

# **Success in a Complex World**

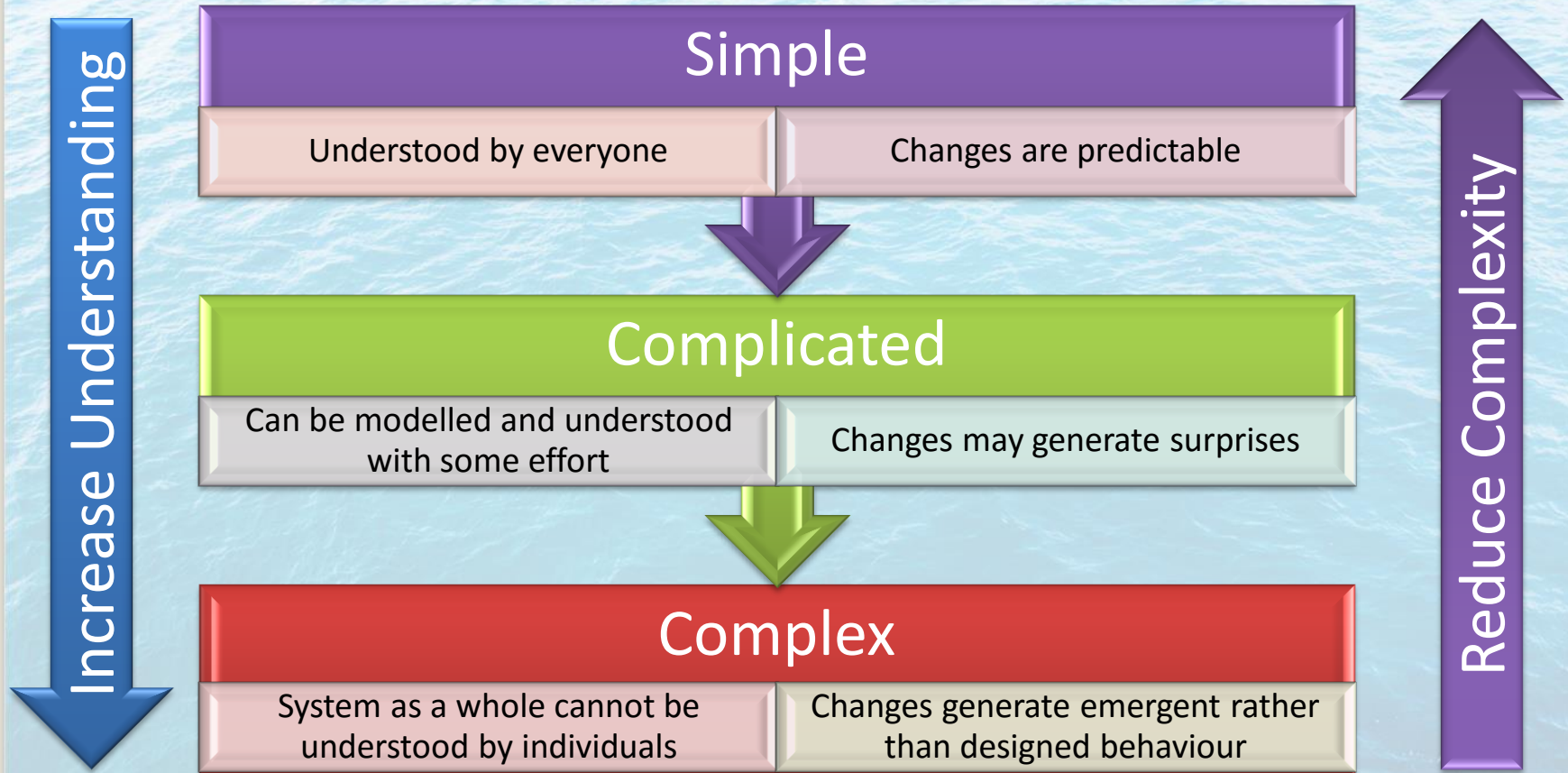
**Tanker Operator Conference  
Hamburg October 2015**

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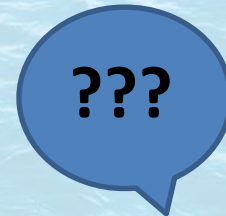
- What is complexity?
- Is it a complex (shipping)world?
  - Complex Market?
  - Complex Regulation?
  - Complex Company?
- Can you succeed in the face of complexity?
  - Choices
  - Resilience
  - Leadership
  - People



# moams What is complexity?-definition



# moams Complex Adaptive Systems



## Behaviour

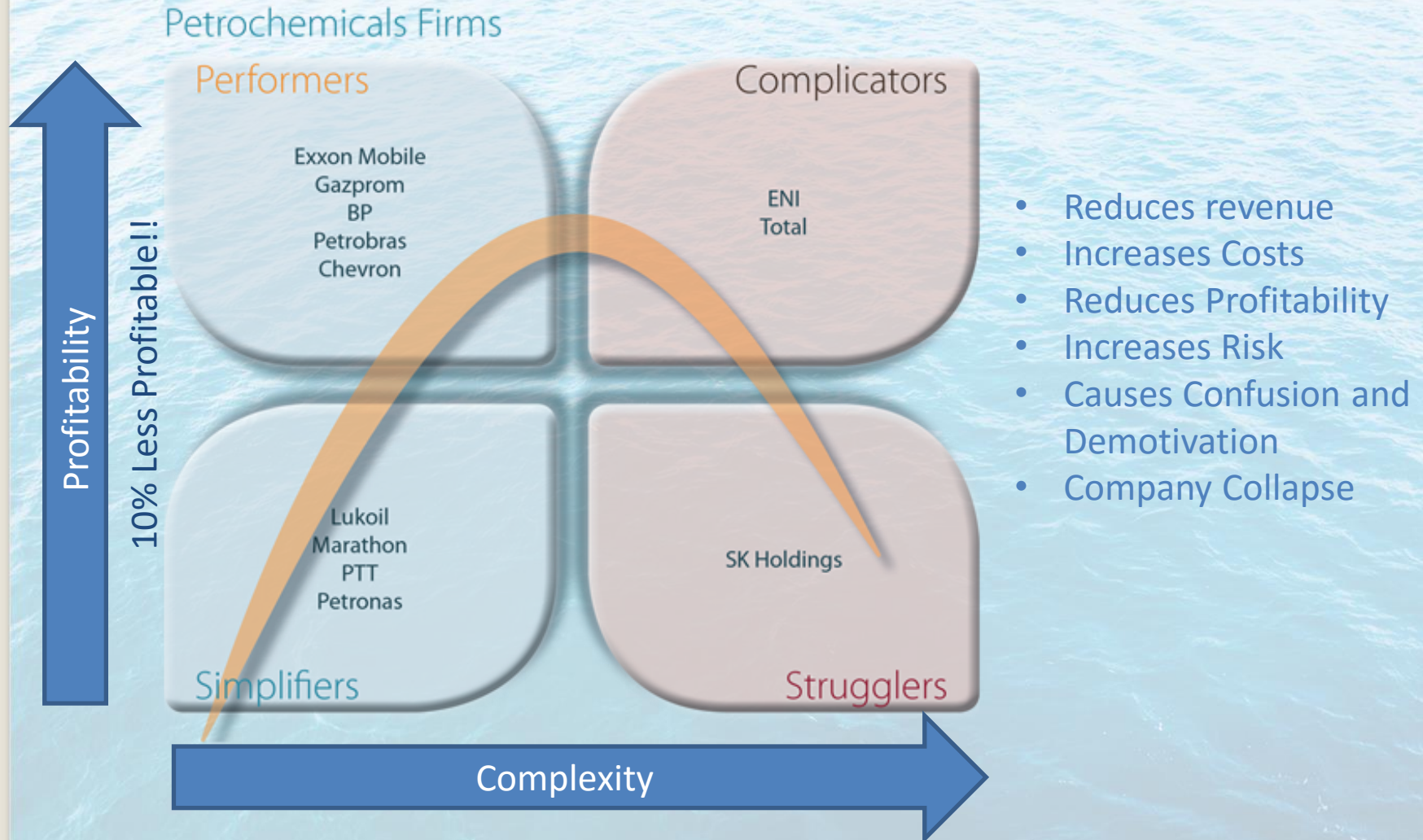
- Alive
- Emergent (Surprising)
- Organised then suddenly disorganised
- Explainable after the event

