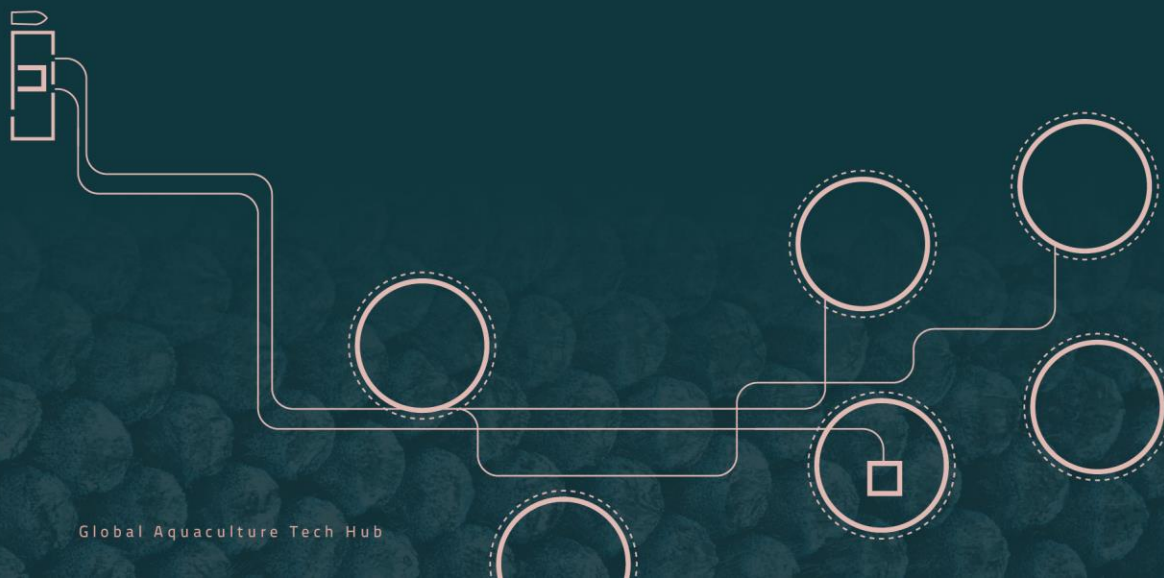




Guidelines Sustainability Reporting

For technology suppliers in Aquaculture

Developed by EY in collaboration with GATH members, Sparebanken Vest, Sparebanken Møre and SpareBank 1 SMN



Preface:

About this report

Word from the sponsors

Climate change and environmental degradation are defining global challenges and are an existential threat to the world. Countries across the world increasingly recognise the urgency in addressing these challenges. Through the European Green Deal, the EU aims to be the first climate-neutral continent. The EU aims to achieve this via the efficient use of resources, restored biodiversity and the cutting of pollution. The end goal is climate neutrality by 2050.

This requires significant investments and alignment of all sources of finance, public and private. Investments in unsustainable activities and assets are increasingly likely to become stranded, as climate and environmental challenges become ever more material.

The financial system has a key role to play in the transition to a climate neutral and sustainable economy. The main aim is to re-direct capital flows towards sustainable investments. This includes managing financial risks stemming from climate change, environmental degradation and social issues, and fostering transparency and long-term sustainable growth.

The transition is not a one-off event, but a process. For companies, this transition involves reducing greenhouse gas emissions, limiting environmental harm, and becoming resilient towards climate change and regulatory ESG requirements.

Corporate transparency on sustainability issues is a prerequisite for financial market participants to properly assess the long-term value creation of companies and their management of sustainability risks, as well as boosting investor and consumer trust. Sustainability reporting is therefore essential, not only to inform market participants and other stakeholders (such as NGOs, customers and employees) that wish to hold companies accountable for their social and environmental impacts, but also to help steer companies towards a more sustainable long-term future.

The demand for sustainable investments is growing rapidly and should not come at the expense of

greenwashing opportunities and thus undermine the transition to a sustainable economy. Companies need to provide tangible, credible demonstrations of their level of sustainability through sustainability reporting. As per the business axiom – you can't manage what you can't measure, transparency is a currency that build trust and therefore build businesses.

Companies that pursue sustainability can create value and foster profitability through managing risk of operational disruptions from climate change, resource scarcity and ESG regulations. In addition, companies can also improve revenues through resource efficiency and steering towards best-in-class sustainable products, technology and solutions.

This report is a collaboration between GATH, Sparebanken Vest, Sparebanken Møre and SpareBank 1 SMN. We recognize the importance of collaboration to drive progress on common sustainability objectives. That is why we have joined forces to fund this Guideline on Sustainability Reporting for the GATH network, enabling members to develop sustainability reports that meet internationally recognised standards.

Word from EY

This report has been developed by consultants in EY's sustainability team.

The guidelines for sustainability reporting are based on sustainability directive, standards and methodology developed by the EU, and considered best practice. The methodology is amplified by EY through our extensive experience working with sustainability reporting and strategy.

The methodology is mainly applicable to larger companies, as the level of detail needed to develop a best practice report is too comprehensive for many SMEs. However, the process steps of our methodology remain relevant regardless of size, as an impact, risk and opportunity assessment should be an integral part of a company's strategic considerations.

We are grateful for the opportunity to share our insights with you and look forward to collaborating with GATH in making the Norwegian aquaculture industry a sustainability pioneer.



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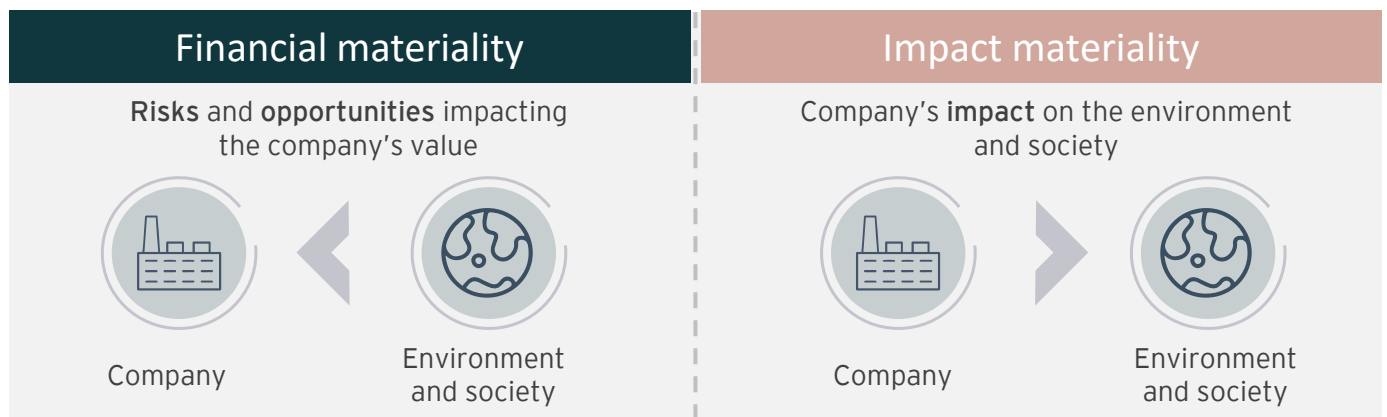
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Preface:

What is sustainability for the aquaculture industry today and tomorrow?

The Norwegian aquaculture sector is a significant contributor to Norway’s welfare, and has experienced an unprecedented growth the last decades. As the world sees a growing need for low impact protein sources, the Norwegian aquaculture sector is well positioned to leverage this potential both in existing and new products. However, the fish farming value chain is experiencing significant risks due to its impact on rainforests, ocean beds, fish welfare, and global warming. Moreover, external factors like extreme weather, ocean warming and acidification, and new technology, underlines the need for innovation, and sustainable growth.

The focus of this report is to equip GATH members with knowledge on how to strengthen their sustainability performance. Central to the methodology is the concept of “double materiality”, introduced in the EU Non-Financial Reporting Directive. Double materiality emphasises the necessity of considering a company’s **impact** on environment and society, but also the company’s **risk** in the face of climate and biodiversity crises. For technology suppliers, understanding the risks the aquaculture industry is exposed to provides huge opportunities, as they can develop solutions to mitigate risks and develop and capitalise on new markets.



In terms of risk, a company needs to consider how megatrends (e.g. climate change, industry 4.0) and stakeholders (e.g. shareholders, NGOs, customers) can impact its business model in the near and long-term. These elements can be either risks or opportunities.

For a company in the fish farming industry, relevant **megatrends** may include:

- Technology (closed containment farming methods)
- Electrification
- New protein sources

Typical **stakeholder concerns** for the company may include:

- Shareholders (company growth, sustainability ranking performance)
- NGOs (deforestation, fish welfare)
- Customers (deforestation, fish welfare)

Impact materiality focuses on the activities in the company’s value chain that have a significant impact on the environment and society. For a fish farming company, impacts in the value chain could include:

Supply chain (upstream)

- Deforestation and biodiversity loss
- Emissions from production of feed

Main operations

- Emissions from farming
- Fish health and welfare
- Adverse impact on seabed and natural habitat

Customers and end-users (downstream)

- Circular economy
- Transportation
- Product safety
- Low emission protein (compared to red meat)



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Introduction

Background

The aquaculture industry

The aquaculture industry has quickly become the fastest-growing food production sector in the world, and was the source of 46% of human fish consumption in 2018 with an expected increase to 89% by 2030¹. It is recognised for its essential contribution to global food security and nutrition in the 21st century.

On the other hand, the aquaculture industry faces various challenges such as its environmental impact, climate change, and ensuring social equality. To tackle these challenges, new technology is needed to improve fish welfare, reduce emissions and pollution.

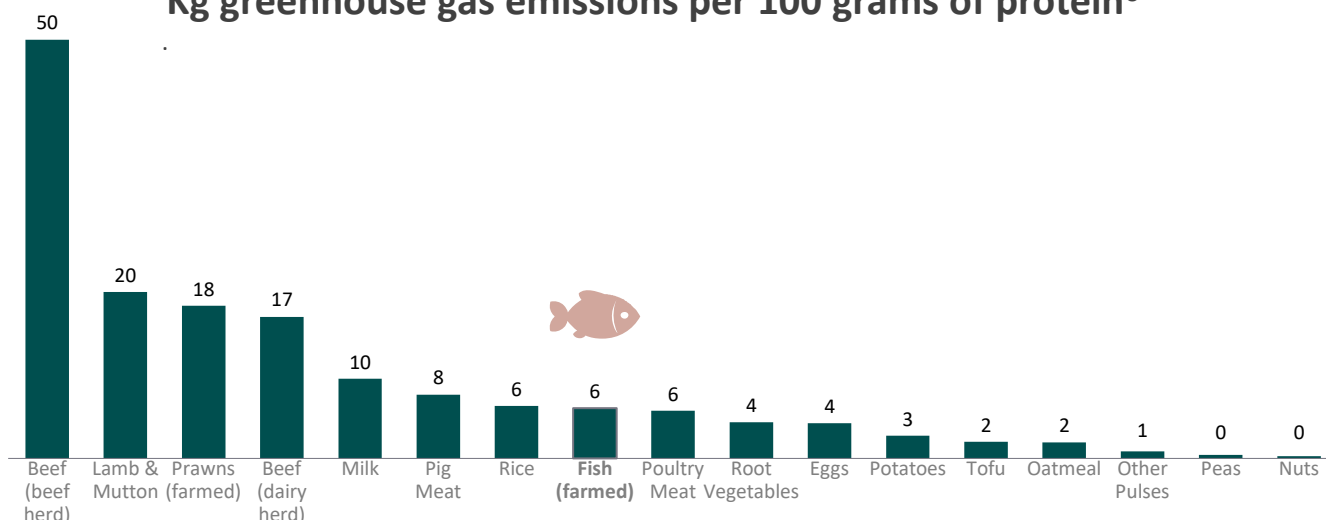
Annual seafood consumption is rising globally with almost twice the rate of annual world population growth². Compared to other sources of protein such as beef and lamb, farmed fish has substantially lower green house gas emissions per gram protein, illustrated in the figure below. Due to the rapid and necessary growth of the industry the global carbon footprint accounts for approximately 0.5% of the world's greenhouse gas (GHG) emissions³.

