ORIGIN BY OCEAN

2025

IMPACT REPORT

Washing the Oceans

At Origin by Ocean®, we are reimagining the chemical industry by ***transforming harmful algae into high-value, sustainable, 100% bio based & biodegradable ingredients for consumer goods***.

Our patented biorefining process produces materials traditionally sourced from fossil fuels, climate-sensitive plants, and land/water intensive renewable crops. Our feedstock, *Sargassum Natans/Fluitans*, sourced from the Dominican Republic, allows us to make a positive impact; the *sargassum* is collected from shores where it is causing harm to the wildlife, health of locals, infrastructure, and local economy.

By forming partnerships with local companies and organizations to remove and process the invasive algae, we are working to build a collaborative and transparent *sargassum* supply chain.

Through our biorefining process, we produce our high-value functional bio-based ingredients, which can decarbonize oil-based manufactured goods across industries like cosmetics, textiles and food. Our ingredients bring functionality and profitability, regulatory compliance, and enhanced market competitiveness.

We are committed to regenerating ocean ecosystems while delivering products that are not only safe for the planet and people, but also perform to the highest standards.

PHOTO #2

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1. Introduction

Urgency does not cancel hope — it sharpens it

A Message from Our CEO

Building execution capability in a changing industrial landscape

The European chemical industry is undergoing a structural transition. Rising production costs, capacity constraints, and evolving regulatory and market expectations are challenging the long-term viability of traditional manufacturing models. ***Maintaining a competitive and resilient industrial base in Europe requires the development of new, scalable production pathways aligned with future sustainability and performance requirements.***

Origin by Ocean is addressing this challenge by building bio-based chemical solutions designed for industrial-scale deployment. Our approach focuses on developing biodegradable and regenerative products that integrate into existing value chains while enabling a shift away from fossil-based raw materials.

> ***Central to this strategy is the development of first-of-a-kind (FOAK) production infrastructure****, where new processes can be validated, optimised, and de-risked under real operating conditions.*

In 2025, Origin by Ocean made significant progress in moving from validation to execution. We successfully completed demo-scale production, achieving a full end-to-end understanding of our process and generating critical operational data to support industrial scale-up. This work strengthened our technical readiness and improved visibility into process performance, quality control, and operational stability.

Commercial progress advanced in parallel with technical development. Customer engagement increased across multiple end markets, and discussions evolved from early-stage interest toward concrete offtake commitments. As process maturity improved, daily operations became more predictable and disciplined, supported by clearer operating procedures and a strengthening safety culture.

A key focus throughout the year was learning at scale. We expanded laboratory capacity, introduced new analytical methods and standard operating procedures, and improved product consistency and predictability. Across analytics, process optimisation, logistics, and international operations, the organisation concentrated on building repeatable capabilities and reducing execution risk. Batch by batch, our technology was validated under real-world conditions.

This progress has been enabled through close collaboration with partners, customers, investors, and other stakeholders. Their engagement has been essential in supporting the transition from feasibility to operational and commercial readiness.

By the end of 2025, Origin by Ocean had established a solid foundation for the next phase of growth. The company is now positioned to continue scaling responsibly, secure long-term offtake agreements, and contribute to the development of a more resilient and sustainable chemical industry in Europe.

Mari Granström
CEO, Origin by Ocean

PHOTO #3

*To fight for a clean, regenerative, & just future – **the time to create change is now.***

Introduction

At Origin by Ocean, we believe that positive long-term change must be driven by sustainability, fairness, freedom, and commitment. ***Our core values not only shape what we do today, but what we strive for in the future.***

For us, sustainability means a holistic approach: environmental, social, economic, and governance-related sustainability.

This 2025 Impact Report gives insight into the progress that we have made and the challenges that we have faced in the past year. The report also highlights what we aim to do in the future, and why those plans are important. As a company that is in the process of scaling up, everything that we decide and do today, will strongly impact and direct our future.

Sargassum Inundation Events continue to cause a coastal burden, as over 30 million tons of sargassum makes its way to shores annually. This overgrowth, when collected and processed prior to rotting, can unlock new possibilities.

Our mission remains the same: transforming ocean overgrowth into high-performance, bio-based ingredients. We are in the process of building a regenerative supply chain which benefits the planet and local economies; by partnering with coastal communities that collect the sargassum from the ocean, processing the algae at local terminals, and using our patented biorefining process, we can turn sargassum into valuable ingredients. From feedstock to end-product, this regenerative and collaborative supply chain can help restore ecosystems and reduce emissions.

PHOTO #4

2. Highlights of 2025

Highlights of 2025

A year ago, we launched Origin by Ocean's first annual Impact Report for 2024. Now, looking back on 2025, we can see the large strides we have made, as we reflect on our achievements, challenges, and lessons learned.

2025 WAS TRULY A YEAR FULL OF LEARNING AND GROWING, AS WE:

- built and commisioned demo production and started pre-commercial production
- had the global pre-commercial product launch of OCEAN**THIX**™ and OCEAN**BOOST**™
- made a collaboration agreement with CABB Oy for our FOAK in Kokkola, Finland
- secured sargassum supply with Fundación Puntacana in the Dominican Republic for our FOAK operations in Kokkola
- and completed INCI registration for both of our products: OCEAN**THIX**™ and OCEAN**BOOST**™

We are thankful to have been involved in many trade shows and panels, and to have had our work recognized in publications and award shows.

PHOTO #5

OCEANTHIX™ and OCEANBOOST™ Launches

OCEANTHIX™ & OCEANBOOST™
OFFICIAL PRE-COMMERCIAL LAUNCH

In the spring of 2025, we unveiled our OCEAN**THIX**™ (alginate) and OCEAN**BOOST**™ (fucoidan) at in-Cosmetics Global in Amsterdam, Netherlands.

We presented a texture bar showcasing 13 different sensorial products including OCEAN**THIX**™ LV and OCEAN**BOOST**™ LF. These 13 products demonstrate the versatility and functionality of our ingredients. All of the products were in circular packaging.

> *Interested in learning more about our ingredients and formulations?*
>
> ***CLICK HERE***

Thank you to everyone involved in providing the **circular packaging**:

- **Clement Packaging:**
  Circular, microplastic-free bioplastics
- **Epopack:**
  Leaders in mono material PET structures
- **Eurovetrocap:**
  PCR Glass & Mono Dropper Solutions
- **Labelisten:**
  Recyclable mono-material pouches
- **IPG:**
  Intelligent plastic solutions
- **Packtory:**
  Sustainable Korean packaging innovations

SAUNA/ING

In the fall of 2025, sauna/ing launched their products at the ILoveMe beauty exhibition in Helsinki, Finland. Two of these products included Origin by Ocean's ingredients.

The Sauna Serum Mist includes our fucoidan, OCEAN**BOOST**™. The Sauna Face Mask includes our alginate, OCEAN**THIX**™.

The ILoveMe exhibition saw nearly 67,000 visitors in 2025, setting a new attendance record. We are thankful to everyone who stopped by the sauna/ing booth, and to sauna/ing for collaborating with us on such great products.

To purchase sauna/ing products, please visit: www.sauna-ing.com

PHOTOS #6-8

Publications about Origin by Ocean

PUBLICATIONS FROM 2025

“Beyond Upcycled: Upcycling in the Blue Economy”
By: The Upcycled Beauty Company

“Biorefinery Transforms Invasive Algae into Sustainable Materials”
By: Material District

“Brunalger från Karibien blir biokemikalier i Karleby”
By: Katarina Koivisto from Hufvudstadsbladet - *IN SWEDISH*

“Brunalger från Karibien ska bli kemikalier i Karleby”
By: Joni Kyheröinen from Yle - *IN SWEDISH*

“CABB in algae biorefinery deal”
By: Andrew Warmington from Speciality Chemicals Magazine

“Could this invasive seaweed become the ‘cashmere of the ocean’?”
By: Vogue Business
contains interview with our Chief Executive Activist, Mari Granström

“Disaster to development: Turning invasive algae into sustainable cosmetics”
By: Beatrice Wihlander from Personal Care Insights

“Ensimmäinen ruskoleväjalostamo rakentuu Kokkolaan”
By: Insinööri-lehti - *IN FINNISH*

“Exclusive: Redstone unveils €25m ocean tech fund to revive ‘dying’ Baltic Sea”
By: Impact Loop

“First-of-a-kind biorefinery to commercialize and scale ingredients from invasive brown algae”
By: the Editor from Bioplastics News

“From burden to biomass: Mari Granström on turning ocean overgrowth into blue economy value for a bio-based future”
By: Net New Energy Today
contains interview with our Chief Executive Activist, Mari Granström

“Huomenta Suomi” Online video
By: Päivi Mäki-Petäjä - *VIDEO IN FINNISH*

“Kokkolassa aiotaan alkaa jalostaa hyötykäyttöön levää, joka tukahduttaa rantoja Karibianmerellä”
By: Ismo Vähäsarja from Yle - *IN FINNISH*

“Maailman ensimmäinen ruskolevän biojalostamo nousee Kokkolaan – aluksi levä tuodaan hyvin kaukaa”
By: Katja Lamminen from Maaseudun Tulevaisuus - *IN FINNISH*

“Merilevästä kemikaaleja – Suomalainen startup yllättää: Maailman ensimmäinen biojalostamo lajissaan nousee Kokkolaan”
By: Kristiina Suojanen from Tekniikka & Talous - *IN FINNISH*

“New Biorefinery can Commercialise and Scale Ingredients from Invasive Brown Algae”
By: The Beauty of Innovation

“New Partnership to Turn Invasive Seaweed into Sustainable Cosmetic Ingredients”
Article 1 By: Kirtsy Doolan from Cosmetics Design Europe
Article 2 By: SeafoodNews by Expana

“Origin by Ocean and CABB Group Aim to Replace Fossil-fuel Based Products with Those Made From Refined Sargassum Seaweed”
By: Susan Lahey from Blue Economy News .Earth

“Origin by Ocean and CABB Group partner on algae biorefinery in Finland”
By: Nurcin Metingil from ArcticStartup

“Origin by Ocean and CABB Group Partner to Convert Invasive Sargassum Algae into Valuable Ingredients”
By: Vegconomist - The Vegan Business Magazine

“Origin by Ocean and CABB partner for first-of-a-kind algae biorefinery in Finland”
By: Adsale Plastics Network, Editor: RC

“Origin by Ocean Partners with the CABB Group for a First-of-a-Kind Biorefinery to Commercialize and Scale Ingredients from Invasive Brown Algae”
Article 1 By: AZoCleantech
Article 2 By: msn

“Origin by Oceanin kaupallinen biojalostamo Kokkolaan – maailman ensimmäinen ruskolevän hyödyntäjä”
Article 1 By: Kemiamedia - *IN FINNISH*
Article 2 By: Uusiouutiset - *IN FINNISH*

“Planet-friendly cosmetics: Consumers drive innovation and regulation for green beauty”
By: Personal Care Insights
contains interview with our Product Development Activist, Marc Desmarais

“Sargazo: escogen 2 proyectos para apoyar soluciones contra estas plantas acuáticas”
By: El Nacional - *IN SPANISH*

“Snart blir alger till guld i Karleby – unik fabrik blir den första i världen”
Article 1 By: Johan Prest from Vasabladet - *IN SWEDISH*
Article 2 By: Johan Prest from Österbottens Tidning - *IN SWEDISH*

“Stinky, Invasive Seaweed Could Be Beauty’s Next Hero Ingredient”
By: Eileen Loh from American Salon

“Transforming Invasive Algae”
By: Cossma

“Transforming invasive seaweed into a potential beauty ingredient: a regenerative business model reshaping the value chain?”
By: Candy Tang from industrysourcing - *IN MANDARIN*

“Yllättävä bisnesidea syntyi Karibialta – Suomalaisyritys kehitti haittalevästä uuden tuotteen”
By: Kauppalehti - *IN FINNISH*

*Access the articles by **clicking the authors’ names or going to page 64***

Event Participation

SDG AMBITION ACCELERATOR PROGRAM

February 26th-May 13th

We participated with 15 other companies in a 3-month program, focused in progressing SDG-related goals and setting measurable targets.

