



European Shortsea Network

Your navigator
from highway
to **waterway**

Sustainable Transport

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SPC Norway



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Your navigator
from highway
to **waterway**

Sustainable transport

- ✓ Modal Shift
- ✓ SECA
- ✓ A brighter tomorrow



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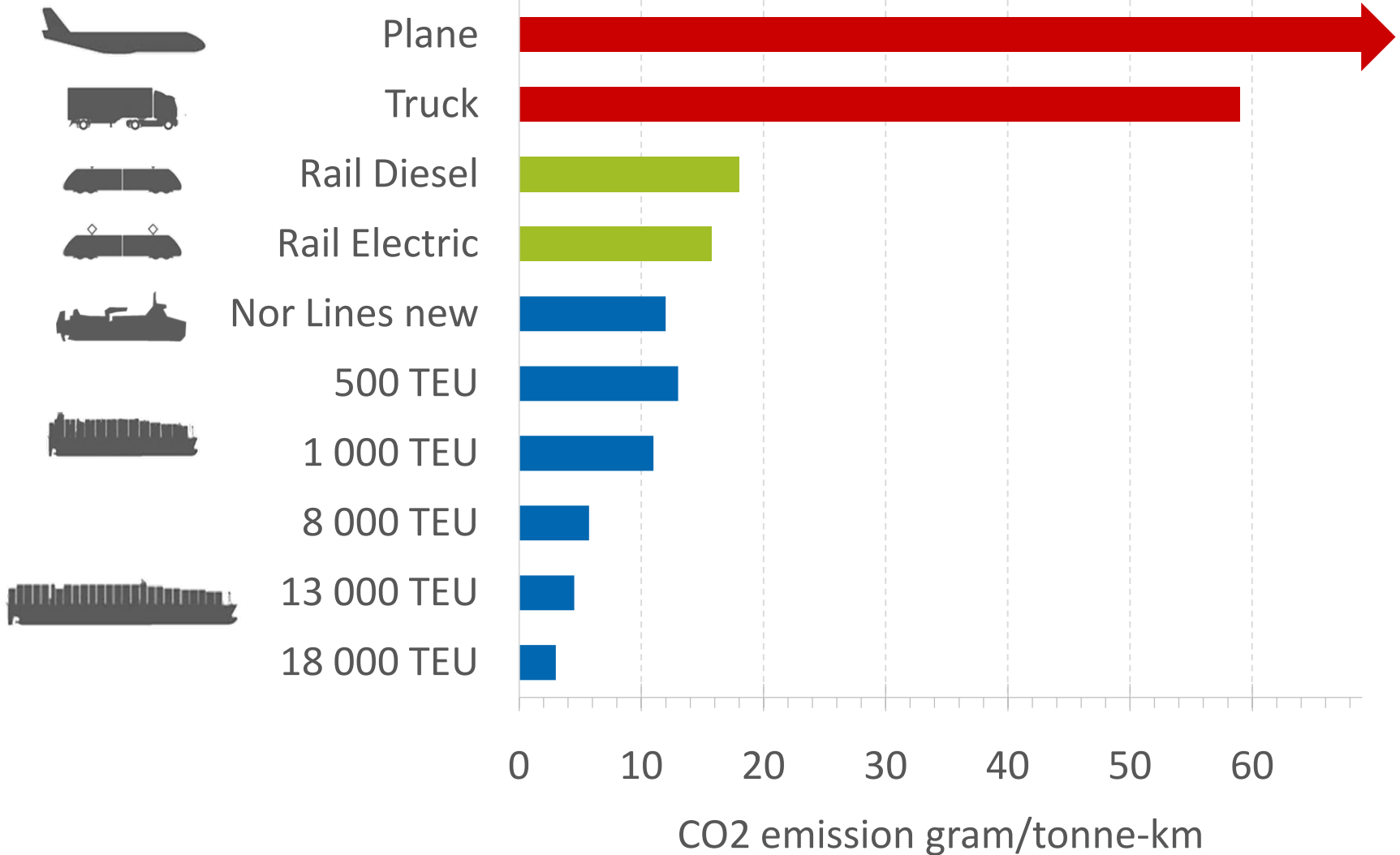
Modal shift