## Features

- Competing for scarce resources
- Goals /Perverse incentive?
- Open system
- Large number of interactions
- Agents:-
  - influenced by history and feedback
  - can adapt to improve performance



# moams Why worry about complexity?



source 'From Complexity to Simplicity' by Collinson and May

# **Complex Markets**



## World Economy/Politics

- China boom
- No more 'boom and bust'!!
- Credit crunch
- Recession and depression
- Low inflation and interest rates
- Arab spring....Syria
- Ukraine

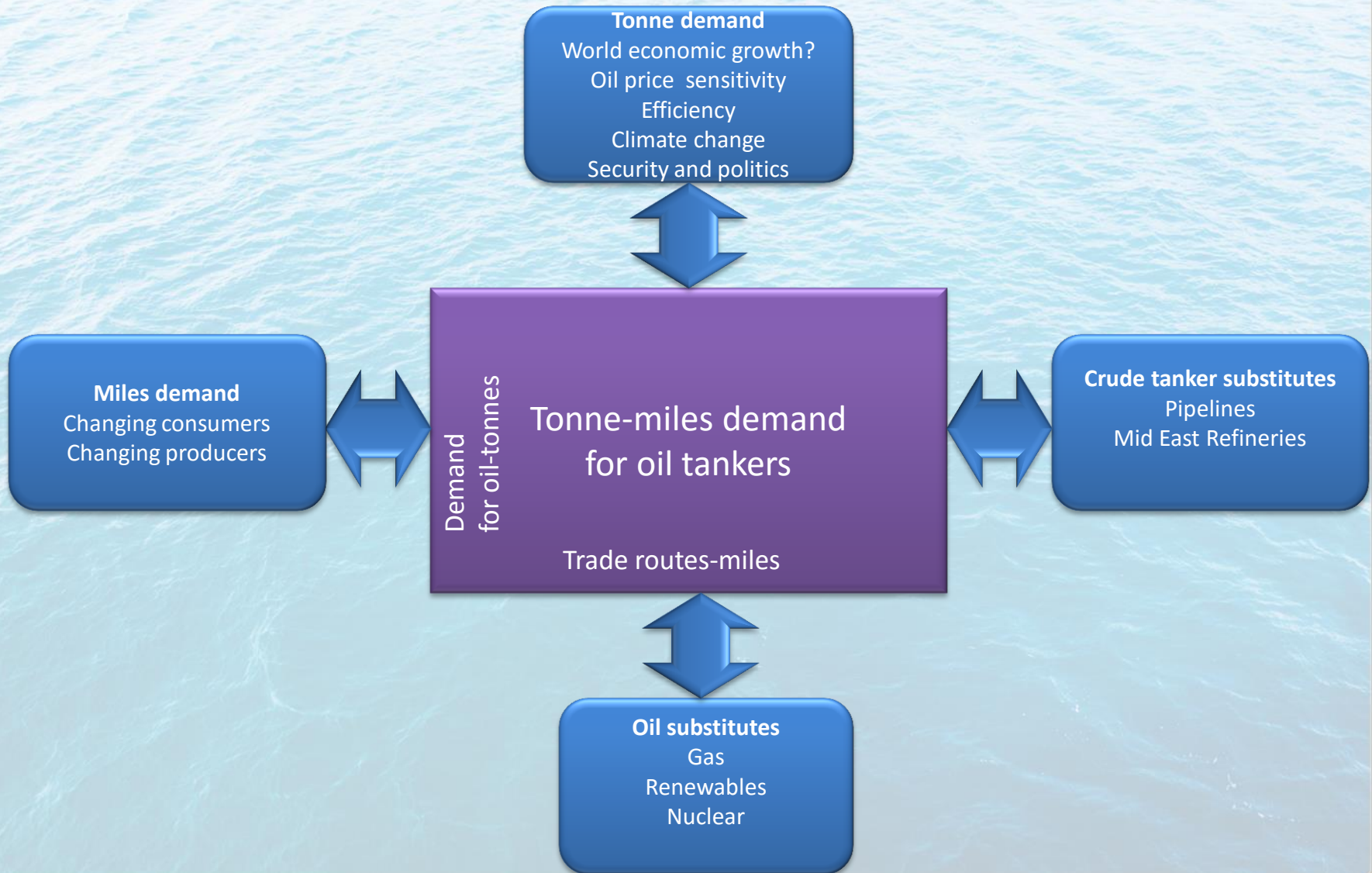
## Oil Markets

- US importer or exporter?
- Shale oil and tar sands
- Oil demand growth or not?
- Oil price rise and fall
- Global warming and climate change

## Shipping

- Freight market and shipbuilding boom
- Shipping corporate failures
- Shipping Finance
  - Private equity
  - Rise and fall of MLP's?
  - Activist investors in shipping

What's next?? Who knows??

