

Klaveness Marine Climate risk assessment

Task Force on Climate-Related Financial Disclosures



In KM, we consider climate risk a financial risk which will impact our business long term. We recognize that as changes in the climate system are becoming more intense, widespread, and frequent, the economic implications of climate change become significant. Delayed action and transition will increase the risk of large price movements and financial losses. In order to avoid the most severe impacts of climate change on our investments we have worked to identify, measure, and manage climate related risks to our business areas.

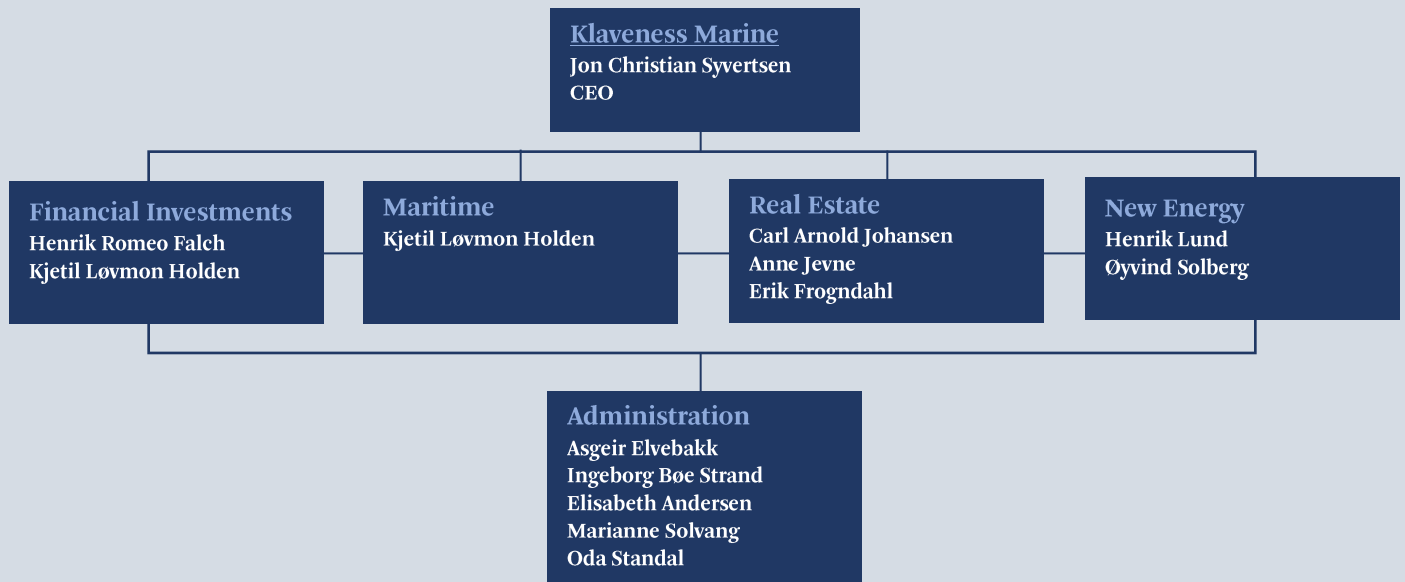
By reporting on our assets exposure to climate-related risk, we comply with the recommendations from the Task Force on Climate-Related Financial Disclosures (TCFD). This framework is viewed as a market-standard and considers how climate risk is integrated into corporate governance, risk management, strategy and metrics and targets.

Governance

Every year, the board of Klaveness Marine (KM) carries out a strategic review based on the company vision conveyed in a separate paper by the company owners, the Klaveness-family. The board further decides on KM's overall objectives and strategy.

Sustainability stands at the forefront of KM's current corporate strategy. The KM administration is responsible for adopting and implementing the objectives and goals outlined in its yearly Sustainability Report. In addition, each quarter, management reports documenting ESG-related risks and opportunities are completed. Furthermore, the top management has been assigned a particular responsibility for monitoring climate-related risks and opportunities in their business area, and report on compliance with sustainability metrics and targets as part of their general reporting to the board.

KM's strategic sustainability work began in the Spring of 2021. While recognizing the importance of the strategy, KM acknowledges that integrating the assessment of climate-related risks and opportunities into daily routines is a gradual process. Nevertheless, it is KM's ambition and goal that the assessment and management of climate-related risks and opportunities will be integrated into all investment decisions. By the same token, the associated responsibility will lay with the relevant investment manager or director. KM will continue to have a full-time employee dedicated to overseeing ESG-related work across the portfolios, whilst simultaneously building competence and delegating more responsibility throughout the company.



