ENVIRONMENTAL SOLUTIONS FOR AIR AND WATER

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12 Capital Markets Day HELSINKI FINLAND

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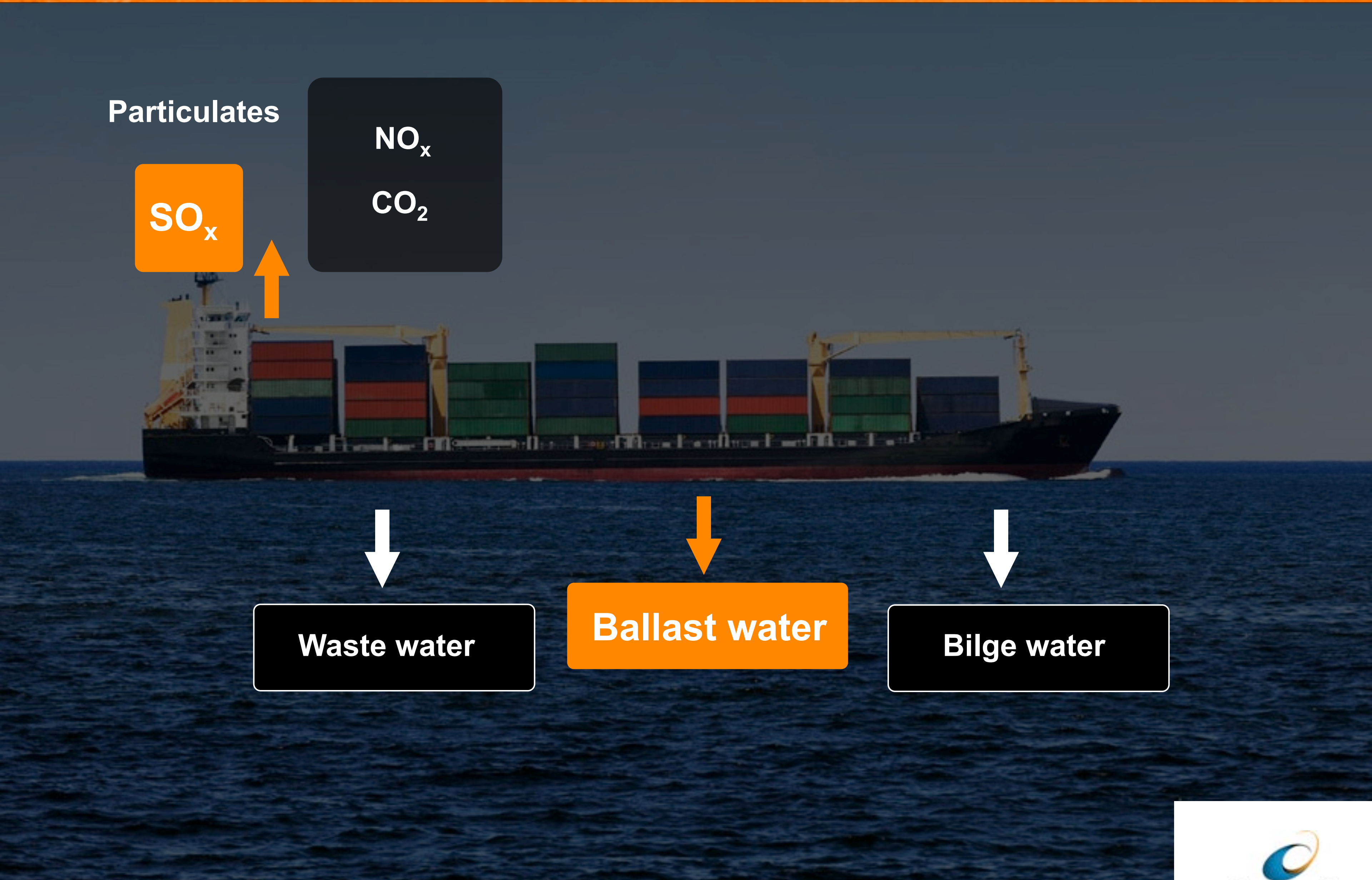
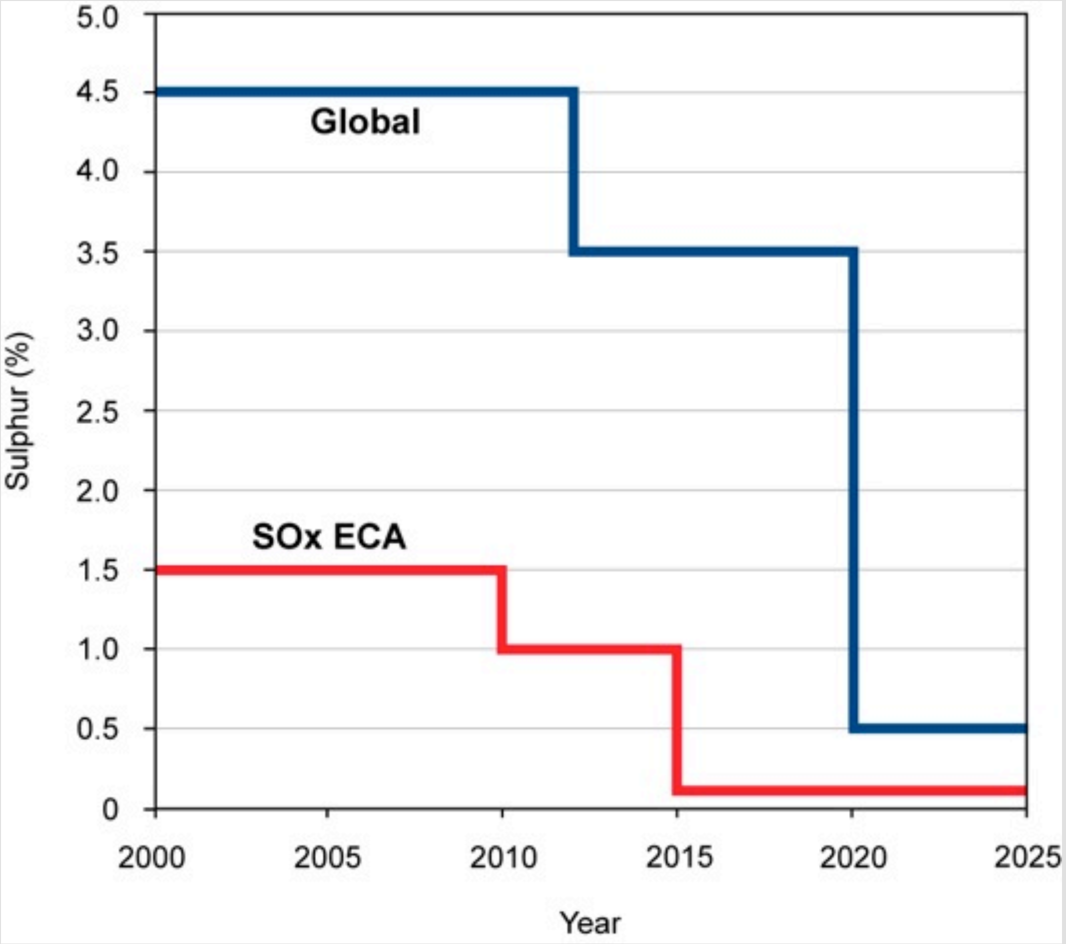
Environmental issues need solutions



