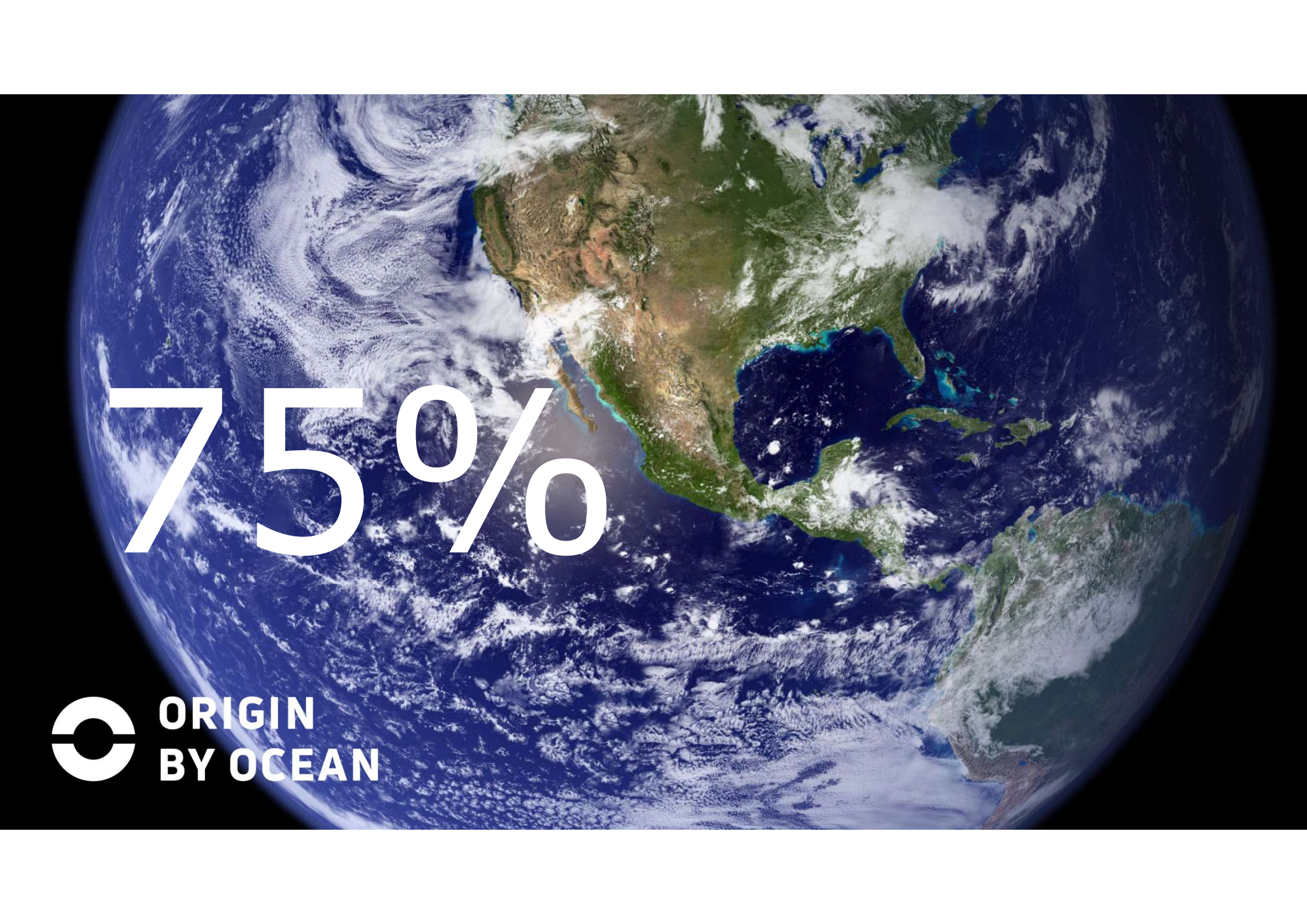


The Future is Blue

The future is made in Finland,
Episode II: Bioeconomy defines the future



26th of October 2020
Mikael Westerlund
Founder & CEO
Origin by Ocean



75%



**ORIGIN
BY OCEAN**



The Global Challenge

WHY?

An aerial photograph of a boat moving across the ocean, leaving a dark wake. A large, irregular spill of yellowish-brown oil is visible on the water's surface, extending from the boat's path towards the right side of the frame. The sun is reflecting off the water, creating a bright, shimmering area. The overall scene is somber and highlights the impact of marine pollution.

For the Natural Balance of Ocean Life



**ORIGIN
BY OCEAN**

For the Natural Balance of Ocean Life

Our Mission

Cleaner water, cleaner oceans, cleaner life

Our Vision

A better planet for all of us, thru sustainable use of farmed and harvested marine biomass from our oceans

Our Solution

Clean, sustainable, natural marine bio-based ingredients for the food, beverage, cosmetics and pharma industries



Our values

Freedom: We encourage each other to grow in knowledge, skills, teamwork, scope of responsibility and range of activities. We believe that Team members will exceed expectations when given the freedom to do so.

