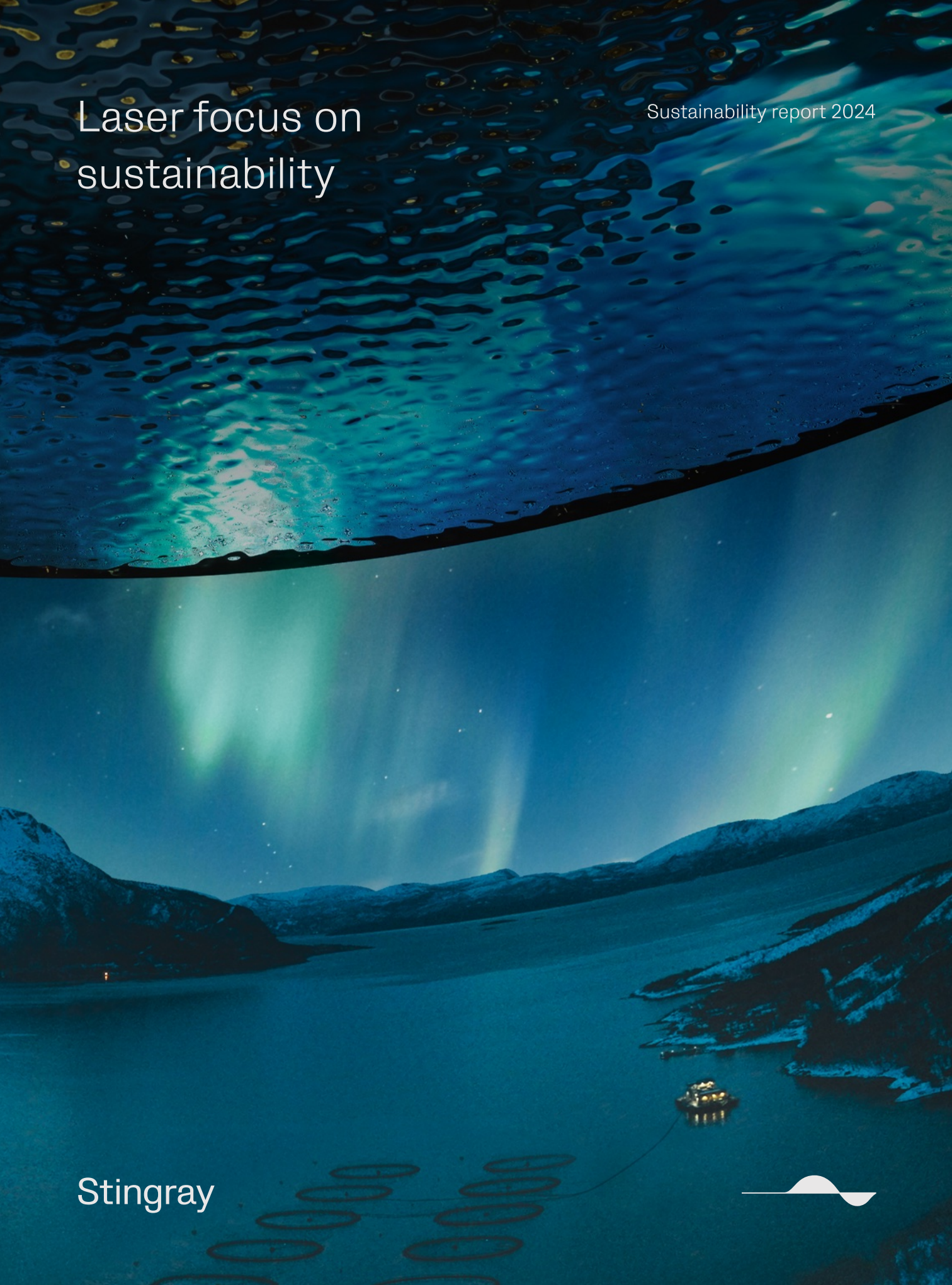
Laser focus on sustainability

Sustainability report 2024



Stingray

1.0

This is Stingray

The mission of Stingray Marine Solutions is to develop intelligent aquaculture technology that contributes to increased food production, on nature's terms.

- Stingray's active locations

1.1

From our CEO

Over the past year, climate, fish welfare, supply chain stability and public trust are converging on the aquaculture industry like never before. At Stingray, we see this not just as a challenge – but as part of our purpose.

As at 31 December 2024, Stingray had more than 193 employees in Oslo and Fauske, and 1750 active nodes along the Norwegian coast. We have been recognised for our innovative use of laser technology to combat sea lice and are working to transform the global aquaculture landscape.

Our journey in technology innovation has always been guided by sustainability. But increasingly, we see that this is not enough. We must embed sustainability into how we operate, measure, and improve. And I am proud to say that is what we did this year.

We dug into our own emissions, held workshops involving the entire company, launched working groups, and put words into action.

The outcomes we have seen – from data management to better fish welfare to smarter, circular product design – show what is possible when tech meets care. Together with our partners, we are scaling solutions that deliver business value and biological results.

We are not perfect. But we are persistent. Welcome to our sustainability report!

JOHN ARNE BREIVIK
CEO, Stingray Marine Solutions

We must embed sustainability into how we operate, measure, and improve.

JOHN ARNE BREIVIK
CEO, Stingray Marine Solutions

Sustainability isn't
a part of our strategy –
it's our foundation.

LINN KATHRIN BERGSET
Head of Sustainability

1.2

A turning point

2024 marked a turning point for sustainability. With the Corporate Sustainability Reporting Directive (CSRD) from the EU approaching, and a fast-evolving climate and regulatory landscape, we doubled down on integrating sustainability across our business.

Everyone in the company was invited to play a role in defining the goals, and we saw almost 80% of our employees stepping up to shape what sustainability means in their role.

Our materiality matrix became the backbone of our actions – linking risks, values, and impact. And we will continue to be transparent about the gaps.

Our commitment extends beyond compliance. In addition to delivering a full Scope 1–3 emissions inventory, we have invested in better data, partnered with material specialists to reduce our plastic footprint, and obtained a third-party confirmation that our management system, processes and practice are in accordance with Global G.A.P. and the Aquaculture Stewardship Council's (ASC) requirements for subcontractors to the aquaculture industry.

We have mapped our suppliers against the Norwegian Transparency Act and strengthened our due diligence practices, with support from our new internal value chain and human rights working group.

We are still early in our journey. Scope 3 data needs more granularity, circularity tracking is developing, and the work with lifecycle analysis (LCA) will continue into 2025. But the direction is clear – sustainability is not something we add on. It is how we continue to build Stingray.

Read on to learn more about our approach, what we have done and our ambitions for the future.
https://sustainability.istingray.no/

1.3

Why we exist

At Stingray, we believe aquaculture can be both sustainable and scalable. Our technology helps to reduce sea louse numbers, improve fish health, and cut the need for stressful sea louse treatments. This leads to better outcomes – for fish, for our customers, and for the planet.

Gentle and targeted sea lice control to improve fish health and growth

Sea lice are among the most persistent threats to salmonid aquaculture – not only compromising fish welfare, but also leading to expensive, stressful, and often environmentally harmful treatments. Traditional delousing methods such as thermal baths or mechanical brushing can cause significant stress, mortality and loss of appetite. This compromises growth and makes fish vulnerable to secondary infections.

Our technology offers a gentle, targeted, and data-rich solution that:

- Reduces the need for mechanical treatments.
- Reduces the need for cleaner fish.
- Contributes to better fish welfare, reduced mortality, and improved growth rates.

