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*Presentation*

**Container Terminals  
Operations & Planning**

Long Beach, CA  
September 10, 2013

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## Agenda

- ▶ Terminal planning process
- ▶ Defining needs and implementation timelines
- ▶ Focusing on improvement projects
- ▶ Keeping it financeable
- ▶ Project examples

# Planning provides a comprehensive assessment of port and market characteristics...

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- ▶ Port mission statement
- ▶ Existing facility infrastructure and capabilities
- ▶ Competitive position
- ▶ Port customer's long term business objectives
- ▶ Future market opportunities and strategic initiatives
- ▶ Both near-term and long-term needs
- ▶ Applications of technology
- ▶ Facility layouts to optimize capacity, utilization, and operations
- ▶ Cost considerations and potential funding sources

**...providing a roadmap for success that responds to future market opportunities and implementation flexibility**

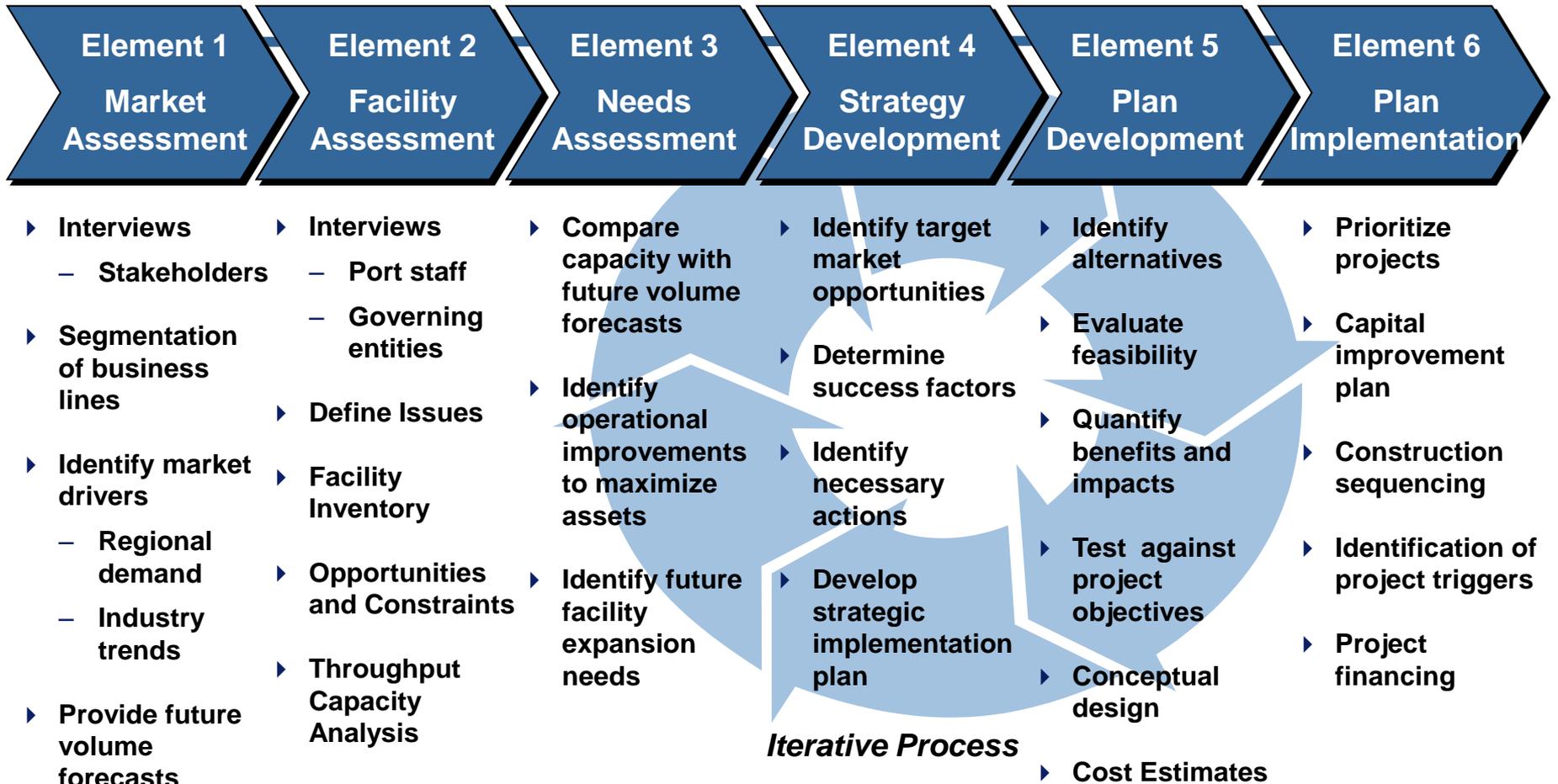
# Planning provides answers to questions that span Strategic, Technical, and Tactical issues

Project Phase	What	Where	When	Why	Who	How
Facility Assessment	█					
Market Assessment	█			█	█	
Needs Assessment	█					
Facility Plan Development	█					
Strategic Plan			█		█	█
Implementation Plan			█		█	█
Financing Plan					█	█
	<i>Technical</i>					<i>Tactical</i>

