



Mowi

Green and Sustainability-Linked Financing Framework Second Opinion

3 May 2023

Executive Summary

Mowi ASA (“Mowi”) is a vertically integrated fish farming corporate headquartered in Bergen and the world’s largest salmon producer. Its three business areas are aquaculture feed production, farming and primary processing of Atlantic salmon, and sales and marketing. Mowi is listed on the Oslo Stock Exchange and reported revenues of EUR 4.2 billion in 2021, during which it produced 466,000 gutted weight tonnes of salmon delivered to more than 70 countries as well as 481,902 tonnes of feed.

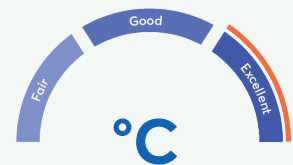
This is a second opinion on Mowi’s green and sustainability-linked financing framework. Section 1 includes our assessment of Mowi’s overall sustainability governance. Section 2 contains our assessment of the green financing framework’s use of proceeds. Section 3 covers our assessment of the sustainability-linked financing framework, including an assessment of the company’s revenues and planned investments.

We give Mowi a governance score of **Excellent**. Mowi has developed robust targets and policies, established clear sustainability oversight, and created a systematic approach to supplier engagement that incorporates consideration of climate. It considers physical and transition climate risks in business risk assessment processes using scenario analysis, demonstrates awareness of social risks, and provides reporting aligned with robust standards. In its green financing project selection, Mowi has developed a clear process with environmental competence and veto power as well as consideration of lifecycle assessments for feed-related projects. Green financing reporting could be strengthened by undertaking external review of impact reporting.

Green Financing Framework Assessment

Through its green financing framework, Mowi seeks to finance or refinance feed production, fish farms and processing facilities, environmental R&D, farming site and vessel electrification, battery hybrid power management systems and vessels, and other energy, water, plastic and waste management solutions. Projects may be CAPEX, OPEX, or equity investments. With the exception of financing for hybrid vessels, expenditures related to fossil fuel machinery are excluded. Updates since the previous framework include the additions of facilities for larger smolt and postsmolt, automation and digitalisation solutions for fish welfare and reduced environmental impact, site and vessel electrification, onsite renewable energy, and battery hybrid power management systems and vessels. Other changes include the removal of a 20% energy efficiency performance threshold and an increase in the water use efficiency subcategory threshold from 20% to 80%.

GOVERNANCE ASSESSMENT



GREEN FINANCING SHADES OF GREEN



°CICERO
Medium Green

GREEN BOND AND LOAN PRINCIPLES

Based on this review, this framework is found aligned with the principles.

SUSTAINABILITY LINKED BOND AND LOAN PRINCIPLES

Based on this review, this Framework is found aligned with the principles.



We rate the framework **CICERO Medium Green**. Mowi expects 100% of initial proceeds to go to refinancing the water use efficiency subcategory through converting flow through aquaculture facilities to or building new recirculating aquaculture systems (RAS) with water savings of over 80%, which is a positive contribution to water conservation, local ecosystems, and resilience. Subcategories involving aquaculture with robust feed sourcing and environmental safeguards are shaded Medium Green as positive steps towards lower emissions animal protein. Battery hybrid power management systems and vessels can reduce emissions, but their potential connection to fossil fuels is less aligned with a low carbon future.

Green Financing Strengths

It is a strength that Mowi has improved its feed sourcing policies and practices since the previous framework. Mowi is now part of a commitment among Norwegian aquaculture companies to exclude soy feed ingredients grown on recently deforested land from their supply chains. Mowi's targets of 100% certification of marine raw materials, use of lifecycle analysis during feed-related project selection, and investments in R&D for lower emissions feed sources are also positive.

Mowi's new framework addition of digitalisation and automation technologies is a strength. It has the potential to reduce vessel emissions, improve feed conversion ratios to reduce associated emissions, and prevent fish loss and waste.

Green Financing Pitfalls

While Mowi's inclusion of battery hybrid power management systems and vessels can potentially decrease emissions in the near term, these technologies' possible connection with fossil fuels creates potential emissions and lock in risks. Wherever feasible, we encourage Mowi to pursue electrification or more rapidly transition to lower carbon renewable fuels.

There are risks that equity investments eligible under the framework may be in companies with exposure to emissions intensive or environmentally harmful activities. It is Mowi's responsibility to ensure screening and monitoring processes are robust to manage this risk.

Sustainability-Linked Framework Assessment

Through its SPTs, Mowi aims to reduce absolute Scopes 1, 2 and 3 emissions based on its validated well-below 2°C near-term Science Based Targets (SBTs) commitments. Strengths, weaknesses and pitfalls of the framework are discussed below, and Table 1 at the end of this executive summary provides a snapshot of our assessment of the KPIs and SPTs.

Sustainability-Linked Financing Strengths

It is a strength SPTs 1 and 2 provide important complementarity in covering both absolute Scopes 1 and 2 as well as Scope 3 emissions. This approach more comprehensively addresses Mowi's climate risks and impacts.

If Mowi achieves SPTs 1 and 2, it will likely create environmental and biodiversity co-benefits. These may include reducing deforestation and ecosystem conversion in feed supply chains, fish mortality and waste, local pollution from unused feed, and use and disposal of plastics.

Sustainability-Linked Financing Pitfalls

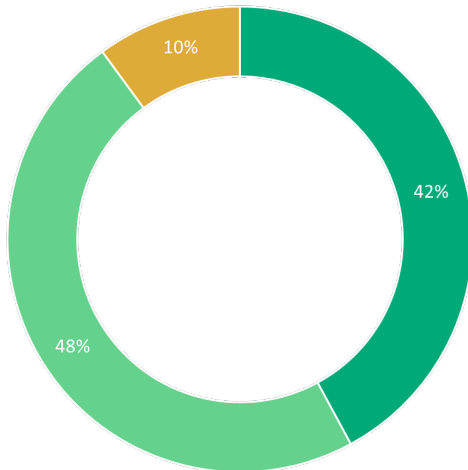
Based on Mowi's strategy to achieve SPTs 1 and 2, there are potential implementation pitfalls. These include land use emissions risks from plant-based feed ingredients, limited supplies and high costs associated with sustainable transportation fuels, limited electrification options at some sites, potential lock in risks from hybrid vessels and power management solutions, and the difficulties of compelling value chain partners to improve their climate performance.

Mowi's KPI accounting methodologies may not fully capture climate impacts. KPI 1 may overestimate the benefits of renewable energy purchasing via guarantees of origin, while KPI 2 may underestimate Scope 3 land use emissions from plant-based feed ingredients.

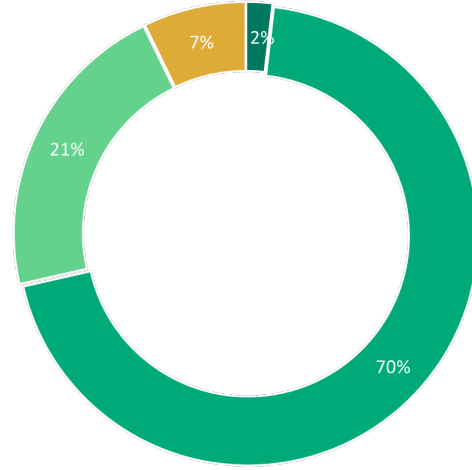


Shading of Mowi's Revenues and Planned Investments

Shades of Green by Annual Revenue 2021



Shades of Green by Planned Investments 2023



■ Dark Green ■ Medium Green ■ Light Green ■ Yellow ■ Red

Of Mowi's 2021 revenues, 42% received a shade of Medium Green, 48% were Light Green, and 10% were Yellow. Medium Green elements representing positive steps towards lower emissions animal protein sources included revenues from ASC certified salmon transported by road or sea, external sales of ASC certified eggs, smolt, cleaner fish, and surplus processing capacity, and sustainable feed production sales to external parties. Light Green revenues were from sales of ASC certified salmon transported by air freight that can have over twice the total climate footprint compared to similar products moved by land or sea. Other Light Green elements included revenues from Best Aquaculture Practices (BAP) and GlobalG.A.P. certified salmon transported by road and sea and external sales of BAP or GlobalG.A.P. certified eggs, smolt, cleaner fish, which meet less environmentally stringent criteria than ASC. A Yellow shade was assigned to revenues from BAP and GlobalG.A.P. certified salmon transported by air, salmon without sustainability certification, and insurance income and government grants that do not specifically contribute to or hinder the low carbon transition.

In terms of Mowi's planned investments for 2023, 2% were shaded Dark Green, 70% were shaded Medium Green, 21% Light Green, and 7% Yellow. Dark Green elements included electricity infrastructure projects, electric charging stations, and onsite solar power that are well-aligned with a low carbon future. A Medium Green shade was assigned to investments in ASC certified sea farming sites, digitalisation and automation measures with environmental benefits, electrified facilities for smolt, post-smolt, and processing ASC certified salmon, energy and water use efficiency, and upcycling of wastewater sludge. These are positive steps towards decarbonization and ensuring water and resource conservation. A Light Green shade was assigned to investments in BAP or GlobalG.A.P. certified sea farming sites and electrified facilities for processing BAP or GlobalG.A.P. certified salmon. While BAP and GlobalG.A.P. represent an improvement compared to non-certified production, they do not have the same ambition as ASC in terms of quantified environmental performance criteria. A Yellow shade was assigned to all fossil fuel powered generators, equipment, and vessels that pose significant emissions and lock in risks, investments in non-certified sea farming sites, and electrified facilities for processing non-certified salmon.



Table 1. Summary of KPI and SPT Assessment

Assessment of KPIs	KPI 1: Absolute Scope 1 and 2 GHG emissions	KPI 2: Absolute Scope 3 GHG emissions
Materiality	KPI 1 is material in terms of addressing Mowi's climate risks and impacts	KPI 2 is material in terms of addressing Mowi's climate risks and impacts
Strategic significance	KPI 1 is of strategic significance	KPI 2 is of strategic significance
Methodology	The methodology is robust and transparent with caveats around a market-based Scope 2 calculation approach that gives credit for guarantees of origin	The methodology is robust and transparent with caveats around risks of underestimating Scope 3 land use emissions associated with plant-based feed ingredients
Assessment of SPTs	SPT 1: Reduce absolute Scope 1 and 2 GHG emissions from a 2016 base year	SPT 2: Reduce absolute Scope 3 GHG emissions from a 2018 base year
	<ul style="list-style-type: none"> • SPT 1a: 21% by 2026 • SPT 1b: 24.5% by 2027 • SPT 1c: 35% by 2030 	<ul style="list-style-type: none"> • SPT 2a: 18.1% by 2026 • SPT 2b: 20.44% by 2027 • SPT 2c: 35% by 2030
Own past performance	Ambition exceeds own past performance prior to setting an SBT in 2019	Ambition exceeds own past performance prior to setting an SBT in 2019
Peers ¹	Ambition of SPT 1c is in line with or somewhat lower than immediate Scandinavian salmon aquaculture peers	Ambition of SPT 2c is in line with or somewhat lower than immediate Scandinavian salmon aquaculture peers
Science-based scenarios or international targets	Ambition is in line with the Paris Agreement goals, with caveats around uncertain net zero alignment post-2030	Ambition is in line with the Paris Agreement goals, with caveats around uncertain net zero alignment post-2030

CICERO Shades of Green has not reviewed the degree to which the variation in the financial characteristics is commensurate and meaningful. Investors are encouraged to review the term sheets in detail and conduct their own assessment of the financial characteristics of the SLBs.