Aquatic animal health and welfare are fundamental to prevent zoonotic disease and the risks of antimicrobial resistance as well as the responsibility of treating animals humanely. Impacts for the aquaculture industry facing these challenges may entail changing technology to reduce GHG emissions (electrification), increase fish welfare and control (AI cameras), and minimise environmental impact using closed facilities.

The Norwegian aquaculture produces 2.4% of the farmed fish globally⁴ and it is dominated by salmon and trout. Norway is the world leading producer of salmon, responsible for 53% of the global volume⁵. Technical solutions companies have experienced a revenue growth of 14% from 2014-2019 in Norway, however stagnated in 2020 with a 3% growth due to the Covid-19 pandemic.

Norwegian tech suppliers can play an important role providing products and services to tackle the aquaculture's sustainability challenges and market growth, in a time of climate change, digital disruptions, and emerging technologies.

Kg greenhouse gas emissions per 100 grams of protein⁶



Emissions are measured in carbon dioxide equivalents (CO₂eq). This means non-CO₂ gases are weighted by the amount of warming they cause over a 100-year timescale. Greenhouse gases are weighted by their global warming potential value (GWP100). GWP100 measures the relative warming impact of one molecule of a greenhouse gas, relative to carbon dioxide, over 100 years.

1 "Shallow returns? ESG risks and opportunities in aquaculture", FAIRR, 2021

2 "The state of world fisheries and aquaculture 2022", FAO, 2022

3 Quantifying greenhouse gas emissions from global aquaculture.", MacLeod, M.J., Hasan, M.R., Robb, D.H.F. et al, 2020

4 "Key figures from Norwegian Aquaculture Industry 2020", Directorate of Fisheries, 2021 "

5 "The EU aquaculture sector – economic report 2020", JRC, 2021

6 Poore, J., & Nemecek, T. (2018). Additional calculations by Our World in Data

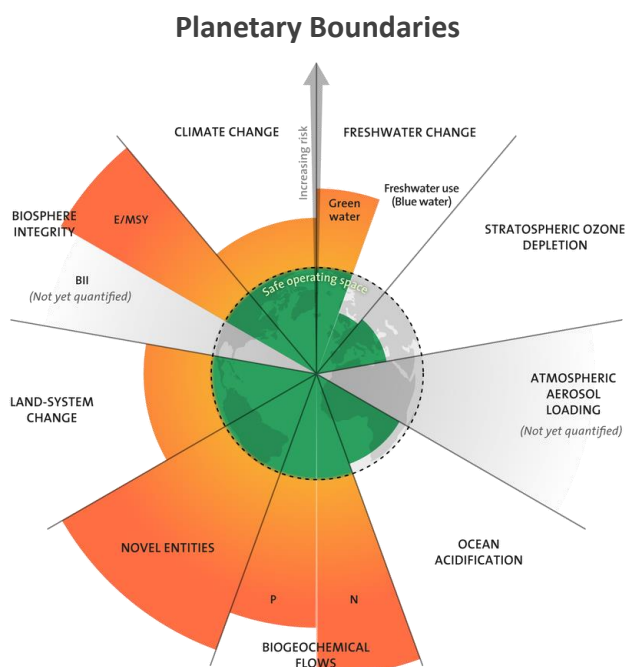
Purpose of sustainability reporting

- measuring and communicating progress

The urgent need to measure sustainable development

In 2015 the UN defined 17 sustainable development goals (SDGs) and has set the benchmark for sustainable development covering environmental, social, and governance (ESG) issues. At the same time, 195 states signed the Paris Agreement on limiting global warming to well below 2°C, pursuing global efforts to reduce GHG emissions to net zero by 2050.

The Intergovernmental Panel on Climate Change (IPCC) has clearly stated “Code red” for humanity, driven by global heating. Even if the climate crisis has received most of the attention, humanity is also facing a wider nature crisis accelerated by climate change. The *Planetary Boundaries* describes these limits in detail and underlines the need to rethink how to conduct business and measure progress. The figure represents limitations of the global system and how humanity operates within it.



Azote for Stockholm Resilience Centre, 2022

Relevant and reliable ESG information

The aquaculture industry is experiencing increased expectations related to transparency from investors, employees, NGOs, customers, and other as stakeholders have started to realise the ripple effects of climate change.

Companies have to meet the expectations by prioritising the most impactful contributions to sustainable development. Companies therefore need to gain a deeper understanding of the impacts throughout the value chain, and the ESG risks and opportunities that come with it.

Attractive to investors

The *EY Investor Survey (2021)* shows that there is an increasing demand for non-financial information from companies. Quality reporting provides stakeholders the data to assess whether the company is taking necessary measures to properly manage risks and opportunities. This could potentially increase attractiveness to investors, reduce cost of capital and increase enterprise value.

Evolving legal requirements for sustainable reporting

Regulators across the world are developing new laws and guidelines in order to push the world in a more sustainable direction. Access to low-cost capital is making sustainable investment more attractive and will be a crucial enabler in achieving the UN SDGs and the Paris Agreement.¹

Meeting future and current customer demands

More awareness around climate change and sustainable development will increase customers' demand for transparency², for instance GHG emission reporting. Global targets related to supply chain sustainability management, as well as circular business models, require companies to elaborate on new topics to maintain attractiveness.

Employee satisfaction and talent retention

The younger generation is seeking a workplace that contributes to sustainable development³. Disclosing your company's sustainability approach, strategy, and ambitions could attract talents and increase employee's motivation.

1 "Mobilising institutional capital for renewable energy", IRENA, 2020

2 "EY Institutional Investor Survey", EY, 2021

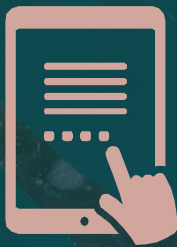
3 "Does ESG really matter—and why?", McKinsey, 2022

Background

Questionnaire responses

How mature is your organisation on sustainability?

The survey was distributed to GATH members in August 2022, and received 19 responses. Below is a summary of responses. The full list of questions asked can be found in appendix C.



In general, the responding GATH members perceive their knowledge of sustainability reporting slightly above **average (5.64)** on a scale from 1 (low) to 10 (high).

38%

Number of respondents saying that their company has a **dedicated sustainability responsible**



80%

Amount of respondents who work in companies that **have not committed** to reducing emissions in accordance with the Paris Agreement



Only **40%**

of respondents replying that their company **has conducted** ESG risk assessments



However, **2/3**

of respondents have developed policies and stated ambitions for **reducing negative ESG impact**



90%

of respondents claim that they **have a long-term strategy** for value creation (e.g. for 2030)



Sustainability reporting developments

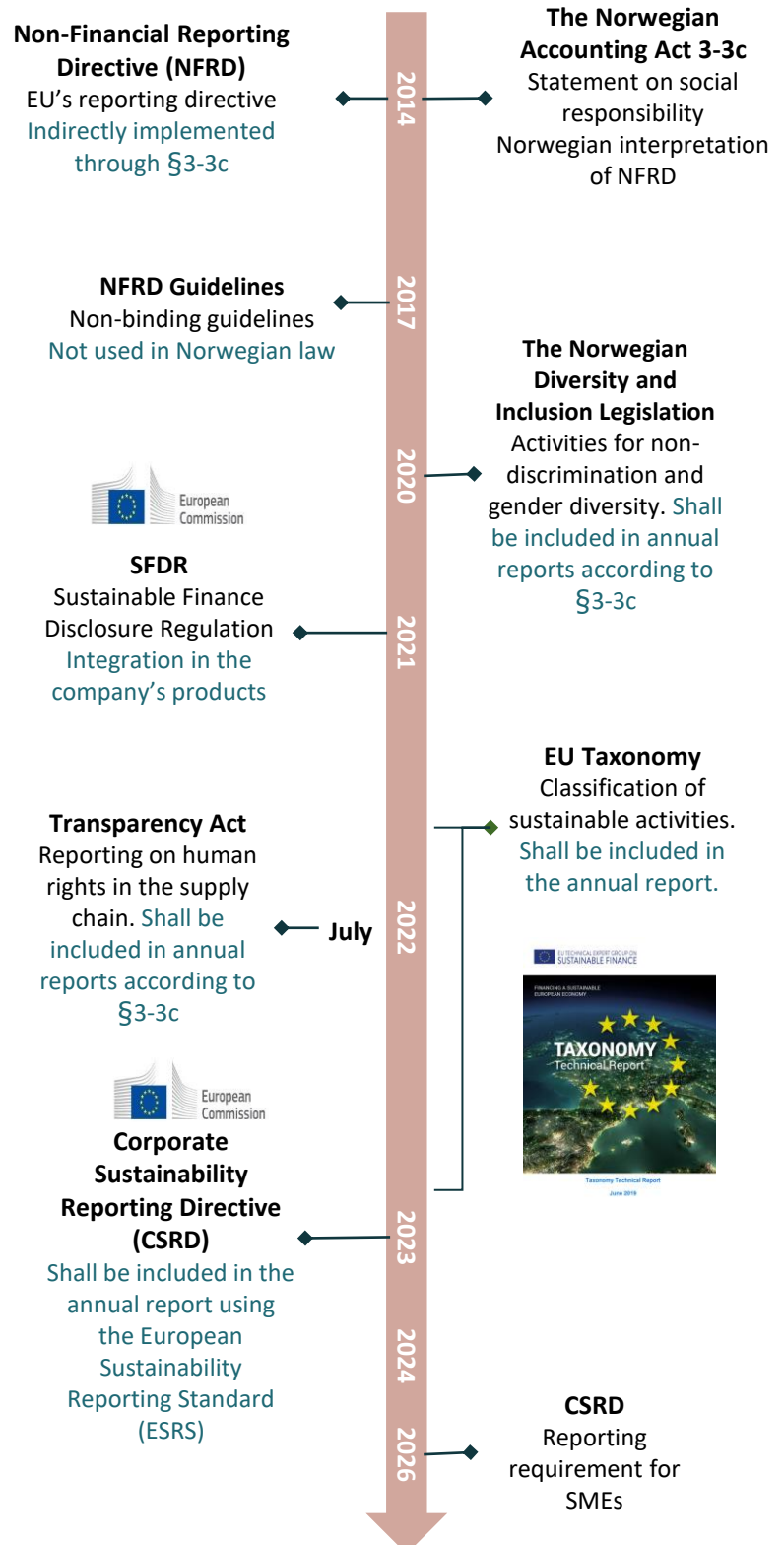
Timeline of EU and Norwegian sustainability reporting legislations

There is an urgent need of a **common language** to measure and report the challenges the world is facing today. Sustainability reporting is getting increased attention due to the importance of sustainability factors' impact on the company's **performance and risk profile**.