Strategy and Risk Management

To identify and assess the potential impacts of climate change on KM's assets we conduct climate-risk meetings between the sustainability coordinator and the top management. The purpose of these meetings has been to identify the highest probability risks, with the potential economic impacts on KM's different business areas to evaluate whether the current climate risk measures taken are adequate or not. Potential climate risks and impacts discussed in these meetings are referenced below, as well as the measures implemented to reduce risks.

Table 1.

Climate risks	Potential Financial impact	KM Measures
Policy and Legal <ul style="list-style-type: none"> ▪ Increased prices of GHG emissions ▪ Mandates on and regulation of existing products and services 	<ul style="list-style-type: none"> ▪ Increased operating costs ▪ Write-offs, asset impairments, and risk of stranded assets due to policy changes 	<ul style="list-style-type: none"> ▪ Exclusion policy ▪ GHG reduction goals
Technology <ul style="list-style-type: none"> ▪ Unsuccessful investment in new technologies ▪ Substitution of existing products/services with lower emission options 	<ul style="list-style-type: none"> ▪ Write-offs and early retirement of existing assets ▪ Reduced demand for products or services 	<ul style="list-style-type: none"> ▪ Low tech-risk in portfolio ▪ Exclusion policy
Market <ul style="list-style-type: none"> ▪ Change in consumer behavior ▪ Uncertainty on market signals (e.g due to social unrest or high polarization in electorate) ▪ Increased costs of raw materials (e.g. due to energy crisis or trade war) 	<ul style="list-style-type: none"> ▪ Reduced demand for goods and services due to shifts in consumer preferences ▪ Increased production costs due to high inflation or changing input and output prices ▪ Abrupt and unexpected shifts in energy costs ▪ Re-pricing of assets (e.g. fossil fuel reserves) 	<ul style="list-style-type: none"> ▪ Exclusion policy ▪ Investigating investments in raw materials ▪ Growing New Energy portfolio ▪ Reducing the exposure towards energy production investments
Reputation <ul style="list-style-type: none"> ▪ Shifts in employee-preferences and expectations ▪ Changing market-standards and expectations ▪ Stigmatization of specific sectors 	<ul style="list-style-type: none"> ▪ Reduced revenue from negative impacts on workforce managements and planning ▪ Reduction in capital availability (higher margins on loans or exclusion from bank criteria). ▪ Reduced revenue from negative impacts on partnerships (losing ground as an attractive partner) 	<ul style="list-style-type: none"> ▪ Exclusion policy ▪ BREEAM certification of real estate properties ▪ Implement criteria on green financing ▪ Reducing the share of indirect investments in fossil fuels
Acute physical risk <ul style="list-style-type: none"> ▪ Increased severity of extreme weather events such as floods and cyclones 	<ul style="list-style-type: none"> ▪ Write-offs and early retirement of existing assets (e.g. damage on property and assets in high risk locations.) 	<ul style="list-style-type: none"> ▪ Ten immediate measures of the Green Building Council have been implemented
Chronic physical risks <ul style="list-style-type: none"> ▪ Changes in precipitation patterns ▪ Rising mean temperatures ▪ Rising sea level and temperatures 	<ul style="list-style-type: none"> ▪ Increased capital costs (e.g. damage to facilities). ▪ Increased insurance premiums and potential for reduced availability of insurance in high-risk locations. 	<ul style="list-style-type: none"> ▪ Green Shipping Program partnership

Selected climate risks for KMs investment

Some of the identified climate-related issues have affected KM's strategy and financial planning more than others. Generally, KM has prioritized transitional risks over physical risks, as it is estimated that the former would have a more damaging effect on activities short-term than the latter. Table 2. depicts the assessment of the probability and severity of selected climate risks for KM's investments.

Table 2.

Probability of occurrence	3	<ul style="list-style-type: none"> Increased frequency of extreme weather events such as floods and storms. 	<ul style="list-style-type: none"> Increased costs of raw materials. Increased GHG prices. 	<ul style="list-style-type: none"> Changing market standards.
	2			<ul style="list-style-type: none"> Changes in consumer behavior. Mandates on and regulation of existing products and services
	1			<ul style="list-style-type: none"> Unsuccessful investment in new technologies.
		1	2	3
		Severity for KM		

