

➤ Main climate-related risks and opportunities

➤ Context and definition of time horizons

Based on the expected industry development, useful life of vessels and KCC's strategy, the short-, medium- and long-term horizons for climate-related risks and opportunities have been defined as follows: i) Short-term 0-3 years, ii) Medium-term 3-10 years, and iii) Long-term 10-30 years.

Risk type	Climate-related risks	Potential Financial Impacts	Short 0-3Y	Med 3-10Y	Long 10-30Y	
Transition risks	Technology	<ul style="list-style-type: none"> • Transition to lower emissions technology: Uncertainty related to future propulsion technology • Substitution of existing fleet with lower-/zero-emission vessels 	<ul style="list-style-type: none"> • Propulsion on existing vessels might be outdated prior to the end of the expected life of the vessel. Lower vessel values or recycling of vessels resulting in write-downs • Decreased revenue due to less competitive fleet • Lack of access to capital if existing fleet is out of favor • Capital expenditures in relation to retrofit or new vessel investments 	Low	Medium	High
	Market	<ul style="list-style-type: none"> • Change in customer preferences: Reduced demand for transportation of fossil fuels as demand for the commodity deteriorates • New trade flows affecting the combination pattern 	<ul style="list-style-type: none"> • More vessels will compete for lower or different types of freight volumes and freight rates might deteriorate and revenue decrease • Vessels might be idle or unfit and hence recycled resulting in write-downs • Revenue decreases due to less efficient combitrading 	Low	Medium	High
	Policy and legal	<ul style="list-style-type: none"> • Introduction of new regulations: EU Taxonomy, IMO • Poorly designs regulations might have perverse incentives 	<ul style="list-style-type: none"> • New policies and regulations within the financial sector (e.g. Poseidon principles /EU Taxonomy) might impact pricing and availability of capital • IMO's requirements to energy efficiency (EEXI) and carbon intensity (CII) might require investments in up-grading existing vessels and possibly derating main engines impacting the vessels' earnings capacity 	Low	Medium	High
	Reputation	<ul style="list-style-type: none"> • Stigmatization of shipping as a sector and hence negative impact on investor sentiment/ increased stakeholder concern • KCC does not deliver on targets and expectations 	<ul style="list-style-type: none"> • Access to capital • Access to customers/contracts and hence negative impact on revenues 	Medium	Low	Low
Physical risks	Acute	<ul style="list-style-type: none"> • Extreme weather events such as floods, storms and heavy precipitation leading to: • Idling of vessels • Damage to vessels • Temporary cut in customer's production 	<ul style="list-style-type: none"> • Decreased revenue through less efficient trading and waiting time • Repair costs due to vessel damage 	Medium	Medium	Low
	Chronic	<ul style="list-style-type: none"> • Climate change affecting food production 	<ul style="list-style-type: none"> • Decreased revenue through less efficient trading 	Low	Medium	Low

Potential financial impact level Low Medium High

Figure 4: Main climate-related opportunities

Opportunity type	Climate-related opportunities	Potential Financial Impacts	Short 0-3Y	Med 3-10Y	Long 10-30Y
Resource efficiency	Efficient combination trading	Higher revenue. Standard vessels in KCC’s trades have a significantly higher ballast and hence have up to 40% higher emissions per transport work. By improving our trading patterns and hence improve operational and carbon efficiency, our competitive advantage improves.	High	Medium	Low
	Higher energy costs	Higher revenue. KCC benefits from higher fuel costs and hence carbon taxes as freight is priced on the basis of fuel consumption for standard vessels and taxes levied on these vessels. KCC’s vessels have limited ballast and lower fuel consumption /CO ₂ emission per mt cargo transported and hence will be over-compensated for higher fuel costs and taxes through the paid freight. The cost of energy in shipping will undoubtedly increase, both due to carbon taxes and to higher production costs, which will enforce KCC’s competitive edge and increase profitability through increased revenue.	High	High	Low
Energy source	Carbon pricing		High	High	Low
Products, services, markets	Transportation of new types of cargo	Higher revenue. As fossil fuels are being phased out over time, there will likely be demand for transportation of new types of cargoes. However, increased demand for these cargo types must fit into a combi trade pattern to be valuable for KCC.	Low	Medium	High
	Close customer co-operation	Higher revenue. KCC is less dependent on transportation of fossil fuels than standard dry bulk vessels and product tankers. We serve the alumina/aluminum, the steel and agricultural industries and we are hence positioned to work with the industries that will decarbonize first, which give us opportunities/value in terms of learning and positioning.	High	Medium	Low