Over the last decade national and international initiatives have tried to standardise sustainability reporting to make the information more comparable. The number of sustainability regulations and standards globally has **nearly doubled in the last five years**¹.

There are global variations in managing sustainability-related disclosures and **jurisdictions are taking different approaches**. The US is **investor-focused** while the EU is more broadly focused **on all stakeholders and has introduced the double materiality concept**. As most of the GATH members operate in Europe and Norway, this guideline will mainly focus on EU and Norwegian standards.

EU aims at making the European Union **climate neutral by 2050** and has announced the **European Green Deal**, including a set of commitments, policies, and legislations. The timeline illustrates important EU and Norwegian **sustainability reporting legislations** that have been published the last years. Some of the regulations are implemented and several legislations are under development.



Footnote:
1 "The future of sustainability reporting standards", EY, June 2021

2

Methodology: Best practice sustainability reporting

Sustainability strategy and reporting

Introduction

1: Double materiality analysis

2: Strategy and roadmap

3: Reporting

A holistic approach to strategy and reporting

The three-step process illustrated above is an adaptable approach for working with sustainability projects, both big and small. The approach is based on continuous research and experience with a wide range of sustainability topics, supported by standardised and consistent reporting. Regardless of company size and complexity, these steps should be included to conduct the necessary analyses required in the European Sustainability Reporting Standards (ESRS).

The double materiality analysis is the first step in the process and involves acquiring information on impact, stakeholders, trends, and risks.

The analysis consists of two components (as illustrated in the figure below): *Impact materiality* and *Financial materiality*. The assessments are intertwined and interdependencies between dimensions should be considered. The left side of the figure illustrates how shifts in environment and society

constitute physical or transitional risks for the company. The right side of the figure illustrates how the company's activities affect the environment and society throughout the value chain.

In the materiality assessment processes, equal importance should be given to impact materiality and financial materiality. To determine whether a sustainability topic is material, it must be analysed from both perspectives.

The materiality assessment does not necessarily depict how well the company manages ESG related risks and opportunities. The materiality assessment only determines which ESG topics are *most essential* for the company to address, in terms of commitment, communication, policies, processes, and actions. Determining how well a company manages the ESG related risks and opportunities identified in the materiality assessment, is referred to as a Maturity Assessment, which is conducted in Step 2: Strategy and roadmap.

Financial materiality

Risks and opportunities impacting the company's value



Company



Environment and society

Impacts could potentially be financially material

Impact materiality

Company's impact on the environment and society



Company



Environment and society

Financial materiality is concerned with how important – or *material* – a sustainability topic is deemed financially for the business and the value of the company.

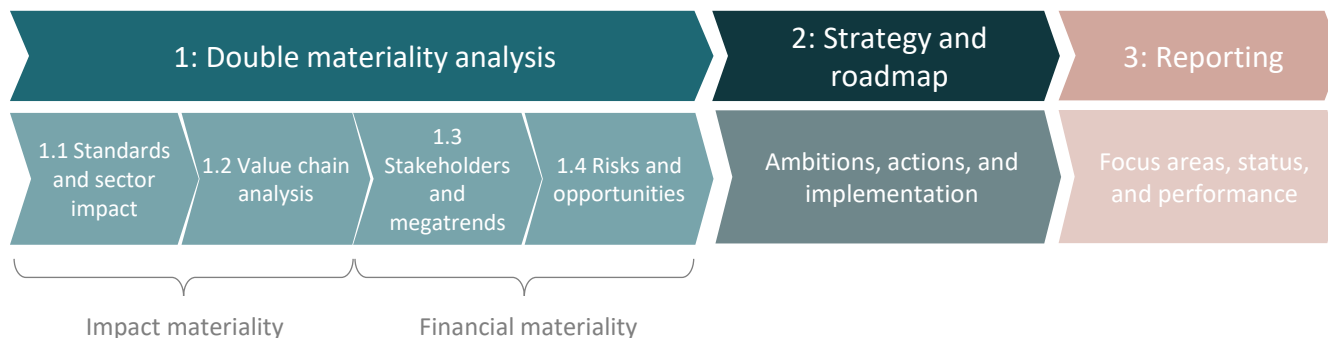
Primary audience: Investors

Impact materiality describes how important – or *material* – a sustainability topic is deemed according to its impact on the environment and society.

Primary audience: Consumers, employees, NGOs, civil society

Sustainability strategy and reporting

Methodology



1. Double materiality analysis

Impact materiality assessment

1.1 Standard and sector impact

- Make sure to comply with national and international legislations and standards
- Evaluate general and sector-specific standards and frameworks
- Analyse peers' sustainability work and sector-specific trends

1.2 Value chain analysis

- Interview relevant stakeholders
- Collect own data, review, compare, and elaborate content with data owners
- Identify and analyse positive and negative impact in the value chain
- Document and rate degree of impact
- Workshop to confirm the most relevant impact and the degree of influence

Financial materiality assessment

1.3 Stakeholders and megatrends

- Map requirements and expectations from stakeholders such as customers, investors, NGOs, employees and authorities
- Desktop study of relevant megatrends and identify the most important to your company that will affect the analysis the most

1.4 Risks and opportunities

- Identify potential risks and opportunities related to ESG topics based on input from stakeholder and megatrend analysis
- Analyse the positive and/or negative effects (risks and opportunities) that are likely to influence enterprise value

- Assess likelihood and consequence of identified risks and opportunities
- Workshop to confirm the most relevant risks and opportunities and the classification

Every third year, the double materiality analysis should be reassessed.

All material topics in the double materiality assessment should be reviewed once a year, as part of the preparation of the sustainability report.

2. Develop strategy and roadmap

- Use the output from the materiality analysis to define strategic focus areas and related sub goals
- Implement action plans and related resources necessary to implement the strategy
- Anchor strategic direction and impact with executive management and board

3. Reporting

The double materiality analysis and strategic discussion provide adequate information to report on focus areas and Key Performance Indicators (KPIs).

1. Identify reporting framework
2. Identify relevant KPIs
3. Ensure data quality and responsibilities
4. Secure internal controls and processes
5. Communicate
6. Attestation of the report

3

Deep dive: Step-by-Step sustainability reporting



1.1 Standards and sector impact

Familiarise yourself with relevant standards, legislation and what peers are doing in the aquaculture industry

WHAT

Identify topics, issues, and sustainability aspects by researching national and international legislations and standards, sector and industry frameworks and peers.

WHY

To ensure that the materiality assessment and reporting are in line with legal requirements and sector standards in the aquaculture industry, that it covers the most material topics and to provide an idea of the maturity of the industry. Following best practices within the aquaculture industry, regardless of where you are in the value chain, can create opportunities and mitigate risks for the company, whether the goal is to be an ESG leader or aligned with peers.

HOW



1. Make sure to comply with national and international legislations and standards

Research and update relevant topics based on national and international developments and perspectives, e.g., new legislations on circular economy, human rights, gender pay gap, etc. Constitute guidelines that ensure a robust foundation for understanding relevant ESG impacts based on international standards.

Relevant national and international legislations (current and future) that the company should consider are detailed on the next page.



2. Evaluate general and sector-specific standards and frameworks

Map a long-list of potential industry-wide impacts, risks and opportunities and base it on industry practices and frameworks for sustainability reporting. Identify the most relevant industry and sector-specific frameworks and topics herein.

Page 16 outlines voluntarily general, and aquaculture-specific, frameworks and standards.



3. Peers' analysis

- Identify top **five peers** and detect the **market leaders**
- **Identify topics** in their materiality assessment as they can provide important input on **megatrends and/or focus areas**
- Consider peers' sustainability **strategies, frameworks, targets, and performance measurements**

National & international legislations to check whether your company is covered

Corporate Sustainability Reporting Directive (CSRD)/European Sustainability Reporting Standard (ESRS)



Who: First companies with more than 250 employees, turnover of EUR 40 mill or a balance sheet of EUR 20 mill. Later on, small and medium size companies will be included.

What: EU is currently finalising new sustainability reporting requirements. The legal directive (CSRD) set the scope, timeline and notion of what information must be reported (e.g. requires double materiality). The specific requirements (ESRS) is currently being developed by European Financial Reporting Advisory Group (EFRAG).

The standards requires reporting on sustainability indicators across E, S and G. Information shall be focused on risk and impact, and is required to be included in the entity's annual reporting.

When: Required for large companies to report on in year 2024 on 2023 data. SMEs are required to report in 2026

EU Taxonomy



Who: Listed companies with more than 500 employees. From 2024, most companies with more than 250 employees.

What: Classification of sustainable activities, which shall be included in annual reports. Focus is on six environmental objectives: Climate change mitigation; climate change adaption; water usage; circular economy; pollution; and ecosystems

When: Eligibility and alignment of climate mitigation and climate adaptation activities as of reporting year 2022. As of 2023, reporting on all environmental objectives is mandatory.

The Norwegian Transparency Act



Who: The law applies to "larger undertakings" as defined by Accounting Act § 1-5, or meets two or more of the following:

- sales revenue of NOK 70 million or more
- a balance sheet total of more than NOK 35 million
- an average of 50 or more employees (man-years) in the financial year.

What: Requires companies to ensure human rights when they produce goods, and to be open about their specific actions to secure workers' rights.

When: The act came into force 1st of July 2022. Reporting is required for FY2022 in 2023.

The Norwegian Accounting Act §3.3.c



Who: "Larger undertakings" as defined by §1-5 of the Accounting Act

What: Reporting requirements on social responsibility, external environmental impact, and anti-corruption.

When: Already in force, and a recent update requires companies to report on material topics as of the reporting year 2022. Additionally, adjustments to fit CSRD is expected from 2024.

Voluntary general sustainability reporting standards relevant for the aquaculture industry

Global Reporting Initiative (GRI)

More than 90% of the world’s largest companies use GRI as their standard for disclosing sustainability information. It is a common language for communication of impacts, and follows an independent, multi-stakeholder process where double materiality is central to the reporting standard.

GRI 13 - Sector Standard for Agriculture, Aquaculture, and Fishing

The sector-specific standard enhances the completeness and comparability of sustainability information for companies involved in aquaculture.

Science Based Targets – The net-zero standard

Science-based targets’ Corporate Net-Zero Standard gives companies clear instructions on how to bring their net-zero plans in line with climate science. It includes guidance, criteria and recommendations.

Task Force on Climate-related Financial Disclosures (TCFD) and Task Force on Nature-related Financial disclosure (TNFD)

The TCFD and TNFD comprise a set of voluntary disclosures to provide investors and other stakeholders with insight to a company’s exposure to risks related to climate change and nature loss. The risks are assessed in both physical aspects (e.g. drought, hurricanes), and the transitional aspects (i.e. technology, reputation, market and policy).

The Integrated Reporting Framework

The <IR> Framework promotes a cohesive approach to corporate reporting. The framework aims to improve quality of reported information, create long-term value and encourage integrated thinking and decision-making.

Coller FAIRR Index

Investor network raising awareness on ESG risks in animal production, through research and reports, tools and company ratings.