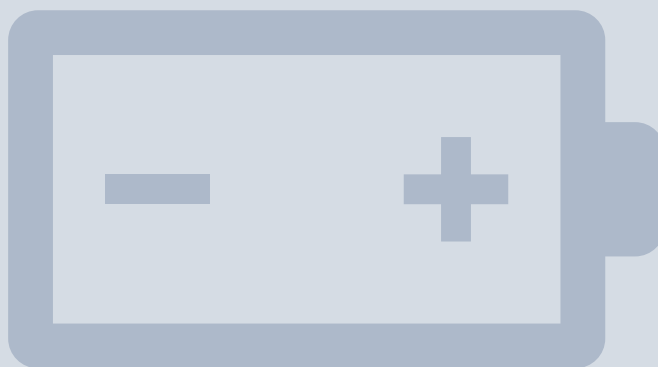
New Energy portfolio risk assessment and management

The New Energy portfolio is constructed to capitalize on the transition towards renewable energy. Therefore, KM's view is that the climate risks described in Table 1 will for the most part have a positive effect on the portfolio. Nonetheless, there are still certain risks that might affect the portfolio negatively. Unforeseen changes in the regulation of products and services, stigmatization of specific sectors, and extreme weather events are the risks most likely to affect the New Energy portfolio.

We have already witnessed changes in political regulations negatively effecting renewable energy production, such as recent changes in ground rent tax on energy production in Norway including hydro and wind power. Uncertainty in the regulatory landscape do therefore entail risk for investments in energy production, but we believe that the regulations on fossil energy will be higher than those on renewables and create a relative advantage for green investments.

With the increased awareness surrounding the importance of nature conservation, there has been stigmatization of some forms of renewable energy and the encroachment of nature that energy infrastructure demands. Consequently, to ensure that the projects KM invests in do not carry severe harm to nature or biodiversity, KM has created criteria for current and future investments which can be found in the Sustainability report. In the coming years, KM will strive to assess our investments impact on biodiversity and report on these effects.

Increased frequency of extreme weather is another risk with a potentially high severity for KM New Energy, and in particular some of our infrastructure projects. To ensure that KM is better prepared to manage these risks and adapt to the impacts of climate change we will among other things have a strong focus on the insurance coverage of these projects.



Financial portfolio risk assessment and management

To ensure investments are made in line with KM's values, an exclusion list has been created and implemented in the investment process. This list reduces the climate risk of KM's financial portfolio significantly. As Table 2. illustrates, KM considers changing market standards, increased GHG prices, and changes in consumer behavior to be probable risks for funds and investment companies. The exclusion list can be viewed in our Sustainability report and includes exclusions on direct investments in the exploration, production and refining of fossil fuels, fast fashion clothing, and commercial aviation. These are all examples of industries that are conducted in a way that does not align with a sustainable future.

Some of KM's mutual funds are still exposed to these risks as some of the funds hold or have opportunity to invest in positions in these industries. However, the potential negative financial impact from these positions is relatively low given their size of the overall fund. Additionally, KM actively work to reduce the share of indirect fossil fuel investments to below 10% of the total assets. Moreover, KM does not make new investments in funds with a fossil fuel share above 10%.

KM's financial portfolio is designed to be highly diversified with little technological risk. In other words, KM seeks to invest the majority of the financial portfolio in investments where the technology is proven and tested, also limiting exposure to old solutions, including fossil-dependent technologies, and thereby reducing the technological risk. There will always be a risk of investing in companies that will not succeed, however, KM's incurred financial risk of investing in unsuccessful technologies is low. Furthermore, the investments made by KM in proven technologies, should not conflict with the goals of the Paris agreement, and therefore not pose a risk to the energy transition.

Notably, it can be difficult to predict how increased prices of raw materials might affect this portfolio. Some companies might be positioned to benefit on this shift, while others are at risk of increased operating costs. In the future, KM might consider doing new investments in funds focusing on raw materials to be better positioned for this shift.



Real Estate portfolio risk assessment and management

KM considers the changing market standards and changes in consumer behavior as the biggest climate risks to real estate. While viewing tenants and investors as consumers of property, KM expects the demand for “green” and energy-efficient buildings to increase, and the demand for “brown” buildings to decrease. Recently, there have been instances where investors are uninterested in properties based on the tenant's activities. Although KM does not exclude any tenants based on their prime activities today, it may be a consideration in the future as some activities become more outdated.

To prepare for this shift in expectations from investors and tenants KM has collected the energy grade of all owned properties and set goals to improve these in the next years. For example, KM has begun taking measures such as BREEAM certifying KM's fully owned buildings, signing the Green Building Alliance's ten immediate actions, and certified KM's internal operations in accordance with the Eco-lighthouse certification. Additionally, KM has begun using its positions in boards more actively, requesting measures in the properties owned together with other shareholders.

