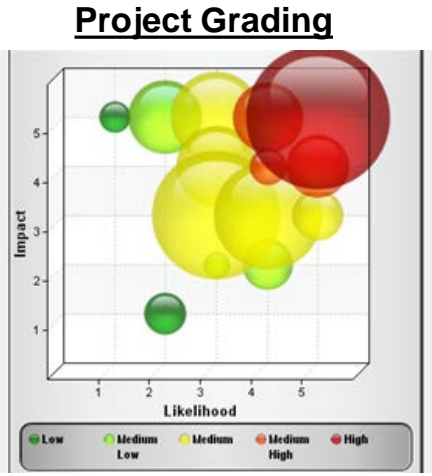
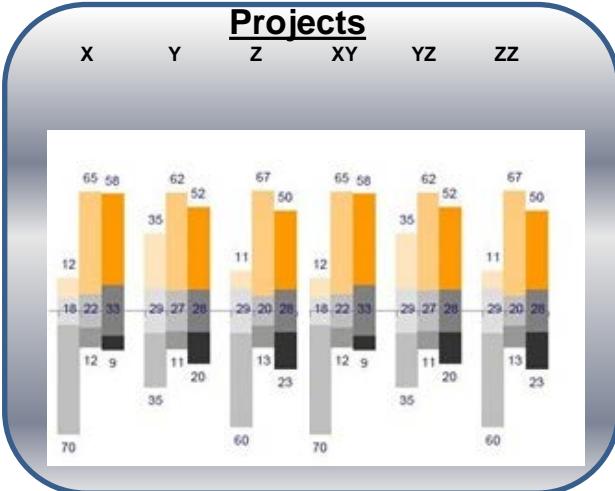
3.ERM Escalation



3.ERM Escalation



4. Reporting



GREEN	AMBER	RED
<p>Limited governance principles need to be applied</p> <ul style="list-style-type: none"> Expenditure of up to 2 million Minimal resource commitment If project delays then the fallout is in convenience Project does not impact in a material way on key priority services or strategic objectives Minimal reputation impact 	<p>Moderate and appropriate governance principles need to be applied</p> <ul style="list-style-type: none"> Expenditure between 2 million and 5 million Moderate resource commitment If Project fails then the fallout is an short term problem Project impacts in a moderate way on key priority services or strategic objectives Moderate reputation impact (local papers) 	<p>Robust governance principles need to be applied</p> <ul style="list-style-type: none"> Expenditure greater than 5 million Considerable resource commitment If Project fails then the fallout could potentially reach beyond K needs and have longer term service implications Project impacts in a serious way on key priority services or strategic objectives Serious reputation impact (national journals)