¹ According to the issuer, Mowi's operations value chains are not directly comparable to these peers due to its greater degree of vertical integration as well as its more global operations and markets, making its targets more challenging to achieve. While recognizing these caveats, we view selected companies as Mowi's closest immediate peers and 1.5°C-aligned pathways as more ambitious than well-below 2°C alternatives that cover similar Scopes of emissions.



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1 Mowi's Environmental Management

Company description

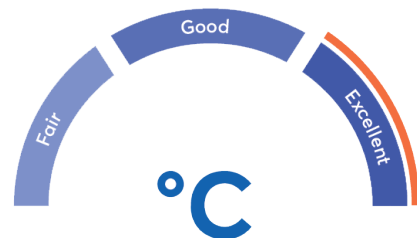
Mowi ASA ("Mowi") is an Atlantic salmon fish farming corporate headquartered in Bergen. It is the largest salmon producer globally in terms of market capitalisation and volume of produced salmon, with a market share of around 20%. In 2021, Mowi had revenues of EUR 4.2 billion and produced 466,000 gutted weight tonnes of salmon and 481,902 tonnes of feed. It delivers salmon to more than 70 countries and has local representation in 25 countries in Europe, Asia, and the Americas.

Mowi's three business areas are feed production in Norway and Scotland, farming and primary processing of Atlantic salmon in Norway, Scotland, Chile, Canada, Ireland and Faroes, and sales and marketing (including value added processing) in Europe, the U.S., and Asia. The geographical distribution of sales in 2021 was 67% to Europe, 22% to the Americas, 9% to Asia, and 2% to the rest of the world. Mowi is a vertically integrated company, thus controlling the value chain from feed and roe production through to sales. It has around 11,800 employees and is listed on the Oslo Stock Exchange.

In January 2020, Mowi issued its first green bond, raising EUR 200 million. The following September 2021, it refinanced its main syndicated bank loan with a EUR 1.8 billion sustainability-linked facility.

Governance Assessment

Mowi has a robust range of sustainability targets and policies based on its materiality assessment. Its well-below 2°C Science Based Target (SBT) covering absolute Scopes 1, 2 and 3 emissions as well as quantifiable, timebound goals related to aquaculture certification, feed sourcing, water, waste, fish welfare, plastics, and biodiversity protection are strengths. Mowi provides strong disclosures based on Global Reporting Initiative (GRI) and CDP standards as well as recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD), an update since the previous framework. Mowi now also undertakes climate scenario analysis while continuing to include acute and chronic physical and transition climate risks in its risk assessments.



In terms of sustainability governance, Mowi has established clear responsibility for oversight by senior management and its board of directors, which monitors progress towards the company's SBT and other targets. Sustainability strategies are carried out by its Chief Sustainability Officer, a member of the group's management team reporting directly to the CEO, and the heads of business units. Sustainability metrics are included in employee bonus structures.

Mowi has developed a systematic approach to supplier engagement on sustainability topics. It has a supplier code of conduct and procurement policy as well as a global supply chain relationship management system new since the previous framework. Through this system, Mowi undertakes initial screening and risk assessment, ongoing auditing and follow up, and removes suppliers if there is not improvement after any policy violations. The company includes climate targets and data disclosures as a factor in supplier selection and participates in industry collaborative initiatives with its value chain partners.



In terms of environmental risk management, it is positive that both physical and transition climate risks are included in Mowi's business risk assessment processes and disclosed in its integrated annual reporting. The company considers its climate targets in operational and supply chain decision making, uses scenario analysis as a strategic tool, and references external standards for its climate transition planning such as the Science Based Targets Initiative (SBTi).

Mowi demonstrates awareness of the social risks in its operations and value chains. Its materiality analysis includes consideration of safety, ethics, human rights, and public engagement on local impacts. It has a code of conduct, has established policies on human rights, diversity and inclusion, and health and safety, and is a member of the UN Global Compact. Social issues are part of its global supply chain relationship management system and trainings for employees, including workshops on identifying human rights risks.

Through its annual integrated reporting, Mowi provides strong disclosures on its sustainability targets, strategies, and implementation progress. It aligns its reporting with external standards such as GRI and TCFD and provides clarity on key performance indicator calculation methodologies. The company's reporting on risks includes climate and environmental aspects.

In its selection of projects eligible for green financing, Mowi has developed a clear process with environmental competence and veto power in decision making. It is a strength that the company undertakes lifecycle assessment for feed-related projects and considers lock in and rebound risks and undertake local community engagement if relevant before approving projects.

Mowi's plans for reporting on its green and sustainability-linked financing are strong. For its green financing, it will provide public annual disclosures on allocation and impact, with relevant indicators across potential project categories and details on calculation methodologies. While allocation reporting is reviewed by a third party, undertaking similar external verification of impact reporting could provide greater confidence on environmental outcomes. In its sustainability-linked reporting, Mowi will undertake external review and verification of its SPT performance and disclose calculation methodologies and updates.

The overall assessment of Mowi's governance structure and processes gives it a rating of **Excellent**.



Sector risk exposure

Physical climate risks. Increasingly frequent extreme weather events, such as storms, flooding, or landslides, may damage fish farm sites or otherwise disrupt operations and supply chains. More intense heatwaves pose risks to fish health. Physical climate impacts on terrestrial and marine ecosystems, such as increased drought, wildfires, and ocean acidification, may impact the supply of plant-based and marine ingredients for fish feed.

Transition risks. Due to the profound changes needed to limit global warming to well-below 2°C, transition risk affects all sectors. Companies like Mowi are exposed to transition risks from stricter policies and changes in consumer behaviour. Product transport by air and sea may become more expensive due to greater regulation of associated emissions. Aquaculture feed supply chains may have substantial climate impacts, including deforestation and other land use change from production of soy, palm oil, and other plant-based ingredients. Failure to address these risks may negatively affect market access and consumer demand, as well as cost of and access to capital. The evolution of plant-based protein and cell-based meat production may affect demand for seafood.

Environmental risks. Aquaculture facilities can have significant impacts on local water quality and biodiversity resulting from facility construction, antibiotics use, fish waste, excess feed, and fish escapes. Production and harvest of plant-based and marine ingredients used in aquaculture feed may contribute to terrestrial and marine biodiversity loss via deforestation and overfishing. Aquaculture is also highly dependent upon ecosystem services that maintain the appropriate water temperature and ensure sufficient levels of water quality and flow. Disruption to such ecosystem services may adversely impact production processes.

Social risks. Aquaculture can involve social risks, particularly in relation to human rights and workers' rights in the production of vegetable and marine raw materials.

Environmental strategies and policies

In 2021, Mowi's emissions were 6.6% (137,374 tonnes CO₂e) from Scope 1, 6.0% (126,285 tonnes CO₂e) from Scope 2², and 87.4% (1,825,745 tonnes CO₂e) from Scope 3 sources. Mowi separately reports its farmed salmon products contributed to 1.9 million tonnes avoided emissions in 2021 compared to consumers substituting land animal proteins.

Mowi's Scope 1 emissions are from use of diesel, fuel oil, gasoline/petrol, heating oil, natural gas, marine gas oil and propane/LPG as well as refrigerants, while its Scope 2 emissions come from its purchased electricity consumption and district and other indirect heating. Scope 3 sources are primarily related to feed and transport, including sourcing feed raw materials (42% of Scope 3 emissions in 2021), fish feed external suppliers (20%), air freight (18%), third party vessels (7%), road freight (5%), plastic packaging (5%), and fuel and electricity (3%).

Mowi's energy sources as of 2021 include electricity (42% by consumption in 2021), diesel (28%), natural gas (17%), fuel oil (6%), and the remaining 7% from other sources, such as gasoline, heating oil, propane, wood chips, and marine gas oil. The fossil fuels are used mainly in the farming business areas at sea sites to power generators that make the feeding systems work. Of Mowi's total electricity consumption, 25% is from renewable sources, an increase from 8% in 2020. This was due to additions of on-site solar power in Canada and hydropower and wind

² Note this Scope 2 measurement was calculated on a market basis. Mowi's 2021 Scope 2 location-based emissions were 85,131 tonnes CO₂e.



turbines in Chile as well as greater renewable energy procurement via green contracts with suppliers and guarantees of origin purchasing.

Mowi has Science-Based Targets (SBTs) for climate emissions reductions and has developed a low-carbon transition pathway to support these targets. It has committed to reduce its absolute Scope 1 and 2 emissions 35% by 2030 and 72% by 2050 relative to 2016. It has also committed to reduce absolute Scope 3 emissions 35% by 2030 and 72% by 2050 relative to 2018. During 2021, Mowi achieved an 8% overall decrease from 2020 emissions levels through reductions in diesel use at farming sites, renewable energy purchasing, energy efficiency projects, and lower emission soy feed sourcing.

In an update since the prior framework, Mowi has a target of achieving 100% certification from a Global Sustainable Seafood Initiative (GSSI) recognised standard, which includes the Best Aquaculture Practices (BAP) and GlobalG.A.P. systems as well as the Aquaculture Stewardship Council (ASC) system that was the focus of Mowi's previous certification target. As of 2021, 98% of Mowi's harvested volumes were certified under one of these three systems, and 50% of Mowi's sites were ASC certified.

Mowi has developed a sustainable feed sourcing policy that governs its procurement of vegetable oils (including palm oil), fish meal, supplements, fish and algal oils, wheat, soy, beans and peas, guar, and corn products. It has set related targets to achieve 100% traceability of feed raw materials, 100% certification of marine raw materials through MarinTrust, Marine Stewardship Council (MSC), or an equivalent standard, and 100% of soy certified through ProTerra, Roundtable for Responsible Soy (RTRS) or equivalent (ensuring segregation of certified and non-certified soy). As of 2021, Mowi reports that it is achieving these goals. Other aspects of the feed sourcing policy include avoiding marine raw materials that originate from Illegal, Unregulated and Unreported (IUU) catch or from fish species classified as endangered by the International Union for the Conservation of Nature (IUCN) red list, vegetable raw materials sourced from areas with recognized crop moratoriums, and suppliers with any human rights violations. Any palm oil used must come from certified sources, such as the Roundtable on Sustainable Palm Oil (RSPO) mass balance certification or equivalent.

Mowi engages its air freight suppliers as a member of the Sustainable Air Freight Alliance (SAFA), which is focused on encouraging the disclosure of reliable emissions data and increasing the use of sustainable aviation fuels (SAFs). Other initiatives to reduce aviation emissions include making use of passenger flight cargo capacity and increasing the share of fillets rather than head-on gutted (HOG) salmon transported by air, avoiding unnecessary additional weight.

More broadly, Mowi's engagement with suppliers is governed by its code of conduct that applies to employees and value chain partners and its procurement policy, which requires suppliers to meet environmental, sustainability, and human rights requirements and that purchasing decisions to align with the company's sustainability strategy and human rights and fair working conditions principles. In an update since the previous framework, Mowi has implemented a global supply chain relationship management system to facilitate supplier due diligence, risk assessment, monitoring, and exclusion if suppliers in violation of any policies fail to improve. Mowi asks feed suppliers to set climate emissions reductions targets and disclose emissions data, which it will consider in its supplier scoring and selection. It has undertaken human rights workshops with employees to provide training on risk assessment.

Mowi has additional targets and strategies on a range of sustainability topics based on its materiality assessment undertaken in consultation with external stakeholders. These include goals and issue-specific policies related to water efficiency, benthic impacts, waste management, plastic reduction, reuse, or recycling, fish escapes, fish welfare and sea lice management, and antibiotic use. Energy savings, fish mortality rates, and feed conversion ratio (FCR) metrics are included in employee bonus structures.