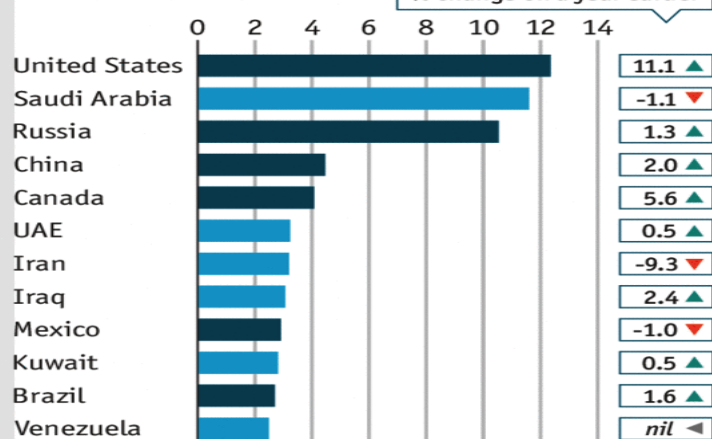




## The plunge in petroleum

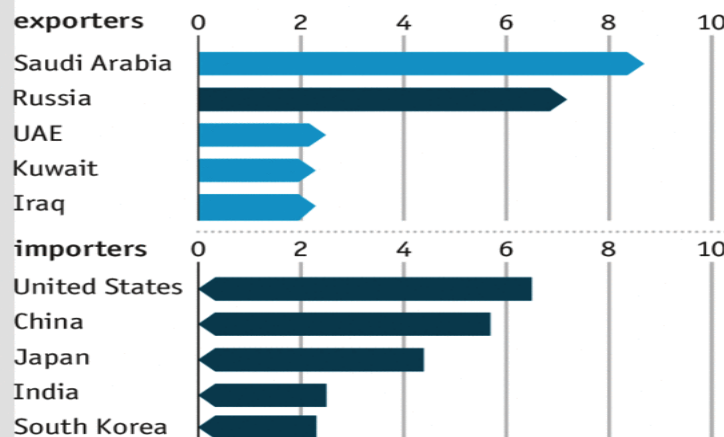
### Biggest oil producers

2013, barrels per day, m



### Biggest net oil:

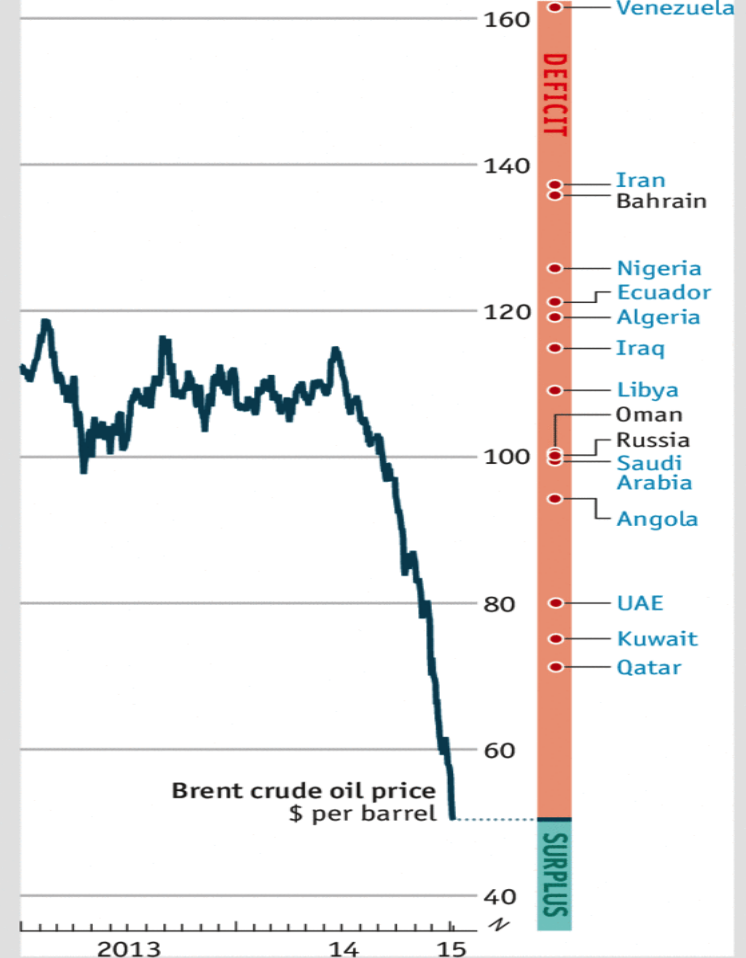
2013, barrels per day, m



Sources: EIA; Deutsche Bank; Bloomberg

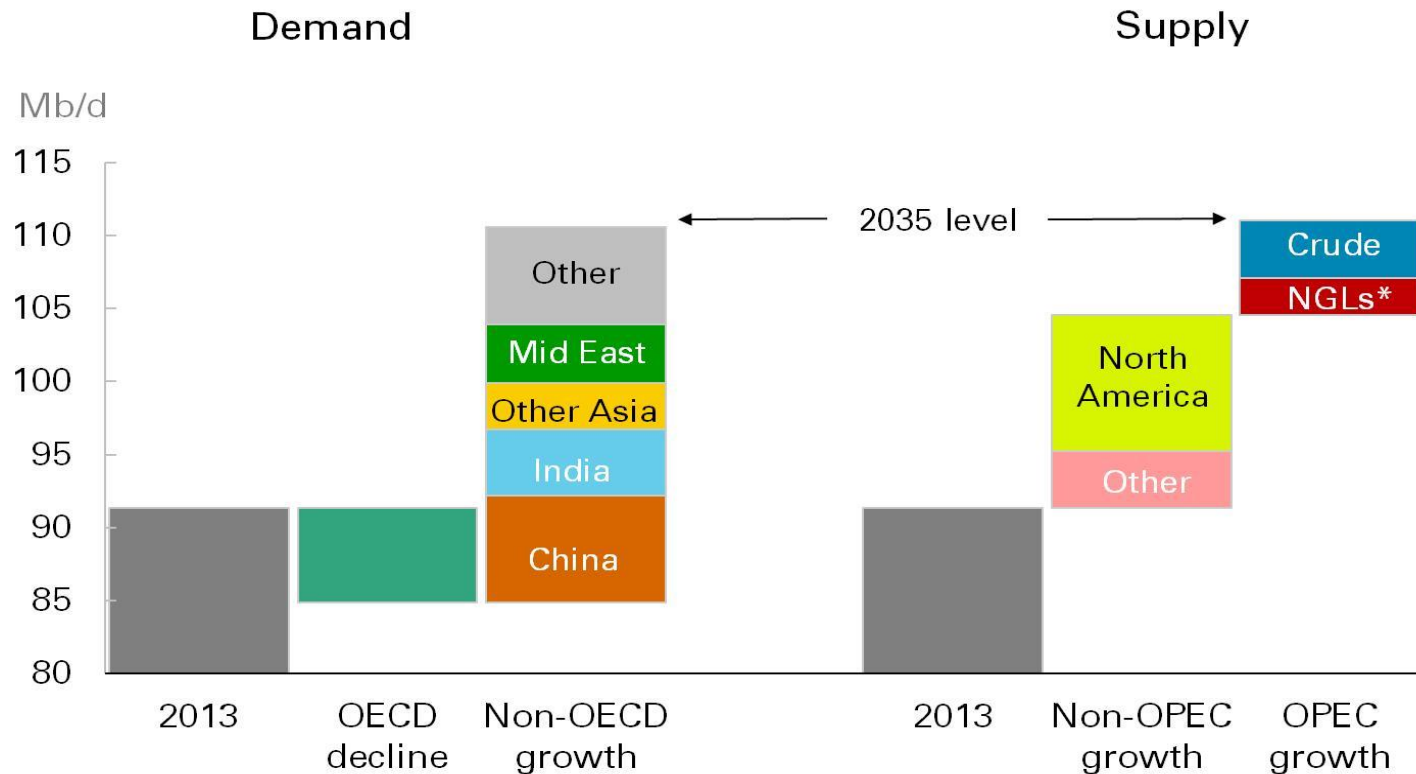
### Government budgets' break-even oil price

2014, \$ per barrel



# moams Long Term World Oil Growth?

The global liquids balance reflects shifts...