Risk Exposure

Overall Variance

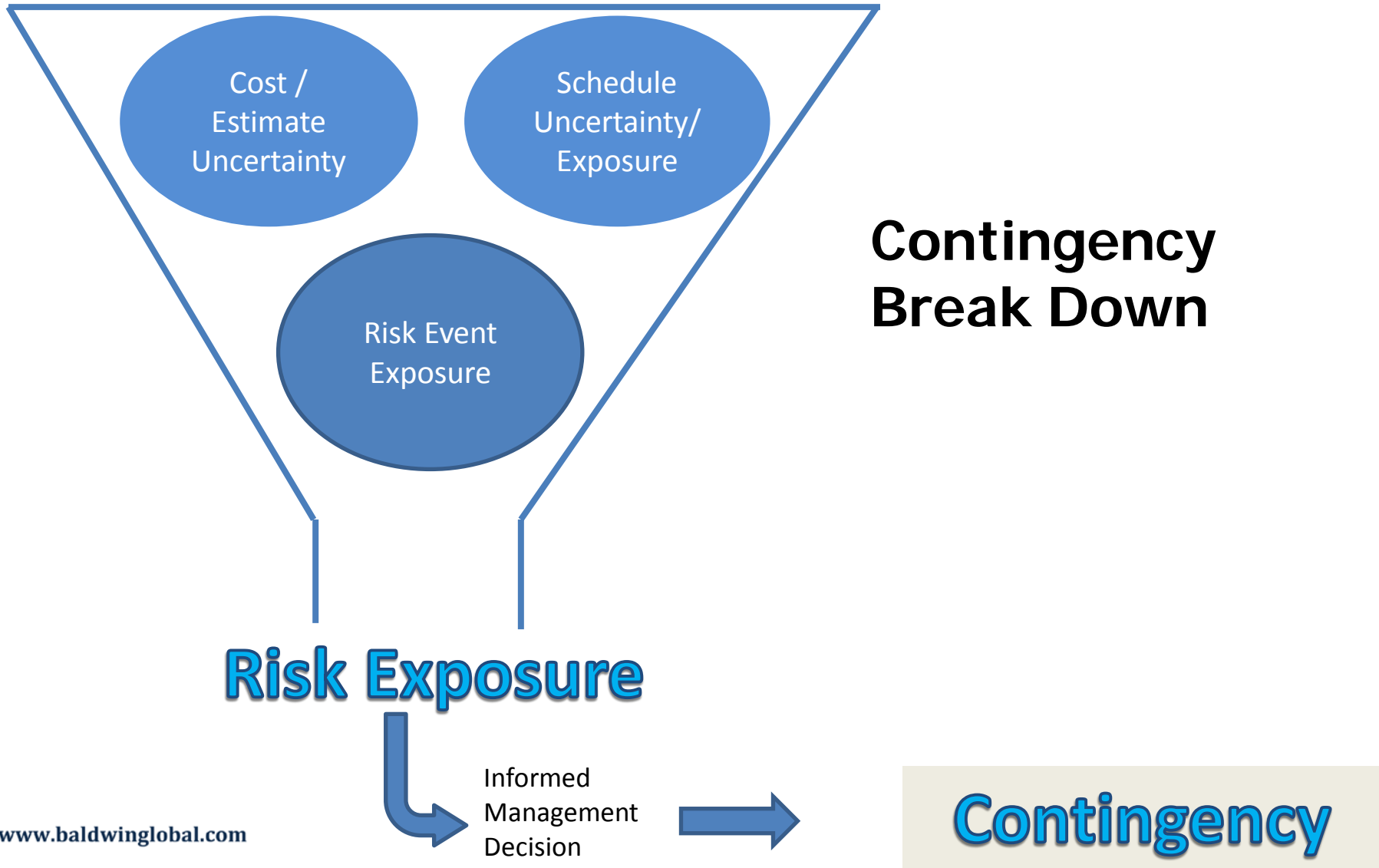
Average Saving

4. Reporting

The BIG problem with risk reporting and risk modelling based on historic information is that you think that you "still have time"