AlgaeProBANOS CONSORTIUM MEETING

March: 11th-13th

We attended the APB Annual Partner Meeting in Tromsø, Norway.

LOCALITY CONSORTIUM MEETING

April: 7th-8th

We attended the LOCALITY Meeting in Faro, Portugal.

IN-COSMETICS GLOBAL 2025

April: 8th-10th

We launched OCEAN**THIX**™ and OCEAN**BOOST**™ at the event, with a texture bar showcasing 13 different products.

WORLD CIRCULAR ECONOMY FORUM 2025

May: 13th-14th

We spoke on stage about nature- based solutions for a circular economy.

VITAFOODS EUROPE 2025

May: 20th-22th

At Vitafoods Europe, Origin by Ocean showcased its algae-derived functional ingredients, engaging with supplement innovators and wellness brands on how marine bioactives can bridge nutraceuticals and beauty through sustainable, high-performance solutions.

NYSCC SUPPLIERS DAY

June: 3rd-4th

We launched our products and our alginate caviar at the Finnish ambassador's residence during our FEEL THE IMPACT event.

MAKEUP IN PARIS

June: 18th

We participated in the Ocean Beauty conference, contributing to discussions on how marine biotechnology and responsible ocean sourcing can enable high-performance beauty products while protecting marine ecosystems and reducing environmental impact.

DOMINICAN REPUBLIC SARGASSUM TASK FORCE MEETING

June

We participated in the first Dominican Republic Sargassum Task Force meeting, arranged by the European Union Global Gateway - a landmark initiative to address the growing sargassum crisis affecting Caribbean coastlines, ecosystems, and local communities.

IN-COSMETICS KOREA

July: 2nd-4th

Origin by Ocean participated in in-cosmetics Korea, advancing the APAC rollout of OCEAN**THIX**™ and OCEAN**BOOST**™ and strengthening relationships with regional cosmetic innovators and distributors.

A'PELAGO INITIATIVE

August: 20th-21st

We were part of two Seaside chats about advancing the blue economy and the blue transition.

THE DROP CONFERENCE 2025

September: 16th-18th

We attended four Ripple Sessions about climate change, technology, circularity, investment, and finance.

CLIMATE WEEK NYC 2025

September: 21st-28th

We were part of the official Finnish delegation, participated in sessions at the UN Global Compact Leaders Summit, and attended the Climate Resilience Working Group's Ocean Roundtable (which is part of the Clinton Global Initiative, organized by the Clinton Foundation).

PHOTO #10

Event Participation

NORRSKEN IMPACT/WEEK 2025

October: 1st-2nd

An event bringing people together to help create a future that is optimized for both people and the planet.

EIC PITCHING EVENT

October: 8th-9th

A 2 day pitching and networking event at P&G Brussels Innovation Center, where we had the opportunity to introduce our novel ingredients for P&G and Air Liquide.

3RD EU-CARIBBEAN GLOBAL GATEWAY CONFERENCE & 2ND GLOBAL GATEWAY FORUM

October: 8th-10th

We spoke at Session 2 “From Start-Up to Scale-Up - Accelerating Sargassum Solutions.” The conference focused on moving from pilot projects to scalable and sustainable solutions for sargassum management. The Forum looked at innovative strategies for scaling up Global Gateway investments in partner countries.

2ND EU ALGAE AWARENESS SUMMIT

October: 16th-17th

We spoke at “Algae for a healthier planet: Unveiling nature’s blue ally.” The Summit is part of an ongoing effort to inform EU Member States’ administrations and EU citizens about the many benefits of algae cultivation, products, and services.

ILOVEME

October: 17th

Sauna/ing products (containing our OCEAN**THIX**™ and OCEAN**BOOST**™) were launched at the Helsinki ILoveMe beauty exhibition.

NORTH SEA SEAWEED 2025 & IMPACTFEST

October: 28th-30th

The Seaweed Hotel Room, a conceptual hotel room where every element was made with seaweed, contained our products and our pillows (from our Marimekko textile pilot).

BEAUTYWORLD MIDDLE EAST

October: 27th-29th

30 companies from the Nordics were selected to attend - Origin by Ocean represented Finland as a part of an invitational delegate.

KOKKOLA MATERIAL WEEK

November: 11th-14th

We gave one talk about transforming ocean overgrowth into functional chemicals, and another a talk about turning an environmental issue into a circular economy solution.

ENBA WEBINAR

November: 17th

We gave a European Natural Beauty Awards Webinar “Sensoriality & Sustainability: How to create innovative cosmetic textures that restore ocean health with OCEAN**THIX**™ LV”.

HOUSE OF IMPACT & SLUSH

November: 17th-21st

We spoke at two fireside chats/panels at House of Impact.

MAKING COSMETICS ITALY 2025

November: 19th-20th

Our ingredients, formula, and project, were all presented for the Green Dream award category. Origin by Ocean won the Green Dream award for the project category.

Green Dream Award

ENBA Award

RECOGNITIONS

AWARD FINALIST (Top 5) - The Nordic Innovation Award 2025

- Celebrating breakthrough solutions that support a more sustainable future across the region
- Origin by Ocean was selected as the ***national winner from Finland***

AWARDS

WINNER: Real-time Engagement (news jacking) Award & the Best Social Media Campaign

- Won with Avidly for our Blue vs Red campaign *at the SABRE Awards - EMEA 2025*

WINNER: Innovative Natural Raw Ingredient of the Year Award

- Our OCEAN**THIX**™ LV won *at the European Natural Beauty Awards (ENBA)*

WINNER: Viestintäkampanja: B2B 2025

- Won with Avidly for our Blue vs Red campaign *at the Finnish Comms Awards Gaala 2025*

WINNER: Green Dream Award

- We won alongside Evonik
- 0b0 won for overall project *at Making Cosmetics Italy 2025*

We are thankful to have been involved in many trade shows and panels, and to have had our work recognized in publications and award shows. This recognition and these conversations allow us to continue pushing for change - creating a regenerative and sustainable future.

PHOTO #13

3. Our Operations & Products

Our Demo Production

Ran during 2025
in Otaniemi, Espoo, Finland.

GROWING IN SCALE

From 2019 to 2024, we, Origin by Ocean, grew from lab-scale testing in our own labs in Espoo, Finland, to piloting with Chempolis (a company providing biorefining technologies) in Oulu, Finland.

Everything that we have learned since 2019, especially from our Demo Production, allows us to work towards scaling up and building a First-of-a-kind (FOAK) biorefinery in Kokkola, Finland.

WHAT IS DEMO PRODUCTION?

Our Demo Production was a larger-scale production which allowed us to test equipment and processes. The larger-scale operations were crucial for fulfilling off-take customers' product needs, and making adjustments to our operations.

We operated our own Demo Production in 2025. The Demo Production was located on premises rented from KCL (Oy Keskuslaboratorio), and was operating in the building next to our office spaces in Otaniemi, Espoo, Finland. This meant that our Demo Production facilities and our labs (Analytical, Process, and New Product Development) were all close in proximity, allowing for quicker adjustments to be made in Demo when necessary. The Demo Production ended in the fall of 2025, as the KCL buildings were preparing for demolition, and as we prepared to move office spaces to another location in Otaniemi.

PHOTOS #14-15

*During 2025, **19 employees** at Origin by Ocean were actively involved in and helping run the Demo Production.*

*While the Demo Production started with a steeper learning curve and long hours to get everything moving properly, the production did run smoothly due to both **collaborative problem-solving**, and **committed and flexible team members**.*

From left to right

ROW 1:
Annukka Tarvainen, Antti Koponen, Lilli Torres, Hertta Pihlasvaara, Marc Desmarais, Régis Delatouche

ROW 2:
Klaus Muuronen, Tiina Witikkala, Susanna Berghäll, Joni Kastelli, Tania Rahman, Veera Asiala

ROW 3:
Laura Mikkonen, Marika Kirjakoff, Heidi Ekblad, Kristina Lumani, Nawanad Suksunthon, Vesa Harjunpää

\+ Henri Ahokoski *(not pictured)*

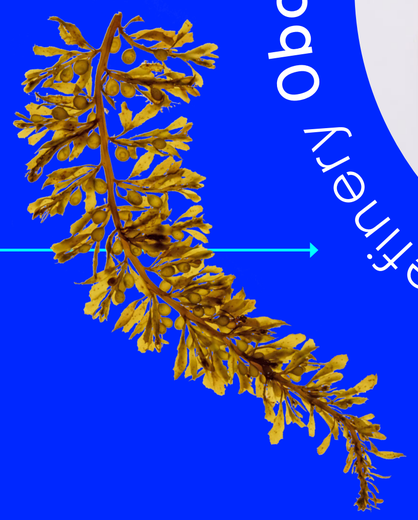
Our Operations

Our patented biorefining process produces materials traditionally sourced from fossil fuels, climate-sensitive plants and land/water intensive renewable crops.

We are committed to regenerating ocean ecosystems while delivering products that are not only safe for the planet but also perform to the highest standards.

We remove nutrients from the oceans by harvesting invasive algae, reducing harmful emissions and unlocking the value of this unused resource. Our operations support local economies.

By removing invasive algae and using it as a renewable resource, as well as partnering with companies that share our mission to wash the oceans, we are developing a regenerative supply chain.



Transforming nearly 100% of the biomass into bio-based ingredients.

Residuals are being repurposed into products and materials, capturing carbon.

Sustainable 100% bio-based & biodegradable ingredients reduce the carbon footprint of consumer goods.

Through our patented biorefinery process, we create multiple high-value ingredients like OCEAN**THIX**™ (alginate) & OCEAN**BOOST**™ (fucoidan).

PHOTOS #34-37

Our Products

Through one industrial process, we create multiple high-value products, each derived from our patented biorefining technology.

OCEAN**THIX**™
Sodium Alginate

> A multi-functional texturizing agent & rheology modifier.

