

A full-page background image of a surfer in silhouette riding a large, powerful wave. The surfer is positioned in the upper right quadrant, leaning forward with arms outstretched. The wave is breaking, creating a massive spray of white water that fills the upper half of the frame. The sky is a clear, deep blue. In the bottom left corner, the ECC logo is visible, consisting of the letters 'ECC' in a stylized, white, sans-serif font, with a small circular icon containing a stylized 'E' to the left. The overall mood is dynamic and energetic.

# Riding the Wave

CAPITALIZING ON THE VELOCITY OF CHANGE

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# Global Megatrends



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# Overview

- Global Megatrends – the world is changing
- Projects will be impacted...and look different
- More complexity, new risks
- Implications and success factors

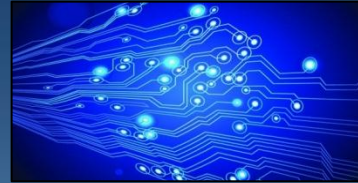


# Global marketplace is transforming

## Demographics



## Technology



## Globalization



### Impact on energy

- New types of fuels
- New geographies
- Resource nationalism
- Competition for resources

## The new consumer



## Natural resources



## Regulation & activism





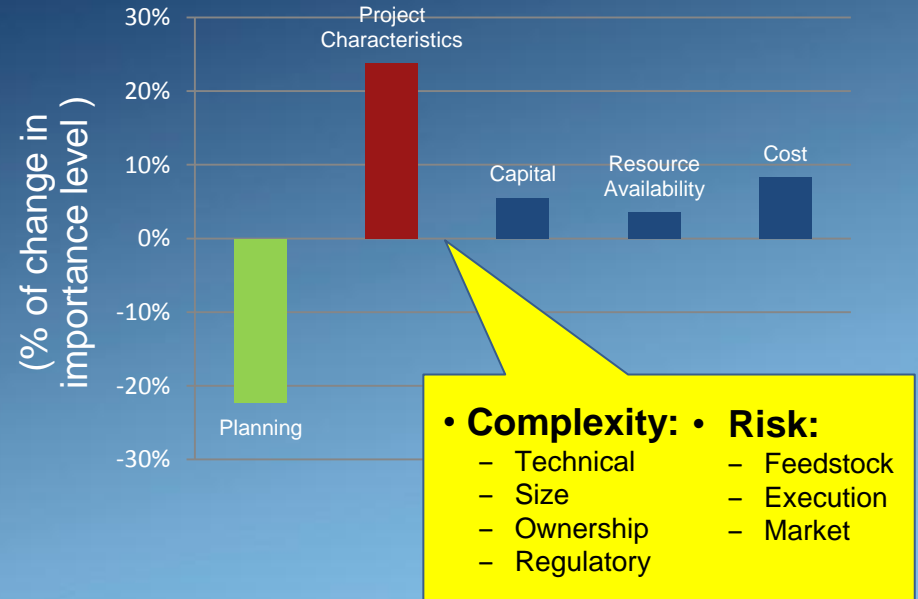


# Capital projects are changing

Spending is increasing –  
for example E&P

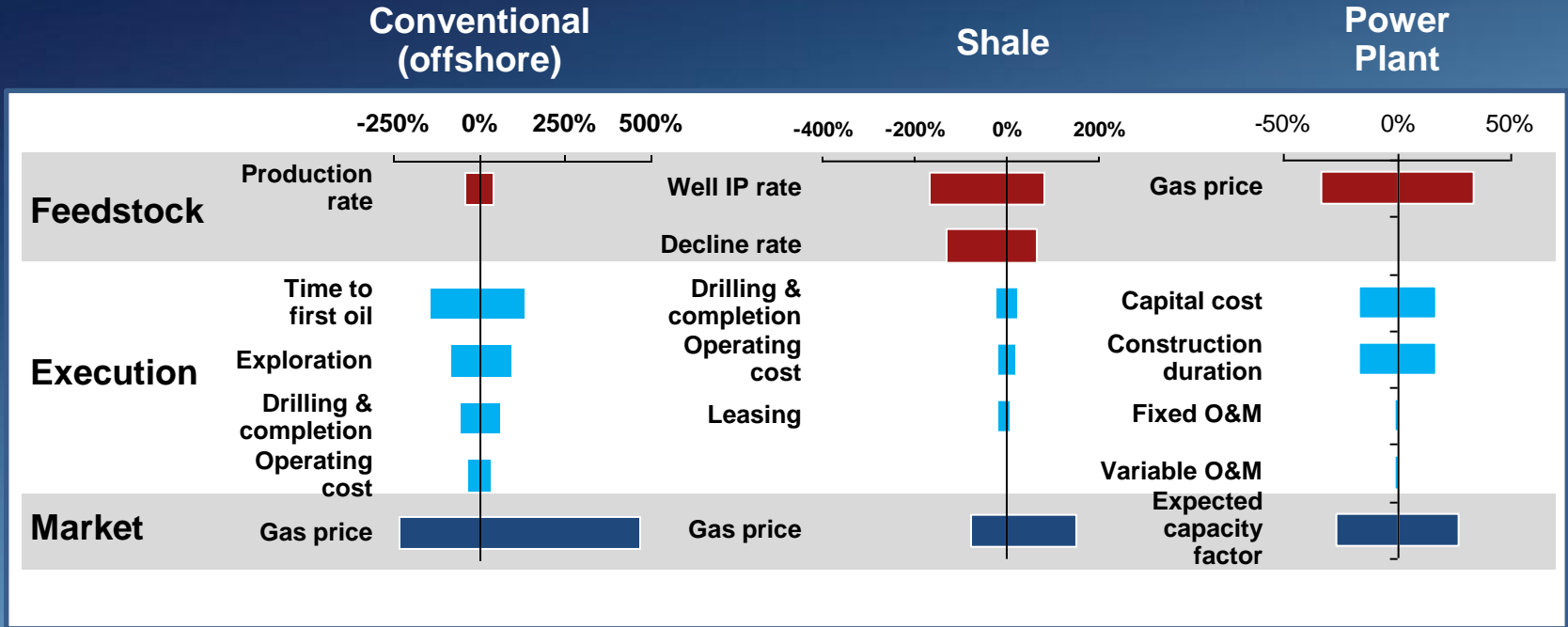


Increased complexity increases risk profiles





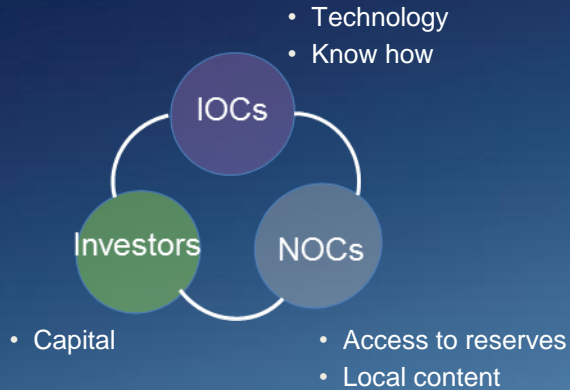
# Risks vary along the value chain





# Stakeholders have varying views on risks – example E&P

## Different roles



## Different risk objectives

Objectives	IOC	NOC	Investor
Financial	Higher	Lower	Higher
Social Programs	Lower	Higher	Lower
Reserves	Higher	Higher	Lower
Hedging	Higher	Lower	Higher

Higher → Lower

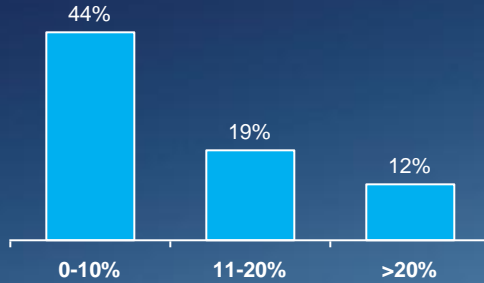
- Difference in capabilities and objectives drive differences in risk tolerance - drive potential conflicting decision (e.g. selection of suppliers, permitting delays, asset strategy)
- Difference in priorities can jeopardize the project success and expected returns



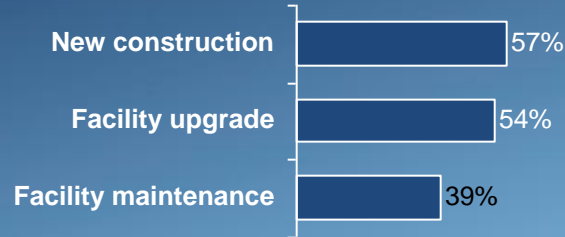
# Project execution is lacking – the impact is significant