Nordic Sustainability Reporting Standard (NSRS) for SMEs

Reporting according to complex standards can be resource demanding for smaller companies. Therefore, the NSRS is a simplified framework for SMEs in in the Nordics. The standard aims for companies to report according to their size and level of experience with sustainability reporting.

SASB Standards

Topics covered: E, S, and G

SASB has developed 77 globally applicable industry-specific standards which identify the minimal set of financially material sustainability topics and their associated metrics for the typical company in an industry.

Global Salmon Initiative

The Global Salmon Initiative (GSI) is a leadership effort established by global farmed salmon CEOs committed to a sustainable and responsible salmon farming. To promote transparency, all GSI salmon farming member companies publish key environmental and social data across 15 indicators using the Aquaculture Stewardship Council (ASC) Salmon Standard as a benchmark.

SeaBOS

SeaBOS is a global initiative that aims to lead a global shift towards sustainable production of seafood and living oceans.



1.2 Value chain analysis

Understanding the company's footprint from suppliers to fish farmers and consumers

WHAT

Map the company's environmental and societal impacts on its surroundings (the world), both directly (own operations) and indirectly (through suppliers and customers/consumers).

WHY

To understand how sustainable a company is, it is vital to assess and understand the company's footprint throughout the value chain.



See Lerøy's sustainability report 2021 for inspiration

- Interview relevant stakeholders with insight into ESG issues
- Further collect data. Review, compare and elaborate content with data owners
- Illustrate your company's value chain (simplified example below). See Appendix C for a detailed example of a value chain for a company in the aquaculture sector
- Analyse impacts by utilising inputs from the first step, interviews and company data
- Use existing data from sustainability work to visualise impacts. Further quantify impacts if needed/possible, or use qualitative measures (low-high)
- Document and quantify degree of impact (e.g. by ranking impact low, medium, and high). Consider the scale (level of seriousness), scope (e.g. global, regional or site specific) and remediability (e.g. could the environment be restored)
- Workshop with key personnel to confirm the most relevant impact and the degree of influence

Grade of impact:

● High

● Medium

● Low

Illustration of a simple value chain impact analysis



HOW

Look to chapter 4 for extended list of topics, factors and KPIs

Topic	Material supply	Own operations	Customer / end user
Environmental	● Environmental impacts of raw materials	● Environmental and climate impacts from own operations (Scope 1 and 2)	● Recycling of materials after use
	● Carbon emissions in supply chain (Scope 3)	● Environmental and climate impacts from physical products (Scope 1)	● Environmental impacts from use phase of physical products (Scope 3)
	● Online sale energy use in data centres		● Product quality
Social	● Labour & human rights in supply chain	● Employee safety, health and well-being	● Product safety
		● Talent management	● Customer data privacy and security
		● Inclusion and diversity	
Governance	● Anti-corruption and bribery in supply chain	● Business ethics	● ESG communication and documentation
		● Statutory reporting	● Know your customer & Business ethics

1.3 Stakeholder and megatrends

Orient yourself with the largest challenges and trending topic of the aquaculture industry

WHAT

Evaluate megatrends and stakeholders according to their interest, expertise and ability to influence business success, while also considering the actual and potential risks and opportunities in accordance with appropriate topics.

WHY

A multi-stakeholder dialogue ensures impacts on all affected stakeholders are considered, not only shareholders. The purpose is to ensure a broad focus, covering all megatrends and stakeholders, both internal and external.

Stakeholder Analysis

Map:

1. Who are they?

2. What are their concerns?

3. Gather input on topics which may affect stakeholder requirements, actions and perceptions of the company – both now and in the future



HOW

Megatrend Analysis



- How do megatrends such as climate change, transparency, circular economy and digitisation create risks and opportunities for the company?
- What are customer’s concerns today and in the future?
- How will regulatory changes affect business models in the future?
- What developments are there in green technology and low carbon alternatives?
- What are competitors doing?



Megatrends impacting the suppliers of the aquaculture sector

Tech suppliers play an important role in the aquaculture industry, as they strengthen the industry's ability to handling rising challenges in aquaculture and beyond.

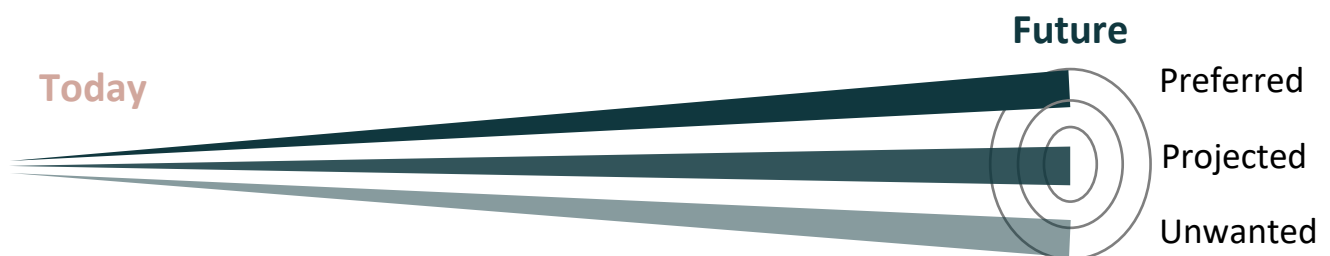
In a rapidly changing world, a major pitfall is assuming today's industry structure, competitors and profitability will continue *status quo* in a long-term planning horizon. Assessing the megatrends affecting the aquaculture industry helps suppliers in the industry to challenge assumptions and extend the current scope of operations and business-as-usual.

The EY Norwegian Aquaculture Analysis (2021) highlighted five megatrends that will greatly impact the global potential and development, both on supply and demand side, affecting the global food industry (with the pandemic's effect on urbanisation, health and biotechnology as important contributing factors):

- Growing world population
- Increasing rate of digitalisation
- Growing middle class coupled with urbanisation
- Increasingly health-conscious consumers
- More focus on sustainability and exploited resources

These trends are based on observations at a global scale. This analysis observed growing consciousness and awareness within the aquaculture value chain related to sustainability and preventive health. This impacts the entire value chain as the farming industry experience volume constraints due to biological challenges, regulations and a need for technical development.

Digitalisation is especially important for tech companies providing solutions related to fish health and welfare, seabed and marine pollution, closed containments and more.



Climate change: Heading towards 2.7°C scenario. Increased expectations of electrification and zero-emission production



Sustainable aquaculture: Farmed fish have a relatively low CO2 impact, but still have challenges related to open farms. Closed containments introduced in Canada



Nature and biodiversity: Norwegians use five times more resources, and lost 50% of biodiversity, over the past 40 years. In Norway, fish farming industry struggles with high fish mortality and fish welfare



Demographics: Increasing inequalities between and within countries. Addressed in Norway through the Equality and Anti-Discrimination Act



Climate change: Paris Agreement demands 55% cut in GHG emissions by 2030. Global warming is a threat to oceans and the aquaculture sector's resilience



Sustainable aquaculture: Push for land-based solutions and farming in closed containments as the only sustainable solution (EU Taxonomy)



Nature and biodiversity: Consumers will move towards vegetarian diets, and regulators will enforce strict demands (nature regeneration, circular economy)



Demographics: Target of reducing the number of people at risk of poverty or social exclusion by at least 15 million by 2030



Important stakeholders and their concerns

Large aquaculture corporates

MOWI®

Material topics:

Climate change
Plastics
Waste and circular economy,
Freshwater use
Sustainability certifications
Escapes
Sea lice
Fish health and welfare
Sustainable feed
Ethical business conduct
Safe and meaningful work
Community engagement



Austevoll Seafood ASA

Material topics:

Sustainable aquaculture
Sustainable fishing
Climate impact and risks
Ethics and anti corruption
Contributions to local communities
Attractive and decent jobs

CERMAQ

Material topics:

Product quality, health and safety
Fish health and welfare
Feed ingredients
Biodiversity and feed sourcing
Biosecurity
Blue economy, Safety & workplace
Community relations
Human rights
Value chain approach
Certifications
Responsible business conduct
Climate: adaption, Emission and innovation

End-users

Carrefour

Ambition:

- 50% of all the fish sold under the Carrefour brand and under national brands to be the result of sustainable fishing practices by the end of 2025.



NorgesGruppen

Ambitions:

- Risk assessment for all imported fish and seafood
- NG shall support the development of international certification schemes such as ASC and MSC.
- Promote a more sustainable fishing and aquaculture industry



Consumers

Survey¹ shows that:

- 87% want better information so they can be confident that they are not buying unsustainable fish or seafood products
- 66% want to know that the fish they buy can be traced back to a known and trusted source

Certification schemes



Developing improved standards for:

- Fish Welfare
- New Aquatic feed standard aligned with GRI
- Plastics, Marine Litter and Ghost Gear
- RAS modules



The Pillars of sustainability with traceability as the foundation:

- Environmental responsibility
- Animal Health and Welfare
- Food Safety
- Social Accountability



GLOBAL G.A.P. ACADEMY

Addresses key considerations for:

- Governance
- Farm Siting
- Nutrient Pollution
- Feed
- Feed Disease, Medicines and Chemicals
- Escapes
- Wild Seed

Financial markets

bluefront equity

Portfolio companies are required to report on KPIs related to SDGs along with financial performance on a quarterly basis.



EURONEXT

Euronext have announced a new edition of ESG reporting standards. The guide will help listed companies in their interactions with investors and the wider ESG community. The revised edition focus on 1.5°C global temperature increase trajectory, in line with Euronext's "Fit for 1.5°" commitment.



PRINCIPLES FOR RESPONSIBLE BANKING

A framework that ensures signatory bank's strategy and practice align with vision society has set.

Banks such as Sparebank 1, Sparebanken Møre and Sparebanken Vest have signed. The banks require to provide information on the most significant impacts, targets and progress.

Footnote:

1 "The Rise of the Conscious Food Consumer", GlobeScan, November 2020

1.4 Risks and opportunities analysis

WHAT

Identify possible sustainability risks and opportunities that are financially material, i.e. may positively or negatively affect the company's development, performance and position (over the short, medium or long term) and, therefore, create or erode its enterprise value.

WHY

To better understand the risks or opportunities that influence, or are likely to influence, the future cash flow and therefore enterprise value, but that are not necessarily recognised in financial reporting.