Potential financial impact level Low Medium High

Material climate-related risks and opportunities

Climate-related issues have been high on the agenda in KCC for several years and have been incorporated in strategy processes as well as daily operations and stakeholder dialogues over time. The climate-related risks and opportunities that we believe might have a material financial impact on the organization have been identified through several processes:

- i) Development of the Environmental Strategy and Policy 2020-2050 and the overall strategy for the period 2021-2025.
- ii) Workshop with cross-functional team of employees. In second half of 2020, a workshop with representatives from the Board of Directors, the management team, commercial operations, chartering, technical management, project and business transformation and finance identified and discussed climate-related risks and opportunities.

- iii) Day-to-day business and interaction with stakeholders such as customers, investors, employees, regulators, banks etc.
- iv) Climate-related risks are from 2021 assessed as an integral part of the company’s overall risk review which is discussed with the Audit Committee and the Board of Directors every quarter.

KCC has in Figure 3 and Figure 4 included what has been assessed as the company’s main climate-related risks and opportunities. The three main risk are within the risk types market, technology and policy/legal and are all transition risks and related to decarbonization. Please see tables above and below for more information.

› Climate-related issues are highly integrated into the KCC strategy

Through technical and commercial innovations, we have developed a fleet of combination carriers, the world's most carbon efficient deep-sea transportation system available today. These vessels emit up to 40% less CO₂ than standard dry bulk and tanker vessels for the same transport work.

Klaveness Combination Carriers has decarbonization, and how this will affect our business concept, markets, regulations, stakeholder requirements and access to funding, as a center piece of our strategy. The Environmental Policy and Strategy includes specific targets related to reduction in emissions and waste as well as targets and ambitions on customer co-operation and development of a zero-emission vessel: "We are committed to continuously focus on perfecting our combination carrier concept through identifying, testing and applying new technology and solutions. We will test, promote, and use new fuels and new fuel saving technologies to work towards achieving carbon neutrality in our operations within 2030. All vessels contracted after 2020 will have a "bridge" to the most likely zero emission fuels through choosing main engines that can burn or can be converted to burn zero-emission fuels, as well as preparing space for or install fuel tanks for such zero emission fuels. As part of this work KCC will also develop a "Zero-Emission Combination Carrier" and target to contract such a vessel within 2030." Other elements will be to improve the efficiency of our operations, and close co-operation with customers, suppliers and other shipowners. We shall assist our customers in their transformation to a low carbon future by offering the most cost-efficient way of decarbonizing their supply chains.

We have identified upcoming regulations and their potential financial implications as one of the three main risks for KCC. Financial impact is mainly related to access to capital and pricing of capital, e.g. the final requirements of EU's Taxonomy and how banks will develop r Poseidon principle and related requirements. KCC is also closely following the development of the EU emission trading scheme (ETS) and its implications as well as potential carbon pricing schemes in other parts of the world. In the short and medium term, carbon taxes or emission trading schemes in shipping are believed to mainly be an opportunity for KCC with its solutions having 30-40% lower CO₂ emission per ton transported than standard vessels in its main trades. Over a longer time-horizon, the financial implications for KCC of such regulations are uncertain and might impact revenue, cost and assets impairment, both positively through for example carbon pricing and negatively through for example investments in new vessels or retro-fit of existing vessels. Climate-related issues and especially CO₂-emissions are higher

on the customer's agenda and here the Sea Cargo Charter is a good example, which will over time probably also strengthen our competitive advantage based on our carbon efficient operations compared to that of our competitors.

Another identified main risk is uncertainty related to future propulsion technology for deep-sea vessels. There is today no available low-/zero-emission propulsion technology available for deep-sea shipping. When the technology matures, technology on existing vessels might become outdated prior to the planned 20-25 years operational life of the vessels. Lower vessel values or recycling of vessels might result in write-downs and the need to investment in new vessels. This might as well impact revenue for existing vessels and access to funding.

The third identified main risk is related to reduced demand for transportation of fossil fuels as demand for the commodities deteriorates. This might impact revenue and vessel values and might impact trade patterns that are important for the combination carriers.