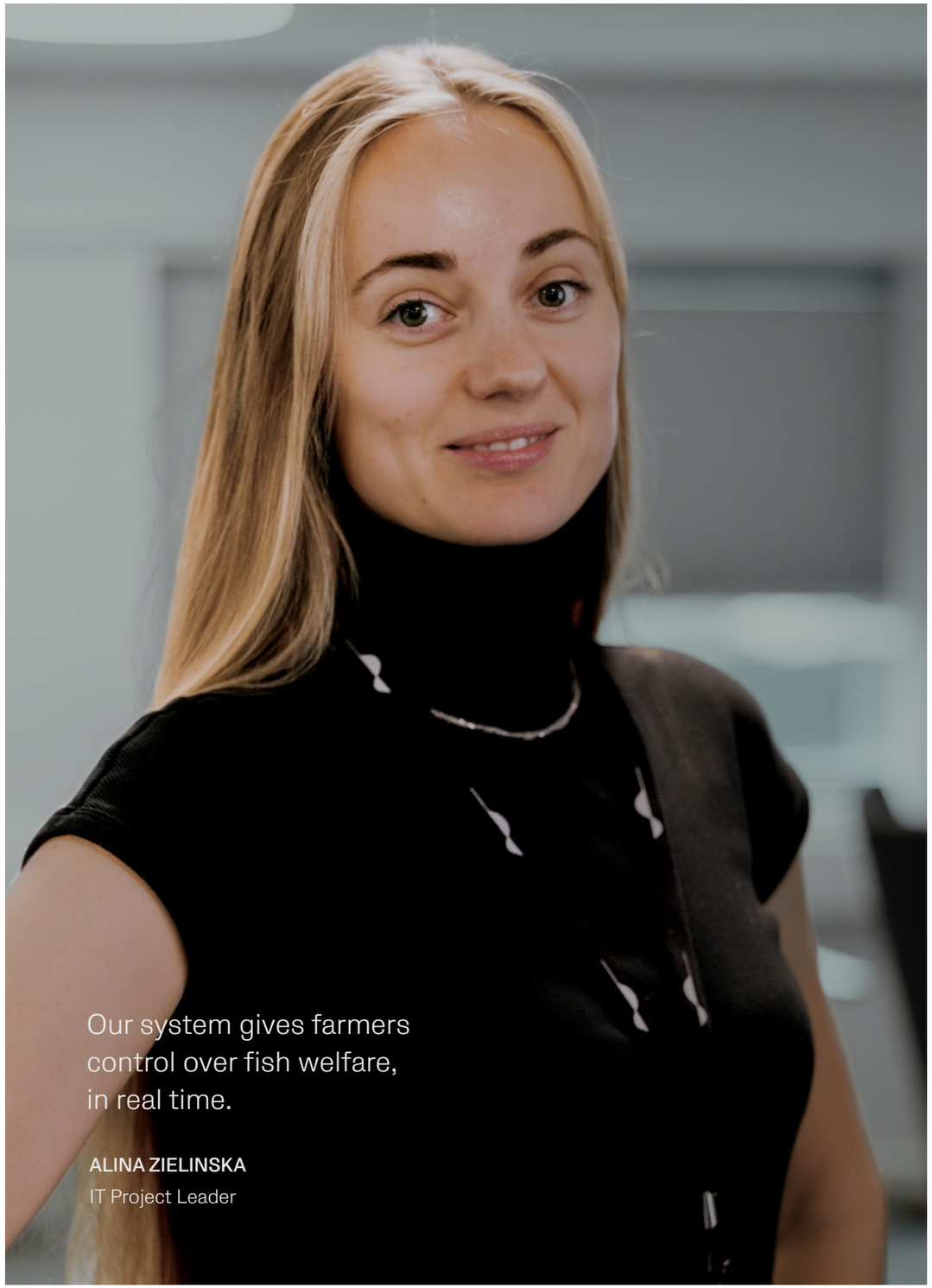
Partnership and local knowledge foster successful outcomes

We collaborate closely with fish farmers to customise solutions that meet their needs. Customer feedback is key to improving hardware and software performance.

Our system is more than a tool – it is part of a value chain transformation. It creates data, insights, and transparency. It reduces cost and risk. And it supports local jobs and knowledge development in our communities.

Our purpose is clear: We develop intelligent aquaculture technology that contributes to increased food production on nature's own terms. Our goal is for the Stingray-system to give fish farmers the opportunity to achieve smarter harvesting from the sea through our Fish Health Hub™.

https://www.stingray.no/tjenester/



1.4

Key milestones in our journey

2010

Patent

Esben Beck patented his idea of removing salmon lice using machine vision and a laser.

2012

Establishment

Stingray Marine Solutions AS was established and launched an integrated solution for industrial laser technology for the aquaculture industry.

2014

Commercial launch

Commercial launch of the first and initial application: Optical Delousing.

Introduced closed loop business model including a four year guarantee on equipment, in addition to a take-back program for disassembly and recycling of hardware.

2016

Portal launch

The UN Sustainable Development Goals 2,9,12 and 14 incorporated into Stingray's mission, vision, values, and promise to customers and the industry.

Released Stingray Online - the customer portal to provide farmers with the ability to access data and visuals of fish welfare in real time.

2017

The Five Freedoms

Incorporated UN SDGs and The Five Freedoms of Animal Welfare into daily business and stakeholder communication.

2018

Academy launched

Launched Stingray Academy to support HSE both internally and externally.

Released image-based Lice Counting application.

2019

European Inventor Award

Esben Beck was the first Norwegian to reach the final of the European Inventor Award.

2020

New applications

Launch of new applications: Fish Passings, Wounds, Sexual Maturation, and Biometrics.

2021

Aqua Team Established

Team Aqua initiated to provide enhanced fish health support for customers, comprising fish health, aquaculture and animal behavior specialists, biologists, analysts, veterinarians, and researchers.

2023

Transparency Act

Opened a new branch in Fauske in a BREEAM certified building, and a node factory in Oslo, improving logistics and employee well-being.

Installed a warehouse system for energy efficiency and reduced space needs.

First report for Norwegian Transparency Act (Åpenhetsloven) delivered.

Launch of the first Stingray Fish Health Report.

2024

Strengthening sustainability efforts

Stingray confirmed as operating in accordance with Global G.A.P. and the Aquaculture Stewardship Council's (ASC) requirements for subcontractors to the aquaculture industry.

Implemented dedicated sustainability staff and completed its first double materiality assessment in line with the EU's Corporate Sustainability Reporting Directive (CSRD).

Adopted new systems for procurement and GHG accounting to support sustainability metrics and prepare for GHG reporting.

Company-wide workshops held to increase awareness and gain feedback on Stingray's ESG work and future directions.

Collaborated with Mitsubishi Chemicals and Materials (MCAM) to recycle POM-C plastic and develop a closed-loop recycling system.

Sustainability at Stingray

Sustainability at Stingray is not an add-on or a compliance check box – it is at the heart of how we design, build and deliver technology that serves fish health, our oceans, and the future of food.

As a company founded on solving a specific environmental and animal welfare challenge – sea lice in salmon farming – our sustainability journey began with purpose.

Today, that purpose has grown to encompass a broader responsibility across our entire value chain. From the materials we source to the impact our technology has at sea, we are working to embed sustainability into every part of our business.

2.1

Our value chain

Stingray is committed to building a sustainable and responsible value chain that minimises environmental impact, respects workers' rights, and contributes positively to society.

Stingray's value chain is structured across three stages: upstream, our own operations, and downstream.

WORKING UPSTREAM

We work closely with our suppliers to integrate environmental, social, and ethical considerations into procurement processes. This includes reducing unnecessary packaging, ensuring ethical sourcing, and collaborating to improve transparency and accountability across the supply chain.

Continuous monitoring of suppliers remains central to improving product quality and reducing risk. Requirements for human rights, labor standards and carbon emissions are embedded into supplier dialogues and will continue to expand in 2025.