OCEAN**BOOST**™
Fucoidan

> A bioactive ingredient known for its antioxidant, anti-inflammatory, & skin-hydrating properties.

OCEAN**RESIDUE**™
Seaweed Residue

> A versatile biomass for further material applications.

PHOTO #38

OCEANTHIX™

OCEAN**THIX**™ is the world's first circular biopolymer upcycled from invasive Sargassum.

OCEAN**THIX**™LV is a sustainably-sourced, low-viscosity anionic biopolymer extracted from *Sargassum Natans/Fluitans* using a patented, green chemistry-based biorefining process. OCEAN**THIX**™ can be used in cosmetics, food, textile printing, and packaging.

Addressing evolving global microplastic regulations, this ocean regenerating biopolymer offers a 100% bio-based and biodegradable solution for creating alternatives to synthetic thickeners.

This multifunctional ingredient boosts the viscosity of natural gums, enhances sensoriality, and reduces pilling and tackiness, while providing instant skin smoothing.

Our OCEAN**THIX**™ won the European Natural Beauty Award (ENBA) for Natural Raw Ingredient Innovation in 2025.

*For more information about OCEAN**THIX**™, please read our 2024 Impact Report **HERE**, or visit our website **HERE**.*

INCI: ALGIN
approved in 2025
by PCPC (Personal Care Product Council)

COSMOS
approved in 2025

PHOTO #39

FUCOIDAN

OCEANBOOST™

INCI: FUCOIDAN

approved in 2025

by PCPC (Personal Care Product Council)

OCEAN**BOOST**™ is the industry's first circular fucoidan extracted from invasive *sargassum*.

OCEAN**BOOST**™LF is world's first circular Fucoidan upcycled from invasive Sargassum (*Sargassum Natans/Fluitans*), bridging the gap between biotechnology and environmental regeneration by transforming an ecological burden into a high-purity bioactive that visibly reduces the appearance of *inflammaging*. This chronic, low-grade inflammation can present as sensitivity, redness, or discomfort; it can also result in a loss of firmness or even dull, sallow-looking skin.

Many traditional hydrating agents, including hyaluronic acid, are produced through large-scale sugar farming–practices that often contribute to deforestation, biodiversity loss, and increased land and water use, while also competing with the global food supply chain. OCEAN**BOOST**™ LF, in contrast, is sourced from invasive *sargassum* – a seaweed not used for human consumption –ensuring it does not compete with food production.

While well-documented in scientific literature, we are conducting proprietary clinical trials to validate efficacy in improving brightness, elasticity, hydration, longevity, and skin tone. It proves that high-performance results can be powered by radical circularity, transparency and environmental stewardship.

*For more information about OCEAN**BOOST**™, please read our 2024 Impact Report **HERE**, or visit our website **HERE**.*

PHOTO #40

4. Earth's Resources & Sargassum

*The **systems of the Earth are connected**, as pressure on one aspect overflows to another.*

Earth's Resources

PLANETARY BOUNDARIES

In 2025, seven of nine planetary boundaries were breached.[1]

- Climate Change
- Biosphere Integrity
- Land System Change
- Freshwater Use
- Biogeochemical Flows
- Novel Entities
- Ocean Acidification (added in 2025)

The systems of the Earth are connected, as pressure on one aspect overflows to another. Land use, resource extraction, energy demands, and human rights and exploitation cannot be considered in isolation of each other.

PHOTO #41

RESOURCE EXTRACTION

Earth's resources are being stretched and pushed to its limits. Oil is predicted to peak around 2030,[2] and to fully run out within 50 years from today.[3] Yet, the 100 billion metric tons of resources are still being used by the global economy every year - this is the equivalent weight of more than 16,000 Great Pyramids of Giza are being used annually for fossil fuels, metals, minerals, and plant- and animal-derived products.[4]

> It is estimated that around 75% of that 100 billion metric ton total consists of non-renewable resources; that amount is expected to grow even more, as **global resource extraction** is projected to **surge by 150% by 2060**.[4]

The demand for resources is increasing, while the supply of non-renewable resources is continuously decreasing.

GROWING & MINING

Around half of all habitable land on Earth is used for agriculture, specifically for two cases: growing crops, and for meadows and pastures for livestock.[5] Unsustainable farming practices and deforestation can lead to land degradation as the soil health declines, as well as water contamination as the excess nutrients from fertilizers seep into nearby bodies of water.[6]

Mining for resources, which already causes a strain on forests,[7] and results in air pollution and runoff, continues to be dangerous for workers; with injuries, diseases, and deaths occurring from safety issues such as ground collapse, flooding, and chemical and fine particle exposure.[8] Mining is considered the most hazardous occupation in most countries.[8]

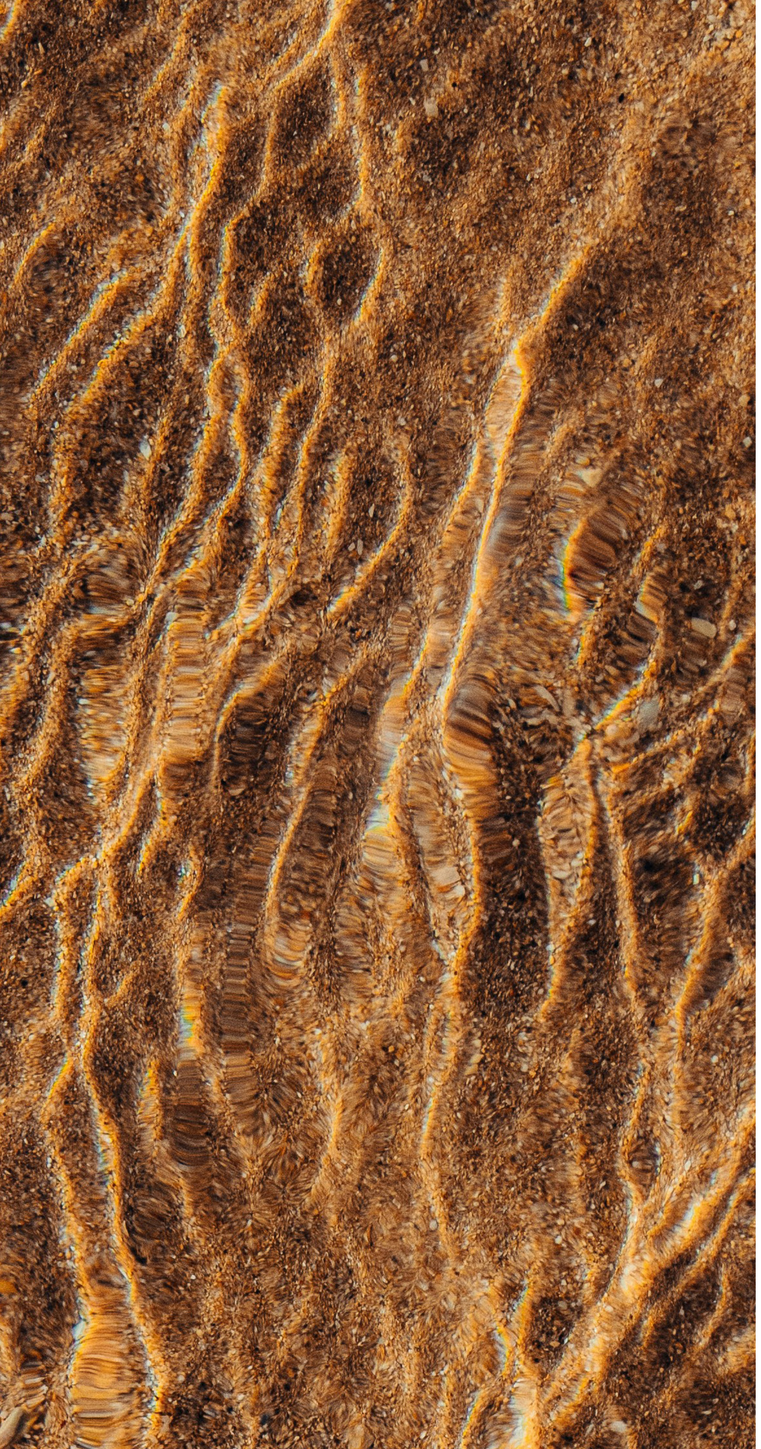
There was a **spike in the number of children collecting ingredients for cosmetics from 2018-2022**; ingredients, such as palm oil, cocoa, vanilla, shea, mica, and copper, are often products that are sourced using child labor, with some children as young as five.[9]

As of 2025, child labor is still very widespread, as 138 million children are working; 61% work in agriculture, 27% in services (such as domestic work and selling goods), and 13% in industry (such as mining and manufacturing).[10] This means:

AGRICULTURE: 84,180,000 children
SERVICES: 37,260,000 children
INDUSTRY: 17,940,000 children

With little regulation and oversight, and a growing demand for products to keep up with global trends and consumption, the human rights violations and environmental concerns could heighten.

PHOTO #42



WASTE & RECYCLING

After these resources are turned into products, they are used by consumers and then discarded. It is estimated that around only 9% of plastic products are recycled, with the rest going to landfills, incineration, or the environment.[11] Around 350 million tonnes of plastic waste are produced each year, with 82 million tonnes being mismanaged or littered, causing 19 million tonnes to end up in the environment.[12]

> **6 million tonnes of** that **plastic waste goes to rivers and coastlines**, where 1.7 million tonnes gets further moved to the ocean.[12]

"More than 2 billion tons of waste are dumped every year globally," with that amount expected to grow to 3.4 billion tons per year by 2050.[13] Annually, around 50 million tons of e-waste is produced, and by 2050 this number is expected to reach 120 million tons.[14] Around 22% of the e-waste was recycled globally in 2022, allowing for metals such as silver, copper, and gold to be recovered.[14]

> **One-third of food** that is produced globally **goes to waste, yet 800 million people live in food poverty,** revealing a larger systemic issue.[15]

Getting to the root of the problem, to understand at which point of the supply chain and why certain issues are occurring, can be the key to creating meaningful change. The People's Climate Vote 2024, which was conducted for the UN Development Programme with the University of Oxford, UK and GeoPoll, was the biggest standalone public survey on climate change.[16] The survey revealed that **80% of those participants "want their governments to take stronger action to tackle the climate crisis"** and 86% want "to see their countries set aside geopolitical differences and work together on climate change".[16]

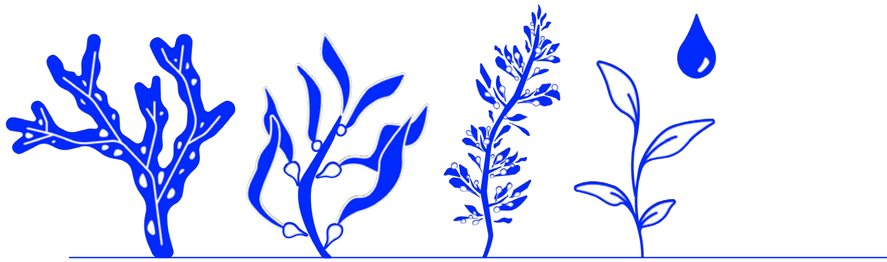
The People's Climate Vote 2024 included:

73,000 PARTICIPANTS
SPEAKING 87 DIFFERENT LANGUAGES
ACROSS 77 COUNTRIES

> The survey showed that **people want stronger climate action, to transition away from fossil fuels,** and to **be more united in change**.[16]

Resources are grown or extracted in order to create the packaging, products, and food, and then, due to issues such as lack of or inefficiency of management, infrastructure, finances, and guidelines, or exploitation in the supply chain and contracts, those resources end up as waste. Investing in infrastructure, protocols, and partnerships can help create long-term change if they take into account the full lifecycle of products, value supply chain transparency, and work on the environmental, social, and economic issues that exist.