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CO2 Emission



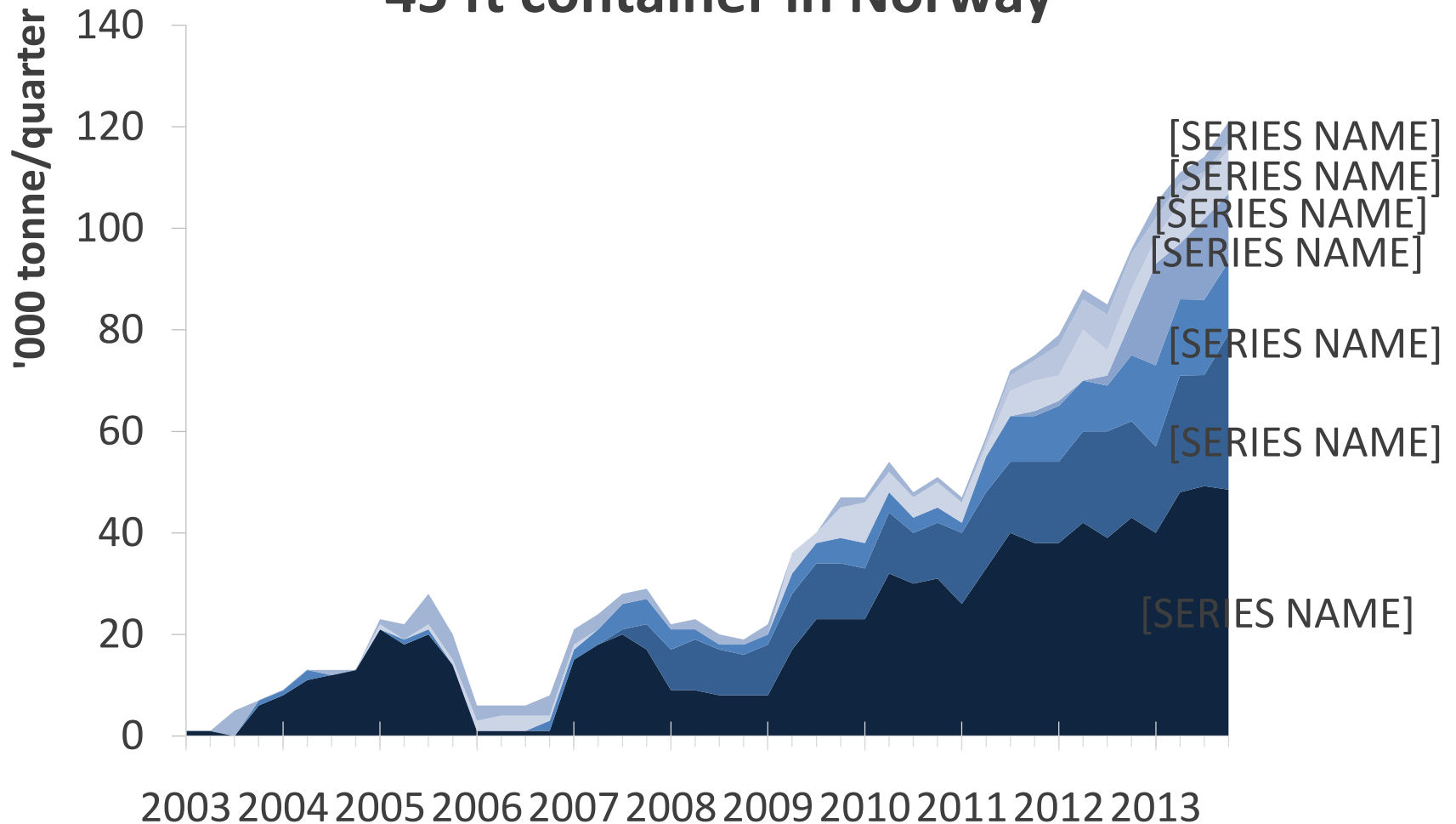


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Intermodal container is winning