OUR OWN OPERATIONS

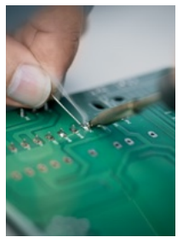
Stingray's technology and service models are designed for longevity and circularity. Each node is supported by a service agreement that guarantees upgrades and maintenance for at least four years. Software is continuously updated to ensure optimal performance, while hardware upgrades are carried out as needed. After 4–6 years in operation, nodes are returned to Stingray for disassembly, reuse of components, and recycling of materials. This "closed loop" approach extends product life, reduces waste, and supports a circular economy.

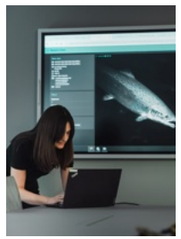
WORKING DOWNSTREAM

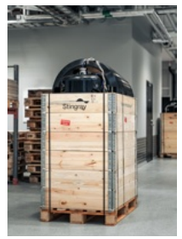
Our systems help customers plan production more effectively, ensuring healthier fish, improved growth, and fewer interventions that release CO_2 into the environment. By reducing reliance on cleaner fish, chemical and mechanical treatments, and supporting fish welfare, Stingray technology contributes to stronger ecosystems and more sustainable aquaculture practices. By maintaining this focus, Stingray ensures that every step, from raw materials to production and delivery, supports both sustainable operations and long-term value creation for customers and society.

UPSTREAM

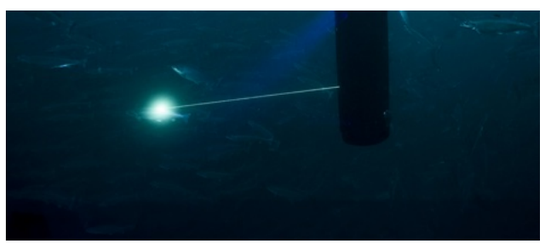
STINGRAY OPERATIONS







DOWNSTREAM



- Raw materials
- Transport
- R&D
- Sales & admin
- Production
- Operations
- Transport
- Aquaculture operations
- Consumers

2.2

Alignment with frameworks and regulations

Stingray's sustainability efforts are guided by a growing set of international and national frameworks. Rather than simply reacting to these regulations, Stingray uses them to benchmark progress and shape strategy.

OECD Guidelines for Multinational Enterprises
Stingray aligns with the OECD Guidelines by integrating responsible business conduct across its operations and supply chain. This includes respecting human rights, ensuring fair labour practices, preventing environmental harm, and upholding sound governance.

UN Global Compact (UNGC)
While not a formal signatory yet, Stingray uses the Ten Principles of the UNGC as a guiding compass for ethical business.

Norwegian Transparency Act (Åpenhetsloven)
Stingray is compliant with the Transparency Act. The Act's emphasis on human rights in the value chain has led to the formation of a value chain and human rights working group and deeper supplier dialogue.

EU Green Deal and Taxonomy
Stingray's technology contributes to objectives outlined in the EU Green Deal – particularly regarding biodiversity protection, zero pollution, and circular economy. Future eligibility assessments will consider how the laser system aligns with the EU Taxonomy for sustainable activities.

Corporate Sustainability Reporting Directive (CSRD)
Stingray is preparing to meet CSRD requirements by 2025. This includes applying the double materiality principle, conducting a gap analysis, aligning with European Sustainability Reporting Standards (ESRS), and developing reliable data systems for ESG metrics.

UN Sustainable Development Goals (UN SDGs)
We are committed to advancing the global sustainability agenda by aligning our technology, operations, and impact with the United Nations Sustainable Development Goals (SDGs).

Our intelligent aquaculture technology supports responsible food production, reduces environmental footprints, and promotes healthier ecosystems.

In 2024, our contributions to specific SDGs became more measurable and transparent. While we continue to centre around innovation and ethical practices in aquaculture, we have also begun capturing environmental, social, and governance performance more rigorously, enabling us to track our contributions over time.

Read more about Stingray's connection to the UN SDGs

2.3

What matters most, and why

Understanding what matters most starts with listening. At Stingray, our sustainability journey is shaped by ongoing dialogue with our most important stakeholders – from internal teams and suppliers to customers, investors, and regulators.

Board, customers and industry
From field staff to fish farmers, the input gathered through our double materiality process has shaped our understanding and sustainability direction. The triangulated feedback was instrumental in shaping the materiality matrix and the development of specific goals and KPIs across environmental, social, and governance themes.

Our Board highlighted the importance of fish welfare and ethical governance. They recognise sustainability as a business advantage and stress the need for transparent reporting and prioritisation of material topics.

Our customers value our innovation, particularly reducing the need for delousing treatments and improving fish health. They appreciate the focus on data and the environmental purpose behind our technology.

Sjømat Norge has emphasised the regulatory importance of sustainable practices in aquaculture, reinforcing the need for proactive compliance with sustainability directives and the growing emphasis on transparency and ethical value chains.

Listening and learning - from within
In 2024, nearly 80% of Stingray employees across departments and age groups participated in an internal survey. Their responses provided valuable insight into priorities that matter to both the company and its employees.

Some quotes from our employees from the internal survey to find out what matters most to our people.

"We're proud of the positive impact our lasers have on fish, and that we're solving a real-world challenge."

"Nature, ecosystems and fish welfare aren't just goals – they're core to our technology and values."

How we engage with our stakeholders

STAKEHOLDER GROUP	HOW WE ENGAGE	EXAMPLE CONTRIBUTIONS IN 2024
Employees	Workshops, internal surveys, cross-functional ESG groups, company updates	Contributed to Double Materiality Assessment (DMA), helped define ESG goals and activities
Customers	Direct feedback, site visits, performance data sharing	Provided feedback on fish welfare and system impact
Suppliers	Supplier audits, dialogue on ESG, due diligence assessments	Identified opportunities for circular material use and better transport packaging
Board & owners	Double materiality process and regular ESG updates	Focused on transparency, fish welfare as a business differentiator
Industry bodies	Participation in working groups and policy dialogues, conferences	Reinforced regulatory expectations and value of proactive compliance
Local communities	Collaboration on jobs and education, site visits, support for students, visitor centres	Enhanced regional impact, local competence building, apprenticeship program

Double materiality

Understanding double materiality at Stingray

We focus on what matters most – for our company, for society, and for the planet. Our double materiality assessment (DMA) is the foundation of our sustainability work. It helps us prioritise environmental, social, and governance (ESG) topics through two lenses:

