



> **Wilh. Wilhelmsen ASA**

SHIP SPEED LIMITS

Brussels, October 4, 2011

> Our cargo





➤ Our vessels; 130 RoRos and PCTCs

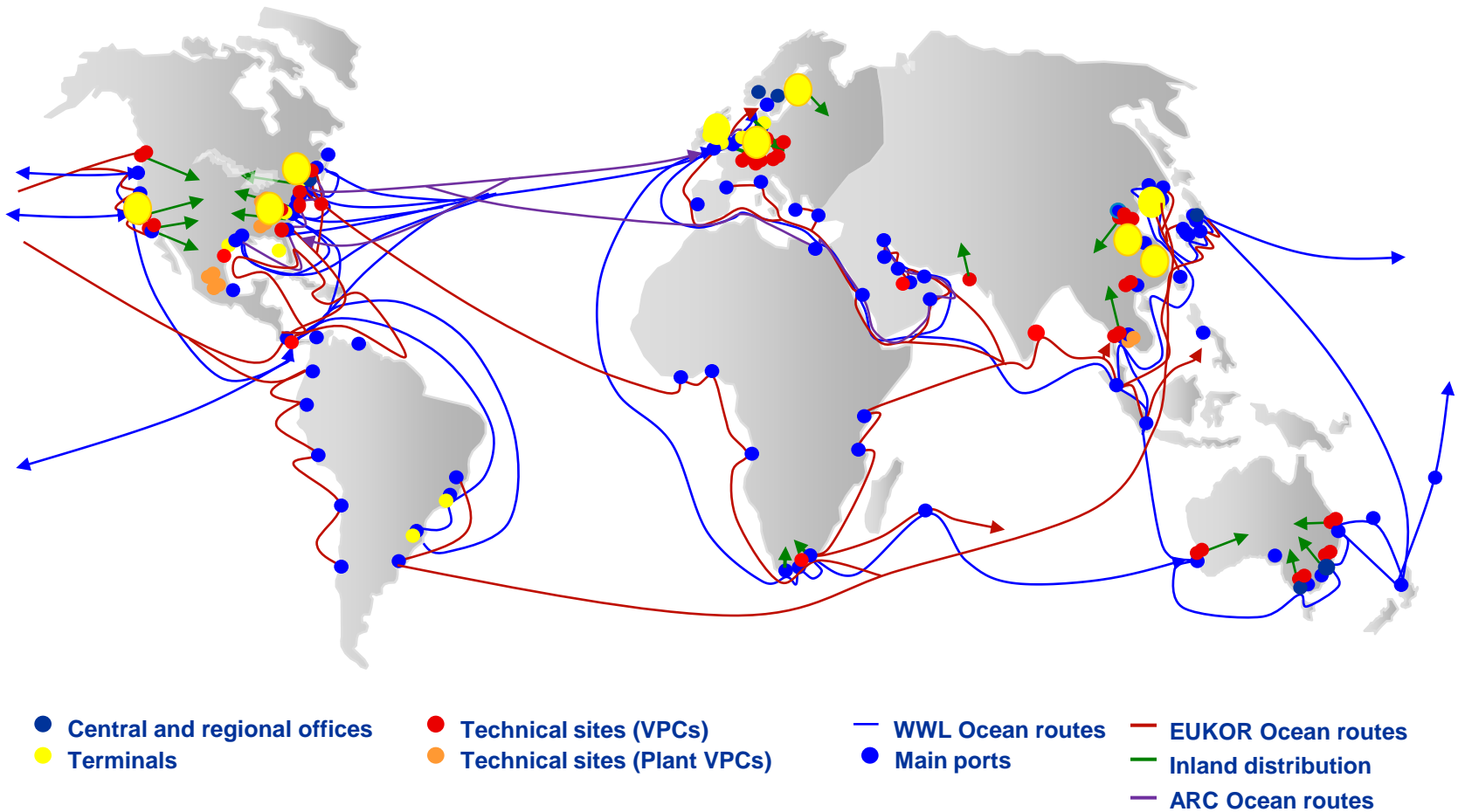