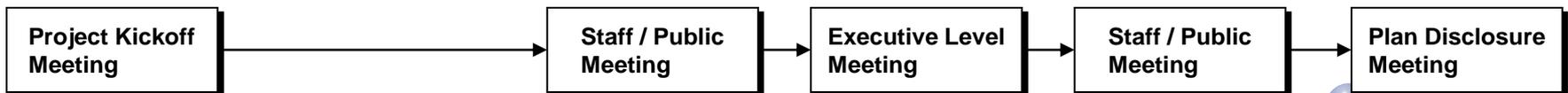


Strategic

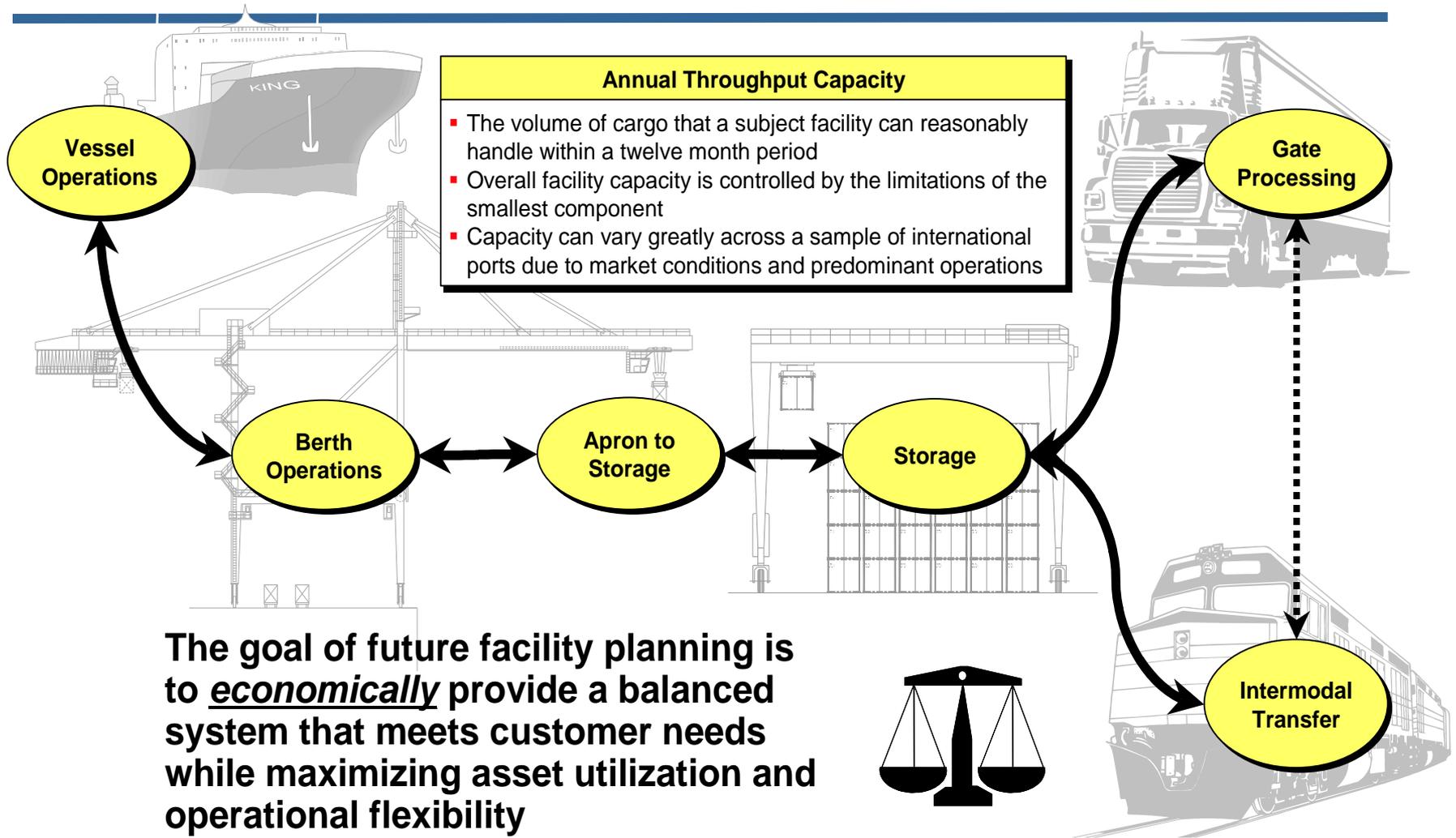
# ...It involves six key Elements



**And should be designed to build consensus throughout development**

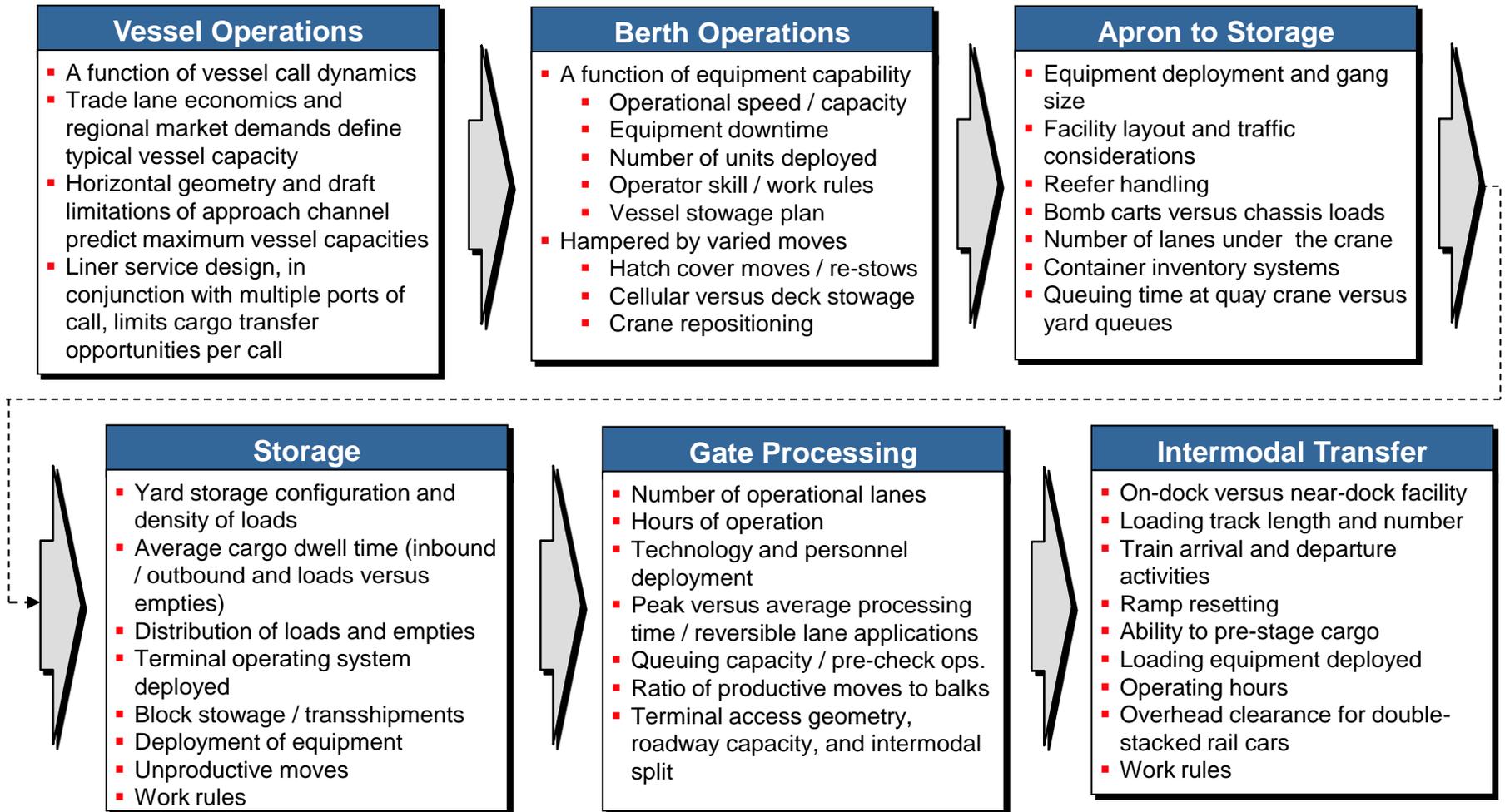


# Capacity Measurement involves analysis of a system of