Deliverable 4.3

Mapping of technologies

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ABSTRACT	This report provides an overview of the mapping in the existing blue bioeconomy industries technology solutions / providers in European coastal regions. Existing technologies/services provided by local industries (start-ups, SMEs, majors companies) have been identified and categorized by type of product/service and types of application or target market.
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Acronyms

BBC	BlueBioClusters
SMEs	Small and Medium Enterprises
WP	Work Package
D	Deliverable
EU	European Union
BlueBioMatch	BBM
TRL	Technology Readiness Level

Executive Summary

This report was prepared under Work Package 4 “Technology mapping and transfer”. Its aim is to map the technologies in the blue bioeconomy sector across different European coastal regions, as part of the BlueBioClusters consortium. The mapping of technologies focused on providers and developers of marine living resources (fisheries, aquaculture and blue biotechnologies). The report includes a database of existing technologies/services provided by local industries (start-ups, SMEs, majors companies) categorized by type of product/service and kind of bioresource in a matrix form presenting different types of applications; the main objective is to access a geographical overview of each ecosystem strategy and perimeter to find complementarities and synergies among the different stakeholders (techno providers, user, end-users, etc), notably, through the interactive platform **BlueBioMatch**. The platform was launched in September 2023, and interaction has been fostered on an ongoing basis since then, continuing through the final stages of the project and beyond.

The methodology involved identifying existing technology providers and developers in each of the regions consisted in a BBC database that has been consolidated and integrates all the relevant actors and key information on localisation, type of technology, TRL, description of the technology (products/services), bioresources (macroalgae, fish, mussels, bacteria, etc.), value chain phase (harvest, cultivation, production, processing, etc.) and target market or application. The mapping supported the initial steps of the interactive platform to identify potential users and invite them to join; therefore, the database has been one of the tools involved in integrating all Blue Bioeconomy actors in BlueBioMatch and boosting transnational cooperation. Moreover, the mapping supports the validation of the audience for other WP4 tasks: surveys, interviews, roundtables and webinars, some of them has already started, but the main core will be implemented in the final stages of the project. The report includes a presentation of some key figures on the BlueBioMatch and the platform dynamics, as well as the type of technologies identified, the bioresources used in the different countries and the market and application targeted.

Finally, the report draws trends and improvement areas for the technological development of the sector in the European coastal regions.

Introduction

Consumption of seafood has grown twice as fast as the human population since the 1960s (OECD[1]). This substantial growth has driven some consequences, such as the world's fishing capture reaching its maximum capacity. When facing this rising demand, aquaculture stands out as a response to the need to increase fish, invertebrates and seaweed production. Nevertheless, the rapid growth of aquaculture strongly impacts the ecosystems in terms of pollution, consumption of resources, waste, etc. It also raises questions on the quality of products and the threats that the sector faces from external factors such as climate change and diseases, which is why blue biotechnology is one of the more promising sectors in the coming years.

According to the FAO[2], world aquaculture production reached an all-time high of 114.5 million tonnes with a total farmgate sale value of USD 263.6 billion in 2018: the world aquaculture production represented 82.1 million tonnes (USD 250.1 billion), 32.4 million tonnes of seaweeds (USD 13.3 billion) and 26 000 tonnes of ornamental seashells and pearls (USD 179 000) (FAO, 2020).
In 2018, world aquaculture contributed up to 46% to global fish production, up from 25.7 % in 2000. At the regional level, aquaculture production is dominated by China (89% of the world's total volume). Fish production through aquaculture accounted for 17.9% of total production in Africa, 17 % in Europe, 15.7% in the Americas, and 12.7% in Oceania (FAO, 2020). Nowadays, there is a growing demand for products derived from marine organisms. Nutraceuticals containing marine ingredients such as omega-3 fatty acids, antioxidants, and minerals are gaining popularity due to their perceived health-promoting properties (Gotadki, 2024)