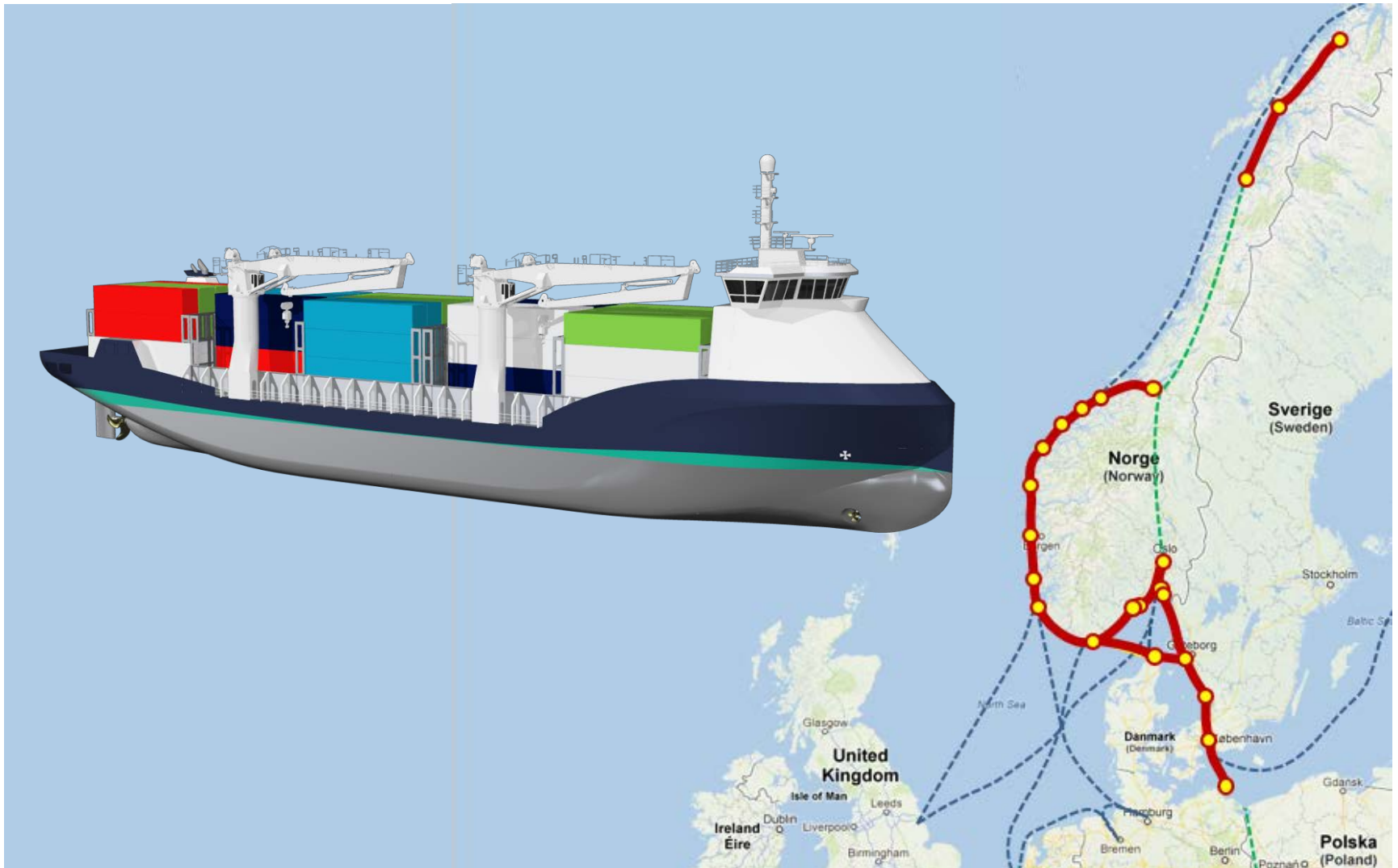
45 ft container in Norway





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Short distant solutions





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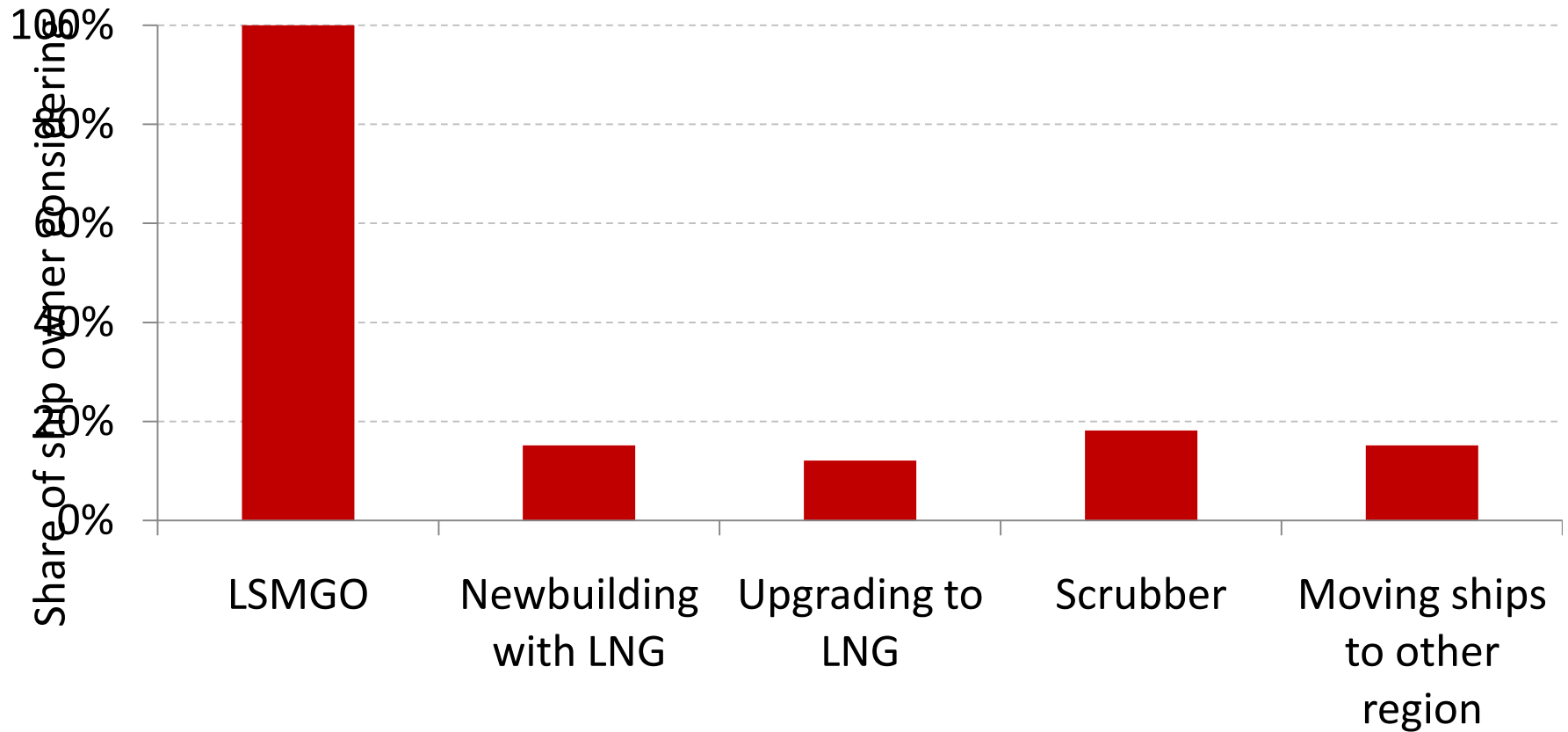
SECA