The Issuer reports annually in accordance with the Global Reporting Initiative (GRI), commits to the principles of the United Nations Global Compact (UNGC), and reports to CDP every year. In an update since the previous framework, Mowi now also undertakes reporting based on the recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD). Mowi is part of several collaborative efforts, such as the Seafood Business for Ocean Stewardship (SeaBOS) initiative that aims to improve transparency and traceability through operations and develop ocean plastic reduction strategies, the High Level Panel for a Sustainable Ocean Economy, and the Global Sustainable Seafood Initiative (GSSI) that focuses on seafood sustainability certification.

In an update since the previous SPO, Mowi undertakes climate scenario analysis using the IPCC 2.6 Representative Concentration Pathway (RCP) as well as a high-level assessment of the impact of 2°C and 4°C global warming scenarios to inform its strategy and financial planning. Based on these findings, Mowi has developed climate transition plans and is testing alternative, lower-emissions feed sources. According to Mowi, prior to new facility construction, it assesses climate risks, as well as other factors such as biodiversity and local community feedback, based on regulatory requirements. Mowi prioritizes climate-related risks based on likelihood and total impact of the potential risk. According to the issuer, transition risks from current and emerging regulations and reputational concerns are assessed. Impacts on feed raw materials, new service suppliers using, e.g., electric boats, as well as energy efficiency innovations are considered. Acute and chronic physical risks are always included in Mowi's risk assessments. Physical and transition risks are estimated regarding their potential likelihood, time horizons, magnitude, financial impacts and management.



2 Mowi's Green Financing Framework

Description of Mowi's green financing framework

Based on this review, this framework is found to be aligned with the Green Bond Principles and Green Loan Principles. For details on the issuer's framework, please refer to the green financing framework dated March 2023.

Use of proceeds

For a description of the framework's use of proceeds criteria, and an assessment of the categories' environmental impacts and risks, please refer to "Shading of eligible projects under Mowi's green financing framework" below.

Selection

In a first step, potential green projects are evaluated for compliance with the green financing project categories and environmental benefits by sustainability experts and representatives within Mowi. In a second step, nominated potential projects are presented to a Green Finance Committee ("GFC"), which is responsible for approving the projects' eligibility. The GFC will be chaired by the Chief Sustainability Officer and include the Chief Financial Officer, Head of Treasury, and Chief Operating Officer for the relevant business areas. The GFC will convene annually and otherwise as needed. Decisions on allocation of proceeds to eligible projects will be made in consensus, ensuring veto power for each member, and the decisions will be documented and filed.

Mowi informed us that lifecycle assessments (LCAs) are typically conducted for feed-related projects and that project evaluation is done with regards to the potential GHG emission reduction including the assessment of lock-in and rebound risks. According to the issuer, Mowi uses its standard engagement process with local populations to determine if and how to move ahead with a project and has no on-top screening process for controversial projects related to use of proceeds.

Management of proceeds

Green financing proceeds are tracked by the issuer using a green register. Unallocated green debt proceeds may temporarily be placed in the liquidity reserve and managed accordingly by Mowi. Temporary holdings will not be placed in entities with a business plan focused on fossil energy production, nuclear energy generation, research and/or development within weapons and defence, environmentally negative resource extraction, gambling, or tobacco.

Reporting

Mowi will annually and until maturity of the green financing issued, publish a report describing the allocation of proceeds and the environmental impact of the green projects. The GFC is responsible for compiling the reporting.

The allocation report will include a summary of green debt developments, the outstanding amount of green debt issued, the balance of the green register (including any temporary investments and green debt repayments) and the available headroom in the value of the green projects (if any), the distribution between new financing and refinancing, the distribution between capital expenditures, operating expenditures and equity investments, and the total aggregated proportion of green debt proceeds used per green projects category.

The impact reporting will include environmental impact metrics on a project-by-project level where possible, but to some extent aggregated where many smaller projects are financed. Calculation methodologies will be provided.

An independent external auditor appointed by Mowi will provide, on an annual basis, limited assurance that an



amount equal to the green financing proceeds has been allocated to green projects. No external review will be obtained for Mowi's impact reporting. The impact assessment is provided with the reservation that not all related data can be covered and that calculations will be on a best intention basis. Mowi has put forward a list of impact metrics to be reported for each project category (Table 2).

The green and sustainability-linked financing framework, the second party opinion, the limited assurance and the annual green financing report will all be publicly available on Mowi's website.

In Mowi's previous green bond reporting, it provided data on amounts financed or refinanced and outstanding or allocated, allocation by project category, project descriptions, and calculation approaches. Impact indicators included avoided emissions and water savings in both absolute and intensity per EUR 1 million invested terms.

Category	Impact reporting indicators
Environmentally sustainable aquaculture	<p>Sustainable feed</p> <ul style="list-style-type: none"> • Volume of certified sustainably sourced and produced feed • GHG emissions savings relative to comparable products (tonnes of CO₂e per year) <p>Sustainable facilities for larger smolt and post-smolt production</p> <ul style="list-style-type: none"> • Environmental impacts related to reduced production time in sea <p>Sustainable fish farms</p> <ul style="list-style-type: none"> • Sites certified according to the Aquaculture Stewardship Council (ASC) salmon standard • Reduced fish escapes (%) • % of sites with minimum benthic impact <p>Sustainable processing</p> <ul style="list-style-type: none"> • Environmental impacts related to the reduction in plastics use, reduction in energy consumption, water usage & waste management <p>Research and development</p> <ul style="list-style-type: none"> • Type of project and issue addressed <p>Environmental management & fish welfare</p> <ul style="list-style-type: none"> • Reduction in sea lice medicine use (g active ingredient per tonne produced) • Reduction in antibiotic use (g active ingredient per tonne produced) • Reduction of feed waste and related GHG emissions savings reduced/avoided (tonnes of CO₂e emissions) • Type of project and issue addressed
Renewable energy and electrification	<ul style="list-style-type: none"> • Annual energy consumption reduced/avoided (MWh) • Annual GHG emissions reduced/avoided (tonnes of CO₂e emissions)
Energy efficiency	<ul style="list-style-type: none"> • Annual energy consumption reduced/avoided (MWh) • Annual GHG emissions reduced/avoided (tonnes of CO₂e emissions)



Water and wastewater management	Water use efficiency
	<ul style="list-style-type: none">• Water savings (cubic meters per year and %)
	Wastewater management
	<ul style="list-style-type: none">• Annual reductions in discharges of wastewater or improved water quality• Volume of solid sludge collected and treated for re-use (tonnes per year)
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Waste management and circular economy	Plastic waste management
	<ul style="list-style-type: none">• Share of plastic packaging that is reusable, recyclable or compostable (% per year)• Share of plastic packaging based on recycled plastic content (% per year)• Share of farming plastic equipment that is reused or recycled (% per year)• GHG emissions savings as a result of the relevant project (tonnes of CO₂e per year)
	Circular economy and waste management
	<ul style="list-style-type: none">• Quantity of waste that is prevented, minimised, reused or recycled (tonnes or % of total waste per year)• GHG emissions savings as a result of recycling/reusing of material (tonnes of CO₂e per year)

Table 2. Green financing impact reporting indicators.



Shading of eligible projects under Mowi’s green financing framework

The eligible projects under Mowi’s green financing framework are shaded based on their environmental impacts and risks, based on the “Shades of Green” methodology.

- Proceeds will be used to finance or refinance, in whole or in part, investments by Mowi or its subsidiaries eligible under framework criteria. New financing is defined as allocated amounts to projects financed within the reporting year. OPEX expenditures are eligible for green refinancing with a maximum lookback period of three years prior to the green financing issuance. Mowi expects initial allocations to be 100% refinancing.
- Projects may be capital expenditures, operating expenditures and equity investments. Equity participations in entities is eligible when at least 90% of the revenues can be attributed to one or more of the green project categories. Mowi informs us it is primarily interested in acquiring other aquaculture farming and processing companies, with a preference for 100% ownership, or at least a controlling stake, allowing for integration into Mowi’s sustainability strategy and targets. It undertakes due diligence that includes sustainability aspects prior to board approval. The up to 10% of revenues that might not be eligible under a green project category are still subject to framework exclusions. Mowi’s green finance committee will monitor these investments for initial and continued eligibility under the framework.
- Exclusions under the framework are projects for which the purpose is fossil energy production, nuclear energy generation, weapons and defence, potentially environmentally harmful resource extraction (such as rare-earth elements or fossil fuels), gambling or tobacco. Expenditures related to fossil fuel machinery or equipment are also ineligible under the framework with the exception of financing of hybrid vessels. According to the issuer, no proceeds will be allocated to OPEX used for fossil fuel purchases.
- Mowi expects 100% of initial allocations to go to the water use efficiency sub-category, which will finance a transition from flow through to and new construction of recirculating aquaculture system (RAS) technologies. Around 50-60% of those investments will likely be in Norway, followed by 10-20% each in Canada and Scotland, and 5% each in the Faroe Islands and Chile. Additional categories may receive green financing allocations over time, particularly environmentally sustainable aquaculture.
- In previous green financing, allocation was EUR 164.2 million, or 82%, to the sustainable feed category and EUR 35.8 million, or 18%, to the water use efficiency category. The majority of funds raised were invested in a new feed mill in Scotland.

Category	Eligible project types	Green Shading and considerations
Environmentally sustainable aquaculture	Sustainable feed Investments related to sourcing and production of sustainable feed in compliance with Mowi’s policy on sustainable salmon feed and including requirement on 100% deforestation-free soy (ensured by ProTerra certification or by certification scheme with equivalent	Medium Green ✓ Fish is a protein source with a lower carbon footprint compared to red meat, with wild-caught fish in turn having a lower footprint than farmed salmon. Dietary changes are important to achieve the targets of the Paris Agreement.



requirements, ensuring segregation of certified and non-certified soy).

Sustainable facilities for larger smolt and postsmolt production

Investments and expenditures related to the production of smolt and postsmolt in semi-closed containment systems or land-based systems.

Sustainable fish farms

Investments and expenditures related to fish farms certified, or in preparation to become certified, by the Aquaculture Stewardship Council (ASC) salmon standard, using feed in accordance with above criteria.

Sustainable processing

Investments and expenditures related to processing facilities that are certified, or expected to become certified, using CoC (Chain of Custody) to ensure traceability of ASC products

Research and development

Expenditures related to R&D aimed at improving the environmental performance of feed, fish farms and processing, such as related to Mowi 4.0 and Smart Farming technologies.

Environmental management and fish welfare

- Investments and expenditures to protect, restore and enhance ecosystems and biodiversity, such as escape prevention (e.g sensors technology), minimising the presence of microplastics in our fish, and biodiversity projects.

Broadly speaking, the needed changes are a move to more plant-based diets and more climate friendly animal proteins.