Additionally, the European blue biotechnology market is expected to show significant growth during the forecast period, i.e., 2024–2032, due to the presence of numerous use cases associated with blue biotechnology (Gotadki, 2024). The BlueBioClusters project is focused on 9 European coastal regions located in Belgium, Estonia, France, Iceland, Lithuania, Norway, Portugal, Scotland and Sweden. These regions are highly impacted by the blue bioeconomic sector, which accounts for a significant percentage of the region's economic development due to its geographic conditions and the important marine/maritime dynamics present. Indeed, the Blue Bioeconomy Strategy for Europe highlights the crucial role of marine bioresources to address the societal, environmental, and economic challenges faced by the continent.
The mapping has been developed considering the wide categorisation of the marine living resources sector and encompasses the harvesting of renewable biological resources (primary sector), their conversion into food, feed, bio-based products, and bioenergy (processing), and their distribution along the supply chain[3].

To increase the uptake of sustainable blue bioeconomy business opportunities in the BBC coastal regions, work package (WP) 4 mapped technologies within the blue bioeconomy sector and promoted technology transfer between regions and sectors. All project partners are highly engaged in blue bioeconomy activities and are highly active in innovation ecosystems in their own regions. Each partner has conducted an exhaustive screening of all

[1] Organisation for Economic Co-operation and Development. https://www.oecd.org/
[2] FAO - Food and Agriculture Organization of the United Nations. https://www.fao.org/home/fr
[3] THE EU BLUE ECONOMY REPORT 2024. European Commission Directorate General for Maritime Affairs and Fisheries, and the Joint Research Centre (JRC). Luxembourg (2024)

technologies developed in the region, identified the actors involved, and, as much as possible, the characteristics of the value chain, including location, type of technology, bioresources, and target market. Once all the data was collected, partners attempted to contact the technology developers to gain a better understanding of their R&D and business models. For this, various strategies have been implemented, including phone calls, mailings, online & onsite surveys, and visits. Moreover, as a result of identifying and mapping technology providers and developers (T4.2), the deliverable D4.3 includes a description of the types of technologies identified and their market targets, as well as a set of improvement areas that could support the development of these technologies in European coastal regions. In this context, BBC WP4 mapped the technology providers across different regions to enable synergies, cooperation, and promote commercial agreements between technology developers and end-users. **BlueBioMatch** has been launched and pooled since Autumn 2023 to foster interaction amongst actors. The objective is to continue engaging with various stakeholders to promote active participation on the platform among existing members, as well as to contact new actors and foster interactions that contribute to the sustainable development of the blue bioeconomy sector in coastal regions.

Blue Bioeconomy Technologies

Oceans cover about 70% of the Earth and support 90% of the planet's biosphere, housing thousands or possibly millions of species, and only 5% of the ocean has been explored (UNESCO, 2023). With those numbers, it is estimated that the marine environment is home to over a million macroscopic species—algae, corals, sponges, mollusks, fish and mammals—not to mention approximately one billion species of microorganisms—viruses, bacteria, archaea, microalgae and fungi. Oceanic regions can also differ widely in terms of chemical and physical conditions, such as temperature, salinity, light availability, and the level of toxic compounds, which means that marine organisms have developed unique features that vary according to their environment. (Sara Daniotti, 2021)

The vast biodiversity in the seas and the variability of the species they host have led to an extensive catalogue of natural products, encouraging research into new bioactive substances extracted from these organisms, with extraordinary industrial application potential (Altmann, 2017). Algae, which include macroalgae, microalgae and cyanobacteria, are particularly promising because of the significant number of bioactive molecules they can generate (Sara Daniotti, 2021), along with microorganisms, which, due to their ability to adapt to extreme conditions, are an invaluable source of enzymes and compounds with specific properties, for example, resistance to high temperatures or high salinity.

According to the EU Blue Economy report (2024), Blue biotechnology is defined as the 'application of science and technology to living organisms from marine resources, as well as parts, products and models thereof, to alter living or non-living materials for the production of knowledge, goods and services. In Europe, the total market was valued at €868 million in 2021 and is projected to grow to €1,786 million by 2032, at a CAGR of 6.8%.