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Ship owner plans

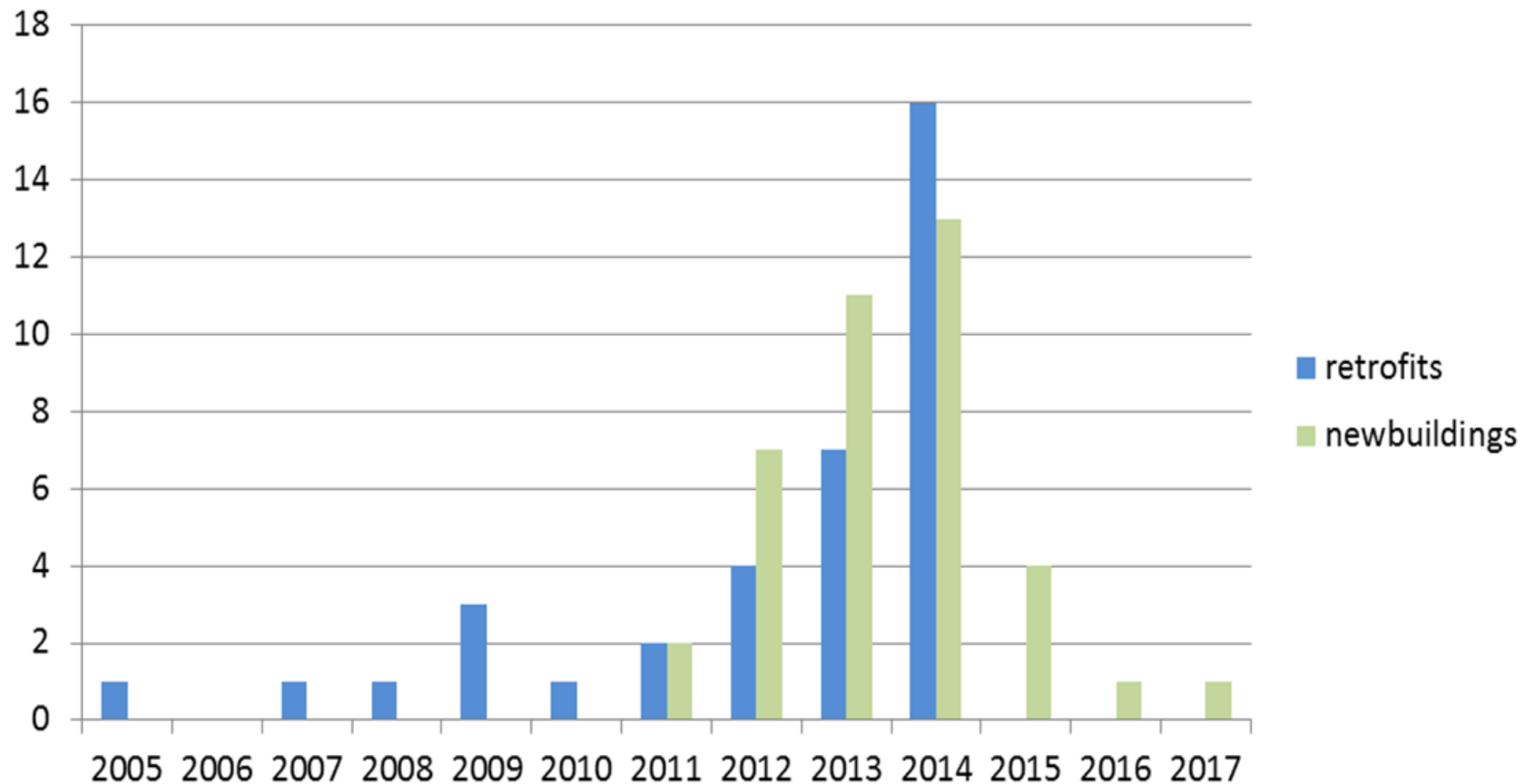




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Scrubber Orders

75 orders with European suppliers in April 2014