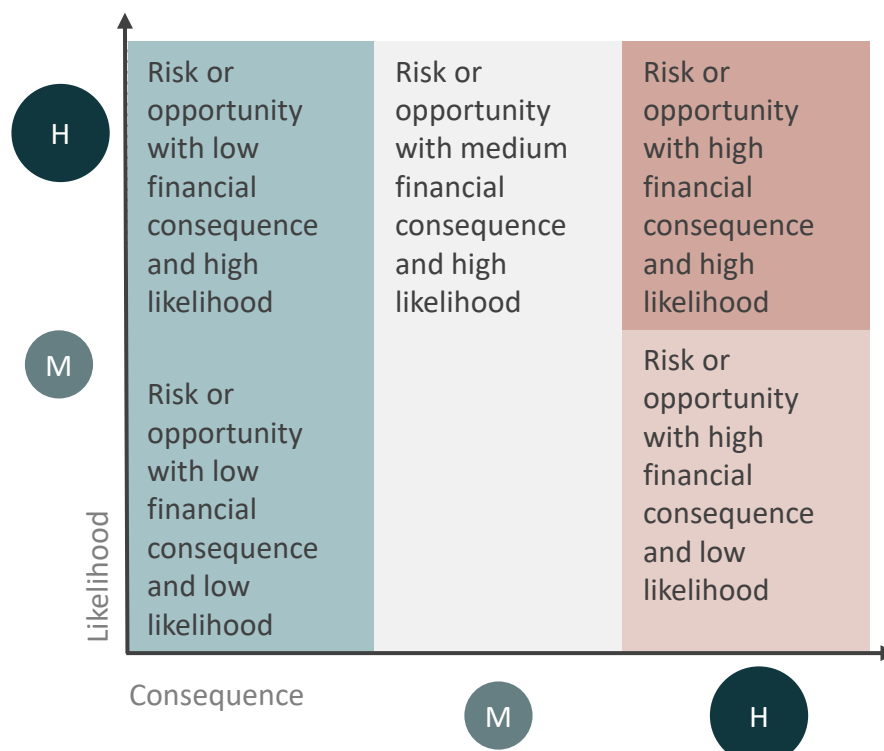
See Mowi's annual report p. 302 for inspiration on risks and opportunities reporting (TCFD)

- Identify relevant risks and opportunities based on inputs from stakeholder and megatrend analysis. See also [TCFD's report, Table 1](#) for examples of climate-related risks and opportunities.
- Classify risks and opportunities by considering likelihood and consequence using company relevant evaluation criteria.
- Arrange workshop to confirm classification of the risks and opportunities

Example of evaluation criteria




	Consequence	Likelihood
Risk	Low/medium/high negative impact on e.g. reputation, efficiency, sales, costs or employee safety and environment	Low/medium/high likelihood of financial loss, reduced market share, reputations etc.
Opportunity	Low/medium/high market potential (could be financially quantified)	Low/medium/high likelihood to capitalise on the opportunity


HOW

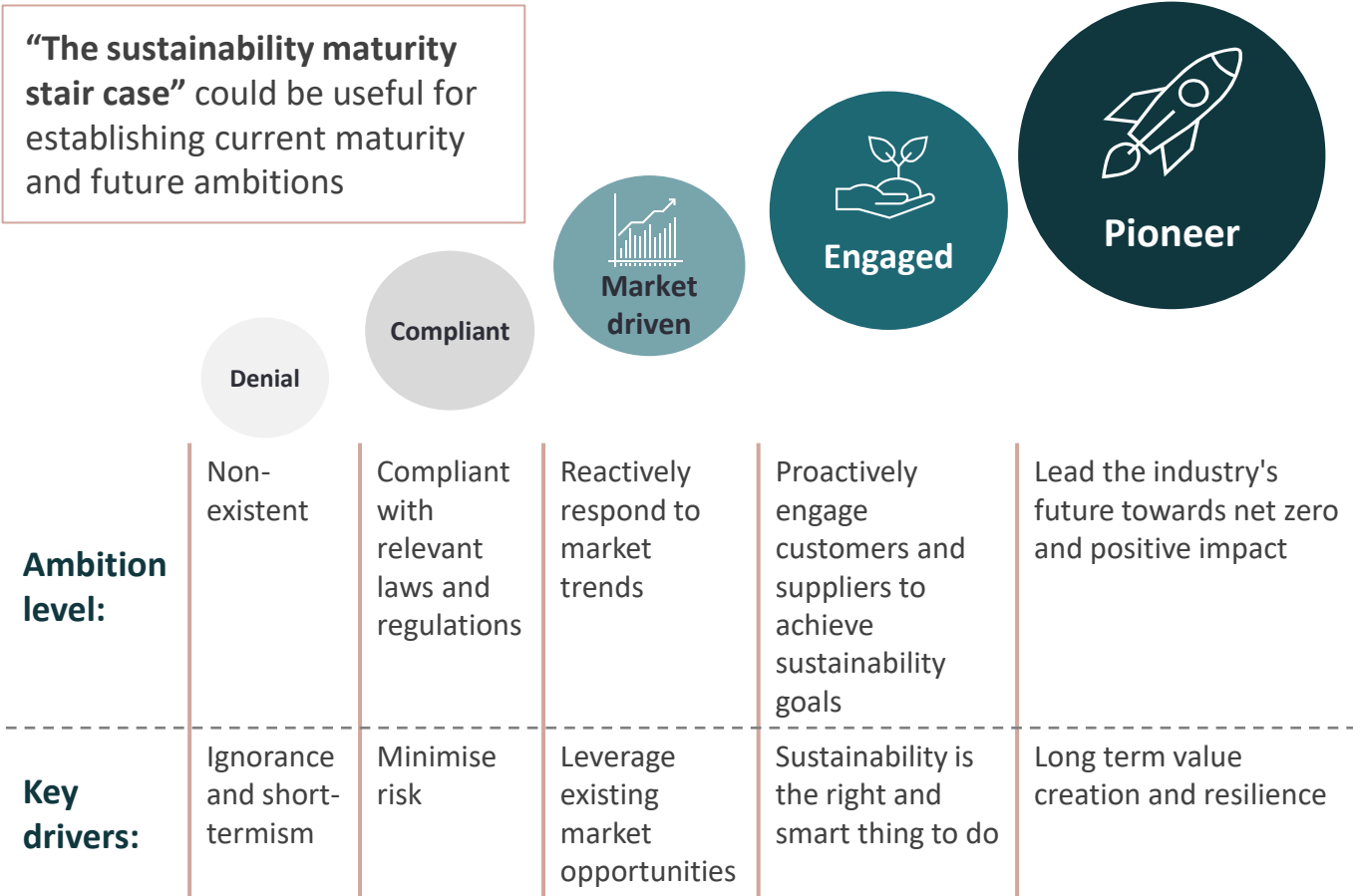




2. Strategy and roadmap

 <p>Strategic discussion</p>	<ul style="list-style-type: none"> • In dialogue with the management and key personnel in the company, anchor the outcomes and findings from the double materiality analysis • Conduct a maturity assessment of the organisation, e.g. by using the model illustrated below
 <p>Establish focus areas and ambitions</p>	<ul style="list-style-type: none"> • Consult broadly in the company on which sustainability areas are important to focus on in the materiality analysis • Decide priority areas and ambitions in the short and long term
 <p>Finalise transition plans, action plans, and policies</p>	<ul style="list-style-type: none"> • Create a transition plan for the company’s ambition across various sustainability topics • Establish implemented policies to manage focus areas • Define measurable targets • Define action plans and resources

 *The double materiality analysis sets the foundation for the strategic discussions. See Grieg Seafood’s annual report p. 16 for an example of strategic focus areas.*










3. Reporting

The final step of the process is reporting the outcome and findings from the double materiality analysis and strategic discussion. This is often done in a separate sustainability report, but can be integrated in the company's annual report. Mowi and Lerøy are examples of companies that have an integrated report.

Getting started with reporting

Steps

 Select a reporting framework and relevant KPIs	Choose a reporting framework that meet stakeholders' expectations .
 Ensure data quality and responsibilities	Identify what type of data is necessary to collect for the various KPIs and ensure sufficient data quality.
 Implement internal controls and processes	It is important that the company defines roles and responsibilities for det different reporting areas.
 Communicate	The company's sustainability information (reporting) shall be communicated in an appropriate and relevant manner Consider following reporting principles: (1) relevance, (2) faithful representation, (3) comparability, (4) verifiability and (5) understandability .
 Assurance	Consider independent third-party verification of the information provided to enhance reliability.

4

Material sustainability topics KPIs for technology suppliers in aquaculture

Guidance

The following pages contain a comprehensive list of key performance indicators (KPIs) on environmental, social and governance performance. The outcome of the double materiality assessment and strategic discussion gives an indication on what KPIs to report on. Choose the ESG topics that are material to your company.

The list contains both **absolute** and **intensity** based KPIs. Absolute KPIs are looking at reductions set to a specific amount (e.g. reduce 20% emissions by 2025), whilst intensity based KPIs is a normalised metric (e.g. emissions are set relative to some sort of economic output). There are pros and cons with both types, so they should be chosen based on what measurement you want to capture. The advantage of absolute KPIs is that it can be set to an overall target of the company, but might not capture progress made e.g. if emissions are cut through more efficient production, but production has increased, the progress is not visible. Here an intensity based target would capture the increase in efficiency and facilitates for growth, but could also provide a misrepresenting picture of having decreased emissions.

Environmental

Climate change			
Topic	KPI	Unit of measure	Reference
Emissions	Scope 1 GHG emissions	Metric tons of CO2 equivalent	GRI 305-1 ESRS E1-7 [Draft]
Emissions	Scope 2 GHG emissions	Metric tons of CO2 equivalent	GRI 305-2 ESRS E1-8 [Draft]
Emissions	Scope 3 GHG emissions	Metric tons of CO2 equivalent	GRI 305-3 ESRS E1-9 [Draft]
Emissions	GHG emissions intensity	Ratio of metric tons of CO2 equivalent per unit produced/function/service/sales	GRI 305-4 ESRS E1-11 [Draft]
Emissions	Reduction of GHG emissions in own operations and value chain	Metric tons of CO2 equivalent	GRI 305-5 ESRS E1-12 [Draft]
Emissions	GHG emission management, transition plans and policies	Text	TCFD ESRS E1-1,2 & 3 [Draft]
Transitional climate risk	Financial implications and other risks and opportunities due to climate mitigation	Text	TCFD ESRS E1-1 & 4 [Draft]
Climate adaption and resilience	Financial implications and other risks and opportunities due to climate change	Text	GRI 201-2
Energy	Total energy consumed, percentage grid electricity, percentage renewable	Gigajoules, Percentage	GRI 302-1 SASB FB-MP-130a.1

Marine ecosystems

Seabed	Seabed impact (average MOM-B score)	Number (1 is best and 4 is lowest score)	MOM system
Seabed	Average fallowing time per facility	Days	ASC salmon standard 3.1.1
Marine pollution	Oil spills	Number, volume	GRI 306-3 (2016) Updated version is expected
Marine pollution	Plastic litter: amount of plastic products and packaging being reused, recycled or disposed	Percentage	GRI 306-1 (2020)
Marine pollution	Microplastic – estimated microplastic impact by products used and sold	Kg	GRI 306-1 (2020)
Water use	Total water withdrawn, total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	Megalitres	GRI 303-3 SASB FB-MP 140 a.1
Fish Escape	Escape incidents	Number	ASC
Fish Escape	Escaped fish	Number	GSI, ASC

Resource use and circular economy

Resource use	Resource inflows by renewable/non-renewable resources, virgin/non-virgin materials and sustainable/regenerative source	Tons, percentage	GRI 306-1 (2020) ESRS E5-4 [Draft]
Resource use	Resource outflows - material and products that are designed along circular principles: durability, reusability, repairability, disassembly, remanufacturing/refurbishment, recycling or other optimisation of the use of the resource	Tons, percentage	GRI 306-1 (2020) ESRS E5-5 [Draft]
Waste	Total amount of waste generated	Tons, percentage	GRI 306-3 (2020) ESRS E5-6 [Draft]
Waste	Waste recovery by preparation for reuse, recycling and other recovery operations	Tons, percentage	GRI 306-4 (2020) ESRS E5-6 [Draft]
Waste	Waste disposal by incineration, landfilling and other disposal operations	Tons, percentage	GRI 306-5 (2020) ESRS E5-6 [Draft]

