

# NSW EPA Shipping Emissions Stakeholder Workshop

## ➤➤ Sulphur compliance and enforcement - a shipping perspective

“ from  
factory  
” to  
dealer

# Agenda

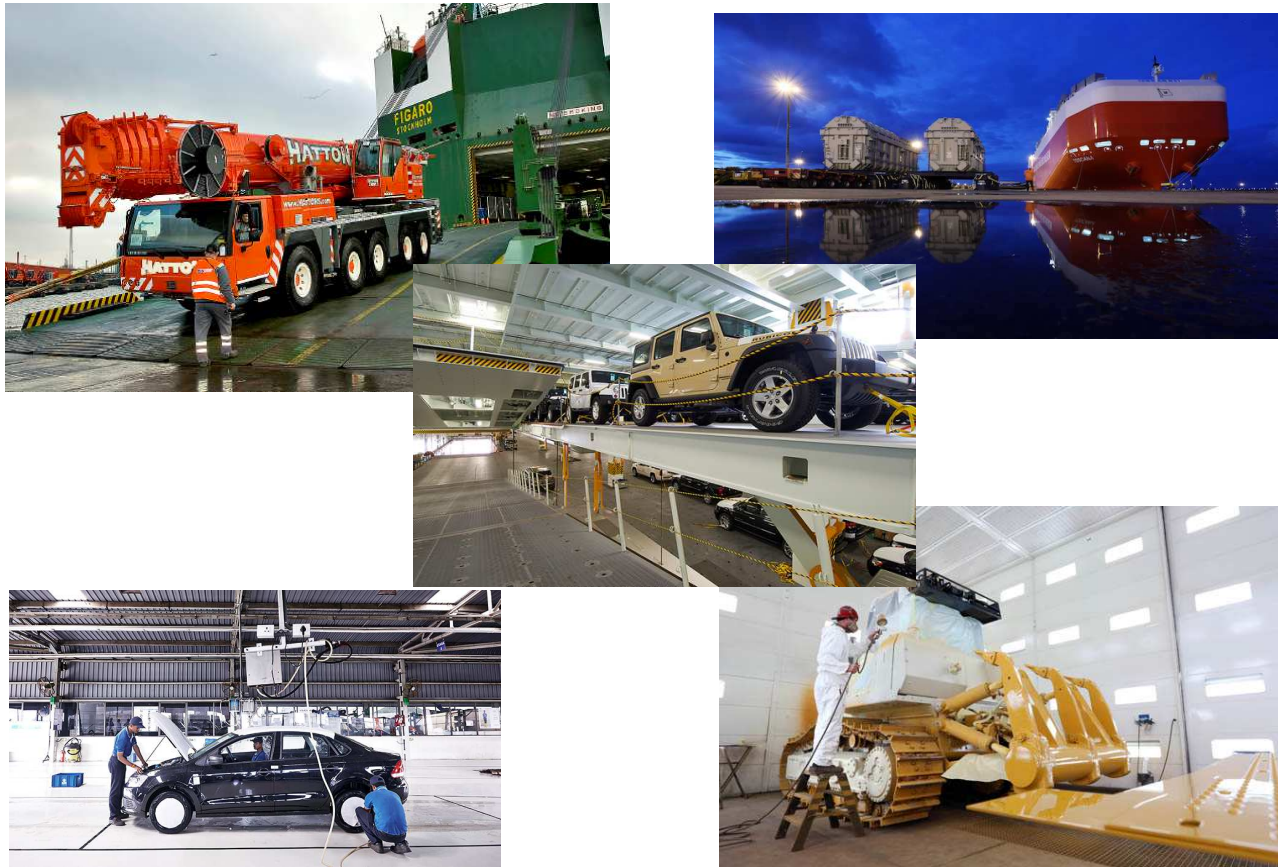


- » WWL at a glance
- » Compliance approaches & deciding factors
- » Regulatory Impact & Enforcement
- » Regulatory considerations, industry preferences