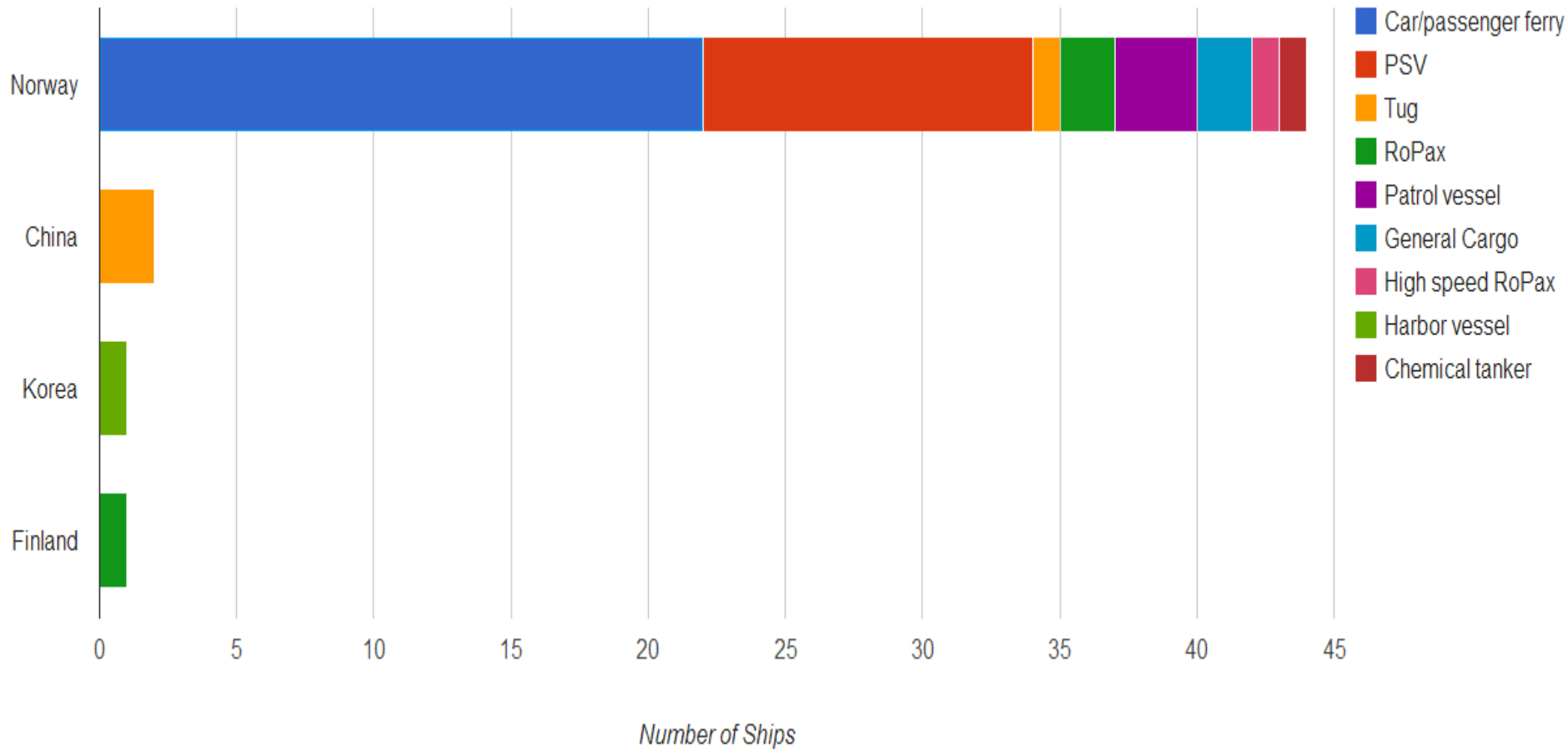


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48 existing LNG powered ships



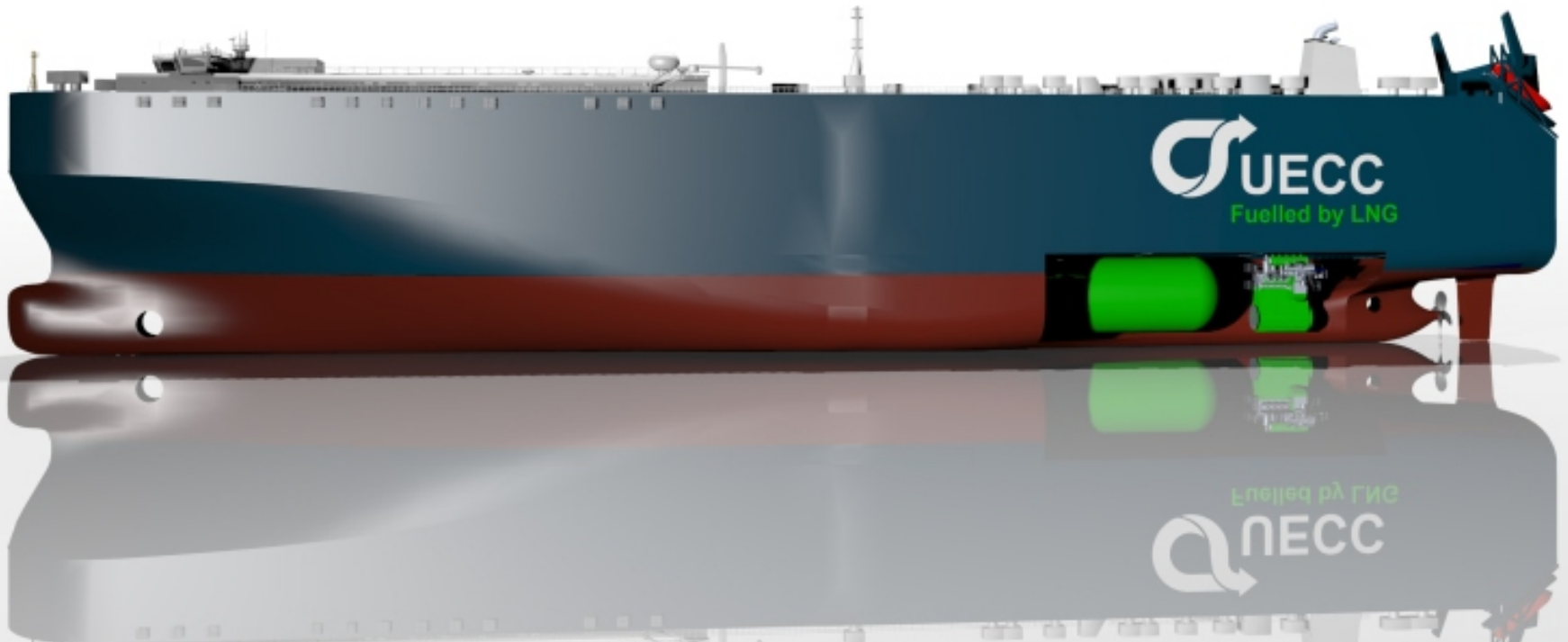
Current Fleet of LNG-Fuelled Ships by country of Ship Owner