Controlled jointly with our Swedish partner





> Seamless global network



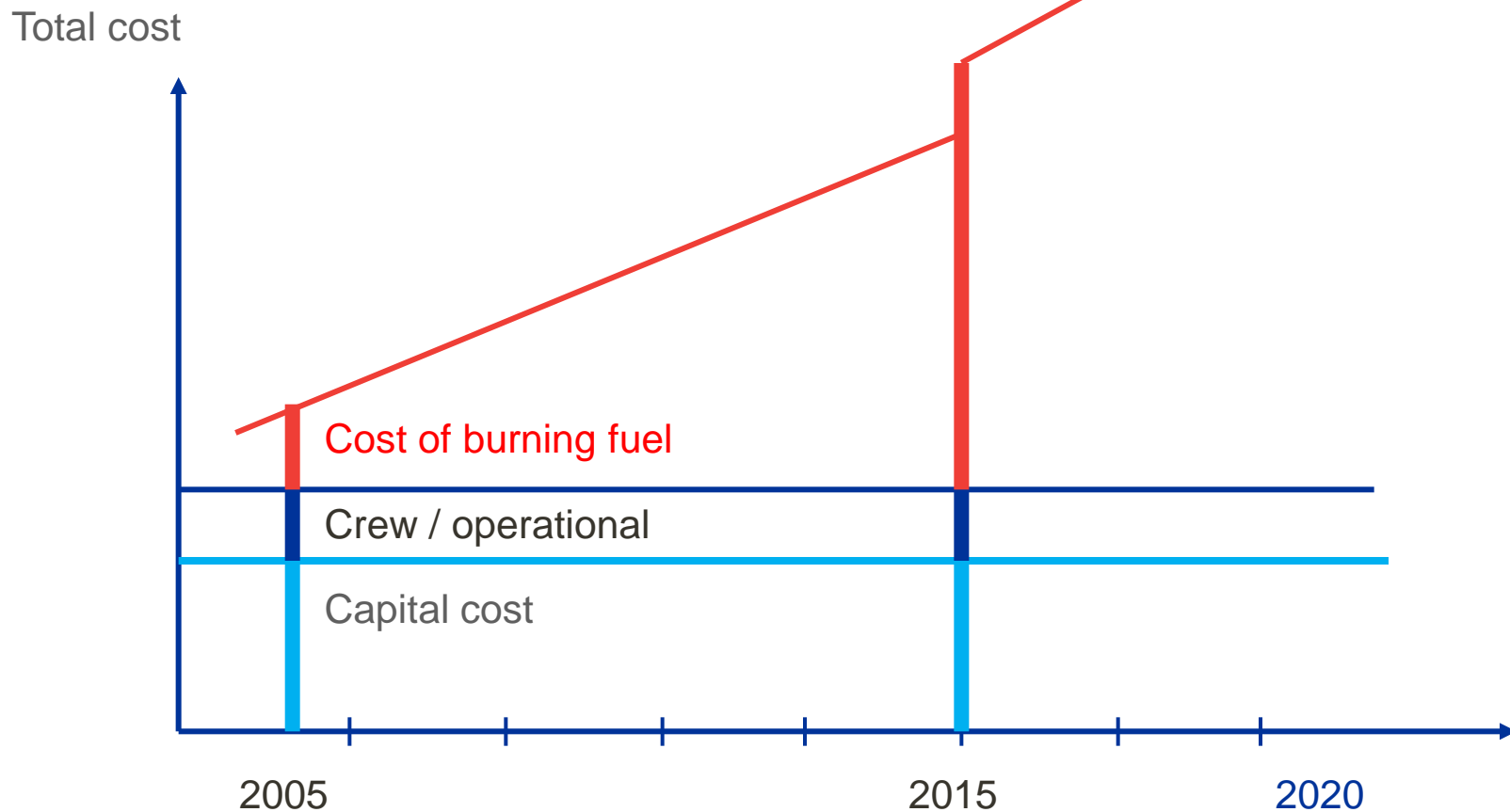


> Are more "green" regulations really needed?