individual components



The goal of future facility planning is to ***economically*** provide a balanced system that meets customer needs while maximizing asset utilization and operational flexibility

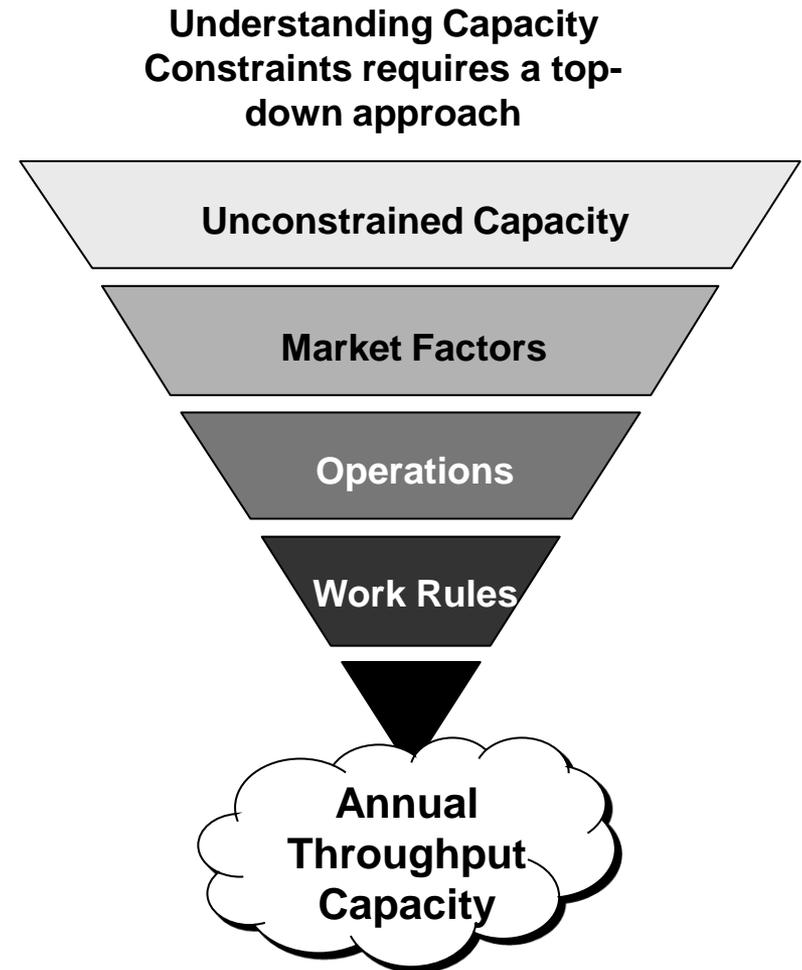
# Many of the variables are not within the control of the Port