5. Project Portfolio



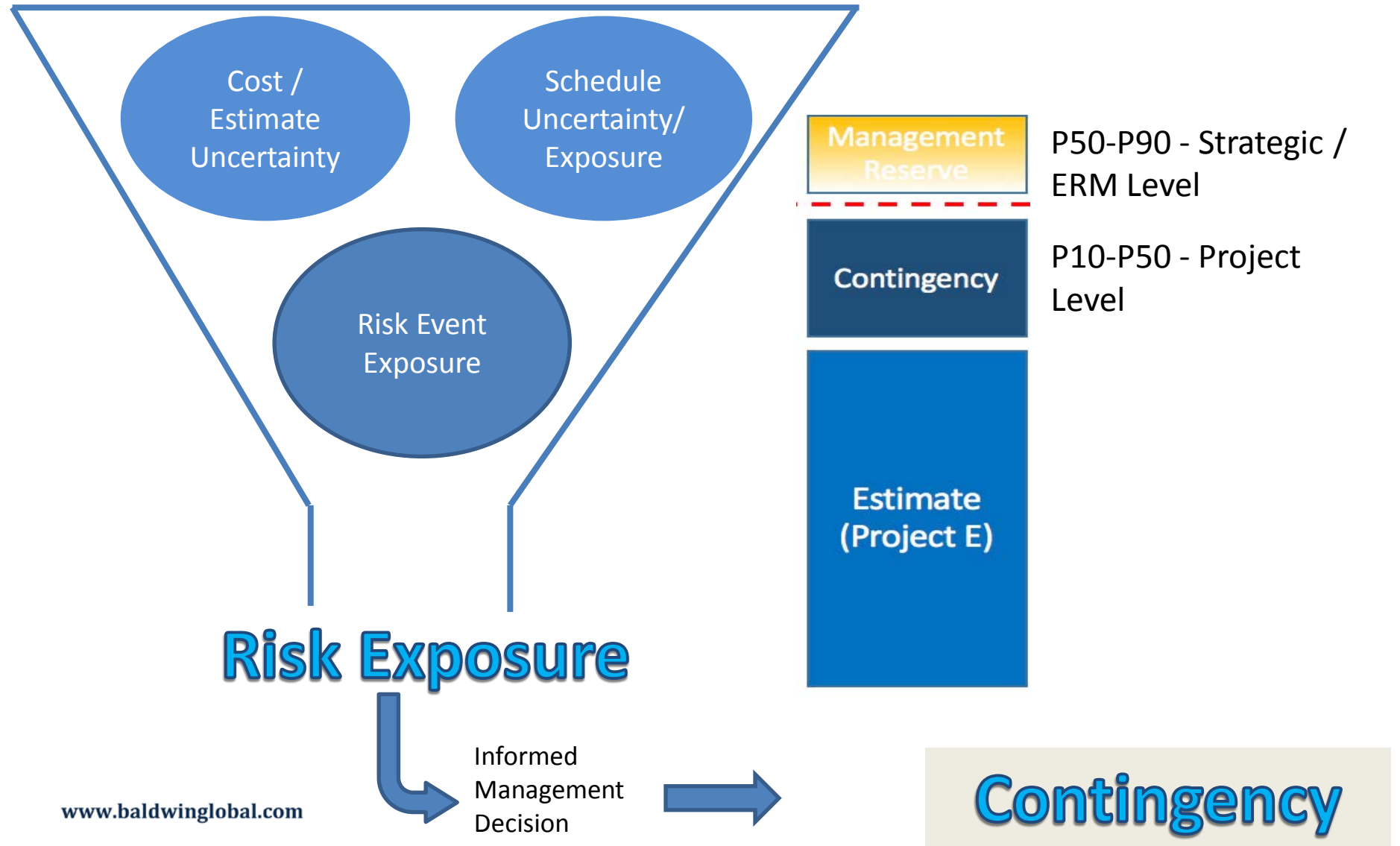
**Contingency
Break Down**

Risk Exposure

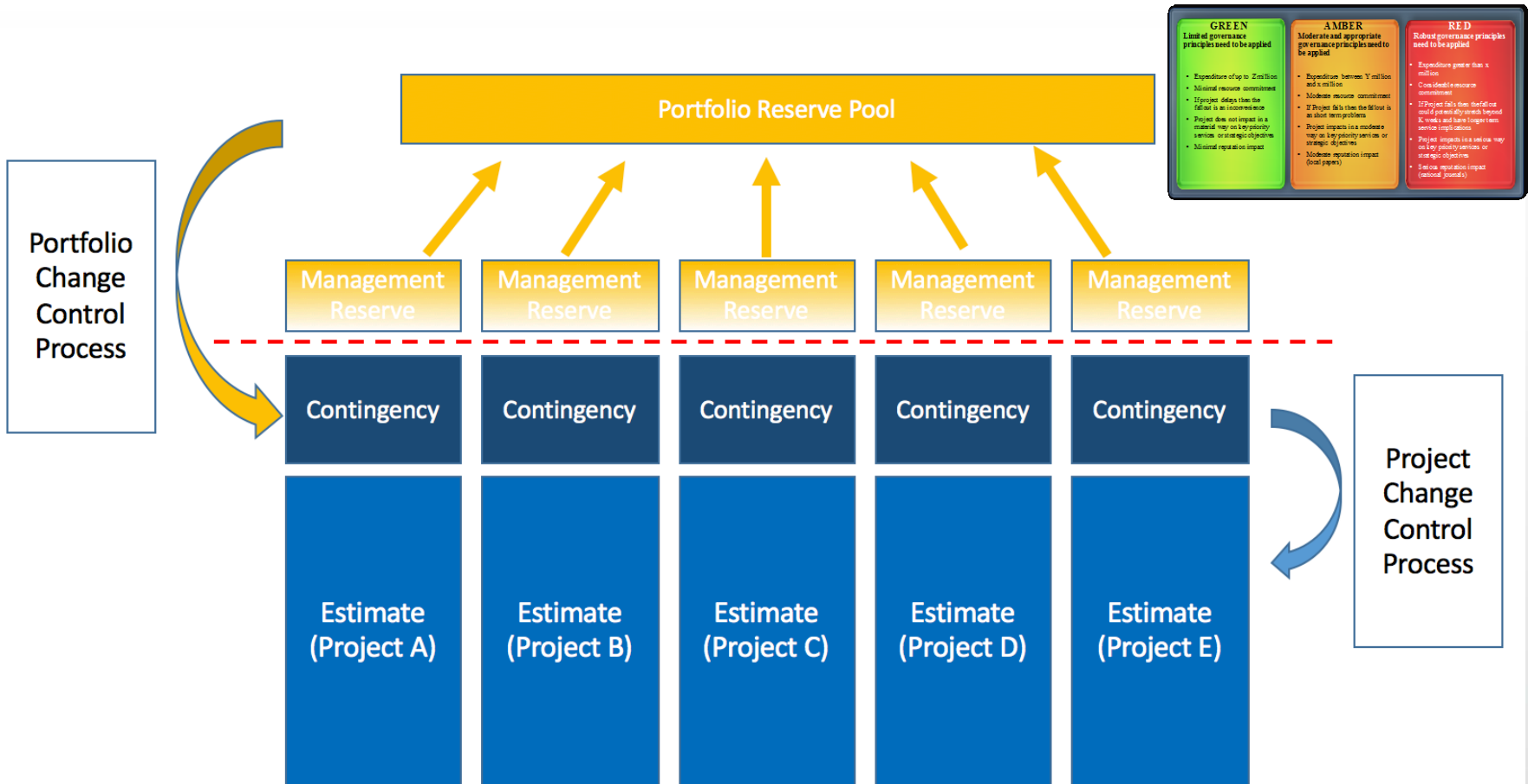
Informed
Management
Decision

Contingency

5. Project Portfolio



5. Project Portfolio



Iraq Case Study



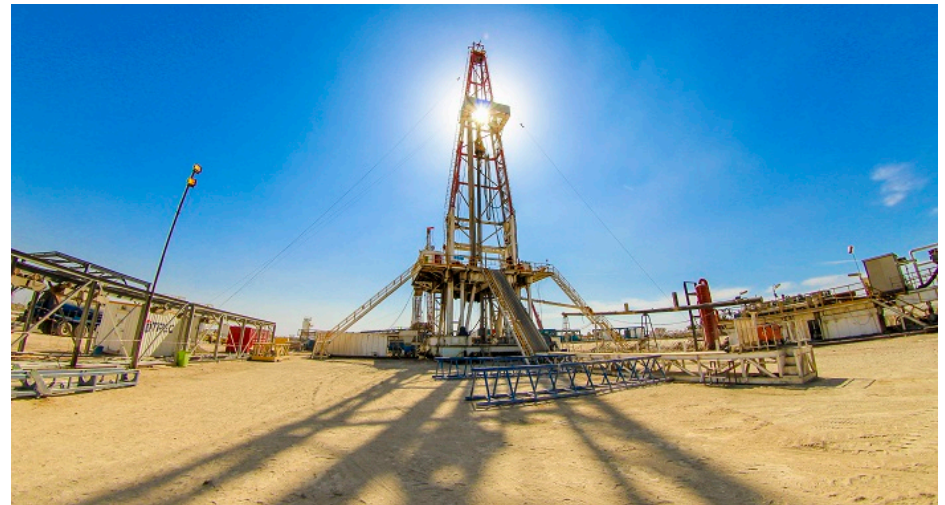
Iraq Case Study

- One of the worlds largest oil fields
- 14 billion barrels of recoverable oil
 - Early oil - 140,000 barrels a day
 - Phase 1 - 400,000 barrels a day
 - Full development target - 1,2 million barrels a day
- Major investment:
 - 30-40 billion dollars investment for full development
 - 6 billion dollars worth of contracts in 13/14



Iraq Case Study

Central Processing Facility (CPF)	Export Pipeline,	Gas Pipeline,	Water Pipeline,
Tank Farm,	Infrastructure and Early Works	Gas Treatment Plant,	Gas Turbine Power Plant,
Gas Turbine Extension	Wellpads	Full field development	Water injection plant



Risk Identification

What do you think some top risks in Iraq are?