As illustrated in the figure below, marine areas encompass a range of diverse activities and operations within the blue biotechnology sector; these activities can also be linked to aquaculture plants and fishing operations (MSP-FN, 2022). The continuum of land and sea is also a key element in the development of technologies and technology transfer. The

location of biomass production, harvesting, or collection areas, logistics routes, unloading sites, and further processing facilities can determine the success of a specific value chain.

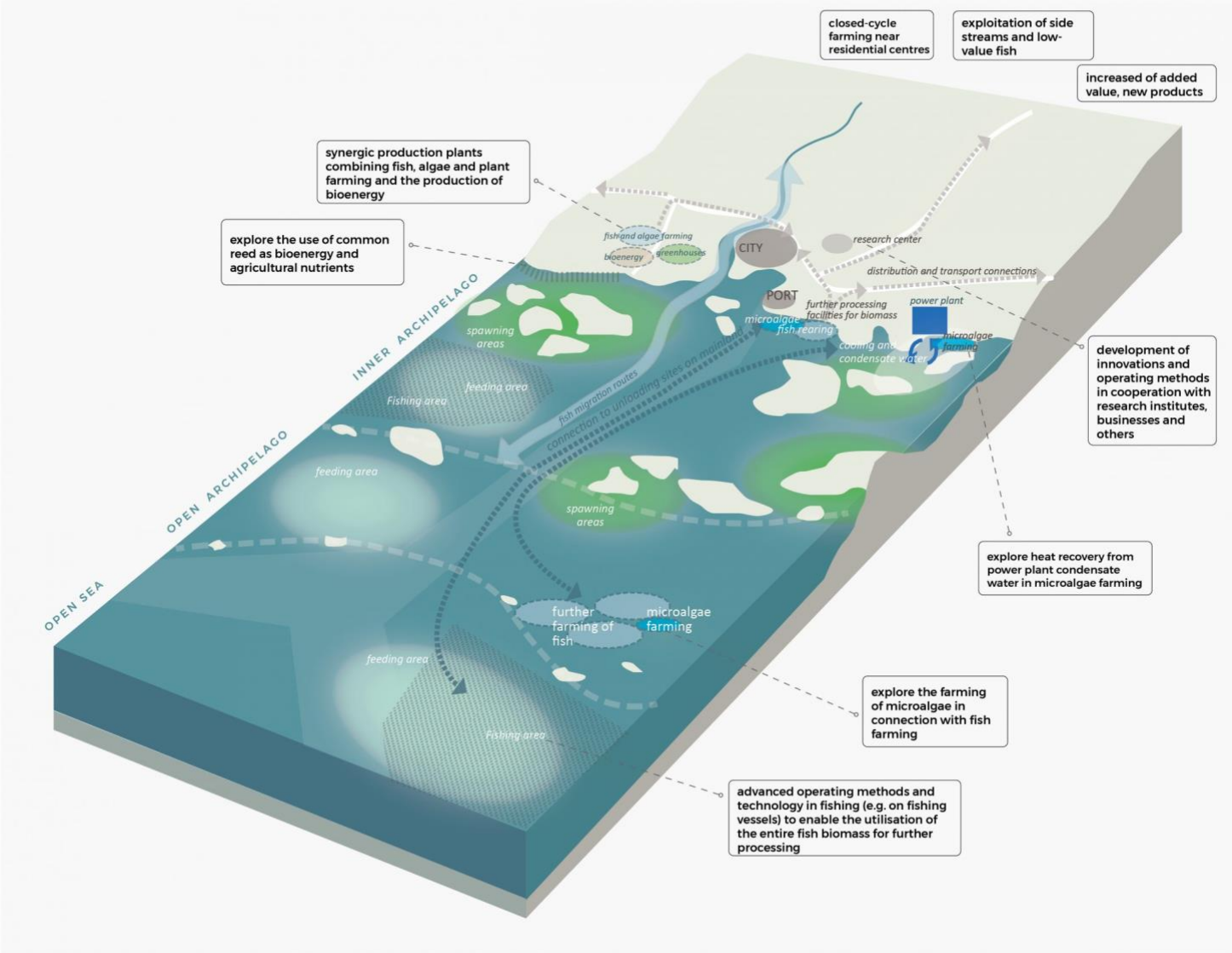


Figure 1 illustration of the main operations of the bioeconomy sector in the different zones of the marine area today and in 2030[4]