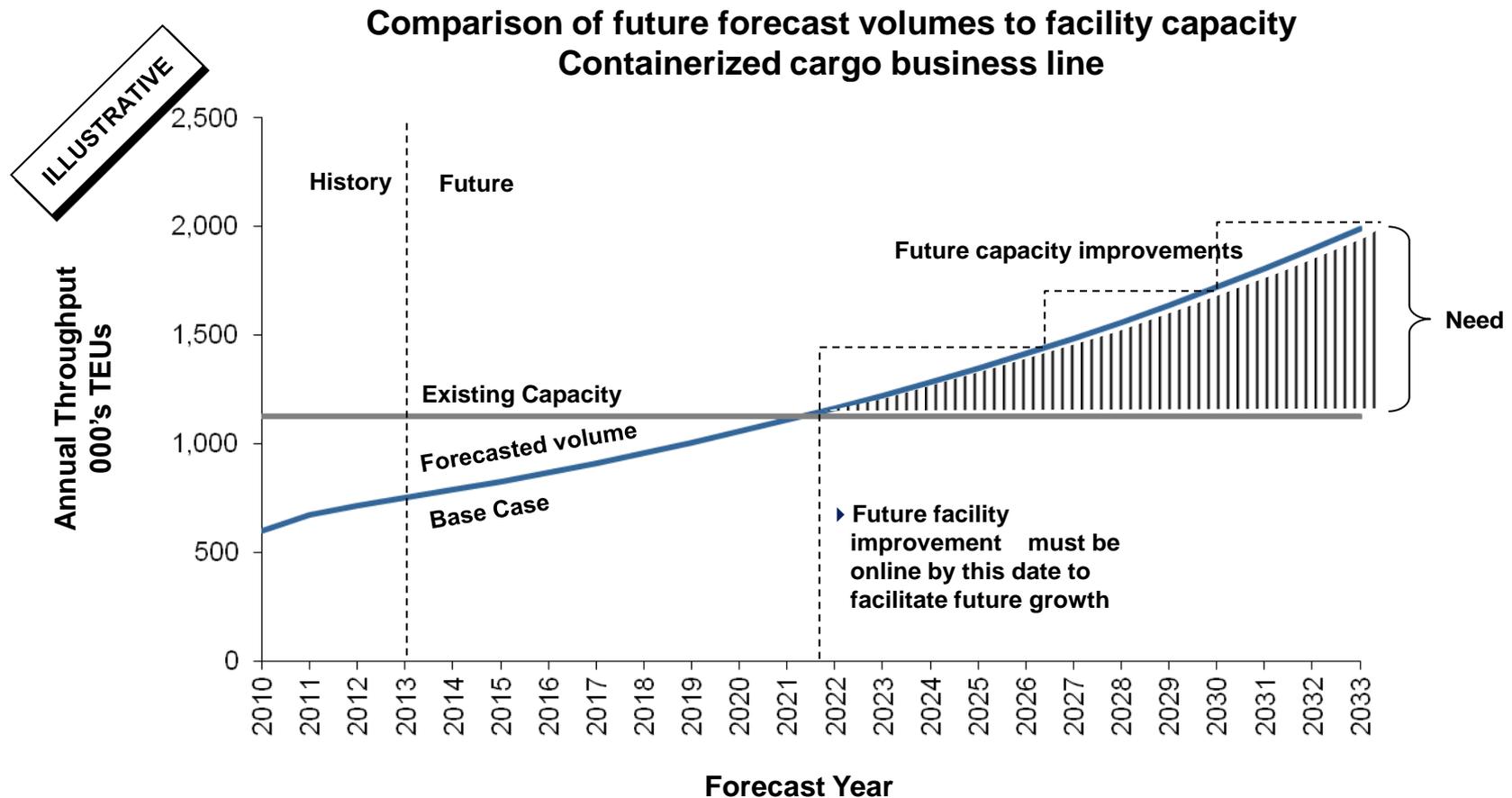
***This is just a sampling. There are a number of additional variables to consider...***

# Capacity measurements can vary from port to port, and involves physical, cost, and quality considerations

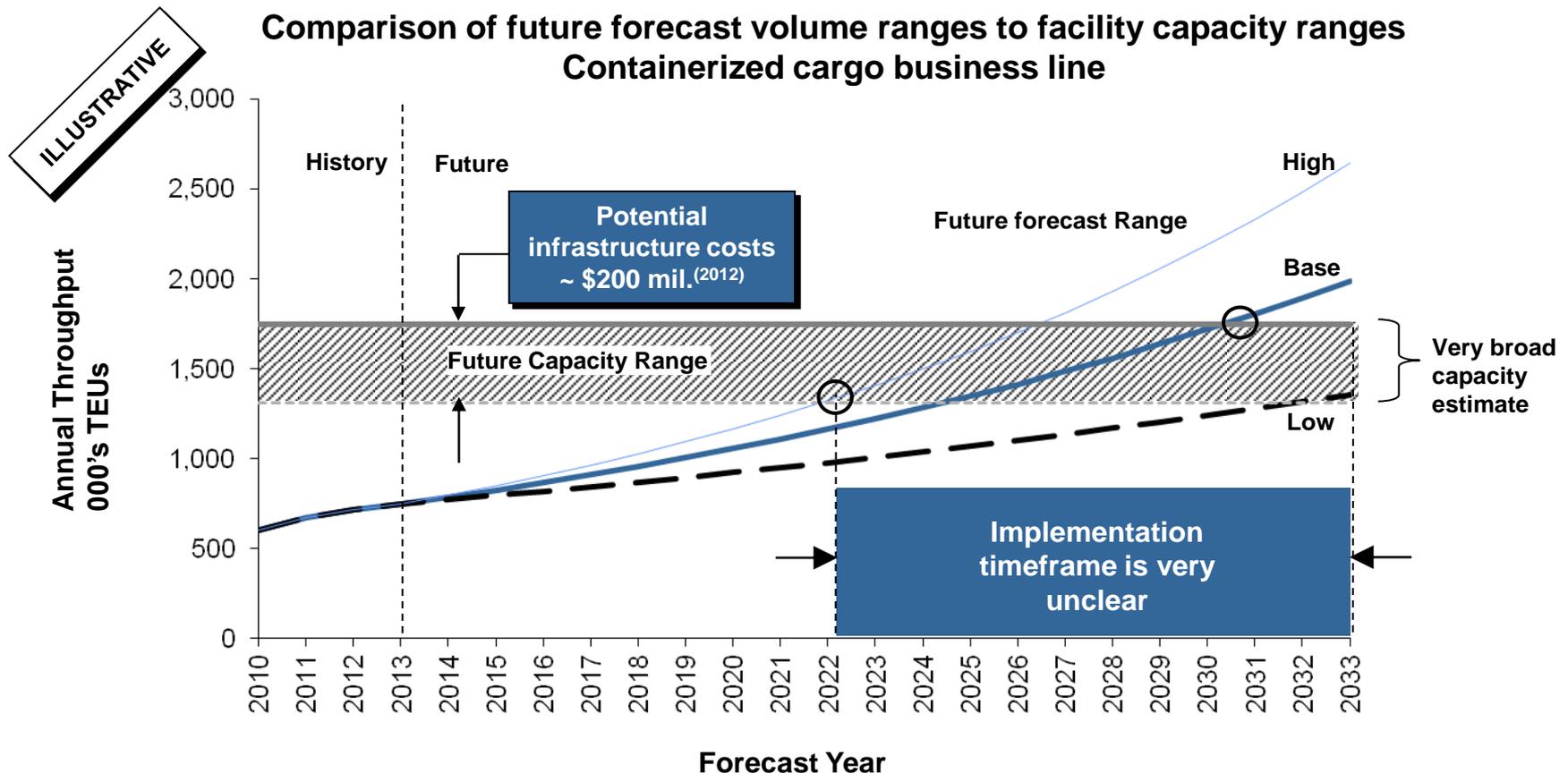
- ▶ Capacity is a function of both supply and demand
- ▶ It collectively incorporates
  - Intrinsic ability – nominal capabilities of facility assets
  - Utilization – measure of how intensely assets are or can be employed
  - Productivity – measure of how well resources are or will be performing
- ▶ Quality of capacity affects costs of operations, and services
- ▶ An important measure for determining long-term expansion programs
- ▶ It varies significantly between individual port facilities