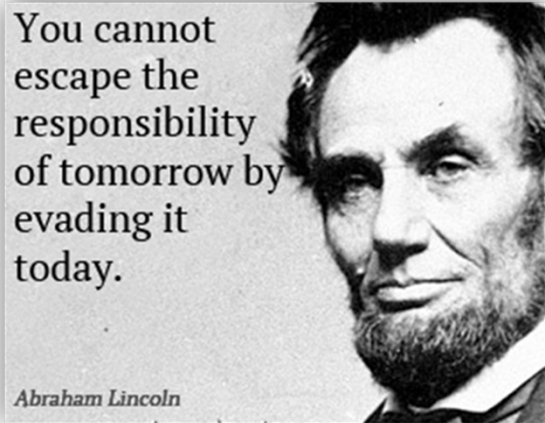
» WWL at a glance

# WWL in brief



- » **Own fleet of 60+ ROROs**
  - Deep sea, global
- » **153year heritage**
- » **‘Factory to dealership’**
  - 4.3m moves by sea, 6m by land
- » **USD3bn revenue 2013**
- » **Enviro frontrunner**

# Frontrunner strategy



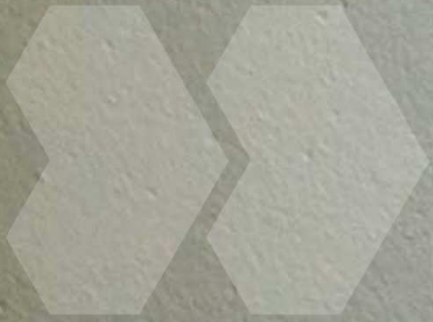
- » **Frontrunner strategy**
  - *‘Exceed responsibilities today to reduce risk and cost tomorrow’*
- » **WWL sulphur policy**
  - Technical & operational experience
  - Invaluable relationships



## » 4 Stream Approach



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**w&w**  
WALLEN WILHELMSEN  
LOGISTICS

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## » Compliance Approaches & Deciding Factors

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# About 4 Stream Approach



- » **No silver bullet solution expected**
- » **All solutions require maturing / proving**
- » **Best compliance solutions still unclear**
- » **All options must be kept on the table**



## Distillate fuels (MGO)



- » **Common 2015 choice; familiar**
- » **Tank conversions**
- » **Fuel switchover**
- » **Long term use?**
- » **Massive global market**
- » **Availability vis-à-vis global cap?**





## Other energy sources

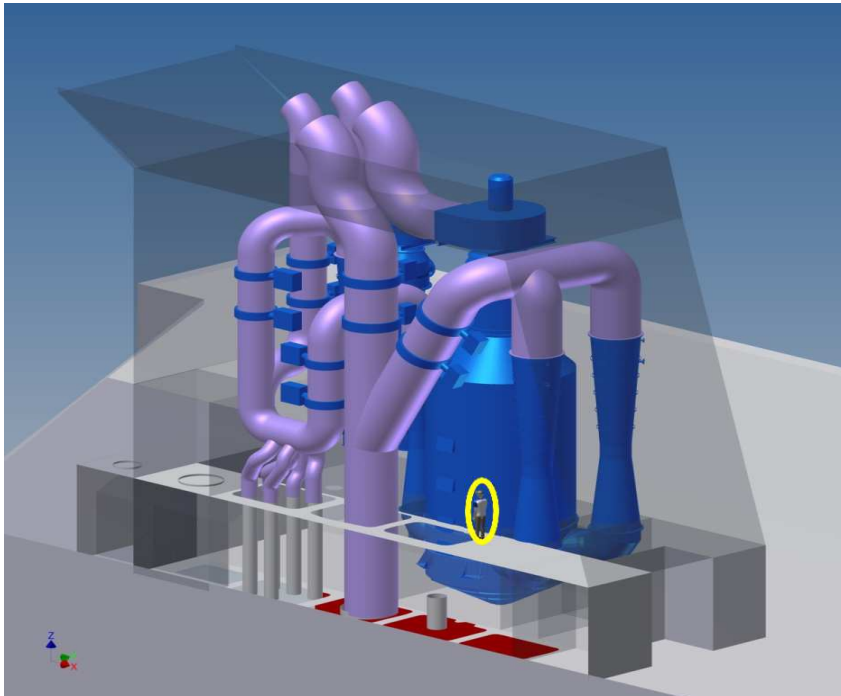
- » LNG, biodiesel, methanol, fuel cells  
solar / wind / nuclear power...
- » 'Drop in' / retrofit / NB solution?
- » Coastal vs. deep sea feasibility
- » Global avails & supply infrastructure
- » WWL: LNG project