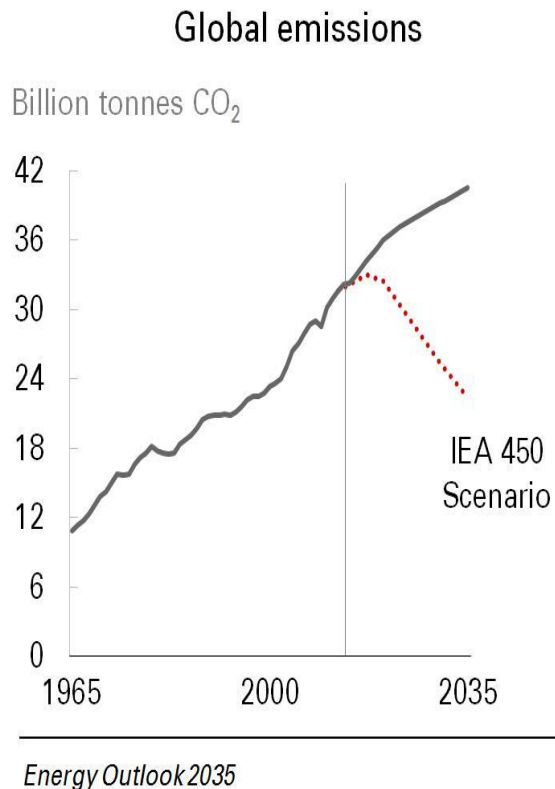


\*Natural gas liquids including condensate



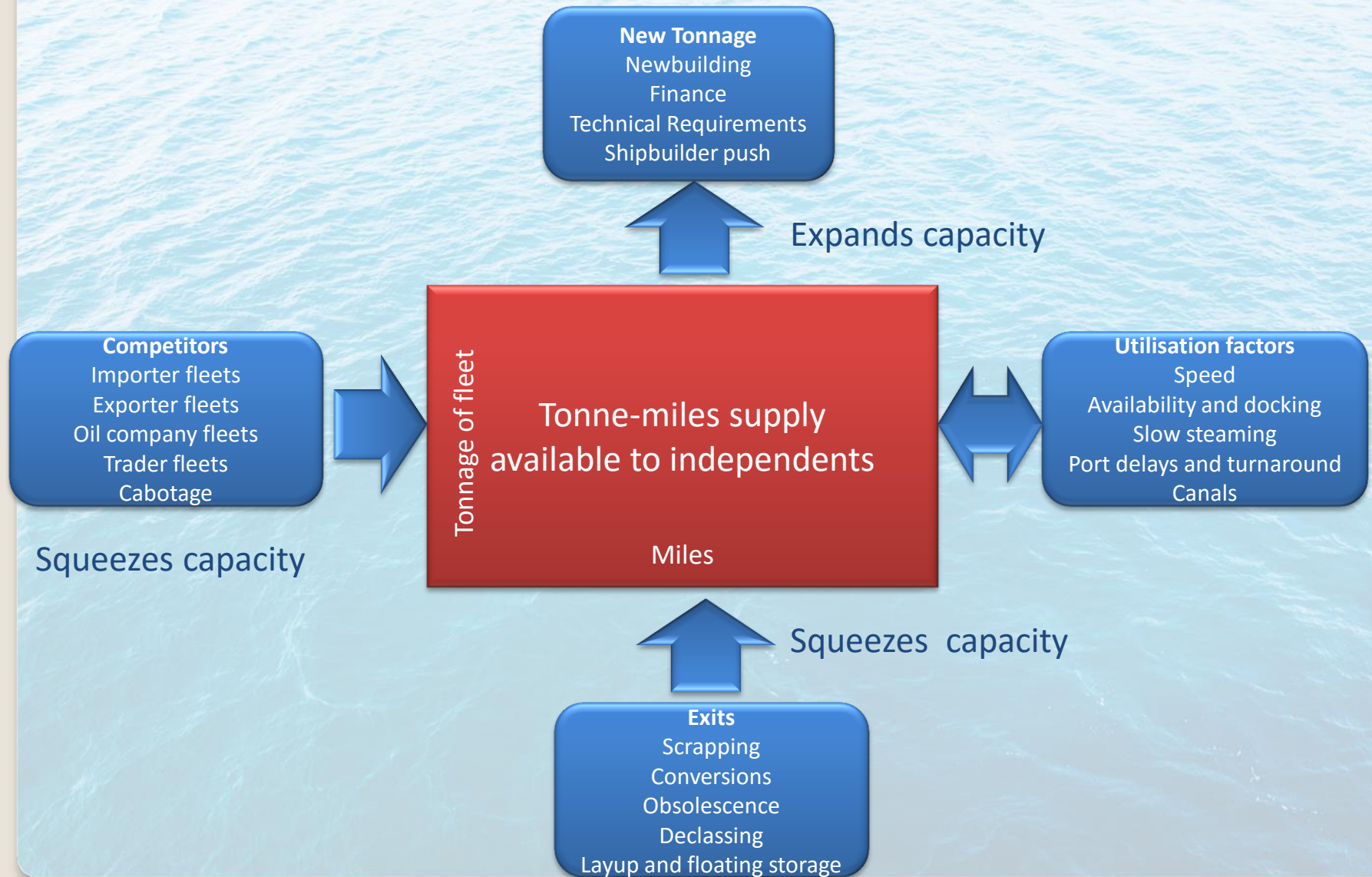
# moams The Elephant in the Room

## Carbon emissions



- Current oil forecasts heading for 6 degrees
- IEA scenarios 450=2 degrees
  - Reducing CO<sub>2</sub> emissions by 2017
  - 25% reduction in CO<sub>2</sub>...more in oil?
- Gas still creates carbon
- Paris Climate Change Meeting
- Waves of Interest/Pools of Anxiety