- ✓ Aquaculture facilities may be both onshore and offshore. While onshore installations have lower risks of negative impact on biodiversity, they can have high energy use, which needs to be managed.
- ✓ For aquaculture, there is a climate risk in that demand for soy used for feed may drive up deforestation and associated direct and indirect land use change emissions in places like Brazil. This risk is mitigated by Mowi's sustainable feed sourcing policy and targets (described above) that require certifications for soy, such as ProTerra or RTRS.
- ✓ In January 2021, suppliers of soy to Norwegian aquaculture committed to stop trading soy stemming from recently deforested land. Specifically, Brazilian producers of soy protein concentrate (SPC), an ingredient in feed, committed not to purchase soy grown on land in the Brazilian Cerrado deforested after August 2020 or on land in the Amazon deforested after 2006. This is also positive to reduce ecosystem conversion and associated emissions risks.
- ✓ Sustainability challenges apply to marine and other plant ingredients in salmon feed. Where Mowi is ASC certified, this standard for salmon sets limits on the use of wild fish as ingredients while also requiring a responsibly managed source, preferably certified. Mowi's sustainable feed sourcing policy provides further safeguards, including exclusions of illegally caught or endangered marine ingredients.
- ✓ According to the issuer, no palm oil is currently used in Mowi's feed, which is positive to avoid other land use change emissions risks.
- ✓ According to Mowi, raising larger smolt and post-smolt on land limits the time fish spend in sea cages, reducing emissions from the fossil fuel vessels (i.e., wellboats and workboats) used at sea sites as well as biological risks



-
- Investments and expenditures to improve fish welfare, including welfare monitoring, sea lice management and the prevention and reduction of medicine and antibiotic use.
 - Investments and expenditures related to the implementation of Smart Farming technologies including regional control centres, aiming to improve fish welfare and reduce our climate and environmental footprint
- (e.g., escapes, mortality events). While smolt and postsmolt facilities are not necessarily ASC certified, Mowi's feed sourcing policy applies.
- ✓ The higher energy and water use and wastewater associated with land-based aquaculture requires mitigation strategies. Mowi's sustainability strategy addresses many of these concerns.
 - ✓ While they are excluded under the framework, be aware of potential fossil fuel elements of fish farms, such as conventional generators and vessels.
 - ✓ The Aquaculture Stewardship Council (ASC) certification focuses on minimizing local environmental impacts and reducing chemical use. The issuer informs us that it defines sites in preparation to become ASC certified as those that are expected to achieve certification within two years.
 - ✓ There are concerns about the local environmental impacts of aquaculture, including escapes, antibiotic and chemical pollution, overexploitation of wild fish stocks for feed, and sea lice. The (ASC) certification to aquaculture facilities mitigates some of these issues by setting stricter limits than national regulation but has been criticized for tolerating 300 escaped fish per production cycle and for a lenient limit on hydrogen peroxide.
 - ✓ According to the issuer, sustainable processing investments include new factory buildings, and no fossil fuel equipment is eligible per framework exclusions.
 - ✓ Investors should note the embodied emissions of construction materials, emissions from construction equipment, and potential local pollution and biodiversity impacts during construction. Mowi's policies and targets cover many of these aspects.
 - ✓ The issuer informs us that to be eligible under the Research and Development sub-category, improving environmental performance must be the primary aim of the R&D activity. Environmental performance refers to
-



environmental topics considered material for its business and that are identified in sustainability strategy and annual report.

- ✓ According to the issuer, smart farming digitalisation and automation efforts and underwater cameras are expected to reduce FCR and feed waste, limiting the need for feed raw materials and associated emissions. Automated sea lice counting can also reduce the number of trips taken by fossil fuel vessels previously required for manual surveys and limit the use of chemical treatments.
- ✓ Fish welfare and biodiversity protection measures are positive from a climate and local environmental perspective.
- ✓ According to the issuer, investment under the environmental management and fish welfare sub-category will use new technologies that are not business-as-usual.

Renewable energy and electrification Investments and expenditures related to on-site renewable energy, such as solar panels and wind turbines in relation to farming sites and other facilities.



Investments and expenditures related to the electrification of farming sites by connecting them to land power.

Investments and expenditures related to fully electric aquaculture vessels

Dark Green

- ✓ Electrification of farming sites to replace diesel generators, electric rather than fossil fuel aquaculture vessels, and on-site renewable energy projects are all positive contributions from a climate perspective.
- ✓ The issuer informs us that it considers project-level biodiversity and community impacts during on-site renewable energy siting.

Energy Efficiency Investments and expenditures related to renewables-compatible battery-hybrid solutions installed at farming sites. The battery system can be combined with either a renewable energy technology, or a diesel generator if connection to land power is not available or sufficient at the site location. Hybrid systems allow



Light Green

- ✓ Battery hybrid power management solutions and hybrid vessels can achieve positive near-term emissions reductions when zero emissions alternative technologies are not available.



Mowi to, on average, achieve a 50% reduction in GHG emissions per site and year as compared to the conventional alternative solution of using diesel generators only.

Investments and expenditures related to hybrid aquaculture vessels including upgrading vessels with battery packs.

Investments and expenditures related to improving the energy efficiency of our plants, including the installation of energy efficiency equipment in line with the best available techniques, such as heat pumps, heat exchangers, lighting, and cooling and drying systems.

- ✓ At the same time, battery hybrid power management solutions may still be connected with diesel generators, and hybrid vessels can continue to use fossil fuels. Associated emissions are not aligned with a low carbon future and the opportunity to continue to connect to or use diesel creates lock in risks.
- ✓ The issuer informs us that battery hybrid power management solutions can connect to onshore electricity grids as well as on-site renewable electricity production, such as wind or solar power. These are positive options from a climate perspective that reduce but do not eliminate lock in risks where alternatives are not feasible and diesel generators will likely continue to be used.
- ✓ According to the issuer, hybrid vessels can use either fossil fuels or drop-in renewable fuels such as biofuels without modification. Mowi informs us it will transition to renewable fuels once they are reliable, upscaled, and cost-effective. While this is positive in that it reduces lock in concerns, there is no guarantee fossil fuels will not continue to be used, particularly because more sustainable fuels are likely to continue to be less available and more expensive than fossil fuels in the near term.
- ✓ Be aware of battery material sourcing and end of life concerns, including local pollution, biodiversity impacts, and human rights risks.
- ✓ Energy efficiency measures are positive from an emission and resource perspective. Be aware of potential rebound risks.

Water and wastewater management



Water use efficiency

Improving freshwater use efficiency (minimum 80% efficiency improvement), through technological improvements at the farming units, feed and processing plants, such as through investments in Recirculating Aquaculture Systems.

Medium Green

- ✓ Conserving water resources through greater efficiency is a positive contribution.
- ✓ According to the issuer, the water use efficiency sub-category will focus on transitioning from flow through systems (where water runs through tanks once without being reused) to recirculating aquaculture systems (RAS,



Water and wastewater management

Improved wastewater treatment leading to reduced volumes of wastewater or improved water quality, such as technical solutions leading to more concentrate wastewater to facilitate its disposal or upcycling.

where water is reused and filtered continuously) or constructing new RAS facilities.

- ✓ While the quantified 80% water efficiency improvement threshold is positive, the issuer informs us that it is relative to flow through systems, which a transition to RAS is expected to achieve due to inherent design features.
- ✓ According to the issuer, RAS will be powered by electricity, with backup diesel generators excluded under the framework. Consider the impacts of RAS energy use, but less energy for heating water will be required compared to flow through systems.
- ✓ Be aware of emissions associated with facility construction or renovation.

- ✓ Discharge of effluents and wastewater to marine or freshwater environments can cause toxic algae blooms and negative effects on wild fish. Investments under this category can contribute to reducing such local pollution and biodiversity impacts.
- ✓ The issuer informs us that associated sludge collected is reused as compost or inputs for biogas production. This upcycling is a positive contribution to increasing resource efficiency.
- ✓ According to the issuer, its third-party wastewater treatment plants follow wastewater volume and quality limits based on national regulations, with World Bank wastewater limits as a minimum standard for wastewater discharges directly into freshwater environments. These plants are primarily powered by electricity, with fossil fuel backup generators in case of emergency.

Waste management and circular economy

Investments and expenditures related to reducing the amount of plastic used in our packaging, to recycling plastic in packaging and farming equipment, and to reusing plastic equipment. Example

Medium Green

- ✓ By reducing upstream demand for raw material extraction and preventing downstream waste from going directly to landfill or incineration, plastic



initiatives include packaging redesign, switching to mono-materials and upcycling of plastic farming equipment.

Circular economy and waste management

- Investments and expenditures related to improved waste management in our processing plants and freshwater production to reduce solid waste sent to landfill but also the collection of non-solid waste such as sludge from freshwater plants to be used as compost in agriculture.
- Investments and expenditures relating to collection and further processing of by-products from our processing plants to be used in non-salmon aquaculture and pet feed.

reduction, reuse, and recycling have the potential to limit climate emissions, local pollution, and harmful biodiversity impacts.

- ✓ Note that waste prevention should be prioritized in the waste hierarchy, followed by reuse and then recycling.
- ✓ Be aware that plastic recycling entails energy consumption, emissions, and discharges to the environment that require mitigation strategies. Additionally, plastic is a material derived from fossil fuel feedstocks that can only be recycled a limited number of times.
- ✓ The issuer informs us that its plastic recycling is mainly powered by electricity, which is positive. Mono-materials include plastics with one type of polymer rather than a mix to make mechanical recycling easier.
- ✓ Reducing waste or converting it to useful products can increase resource efficiency and are important elements of a low-carbon future.
- ✓ Using sludge for fertilizer avoids emissions associated with nitrogen fertilizer and can improve soil quality. Be aware of nutrient-related climate emissions and local pollution associated with over- or improper application.
- ✓ Converting salmon by-products into aquaculture and pet feed is a positive circular solution that has the potential to avoid the sometimes substantial emissions from non-waste-based feed ingredients.
- ✓ The issuer informs us that investments under the circular economy and waste management sub-category will also focus on electrified equipment. According to the issuer, there will be no direct investment in waste-to-energy related to this category.

Table 3. Eligible project categories



3 Mowi’s Sustainability-Linked Financing Framework

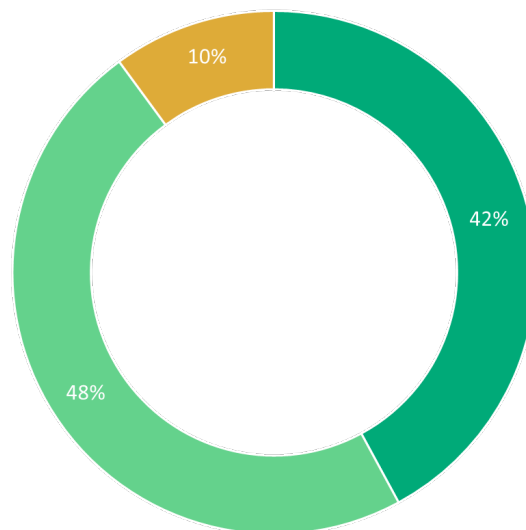
According to CICERO Shades of Green’s methodology for sustainability-linked financing frameworks, a Shade of Green is allocated to the issuer’s revenue and planned investment streams. The shadings provide additional context around the issuer’s business model and strategy and reflect alignment of the underlying activities towards a low carbon and climate resilient future, while taking into account governance issues. (See “Terms and methodology” for further details).

In this section we also assess the KPIs and SPTs in Mowi’s sustainability-linked financing framework, in accordance with the Sustainability-Linked Bond Principles (SLBP) and Sustainability-Linked Loan Principles (SLLP). According to the SLBP and SLLP, the KPIs should be relevant, core and material to the issuer’s overall business, and of high strategic significance to the issuer’s current and/or future operations. The SLBP and SLLP further recommend that three benchmarking approaches are considered during the target-setting exercise, which inform our assessment of the SPTs. We also include some comments on methodology choices including benchmarks and baselines, as well as comments on financial characteristics, reporting and verification.

Mowi’s revenues

Of Mowi’s revenues, 90% received a Shade of Green, while 10% were shaded Yellow and 0% Red.

Shades of Green by Annual Revenue 2021



■ Dark Green ■ Medium Green ■ Light Green ■ Yellow ■ Red

A Medium Green shade was assigned to 42% of Mowi’s revenues. This included revenues from ASC certified salmon transported by road or sea, external sales of ASC certified eggs, smolt, cleaner fish, and surplus processing



capacity, and external sales of sustainable feed.³ These represent positive steps towards lower emissions animal protein sources. Be aware of risks that feed, while sourced under robust Mowi policies, will go to other aquaculture producers whose other climate and environmental practices are uncertain.