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LNG powered car carrier



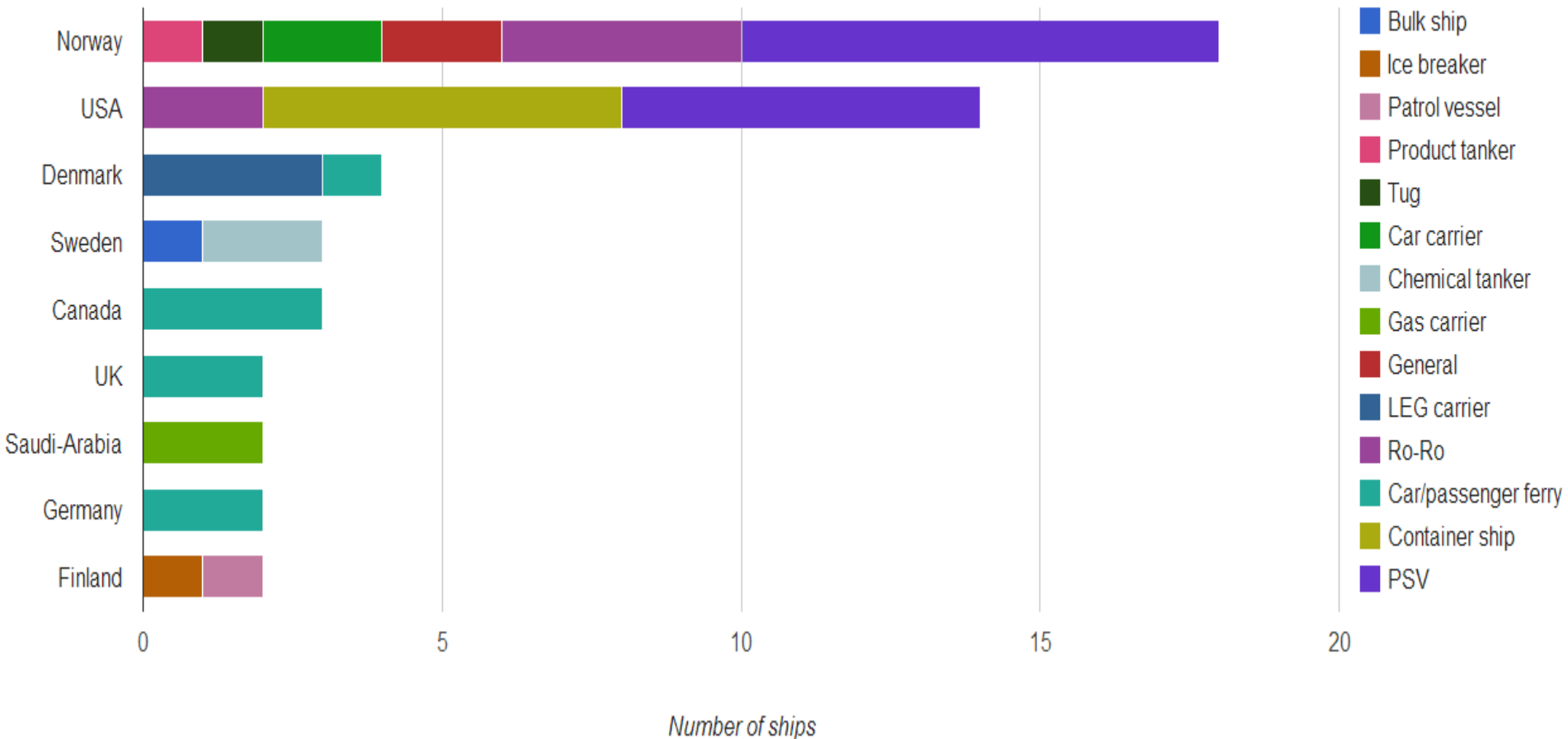


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53 LNG powered ships on order