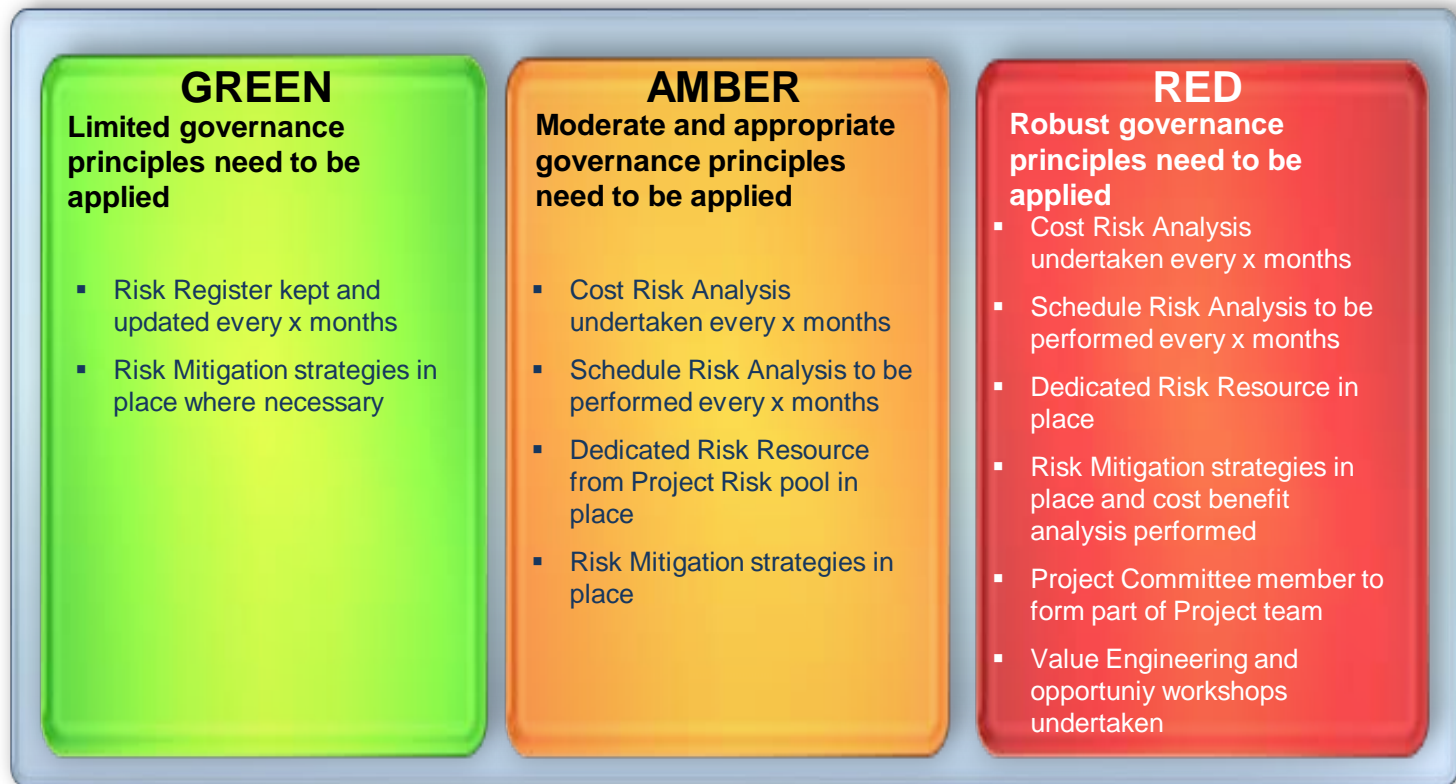




750	BD343	Munich	Cancelled
810	E1263	Frankfurt	Cancelled
		Dusseldorf	Cancelled
810	TOM7658	Dublin	Cancelled
830	ZB496	Alicante	Cancelled
850	TCX212K	Palma	Cancelled
850	LX421	Zurich	Cancelled
900	CO27	Newark	Cancelled
920	AZ3715	Paris-CDG	Cancelled
930	VWV1031	Malaga	Cancelled
945	TOM834	Orlando	Cancelled
115	VWV1103	Geneva	Cancelled
		Hannover	Cancelled

1605	E1263	Munich	Cancelled
1610	VWV15	Frankfurt	Cancelled
1620	TCX50	Dusseldorf	Cancelled
1645	KL143	Dublin	Cancelled
1715	LH49	Alicante	Cancelled
1725	MKS9	Palma	Cancelled
1745	VWV1	Zurich	Cancelled
1810	EZY8	Newark	Cancelled
1815	KL14	Paris-CDG	Cancelled
1820	LH49	Malaga	Cancelled
1830	PIG7	Orlando	Cancelled
1850	LX42	Geneva	Cancelled