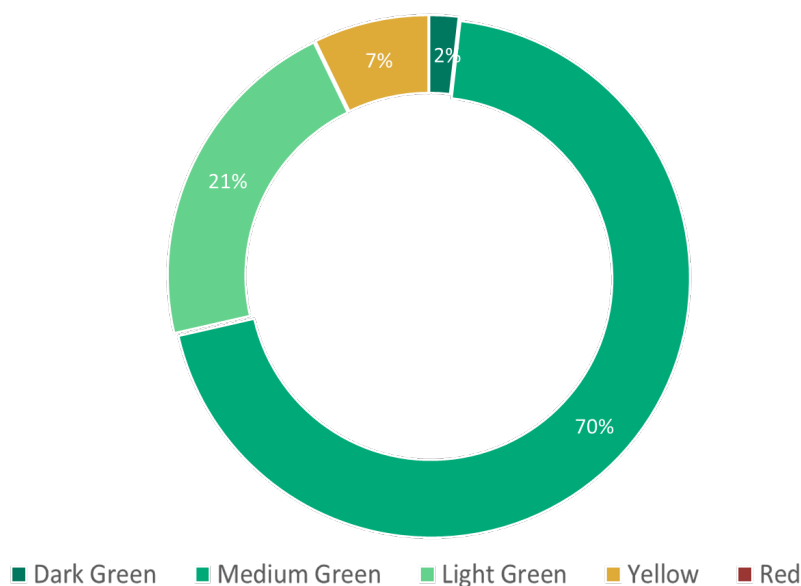
A Light Green shade accounts for 48% of Mowi’s revenues. This included sales of Mowi’s sales of ASC certified salmon transported by air freight, BAP and GlobalG.A.P. certified salmon transported by road and sea, and external sales of BAP or GlobalG.A.P. certified eggs, smolt, cleaner fish. Revenues from ASC certified salmon transported by air received a Light Green because although sustainable aquaculture will still tend to have lower emissions than other animal protein alternatives, air freight transport can more than double the climate footprint of delivered salmon depending on the final destination.⁴ While BAP and GlobalG.A.P. represent an improvement compared to non-certified production, they do not have the same ambition as ASC in terms of quantified environmental performance criteria on issues such as fish escapes, antibiotics, fish health, sea lice, and water quality. These revenues are still considered Light Green in the context of Mowi’s Excellent governance, including strong climate targets, a robust feed ingredient sourcing policy, and additional environmental policies and safeguards. Mowi is responsible for strict implementation of these complementary measures to avoid potential Yellow elements on a site-by-site basis and we encourage a transition to ASC certification where possible.

A Yellow shade was assigned to 10% of Mowi’s revenues, including BAP and GlobalG.A.P. certified salmon transported by air, revenues from the 2% of Mowi’s sites that are not ASC, BAP, or GlobalG.A.P. certified, as well as insurance income and government grants. As above, air freight emissions are much more significant than land and sea freight, leading to a shading downgrade. Sustainability certification is required to ensure aquaculture sites have sufficient climate and environmental benefits to be considered Green. Income from insurance and government grants do not specifically contribute to or hinder the low carbon transition.

Mowi’s planned investments

Of Mowi’s planned investments, 93% were assigned a Shade of Green, while 7% were Yellow and 0% were Red.

Shades of Green by Planned Investments 2023



³ Note that revenues and investments associated with ASC, BAP, and GlobalG.A.P. certified and uncertified salmon are estimated based on Mowi’s site certification breakdown in 2021 (i.e., 50% ASC, 48% BAP and GlobalG.A.P., 2% uncertified).

⁴ See SINTEF estimates here: https://www.sintef.no/contentassets/25338e561f1a4270a59ce25bcbc926a2/report-carbon-footprint-norwegian-seafood-products-2017_final_040620.pdf.



A Dark Green shade was assigned to 2% of Mowi's planned investments. This includes electricity infrastructure expansion projects that will allow Mowi to electrify its sites and local hydropower producers to access the grid, electric car charging stations, and onsite solar power installations. These elements are well-aligned with a low carbon future.

A Medium Green shade accounts for 70% of Mowi's planned investments. This includes investments in equipment for ASC certified sea farming sites excluding any potential fossil fuel elements, digitalisation and automation measures with environmental benefits, electrified facilities for smolt, postsmolt, and processing ASC certified salmon, energy and water use efficiency measures, and upcycling of wastewater sludge. These are positive steps towards decarbonization and ensuring water and resource conservation while producing lower emissions animal protein. See Table 3 above for further shading considerations on many of these aspects.

A Light Green shade was assigned to 21% of Mowi's planned investments. This includes investments in equipment for BAP or GlobalG.A.P. certified sea farming sites excluding any potential fossil fuel elements and electrified facilities for processing BAP or GlobalG.A.P. certified salmon. While BAP and GlobalG.A.P. represent an improvement compared to non-certified production, they do not have the same ambition as ASC in terms of quantified environmental performance criteria.

A Yellow shade was assigned to 7% of Mowi's planned investments. This includes all fossil fuel powered generators, equipment, and vessels that pose significant emissions and lock in risks. Equipment for non-certified sea farming sites and electrified facilities for processing non-certified salmon were also considered Yellow.

Description of sustainability-linked financing framework

Based on this review, this framework is found to be aligned with the Sustainability-Linked Bond Principles and Sustainability-Linked Loan Principles. For full details on the issuer's framework, please refer to the green and sustainability-linked financing framework dated March 2023.

Selection of key performance indicators (KPIs)

Summary information about Mowi's KPIs is provided below:

- ✓ **KPI 1:** Absolute Scope 1 and 2 GHG emissions (tonnes CO₂e).
- ✓ **KPI 2:** Absolute Scope 3 GHG emissions (tonnes CO₂e).

Mowi will calculate its Scopes 1, 2, and 3 emissions based on the Greenhouse Gas Protocol (GHGP) guidance using an operational control consolidation approach. Figures are calculated and externally audited annually and do not include any carbon offsets, credits, or avoided emissions. Scope 2 calculations will be market-based, which for Mowi are higher, rather than location-based. The issuer informs us that no material Scope 3 categories are excluded from KPI 2 calculations, and these calculations will cover the same GHGP categories used in its sustainability reporting, including purchased goods and services, fuel and energy related activities, upstream transportation and distribution, waste generated in operations, business travel, and downstream transportation and distribution. Feed raw material sourcing emissions that are part of Mowi's Scope 3 will be calculated based on the ASC guidelines for GHG accounting of feed, the GHGP, and the carbon footprint of feed raw materials provided by the SINTEF Greenhouse Gas Emissions of Norwegian Salmon Products 2020 report. Mowi reports it also applies guidance from LCA experts and studies to improve primary data use.

Mowi notes that it selected these KPIs based on an integrated, double materiality analysis undertaken in consultation with diverse stakeholders, meaning sustainability risks and impacts of value creation are considered



over the short, medium, and long term. It reports that climate-friendly food production is a key area of its sustainability and business strategy, and action is needed in both its operations and value chain.

Calibration of sustainability performance targets (SPTs)

Mowi has identified the following SPTs:

	KPI 1: Absolute Scope 1 and 2 GHG emissions	KPI 2: Absolute Scope 3 GHG emissions
SPT (a)	Reduce KPI 1 by 21% by 2026	Reduce KPI 2 by 18.1% by 2026
SPT (b)	Reduce KPI 1 by 24.5% by 2027	Reduce KPI 2 by 20.44% by 2027
SPT (c)	Reduce KPI 1 by 35% by 2030	Reduce KPI 2 by 35% by 2030
Baseline/ reference value	Reductions are relative to a 2016 base year of 273,587 tonnes CO ₂ e	Reductions are relative to a 2018 base year of 1,950,541 tonnes CO ₂ e

Mowi's SPTs are based on its emissions reductions targets that were verified by the Science Based Targets Initiative (SBTi) in 2019. Mowi developed its targets using the SBTi's well-below 2°C methodology using an absolute contraction approach. A well-below 2°C SBT aligns with an IPCC RPC 2.6 pathway of holding an increase in global average temperature to well-below 2°C, and ideally no more than 1.5°C, above preindustrial levels by the end of the century. General guidance from the SBTi's Foundations of Science-Based Target Setting requires absolute contraction targets to entail an at least 2.5% annual linear emissions reduction for a well-below 2°C scenario.⁵ Mowi's SBTs are aligned with that 2.5% minimum. Mowi has not yet assessed whether the SBTi Forest, Land and Agriculture (FLAG) methodology released in 2022 may be applicable to its operations due to the significant share of its emissions that are connected to land use through plant-based feed ingredients.⁶

SPTs 1a and 1b are linear interim targets based on reductions needed to achieve its SBT between 2021 and 2030, while SPTs 2a and 2b are non-linear interim targets, with less significant decreases required nearer-term and deeper cuts required closer to 2030. According to the issuer, this is due to the uncertainties created by Russia's invasion of Ukraine, which led to challenges sourcing lower-emissions feed ingredients from Europe as well as longer flight routes to transport products, both of which have meaningful impacts on Scope 3 emissions.

The issuer informs us that the 2016 and 2018 base years were selected because they marked the first time Mowi had confidence it had complete and accurate Scopes 1 and 2 and Scope 3 calculations, respectively. Scopes 1 and 2 emissions estimates from 2015 and earlier were significantly lower than 2016 figures due to the use of a more robust calculation methodology from 2016 onwards, not operational changes.

According to Mowi, it does not have any regulatory emissions reductions requirements in its operating markets.

Financial Characteristics

All of Mowi's KPIs/SPTs will always be used for sustainability-linked financing instruments issued under the framework.

⁵ See <https://sciencebasedtargets.org/resources/files/foundations-of-SBT-setting.pdf>.

⁶ See <https://sciencebasedtargets.org/sectors/forest-land-and-agriculture> for further details.



The target observation date (TOD) on which the company’s performance on the KPIs will be compared against the SPTs will be the last day of the calendar year for the applicable SPT. The Reporting End Date is defined as the date falling due 120 days after that. The relation between TODs and the maturity of the expected bonds will be decided on a case-by-case basis.

Should the company fail to achieve the SPTs or complete related SPT reporting and verification, a trigger event will occur, leading to the introduction of a financial effect via the adjustment mechanism. The issuer informs us that the SPTs will be weighted equally. This could be a redemption price premium, coupon step-up, or margin adjustment and will be determined on a case-by-case basis and specified in transaction-specific documentation. According to the issuer, the financial impact will be meaningful yet reasonable.

If there are any material changes in Mowi’s organisational structure, calculation methodology, or data methodology, it will recalculate baselines and each KPI and SPT. Mowi will identify these changes in its next sustainability-linked debt progress report and ensure changes are externally verified. Recalculations are expected to be consistent with Mowi’s sustainability strategy and materially in line with the initial level of ambition of the SPTs.

CICERO Shades of Green has not reviewed to what degree the variation in the financial characteristics of the sustainability-linked financing framework is commensurate and meaningful. Investors are encouraged to review the term sheets in detail and conduct their own assessment of the financial characteristics.