PHOTO #43



ACCELERATING RESOURCE SCARCITY

The artificial intelligence (AI) boom is set to exacerbate these increasingly stretched thin resources. The "global AI demand is expected to consume 4.2-6.6 billion cubic meters of water by 2027" (more than Denmark's annual water withdrawal); the demand will also require a large amount of raw materials to continue building digital devices and data centers, and will result in growing electricity needs.[17]

> The data centers will pose more land use questions and concerns, as an estimated **40,000 acres of land** (around 2 billion square feet or roughly 161,800,000 square meters) **will be required** in order **to support the current projections for data center growth over the next five years**.[18]

This will lead to habitat loss, habitat fragmentation, soil degradation, changes in water flows, increased runoff into waterways, and higher greenhouse gas emissions.[19]

Large companies are continuing to push AI to users, which will inevitably continue putting pressure on our already limited global resources; this means that we will have to be even more innovative and proactive with sustainability-related ideas, plans, and regulations, so that we can all live within our planet's means.

EARTH OVERSHOOT DAY

Earth Overshoot Day is defined as "the date when humanity's demand for ecological resources and services in a given year exceeds what Earth can regenerate in a year".[20]

Earth Overshoot Day for 2025 was on July 24th for the global average. However, if the world's population lived like these countries, Earth Overshoot Day in 2026 would be[21]:

MARCH 8TH: Canada & the United Arab Emirates
MARCH 14TH: United States of America
MARCH 16TH: Australia
APRIL 1ST: Finland
MAY 14TH: Japan
MAY 22ND: United Kingdom
MAY 27TH: China
AUGUST 15TH: Dominican Republic

A full list of countries' Earth Overshoot Days can be found here: https://overshoot.footprintnetwork.org/newsroom/country-overshoot-days/

This means that if the whole world liked like people in the United States, it would require 5.1 Earths; in Finland, it would require 4.1 Earths; in the Dominican Republic, it would require 1.6 Earths.[21]

Our Earth, the land itself and the people and animals living on it, are impacted by both physical and digital consumption.

REGENERATIVE APPROACH

It is both necessary and possible for countries, businesses, organizations, and communities to work together to thrive within planetary means.[22] We need clear goals, systems, and data tracking to not only plan where we are going, but the steps needed to get there and accountability for what has or has not been accomplished.

Where possible, shifting away from primary raw materials and rethinking consumption habits can help move towards valuing the reuse and recycling of materials, considering alternative feedstocks, and consuming less in general.[23] It is possible that, in the future, recycling could become more competitive than the extraction of primary materials.[24]

> While the future is uncertain, it is clear that we need **collaborative efforts and more innovative and regenerative ideas, to help build a future that takes into account the health and safety of our planet**.

We must demand transparent, safe, and regenerative supply chains - placing people and the planet over profit.

Sargassum

At Origin by Ocean, we have a regenerative business model.
This means that we want our business to promote environmental, social, economic, and governance-related sustainability, while creating a beneficial product from an invasive feedstock (*sargassum*).

The *sargassum*, which would either be left to rot on the shores or in landfills, can be safely collected while it is still fresh. The sargassum is processed at a local terminal, where it is dried, and then sent to Finland to go through our patented biorefining process.

By utilizing the feedstock, we are helping lower the negative health, habitat, and financial impacts that the large quantities of sargassum would otherwise have on coastal communities.

The *sargassum* is turned into ingredients such as alginate and fucoidan, which can be used in a range of industries, from cosmetics to food.

These are sustainable bio-based and biodegradable ingredients which provide an alternative to synthetic or unsustainably grown and harvested natural ingredients.

PHOTO #44

*Our feedstock is **Sargassum Fluitans/Natans**, an invasive brown algae, which is collected in the Dominican Republic. By utilizing Sargassum, we **remove excess nutrients from marine ecosystems**, & create more sustainable ingredients & end products.*

SARGASSUM INUNDATION EVENTS

Sargassum Inundation Events (SIEs) occur when massive amounts of *sargassum* float to the shores from the Great Atlantic Sargassum Belt,[25] resulting in social, economic, environmental, and health-related issues.[26] The SIEs, which began around 2011, continue to overwhelm the shores of the Caribbean annually. Over 37.5 million tons of *sargassum* had accumulated in the Atlantic by July of 2025, making it a record-breaking year for brown algae already by the summer.[27]

SARGASSUM COLLECTION

Working with Fundación Puntacana, SOS Carbon, DESMI, and local governments in the Caribbean, we have tested different collection methods. Our most recent method consists of a combination of a DESMI seaweed skimmer and seaweed barrier. The barrier aims to catch the *sargassum* in the ocean, while the workers in the ocean direct the *sargassum* to the skimmers. The skimmers then pump the algae straight into a truck on the beach. This method, when done properly, means that the *sargassum* does not reach the shores, and does not need to be raked. However, in cases with stronger winds or larger SIEs than anticipated, some of the *sargassum* may break past the seaweed barrier.

*For in-depth information about Sargassum and its impacts, please visit pages 10-19 in our **2024 Impact Report***

PHOTO #45

5. Sustainable Development Goals & Our Environmental Impact

Sustainable Development Goals

SDG Ambition Accelerator Program

THE GOAL OF SDG 13 is to take urgent action to combat climate change and its impacts

Origin by Ocean has been a member of the UN Global Compact since 2022, which means supporting the Ten Principles of the United Nations Global Compact on human rights, labor, environment, and anti-corruption. During the summer of 2025, we submitted our annual report, which is called a Communication on Progress (COP), and it is available online.

> In 2025, to strengthen our commitment to our Sustainable Development Goals (SDGs), Origin by Ocean participated in the **SDG Ambition Accelerator Program, a 3-month program** running from February 26th to May 28th in Helsinki.

The program was hosted by the Finnish chapter of the United Nations Global Compact, and aimed to help companies make progress related to SDGs. We participated alongside 15 other companies; we learned from each other in the program and from industry professionals giving presentations, helping us improve our sustainability plans and pathways throughout the process.

During the program, we focused on SDG 13 Climate Action (Science based emissions reduction in line with a 1.5C pathway). Our goal was to select and implement a carbon footprint calculation method, and track its findings.

We created three pathways to direct this goal: Our supply chain and own operations, our production process (biorefinery), and our customer application (case study). Each pathway was further broken down into sub-goals, metrics, business processes, system opportunities, and key design decisions.

These will act as guides for us as we work on the pathways in the upcoming years. We will create more detailed plans once we approach each pathway start time.

1

OUR SUPPLY CHAIN AND OUR OWN OPERATIONS

- **SUB-GOAL:** Creation of the first version of the system (working with APB)
- **UPDATED TIMELINE:** 2025-2026

2

OUR PRODUCTION PROCESS (BIOREFINERY)

- **SUB-GOAL:** Creation of first version of the system for DEMO & FOAK (an updated version from Path #1)
- **UPDATED TIMELINE:**
- Demo production: 2026-2027
- FOAK production predictions: 2026-2027
- FOAK actual production: 2027-2029

3

OUR CUSTOMER APPLICATION (CASE STUDY)

- **SUB-GOAL:** Reaching an agreement with our client about the (re)formulation with our ingredient(s). This will be the final version which will be used in our reports & sustainability calculations.
- **UPDATED TIMELINE:** 2027-2030

PHOTO #46

Sustainable Development Goals

SDG Ambition Accelerator Program

CALCULATIONS & PATHWAY PLANNING

While we have done some sustainability calculations in the past, both internally and through collaborations with companies such as ClimatePoint, those calculations have relied heavily on current literature and projections of our process scale.

After the first version of the new system has been created, we will be able to more accurately see which aspects of our feedstock procurement, logistics, and biorefinery processes have the most positive and negative impacts.

> The new system can then be adjusted as we scale up and gather data from those processes, from lab to demo to FOAK scale. These findings will allow us to **better understand how we can improve our systems and processes**.

After having time to go through each pathway carefully while looking at the feasibility, we have updated the timelines to be better suited to match when we would have access to the needed data. Our pathways have otherwise stayed similar since the end of our Accelerator program.

We are currently making progress on Path 1 as part of an EU project called AlgaeProBANOS. Updates for these pathways will be provided in the next Impact Report, which will cover 2026. While the Accelerator program focused only on one SDG per company, we are still committed to making progress for all of our chosen SDGs: 8, 12, 13, 14, and 17.

*To learn more about our other SDGs, please visit our **2024 Impact Report**, which goes into detail about how our operations and mission link to each chosen SDG.*

PHOTO #47

Our Environmental Impact

2025 was a year of making decisions throughout our supply chain, which, in the coming years as we scale up, will have an important impact on our environmental footprint.

IN THE CARIBBEAN:

For *sargassum* collection, we began using a combination of a barrier and a skimmer in the ocean, so that the *sargassum* gathers in the water away from the shore. From there, the *sargassum* can directly be pumped into trucks on the shore. When this combination is used properly, it means that the process of collection is more efficient and it also keeps the *sargassum* from rotting on the shoreline.

IN FINLAND:

We were able to use our Demo Production as a way of laying the groundwork for testing and better understanding certain aspects of our operations, such as the wastewater. The information that we gathered in 2025 will help us navigate our planning for FOAK.

THE THREEFOLD ENVIRONMENTAL IMPACT OF OUR OPERATIONS

1 REGENERATIVE

CO2 and excess nutrients, which cause eutrophication, are captured into the harvested invasive seaweed species. This is beneficial and regenerative for the ecosystem and biodiversity.

2 PROCESS OPTIMIZATION

Harvesting, transporting, and producing valuable chemical components causes negative impacts (i.e. emissions), which are mitigated by using green non-toxic process chemicals, renewable energy, and process optimization where possible. This means that it is a sustainable process compared to the industry standard.

3 DECARBONIZATION OF GOODS

When Origin by Ocean's products substitute contemporary oil-based chemical components with algae, they help decarbonize those consumer goods. The impact of the substitution is positive for the environment.

6. Our Economic & Social Impact

*Our operations **support local economies** and turn environmental waste into highly profitable, **low-carbon ventures**.*

Our Economic & Social Impact

SARGASSUM HARVESTING IN THE CARIBBEAN

If the *sargassum* from the Sargassum Inundation Events were to be left onshore or be thrown into landfills, it would begin to rot. This would cause health issues to humans and animals, erode the shores, and create an economic burden on local communities.