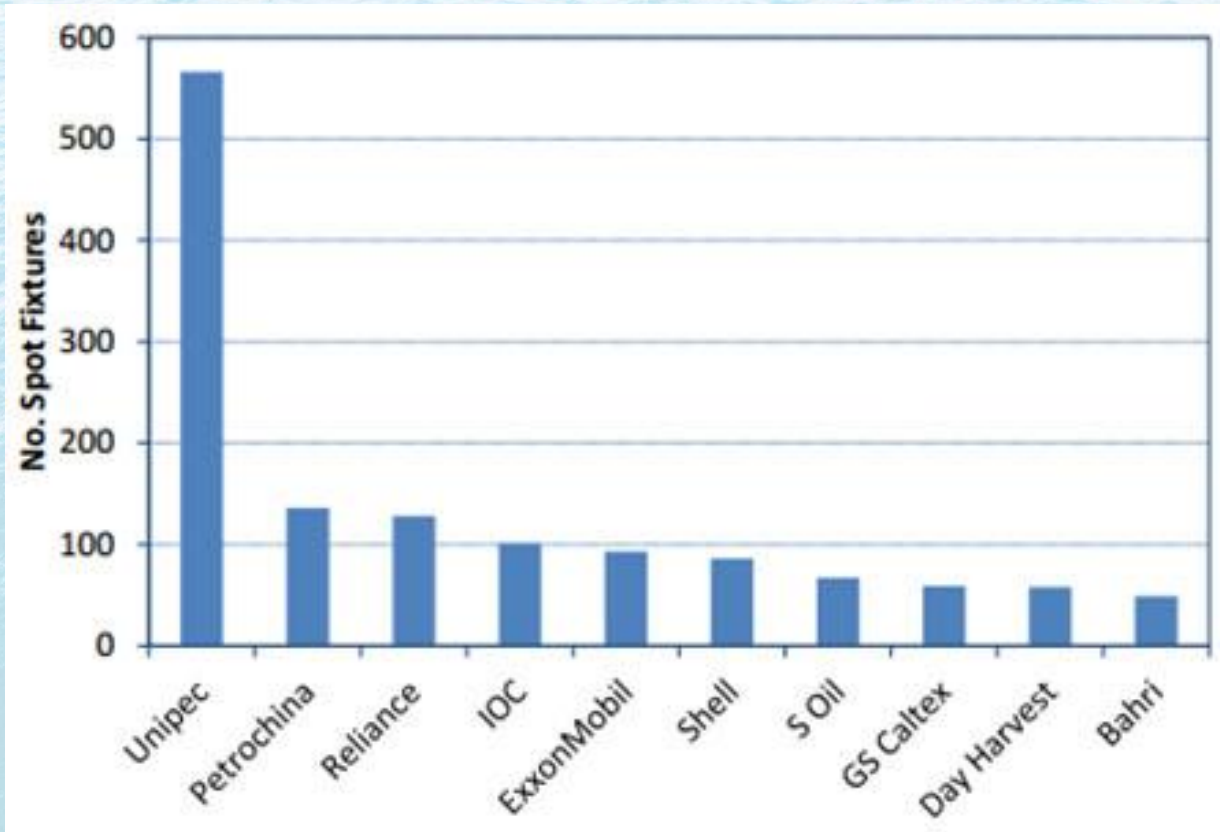
Source BP Energy Outlook 2035





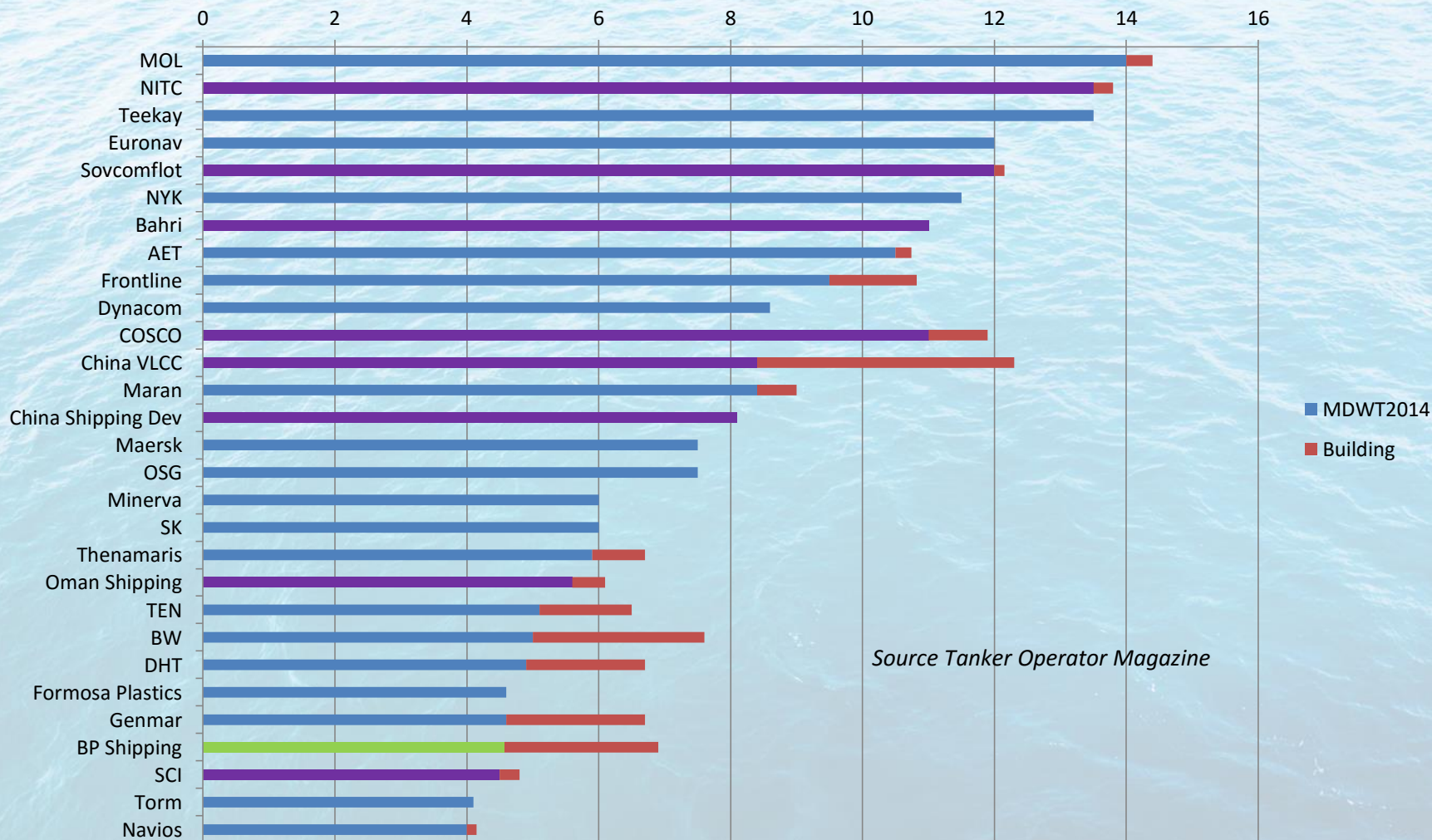
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## Who's the customer for VLCC's?