Reporting

Mowi will publish a sustainability-linked progress report on its website annually, which will provide a basis for evaluating the potential financial impact. Reporting will be led by the finance department, with input from the Chief Sustainability Officer. This may take the form of a standalone report or be incorporated into Mowi’s existing green finance impact or annual integrated reporting. Reporting will include SPT performance, calculation methodologies, information about any changes in baselines or potential recalculations, any trigger events and financial impacts, any modifications to bond structure or financial characteristics, updates on Mowi’s sustainability strategy and governance, and a list of sustainability-linked bonds outstanding. Where feasible and relevant, reporting may also detail the factors that contributed to SPT performance and any regulatory developments relevant to the KPIs and SPTs.

If Mowi issues sustainability-linked debt instruments other than bonds, it may report directly and non-publicly to the relevant lenders or counterparties.

Verification

Mowi will undertake annual external review and verification of its SPT performance, which will be made publicly available alongside its sustainability-linked progress report.

Assessment of KPI 1: Absolute Scope 1 and 2 GHG emissions

Aspect	CICERO Shades of Green Comments
Materiality	KPI 1 is material in terms of addressing Mowi’s climate risks and impacts <ul style="list-style-type: none">✓ Decarbonizing Mowi’s operations and energy purchasing in absolute terms is relevant to limiting both the company’s climate transition risk exposure and contributions.



- ✓ It is positive that climate emissions reductions are a top priority in Mowi's own materiality assessment, which included external stakeholder input and considered nearer-term and longer-term time horizons.
- ✓ It is a strength that KPI 2 is focused on absolute Scope 3 emissions, providing important complementarity in coverage of these larger value chain emissions. Together, KPIs 1 and 2 include 100% of Mowi's total greenhouse gas emissions.

Strategic
Significance

KPI 1 is of strategic significance

- ✓ Reducing absolute Scopes 1 and 2 emissions is aligned with Mowi's business and sustainability strategy of being a leader in "climate friendly food."
- ✓ A focus on this KPI will meaningfully influence Mowi's actions and investment decisions to decarbonize its operations and energy purchasing, such as choosing lower emissions vessels and power management systems, increasing energy efficiency, or selecting renewable energy during procurement.
- ✓ While KPI 1 is not directly linked to senior management or board remuneration, related energy savings metrics are included in bonus structures.

Methodology

The methodology is robust and transparent with caveats around a market-based Scope 2 calculation approach that gives credit for guarantees of origin

- ✓ Mowi's measurement of Scopes 1 and 2 greenhouse gas emissions in tonnes CO₂e is clearly defined and based on the GHGP, which is a robust external standard. This strengthens comparability over time and to peers, consistency and completeness, ability to assess alignment with Paris Agreement goals, and possibility for external verification.
- ✓ It is positive that emissions will be measured in absolute terms across all of Mowi's operations and geographies and will not include any offsets, credits, or avoided emissions.
- ✓ Mowi has selected a market-based rather than location-based Scope 2 emissions calculation approach. Market-based approaches give credit for renewable energy purchasing through mechanisms such as guarantees of origin that do not necessarily ensure additional renewable energy capacity and reduced emissions.⁷ Guarantees of origin are therefore less preferred from a climate perspective compared on-site renewable energy generation or power purchase agreements (PPA) that help new renewable energy production projects secure access to finance. We encourage Mowi to ensure any renewable energy purchasing is high quality to achieve intended climate benefits of achieving SPT 1.
- ✓ We encourage Mowi to continue to report on its climate emissions intensity in its annual sustainability reporting as a complementary metric. Emissions intensity can reflect climate performance with less influence from exogenous factors, such as an economic recession that might lead to a contraction in absolute emissions without changing emissions intensity.

⁷ See <https://www.nature.com/articles/s41558-022-01379-5>.



Assessment of SPT 1: Reduce absolute Scope 1 and 2 GHG emissions from a 2016 base year

- SPT 1a: Reduce KPI 1 by 21% by 2026 compared to a 2016 baseline
- SPT 1b: Reduce KPI 1 by 24.5% by 2027 compared to a 2016 baseline
- SPT 1c: Reduce KPI 1 by 35% by 2030 compared to a 2016 baseline

Benchmark	CICERO Shades of Green Comments
<i>Own performance</i>	<p>Ambition exceeds own past performance prior to setting an SBT in 2019</p> <ul style="list-style-type: none"> ✓ Prior to setting its SBT in 2019, Mowi’s Scopes 1 and 2 emissions were increasing between 7.6-10.6% annually on a year-over-year basis over 2016-2019. After setting its SBT, Mowi’s Scopes 1 and 2 emissions have declined annually between 9.5-18.3% on a year-over-year basis between 2019-2021. SPT 1 continues Mowi’s declining emissions trend since setting an SBT and would achieve annual emissions decreases ranging from 3.6-4.6% on a year-over-year basis between 2021-2030. ✓ To meet SPT 1a, Mowi would need to reduce Scope 1 and 2 emissions by 3.6% on a year-over-year basis on average between 2021 and 2026. If SPT 1a is achieved, to achieve SPT 1b Mowi would need to reduce Scope 1 and 2 emissions by 4.4% between 2026-2027. To meet SPT 1c after achieving SPTs 1a and 1b, Mowi would need to reduce Scope 1 and 2 emissions by 4.6% on a year-over-year basis average between 2027 and 2030. ✓ Between the 2016 baseline and 2021, Mowi reduced its Scopes 1 and 2 emissions by only 3.6% in total relative to baseline, requiring deeper cuts between 2022-2030 to achieve its SBT of a 35% cut relative to baseline by 2030. ✓ According to the issuer, Scope 1 and 2 emissions increased between 2016-2019 due to the introduction of feed production as part of Mowi’s business model. As new feed production facilities were built, emissions increased by 7.6-10.6% on a year-over-year basis. With its commitment to a SBT in 2019, Mowi began to pursue a climate emissions reduction strategy, causing Scopes 1 and 2 emissions to begin to decline, by 9.5% on a year-over-year basis between 2019-2020 and 18.3% between 2020-2021. ✓ Although Mowi achieved steeper Scopes 1 and 2 emissions cuts in the past two years on a year-over-year basis than those planned under the SPT, the issuer informs us that it expects further reductions in Scope 1 and 2 emissions to become increasingly difficult going forward as the most readily available opportunities for efficiency and renewable electrification have already been pursued.
<i>Peers</i>	<p>Ambition of SPT 1c is in line with or somewhat lower than immediate Scandinavian salmon aquaculture peers</p> <ul style="list-style-type: none"> ✓ Mowi through its SPT 1c and its Scandinavian-based salmon aquaculture peers have set targets for their absolute Scopes 1 and 2 emissions that are assessed by SBTi as Paris Agreement-aligned. Some have selected a 1.5°C near-term SBT pathway that is somewhat more ambitious than the well-below 2°C SBT near-term pathway Mowi and others employ.



- ✓ Among Norwegian salmon aquaculture companies, Lerøy Seafood Group and Salmar are somewhat more ambitious with 1.5°C-aligned near-term (2030) SBTs that include Scope 1 and 2 emissions, while Mowi (through SPT 1c), Cermaq, and Grieg Seafood have well-below 2°C near-term SBTs.⁸ Both pathways are aligned with Paris Agreement goals. Grieg Seafood is distinguished by an additional commitment to eliminating emissions by 2050.⁹
- ✓ According to the issuer, Mowi's operations are not directly comparable to these peers due to its greater degree of vertical integration as well as its more global operations and markets, making its targets more challenging to achieve. While recognizing these caveats, we view these companies as Mowi's closest immediate peers and 1.5°C-aligned pathways as more ambitious than well-below 2°C alternatives that cover similar Scopes of emissions.
- ✓ SPTs 1a and 1b as interim targets were not directly comparable to peers' goals.

Science-based scenarios or international targets

Ambition is in line with the Paris Agreement goals, with caveats around uncertain net zero alignment post-2030

- ✓ Mowi's targets are based on its validated absolute Scopes 1 and 2 SBT that uses an absolute contraction approach to align with a well-below 2°C pathway through 2030. SPT 1 is likely aligned with Paris Agreement goals through that 2030 time horizon; full decarbonization to achieve net zero by 2050 will depend on the targets and actions Mowi takes after 2030.
- ✓ SPT sub-targets 1a, 1b, and 1c are each aligned with an average annual linear absolute emissions reduction of 3.5% between 2022-2030, which exceeds the SBTi well-below 2°C absolute contraction approach minimum of 2.5%.
- ✓ While meeting the requirements for a well-below 2°C near-term (2030) SBTi pathway is aligned with Paris Agreement goals, it would strengthen target ambition to align with a 1.5°C near-term and net zero long-term (2050) goal.
- ✓ The issuer informs us that it is exploring updating its SBT, which is required by SBTi by the end of 2024. SBTi now also requires new targets to align with the more ambitious 1.5°C pathway.
- ✓ According to the issuer, as part of its SBT, it has committed to reducing Scopes 1 and 2 emissions by 72% by 2050 relative to 2016, but it has not yet made a net zero by 2050 commitment. The issuer informs us this is due to the geopolitical uncertainty caused by the conflict in Ukraine that has significantly impacted its Scope 3 emissions as well as the relative immaturity of the carbon offset market it would need to utilize for its residual emissions.
- ✓ If Mowi continued to achieve the same average linear reductions as SPT 1 between 2030 and 2050, it could achieve net zero. This is positive as a possibility but will depend on Mowi increasing its ambition and implementing appropriate measures to achieve a net zero target during those decades.

⁸ See <https://sciencebasedtargets.org/companies-taking-action#dashboard> for further information.

⁹ See <https://investor.griegseafood.com/reports-&-presentations#annual>.



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- ✓ It is a strength that SPTs 1a, 1b, and 1c are the same percentage change from the base year, only varying between 3.6-4.6% reductions on a year-over-year basis and avoiding delaying reductions to closer to 2030.
 - ✓ We did not find any aquaculture sector-specific decarbonization pathways in our research to serve as additional benchmarks.
-

Initiatives and Strategy to Achieve SPT 1

To achieve SPT 1, Mowi plans to:

- Continue to reduce fossil fuel use at sea sites by connecting to electricity onshore, using on-site renewables, or, if neither are feasible, using hybrid power management systems that reduce emissions but may connect with diesel generators. According to the issuer, land connections to electricity are most feasible in Norway, which has the largest share of Mowi's farming sites, and typically more challenging in Canada and Chile.
- Continue to improve energy efficiency at processing, freshwater, and feed plants.
- Continue to increase use of renewable electricity across all operations, such as green contracts and guarantees of origin purchases.
- Invest in hybrid, electric, or hydrogen vessels at farming sites. The mix of vessels running on different fuel types and potential hydrogen sourcing practices are to be determined.
- Increase on-site generation of renewable electricity, including solar, hydro, or wind power.
- Use smart farming technologies, which Mowi defines as digital solutions that facilitate improved data collection combined with machine learning and artificial intelligence. Systems that can count sea lice and undertake autonomous feeding, for example, avoid additional fossil fuel vessel trips to farming sites and associated emissions.

The issuer informs us that it expects renewable energy procurement and hybrid power management systems to achieve the most significant Scopes 1 and 2 reductions, while onsite generation will likely achieve the lowest. Energy savings initiatives will likely contribute to a 1-5% reduction in Scopes 1 and 2 emissions. Mowi has not specifically linked these different initiatives and strategies to specific SPT 1 sub-targets.

It is a strength that Mowi has a comprehensive strategy of electrifying its sites where possible while sourcing or generating more renewable power and implementing energy efficiency measures. Electric vessels and smart farming technologies are also positive measures.