Aquatic animal health and welfare

Fish mortality	Mortality rate	Percentage	GSI, GRI 13 sector standard for agriculture, aquaculture and fishing GSI
Fish mortality	Main causes of mortality	Text	GRI 13 sector standard for agriculture, aquaculture and fishing GSI
Fish mortality	Average monthly standing stocking density	Kg/m ³	GSI
Sea lice	Sites above national lice limits at any time	Percentage	Norwegian Food Safety Authority (NFSA)
Medicine use	Antimicrobial use - Active substance (gram) per tonne biomass produced	Gram API per ton	ASC, GSI
Medicine use	Fish treated with non-medicinial treatment systems	Percentage	ASC
Medicine use	Sites above national lice limits at any time	Percentage	ASC
Medicine use	Active substance per tonne biomass produced: Oral (g-1 t), Topical (g-1 t), Peroxide (ltr-1 t / 10)	Gram API per ton	ASC

Biodiversity and ecosystems

Biodiversity	Operational sites in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Number	GRI 304-1
Biodiversity	Significant impacts on activities, products and services on biodiversity	Number	GRI 304-2
Biodiversity	Habitats protected or restored	Number	GRI 304-3
Biodiversity	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Number	GRI 304-4

Feed	Fish-in fish-out ratio (FIFO), forage fish dependency ratio - oil (FFDRo) and meal (FFDRm)	Ratio	ASC
Feed/Natural ecosystem conversion	For products sourced by the organisation, report the following by product: - the percentage of sourced volume determined to be deforestation- or conversion-free, and describe the assessment methods used; - the percentage of sourced volume for which origins are not known to the point where it can be determined whether it is deforestation- or conversion-free, and describe actions taken to improve traceability.	Percentage, text	GRI 13 sector standard for agriculture, aquaculture and fishing
Natural ecosystem conversion	Location and the type of natural ecosystems converted since the cut-off date on land owned, leased, or managed by the organisation.	Hectares	GRI 13 sector standard for agriculture, aquaculture and fishing
Natural ecosystem conversion	Location and the type of natural ecosystems converted since the cut-off date by suppliers or in sourcing locations.	Hectares	GRI 13 sector standard for agriculture, aquaculture and fishing
Air pollution	Nitrogen oxides (Nox), sulfur oxides (Sox), PM, VOC, Black carbon and other significant air emissions	In kilograms or multiples	GRI 305-7
Air pollution	Exhaust gas cleaning systems «Scrubbers» installed	Number	European Maritime Safety Agency
Wildlife protection	Mortalities of endangered or redlisted marine mammals or birds on the farm	Number	ASC
Wildlife protection	Lethal incidents on the farm or operations related to farming	Number	ASC

Social

Own workforce			
Topic	KPI	Unit of measure	Reference
Health and safety	Work-related injuries	Fraction	GRI 403-9, WEF
Health and safety	Absence rate	Percentage	GSI
Health and safety	Lost Time Injury Rate	Percentage	GSI
Health and safety	Fatal accidents	Number	GSI
Diversity and inclusion	Policy on diversity and inclusion and whistleblowing	Yes/No	GRI 405
Diversity and inclusion	Employees men and women at different levels e.g., total, executives, managers, middle managers, new recruiters	Percentage, number	GRI 405-1
Diversity and inclusion	Ratio of basic salary and remuneration of women to men	Percentage, number	GRI 405-2
Diversity and inclusion	Harassment and discrimination incidents	Number	GRI 406-1
Wage and labours rights	Members of trade unions	Percentage, number	GRI 407-1
Wage and labours rights	Percentage of employees covered by collective wage agreement	Percentage, number	GRI 407-1, 2
Wage and labours rights	Permanent vs. temporary employees	Percentage, number	GRI 2
Job satisfaction	Score and participation of employee (e.g. ENPS) satisfaction survey	Score	NA
Job satisfaction	Turnover data	Percentage	GRI 401-1
Talent development	Employee training	Hours	GRI 404-1
Talent development	Apprentices, trainees, internships	Number	GRI 401-1

Responsible supply chain

Human rights	Operations and suppliers at significant risks for incidents of forced or compulsory labour	Text	GRI 409-1
Human rights	Policy on human rights	Yes/No	GRI 2, ESRS S2-1 [Draft]
Human rights	Supplier code of conduct	Yes/No	GRI 2, ESRS S2 [Draft]
Human rights	Whistleblowing cases related to human rights violations in supply chain	Number	GRI 2-26
Human rights	New suppliers that were screened using social criteria	Number	GRI 414-1
Human rights	Negative social impacts in the supply chain and actions taken	Text	GRI 414-2
Human rights	Compensation	Currency	GRI 406-1

Local communities

Local value creation	Suppliers from local areas	Number	GRI 204-1
Local value creation	Local procurement	Currency	GRI 204-1
Local value creation	Local sponsorships	Currency	NA
Local value creation	Corporate taxes paid	Currency	GRI 201-1
Respectful use of local areas	Noise pollution	Decibel	ASC
Respectful use of local areas	Number of people impacted by visual pollution of the organisation's activities	Number	NA

Food/product health and safety

Food/product safety	Global Food Safety Initiative (GFSI) audit (1) non-conformance rate and (2) associated corrective action rate for (a) major and (b) minor non-conformances	Fraction	SASB FB-MP-250.a.1 GRI 416-2
Food/product safety	Suppliers and customers facilities certified to a Global Food Safety Initiative (GFSI) food safety certification program	Percentage	SASB FB-MP-250.a.2 GRI 416-1

Food safety	Recalls issued and total weight of products recalled	Number, tons	SASB FB-MP-250.a.3
Nutrition	Protein production by category	Various, Percentage	SASB FB-MP-000.B
Nutrition	Omega-3 content and nutrient levels in harvested product	Percentage	NA
Nutrition	Protein (CollerFairr index)	Number	CollerFairr

Governance

Technology and innovation

Innovation	Total R&D expenses	Currency	GSI
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Governance profile

Governance	Governance structure	Text	GRI 2-9
Governance	The highest committee or position that formally reviews and approves the organisation's sustainability report and ensures that all material topics are covered	Text	GRI 2-14

Ethical behaviour

Anti-corruption	Anti-corruption training	Hours	WEF
Anti-corruption	Operations assessed for risks related to corruption	Number	GRI 205-1
Anti-corruption	Confirmed incidents of corruption and actions taken	Number, text	GRI 205-3
Anti-competitive behaviour	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Text	GRI 206-1
Compliance	Non-compliance with environmental laws and regulations	Number	GRI 307-1
Compliance	Non-compliance with laws and regulations in the social and economic area	Number	GRI 419-1

Stakeholder Engagement

Stakeholder dialogue	A list of the topics that are material to key stakeholders and the company, how the topics were identified, and how the stakeholders were engaged	Text	GRI 3-1 and 2-29, 40 WEF
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A

Dictionary



Below is an explanation of abbreviations and expressions used in this document related to sustainability

Abbreviation	Explanation
ESG	ESG is an abbreviation for Environmental, Social, and Governance and is often used to divide sustainability topics into the three categories
KPI	KPI is an abbreviation for Key Performance Indicator and is a measurable value that demonstrates how effectively a company is achieving key business objectives. Organisations use KPIs to evaluate success at reaching targets.
<u>TCFD</u>	Taskforce on Climate-related Financial Disclosures (TCFD) is developed by the G20 countries as the main framework for how climate risk should be analysed and reported.
<u>TNFD</u>	Taskforce on Nature-related Financial Disclosures (TNFD) is a task force that is developing a framework for companies to evaluate and report on risk and opportunities stemming from interaction with nature through their value chain.
<u>CDP</u>	Previously known as the Carbon Disclosure Project (CDP), is a non-profit that helps companies and cities disclose their environmental impact (CO ₂ , water and forest).
<u>GRI</u>	Global Reporting Initiative (GRI) is a reporting framework aiming at creating a common language for organisations to report their material impacts.
Double Materiality	The term refers to the process of assessing “impact materiality” and “financial materiality”. The EU Commission introduced the term as part of the Non-Financial Reporting Directive (NFRD).
<u>GHG Protocol</u>	Standardised framework for measuring and managing greenhouse gas emissions (GHG). The GHG Protocol divides categories of emissions into three scopes: 1, 2, and 3.
Scope 1 emissions	Direct emissions related to own operations.
Scope 2 emissions	Indirect emissions related to energy use and consumption.
Scope 3 emissions	Indirect emissions related to production and use of products. These are activities that are not in direct control of the company’s operations.
<u>SDGs</u>	The UN SDGs sets out 17 Sustainable Development Goals (SDGs) adopted by all member states in 2015.
<u>ASC</u>	Aquaculture Stewardship Council (ASC) certifies environmentally and socially responsible seafood.
<u>GSI</u>	Global Salmon Initiative (GSI) is a leadership effort established by global farmed salmon CEOs committed to helping feed the world in a healthier, more sustainable way through advancements in responsible salmon farming.

B

Case Example - *Mørenot*

THE MØRENØT GROUP

Mørenot is a provider of solutions to the global fishing-, aquaculture- and seismic industries.
We are 800 dedicated employees worldwide within sales, service and production.

Solutions to sustainably harvest food from the sea



Our mission is to create solutions for sustainable harvesting of food from the sea.

Mørenot has since 2018 developed a sustainability report which base its information on assessments and analysis aligned with the proposed methodology in this Guideline. In the following pages you will find samples of the assessments that Mørenot has conducted, in line with the double materiality methodology, as well as the findings for each process step.

EY developed an excel tool for FSN Capital that their daughter companies can utilise in acquiring information for the sustainability report. As part of FSN Capital, Mørenot has access to tools and resources that assists in the double materiality analysis. With limited resources on their own, the tool elevates Mørenot's detail of reporting to a quite comprehensive level.

The following excerpts is a great insight into what the double materiality analysis can provide of insight and fills each process step in the methodology with more substance.

Sustainability responsibilities and structure at Mørenot

Mørenot has its own task force that are responsible for the company's sustainability reporting. The task force consist of employees across divisions and locations and is led by Mørenot's sustainability manager, ensuring that the sustainability strategy is anchored with rest of the management group, and reports monthly on targets set out in the strategy.

“

It's easy to get lost in new concepts, standards, and recommendations when starting reporting on sustainability. The methodology presented in this report has been an important tool for us when it comes to focusing on the important aspects of sustainability. Implementing sustainability throughout the organisation is an ongoing process and we are certainly not finished yet, but now we have a solid foundation in place to build on in the years to come.

