





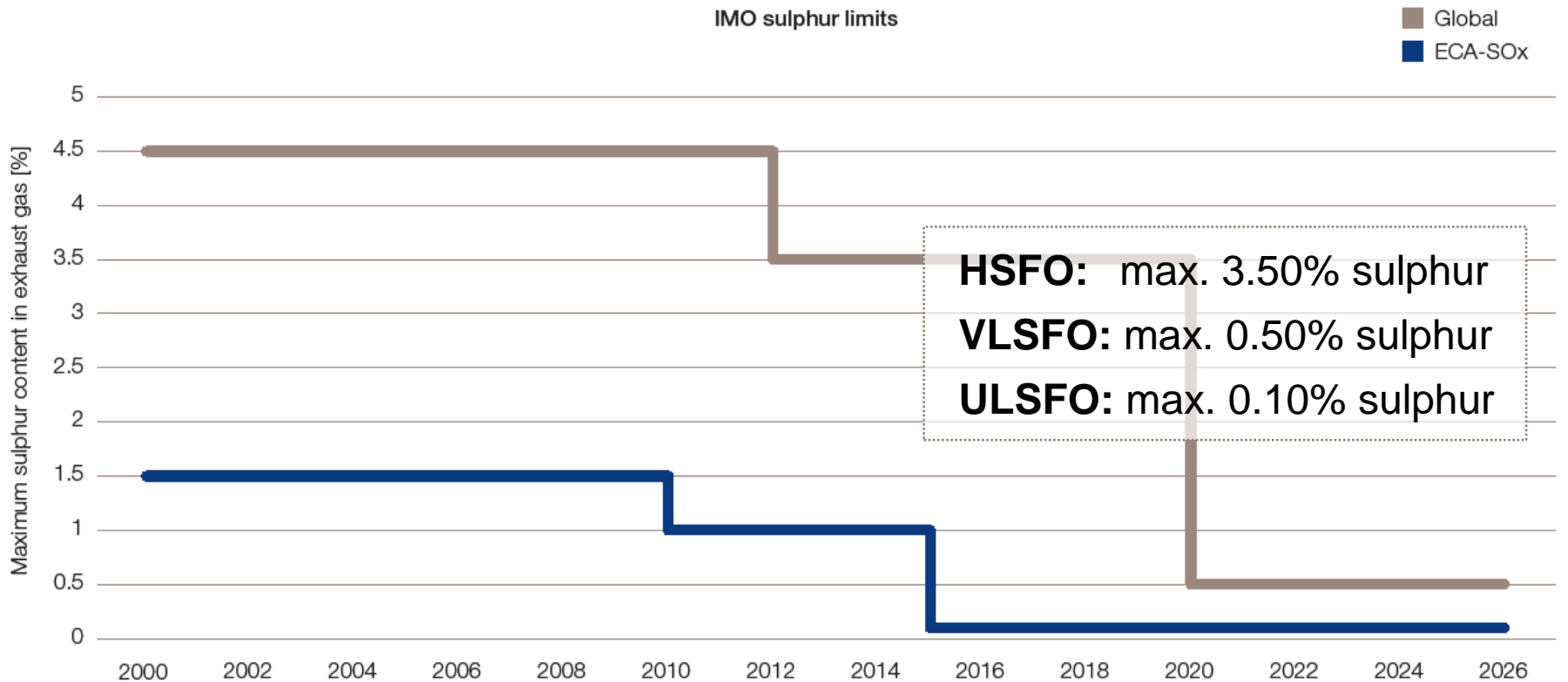
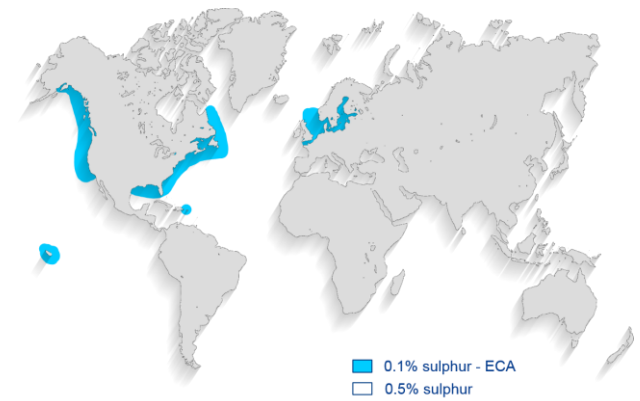
Marine 2020 & Beyond Be a Step Ahead



Agenda

Time	Topic	Presenters
14:30-15:00	Fuel Line Optimization	Niclas Dahl, Head of Marine Separation
15:00-15:30	Scrubbers-the cost effective solution	Erik Haveman, Manager, Exhaust Gas Cleaning
15:30-16:00	Networking coffee / tea break	
16:00-16:30	Boiler combustion, connectivity and heat recovery	Pieter Borg, Manager, Boilers & Heaters
16:30-17:00	Ballast water treatment - Retrofit experiences and latest news	Viktor Friberg, Manager, global sales for PureBallast
17:00-17:15	Alfa Laval Marine Service around the Globe and in Hong Kong	Jan Pettersson, Sales Director Marine Service China & Hong Kong
17:15-18:00	Q & A Panel Discussion	
18:15-20:00	Drink at BIZOU American Brasserie	

Global Sulphur Cap



Three ways to comply



Use low-sulphur fuel

- + Low investment cost
- Long-term costs are higher than using HFO
- Fuel availability uncertain



Install a Scrubber

- + Allows the continued use of HFO
- Payback time depends on fuel price delta



Switch to LNG

- + Always in compliance
- High investment cost
- Limited infrastructure
- Price uncertain

Alfa Laval on board

Product, system & application leadership

17 product groups

Switch to LNG

Scrubber



Waste heat recovery



Steam boiler

Gas combustion

Thermal fluid heater

Cooling and heating

Ballast water treatment

Create best technical solution for whichever path our customers select

Desalination

Inert gas systems

Cargo pumping

Tank cleaning

Use low sulphur fuel



Scrubber water cleaning

Exhaust gas cleaning

Crankcase gas cleaning

Oily waste treatment

Fuel conditioning

Oil treatment

Filtration