Potential pitfalls include the emissions and lock in risks from hybrid vessels and power management systems that could continue to be connected with fossil fuels despite the benefits of shorter-term emissions reductions and renewable fuel or energy options. Guarantees of origin renewable electricity purchasing may not lead to new capacity, limiting climate benefits. Consider potential rebound effects from energy efficiency measures and local biodiversity impacts from onsite renewable energy installations. The lifecycle benefits of hydrogen depend on methods of production, with green hydrogen produced from renewable electricity being the most beneficial compared to natural gas methods that have lock in risks. Be aware of hydrogen leakage that can indirectly contribute to climate change.¹⁰

¹⁰ See <https://www.nature.com/articles/s43247-022-00626-z> for further details.



Summary of key factors beyond the issuers’ direct control that may affect the achievement of SPT 1

According to Mowi, the Russia’s invasion of Ukraine and related geopolitical implications could increase costs of electricity, including renewable electricity. Risk mitigation measures they are currently undertaking include energy savings initiatives.

We agree with Mowi’s assessment of this factor, while noting additional potential risks to Mowi achieving its Scopes 1 and 2 goals. These may include difficulties connecting sites to electricity due to distance or capacity constraints, limited renewable electricity purchasing options in some markets, or regulatory challenges, local resistance, biodiversity concerns, or other siting challenges for on-site renewable energy production. While vessels and power management systems can use renewable fuels or connect with renewable energy, the availability of cost-effective, lower carbon alternatives such as biofuels at scale may be a challenge due to competition from other sectors and physical climate risks impacting production in supply chains, and land connections or onsite renewable energy installations are not feasible at all sites. Lower emissions hydrogen infrastructure may continue to be limited, and the lifecycle benefits of smart farming technologies are uncertain. Mowi will need to secure sufficient financing to make the investments needed to achieve these targets.

Assessment of KPI 2: Absolute Scope 3 GHG emissions

Aspect	CICERO Shades of Green Comments
Materiality	<p>KPI 2 is material in terms of addressing Mowi’s climate risks and impacts</p> <ul style="list-style-type: none"> ✓ Decarbonizing Mowi’s value chain emissions in absolute terms is relevant to limiting both the company’s climate transition risk exposure and contributions. ✓ It is positive that climate emissions reductions are a top priority in Mowi’s own materiality assessment, which included external stakeholder input and considered nearer-term and longer-term time horizons. ✓ It is a strength that KPI 1 is focused on absolute Scopes 1 and 2 emissions, providing important complementarity in coverage of these significant operational and energy purchasing emissions. Together, KPIs 1 and 2 include 100% of Mowi’s total greenhouse gas emissions.
Strategic Significance	<p>KPI 2 is of strategic significance</p> <ul style="list-style-type: none"> ✓ Reducing absolute Scope 3 emissions is aligned with Mowi’s business and sustainability strategy of being a leader in “climate friendly food.” ✓ A focus on this KPI will meaningfully influence Mowi’s actions and investment decisions to decarbonize its value chain, such as choosing lower emissions feed ingredient and transport options, engaging its suppliers on climate emissions, and improving plastic reuse and recycling. ✓ While KPI 2 is not directly linked to senior management or board remuneration, fish mortality rates and FCR metrics are included in bonus structures. Improving these metrics may reduce Scope 3 emissions by avoiding emissions from wasted energy and feed that do not contribute to a final salmon product.



Methodology

The methodology is robust and transparent with caveats around risks of underestimating Scope 3 land use emissions associated with plant-based feed ingredients

- ✓ Mowi's measurement of Scope 3 greenhouse gas emissions in tonnes CO₂e is clearly defined and the GHGP is a robust external standard. This strengthens comparability over time and to peers, consistency and completeness, ability to assess alignment with Paris Agreement goals, and possibility for external verification.
- ✓ It is a strength that emissions will be measured in absolute terms across all Mowi's value chain and geographies (rather than the supplier engagement proxies allowed under SBTi in some cases) and will not include any offsets, credits, or avoided emissions.
- ✓ It is positive that Mowi will include all material Scope 3 categories per the GHGP and has provided transparency on its feed ingredient Scope 3 calculation references, including ASC guidelines and SINTEF reports. ASC guidelines require either cradle-to-gate assessment based on the GHG Product Standard or a LCA following ISO 14040 and 14044 process requirements. Consideration of land use change emissions is unclear. The SINTEF report was published in 2020 calculating 2017 values. It is a high-quality source that provides a method for considering land use change emissions. SINTEF calculations are based on the Agri-footprint LCA tool developed by Blonk Consultants.
- ✓ Due to the significant risks of land use emissions in plant-based feed supply chains and the difficulties calculating accurate estimates of these values, we encourage Mowi to ensure its Scope 3 GHG accounting source data is as up to date as possible to avoid risks of underestimating these emissions. The GHGP Land Sector and Removals Guidance, for example, could be applicable to Mowi's Scope 3 emissions from plant-based feed ingredients and help ensure accounting practices reflect the most recent scientific and expert understandings of these emissions estimates.¹¹ Any accounting methodology changes to reflect more recent references should be detailed in reporting for transparency.
- ✓ We encourage Mowi to continue to report on its climate emissions intensity in its annual sustainability reporting as a complementary metric. Emissions intensity can reflect climate performance with less influence from exogenous factors, such as an economic recession that might lead to a contraction in absolute emissions without changing emissions intensity.

Assessment of SPT 2: Reduce absolute Scope 3 GHG emissions from a 2018 base year

- SPT 2a: Reduce KPI 2 by 18.1% by 2026 compared to a 2018 baseline
- SPT 2b: Reduce KPI 2 by 20.44% by 2027 compared to a 2018 baseline
- SPT 2c: Reduce KPI 2 by 35% by 2030 compared to a 2018 baseline

¹¹ See <https://ghgprotocol.org/land-sector-and-removals-guidance>.



Benchmark	CICERO Shades of Green Comments
<i>Own performance</i>	<p>Ambition exceeds own past performance prior to setting an SBT in 2019</p> <ul style="list-style-type: none">✓ Prior to setting its SBT in 2019, Mowi’s Scope 3 emissions were increasing 1.5% annually on a year-over-year basis over 2018-2019. After setting its SBT, Mowi’s Scope 3 emissions have declined annually between 1.9-5.9% on a year-over-year basis between 2019-2021. SPT 2 continues Mowi’s declining emissions trend since setting an SBT and would achieve 2.5-6.1% annual emissions decreases on a year-over-year basis between 2021-2030.✓ To meet SPT 2a, Mowi would need to reduce Scope 3 emissions by 2.5% on a year-over-year basis on average between 2021 and 2026. To achieve SPT 2b, Mowi would need to reduce Scope 3 emissions by 2.9% on a year-over-year basis between 2026-2027. To meet SPT 2c, Mowi would need to reduce Scope 3 emissions by 6.1% on a year-over-year basis average between 2027 and 2030.✓ Between the 2018 baseline and 2021, Mowi reduced its Scope 3 emissions by only 6.4% in total relative to baseline, requiring deeper cuts between 2022-2030 to achieve its SBT of a 35% cut by 2030.✓ According to the issuer, with its commitment to a SBT in 2019, Mowi began to pursue a strategy to reduce emissions particularly in its feed sourcing and transportation Scope 3 hotspots. This led to Scope 3 emissions declining by 1.9% on a year-over-year basis between 2019-2020 and 5.9% between 2020-2021.✓ Although Mowi achieved similar Scope 3 emissions cuts in the past two years as those planned under the SPT, the issuer informs us that it expects further reductions to become increasingly difficult going forward due to Russia’s invasion of Ukraine and associated European soy supply chain disruptions, requiring sourcing from farther away markets such as Brazil with higher associated transportation emissions. The most readily available opportunities for lower emissions feed sourcing and transport optimization have already been pursued.
<i>Peers</i>	<p>Ambition of SPT 2c is in line with or somewhat lower than immediate Scandinavian salmon aquaculture peers</p> <ul style="list-style-type: none">✓ While Mowi through its SPT 2c and its Scandinavian-based salmon aquaculture peers have set targets for their absolute Scope 3 emissions that are Paris Agreement-aligned as assessed by SBTi, some have selected a 1.5°C near-term SBT pathway that is somewhat more ambitious than the well-below 2°C SBT near-term pathway Mowi and others employ.✓ Among Norwegian salmon aquaculture companies, Lerøy Seafood Group and Salmar are somewhat more ambitious with 1.5°C-aligned near-term (2030) SBTs that include Scope 3 emissions, while Mowi (through SPT 2c), Cermaq, and Grieg Seafood have well-below 2°C near-term SBTs.¹² Both pathways are aligned with

¹² See <https://sciencebasedtargets.org/companies-taking-action#dashboard> for further information.



Paris Agreement goals. Grieg Seafood is distinguished by an additional commitment to eliminating emissions by 2050.¹³

- ✓ According to the issuer, Mowi's value chains are not directly comparable to these peers due to its greater degree of vertical integration as well as its more global operations and markets, making its targets more challenging to achieve. While recognizing these caveats, we view these companies as Mowi's closest immediate peers and 1.5°C-aligned pathways as more ambitious than well-below 2°C alternatives that cover similar Scopes of emissions.
- ✓ SPTs 2a and 2b as interim targets were not directly comparable to peers' goals.

Science-based scenarios or international targets

Ambition is in line with the Paris Agreement goals, with caveats around uncertain net zero alignment post-2030

- ✓ Mowi's targets are based on its validated absolute Scope 3 SBT that uses SBTi's absolute contraction approach to align with a well-below 2°C pathway through 2030. SPTs 2a, 2b, and 2c meet SBTi well-below 2°C absolute contraction methodology requirements and we therefore assess these sub-targets as likely aligned with Paris Agreement goals through 2030. Full decarbonization to achieve net zero by 2050 will depend on the targets and actions Mowi takes after 2030.
- ✓ SPT sub-targets 2a and 2b would achieve an average annual linear absolute emissions reduction of 2.5% between 2021-2026 and in 2027. This is aligned with the minimum 2.5% linear average annual absolute emissions reduction required by the SBTi well-below 2°C absolute contraction methodology. SPT sub-target 2c would achieve a 3.4% linear average annual absolute emissions reduction between 2027-2030, exceeding the SBTi minimum. All three sub-targets are therefore likely aligned with Paris Agreement goals.
- ✓ While a well-below 2°C near-term (2030) SBTi pathway is aligned with Paris Agreement goals, it would strengthen target ambition to align with a 1.5°C near-term and net zero long-term (2050) goal.
- ✓ The issuer informs us that it is exploring updating its SBT, which is required by SBTi by the end of 2024. SBTi now also requires new targets to align with a more ambitious 1.5°C pathway rather than the well-below 2°C methodology Mowi currently uses. Because such a significant share of its emissions is connected to land use through plant-based ingredients, we encourage Mowi to consider whether the SBTi Forest, Land and Agriculture (FLAG) methodology released in 2022 is applicable and may provide further accuracy and ambition in its target setting.¹⁴
- ✓ According to the issuer, as part of its SBT, it has committed to reducing Scope 3 emissions by 72% by 2050 relative to 2018, but it has not yet made a net zero by 2050 commitment. The issuer informs us this is due to the geopolitical uncertainty caused by the conflict in Ukraine that has significantly impacted its Scope 3 emissions as well as the relative immaturity of the carbon offset market it would need to utilize for its residual emissions.

¹³ See <https://investor.griegseafood.com/reports-&-presentations#annual>.

¹⁴ See <https://sciencebasedtargets.org/sectors/forest-land-and-agriculture> for further details.