## Schedule

% of project behind schedule

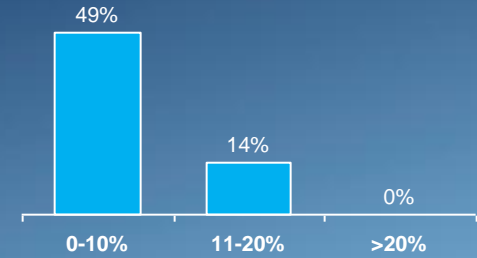


% of projects behind schedule >10%, by project type

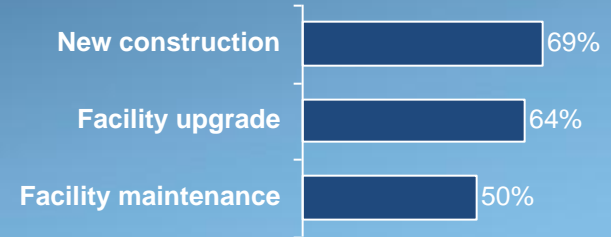


## Budget

% of project over budget



% of projects over budget >10%, by project type



**On average at least ~23% of projects fail to meet the required return threshold**







# Root causes are usually poorly understood

>95% of senior managers believe they **know what it takes to deliver capital projects successfully**

... and yet 40% of projects are behind schedule

Nearly 70% of senior managers believe their organization **can accurately forecast resource requirements**

... and yet over 71% of respondents indicate resource shortfall as a key concern

Nearly 70% of senior managers believe their **organization pushes for standardization across the portfolio**

... and yet only 29% use Standard Design as the predominant design approach

60% of senior managers are confident that their organization can **manage budget deviations & deliver projects on time**

... and yet 61% of projects are over budget

On average, ~70% of senior managers are comfortable with their **risk identification/ assessment/ management process**

... and yet only 19% of companies are rated in Stage 4 (Best in Class) in Risk Mgt.

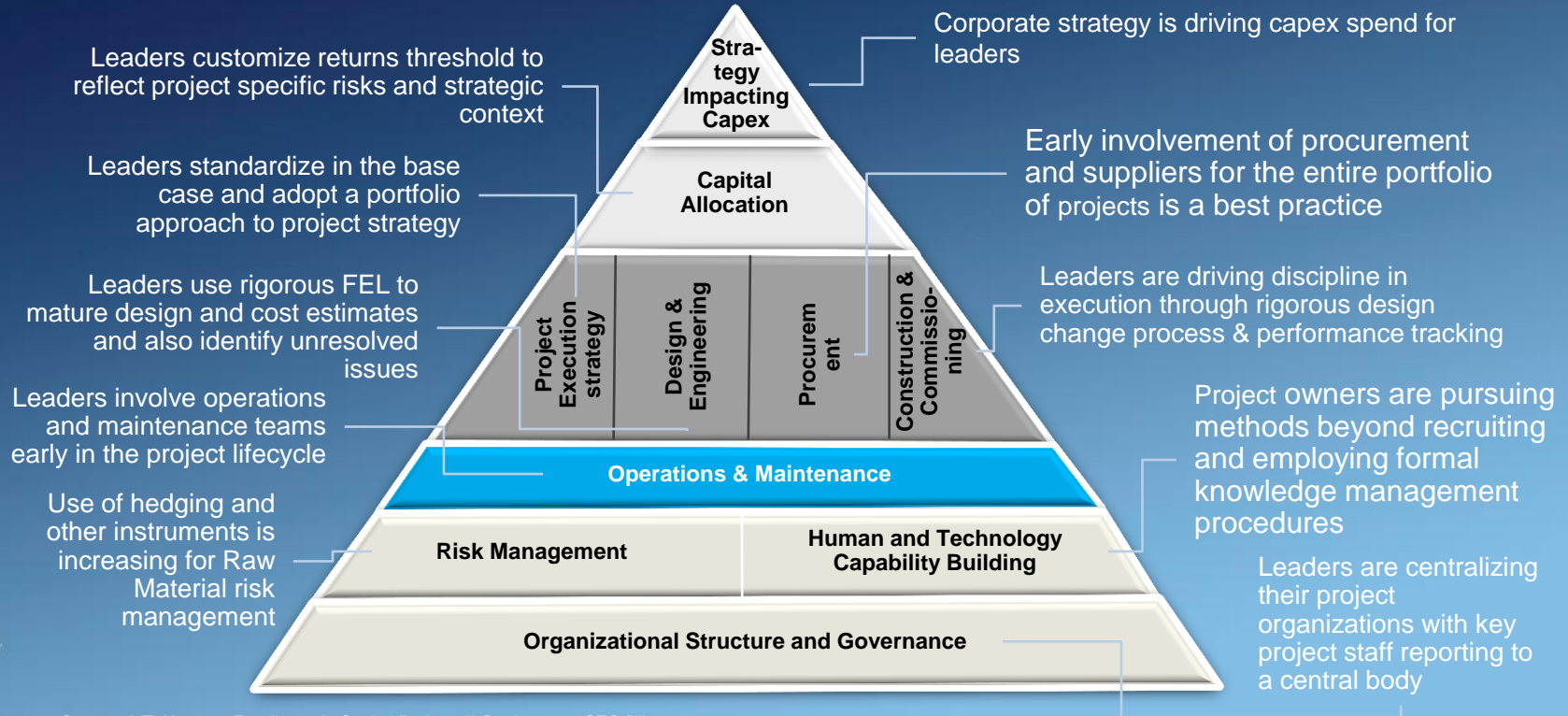
92% of senior managers believe their **capital strategy is aligned to business strategy**

