

2022
Norway



NTNU

Norwegian University of
Science and Technology

PROBLEM



Demand for better utilization of available resources



39% of this is thrown into the sea every year

Population growth in the world

300 000 tons of white fish waste in Norway every year

THE EUROPEAN MARKETS

The supplement industry

Primary market



Use of collagen: dietary supplements, workout supplements, beauty industry, powder in drinks & food.

Market value supplement industry 2022: **\$ 163.9 billion**. Market value marine collagen 2022: **\$ 782.2 million**

Expected growth: 8.9% every year (GVR, 2022)

The pharmaceutical industry

Secondary market



Use of collagen: wound healing, burn healing & research for the future

Market value 2020: **\$ 1.27 trillion** (Statista, 2021)

Expected growth: 11.34% every year (GVR, 2022)

The fish meal industry

Tertiary market



Use of fish meal: fertilizer & animal feed

Market value 2022: **\$ 8153.6 million**

Expected growth: 8.3% every year (The Insight Partners, 2021)

Target country: Norway, for use in fish farming

Target countries: Norway, Germany, France, Italy and UK
Biggest demand for the products

SOLUTION



The developing world is on the precipice of hunger. This is related to the reduction in food production and depletion of marine resources in the ocean. MMEDS will try make a small, but important difference here.

MMEDS Collagen

1. Sustainable and carbon neutral marine collagen powder from white fish waste
 - Energy is the only emission during production
 - Zero waste policy

MMEDS Fish Meal

2. Fish meal produced by waste from collagen production

3 GOOD HEALTH AND WELL-BEING



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND



OUR COMPETITIVE ADVANTAGES



Sustainability in all parts
of the company



Traceability of the raw
materials



Transparency in the
production



Proximity to the suppliers

OUR COMPETITORS



Marine collagen
producer in Norway.
Expected sale in 2022;
28 927 229,18 Euro

(Seagarden, 2022)



Marine collagen
producer in France.
Income in 2021;
109 132 200,00 Euro

(Rocketreach, 2022).



Marine collagen
producer in France.
Income in 2021;
555 315 200,00 Euro

(Zoominfo, 2022)

COMPETITION

Market Concentration



Consolidated – Market dominated by 1-5 major players



Europe Collagen Market

Fragmented – Highly competitive market without dominant
players

MARKET APPROACH & STRATEGY



B2B Business Model:

- Lower marketing - and production costs
- Higher profitability
- Fewer competitors



A promise made is a promise kept:

- Pure collagen powder, no 'characteristics'
→ Many of our competitors make claims about their products which are not supported by the science



CRM (Custom Relation Management):

- Contact potential customers directly
- Explain our products and our offers
- Use the same clients many times
→ customer loyalty

MOMENTUM

Goals achieved:

- Successful production of marine collagen from fish waste in university laboratories over two semesters
- Produced collagen with a degree of utilization of 22 %.
- Signed two letters of intent. One with a potential buyer (one of the largest collagen stakeholder in Norway) and one with a supplier of fish waste.
- Financial support from NTNU Discovery



TEAM AND KEY STAKEHOLDERS

CEO & Market manager

Finance & HR manager



The group has a
mutual desire for a
more sustainable
future

Product and HSE manager

A team of three members with
bachelor degrees from
Norwegian University of Science and
Technology in Ålesund (Norway)

Two different fields of study:

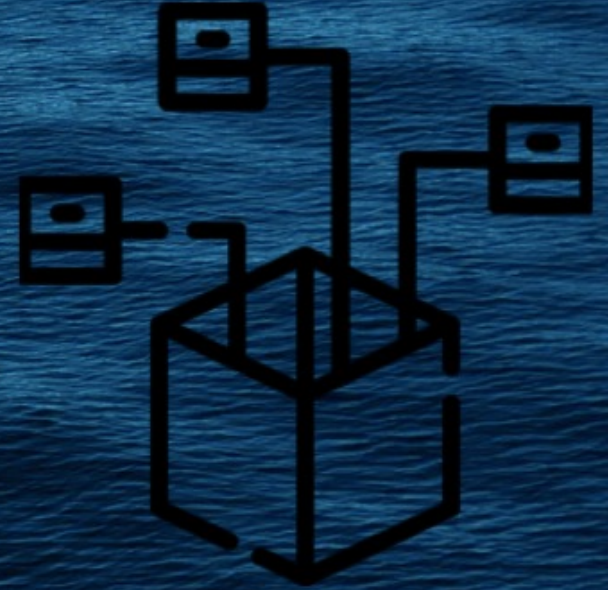
- Biomarine Innovation, which combines aquaculture with innovation and entrepreneurship
- Marketing, innovation and management

BUSINESS MODEL

We produce collagen
and use the leftovers to
make fishmeal



We buy white fish
waste from suppliers
and give it new value



Distribution to the
three markets



Contribution to the
sustainability goals



FINANCIALS

PV (PRESENT VALUE):

Approximently 6 000 000 Norwegian
kroners
(581 268,06 Euro)

Two separate cash flows:

Income from collagen & fish meal

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Result (Euro)	-56 590,05	-43 076,37	-38 096,01	22 233,06	223 965,07	868 963,16
PV (Euro)	583 501,79					

	Total expences (Euro)	Total income (Euro)	Total profit (Euro)
<i>Year 1</i>	285 704,26	242 650,26	-43 054
<i>Year 5</i>	645 857,30	1 506 861	869 041

INVESTMENT AND USE OF FUNDS

Financing of the start-up

- Approximately 58 000 euros



Main expenditure

- Rental of production building
- Lyophilizer
- Other production equipment
- Contingencies expenses
- Marketing

Competence requirement

- Chemistry
- Pharmaceutical industry
- Mass production
(engineers, technicians)

Key factors:

Low cost, high quality raw materials

Low cost, high quality acids