We clean oceans by harvesting this invasive algae, reducing harmful emissions, and unlocking the value of this unused marine biomass. By freezing or drying the sargassum after it has been collected, we make sure that the quality of the feedstock remains on spec on its journey to Finland.

As we work on creating the terminal in the Caribbean, where the sargassum will be processed prior to being shipped, we are striving to also build a safe, efficient, and welcoming work environment. These operations require partnerships and teamwork, to ensure that the harvesting, processing at the terminal, and logistics and transportation run smoothly.

We want to work with locals to establish the *sargassum* value chain; this allows for local employment, input, expertise, and involvement. By working with the communities being impacted by the Sargassum Inundation Events, we can create a solution together that addresses the environmental, economic, and social impacts of the invasive *sargassum*.

FIRST-OF-A-KIND BIOREFINERY

The volume of *sargassum* being harvested and processed in the Dominican Republic will increase as we approach the opening of our FOAK.

As we build our FOAK, and once it is fully operating in Kokkola, Finland, we hope that it will help contribute to the local economies, from harvesting to end product.

Products from innovative and regenerative feedstocks help evolve industries and create space for new ideas. This innovation helps in supporting regenerative supply chains and circularity. Hopefully, the more that these types of ideas get discussed and heard, the more that they will be supported, developed, and put into action.

CODE OF CONDUCT

Wherever we operate, our Code of Conduct reflects our commitment to responsible and ethical business practices.

Adhering to the principles in our Code of Conduct is essential to achieving our mission, serving our stakeholders, and contributing positively to society. We acknowledge that we are not perfect and we will commit to improving our impact by means of employee, supplier and other relevant stakeholder training, communication, audits and assessments, and reporting.

Our Code of Conduct covers:

- ETHICAL CONDUCT (Integrity, Honesty, Conflicts of Interest, Fair Competition, & Anti-corruption)
- SUSTAINABILITY (Sustainability in Practice, Compliance with Environmental Laws, & Responsible Sourcing)
- SAFETY (Employee Safety & Well-being, Process Safety, & Ocean Safety)
- SOCIAL RESPONSIBILITY (Community Engagement, Diversity, Inclusion, & Human Rights)
- DATA AND INFORMATION (Confidentiality, Accuracy, & Transparency)
- REPORTING VIOLATIONS
- CONSEQUENCES OF VIOLATIONS

Providing a **safe and fair working environment** is important to us at Origin by Ocean.

OUR TEAM (2025)

In 2025, the Origin by Ocean team in Finland consisted of 28 Oceansavers. Out of the 28 Oceansavers, 16 employees identified as women, 11 identified as men, and 1 identified as non-binary. For some of our projects, such as our Ahti and Cyanobacteria projects, we have been working with contract employees to provide additional support and expertise.

For all employees in Finland, we adhere to Finnish laws and regulations. Origin by Ocean follows Finnish legislation and will adhere to the rules and regulations of the countries in which it operates.

In 2024, to help strengthen leadership and self-leadership at Origin by Ocean, all employees participated in a workshop that resulted in forming collective House Rules. Those House Rules will be revisited in 2026, to see which areas are functioning well and which areas should be updated since we moved into new offices and labs in 2025.

PHOTO #43

Developing a safe work environment

> Over the past few years, we have been **focusing on building a strong safety culture** at Origin by Ocean. The changes in our culture can be seen in our **safety team structures, safety observations, and follow-ups to the observations.**

At the beginning of the year, employees participated in a FRC First Aid Course EA 1® by the Finnish Red Cross. 16 Oceansavers learned how to act in case of an emergency, such as how to perform CPR or the Heimlich maneuver. This training was required for everyone working in the labs.

The Occupational Safety Training was provided for employees working in Demo Production that needed a new Safety Card; this meant that 17 Oceansavers received the Occupational Safety Card, referred to as a "green card", in January of 2025. Additionally, external ATmosphere EXplosible (ATEX) training was provided for a Demo Production Manager.

In September of 2025, we moved offices within Espoo, Finland. The new office spaces and labs are larger in size, allowing for more functional work flows, better organization, and more room to move in the labs. All containers, shelves, and important information are now clearly labeled. Everything has a place now in our new offices, labs, and storage rooms, which makes putting things away much easier, makes them easier to locate, and ensures that nothing is stored in the wrong places or in questionable ways. We have safety instructions that are easy to understand and are easily accessible, ensuring that, in case of an emergency, everyone will know who to notify, what to do, and where to go. We also have other instructions and systems for our day-to-day activities, so that all employees are aware of, for example, what can be thrown into the laboratory glass garbage can, where to place certain containers and chemicals, and having up-to-date inventory lists. Black and yellow striped tape is on the floor to mark the areas which require everyone to wear proper PPE.

The same tape has also been used to mark how far the office and lab doors open, so that employees walking through the hallways are aware of and can avoid the doors that are opening.

As we grow, we need to take into consideration safety in all locations where we work, and be prepared for the specific needs of each location. Our Ahti project, located in Parainen, involves 4 indoor pools. A sturdy platform has been built on the edges of the pools, so that the seaweed aquariums and water cooling equipment can be properly secured. We have safety as a priority in all of our projects.

In December of 2025, we had our Occupational Health & Safety (OHS) Committee elections, where we elected our new Occupational Safety Representative (with two deputies), Employee's Representative (with one deputy), and two Blue-collar Representatives (each with one deputy). The newly elected representatives will hold their positions for the next two years, starting in January 2026.

Safety training

Moving offices

Proper PPE

Implementing changes

Other locations' safety

OHS elections

PHOTO #49

2025 Safety Culture:
*There was an **increase in** both **quality of observations** **& ownership of mitigation** or corrective actions.*

WHAT ARE SAFETY OBSERVATIONS? & HOW ARE THEY HELPFUL?

Safety observations can include a variety of statements relating to health and safety, such as:

- a **positive** observation
- a **negative** observation
- an **idea** as to **how to improve** something

This observation system, which has employees submit short reflections about what they see happening, an injury or close call, an idea, or what they have noticed being done well, also **creates space for self-leadership and initiative** when it comes to health and safety.

WHAT WERE OUR SAFETY GOALS FOR 2025?

The **goal** was to have **every employee submit at least one safety observation per month**.

This means that we were aiming for over 300 safety observations total for 2025. Another goal was to have zero lost time injuries (LTIs); LTIs are work-related injuries that require employees to take time off in order to recover from that injury.

In 2025, we successfully had **zero LTIs**.

Origin by Ocean employees were proactive at recording safety observations in 2025, with a total of 322 safety observations, and 58 Demo Production safety observations. This is the total number of observations; this does not account for overlapping topics sent by different employees, which is why the observation number is high. Please note that the safety observations also include positive comments and ideas.

All of the observations were reviewed by our internal safety team, which takes note of which findings still require action and intervention, which have already been resolved, which could be implemented in the future, or which have been functioning well.

This helps us notice patterns and ***aims to prevent close calls and injuries***. This also helps to ***highlight what types of systems***, practices, and interactions ***are already efficient and running smoothly***.

PHOTO #50

FUTURE POLICIES UPDATE

In 2025, we placed an emphasis on improving safety measures, precautions/ risk-assessments, and proactivity at Origin by Ocean, while some of the other policy updates were placed on the back burner for the time being, to be readdressed in 2026.

The safety improvements that were made in our old office and labs were then carried over to and further expanded on in our new office and labs. Policy changes must be followed up with accountability and a company culture shift, in order to enforce and uphold the policies, and also be committed to creating a positive change. At Origin by Ocean, a lot of groundwork and follow-up was put in place so that the updated safety measures, protocols, and structures would be successfully set up and adopted.

A whistleblower policy and a form for the reporting channel were both drafted in 2025; these are planned to be reviewed and finalized in the coming years, however, a more specific timeline has not been set yet.

In 2025, a Supplier Code of Conduct was created to define the minimum standards of ethical, environmental, and social responsibility that we, Origin by Ocean, expect from all of our suppliers, contractors, and business partners. The Supplier Code of Conduct is grounded in international frameworks, such as the UN Global Compact, the ILO Core Conventions, OECD Guidelines for Multinational Enterprises, and the UN Sustainable Development Goals.

In the upcoming years, we still intend to create a Fair Hiring Practices Policy, which can then be shared with anyone involved in recruitment, to ensure that non-discrimination and fair hiring practices are followed as the company grows.

PHOTO #51

7. Partnerships & Ecosystem Development

Partnerships

FUNDACIÓN PUNTACANA

We partnered with Fundación Puntacana to develop a sustainable *sargassum* supply chain in the Dominican Republic.

Fundación Puntacana will provide Origin by Ocean with a steadily increasing supply of *sargassum*, commencing in 2026. By 2027-2028, this volume is projected to reach approximately 4,000 tons per year, aligning with the processing capabilities of Origin by Ocean's pioneering commercial production facility in Finland.

This will allow us to build a circular and ocean-positive *sargassum* value chain. To support this, Origin by Ocean will set up a local pre-treatment terminal in Punta Cana, ensuring high-quality feedstock for its innovative biorefinery.

Both Fundación Puntacana and Origin by Ocean are committed to working closely with local and international authorities to ensure the success of this initiative.

We have also collaborated with Grupo Puntacana in the past, and they have played a key role in building strong and sustainable connections, practices, and systems.

> *We are excited to partner with Origin by Ocean to find a sustainable solution to the sargassum crisis impacting the Caribbean.*
>
> *This collaboration has the potential to **not only mitigate the negative impacts of sargassum blooms but also create economic opportunities for the Dominican Republic.***

Jake Kheel
Vice President of Fundación Puntacana
(pictured left)

> *This partnership marks a significant step towards building a circular economy around sargassum*
>
> *By **working with Fundación Puntacana**, we can leverage their expertise in sargassum management **to secure a reliable feedstock supply and explore opportunities for local processing.***

Heikki Heiskanen
Chief Operating Activist at Origin by Ocean
(pictured right)

PHOTOS #52-53

Partnerships

CABB GROUP

Origin by Ocean and the CABB Group, a leading contract development and manufacturing organization (CDMO) specializing in fine chemicals, have entered into a strategic partnership to establish a first-of-a-kind (FOAK) algae biorefinery at CABB's production site in Kokkola, Finland, called Kokkola Industrial Park (KIP).

The facility will use Origin by Ocean's patented biorefinery technology and is set to begin operating in 2028, processing sargassum, an invasive brown seaweed, into high-value ingredients, such as alginate, fucoidan, and biomass residue. Origin by Ocean will construct the biorefinery and CABB will operate it under a Manufacturing as Service (MaaS) arrangement.