Cleaning the exhaust gases

Strict regulations have been set

Emission Control Areas (ECA) – Sulphur (SO_x) limits



Emission Control Areas (ECA)

Options to meet legislation

- Low Sulphur Residual Fuel (LSFO):
  - Limited availability
- Low-Sulphur Distillates (MGO):
  - Similar to automotive fuel
  - Supply shortage in 2015
  - Significant price premium
- Liquid Natural Gas (LNG),
  Compressed Natural Gas (CNG)
  - Natural gas prices expected to remain low
  - Attractive option for some routes
  - Bunkering infrastructure needs developing
- High Sulphur Residual Fuel (HFO)
  with scrubbers is the cost effective solution for many customers

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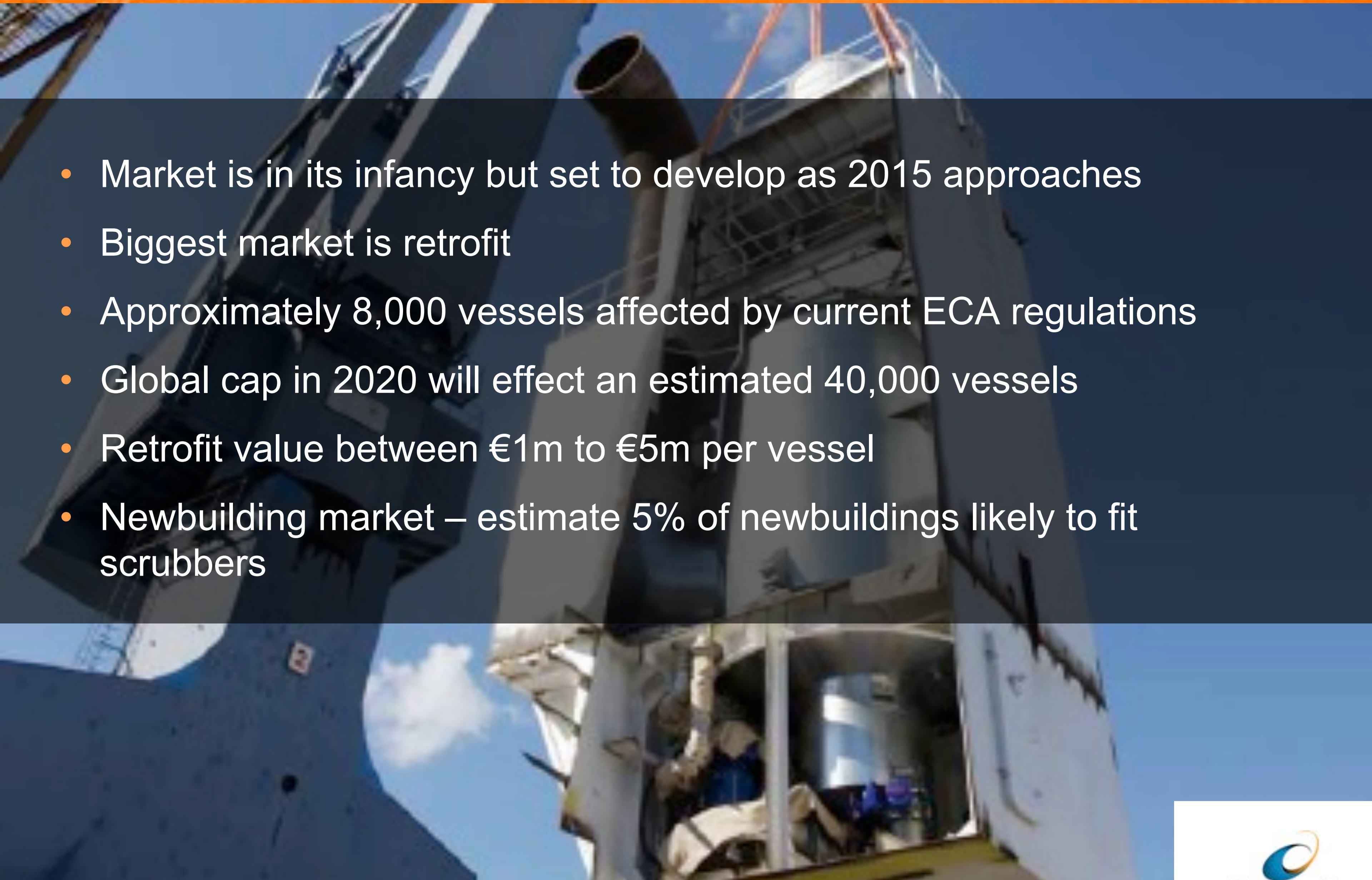
Significant market potential