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- ✓ If Mowi continued to achieve the same average linear reductions as SPT 2 between 2030 and 2050, it could achieve net zero. This is positive as a possibility but will depend on Mowi increasing its ambition and implementing appropriate measures to achieve a net zero target during those decades.
 - ✓ We did not find any aquaculture sector-specific decarbonization pathways in our research to serve as additional benchmarks.
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Initiatives and Strategy to Achieve SPT 2

To achieve SPT 2, Mowi plans to:

- Continue to ask feed suppliers to set emissions reductions targets and disclose emissions data, which Mowi will consider in its supplier scoring and selection.
- Try to source soy feed from Europe where possible to reduce transportation emissions.
- Identify through R&D and include emerging feed raw materials with a lower carbon footprint.
- Optimise downstream transportation and work with logistics suppliers to implement lower carbon fuel solutions, such as sustainable aviation fuels (SAFs).
- Continue to implement measures to increase the share of farming equipment that is recycled, increase the share of plastic packaging that is reusable, recyclable or compostable, and increase the recycled plastic content in its packaging. This may include net and packaging selection and improved farming equipment and waste handlers.
- Use smart farming technologies, which Mowi defines as digital solutions that facilitate improved data collection combined with machine learning and artificial intelligence. Possible applications could include monitoring fish feeding to reduce feed waste and associated climate emissions.

Mowi expects to see the greatest Scope 3 reductions from sourcing soy feed from Europe where possible, while shifting to emerging feed raw materials will likely be among the smallest reductions nearer term. Logistics optimization could achieve a few percentage points reduction, while alternative fuels will be needed for greater decreases. Efforts related to plastics are similarly expected to achieve a few percentage points in emissions reductions. Mowi has not specifically linked these different initiatives and strategies to specific SPT 2 sub-targets.

It is a strength that Mowi is engaging its feed suppliers on climate emissions reductions, prioritizing lower emissions sourcing geographies, and undertaking R&D on alternative ingredients that may have lower lifecycle emissions. Improved plastics and smart farming technologies as well as efforts to reduce transportation emissions through optimisation and lower emissions fuels are also positive.

Potential pitfalls include the direct and indirect land use change emissions risks from plant-based feed ingredients that are challenging to eliminate in global supply chains despite Mowi's robust measures. It will be important to ensure emerging feed materials have lifecycle emissions benefits. While Mowi's collaboration with other stakeholders on sustainable transport fuels is positive, the company informs us that it will focus on switching to these alternatives when they are cost-competitive, which is likely to significantly delay associated emissions cuts with current premiums. Although plastic recycling has benefits, be aware that it entails energy consumption, emissions, and discharges to the environment that require mitigation strategies. Additionally, plastic is a material derived from fossil fuel feedstocks that can only be recycled a limited number of times.

Summary of key factors beyond the issuers' direct control that may affect the achievement of SPT 2

Mowi notes two main challenges beyond its direct control in achieving SPT 2. First, the war in Ukraine and its geopolitical consequences have limited vegetable feed raw material sourcing from Europe, particularly soy,



requiring greater transport distances and associated emissions from sourcing in more distant markets such as Brazil. Air freight distances to Mowi's Asian markets have also increased due to the conflict. Second, Mowi notes that it is actively engaging feed suppliers to reduce their emissions, but those decisions are ultimately beyond Mowi's direct control. Mowi's R&D on alternative feed ingredients is a mitigation measure but will likely only yield results longer term.

We agree with Mowi's assessment of these factors. Other risks to Mowi achieving its Scope 3 goals could include the availability of cost-effective, lower carbon fuels at scale for air, shipping, and road transportation of its feed and final products. Chronic or acute physical climate risks may increasingly impact feed sourcing options and associated Scope 3 emissions. Alternative feed production systems, improved plastics, and digitalisation solutions under development have uncertain lifecycle emissions benefits and may require new infrastructure, such as ingredient production facilities and plastic waste management systems, which will need to be developed and run by third parties. Mowi will need to secure sufficient financing to make the investments needed to achieve its Scope 3 emissions reductions targets.









4 Terms and methodology

This note provides CICERO Shades of Green’s second opinion of the client’s framework dated March 2023. This second opinion remains relevant to all green or sustainability-linked bonds and/or loans issued under this framework for the duration of three years from publication of this second opinion, as long as the framework remains unchanged. Any amendments or updates to the framework require a revised second opinion. CICERO Shades of Green encourages the client to make this second opinion publicly available. If any part of the second opinion is quoted, the full report must be made available.

This assessment is based on a review of documentation of the client’s policies and processes, as well as information provided to us by the client during meetings, teleconferences and email correspondence. In our review we have relied on the correctness and completeness of the information made available to us by the company.

‘Shades of Green’ methodology

CICERO Shades of Green second opinions are graded dark green, medium green or light green, reflecting a broad, qualitative review of the climate and environmental risks and ambitions. The shading methodology aims to provide transparency to investors that seek to understand and act upon potential exposure to climate risks and impacts. Investments in all shades of green projects are necessary in order to successfully implement the ambition of the Paris agreement. The shades are intended to communicate the following:

Shading	Examples
 Dark Green is allocated to projects and solutions that correspond to the long-term vision of a low-carbon and climate resilient future.	 Solar power plants
 Medium Green is allocated to projects and solutions that represent significant steps towards the long-term vision but are not quite there yet.	 Energy efficient buildings
 Light Green is allocated to transition activities that do not lock in emissions. These projects reduce emissions or have other environmental benefits in the near term rather than representing low carbon and climate resilient long-term solutions.	 Hybrid road vehicles

The “Shades of Green” methodology considers the strengths, weaknesses and pitfalls of the project categories and their criteria. The strengths of an investment framework with respect to environmental impact are areas where it clearly supports low-carbon projects; weaknesses are typically areas that are unclear or too general. Pitfalls are also raised, including potential macro-level impacts of investment projects.

Assessment of alignment with Green Bond Principles

CICERO Shades of Green assesses alignment with the International Capital Markets’ Association’s (ICMA) Green Bond Principles. We review whether the framework is in line with the four core components of the GBP (use of proceeds, selection, management of proceeds and reporting). We assess whether project categories have clear environmental benefits with defined eligibility criteria. The Green Bonds Principles (GBP) state that the “overall environmental profile” of a project should be assessed. The selection process is a key governance factor to consider in CICERO Shads of Green’s assessment. CICERO Shades of Green typically looks at how climate and environmental considerations are considered when evaluating whether projects can qualify for green finance













funding. The broader the project categories, the more importance CICERO Shades of Green places on the selection process. CICERO Shades of Green assesses whether net proceeds or an equivalent amount are tracked by the issuer in an appropriate manner and provides transparency on the intended types of temporary placement for unallocated proceeds. Transparency, reporting, and verification of impacts are key to enable investors to follow the implementation of green finance programs.

Approach to sustainability-linked financing

The structure of Sustainability Linked Bonds (SLBs) and Sustainability Linked Loans (SLLs) linking financial returns with environmental performance can provide security around environmental impacts. However, SLBs and SLLs can vary widely in terms of robustness depending on what KPIs are selected and how they are measured. We provide transparency on 1) the relevance, materiality and reliability of selected KPIs, 2) the rationale and level of ambition of the proposed Sustainability Performance Targets, 3) the relevance of selected benchmarks and baselines, as well as transparency on how well the strategy outlined to achieve them fits with a low carbon and climate resilient future. By considering these factors, we provide context to consider the ambition level of the SLB and SLL. Please note that CICERO Shades of Green does not evaluate any financial aspects of transaction, including to what degree the variation in the financial characteristics of an SLB and SLL is commensurate and meaningful.

Incorporated into the sustainability-linked finance assessment is our company climate risk assessment approach. We allocate a shade of green, yellow or red (see figure below) to revenues or portfolio value which reflect alignment of the underlying activities to a low carbon and climate resilient future and taking into account governance issues.

Shading	Examples
 Dark Green is allocated to projects and solutions that correspond to the long-term vision of a low-carbon and climate resilient future.	 Solar power plants
 Medium Green is allocated to projects and solutions that represent significant steps towards the long-term vision but are not quite there yet.	 Energy efficient buildings
 Light Green is allocated to transition activities that do not lock in emissions. These projects reduce emissions or have other environmental benefits in the near term rather than representing low carbon and climate resilient long-term solutions.	 Hybrid road vehicles
 Yellow is allocated to projects and solutions that do not explicitly contribute to the transition to a low carbon and climate resilient future. This category also includes activities with too little information to assess.	 Healthcare services
 Red is allocated to projects and solutions that have no role to play in a low-carbon and climate resilient future. These are the heaviest emitting assets, with the most potential for lock in of emissions and highest risk of stranded assets.	 New oil exploration

Governance assessment

When assessing the governance of the company, CICERO Green looks at five elements: 1) strategy, policies and governance structure; 2) lifecycle considerations including supply chain policies and environmental considerations towards customers; 3) the integration of climate considerations into their business and the handling of resilience issues; 4) the awareness of social risks and the management of these; and 5) reporting.



Further, sound governance and transparency processes facilitate delivery of the client's climate and environmental ambitions laid out in the framework. Hence, key governance aspects that can influence the implementation of the green finance are also carefully considered. In addition to the issuer-level elements considered above, CICERO Green considers: 6) the selection process used to identify and approve eligible projects under the framework, 7) the management of proceeds and 8) the reporting on the projects to investors.

Based on these factors, we assign an overall governance grade: Fair, Good or Excellent, which is also factored into the overall shading for green financing frameworks. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.



Appendix 1: Referenced Documents List

Document Number	Document Name	Description
1	Mowi Green and Sustainability-Linked Financing Framework	Dated March 2023
2	Mowi's Integrated Annual Report 2021	Mowi's annual and sustainability reporting for 2021
3	Sustainability - Mowi Company Website	Mowi's webpage on its Leading the Blue Revolution plan
4	Sustainability strategy	Mowi's Leading the Blue Revolution plan
5	Policies	Mowi's webpage on its company policies
6	Code of Conduct	Mowi's webpage on its code of conduct
7	Green Bond Impact Report 2021	Mowi's green bond impact reporting
8	Certifications	Mowi's webpage on the certifications it uses in its operations.
9	Fjord Control Hybrid Report	Report on Mowi's hybrid power systems' performance between 2021-2022
10	Greenhouse gas emissions of Norwegian salmon products	SINTEF report dated 2020
11	ASC Salmon Standard Version 1.3	Aquaculture Stewardship Council standard dated July 2019
12	Delivering deforestation and conversion free soy	ProTerra presentation on program updates dated September 2022



Appendix 2: About CICERO Shades of Green

CICERO Shades of Green, now a part of S&P Global, provides independent, research-based second party opinions (SPOs) of green financing frameworks as well as climate risk and impact reporting reviews of companies. At the heart of all our SPOs is the multi-award-winning Shades of Green methodology, which assigns shadings to investments and activities to reflect the extent to which they contribute to the transition to a low carbon and climate resilient future.

CICERO Shades of Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. CICERO Shades of Green is independent of the entity issuing the bond, its directors, senior management and advisers, and is remunerated in a way that prevents any conflicts of interests arising as a result of the fee structure. CICERO Shades of Green operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.



- ★ **2020 External Assessment Provider Of The Year**, Environmental Finance Green Bond Awards
- ★ **2020 Largest External Review Provider In Number Of Deals**, Climate Bonds Initiative Awards
- ★ **2019 External Assessment Provider Of The Year**, Environmental Finance Green Bond Awards
- ★ **2019 Largest Green Bond SPO Provider**, Climate Bonds Initiative Awards
- ★ **2018 External Assessment Provider Of The Year**, Environmental Finance Green Bond Awards
- ★ **2018 Largest External Reviewer**, Climate Bonds Initiative Awards
- ★ **2017 Best External Assessment Provider**, Environmental Finance Green Bond Awards
- ★ **2016 Most Second Opinions**, Climate Bonds Initiative Awards