Source Potens

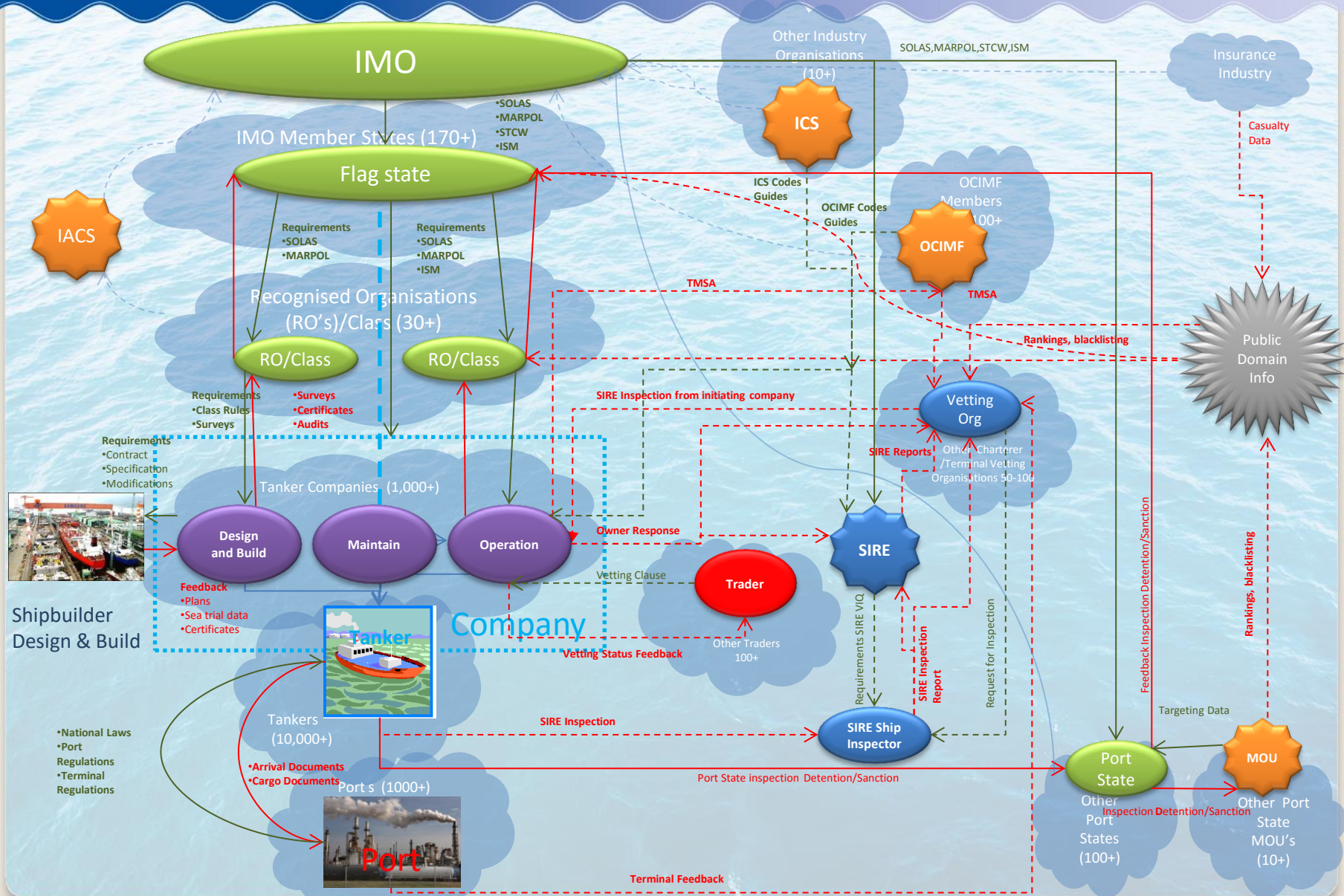
2014 Top 30 Tanker Owners



Source Tanker Operator Magazine



# **Complex Regulation**





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# **Complex Company**

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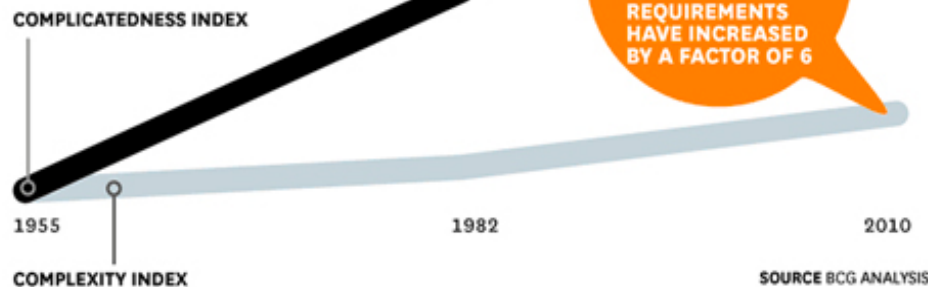
# Influences-simpler view?



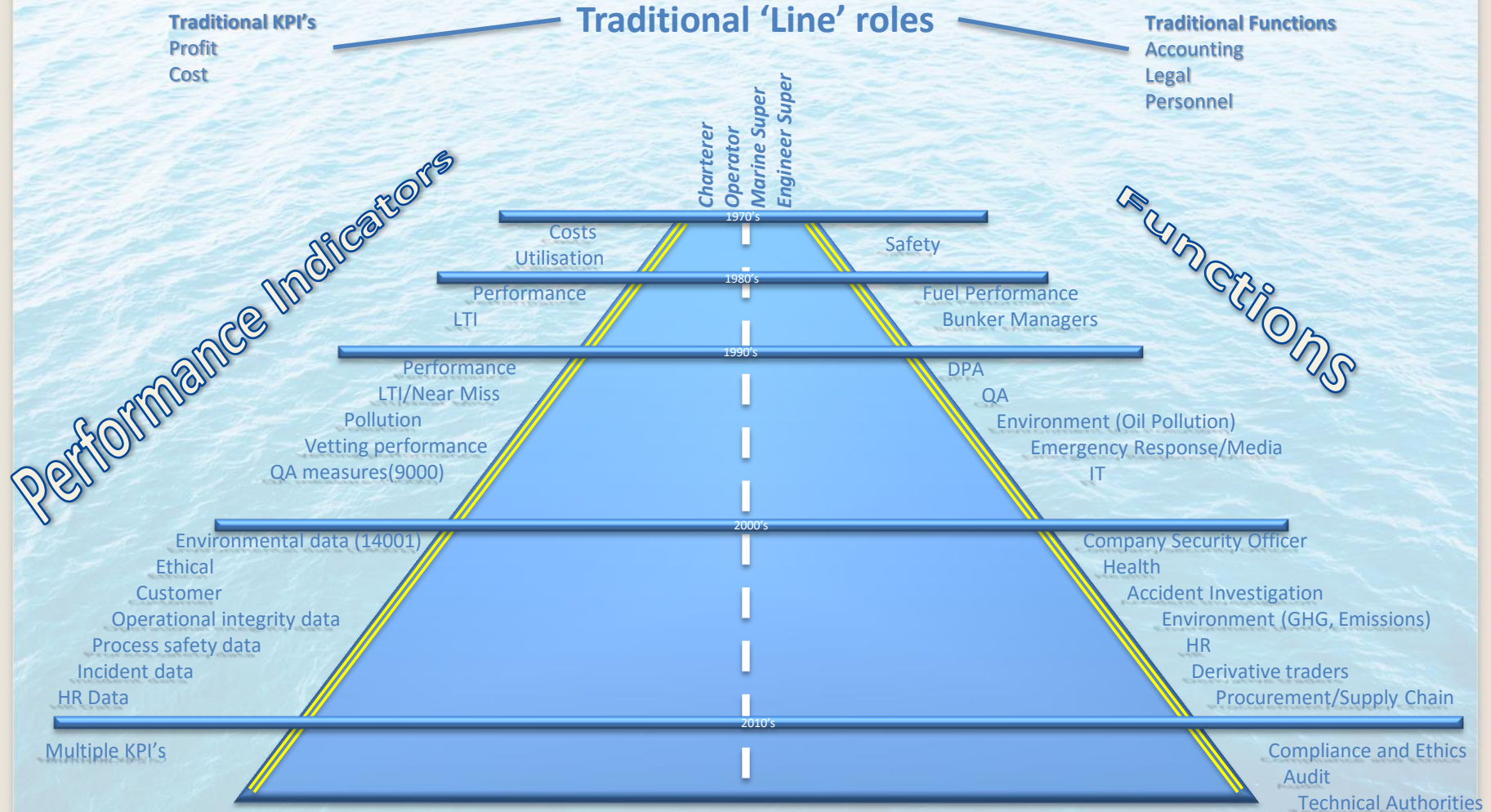


## The Cost of Inept Responses to Complexity

Since 1955 business complexity, as measured by the number of requirements companies have to satisfy, has risen steadily. To address each new requirement, companies typically set up a dedicated function and then create systems to coordinate it with other functions. That explains why organizational complicatedness (the number of procedures, vertical layers, interface structures, coordination bodies, and decision approvals) has seen an even sharper increase. This complicatedness hurts productivity and employee engagement.