- Strategy and Business Development Manager, Mørenot

”

1.1 Standards and sector impact

Case example

Analysis of relevant sustainability standards and initiatives

Source (e.g. standard, article)	Summary of potential key aspects
SASB standards	<ul style="list-style-type: none"> * Energy management * Employee Health & Safety * Fuel Economy & Emissions in Use-phase * Materials Sourcing * Remanufacturing Design & Services
UN Sustainable Development Goals (SDG)	<p>The UN Sustainable Development Goals are useful for identifying how your company can contribute to solving the most urgent sustainability challenges facing the world. Below are the SDGs that have sub-targets with a close link to Mørenot's operations.</p> <p>SDG 2: Zero hunger - 2.4, SDG 8: Decent work and economic growth -8.7, SDG 12: Ensure sustainable consumption - 12.4, 12.5, SDG 14: Life below water - 14.1), SDG 15: Life on land - 15.8</p>
UN Global Compact / UN Principles for Responsible Business	10 universal sustainability principles on human rights, labour, environment and anti-corruption
Global Salmon Initiative	<p>Mørenot's products may impact customers' performance on the Global Salmon Initiative (GSI) sustainability ranking. Relevant indicators include:</p> <ul style="list-style-type: none"> * Fish escapes: a challenge within the industry, may affect local biodiversity * Fish mortality: affected by the biological conditions * Occupational health & safety: manual labour has generally a higher risk of controversies
The World Bank, sustainable Aquaculture brief	<p>Environment: Mangrove and wetland conservations; effective effluent management and water quality control; sediment control and sludge management; soil and water conservation; efficient fishmeal and fish oil use; responsible sourcing of broodstock and juvenile fish; control of escapes and minimising biodiversity and wildlife impact.</p> <p>Community: Establish well-defined rights, aquaculture zones and responsibilities for aquaculturists; regulatory compliance and effective enforcement; community involvement; worker safety, fair labour practices and equitable compensation.</p> <p>Business and farm management practices: Effective biosecurity and disease control systems; minimal antibiotic and pharmaceutical use; microbial sanitation; maintain global standards for hygiene; efficient and humane harvest and transport; accountable record-keeping and traceability; profitability.</p>
Business Principles for Countering Bribery, Transparency International	The Business Principles for Countering Bribery is a multi-stakeholder initiative influencing anti-bribery standards and initiatives. The principles are useful for companies when developing their own anti-bribery programmes or benchmark existing ones.
Task Force on Nature-related Financial Disclosures	<ul style="list-style-type: none"> - The TNFD's focus on nature-related risks will complement the TCFD's climate-related framework - Framework for organisations to report on nature-related risks to support shift of financial flow to nature-positive outcomes
Seafood Business for Oceans Stewardship (SeaBOS)	Facilitates dialogue among seafood companies, focusing on establishing clear commitments and work programs to improve transparency, ocean sustainability and responsible supply chains.
International demand for sustainable aquafarming technology, Innovation Norway	Innovation Norway reports on increased demand for Norwegian aquafarming technology. Companies are looking for more efficient and sustainable food production, and technology is a part of the solution.



1.1 Standards and sector impact

Case example

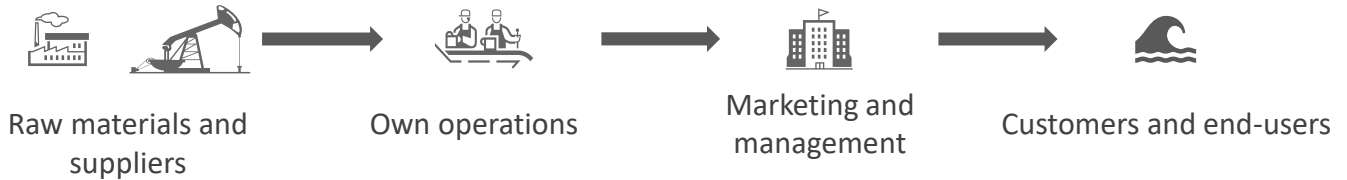
Megatrend analysis

Description	Risks	Opportunity
Social equality		
<p>Mørenot is likely to be impacted through increased expectations from stakeholders to disclose information on how they work to ensure social equality, labour rights and human rights in its operations and supply chain. Product safety is also likely to be a focus area for Mørenot, considering that the fishing industry has a higher risk of accidents among workers.</p>	<ul style="list-style-type: none"> • Reputational risk related to human rights/labour rights breaches in value chain • Increased regulatory reporting requirements on supply chain management 	<ul style="list-style-type: none"> • Work with supply chain to improve transparency
Transparency 2.0		
<p>Mørenot is likely to be impacted by increased pressure on transparency and reporting to be trusted as a responsible company, especially in its supply chain. This will also impact Mørenot's ability to be perceived as a sustainable company.</p>	<ul style="list-style-type: none"> • Risk of claim of greenwashing if ESG reporting is not transparent and consistent. • Risk of human rights breaches in supply chain and production sites in high risk countries. 	<ul style="list-style-type: none"> • Opportunity of enhanced procurement and Supplier Management and greater insight in supply chain through digitalisation.
Climate change		
<p>The company is likely to be impacted by climate change throughout its value chain. Please see 2.3 Climate scenarios for more details.</p>	<ul style="list-style-type: none"> • Disruption to supply chain from weather events. Frequent disruptions throughout the value chain affecting raw material sourcing, in- and outbound logistics. 	<ul style="list-style-type: none"> • Opportunity for Mørenot to work with industry to develop products from low-impact materials.
Biodiversity		
<p>Mørenot can be impacted by increased focus on biodiversity in its supply chain, but also in its own operation and customer side. For instance if they build and open new production sites, it can be expected that the impact on land area is considered. Suppliers can be impacted by increased focus on biodiversity impact in raw material sourcing. Mørenot's customers are likely to be impacted through increased focus on marine life protection and biodiversity issues in fish farming. Increased regulatory requirements are likely to come in the next few years. Particular focus on waste from products and end-of-life, plastic pollution, fishing and farmed fish impact on aquatic life.</p>	<ul style="list-style-type: none"> • Risk of non-compliance with potential regulations concerning impact on biodiversity • Reputational risk if there are biodiversity issues in the supply chain (e.g. steel) or in the aquaculture industry. • Reputational risk if providing products with negative impact on nature 	<ul style="list-style-type: none"> • Opportunity to work with supply chain and customers on transparency on biodiversity issues • Join industry initiatives to earn and impact • Increased demand for monitoring technology • Increased need for product innovation to ensure less bycatch • Increased demand for sustainable products • Demand for plastic free fishing gear
Circular economy		
<p>Mørenot will be impacted by increasing demand related to recycling and recyclability of products, especially for fishing gear and use of plastic. Likely there will also be a pressure from authorities and society in general.</p>	<ul style="list-style-type: none"> • Risk of losing competitive edge by not considering circularity • Risk of non-compliance with coming regulations related to plastic and circularity. • Products made from plastic will be less attractive 	<ul style="list-style-type: none"> • Work with customers on recycling of used products • Use of recycled material in products • Join industry initiatives on circularity

1.2 Value chain impact analysis

Case example

Grade of impact: ● High ● Medium ● Low



ENVIRONMENTAL IMPACTS

- Energy consumption and emissions in raw material extraction
- Waste management in supply chain
- Hazardous waste from chemical use in plastic, metal production
- Biodiversity impact of raw material sourcing and production sites
- Local pollution stemming from own operations
- Waste management and recycling
- Transportation throughout the value chain
- GHG emissions
- Business travel and employee commuting
- Water pollution and end-of-life product mgmt. (e.g. microplastic)
- Products' effect on marine life (e.g. bycatch)
- Fish Welfare
- End-of-life management (recycling of metal, fabric and plastic)
- Net robustness (e.g. prevent fish escapes)
- GHG Emissions

SOCIAL IMPACTS

- Health and safety in supplier operations
- Labour conditions and human rights in supply chain
- Health and safety at own production sites
- Labour conditions and human rights at own production sites
- Diversity and anti-discrimination
- Employee education and development
- Product safety
- HSE at vessels

GOVERNANCE IMPACTS

- Supply chain transparency and business ethics in procurement practices
- Anti-corruption and bribery
- Product safety, reliability and traceability
- Anti-competitive behaviour
- Tax policies and payments