- Market is in its infancy but set to develop as 2015 approaches
- Biggest market is retrofit
- Approximately 8,000 vessels affected by current ECA regulations
- Global cap in 2020 will effect an estimated 40,000 vessels
- Retrofit value between €1m to €5m per vessel
- Newbuilding market – estimate 5% of newbuildings likely to fit scrubbers

Wärtsilä is set to win

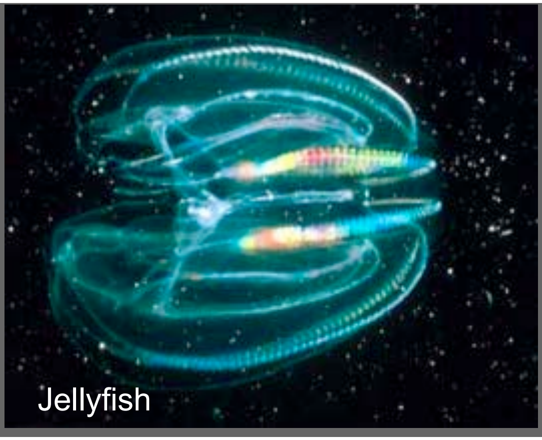
- With the acquisition of Hamworthy, Wärtsilä is now by far the market leader
- More marine references than the rest of the market combined
  - 8 systems installed/delivered
  - 7 systems on order
- Few competitors
- Sources of competitive advantage for Wärtsilä:
  - Highly developed sales channel
  - Global service organisation
  - Leading technologies
  - References

Ballast water treatment to stop invasive species

Needed to stop the spread of non-indigenous invasive species via the management and treatment of ship ballast water and sediments

- 7,000 species can be carried in a ballast tank at one time
- 7 billion tonnes of ballast water are discharged each year
- One of the greatest threats to the world's coastal waters
- Accelerating the spread of harmful organisms


Zebra mussels


Jellyfish


Chinese Mitten Crab

Three of the top 10 most unwanted invasive species transported in ballast water

Legislation driven

IMO global requirements

New small to mid sized ships – 2009

New large ships – 2012

Existing fleet of mid sized ships – 2014

All existing fleet – 2016

2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

- Implemented globally one year after ratification
- Hurdle for ratification is 30 countries representing 35% of the world's tonnage – currently 33 countries representing 26% have signed
- US has stated it will adopt IMO (International Maritime Organization) standards and is implementing legislation independently

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Biggest market potential is retrofit

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- Over 40,000 vessels affected by the legislation
- Newbuild market will be 1,000+ vessels per annum once market is mature
- Average equipment value per vessel circa €500k; retrofitting cost can be a similar value
- 2016 deadline may be relaxed spreading retrofit market over a longer timeframe