- Increasing number of functions, teams etc
- Increasing silo mentality
- Number of performance targets increased from a handful to 40-50 in ten years
- Increasing number of signatures required for decisions





# moams What does it feel like aboard ship?

## Conflicting Goals



Your priority is safety, emissions, greenhouse gas piracy, security, making money, doing things quicker, ballast water, doing the paperwork



## Duplicate /Conflicting Requirements



You need to follow the owners, charterers, flag states, port states, terminals rules and the qa system, chartering , accounts, purchasing department, procedures

## Communications



Budgets  
Planned Maintenance  
Spare Gear and Stores  
Risk Assessments  
Incident Reports  
Near Misses  
Port and Cargo Info

## Systems



ISO9001  
ISO14001  
ISM  
ISPS  
SIRE/CDI  
TMSA

	Markets	Regulation	Company
<b>Features of Complex Systems</b>			
Competing for Scarce Resources	✓	✓	✓
Goals/Incentives	✓	✓	✓
Open System	✓	✓	✓
Large number of interactions	✓	✓	✓
'Agents' who learn and adapt to achieve goals	✓	✓	✓
<b>Complex Systems Behaviours</b>			
Alive	✓	✓	?
Emergent (Surprising)	✓	✓	?
Organised then disorganised	✓	✓	?
Explainable post event but not pre event	✓	✓	?



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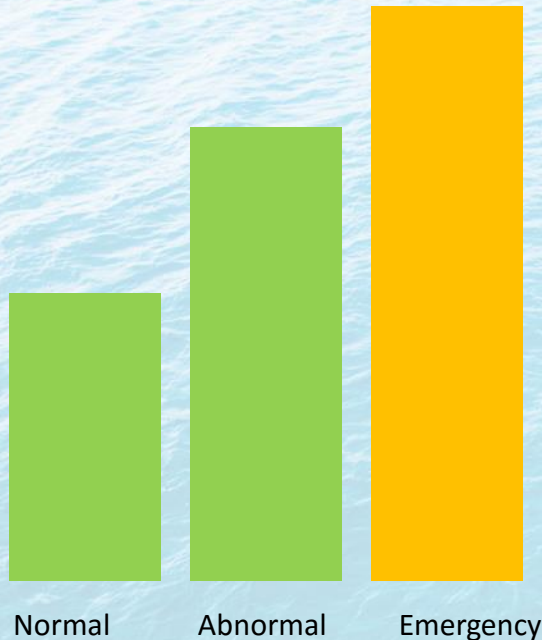
# **Strategy for Success**

# moams Choices-Complex Company



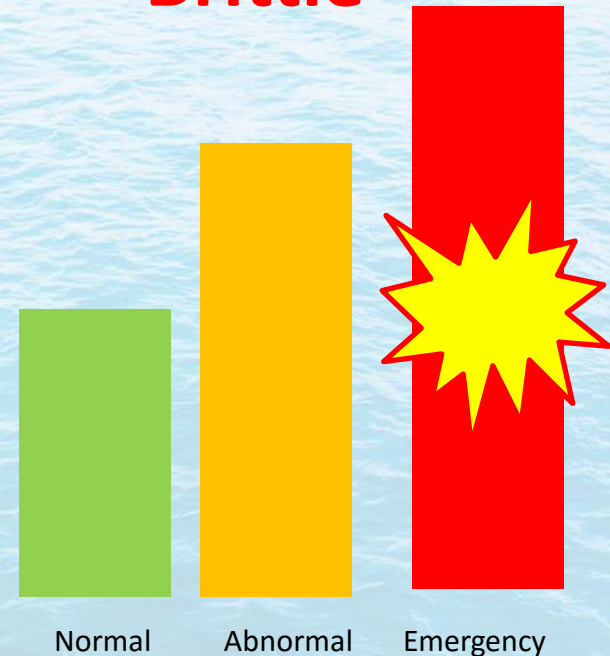


## Resilient



Resilient organisation will adapt from normal operation to abnormal operation and recover. In emergency will be able to adapt further to avoid catastrophe

## Brittle



Brittle organisation will need all its resources to maintain normal operation leaving limited capacity to deal with the abnormal. Rule based mentality will be unable to cope with novel emergencies and will fail.

# moams Leadership-Downward Resilience

## Directing

- ✓ Developing Strategy
- ✓ Building the Organisation
- ✓ Outward Focus

Directing

Leading

Managing

## Leading

- ✓ Motivating
- ✓ Individual
- ✓ Teams
- ✓ Tasks

## Managing

- ✓ Resourcing
- ✓ Organising
- ✓ Controlling
- ✓ Performance

From the Art of Action by Stephen Bungay



## Direction

Should I be buying news ships?  
Should I be selling ships?  
What markets should I be in?  
What ship sizes should I be in?  
Should I get out of shipping?  
How do I finance the business?  
Is my business sustainable?  
How do I want my ships run?  
How do I want the office to run?  
What's important to me?  
Do I have to get rid of people?

## Leadership

When did I last visit a ship?  
When did I last talk to the people in the office?  
When did I last see a captain or chief engineer in the office?  
Do people really know what I want?  
Do I set the right example when I talk to people and visit ships?  
Do people know how to deal with conflicts?  
Are my managers doing their job properly