**Shell**



## Exhaust gas cleaning systems



- » **Downstream solution**
- » **‘Open heart surgery’**
- » **Familiar technology, new use**
- » **Emissions: perception & reality**
- » **Moving goalposts?**
- » **WWL Tarago trial**



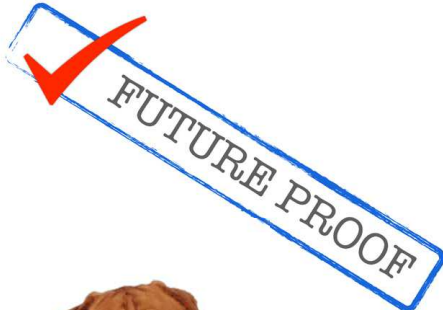
## ULSFO (<0.5% bunker oil)



**Exxon**

- » New refinery product
- » Similar properties to HFO
- » Compatibility & segregation
- » Avails limited for now
- » Competition developing
- » WWL: sea trial partner for 'HDME50'

# Deciding Factors

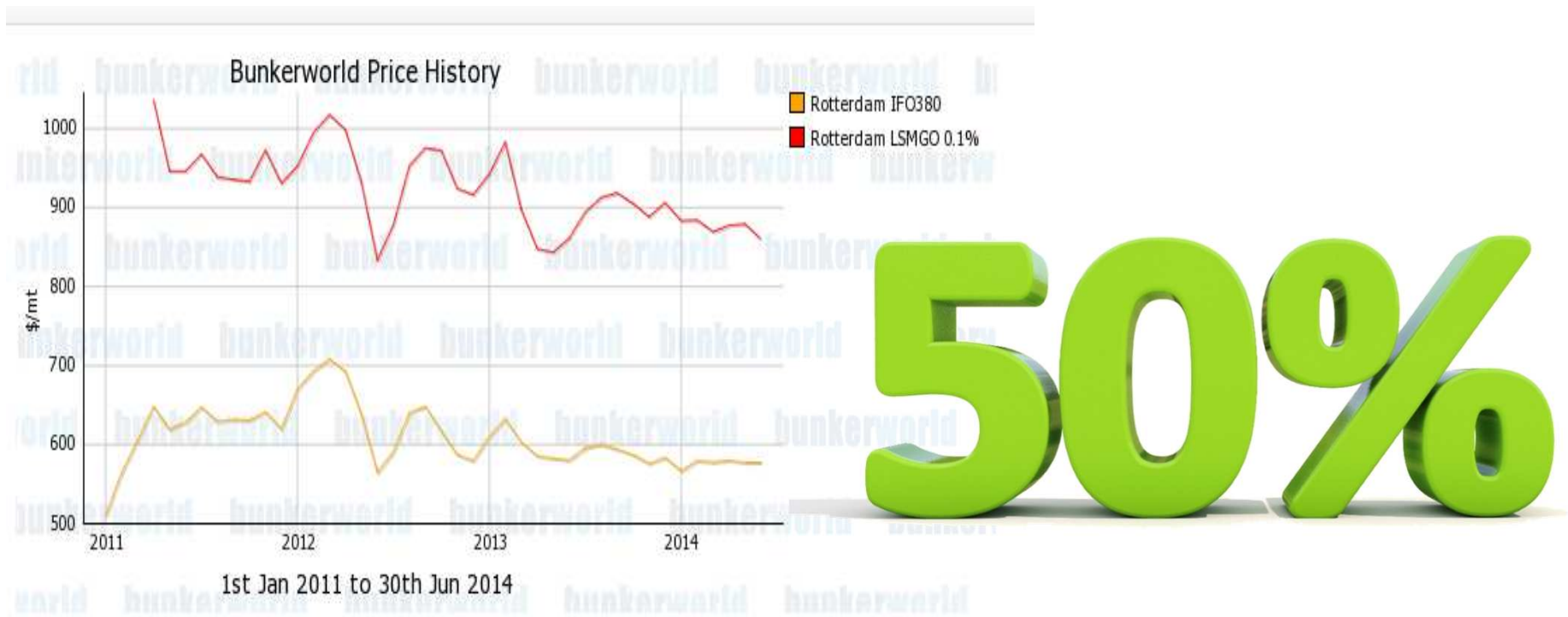


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## » Regulatory Impact & Enforcement

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# 2015 ECA: unprecedented cost



# Hard hitting regulation



$\Delta \approx \text{USD}300/\text{t}$

40-70t

USD10-20k

» Per vessel per day



- » Other issues:
  - Extent
  - Impact
  - Uncertainty

- » Direct commercial consequences

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# One more challenge: weak enforcement

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- » **European Commission study**
  - 1/1000 inspection rate
  - Small fines
- » **Rumours**
  - Some buy no LS HFO
  - BDN's with blank % S
- » ***As regulatory cost increases enforcement, more than regulation by itself, is the driver of compliance***







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# Only good for bad

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- ❖ **Weak enforcement + high cost = temptation**
  - Bad behaviour rewarded, good punished
  - Inverted regulatory dynamic
- ❖ **Without action, noncompliance will spread**
- ❖ **Negative for environment & health**
- ❖ **Bad for shippers & compliance solution providers**



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## Time for action