Another climate risk that affects the real estate industry, and especially development projects, is increased GHG prices. The increase in GHG prices is likely to affect the most energy-heavy materials such as steel and cement. While this might reduce the profitability of development projects it is not considered to have an important financial impact on business. Rather, it might increase the value of KM's existing properties, and make it easier and relatively cheaper to reuse and recycle building materials.

The physical risk of KM's fully owned properties has also been assessed. While conceding that the Oslo area is likely to witness more floods, it is KM's assertion that it will not have severe economic effects on its properties. Flooded basements could be a more occurring issue which could lead to increased operating costs, however, it is not especially concerning to KM on a financial level. The same applies to rising temperatures, which might influence the housing environment of properties and result in upgrades in the air conditioning system. It is vital to emphasize that although the acceleration of climate change and weather might not critically affect KM's finances specifically, these changes are severe and will have devastating effects on our society in general. KM will therefore, continue its work to reduce its emissions and waste and hope to be an accelerator in the transition of real estate over the next ten years.



Maritime portfolio risk assessment and management

Increased GHG prices, changing market standards, and mandates and regulations are risks KM view as likely in the maritime sector. In particular we see these developments as potential risks to KMs older tankers, which will struggle with reaching the new EEXI and CII standards set out by IMO's roadmap to a sustainable maritime industry in 2050. We prepare for these changes by increasing our focus on green fuels and more efficient propulsion systems when we look for new investments, as well as selling our oldest ships in the upcoming years.

Investments in new propulsion systems and fuels might contain some higher technology risk as many of these are still in the early stages of development. These investments do however have a higher impact, contributing to changing the maritime market in the right direction, as well as accelerating the shift to renewable fuels. Not transitioning could potentially contain an even bigger risk, as the probability of being left with stranded assets increases when standards change. Some segments such as tankers and product might be especially exposed to stigmatization and changing consumer demand. To adapt to this change KM works to reduce the share of tank investments to below 10%.

As with the real estate investments we do not view our maritime investments to be particularly exposed to physical risk. However, physical risk poses a significant threat to ports in general, which our investments will be indirectly exposed to. Rising sea levels increase the susceptibility of ports to natural hazards further, increasing the probability of storms, floods, and strong winds. As an investment firm with no operational responsibility for ships or ports we find it challenging to prepare our investments for these risks. Given the critical role of ports in the global trading system, we do see the importance of improving the climate resilience for the industry in general. As a partner of the Green Shipping Program, we support and participate in bringing the Norwegian maritime industry together to prepare for this transition and improve the industry's climate resilience.



Metrics and targets

As a certified Eco Lighthouse organization, we are committed to annual reporting on metrics associated with water, energy, and waste for our own office spaces. In addition, we track these metrics for our two fully owned commercial buildings in Oslo.

Drammensveien 133

Energy use kwh/m2

53,1

Water usage

1034 m3

Recycled waste

54,4%

The electricity used by tenants is not included in the energy use in Drammensveien.

Harbitzalleen 2A

Energy use kwh/m2

174,7

Water usage

1844 m3

Recycled waste

38,3%

In late 2022 we implemented measures to improve our share of recycled waste. We conducted meetings with our renovation company and made upgrades to our waste room. The effects of these measures are not seen in the numbers so far, but we believe that it will significantly improve the share of recycled waste in the upcoming year.

GHG Emissions

From our own activities and fully owned buildings we report Scope 1 & 2 emissions.

Table 3.

2022	Scope 1	Scope 2
Location based method [tCo2e]	0	17,1
Market based method [tCo2e]	0	3,62

The scope 1 and 2 emissions are calculated with both a location-based method and a market-based method. We have bought a guarantee of origin for all our electricity from our fully owned buildings to reduce our personal CO2 emissions. The guarantee of origin is bought from Noova Energy System and assures that all our electricity is produced from Norwegian hydropower. In Drammensveien, and to some extent in Harbitzalleen, we use district heating which causes some emissions as can be seen in table 3 under scope 2 market-based method. The location-based method disregards the guarantee of origin and uses an emission factor of 8 grams CO2 per kwh electricity. This is the emission factor recommended by the Norwegian Water Resources and Energy Directorate for Norwegian electricity.

To reduce these emissions further we have set goals to minimize our energy use and produce our own renewable energy.