Developed Project Requirements



ERM Leading the way



Iraq Case Study

General Strategic Risks

- Major delay of projects impacting other critical projects
- Government default (Credit worthiness)
- Oil Price drop below budgeted levels
- Failure to manage Multiple Contractors
- Impact on Reputation from delays or environmental incidents
- Negative impact on IRR / NPV

Iraq Case Study

Project and Operations specific risks that impact Strategic levels

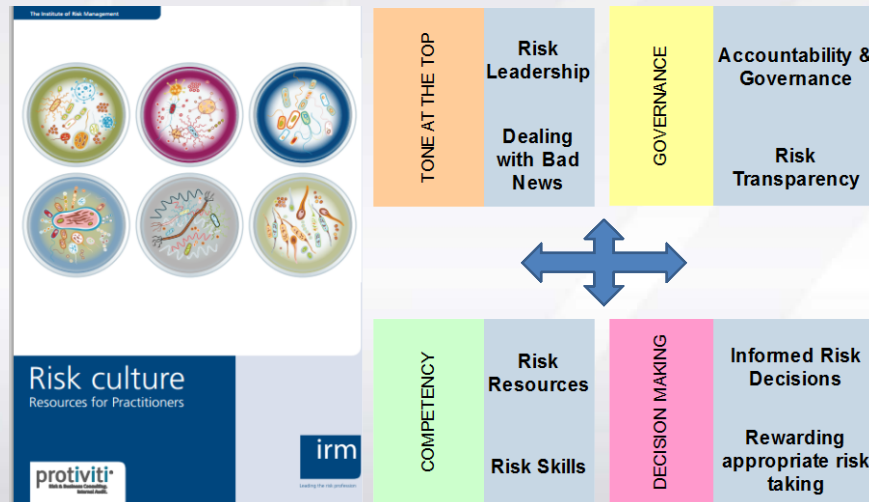
- Reservoir pressure
- Major claims from Contractors on projects
- Major environmental or safety/security incident
- Delays & Cost overruns
- Well pad completion dates (impacts reservoir pressure)
- Export pipeline completion dates (money starts when the oil is exported)