# In simple terms, “Need” is defined as future demand minus existing capacity



# However ranges in estimates can greatly influence the ambiguity of future facility needs, solutions, and timing

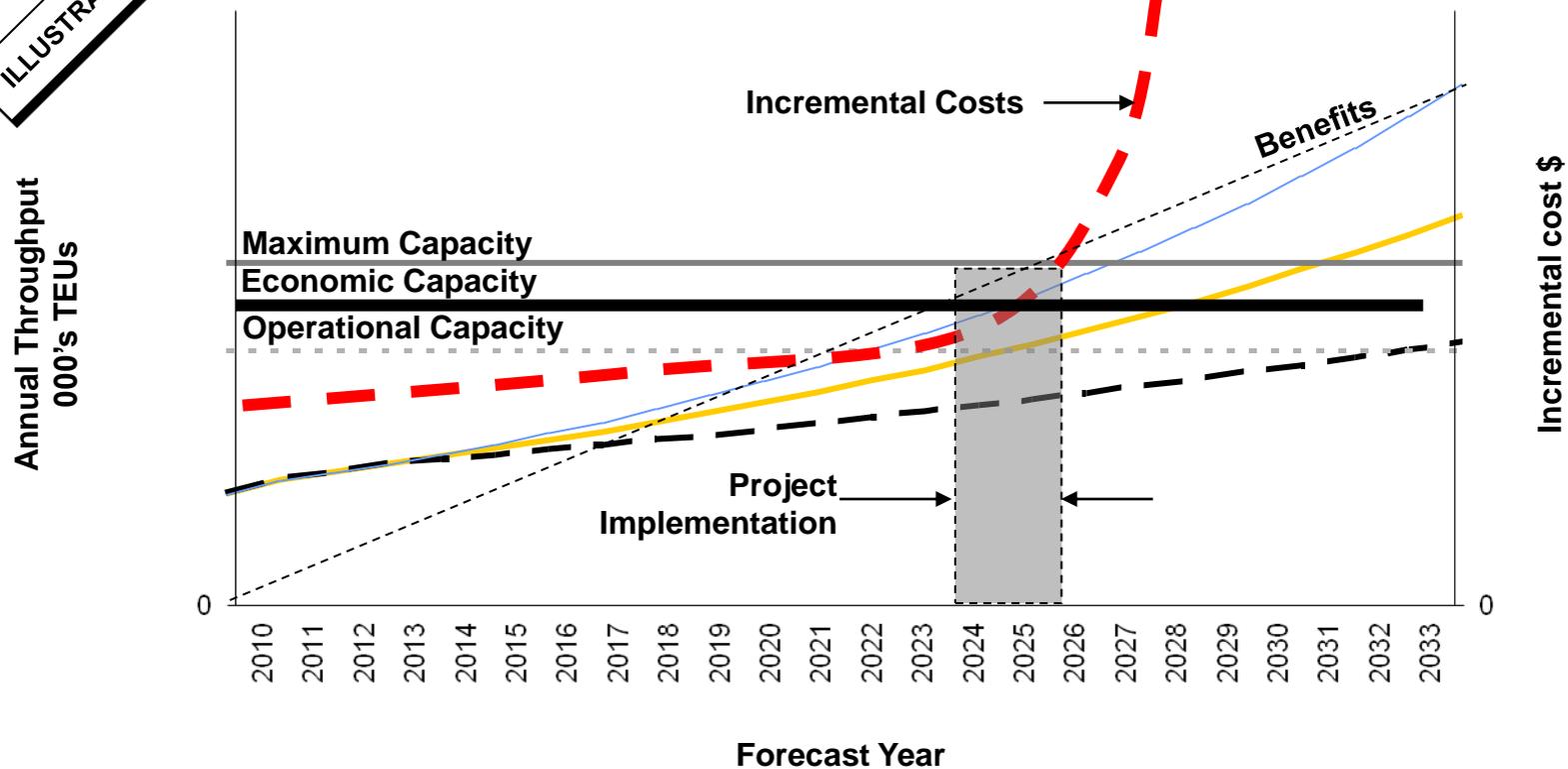


***When the capacity range in question represents an almost \$200 million investment in infrastructure, the level of investment risk can be high***