> *CABB is excited to partner with Origin by Ocean and the opportunity to **advance our sustainability agenda as well as our growth strategy** in Life Science.*

Ari Venninen
Managing Director of CABB Oy in Finland (pictured below)

Left to right: Antti-Neuvonen (CABB), Heikki Heiskanen & Annukka Tarvainen (ObO), Jacek Makowiecki & Ari Venninen (CABB) & Vesa Harjunpää (ObO)

> *Our fossil-based world is broken. For change to be possible at a large scale, we need to reimagine the value chains of the products that we use every day in our lives.*
>
> *As we **partner with CABB and prepare for the construction of the first-of-a-kind biorefinery**, we are already planning for additional biorefineries in the Caribbean, closer to the sargassum blooms*
>
> *The advantage of our technology is that we can establish facilities anywhere around the world. Now, we are **ready to scale and actively looking for partners to accelerate the widespread industrial adoption of new ingredients derived from brown algae.***

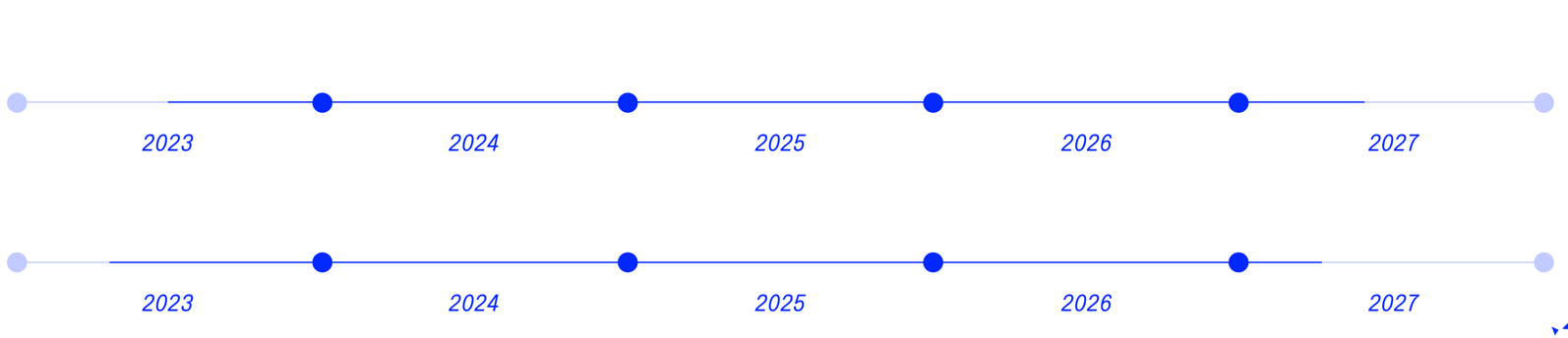
Mari Granström
Chief Executive Activist and Founder of Origin by Ocean

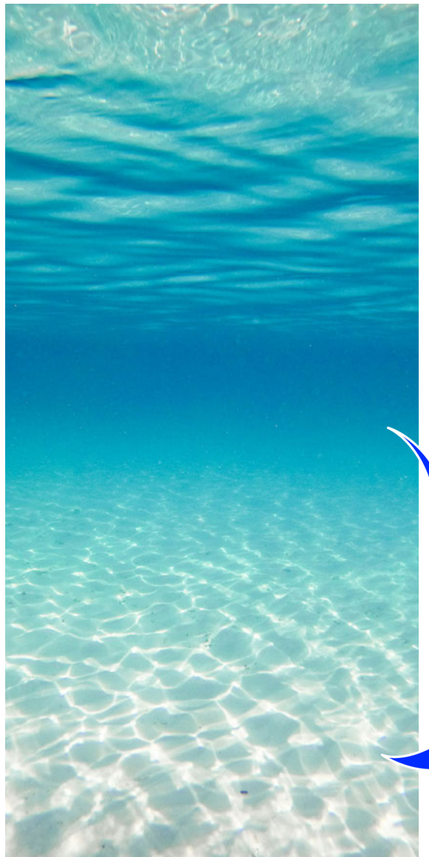
EU Projects

Origin by Ocean is involved in LOCALITY and AlgaeProBANOS, which are both funded by EU-Horizon.

LOCALITY
Circularity Powered by Algae
running from June 2023 to May 2027

AlgaePro BANOS
running from April 2023 to March 2027





We are proud to be involved in EU projects, as we learn from other companies and organisations, share our expertise, and unlock new possibilities together.

As we approach the second-to-last years of these projects, we would like to reflect on all of the progress we have made for both during 2025.

LOCALITY (PROJECT 101112884)

Origin by Ocean is part of Horizon Europe's LOCALITY project, granted by the European Climate, Infrastructure and Environment Executive Agency (CINEA), under the powers delegated by the European Commission. The project is coordinated by Norsk Institutt for Vannforskning (NIVA), and has brought together over 27 partners, including Origin by Ocean, to participate in helping create positive change in three regional ecosystems.[28]

The project focuses on nature-positive algae-based food, agriculture, aquaculture and textile products made in North and Baltic Sea ecosystems, by implementing local, innovative, and sustainable value chains. By working together, innovative processes and algae-based products will be developed, consumer readiness will be tested, and potential challenges will be identified. This will help create a plan for successful implementation, outreach, communication, and engagement, all while moving towards circularity.[28]

2025 LOCALITY REFLECTIONS

The LOCALITY Consortium Meeting in Faro, Portugal in April of 2025 was a great opportunity to connect with the other companies participating in the EU project. Highlights from the trip included visiting Necton and SPAROS, and learning about their innovations and operations.

During the summer, Origin by Ocean collected cyanobacteria from the Baltic Sea, and sent it off to our partners in LOCALITY. To learn more about our cyanobacteria collection, please go to page 42.

PHOTO #55

2025 LOCALITY REFLECTIONS (CONTINUED)

Fucoidan nutraceutical in-vitro screening was started in 2025, and we will receive additional information, as well as the results, in 2026. These findings will be incredibly important to us as we shift our focus to fucoidan in the coming years.

In October, a public deliverable was published by LOCALITY. This white paper, titled **Consumer Acceptance of Algae-Based Foods**, explores, behavioral patterns, preferences, and attitudes towards plant-based products derived from algae, and the potential that they have to impact sustainable dietary transitions.

AlgaeProBANOS (APB) (PROJECT 101112943)

Origin by Ocean is also part of the AlgaeProBANOS EU-project, which is funded by Horizon Europe as well.[29] AlgaeProBANOS (APB) aims to accelerate the development of and market access to algae-based solutions. Through six business pilots, the project will introduce eight algae products, ranging from food to cosmetics, fostering a sustainable industry that preserves precious resources while meeting consumer demands.

The project period is from 2023 to 2026 (36 months) and is coordinated by the German Submariner Network for Blue Growth.

The core mission of APB is to support the development and market accessibility of algae-based products, aiming to position the EU as a global leader in this domain.[29] This initiative strives to not only foster industry growth but also support coastal societies and stimulate local economies.

2025 APB REFLECTIONS

The AlgaeProBANOS Consortium Meeting in Tromsø, Norway in March allowed time and space for connecting with people from other companies and make meaningful progress on the projects.

The 2nd EU Algae Awareness Summit in Berlin, Germany included a stand showcasing our alginate, and our CEO spoke at “Algae for a Healthier Planet: Unveiling Nature’s Blue Ally”. An Algae Declaration was signed by several countries at the Summit; Finland did not sign there, however, Finland is expected to sign the declaration soon.

In one of the work packages, we have been working with Syke Finnish Environment Institute and KTH Royal Institute of Technology to develop Lifecycle Assessment (LCA) models for our operations. This will help us see where the largest negative and positive impacts are in our value chain, and make adjustments accordingly.

In September of 2024, a deliverable was published by APB. This paper had not been included in 2024’s Impact Report, which is why we wanted to highlight it here. The paper covers **recommendations for the monitoring of sustainable wild harvesting of macroalgae**.

PHOTO #56

Ahti Project

Commercialising bladderwrack cultivation to remove nutrients from the Baltic Sea

In 2025, Origin by Ocean launched the Fucus (AHTI) project, a pioneering initiative to **develop and commercialise the cultivation of bladderwrack (Fucus vesiculosus) in the Baltic Sea**.

The project combines nutrient removal, ecosystem restoration and industrial bio-refining into a regenerative value chain designed for long-term scale.

WHY FUCUS?

Bladderwrack is a native keystone species in the Baltic Sea, essential for biodiversity and ecosystem stability. At the same time, it has the ability to bind nitrogen and phosphorus from seawater, making it a powerful natural tool for combating eutrophication.

Because natural growth is too slow and wild harvesting would harm existing populations, Origin by Ocean's approach is based exclusively on cultivation, not extraction from nature.

The *Ministry of the Environment* has supported the ***Bladderwrack cultivation for Baltic Sea restoration*** with a grant of *€283 000* through the Ahti Programme. The goal of the Ahti Programme is to curb nutrient loading, improve soil structure, manage harmful substances, and recover and utilise valuable resources.

Ympäristöministeriö
Miljöministeriet
Ministry of the Environment

PHOTO #57

Ari Ruuskanen, Origin by Ocean's Lead Biomass Activist

ENVIRONMENTAL AND SOCIETAL IMPACT

The Fucus project demonstrates how marine cultivation can deliver measurable ecosystem benefits while enabling new industries:

- **Permanent nutrient removal:**
  Cultivated Fucus binds nitrogen and phosphorus during growth and removes them from the Baltic Sea when harvested
- **Climate benefits:**
  Fucus binds carbon during growth, and replacing fossil-based raw materials with algae-based alternatives reduces lifecycle emissions
- **New coastal livelihoods:**
  Cultivation and processing create new employment opportunities and economic activity in coastal regions
- **Biodiversity protection:**
  Cultivation increases Fucus biomass temporarily without damaging natural populations

WHAT IS BEING DEVELOPED

The project focuses on adapting and scaling cultivated Fucus production to Baltic Sea conditions, using a combination of land-based propagation and sea-based growth:

- **Seedstock production** from local Baltic Fucus populations in controlled conditions
- **Marine cultivation** using dedicated infrastructure that increases biomass temporarily and is fully removed after harvest
- **Fucus Filter Box**™ methodology, developed by Origin by Ocean, to optimise nutrient uptake during growth
- **Harvest before decomposition,** ensuring nutrients are permanently removed from the marine system

Cultivation takes place in cooperation with LIVIA's facilities in the Archipelago Sea, with Origin by Ocean responsible for technology, operations and bio-refining.

BUILDING A SCALABLE BLUEPRINT

Running from May 2025 to November 2026, the AHTI project is designed to generate the data, operational experience and regulatory insights needed to enable commercial-scale Fucus cultivation in the Baltic Sea. The results will support permitting, long-term deployment and future replication in other eutrophic marine regions.

> The Fucus project represents a critical step toward integrating marine restoration, nutrient cycling and industrial bioeconomy into one scalable system.

PHOTO #58

Cyano Project

From harmful blooms to regenerative marine value

In the summer of 2025, Origin by Ocean carried out the fourth year of continuous work for the Cyano Project – **now extending to a field-scale validation of industrial cyanobacteria collection methods in the Baltic Sea**.