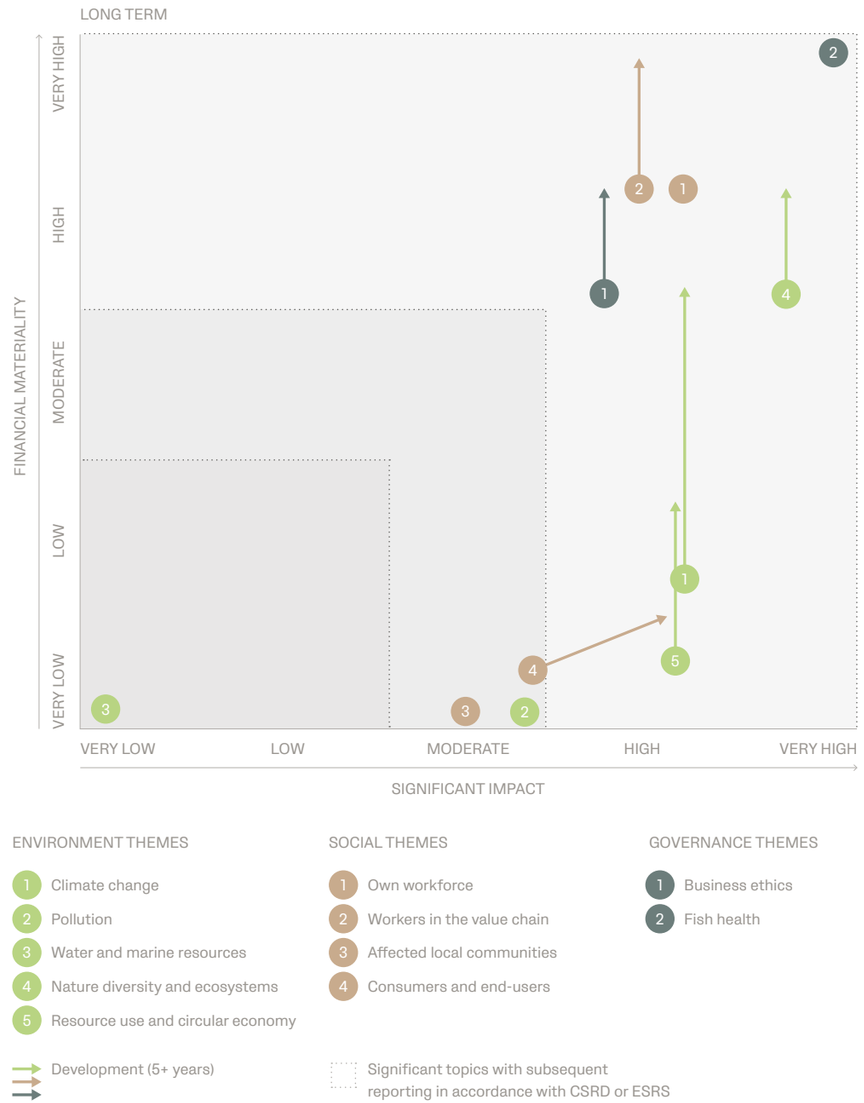
- **Impact materiality**
  how our operations, products, and valuechain affect people and the environment.
- **Financial materiality**
  how sustainability issues may affect Stingray's financial performance, risks, or business model.

By combining these perspectives, we identify where action is needed, where transparency matters most, and where we can have the greatest positive impact.

In 2024, we completed our DMA process. This included engagement with management and employees, input from customers, suppliers, investors, and regulators, and a structured assessment of impacts, risks, and opportunities over different time horizons.

The result is our updated materiality matrix, which maps topics based on likelihood and severity of impact – providing a clear guide for where to focus.

Outcomes of Stingray's double materiality assessment



Linking materiality to the ESRS

The EU's Corporate Sustainability Reporting Directive (CSRD) has introduced the European Sustainability Reporting Standards (ESRS), creating a common framework for companies across Europe to report on sustainability impacts, risks, and opportunities.

Stingray views the ESRS as more than compliance. They are a strategic framework that shapes how we measure, report, and manage our material topics, ensuring that what matters most to our business and stakeholders is consistently represented in our reporting.

We have reviewed the full ESRS set and mapped them to our material topics, initiatives, and data collection plans. New routines and due diligence processes under the Norwegian Transparency Act strengthen our approach, particularly on human rights and responsible procurement. Our Code of Conduct for Business Partners reinforces these commitments and aligns with the UN Global Compact principles.

Together, the DMA and ESRS framework ensure that Stingray's sustainability reporting is credible, comparable, and focused on impact – while helping us make better decisions for the future of aquaculture.

Connecting European Sustainability Reporting Standards (ESRS) to Stingray's activities

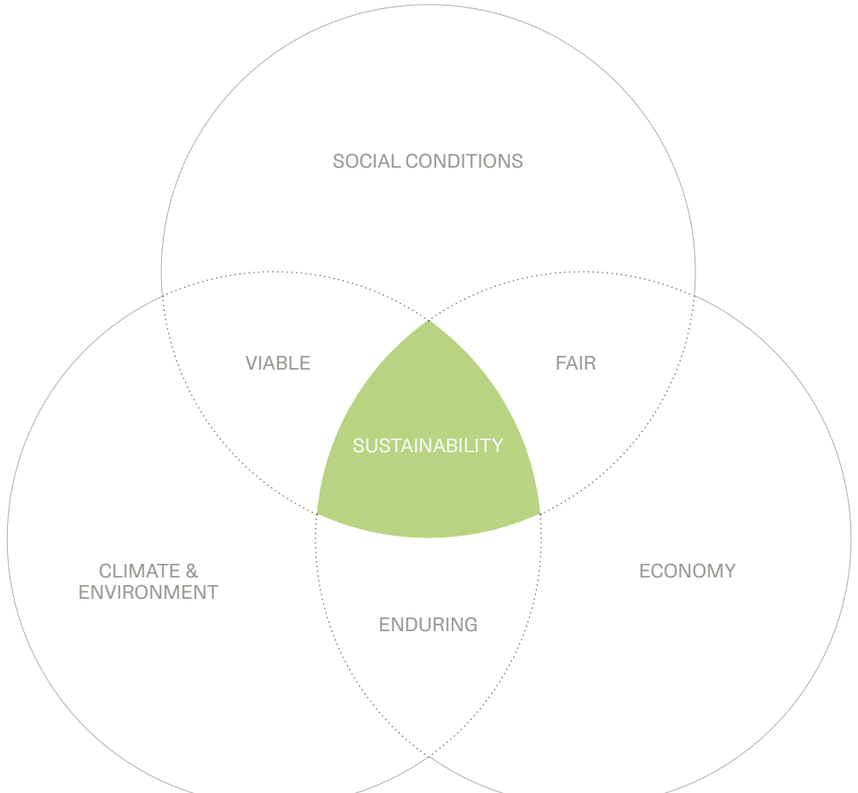
ESRS	TOPIC	HOW THIS RELATES TO STINGRAY
ESRS E1	Climate change	We are building a greenhouse gas (GHG) baseline (Scope 1–3), improving data quality, engaging employees in climate working groups, and aligning with CSRD climate disclosures.
ESRS E2	Pollution	Our technology reduces the need for chemical delousing, lowering pollution risk in sensitive marine environments.
ESRS E4	Biodiversity & ecosystems	By reducing dependency on cleaner fish and supporting preventive lice control, we improve marine biodiversity outcomes. The Stingray-system reduces fish stress and improves fish health, and does not negatively impact biodiversity and ecosystems in and around fish pens.
ESRS E5	Resource use & circular economy	Teams are optimising product packaging, mapping node component reuse, and launching a circularity working group.
ESRS S1	Own workforce	We have introduced an HR department, and developed ethical guidelines for employees, a whistle blower channel, HSE standards, and have workplace and safety employee representatives in place. We have launched employee-led ESG groups, increased safety and training initiatives, and improved internal knowledge sharing.
ESRS S2	Workers in the value chain	New routines and due diligence processes under the Norwegian Transparency Act address human rights and ethics in procurement, including formal supplier engagement. Our Code of Conduct for Business Partners supports these measures and ensures compliance in our value chain, and follows the guidance from UN Global Compact.
ESRS G1	Business conduct	We are strengthening ethical supplier standards, improving transparency, and integrating CSRD requirements into governance.
ESRS G2	Fish welfare	Stingray lasers reduce fish stress and improve fish health, contributing to ecosystem protection in farming zones. We have introduced The Fish Health Hub™ and measure fish mortality, reduce stressors, and track indicators through welfare scoring systems and customer outcomes. A main focus continues to be on the five freedoms for animals (dyrevelferdsloven).

3.0

ESG

Our sustainability journey is guided by clear goals, set through our materiality assessments. We structure our goals using the ESG framework – Environment, Social and Governance – because it helps ensure a balanced approach that covers climate, people, and integrity across our operations and value chain.

Sustainable development involves meeting the needs of the present without compromising the opportunities of future generations



3.1

Key numbers for 2024

In 2024, Stingray took major steps to measure and report our impact more systematically. On the environmental side, we completed our first full Scope 1–3 greenhouse gas inventory, showing that most emissions come from the supply chain.

Our team grew to 193 employees from over 20 countries, with 24% women. In fish welfare, Stingray protected an estimated 75 million fish in 2024, and around 30% of Stingray sites avoided chemical or mechanical delousing entirely, reducing fish stress, mortality, and environmental impact. On the business side, turnover reached 831 million NOK, with 773 new nodes produced and about 1,750 active in operation globally. These figures show progress on multiple fronts and set a clear baseline for further reductions, innovation, and impact in 2025.