# Measures for benefits and incremental operating costs over time better defines the implementation window

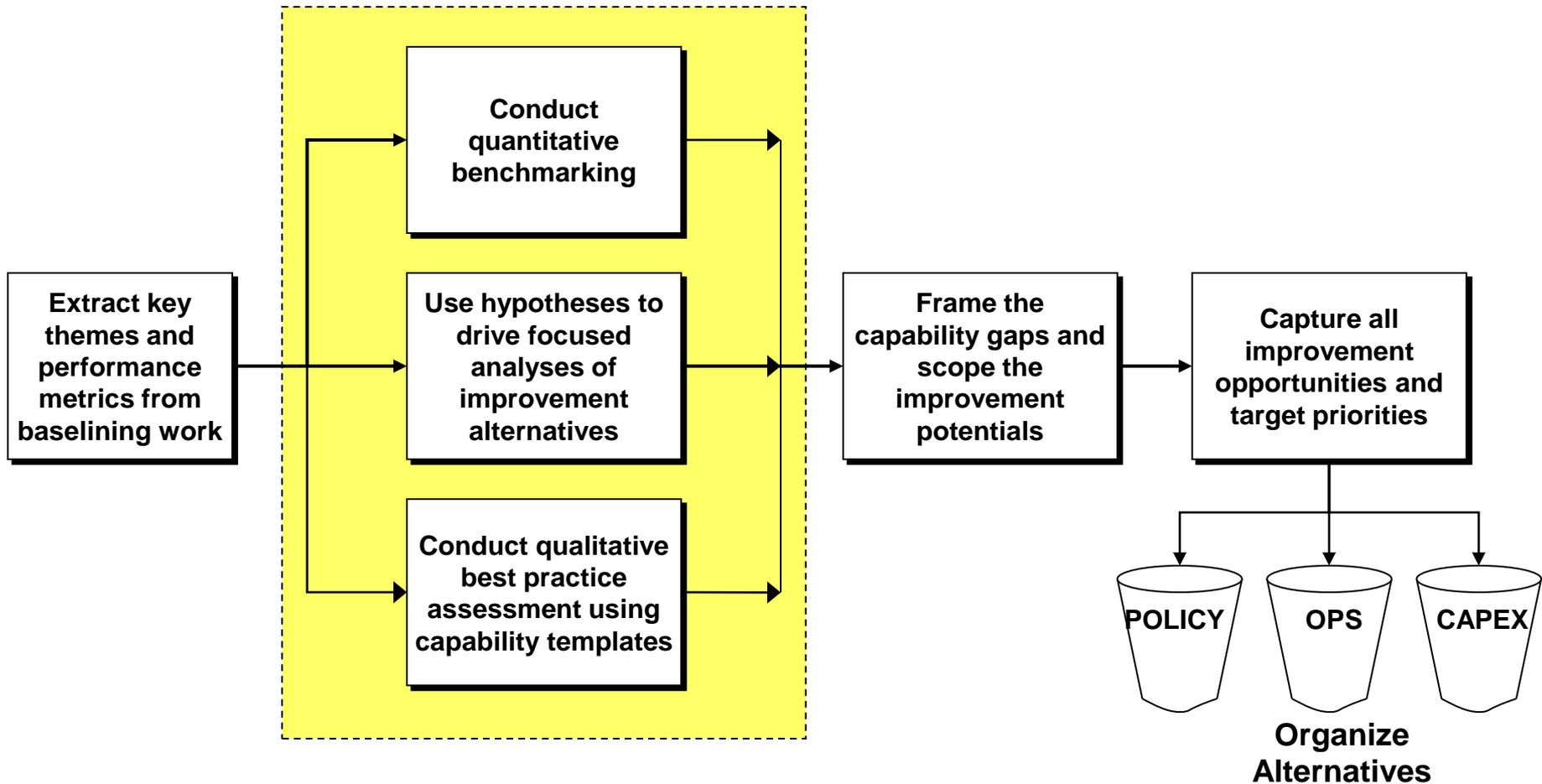
ILLUSTRATIVE

Comparison of incremental operational costs with future benefits  
Containerized cargo business line



# Plan development involves evaluation of capability gaps, potential solutions, and organized set of target alternatives

## CAPABILITY GAP ASSESSMENT PROCESS



# Alternatives are tested against a set of performance criteria to identify the most preferred set of projects...

Potential Metrics for Development Evaluation	
▶ Financial	
– Revenues	
– NPV	
– IRR	
– Payback period	
– Debt Service Coverage Ratio	
▶ Economic Benefit	
– Direct	
– Indirect	
– Induced	
▶ Environmental	
▶ Operational	

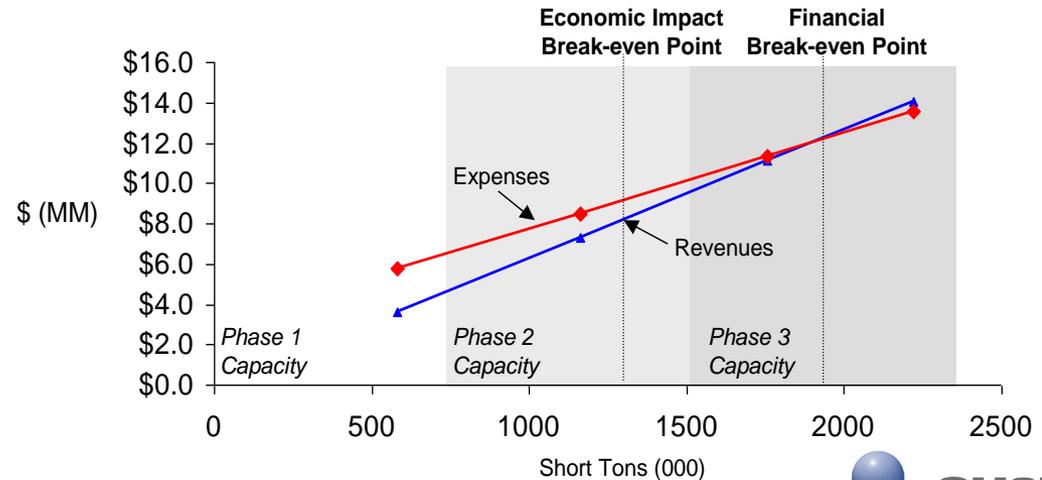
## Both Qualitatively

Scenario	Project Financial Performance				Capital Investment	Economic Benefit	Financial Score
	NPV (Maritime Only)	NPV (Maritime & Commercial)	IRR	DCR			
Baseline	2	2	4	4	4	2	9
1	4	2	2	2	0	4	7
2	4	4	4	4	2	4	11
3	4	2	2	2	0	4	7
4	2	2	2	2	0	4	6
5	4	2	4	4	2	4	10