Iraq Case Study

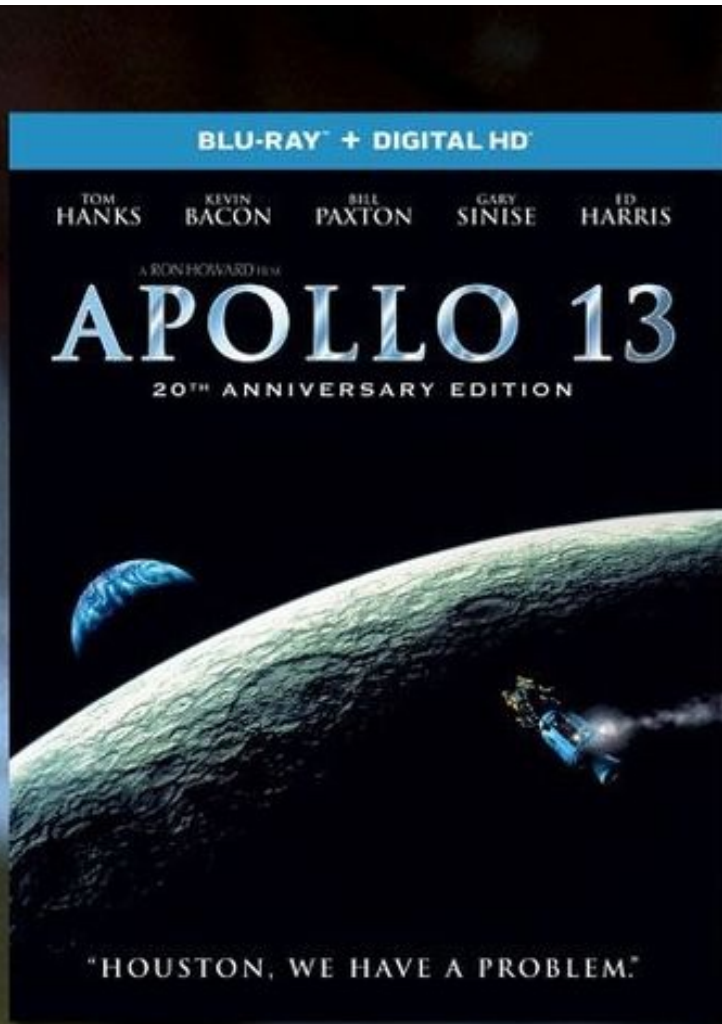
Project Information was used for decision making:

- **Overall Strategy** based on scenarios of different oil prices and reservoir pressures, country credit ratings, project costs and time etc.
- **Individual Asset Strategies** based on scenarios of different oil prices and reservoir pressures
- **Stakeholder Management (Media, Contractors, Shareholders)**
- **Decision on other Mega Project bids** (start dates, financial aspects, walk away?)
- **Cash Flow Management** (First oil income, additional oil coming online)
- **Overall Contingencies and reserves** as well as Legal exposures for each asset/mega project
- **Planning safe operations and shutdowns** for construction and “tie-ins”
- **Insurance**
- **Business Continuity** – QRA’s were developed for various project and operations scenarios related to accidents and oil spills/leaks as well as water intake damage