	METRIC	RESULT
Environmental performance (E)	Total Energy Consumption	672,571 kWh
	GHG emissions - Scope 1	1.36 tCO_2e
	GHG emissions - Scope 2	34.03 tCO_2e
	GHG emissions - Scope 3	16,738.41 tCO_2e
People & culture (S)	Employees (FTE)	193
	Nationalities represented	20+
	Gender distribution	24% women
	Staff turnover	6.09%
	New hires in 2024	60
	Recordable work-related incidents	2
	Lost workdays due to injury	0
Impact & fish welfare (G)*	# fish impacted by Stingray in 2024	Based on deployment density and typical cage biomass, we estimate that ~75 million fish were protected by Stingray-systems during 2024.
	Reduction in chemical treatments compared to industry average	>30% of sites using Stingray avoided chemical or mechanical lice treatments entirely.
	Reduction in lice levels and mortality rates	Customers report lower mortality and lice pressure with Stingray. We are standardising analyses in 2025 to publish verified percentage reductions.
Business performance (G)	Turnover	831 million NOK
	# nodes produced	730
	Active nodes	~1750

*Please read our Fish Health Report 2024 for more details

4.0

Environment

4.1

Greenhouse gas emissions

Emissions

We are approaching our emissions data the same way we approach fish health: with precision, data-driven action, and a commitment to continuous improvement.

2024 marks our first full year with a complete carbon accounting baseline. Using a hybrid method of spend-based and activity-based calculations (98% spend-based), we initially identified total emissions of 16,374.87 tCO_2e, with over 98% falling under Scope 3. We will continue to refine our data and expect that as we add more activity-based numbers, the emissions intensity will be reduced.

The significant proportion of scope 3 emissions reflects our hardware-based business model and global supply chain, where purchased goods and capital equipment represent the majority of emissions.

Key insights from our 2024 emissions data:

- Emissions intensity per node was 22.43 tCO_2e, a value we aim to reduce over time.
- Purchased goods and services (10,043.40 tCO_2e) and capital goods (5,447.36 tCO_2e) were the largest contributors.
- Scope 1 emissions (e.g. company-owned vehicles) were negligible in 2024.
- Scope 2 emissions (electricity consumption) were 34.03 tCO_2e – relatively low due to Norway's clean energy mix.

Stingray's scope 1, 2 and 3 emissions in 2024

SCOPE	ITEM	2024
Scope 1	Direct GHG emissions	0
	Fuel combustion	0
	IC vehicles	1.36
	Other scope	0
		1.36
Scope 2	District heating	0
	Electricity consumption Market-based	34.03
	Electric vehicles	0
		34.03
Scope 3	Purchased goods and services	1,0043.4
	Capital goods	5,447.36
	Fuel- and energy-related activities	0
	Upstream transportation and distribution	370.43
	Waste generated in operations	6.45
	Business travel	173.63
	Employee commuting	63.01
	Upstream leased assets	0.00
	Downstream transportation and distribution	30.64
	Processing of sold products	0
	Use of sold products	172.87
	End-of-life treatment of sold products	0
	Downstream leased assets	31.69
	Franchises	0
	Investments	0
		16,339.48
		16,374.87

Where we are today

This year's carbon accounting has given us a clear baseline – and a clear signal: our biggest climate lever is upstream. Our supply chain accounts for almost all our emissions, particularly in laser components and capital machinery. To tackle this, we have:

- Established an internal climate working group focused on supplier engagement and upstream data collection.
- Begun mapping product lifecycles to understand the embedded emissions in our technology.
- Launched conversations with key suppliers on emission reduction and data transparency.

Continuous improvement

In 2024 we implemented a platform where all supplier data - from purchases and contracts to emissions and risk are collected. This system is integrated with our accounting system

"The biggest job was to define the type of spend, or consumption, and sort these into direct consumption, which is often directly linked to production, and indirect consumption", says Rosana Sant'Anna, Financial Controller at Stingray.

"We have also classified all our suppliers according to NACE", adds Anne Bjerke, Accountant Manager at Stingray. "We have collected data for Scope 1, 2, and 3, which show what are direct emissions, indirect emissions, and emissions in our value chain, respectively. In 2025, we will continue working towards concrete targets. Then we can more easily track our numbers and make sure we are going in the right direction."

We know that robust sustainability data is essential for progress. In 2025, our priorities include:

- Expanding activity-based data for logistics, materials, and product use.
- Conducting a hotspot analysis to identify where reductions are most achievable.
- Exploring eco-design and circularity innovations that reduce material and carbon intensity.

Linking climate accounting with our financial system shows us where we can have the biggest impact.

ROSANA SANT'ANNA
Financial Controller

Photo: Anne Bjerke (left) and Rosana Sant'Anna

Circularity & resource use

Circular innovation through closed-loop recycling

At Stingray, we are committed to building smarter, more circular systems – not only in how we design our laser node, but in how we think about materials, packaging, reuse, and service life.

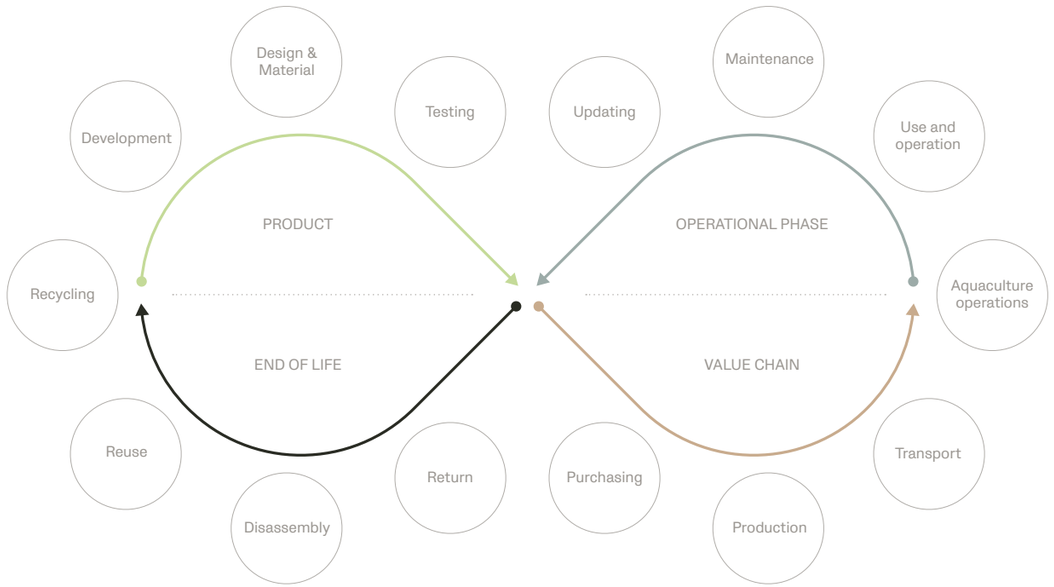
We have a direct influence on the environmental footprint of the products we build. In partnership with Vink and Mitsubishi Chemicals and Materials (MCAM), Stingray has initiated a closed-loop recycling system for polyoxymethylene (POM-C). This collaboration marks a significant step towards reducing dependency on virgin raw materials while ensuring resource efficiency and climate benefits.

Since 2021, our partnership with MCAM has enabled us to return used and surplus POM-C for reprocessing. The recycled material is then reintegrated into new Stingray components, with certification that it meets strict environmental and quality standards.

By closing the loop on a critical material, we reduce waste, secure valuable resources, and deliver benefits for both the environment and long-term business resilience.

STINGRAY'S WHEEL

Stingray's wheel demonstrates the continuous improvement cycle of product, value chain, operations, and end of life



Extending lifetimes, reusing parts, and recycling equipment reduces waste and creates value for customers and the environment.