The project marked a critical milestone in proving that harmful algal blooms can be transformed from an environmental liability into a regenerative resource for the bioeconomy.

WHY CYANOBACTERIA?

Cyanobacterial blooms are a visible symptom of eutrophication in the Baltic Sea, contributing to oxygen depletion, toxin formation, beach closures, and declining coastal water quality. Left unmanaged, the biomass releases phosphorus and nitrogen back into the ecosystem, reinforcing a self-perpetuating cycle of pollution. Origin by Ocean's approach intervenes at the source by removing nutrient-rich biomass before it decomposes.

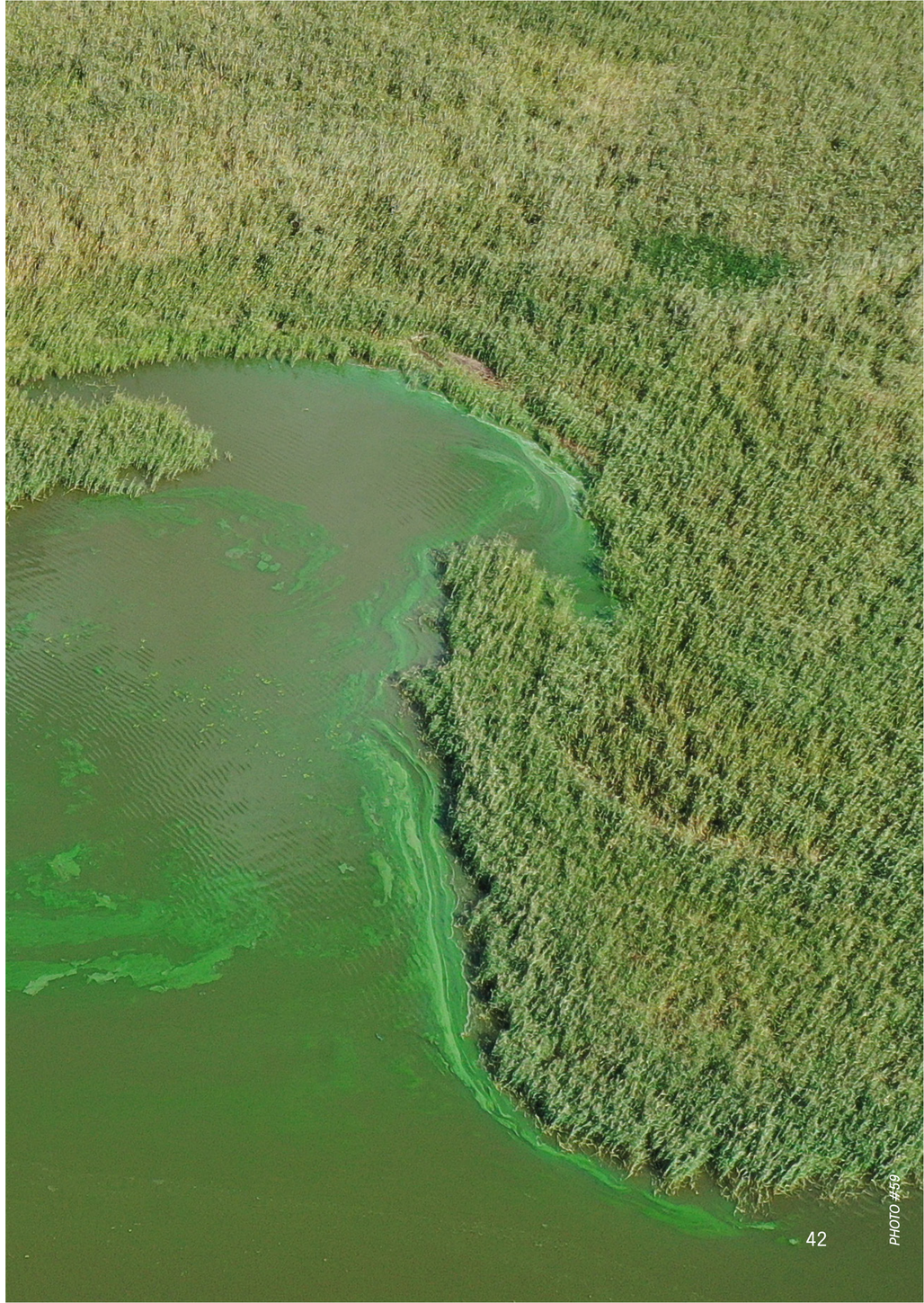


PHOTO #59

Cyanobacteria harvesting can function as a ***regenerative intervention.***

Read more about our Cyano Project in Apu360 ***HERE***

WHAT WAS TESTED

Field trials conducted during peak bloom season validated multiple collection and processing pathways under real-world conditions.

The project successfully demonstrated:

- **High-efficiency sedimentation-based collection**, enabling up to 95% reduction in pumping needs while maintaining process yields.
- **Centrifugation with over 90% recovery**, confirming suitability for industrial downstream processing.
- **Low-cost pumping solutions and a floating tank system**, proving that scalable, semi-automated collection is technically feasible.
- Stable performance across varying cyanobacteria concentrations and coastal conditions.

Together, these results significantly increased the accuracy of industrial scale-up planning compared to laboratory-only assumptions.

ENVIRONMENTAL AND SOCIETAL IMPACT

The Cyano Project showed how cyanobacteria harvesting can function as a regenerative intervention, not just a cleanup activity:

- **Pollution prevention**: Removal of phosphorus- and nitrogen-rich biomass reduces eutrophication, internal nutrient loading, and secondary pollution such as hypoxia and toxin release.
- **Circular economy innovation**: Cyanobacteria were successfully repositioned from waste to feedstock, opening pathways to valorize the biomass into high-value biochemicals, including mycosporine-like amino acids (MAAs) for cosmetic UV-protection.
- **Clearer coastal waters**: Sedimentation-based collection measurably reduced water turbidity, improving local water quality and beach usability.
- **Scalability with public benefit**: Nutrient removal at scale has the potential to accelerate environmental permitting and strengthen public acceptance for future operations.

A FOUNDATION FOR SCALE

> While the 2025 trials operated at pilot scale, they delivered a decisive proof point: **industrial cyanobacteria collection in the Baltic Sea is technically viable, environmentally beneficial, and economically planable**.

The project provides a robust foundation for scaling operations from tens of kilograms to hundreds and, ultimately, thousands of tonnes per season.

The Cyano Project 2025 represents a shift from reactive mitigation to systemic regeneration, demonstrating how marine pollution challenges can be addressed through science-based, circular solutions that restore ecosystems while enabling new industrial value chains.

PHOTO #60-61

8. Looking Ahead & Market Potential

FUTURE PLANS

2019–2025

Lab-scale

IN OTANIEMI

Piloting

IN OULU, FINLAND
WITH CHEMPOLIS

Demo Production

IN OTANIEMI

FOAK

IN KOKKOLA, FINLAND
WITH CABB GROUP

PHOTO #62

Planning for FOAK in Finland & scaling up in the Caribbean

In 2025, we announced that we are partnering with CABB Group to build our First-of-a-Kind (FOAK) biorefinery in Kokkola, Finland, set to be operating in 2028.

CABB Group is a leading contract development and manufacturing company (CDMO) for starting materials, active ingredients and advanced intermediates. Origin by Ocean will construct the biorefinery and CABB will operate it under a Manufacturing as Service (MaaS) arrangement.

FOAK will allow us to scale up our operations and produce OCEAN**THIX**™, OCEAN**BOOST**™, and OCEAN**RESIDUE**™ at commercial-scale levels. In the years leading up to FOAK, we will continue to work on optimizing our process, ensuring quality ingredients and products through our analysis methods, improving sustainability measures where possible, and building an efficient biorefinery. Creating this biorefinery requires a group effort across teams and companies, meaning that good communication and an openness to learning from others is key to the success of FOAK.

We are thankful for all of the support that we have received from Kokkola, as they have shown us a warm welcome to the city and to Kokkola Industrial Park. We are also thankful for all of the support and collaborative efforts that we have received and been apart of in the Caribbean.

In order to supply our FOAK operations, we need to have larger feedstock quantities. We have partnered with Fundación Puntacana to collect the *sargassum* from the ocean in the Caribbean. The *sargassum* will then be processed at our terminal in the Dominican Republic, which will be located close to the beach where the feedstock will be gathered from. At the terminal, the *sargassum* will be dried and packaged, ready to be shipped to Kokkola.

The dried sargassum is predicted to be more efficient environmentally and economically, as the feedstock will weigh less, fit in smaller containers, and not need to be stored in freezer containers. In 2025, Origin by Ocean worked hard to test and ensure the quality, efficiency, and feasibility of utilizing dried instead of frozen *sargassum*. What may seem like a small change externally, has truly required time, dedication, and strong communication internally; we are committed to making our process, from start to finish, more environmentally, socially, and economically sustainable, when possible to do so. We are aware of the shipping footprint as the *sargassum* is currently, and will continue to be, shipped from the Caribbean to Finland. Alongside utilizing dried feedstock, we have been looking into additional possible solutions which could lower the shipping impact. We will explore those options in the coming years.

*We are **scaling up from feedstock to end-product to create a positive impact**, led by innovation, collaboration, and determination.*

OCEAN**THIX**™, OCEAN**BOOST**™, & OCEAN**RESIDUE**™ unlock new possibilities, due to the variety of use cases and benefits they can provide.

Explore the potential of sargassum, as it makes its way through our patented biorefining process.

Potential of:

Alginate | Fucoidan | Residue

PHOTO #63

Potential of Alginate

WHAT ARE ALGINATES?

Alginates are a “family of compounds that naturally occur in the cell wall and extracellular matrix” of various species of brown algae.[30] Alginate, the sodium salt of alginic acid, is a natural polysaccharide extracted from brown seaweed.

ALGINATE APPLICATIONS

Alginate can be used in a variety of applications, such as in the beauty, cosmeceutical, packaging, textile, and food industries.

WHY RESEARCH THE POTENTIAL OF ALGINATE?

Origin by Ocean is creating OCEAN**THIX**™, the industry’s first commercial scale alginate extracted from invasive *Sargassum Natans/ Fluitans*. Alginate provides a bio-based and biodegradable solution for creating alternatives to synthetic thickeners; we are interested in exploring alginate’s versatility, and unlocking its different use cases.

INTERESTED IN READING MORE ABOUT ALGINATE?

CLICK HERE to read about OCEAN**THIX**™

Alginate can act as a **multifunctional ingredient** that boosts the viscosity of natural gums, enhances sensoriality, reduces pilling and tackiness, and provides skin smoothing.

PHOTO #64

Potential Use Cases of Alginate

Alginate can be used in cosmetics to **enhance absorption, improve skin feel,** & **stabilize emulsions** with a more luxurious sensorial profile; & in food innovation to **elevate texture, mouthfeel, dispersibility,** & **stability.**

COSMETICS:

- Serums, gel creams, essences
- Cleansers & shampoos (sulfate-free)
- Mists & fluid-gel textures
- etc.