Fairness: Everyone at Origin by Ocean sincerely tries to be fair with each other, our family members, our suppliers, our customers and anyone else with whom we do business and interact with.

Sustainability: All decisions we make are measured against our sustainability checkpoint: That we create value by improving our habitat thru innovation and sustainable use of our planets biomass and other resources.

Commitment: We are not assigned tasks; rather, we each make our own commitments and keep them.



Sustainable development goals at our core



UNOPS Global Innovation Challenge brings together innovators, entrepreneurs, programmers and developers to provide the creative ideas and solutions needed to accelerate progress on the Sustainable Development Goals.

Our disruptive proposition

Our unique proposition

We change the business by

- 1) Not only farming biomass but by cleaning the waters as we remove harmful algae, thus cleaning the waters and creating sustainable growth environments for natural bladder wrack and kelp
- 2) Introducing a new, innovative extraction process which improves process and product yields significantly
- 3) Extracting and producing new ingredients which improves the quality, health benefits and sustainability of end products



Bringing the balance of ocean life

Initial numbers, Nauvu® demo facility Southern Finland



1. Farm & Harvest

Feed from blue-green algae & bladder wrack

Industrial scale collection of blue-green algae and large scale bladder wrack farming

4. Purify

Through extraction of blue-green algae and bladder wrack aquaculture, the sea we operate in is purified.

Resulting in a annual total nutrient removal from the Baltic Sea of:

- ~ 90 Tons Phosphorous
- ~ 900 Tons Nitrogen

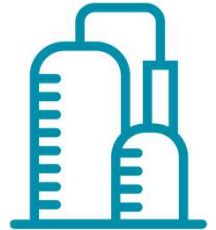


2. Refine

Origin by Ocean neo-ecology refinery

Our first Neo-ecology refinery will annually process:

- 30,000 Wet tons of blue-green algae
- 50,000 Wet tons of bladder wrack



3. Apply

Global and domestic industry customers can utilise extracted components in their products

The Neo-ecology refinery will produce 10,000 Dry tons of Biomolecule products

The value we create

Origin by Ocean creates value by offering bio-based and non-synthetic ingredients that improve sustainability throughout the value chain up to the end user. We improve sustainability by replacing animal-based ingredients with plant-based, biologically sustainable innovations.



Who we are and what we do



Team



Mikael Westerlund

Founder
Chief Business Activist
MBA, BSc Eng

+20years of international business development and management



Mari Granström

Founder
Chief Science Activist
PhD Organic Chemistry

+10years of biorefinery process and biobased product development



Pia Sjöberg

Lead Science Activist
PhD Analytical Chemistry

+20years of chemical process and product development & analytics



Susanna Berghäll

Senior Labtech Activist
+20years of chemical and bio materials analytics and verification



Ari Ruuskanen

Lead Biomass Activist
PhD Marine biology
+30years of seaweed research and field trials

SAVOX

BASF
We create chemistry



PLANMECA **KiilTO**



SYKE

BERNER

Finnish Environment Institute



UNIVERSITY OF HELSINKI

SYKE

Finnish Environment Institute

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#originbyocean
#neo-ecology

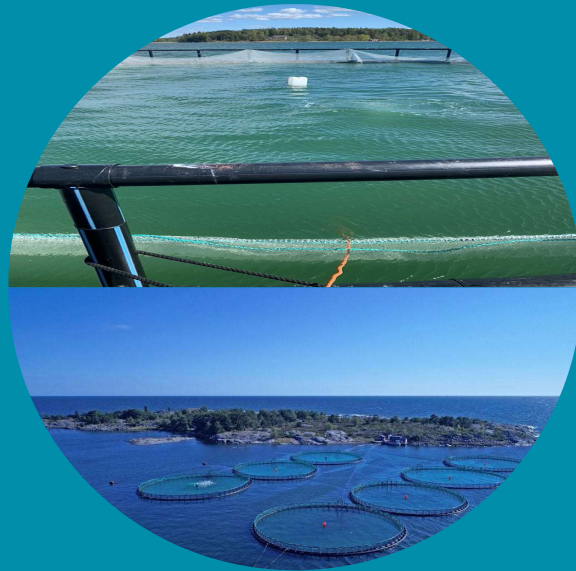
www.originbyocean.com

The Future is Blue, Mikael Westerlund 14
3.11.2020

Gaining operational momentum



**Bluegreen algae
harvester prototype,
operational summer 2020**



**Bladderwrack farming
sea trials, started
season 2020**



**Neo-ecology biorefinery
research Lab, opened
June 2020**

Our goals

As entrepreneurs, we want to create a global company which takes the lead on **solving environmental issues with a new approach.**

We aim to build a **network of ecosystem partners** that jointly work towards creating value while solving environmental issues in our oceans.

We want to be recognized as the most innovative producer of algae-based raw materials, **creating nutrition balance in our oceans.**

As a business, we aim to be a 50 million business by the end of 2029. To reach our goal, our target is to commercialise our products and gain sustained foothold for our products within 2027”





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