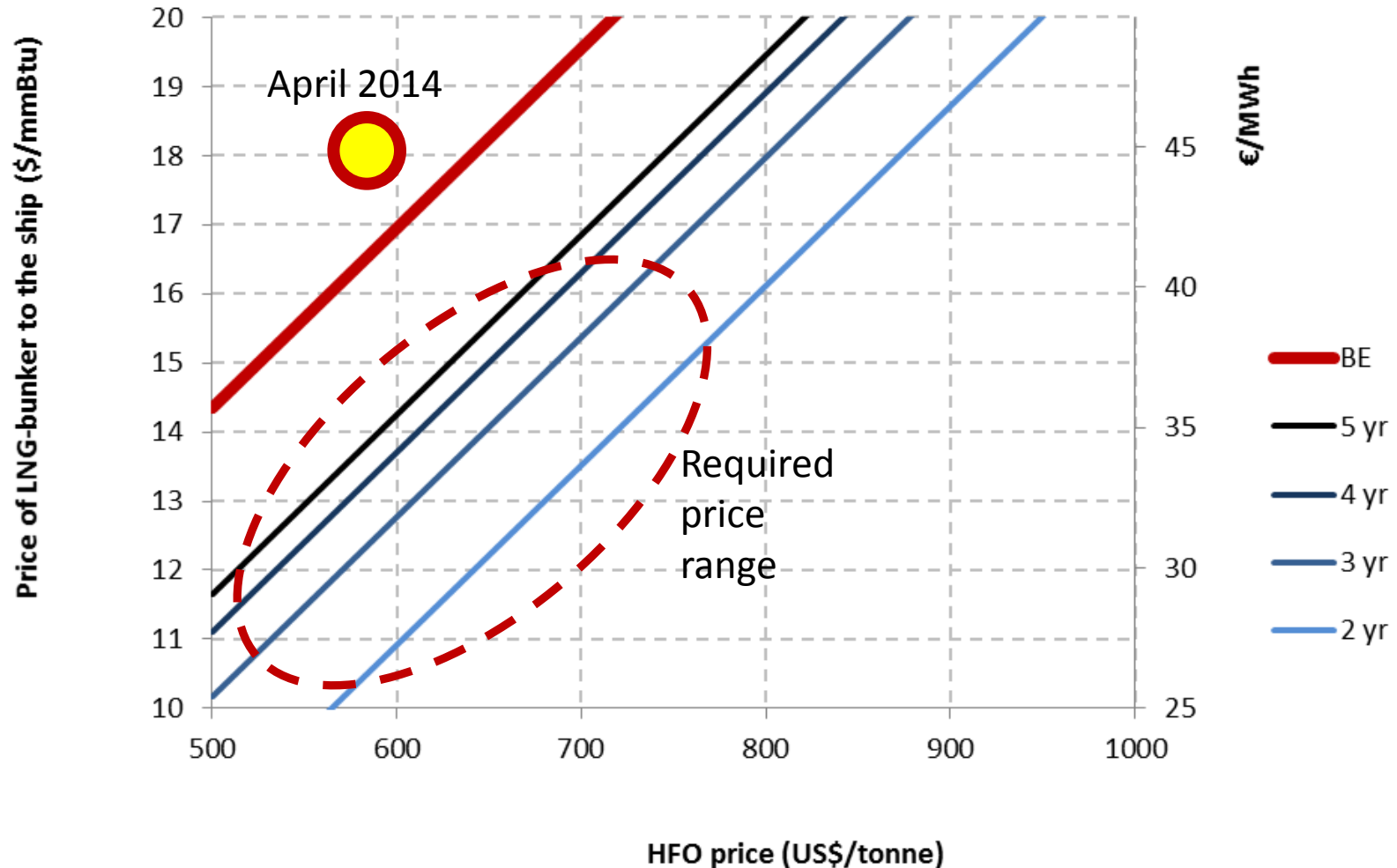
LNG-Fuelled ships on order





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LNG is too expensive



1000 TEU container vessel, 8000 kW engine, € 6 mill LNG investment, € 3 mill. skrubber investment, 100 % of time in SECA



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A brighter tomorrow





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Low emission solutions

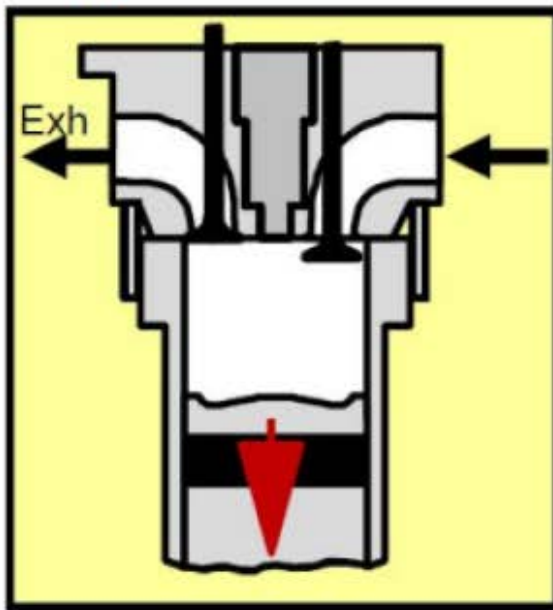




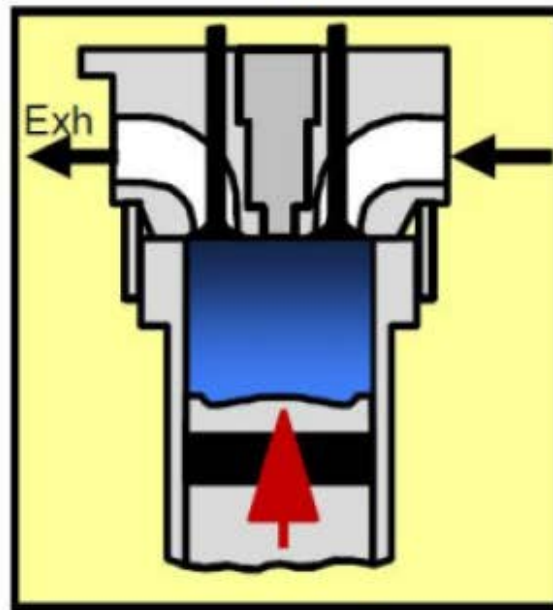
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Higher efficiency – No methane slip