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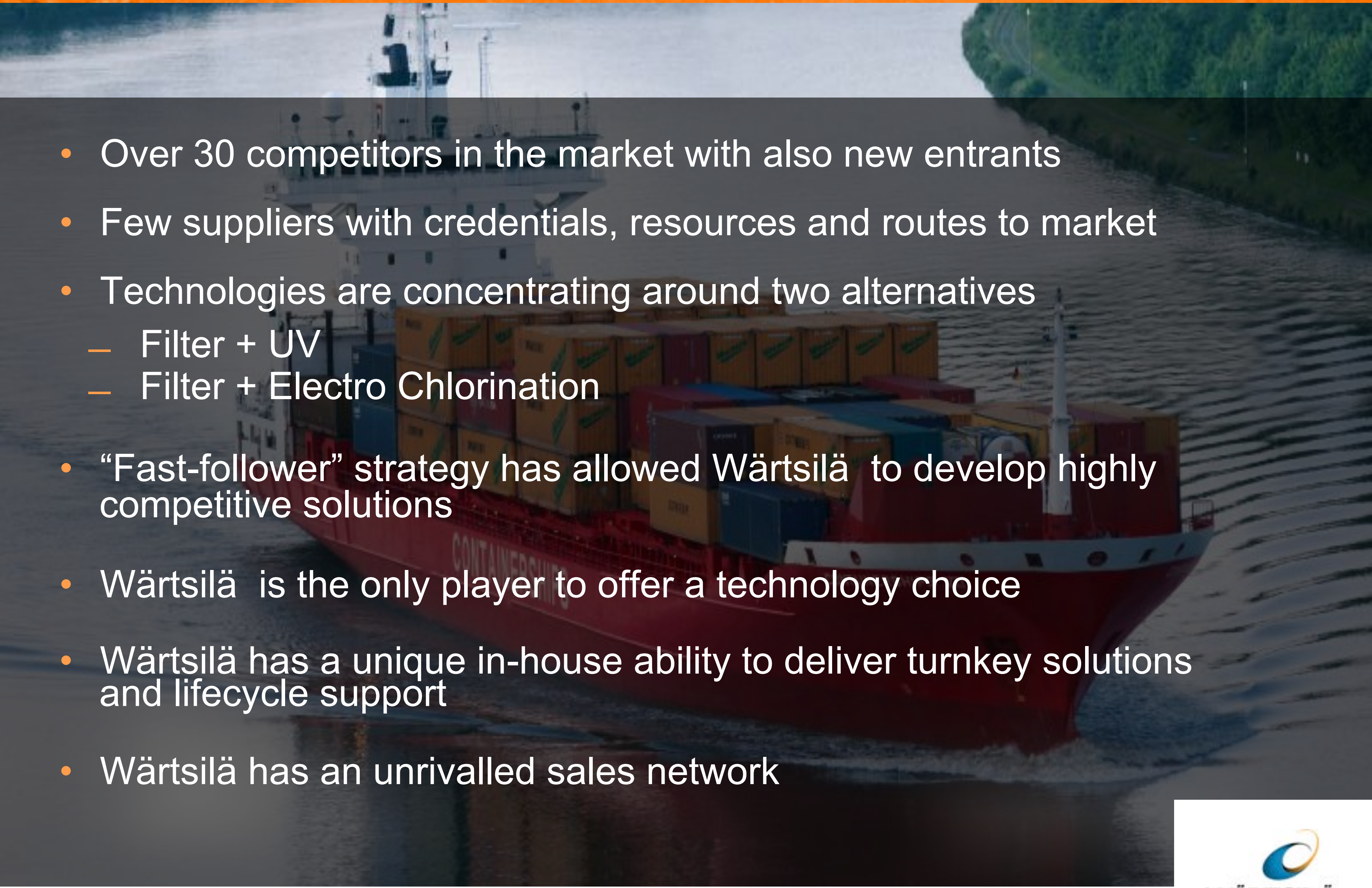
Wärtsilä is in good position



- Over 30 competitors in the market with also new entrants
- Few suppliers with credentials, resources and routes to market
- Technologies are concentrating around two alternatives
  – Filter + UV
  – Filter + Electro Chlorination
- “Fast-follower” strategy has allowed Wärtsilä to develop highly competitive solutions
- Wärtsilä is the only player to offer a technology choice
- Wärtsilä has a unique in-house ability to deliver turnkey solutions and lifecycle support
- Wärtsilä has an unrivalled sales network

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Technology development of a global leader

- Wärtsilä UV based system developed in conjunction with Trojan, a global leader in UV water treatment systems
- Hamworthy has developed two alternate systems (UV and Electro-chlorination) to offer a portfolio approach
- Hamworthy land based testing complete and sea-trials virtually so
- Wärtsilä /Trojan system land based testing and sea trials underway
- We will have a Type Approved system on the market this year

Winner in growing environmental markets

- Exhaust Gas Cleaning and Ballast Water Treatment represent two new market opportunities
- Both markets are expected to develop from 2013 onwards
- Market value for equipment alone over next ten years expected to be in excess of €30bn
- The retrofit market offers the biggest potential and this will be the main focus area for us
- Wärtsilä is well positioned to win