... and yet >35% of companies indicate that this alignment is not ultimately adhered to



# The better practices are well known

## A.T. Kearney's House of Capital Excellence – Leading Trends





# The differentiating trends

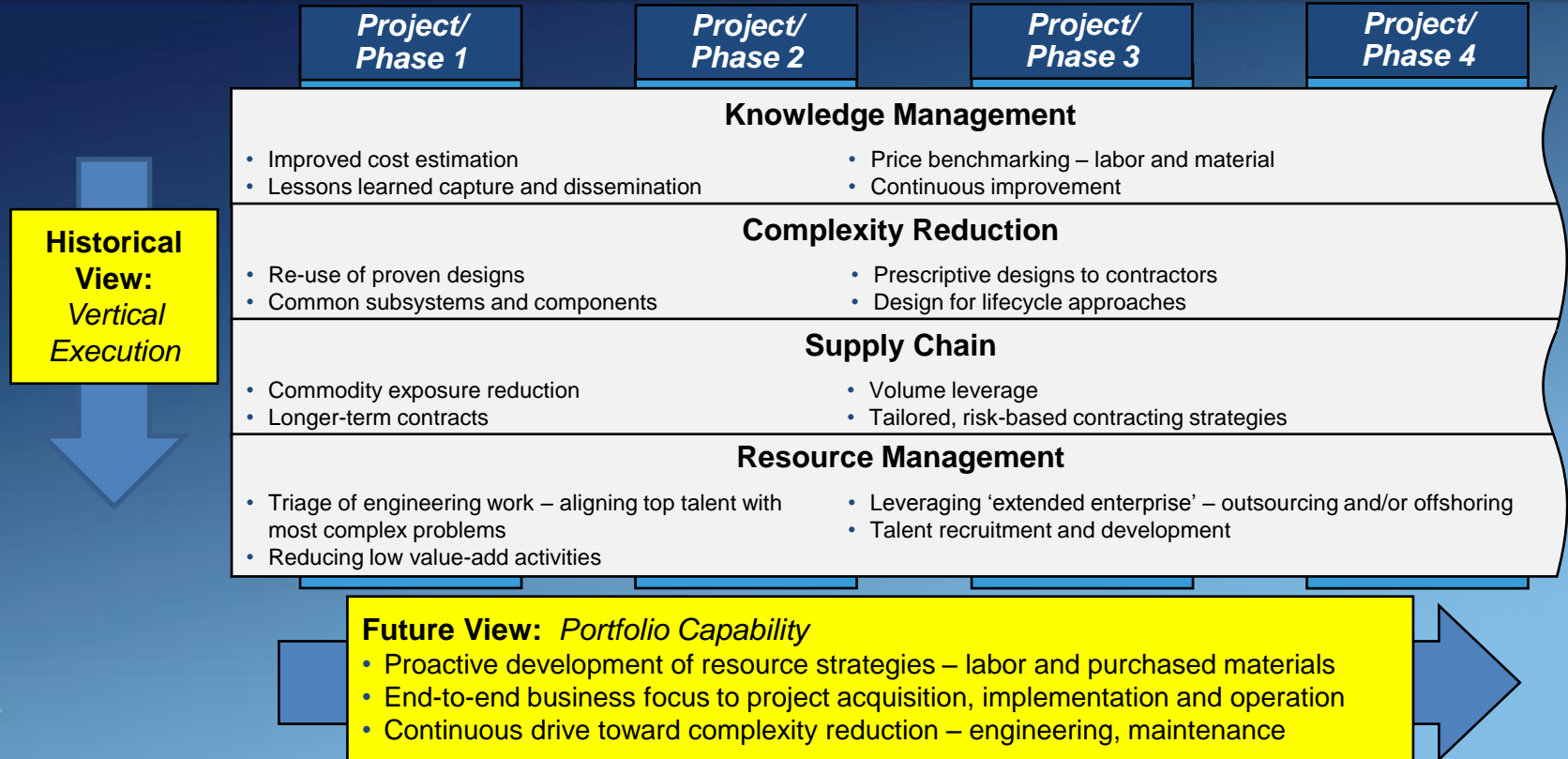
Manage project  
portfolio to leverage  
commonality