Drammensveien

Energy efficiency assessment	Installed solar power	BREEAM certification
Yes	Yes	Yes

Harbitzalleen

Energy efficiency assessment	Installed solar power	BREEAM certification
Yes	No	In progress

We have retrieved scope 3 emissions from 40% of our financial portfolio, and 30% of our New Energy portfolio. We believe we will be able to retrieve scope 3 emissions from most remaining investments when the taxonomy is implemented, and more businesses begin to report in accordance with the Sustainable Finance Disclosure Regulation. We have not begun strategically collecting the scope 3 emissions from our Real Estate and Maritime portfolio as of January 2023, but it is our ambition to collect emissions from all portfolios over time. We have decided not to share the scope 3 emissions we have collected this far as they do not show a representative picture of our actual emissions. We hope that we can share calculations that are representative in next year's Sustainability report.

Other metrics

Some of our current investments are not in line with the exclusion policy. We have recently mapped all our financial investments to assess if some of our funds are in breach with the exclusion list. This assessment has proved to be difficult as many funds did not report on these KPIs. In our assessment we did find in total 7 funds, mainly indexes, that were not in line with the policy. We are working to find alternative indexes to replace these investments and will sell all investments that are not in line with the exclusion policy by 2025. We do not make any new investments with breaches, and all new investments made after 01.06.2022 are in line with the exclusion policy.



Funds with fossil fuel share above 10%

3



Funds with UN Global compact breaches above 5 %

2



Funds with negative impact on biodiversity sensitive areas over 5%

2

Share of indirect fossil fuel investments of total portfolio

8,1%



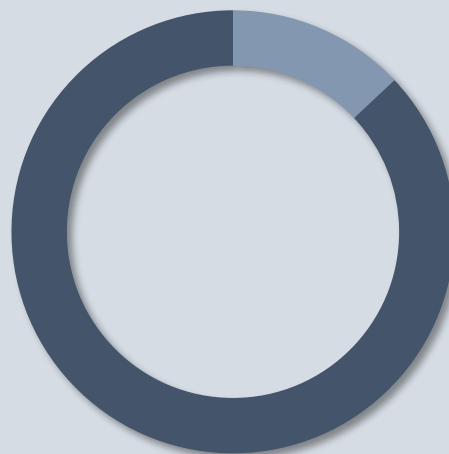
With indirect fossil fuel investments, we mean LNG-ships, companies providing oil-service equipment, and tenants working directly with fossil fuel exploration and extraction. Transition companies are not included in this number. When calculating the indirect investments, we have decided to weight LNG as 50% exposed to fossil fuels, as we regard gas as a transitional fuel. From 2025 we will weight LNG as 80%, and from 2030 as 100% exposed. This gives us time and motive to transition from LNG to renewable fuels.



The New Energy portfolio constitutes 9% of the total KM assets. The 9% does not include funds in the financial portfolio that might contain renewable energy investments at certain times, or other impact investments in the financial portfolio. In addition to the New Energy investments, we are aiming for 10% of our financial portfolio to contain impact investments. 40% of the New Energy funds classify as article 9, while the remaining 60% all classify as article 8 funds

The transition cases constitute 13% of the New Energy portfolio. To qualify as a transition company there must be a clear and quantifiable transition plan to the low-carbon economy, and <0,1 % of the company's income can stem from oil sand, shale oil, and shale gas. We believe that by investing in some transition cases we enable energy companies to make the necessary changes for their operation to be in line with the Paris Agreement. A maximum of 20% of the total New Energy portfolio can be invested in transition cases.

Transition investments



■ Transition ■ Green

In the fall of 2022, we began reporting on specific sustainability related KPI's for our investments, all of which are listed in the designated business area pages in the Sustainability report.

Working with these targets take time, and we are constantly exposed to new dilemmas and questions on how to implement and use our policy in practice. An example we have discussed is what does a “clear and quantifiable transition plan to the low-carbon economy” entail. Which requirements do we set for the companies who are in a transitional phase, when should we expect to see results, and to what extent should we engage with the company's progress. The answers to these questions might differ based on the company's activity, our share of ownership, and our own knowledge and expertise. We have tried to create as clear expectations as possible and to be transparent about our sustainability work, but we still see the need to judge each case on a separate basis.

The targets set out in the Sustainability strategy are meant to lessen our exposure to climate related risks as well as our negative impact on the natural environment for all four business areas. Whilst many of our peers set reduction targets as far ahead as 2050, we have chosen to build our strategy around the short to medium term frame up until 2030, with some targets being achieved already in 2023. As such, our targets reflect the sense of urgency associated with the current climate crisis, and they are intended to spur action already today.



KLAVENESS MARINE