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- » Situation will not self-correct
- » ...more likely to get worse 2020+
- » Unacceptable business risk





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Alliance:  
enlightened  
self-interest

- Single issue shipping network
  - Sulphur specific
  - Committed to fair competition through effective enforcement & transparency
- Strong message
  - Aligned: environment, health & industry

[www.tridentalliance.org](http://www.tridentalliance.org)





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NORDIC TANKERS



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» Regulatory considerations, industry preferences

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# Industry preferences

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- » **Global industry with a global regulatory**
- » **→ use established IMO instruments**
- » **Mandatory, not voluntary initiative**
- » **Two fuel regime - internationally aligned**
- » **Robust & transparent enforcement**
- » **'Effective, proportionate and dissuasive' penalties**





*WWL: telling it like it is, taking it where it needs to go*





# So why comply?



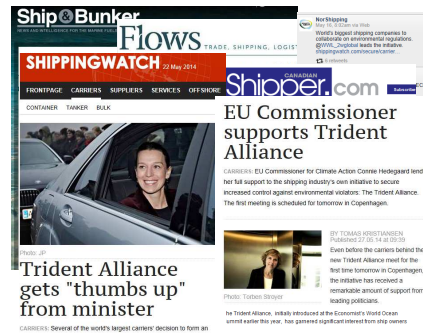
» It's the law and it's not optional!

» We believe these holds true for our customers too



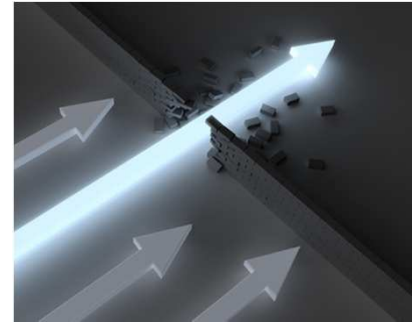
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## Approach & Initiatives



### Communication

- Awareness – first step toward a solution
- Enforcement: regular headline issue



### Innovation

- Faster, cheaper & more extensive detection
- Satellite control of drones,
- Portable fuel analysis devices



### Transparency

- Potential paradigm shift
- Not all regulatory problems need regulatory solution...