Manage  
emerging  
challenges

Adopt advanced risk  
management  
approaches



# Portfolio approach

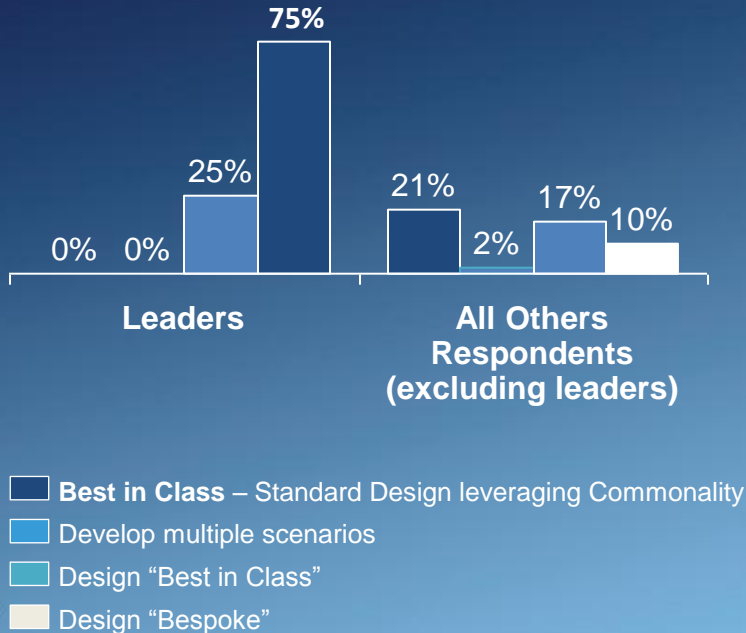




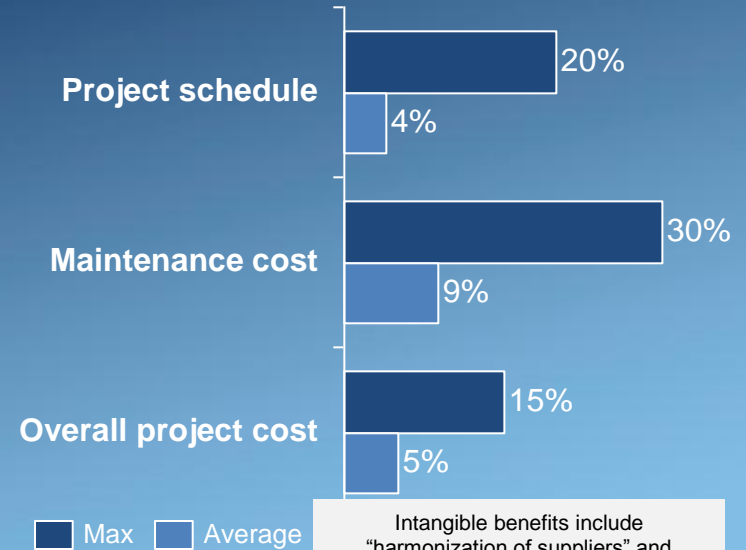


# Example – complexity reduction

**Project Development Approach**  
(% of respondents who rate the following as the dominant approach)



**% Savings achieved through leveraging Commonality across projects**



Intangible benefits include “harmonization of suppliers” and “learning curve benefits”