SVEN ERIK FREDHEIM
Head of Service Centre South

4.3

Ecosystems

Protecting the ecosystems we operate in is not optional – it is integral.

Sea lice control does not just protect farmed fish – it protects the marine environment. Traditional treatments such as chemicals or hot water can stress fish and impact surrounding ecosystems. Our laser technology avoids these interventions altogether.

In 2024, we made further progress in reducing the need for alternative delousing. In some regions, farms using Stingray saw a 60% reduction in treatments compared to those without, while ~30% of sites avoided any mechanical delousing. That means fewer interventions, less environmental stress, and healthier coastal ecosystems.

By helping reduce reliance on wild-caught cleaner fish, our technology also contributes to biodiversity protection. We are committed to scaling this impact and exploring further ways to support healthy fjords and sustainable aquaculture zones.

What happens when we introduce Stingray at farm sites?

- Treatment needs at Stingray sites fell by 30% overall - and up to 60% in specific production areas.
- Localities near Stingray installations also saw a drop in lice levels, showing benefits beyond direct users.
- Farms using the Stingray-system report significantly lower mortality rates, correlating with less stress and fewer invasive treatments.
- Stingray technology contributed to a notable decrease in reliance on wild-caught cleaner fish, helping preserve marine biodiversity.
- Higher welfare-based production.

Stingray Fish Health Report 2024: https://www.stingray.no/rapporter/

5.0

Social

5.1

Our own workforce

Caring for our people

At Stingray, we are committed to fostering a supportive workplace where all colleagues feel valued and included. We recognise that well-being extends beyond work tasks, and that creating a sense of joy, purpose, and community can make a meaningful difference in everyday life.

To support employee health and well-being, we provide access to our gym and strength room, and offer activities such as organised football sessions and table tennis.

By focusing on systematic HSE (Health, Safety, and Environment) practices, we aim to improve routines, reduce sick leave, and increase employee involvement.

We expect everyone at Stingray to take responsibility for their own safety and to engage in open communication with colleagues to build a culture rooted in health, safety, and mutual respect. Each department has its own safety representative, and we hold regular Working Environment Committee (AMU) meetings where we discuss HSE, absence, and workplace adjustments.

Diversity and inclusion

Diversity and inclusion are vital to our success – both in society and in the workplace. Differences in age, sexual orientation, gender identity, ability, and cultural background give us a unique opportunity to create a more innovative and effective company. Diversity boosts creativity, drives innovation, improves the work environment, and enhances customer understanding.

We actively work to ensure all employees feel respected, included, and have equal opportunities for growth and career development. Some initiatives include:

- We have implemented internal guidelines and policies that prohibit discrimination and harassment based on age, gender, sexual orientation, ethnicity, religion, ability, or other personal characteristics.
- We have clear procedures for reporting unethical or problematic behaviour.
- We continuously improve our people-related processes to support daily operations.

People & Diversity metrics 2024

Apprenticeships

Attracting the right expertise is essential to our success. To support this, we collaborate with upper secondary schools in the Oslo area and actively take on apprentices, many of whom go on to permanent positions at Stingray after completing their education. Since 2016, more than 20 apprentices have completed, or are in the process of completing, a vocational certificate with us, demonstrating our commitment to developing the professionals we need. Serving as an apprenticeship company is both a contribution to society and a long-term investment in Stingray's future.

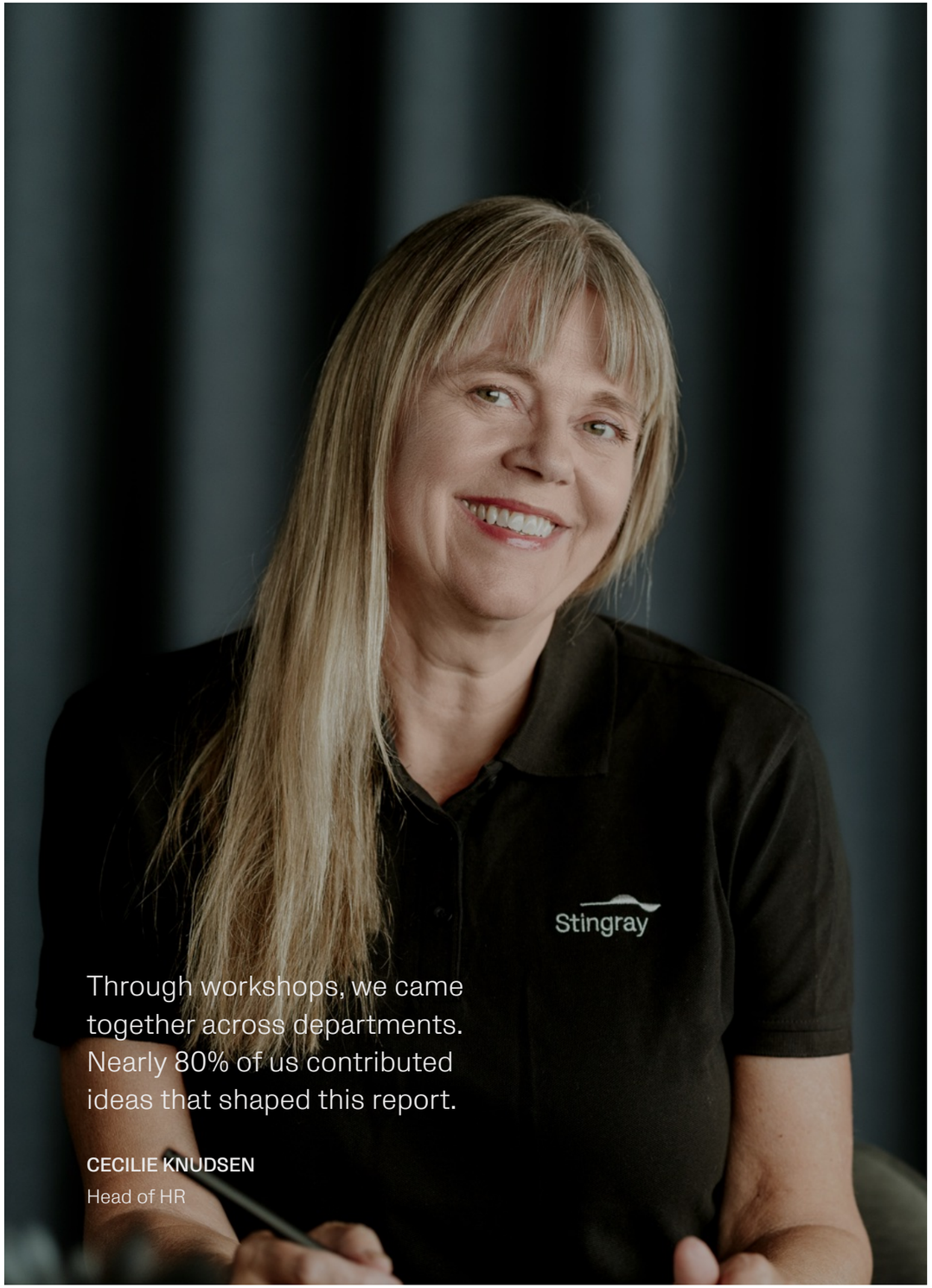
Building value beyond the workplace

We recognise our role in the communities where we operate – particularly in rural fjord regions where Stingray technology supports local jobs and collaboration.

Stingray contributes annually to the national fundraising campaign and supports The Norwegian Society for Sea Rescue (Redningsselskapet), both of which make an invaluable contribution to society.