1.3 Stakeholder and megatrends

Case example

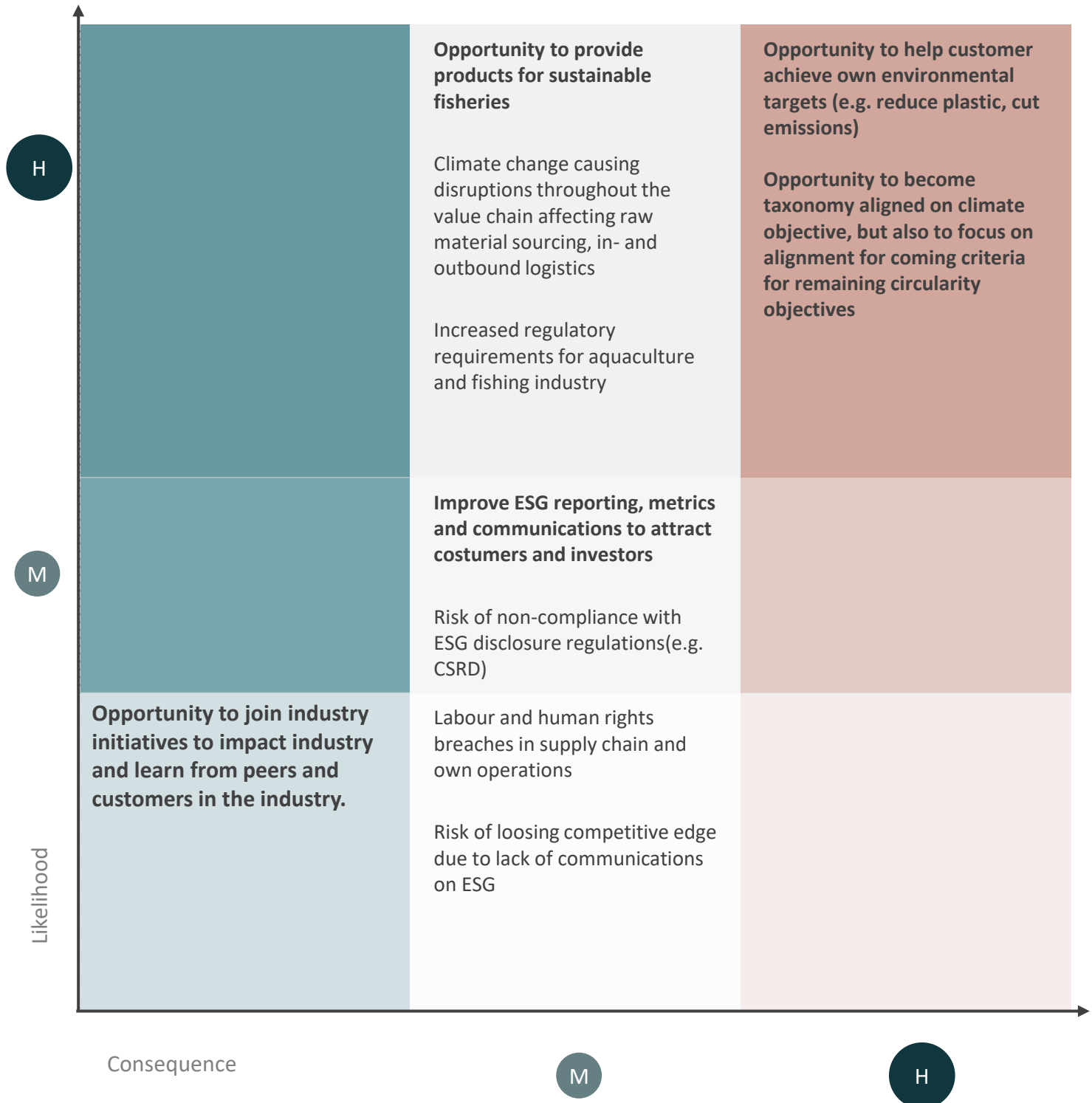
Stakeholder analysis

Stakeholder	Description of key ESG concerns	Risk	Opportunity
<i>Regulators</i>			
	Always consider impacts mentioned in Disclosure Regulations: GHG emissions, energy consumption, biodiversity, water, waste, social and employee matters, human rights, anti-corruption and -bribery	Lack of reporting on EU disclosures poses: - Risk of non-compliance - Risk of losing projects to other competitors	Opportunities: through reporting in accordance to CSRD: - enhance and structure own sustainability work - Increased attractiveness on financial market/customers
EU Financial disclosures and transparency (SFDR and CSRD)	SFDR - relevant if Mørenot wants to qualify as a sustainable investment. CSRD (Corporate Sustainability Reporting Directive), will replace NFRD and might be relevant for Mørenot. CSRD require all listed companies and large companies to report on nonfinancial information and how they contribute to the 1.5 degree ambition. CSRD will also require limited assurance of reported information.	- Risk of less access to finance/worse terms, if banks demands reporting demonstrating sustainability	
...
<i>Current and future employees</i>			
Current and future employees	Employees are found to be motivated by concern for ESG-issues and sustainability, where a purpose oriented business is shown to boost employee satisfaction and productivity.	Lack of focus on ESG areas on concern poses risk of losing employees and/or not attracting talent	Focus on areas of interest to employees increases Mørenot's attractiveness to employees
...
<i>Customers</i>			
Lerøy	<p>Focus areas:</p> <ul style="list-style-type: none"> - Zero tolerance for discarding fish - Farming: Accidental release, lice, mortality, density, location status, use of medicines, feed factor, reduction in discharge of nutrient salts, fish feed - Common: HSE, working environment, food safety, feedback from stakeholders, 100% utilisation of raw materials, waste, energy and water consumption <p>Selected targets:</p> <ul style="list-style-type: none"> - Sea lice per fish: 0.11 - 94% survival rate - Reduce use of plastic, not recyclable: 50% by 2024 (2019 as base year) - 0 Escapes - 46% reduction in scope 1,2 and 3 by 2030 - Replace antifouling agents that contain copper 	Clear plastic reduction ambitions, risk of not fulfilling plastic requirements	
<i>Current and future investors</i>			
<i>NGOs</i>			
<i>Local communities</i>			
<i>Suppliers</i>			



1.4 Risks and opportunities analysis

Case example



Opportunities in bold



3. Reporting Case example



FSN Portfolio Company since 2018
morenot.com

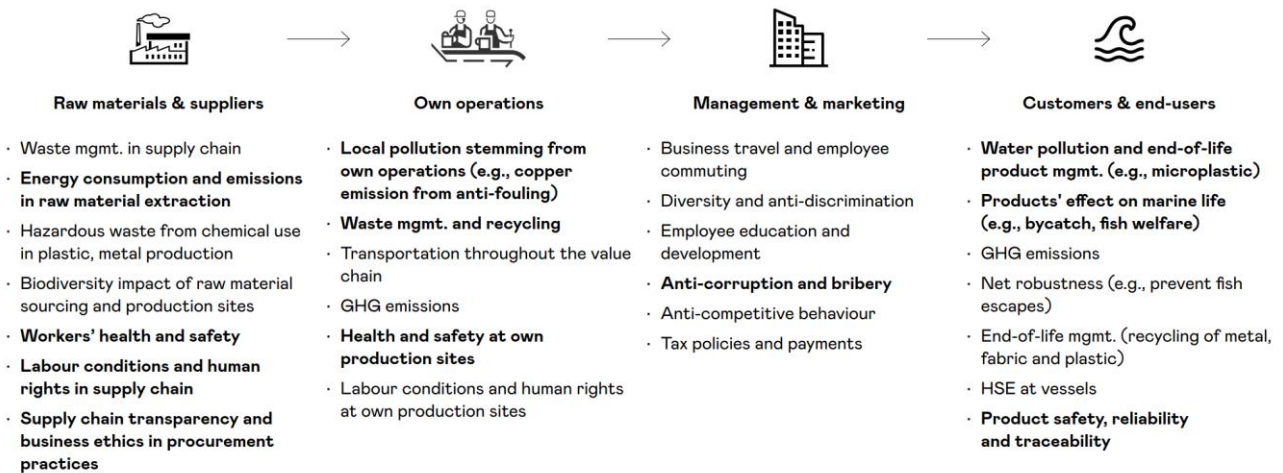
Mørenot manufactures and services solutions within the global fishing, aquaculture, and seismic industries. The company is divided in three divisions: Aquaculture, Fishery, and Offshore. Key products and services offered within the Aquaculture division include the production and service of nets, mooring systems, and cages. The Fishery division produces trawls, longlines, purse seines, and pots. The Offshore division produces seismic towing solutions such as deflectors, seismic buoys, and ropes.

Mørenot is headquartered in Ålesund, Norway, with service stations mainly on the Norwegian coastline. However, the company has a global footprint with equipment production in China, Lithuania, Canada, Spain, Poland and Denmark. The customer base consists of blue-chip fish farming and vessel companies. Key target markets include the North Atlantic and Mediterranean market, with some activity in South Korea and China.



Mørenot’s potential ESG impacts based on its sector, jurisdictions, and operations

Topics of higher importance in bold



External factors impacting Mørenot based on its sector, jurisdictions and operations

- + Demand for circular and low-impact products produced sustainably, considering water, waste, and associated emissions
- + Demand for products that allow end customers to meet environmental objectives, e.g., reduce plastics, bycatch, emissions
- **Scrutiny of environmental impact of raw materials, products in use-phase, and end-of-life of products**
- **Scrutiny of biodiversity impact of products in use (bycatch, fish welfare)**
- **Human and labour rights concerns associated with production and supply chain in higher-risk locations (e.g., China)**

Initial EU taxonomy assessment

Key activities

- C13.94 Manufacture of cordage, rope, twine and netting
- C33.12 Repair of machinery
- M71.12 Engineering activities and related technical consultancy

Potential contribution to environmental objective

- Climate change *mitigation*
- Sustainable use and protection of water and marine resources
- Transition to a circular economy



Company ESG performance 2021

Strategic Area	KPIs	Long Term Target	Performance 2021	Annual Target 2022
1. Sustainable and circular solutions	<ul style="list-style-type: none"> 1a. Reduce the environmental footprint of our products 1b. Responsible and circular material management 1c. Be the leader of sustainable development in our industries 	<ul style="list-style-type: none"> 1a. Maintain LCA analysis for all major product categories 1b. Company guidelines on reuse and material mng. for all major product categories 1c. Align our R&D efforts to contribute to environmental challenges in our industry and the UN SDGs 	<ul style="list-style-type: none"> 1a. Initiated a pilot project for calculating the carbon footprint of products from the mooring segment 1b. Pilot project on material mng. in the purse seine segment. 1c. Launched 5 products and processes deemed to have an environmental benefit: <ul style="list-style-type: none"> - Renewable energy net drying system - Aquacom risk mgmt. module - Electrical long line system - Plastic retention system (with the Ocean Cleanup Project) - Mørenot Collect 	<ul style="list-style-type: none"> 1a. Conduct LCA analysis for 30 products (Scope A1- A3) 1b. Establish company guidelines on reuse and material mgmt. for products in the purse seine segment 1c. Set ESG criteria for company R&D efforts
2. Climate and resource efficient production	<ul style="list-style-type: none"> 2a. Reduce GHG emissions 2b. Get ISO14001 certificate 2c. Resource efficient processes 	<ul style="list-style-type: none"> 2a. Become Net zero; Set science-based reduction targets in '23 2b. Obtain ISO14001 certificate for full group in 2023 2c. To be determined 	<ul style="list-style-type: none"> 2a. Reported full Scope 1 and 2 emissions, completed Scope 3 screening and started measuring 2b. 5 Mørenot service stations added to existing ISO9001 certificate 2c. 7/12 drying systems with new drying technology (reduced our carbon footprint with - 1200 tCO2 in 3 locations); Production in Poland supplied with internally generated solar energy, reducing footprint by 29 tCO2 	<ul style="list-style-type: none"> 2a. Reduce Scope 1 and Scope 2 with 5%; Include most material Scope 3 categories in climate reporting. 2b. 4 remaining service stations to be included in existing ISO9001 and preparation for ISO14001 for Mørenot AS 2c. Self-supply of energy for production in Poland
3. Attractive employer with a sustainable mindset	<ul style="list-style-type: none"> 3a. Increase eNPS 3b. Meaningful work for our employees 	<ul style="list-style-type: none"> 3a. eNPS of 50% and positive eNPS in all locations; 100% participation 3b. To be determined 	<ul style="list-style-type: none"> 3a. eNPS: <ul style="list-style-type: none"> 2021: -6% 2020: -12% 2019: -5% Used Winningtemp to further understand employee sentiment (participation 59%) 3b. Winningtemp scores from survey: <ul style="list-style-type: none"> - Meaningfulness score: 7.1/10; - Sustainability score: 6.7/10; - Inclusion, equality, and justice: 7.1/10; - Created Mørenot Sustainability Group 	<ul style="list-style-type: none"> 3a. eNPS: >=5% (Increase eNPS in all locations); 75% participation in Winningtemp survey 3b. Increase score for each score to Winningtemp averages; Further expand Mørenot Sustainability Group to all branches
4. Supply chain ethics and transparency	<ul style="list-style-type: none"> 4a. Strong supply chain management 4b. Supply Chain CoC 	<ul style="list-style-type: none"> 4a. Risk Mgmt. Framework implemented in med-high risk locations 4b. 100% of purchase value from suppliers who have signed Supply CoC or similar agreement 	<ul style="list-style-type: none"> 4a. 35 Supplier Evaluation Questionnaires (SEQs) completed in 2021; Risk Mgmt. Framework implemented in China 4b. Supplier by purchase value who have signed the Supply CoC, or an equivalent agreement (%): <ul style="list-style-type: none"> 2021: 61%* 2020: 36 2019: 19 	<ul style="list-style-type: none"> 4a. Total of 30 SEQs and supply audits; Implement Risk Mgmt. Framework at 2 more locations 4b. 80% of purchase value from suppliers that signed Supply CoC or a similar agreement

*Incl. Mørenot Norway & Operations, excl. Aqua Knowledge

Mørenot has selected the following SDGs to which it has an opportunity to contribute:

Support a sustainable food production system (2.4) and contribute to securing safe and nutritious food for all (2.1).

Work towards responsible production and consumption, as well as responsible management of chemicals and waste (12.4). Improve circularity throughout the product's lifecycles and in daily operations (12.5).

Ensure decent working conditions in the supply chain (8.8) and contribute towards employment and decent work for all (8.5)

Develop products that enable sustainable harvest of the oceans, and contribute to prevent and reduce marine pollution of all kinds (14.1)



C

Survey



Background

Questionnaire responses

- On a scale from 1 (low) to 10 (high), how would you rate your knowledge of sustainability reporting
- The company I work in has a dedicated sustainability responsible (e.g. an Sustainability Officer)
- The company I work in has committed to reducing emissions in accordance with the Paris Agreement
- The company I work in has conducted risk assessment of ESG topics
- The company I work in has developed policies and stated ambitions for reducing negative ESG impact, and/or for creating positive ESG impact
- The company I work in has developed a long-term strategy for value creation (e.g. for 2030)

How mature is your organisation on sustainability?



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