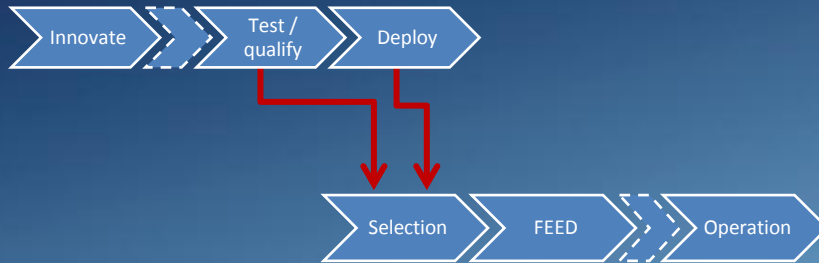
## A new way of managing risks

- Cross functional risk teams – vs. siloed management of risk
- Supplier / contractors involvement and alignment – vs. arms length relationship
- Proactive JV partner alignment – vs. potential conflicting position
- Continuous risk management during project – vs. administrative exercise



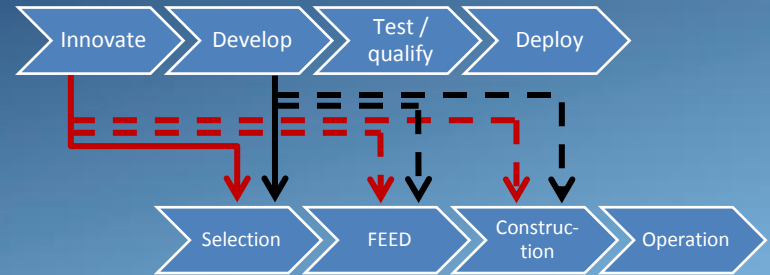
# Cross functional example: Technology introduction

## Traditional (sequential)



- Only qualified technology used – often obsolete
- Conservative approach based on hand over from technology to project

## Advanced (parallel)



- Technology and project work concurrently
- Risk managed by maintaining several options to accommodate future advances

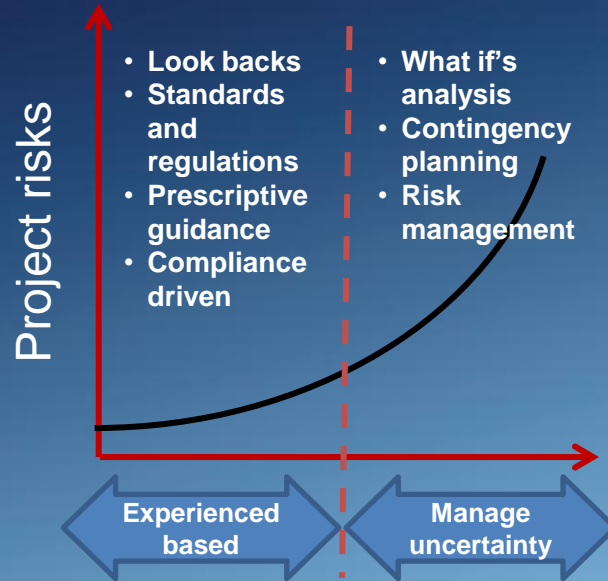


# Supplier integration example: A new approach to operational safety

Human space  
flights

Armed  
forces

Others



## Emphasis on team's behavior at the front line

- **Clear collaboration mechanism**
  - Alignment of incentives
  - Decision structure clarified
  - Control limits are various scenarios
  - Drills to test team's response
- **Different behavior**
  - Trusts in the team's response
  - Robustness of the decision making process





## Takeaways

- Project are becoming more complex and risky
- Impact of poor execution is increasing
- Portfolio approach and risk management = key differentiators
- Leveraging commonality and managing risk collaboratively improve asset performance over the long term



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