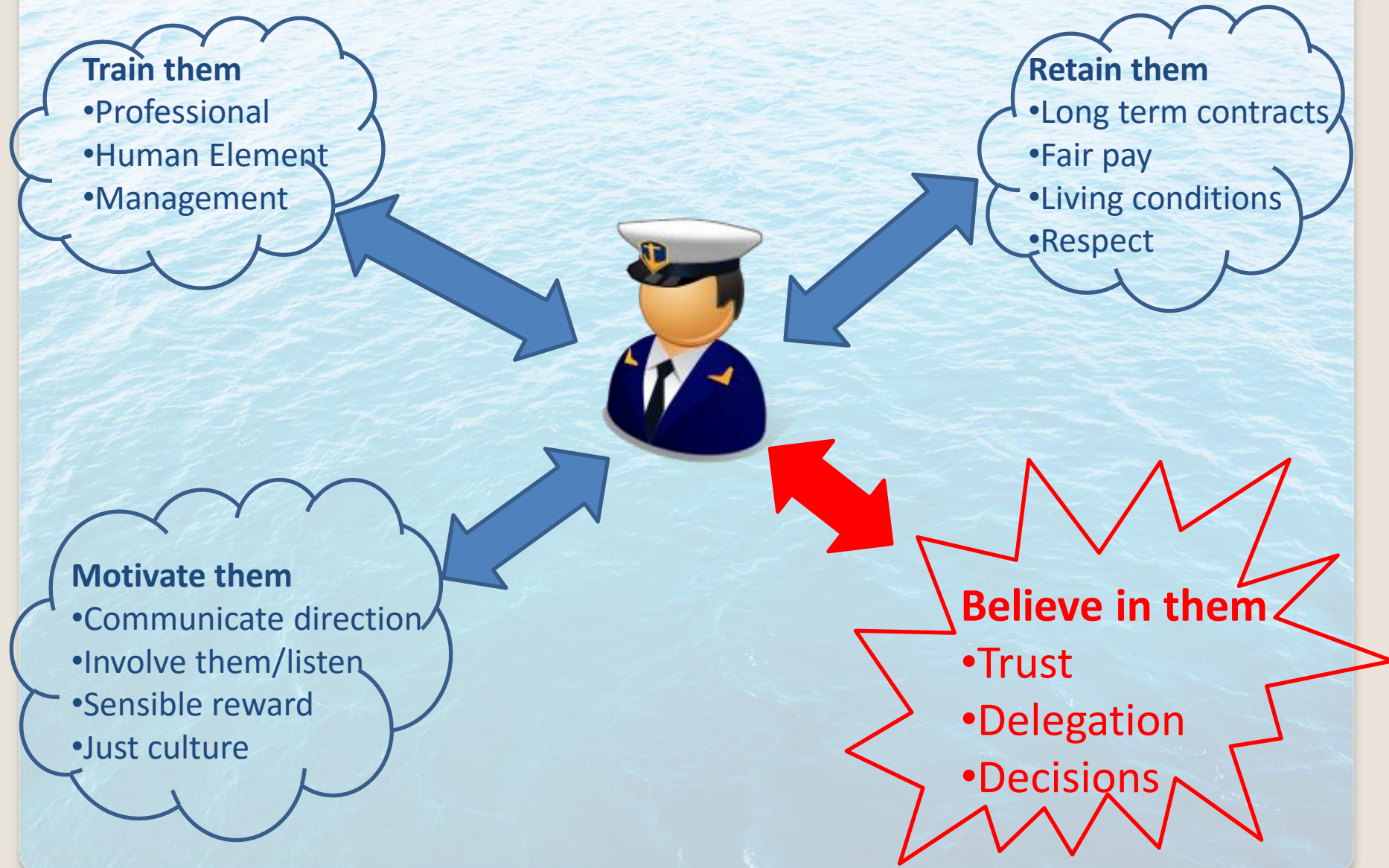
**'Over –management DEMANDS your time, uses your energy and fills your diary**



## Management

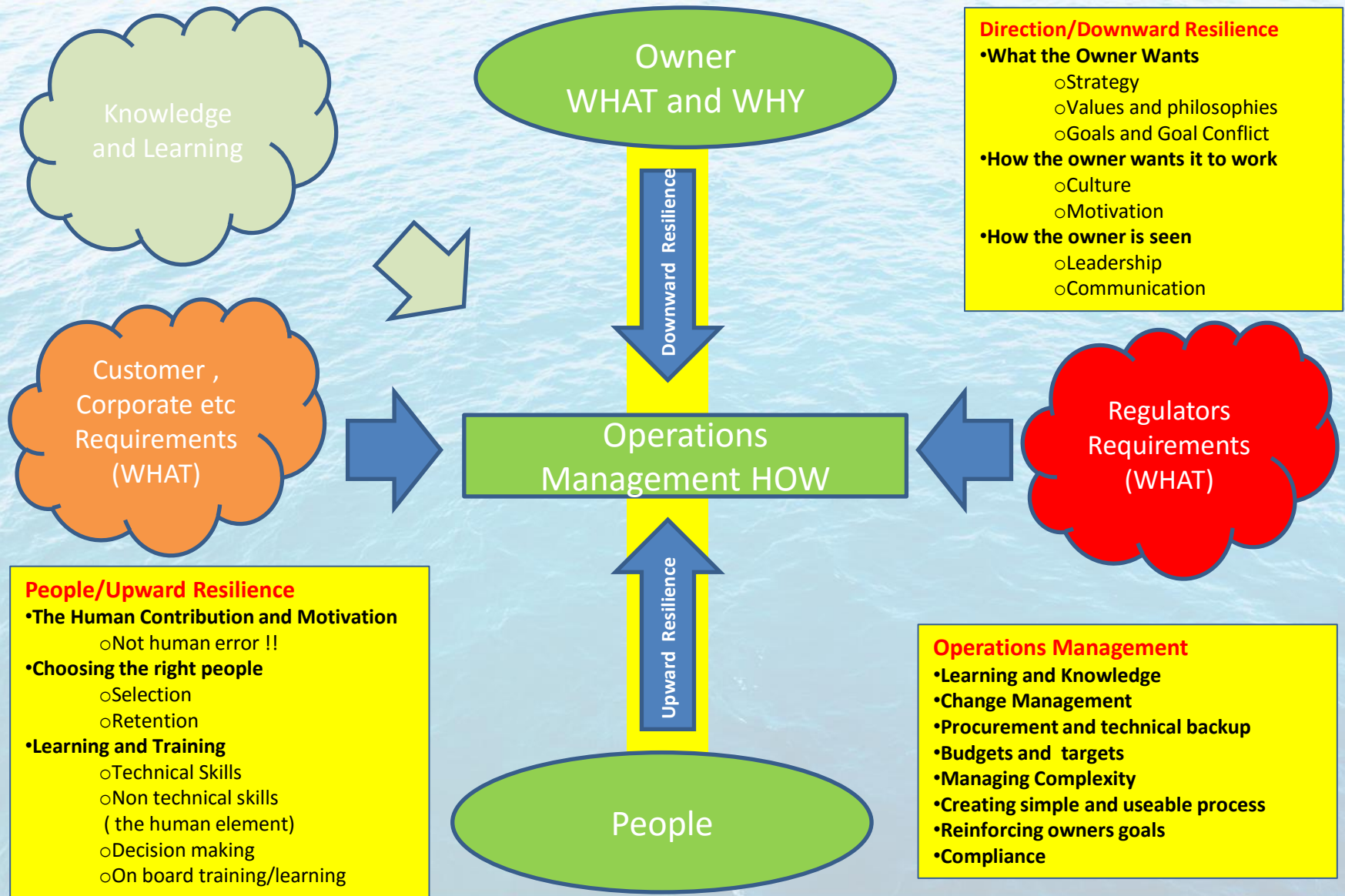
Approve this procedure  
Authorise this expenditure  
Read this audit report  
Read these accounts  
Read this investigation report  
Attend this review meeting  
Resolve this dispute  
Deal with this oil major report  
Review this drydock spec  
Review these drydock tenders

**'Direction' and 'Leadership' require your time and will drive the company's success**





# moams Resilient Tanker Operator



# moams Can you deal with complexity?

- The oil market, tanker market and regulatory structure are complex....deal with it
- You have choices and options at the company level
- Leaders need to think strategically and maintain situational awareness
  - Leave the space to think
  - Keep your ears and eyes open
  - Direct Lead Manage
- Dealing with complexity
  - Manage the external complexity
  - Structure for simplicity
  - Design simplicity into the organisation
- You need to be able to change things quickly
  - Resilience
  - Communication and understanding
  - Get the right people, train them, retain them, motivate them, believe in them
- **Look at yourself-are you adding complexity?**