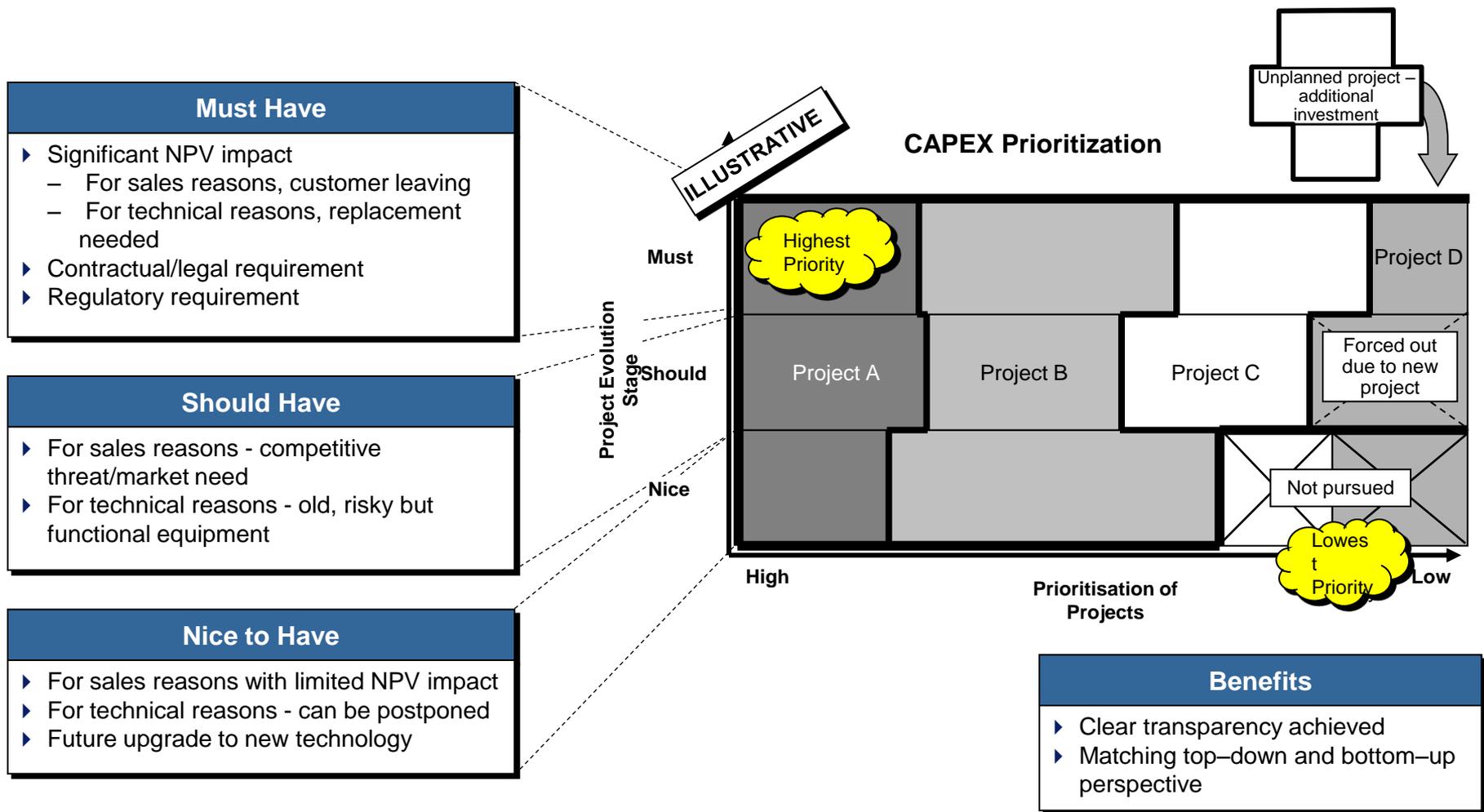
Ranking Key: 4 = Good 2 = Average 0 = Poor