Risk Framework & Culture



Risk Culture & Opportunity



Risk Culture & Opportunity

1. Clear Objectives

2. Turned Failure into success

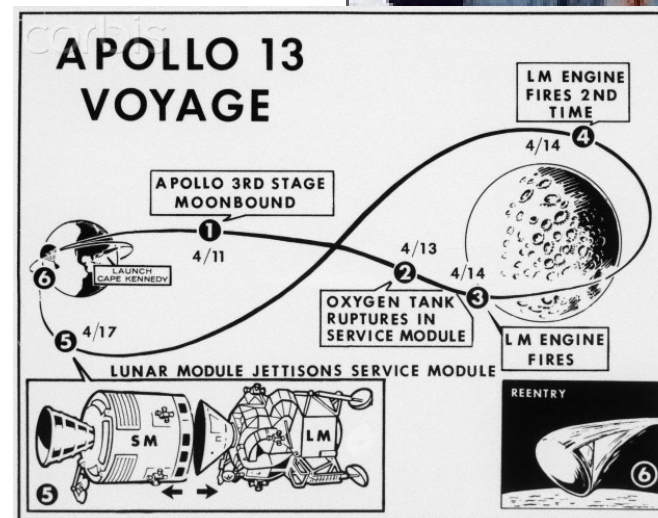
- Objectives change
- Bring back safely
- Lessons learned for future success

3. Prepared for the unexpected

- Training
- Preparation
- Experts available


4. Took Risks!

- Turned risk to opportunity
- Strong decision maker





Risk Guide

www.youtube.com/c/riskguide & www.riskguide.wordpress.com





- Visit our Risk Guide Blog -
WWW.RISKGUIDE.WORDPRESS.COM


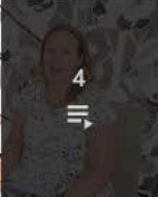
Follow me on LinkedIn 

 **Risk Guide**
1,963 subscribers

[CUSTOMIZE CHANNEL](#) [YOUTUBE STUDIO \(BETA\)](#)

HOME VIDEOS PLAYLISTS CHANNELS DISCUSSION ABOUT  

Created playlists

  **Risk Culture Conversations**
Risk Culture Conversations Promo • 0:52
Risk Culture Conversations - Episode 1 - Taking Risk • 9:29
[VIEW FULL PLAYLIST \(4 VIDEOS\)](#)

Risk Culture



- Job Descriptions
- Annual Appraisal
- Linked to Bonus
- Linked to Development Plan
- Linked to Leadership Development
- HSE Style Awards

Risk Culture

INTERNAL TRAINING



EXTERNAL TRAINING



CERTIFICATION



Conclusion & Benefits

Risk Management compliments and enhances Strategy & Projects

Strategic level:

- Allows more accurate schedule and budget predictions in order to manage interdependent project start dates
- Improves chances of meeting and exceeding Objectives
- Provides ability to have effective Project Portfolio Management
- Provides more complete data to managers and directors for better decision-making
- Improves stakeholder confidence and satisfaction

Project level :

- Supports Managers and Project Managers make a case for additional support
- Cost/Benefit comparison of Mitigation actions. Cost of mitigation vs cost/schedule saving
- Ability to meet cost and schedule targets
- Improved Contractor performance & becoming part of the TEAM
- Encourages Lessons Learned
- Project teams start acting like TEAMS

irm



Los Angeles | Toronto | Montreal | Edinburgh

Alexander Larsen,

President, Baldwin Global

Tel: +44 (0)131 344 4626

Mob:: +44 (0)7493 107 615

[Email: al@baldwinglobal.com](mailto:al@baldwinglobal.com)



@baldwinglobalrisk



@baldwinglobal



Baldwin Global

www.riskguide.wordpress.com

www.youtube.com/c/riskguide



@riskguide



@riskguide



Risk Guide