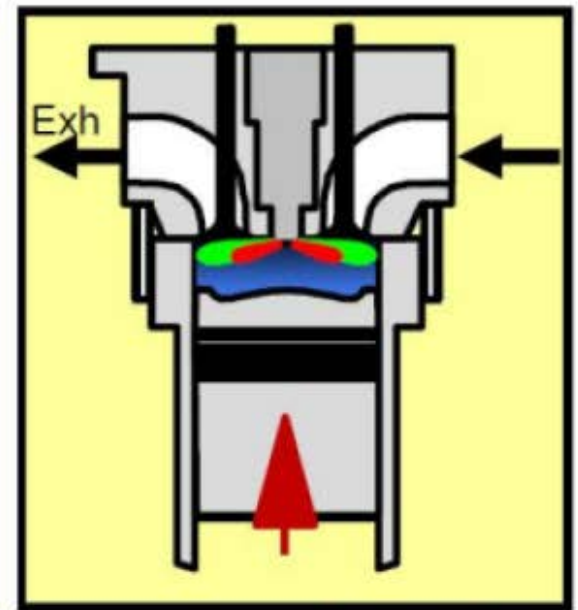
High Pressure Dual Fuel - Cycle



Pure air intake



Compression of air



Injection of pilot fuel
Ignition, injection of gas



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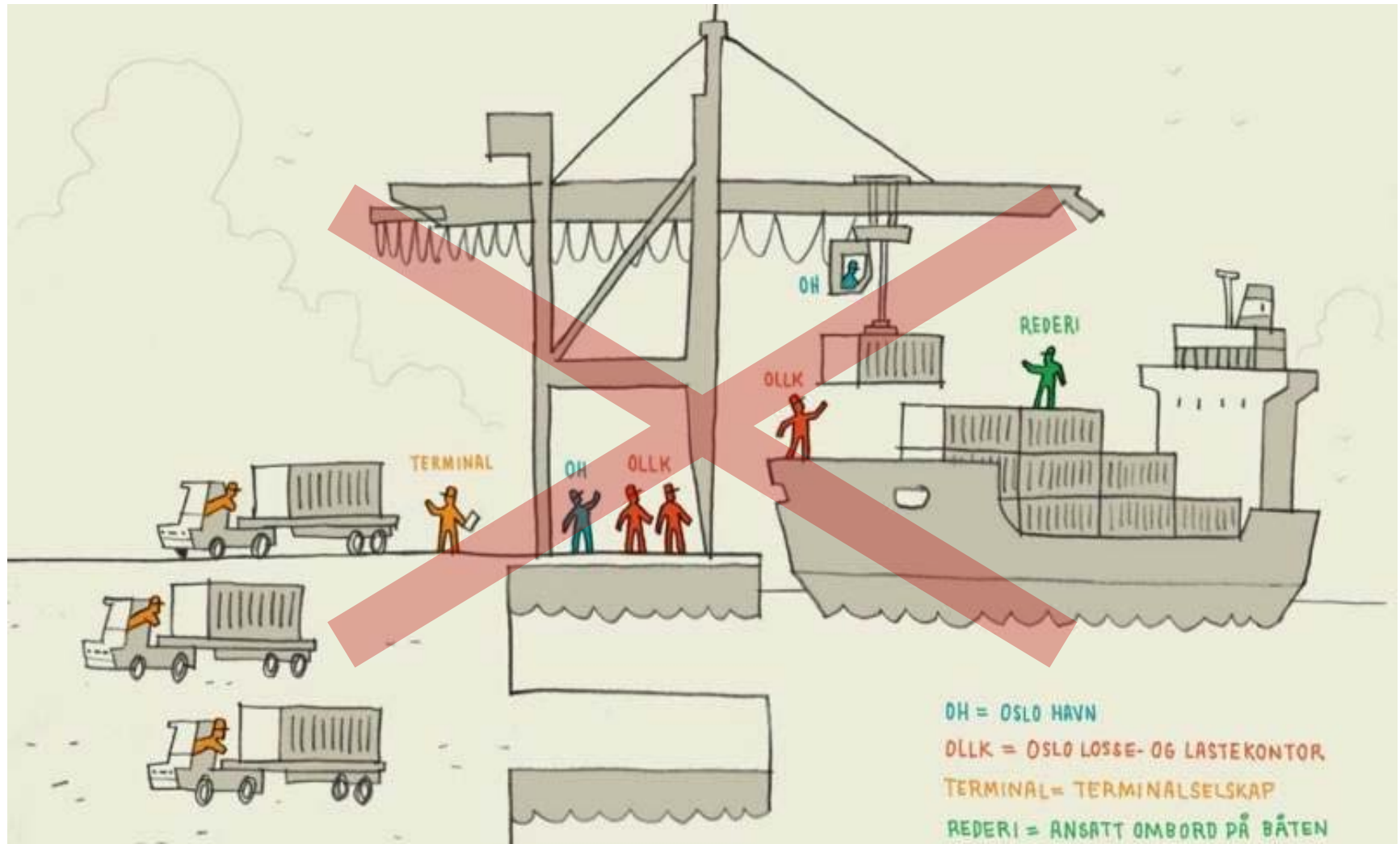
Carbon-free solutions





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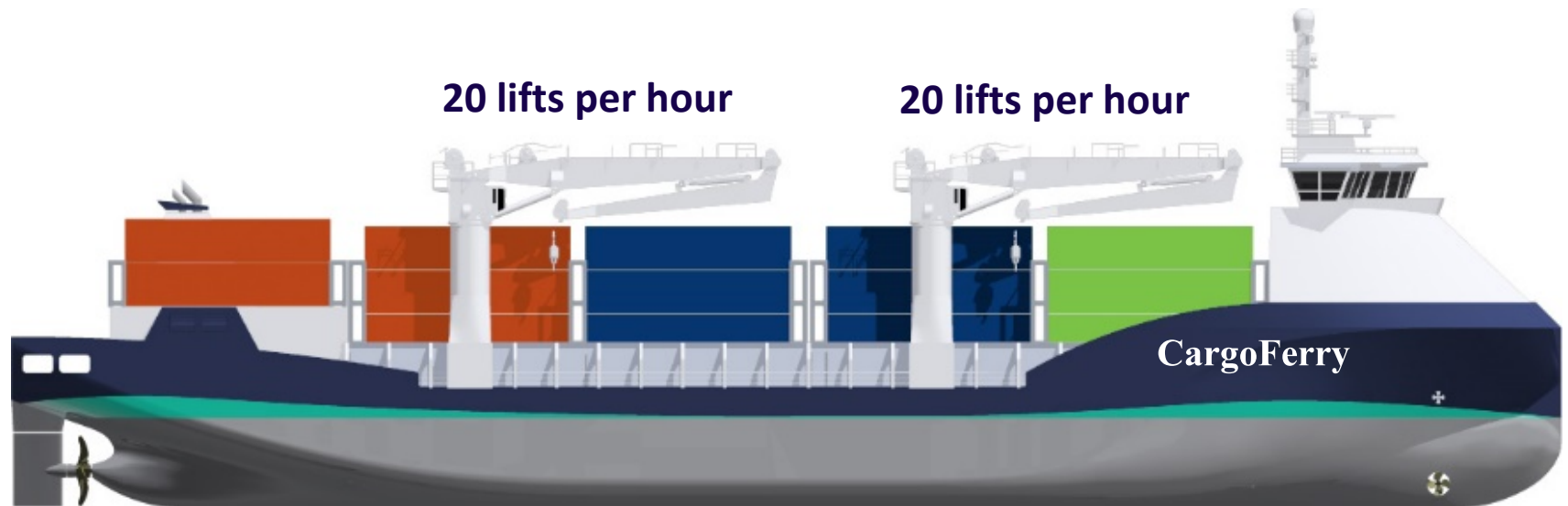
Business process reengineering





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Self-service always-open small ports



20 lifts per hour

20 lifts per hour

120 containers of 45 ft



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Summary

- Modal Shift
- SECA back-shift
- Carbon free