PACKAGING & TEXTILE:

- Biodegradable plastic-film alternatives
- Alternative to synthetic thickeners
- etc.

FOOD:

- Dairy & plant-based beverages & drinks
- Sauces & dressings
- Desserts, ice creams & sorbets
- Vegan jellies & marmalades
- etc.

PHOTO #65

Potential of Fucoidan

WHAT ARE FUCOIDANS?

Fucoidans are a family of sulfated polysaccharides.[31] “Polysaccharides are a large chain of simple sugars covalently linked by glycosidic bonds”.[32] “Sulfated polysaccharides refer to polysaccharides containing sulfate groups on sugar units”.[33] Fucoidans are found in the cell walls of brown seaweed species, such as *sargassum*.

FUCOIDAN APPLICATIONS

Fucoidan can be used in a variety of applications, such as in the beauty, cosmeceutical, nutraceutical, and medicinal fields.

WHY RESEARCH THE POTENTIAL OF FUCOIDAN?

Origin by Ocean is pioneering OCEAN**BOOST**™, the first commercial-scale supply of fucoidan from invasive *Sargassum Natans/ Fluitans*. In 2025, we compiled a literature review to guide our proprietary clinical testing, and establish our position as the global leader in clinically proven fucoidans. This effort supports the transformation of this environmental nuisance into a high-value raw material for the nutraceutical and cosmetic markets.

INTERESTED IN READING THE REVIEW?

CLICK HERE to read our “Fucoidan: A Literature Review - Ocean-Derived Innovation for Skin & Self-Care” PDF

Fucoidan can help bring natural, safe, & effective products to consumers, while also providing **moisturizing, protective, antioxidant, anti-inflammatory, & antimicrobial benefits.**

PHOTO #66

Potential Use Cases of Fucoidan

COSMETICS:

- Serums & essences
- Hybrid makeup
- Barrier creams
- Soothing solutions
- etc.

COMMERCIAL FOOD:

- Supplements in nutraceutical foods
- Animal feed
- Improve gut health & energy metabolism
- Manage weight
- Boost immunity
- etc.

MEDICAL:

- Drug delivery assistants
- etc.

Fucoidan has **bio-functional properties;** gut health, antioxidant, anticoagulant, antiviral, anti-inflammatory, immunomodulatory, & antitumor properties.[34]

Fucoidan's ability to neutralize free radicals means that it can **help repair skin issues** and **manage skin health**.

Protecting the skin barrier can have a wide range of benefits, especially in regards to preserving the body's homeostasis, and guarding against the external environment and pathogens.

PHOTO #67

Potential of Residue

WHAT IS RESIDUE?

Residue is “something that remains after a part is taken, separated, or designated, or after the completion of a process”.[35]

ALGAE RESIDUE APPLICATIONS

Instead of becoming waste, this fraction is transformed into a versatile, carbon-capturing raw material, supporting applications across agriculture, materials, and nutrition.

WHY RESEARCH THE POTENTIAL OF ALGAE RESIDUE?

OCEAN**RESIDUE**™ is the purified, nutrient-rich biomass left after Origin by Ocean’s patented biorefinery process. Unlike most biomass side-streams, OCEAN**RESIDUE**™ is designed to add value – not cost – into circular product development.

INTERESTED IN READING MORE ABOUT RESIDUE?

CLICK HERE to read about OCEAN**RESIDUE**™

OCEAN**RESIDUE**™ is low-cost & abundant, climate-positive, regenerative by origin, & technically versatile (as its composition supports multiple industries).

PHOTO #68

Potential Use Cases of Residue

Abundant, low-cost, and available at industrial scale, OCEAN**RESIDUE**™ allows companies to **test and scale new circular products** without the typical cost barriers of sustainable materials.

MATERIALS:

- Filler for bio-based plastics, construction materials, & bio-composites

AGRICULTURE:

- Soil enrichment & biochar
- Growing media (peat replacement)
- Animal feed supplements

PHOTO #69

9. Challenges & Lessons Learned

Challenges & Lessons Learned

2025

Over the course of 2025, a large emphasis was placed on Health & Safety and on our supply chain. Going into 2026, we will continue making improvements wherever we notice are needed.

There is good communication and collaboration within teams. Despite this, with the small teams and large workloads, especially during Demo Production, there were longer work hours and higher levels of stress. To help ease some of that stress, more discussions were held about workload and prioritization, and more days off were provided. The wellbeing risks were taken seriously, and, through manager intervention, were able to figure out a solution that worked best for all parties involved. Resource constraints have meant postponing or reprioritizing purchases and repairs for the time being, and has, at times, left sustainability out of some of the daily conversations and decisions.

In 2025, the R&D team was able to make changes in the process, which led to a lower consumption of chemicals, as well as the recycling of ethanol. During the Demo Production, teams worked on how to properly recycle waste and to mitigate waste quantities.

At Origin by Ocean, we are looking into more sustainable raw materials and packaging solutions when creating prototypes and sending samples around the world; trying to find sustainable options that are available to be purchased in smaller quantities. This highlights the challenge of wanting to use certain materials, but not being able to yet since we are still operating at a smaller scale.

Originally our operations were based on frozen *sargassum*, shipped from the Caribbean to Finland. In 2025, supported by the Demo production, and furter development of the process, we were able to switch to dried *sargassum*, which also allows local operators in the Caribbean to process the feedstock further. The dried *sargassum* enables a more cost-effective supply chain, as it can be shipped and stored in regular containers, instead of frozen containers.

This change to **dried *sargassum* will** ultimately help **lower our footprint and help distribute wealth within the local economies**.

PHOTO #70

10. Conclusion & Acknowledgement

Conclusion & Acknowledgement

As our second impact report, we wanted to reflect on our accomplishments, challenges, and progress we have made in the past year. We shared some of our plans for the upcoming years, as we work towards our First-of-a-kind biorefinery in Finland, and scale up our feedstock amount from the Caribbean.

As we learn more from the data about our processes and value chains, especially from our LCA calculations in the coming years, we will build and implement more comprehensive sustainability-related plans and methods. This means that we will have more detailed ways of tracking our impact, and translating those findings into policies. guidelines, and targets throughout our company.

We acknowledge that we have room to grow in terms of sustainability. We will reflect on any shortcomings and make changes accordingly in the coming years.

Thank you to our investors, partners, Oceansaver team, and everyone who has been part of our journey. Origin by Ocean started with a bold vision in 2019, and, with your support, has been turning that vision into reality.

We are appreciative of how far we have come, and look forward to continuing to make a positive impact for people, animals, and the planet together.

Thank you!

PHOTO #71

11. FAQ & Abbrevations

Frequently Asked Questions

WHAT IS INVASIVE SEAWEED?

"Seaweed" is the common name for countless species of marine plants and algae that grow in the ocean as well as in rivers, lakes, and other water bodies.[36]

Invasive seaweed is seaweed that is not native to the area in which it is growing.[37] Invasive/non-native plants, including seaweeds, often can reproduce, grow, and spread quickly since they are able to out-compete native plants.[38] They often use up resources that native plants rely on.

WHAT IS HYDROGEN SULFIDE? DOES IT IMPACT OBO'S PRODUCTS?

Hydrogen sulfide is described as a "colorless gas known for its pungent 'rotten egg' odor at low concentrations".[40] The gas is toxic and exposure to it can cause a range of health issues, from mild to severe. After 48 hours of reaching land, sargassum begins to rot, releasing harmful gases called hydrogen sulfide and ammonia.[41]

This means that hydrogen sulfide is not present in the sargassum itself. The hydrogen sulfide is only released as a reaction when the sargassum is decomposing.

No, the hydrogen sulfide does not impact our products. Our sargassum is collected before it begins to rot, and is stored safely for transportation, meaning that the hydrogen sulfide is neither released nor present in our products.

WHAT IS SARGASSUM?

Sargassum is a brown algae found in the ocean. *Sargassum* has leafy appendages, branches, and round gas-filled structures. The round structures, which are called pneumatocysts, are mostly filled with oxygen, allowing the *sargassum* to float on the surface of the water.[39]

Outside of the Sargasso Sea, *sargassum* is an invasive species. It grows rapidly in the Great Atlantic Sargassum Belt, causing environmental, economic, and health-related issues when it reaches the shores.

ARE OBO'S PRODUCTS SAFE?

Yes, Origin by Ocean's products are safe.

Sargassum can accumulate pesticides and heavy metals (including arsenic), so, in our biorefining process, we treat the *sargassum* in a way that removes the pollutants, ensuring that it is safe to use. Due to this process, our ingredients are safe and purified.

The heavy metals (including arsenic) that are removed from the *sargassum* are disposed of properly, according to our safety guidelines and local regulations.

ABBREVIATIONS

AI: Artificial Intelligence

APB: AlgaeProBANOS

ATEX: ATmosphere EXplosible

BANOS: Baltic and North Seas

CDMO: Contract development and manufacturing organization

CEO: Chief Executive Officer

CINEA: European Climate, Infrastructure and Environment Executive Agency

COP: Communication on Progress

CPR: Cardiopulmonary Resuscitation

ENBA: European Natural Beauty Awards

EU: European Union

FCSP: Fucose-Containing Sulfated Polysaccharide

FOAK: First-of-a-kind (biorefinery)

FRC: Finnish Red Cross

ILO: International Labor Organization

INCI: International Nomenclature Cosmetic Ingredient

KCL: Oy Keskuslaboratorio

KIP: Kokkola Industrial Park

KTH: KTH Royal Institute of Technology

LCA: Lifecycle Assessment

LIVIA: LIVIA College

LTI: Lost Time Incidents

MAAs: Mycosporine-like amino acids

MaaS: Manufacturing as Service

NIVA: Norsk Institutt for Vannforskning

ObO: Origin by Ocean

Oceansavers: Origin by Ocean employees

OECD: Organisation for Economic Co-operation and Development

OHS: Occupational Health & Safety

P&G: Procter & Gamble

PCPC: Personal Care Product Council

PPE: Personal protective equipment

R&D: Research and development

SDG: Sustainable Development Goals

SIEs: Sargassum Inundation Events

SOPs: Standard Operating Procedures

UK: United Kingdom

UN: United Nations

UV: Ultraviolet

PRODUCT NAMES

OCEAN**THIX**™: Sodium Alginate

LV: Low Viscosity (Low Viscosity Anionic Biopolymer)

FG: Food Grade

OCEAN**BOOST**™: Fucoidan

LF: Low Fucose
(Low Molecular Weight Fucose-Containing Sulfated Polysaccharide)

OCEAN**RESIDUE**™: Seaweed Residue

PATENTS

Origin by Ocean's IP portfolio currently consists of two granted patents in Finland: process technology patent and brown algae cultivation patent. For the process technology patent there are active extension applications pending for six different patent regions (USA, Canada, EPO, Mexico, Dominican Republic, Brazil). Additionally, two other process related patents are currently pending, and several are in development in areas of our ingredient formulations.

In addition to patents, we own the trademarks of our products, and our company name and logo is registered.

ORIGIN BY OCEAN

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