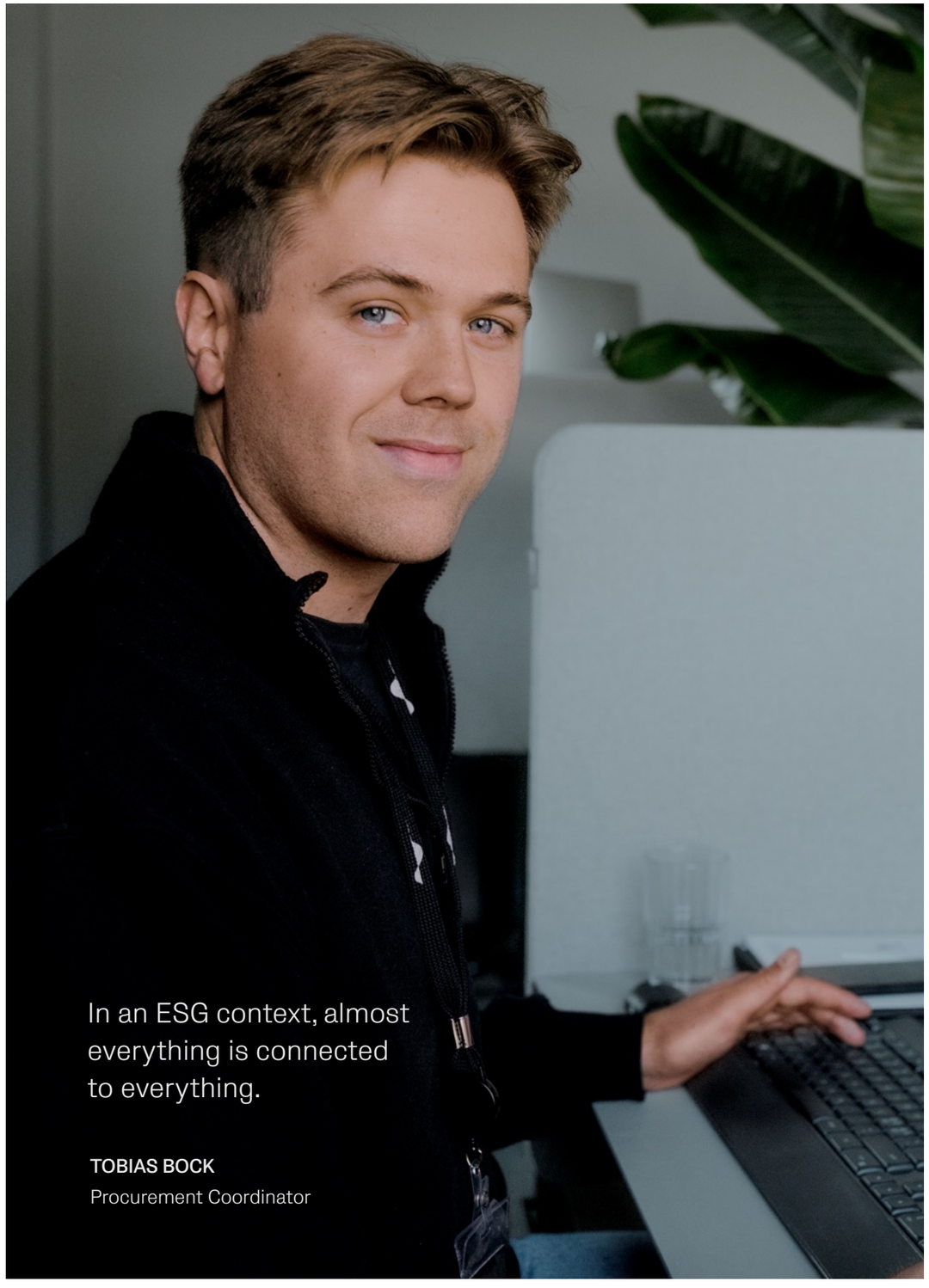
We also participate in the global research project Folding@home, which uses computing power to understand diseases such as cancer and Alzheimer's.

In addition, we are active in the sustainability network Action Now, where we collaborate with local businesses, public bodies, and NGOs to find sustainable solutions, especially within the seafood industry.



Through workshops, we came together across departments. Nearly 80% of us contributed ideas that shaped this report.

CECILIE KNUDSEN
Head of HR



5.2

Responsible value chain

Stingray has suppliers in North America, Europe, and Asia. We prioritise long-term and responsible partnerships over frequent changes, as this approach provides greater control and transparency while ensuring consistently high standards. This is particularly important in Asia, where enduring relationships are especially valued.

We have been working with key partners to improve working conditions, optimise machine use and lighting conditions where needed. We have focused on long-term cooperation without haggling on price and paid a little more to support welfare measures for employees.

For multiple key partners, the relationship has grown, and our orders now constitute a significant part of their volume. We are proud to have contributed to both strengthening companies, and improving our position as a sustainable partner.

Acting with integrity in the value chain

As regulation intensifies, we are scaling our ability to show – not just tell – how Stingray acts with integrity. In 2024, Stingray intensified the work on our due diligence assessments in line with the Norwegian Transparency Act and the OECD Guidelines for Responsible Business. Tobias Brottveit Bock, Procurement Coordinator at Stingray, has been given responsibility for integrating and reporting this work.

"In Autumn 2024, the first dedicated internal ESG group was established. There was a lot to tackle and get a handle on in the beginning," says Tobias.

"Our purchasing system has given us even better control and overview of our suppliers, and risks related to social, geographical and industrial conditions, as well as streamlining processes and providing us with a good overview of our climate footprint.

"This system also helps us deliver on the Transparency Act. Through the system, we continuously map the risk of violations of human rights and working conditions - both in our own business and at our suppliers. In 2025, we will be working to establish a structured follow-up program where suppliers will be assessed according to, among other things, risk profile, geography and HSEQ (Health, Safety, Quality, and Environment). Those with high risk must document their work with sustainability, management and HSEQ. Based on this, we adapt the further follow-up."

6.0

Governance

6.1

Transparency and due diligence

In 2024, we completed our second full-year due diligence under the Norwegian Transparency Act. This included supplier evaluations, risk assessments, and follow-up on our Code of Conduct for Business Partners. We expanded internal training on ethical practices and strengthened our whistleblowing procedures. Our compliance systems are being updated to reflect upcoming CSRD governance standards.

Employee-led working groups
In 2024, Stingray formalised employee engagement through working groups aligned with material topics. These working groups aim to:

- Strengthen supplier dialogue around ethics, labour rights and environmental practices.
- Prepare for upcoming EU regulations.
- Embed ESG considerations into procurement and contract processes.