Legislation Area	2010				2011				2012				2013				2014				2015				2016				2017				2018				2019				2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
Anti-Fouling Systems Convention	Entered into force September 2008.																																											
Bio-fouling Guidelines	Voluntary bio-fouling guidelines are likely in 2011																																											
Ballast Water Management Convention	Possible entry into force: 2012																																											
MARPOL Convention																																												
Annex I: Oil	Prohibition of the use and carriage of heavy grade oil in the Antarctic sea expected to come into effect in 2012																																											
	New chapter on ship-to-ship oil transfer operation (STS Plan) and clearer definition of tanks (regulation 1) enter into force January 1, 2011																																											
Annex III: Prevention of pollution	Amendments to Annex III (including IMDG Code becoming mandatory under MARPOL) entered into force on January 1, 2010																																											
Annex V: Prevention of pollution by garbage from ships	Revised Annex V expected to enter into force in 2013																																											
Annex VI: Prevention of air pollution from ships	Revised Annex VI enters into force July 1, 2010																																											
New ECA-SOX	North American ECA-SOX in effect August 2012																																											
Controls inside ECA-SOX	Maximum sulphur content limit reduces to 1.00% m/m on July 1, 2010																				Maximum sulphur content limit reduces to 0.10% m/m on January 1, 2015																							
Controls outside ECA-SOX	Maximum sulphur content limit reduces to 3.50% m/m on January 1, 2012																																											
Alternative equivalent SOX controls	Exhaust gas cleaning systems approved for use inside and outside ECA-SOX from July 1, 2010																																											
NOX controls (new construction)	Tier II controls come into effect from January 1, 2011																																											
ECA-NOX	Tier III controls come into effect from January 1, 2016																																											
New ECA-NOX	North American ECA-NOX in effect in 2016																																											
NOX controls (ships constructed 1990–1999)	Anticipate availability of first 'approved methods' during 2012																																											
ODS Record Book	Ozone Depleting Substances (ODS) Record Book is required from July 1, 2010																																											
VOC Management Plan	Volatile Organic Compounds (VOC) Management Plans required from July 1, 2010																																											
Biofuels Guidelines	Updated Guidelines on the carriage of bio-fuel blends expected to come into effect from January 1, 2011																																											
Ship Recycling Convention	Entry into force is expected sometime between 2012 and 2015																																											
Energy Efficiency Design Index (EEDI)	EEDI guidelines may already be used on a voluntary basis																				EEDI could become mandatory in 2014																							
Energy Efficiency Operational Indicator (EEOI)	EEOI guidelines may already be used on a voluntary basis																																											
Ship Energy Efficiency Management Plan (SEEMP)	SEEMP guidelines may already be used on a voluntary basis																																											
GHG (CO ₂) market-based measures	Discussions ongoing at the IMO and could come into effect between 2013-2015																																											



> The outlook is clear enough





> Considerations

- Are we talking global GHG reductions or local emissions?
- If global GHG emission targets shall be met, the speed must go down
- How?
 - Voluntarily by shipping companies and shippers
 - By incentives, local and globally
 - By EEDI
 - By mandatory speed limits?
 - ?



> Considerations

- Could speed limits substitute other MBMs or just become an added pain?
- Ship owners who feel the pain of the fuel bill already cut speed when possible
- Speed limits will hit various parts of the shipping industry very differently.
 - Low value vs. high value cargo
 - Ballast voyages vs. fully laden ships.
 - Short sea vs. deep sea
 - Types of vessels



> Considerations

- Timeline for implementation is critical
- Safety and security issues to be considered
- Impact for cargo owners to be considered
- Flexibility is an overall issue
- We already have the incentives in the cost of burning fuel
- No need for mandatory, global speed limits