**Example**

## And Quantitatively



# ... And organized according to priority

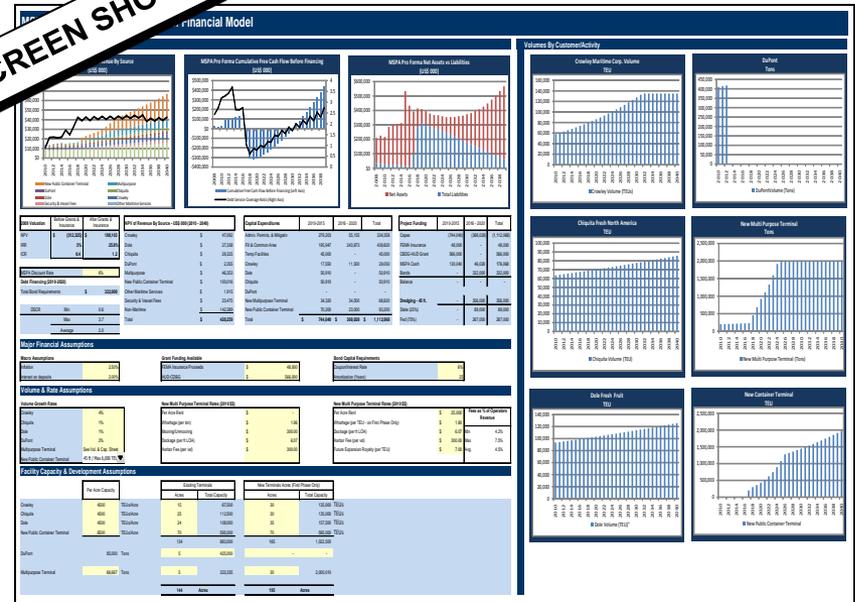
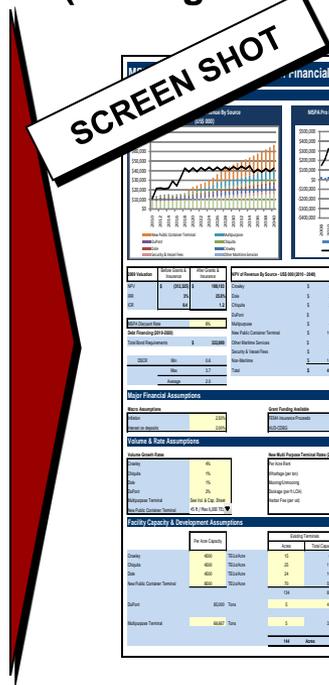


# A pro forma analysis of the future business is necessary for bringing the project to financial markets

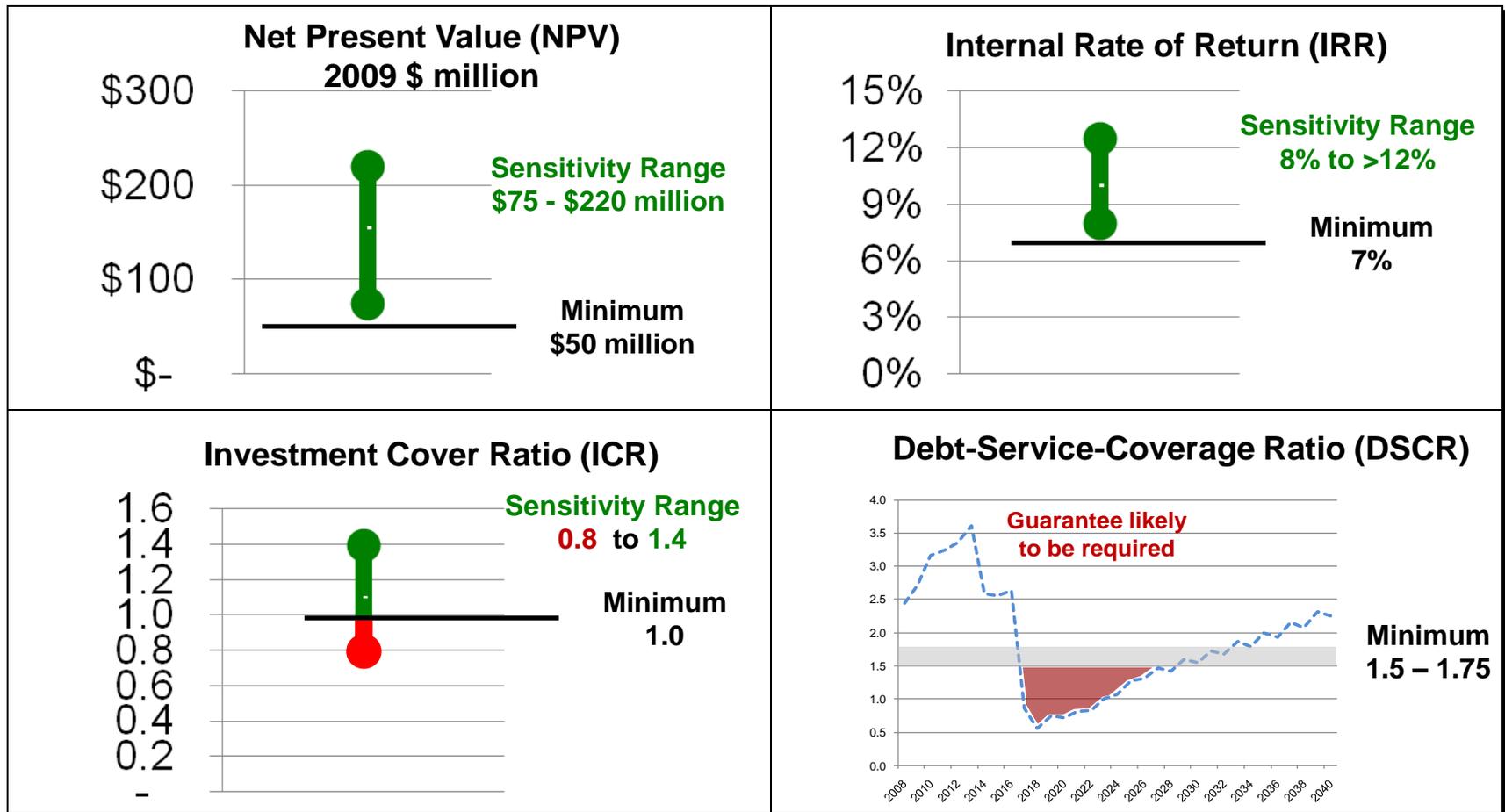
## Financial Projection Categories



## Analysis (Strategic Economic Financing and Planning Model)



# Before detailed financial structuring, projects must clear specific financial hurdles, and tested for uncertainty



Source: CH2M HILL Analysis

**Notes:**

All figures are after grants & other sources of funds , but before financing

Sensitivity ranges based on 10% increase or decrease in on-site capital expenditures

Minimum benchmarks are CH2M HILL recommendations and may vary based on State and Local guidelines

Net Present Value is based on an assumed 6% discount rate









GLOBAL  
CONTAINER  
TERMINALS  
USA

AERIAL VIEW (PHASE 1)

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