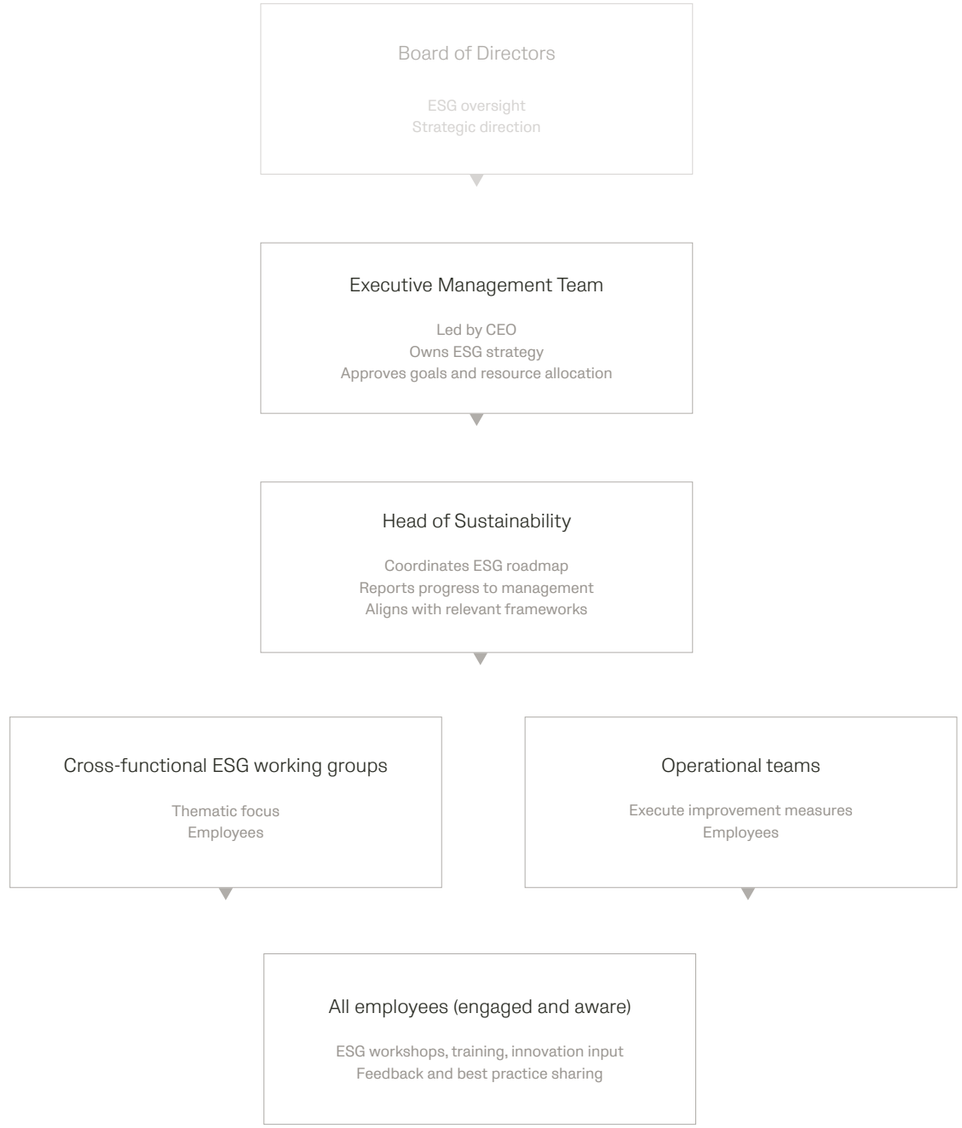
In 2025, we plan to create additional working groups. These groups will identify initiatives, track progress, and serve as internal champions for sustainability. Their work will feed into strategic decisions and contribute to regulatory compliance, such as the Transparency Act and future CSRD reporting.

Governance model: turning strategy into action
Sustainability governance at Stingray is structured to ensure both leadership commitment and broad employee engagement. This model supports continuous improvement, cross-functional collaboration, and transparency in decision-making.

The CEO and leadership team are accountable for integrating sustainability into business strategy and performance. Sustainability is not managed separately – it is embedded in operational priorities, product development, and market expansion.

The Head of Sustainability role, formalised on 1 January 2024, leads ESG efforts across the company, coordinating between departments, driving regulatory readiness, and managing reporting processes. This role ensures that sustainability remains aligned with corporate objectives while also meeting external expectations like the CSRD.

Stingray's governance model. Changes coming in 2025 are greyed out.



7.0

Looking ahead

This report marks an important step in Stingray's sustainability journey. In 2024, we moved from intention to integration – building systems, teams, and practices that embed sustainability into our daily operations. But we are not stopping here.

Our future goals and activities
We know the path ahead includes complexity: growing climate expectations, evolving regulations, and rising demand for responsible aquaculture solutions. But we see opportunity in every challenge.
In the coming years, we will:

- Deliver a verified Environmental Product Declaration (EPD) by 2025.
- Aim to reduce alternative delousing by 75% by 2028.
- Improve packaging circularity and end-of-life solutions.
- Scale welfare scoring tools to help more customers reduce mortality and improve fish health.
- Strengthen our ethical value chain governance through systematic supplier engagement.
- Continue building internal ESG competence and aligning with the European Sustainability Reporting Standards (ESRS).
- Undertake detailed opportunity and risk mapping through both climate and financial lenses.
- Establish a full Scope 1–3 GHG emissions baseline; publish a reduction roadmap in 2025.

This structured approach helps us stay accountable—both internally and externally. And while we have a clear roadmap, we remain open to learning, iteration, and co-creation with our partners.

And above all, we will stay focused on impact – for fish, for farmers, for the fjords, and for a future where sustainability and scalability go hand in hand.

Our invitation to you
Sustainability is a shared responsibility. Input from suppliers, customers, regulators, and researchers helps shape our path. We welcome collaboration, dialogue, and challenge as we work together toward a healthier, more sustainable aquaculture industry.

Material topics, key actions and status

MATERIAL TOPIC	GOAL	KEY ACTIONS
Climate impact (E1)	Establish GHG baseline	Scope 1–3 inventory, improve data collection, supplier engagement
Resource use and circularity (E5)	Develop circular design and lifecycle tools	End-of-life plans, packaging reductions, and reuse tracking
Biodiversity & ecosystems (E4/G2)	Reduce alternative delousing methods including the reduction of cleaner fish	Laser technology optimisation, fish welfare monitoring
Fish welfare (G2)	Improve customer performance on mortality and stress	Improve existing applications and introduce new
Ethical value chain S2/G1)	Strengthen due diligence and supplier follow-up	Risk screening, ESG audits, supplier dialogue
Internal skills and safety (S1)	Expand training and knowledge-sharing	Competence programmes, documentation systems
Community impact (S1/S2)	Increase shared value in local regions	Local hires, student programmes, community outreach

8.0

Appendix & disclosures

8.1

Alignment with CSRD

As part of our preparation for the EU's Corporate Sustainability Reporting Directive (CSRD), this appendix cross-references our 2024 Sustainability Report with the relevant European Sustainability Reporting Standards (ESRS). It aims to support transparency, facilitate assurance readiness, and align with evolving stakeholder expectations. Our disclosures reflect our current capabilities and material topics, and will continue to expand as our reporting matures.

ESRS STANDARD	DISCLOSURE REQUIREMENT	REFERENCE IN THIS REPORT	NOTES
ESRS 2	General disclosures	Our approach to sustainability Governance model Alignment with frameworks and regulations	Includes strategy, business model, sustainability governance, due diligence, policies and risk management
ESRS E1	Climate change	Emissions From goals to action The road ahead	Scope 1-3 emissions inventory, GHG reduction targets, hotspot analysis, activity-based data and roadmap
ESRS E2	Pollution	Ecosystems	Pollution avoidance through reduction of chemical delousing and lice control
ESRS E3	Water & marine resources	Ecosystems	Implicitly addresses through reduced impact on marine ecosystems via non-invasive technology
ESRS E4	Biodiversity & ecosystems	Ecosystems Fish welfare Our purpose	Benefits to marine biodiversity through reduced cleaner fish dependency, gentler treatments and ecosystem protection
ESRS E5	Resource use & circular economy	Circularity & resource use From goals to action Key milestones	Lifecycle analysis, product design improvements and material efficiency, reuse, packaging reduction
ESRS S1	Own workforce	Social Governance From goals to action	Employee safety, ESG training, competence sharing, job satisfaction and future plans for inclusive culture
ESRS S2	Workers in the value chain	Governance Ethical value chain	Supplier risk assessment, human rights due diligence, Transparency Act reporting
ESRS S3	Affected communities	Social Listening and learning - from within	Community partnerships, student placements, local hiring initiatives
ESRS G1	Business conduct	Governance Alignment with frameworks and regulations	Ethical policies, anti-corruption, supplier Code of Conduct, compliance systems
ESRS G2	Fish welfare	Fish welfare Ecosystems From goals to action	Specific to aquaculture, aligns with Stingray's core business - includes welfare scoring, mortality reduction, AI-based monitoring

Design & development: KIND, TheVIT
Photography & visuals: Stingray, KIND, TheVIT
Contributors: Nils Petter Aaland, Minnesota Agency

Fiskens Helsestasjon™
Stingray Marine Solutions AS
stingray.no