The potential of blue biotechnology is a key enabling sector that supports the development of the bioeconomy. It is a multi-disciplinary, knowledge and capital-intensive sector that is relevant throughout the value chain and spans different subsectors. It provides new opportunities for the industry to further develop a significant competitive advantage, stimulate growth, and create new jobs by exploiting the potential of marine living resources.

Mapping methodology

[4] Finnish maritime spatial planning work – roadmaps, https://meriskenaariot.info/merialueenvisiot/sv/den-hallbara-vision-av-finska-havsomradet/

The methodology aimed to systematically identify, classify, and analyse technology providers and developers operating in the blue bioeconomy sector across the nine coastal regions of the BBC consortium: Belgium, Estonia, France, Iceland, Lithuania, Norway, Portugal, Scotland, and Sweden. The purpose was to develop a consistent and comparable regional overview of blue bioeconomy technologies and stakeholders, supporting cross-border cooperation, technology transfer, and innovation through the BlueBioMatch platform. The mapping exercise was conducted under WP4 “Technology Mapping and Transfer” and followed a harmonised framework developed collaboratively by all BBC partners. The process combined desk research, stakeholder engagement, and data consolidation to ensure comprehensive coverage and validation of technologies and actors across regions.

The different stages were implemented as follows:

1. Definition of scope
    - Focus areas: fisheries, aquaculture, and blue biotechnology in line with the BBC value chains defined in WP2.
    - Establishment of a common classification system, including:
        - Type of technology or service
        - Target bioresource(s)
        - Stage of the value chain (e.g. harvesting, processing, production, valorisation)
        - Technology Readiness Level (TRL)
        - Target market or application area (e.g. food, feed, bioenergy, biopolymers, pharmaceuticals).

2. Data collection and regional screening
   Each regional partner performed an exhaustive inventory of existing technologies and technology providers by:
    - Reviewing regional innovation databases, scientific publications, and industrial directories.
    - Analysing existing networks, clusters, and EU-funded project repositories, this work was supported by the task 4.1 ‘Screen existing (Blue) Bioeconomy Technology Networks and Databases’
    - Conducting direct outreach through phone calls, emails, and online/onsite surveys to gather missing information and confirm data accuracy.
    - Participating in industry events, roundtables, and workshops to identify additional actors and emerging innovations.

3. Database creation and consolidation
   All collected data were compiled into the BBC Technologies Database, an evolving dataset structured around predefined categories:
    - Name and location of the technology developer
    - Description of the technology (product/service)
    - Associated bioresources
    - Value chain phase and TRL
    - Sector and target market
    - Keywords and website link

The consolidated dataset served as the backbone for both the mapping analysis and the

population of the BlueBioMatch interactive platform.

4. Data validation and cross-checking
   - Partners cross-validated entries through follow-up interviews and secondary data verification.
   - Technologies were assessed for relevance to the blue bioeconomy, innovation level, and potential for replication or transfer across regions.

5. Integration with BlueBioMatch platform
   The validated dataset was used to send invitations to the stakeholders identified since the launch of the platform in September 2023. The idea was to facilitate networking among technology developers, users, and end-users. The platform was continuously updated as new actors were identified and new technologies emerged.

6. Analytical processing
   Quantitative and qualitative analyses were carried out to identify:
   - Geographic distribution of technology providers
   - Dominant and emerging bioresources
   - Types of technologies and applications per sector
   - Market opportunities and growth drivers
   - Gaps and improvement areas for future technological development.

The mapping exercise reflects the state of the sector as of September 2024. Given the rapid evolution of the blue bioeconomy, the BBC database is considered a living document, continuously enriched through partner inputs, BlueBioMatch user interactions, and subsequent WP4 activities (surveys, interviews, and thematic webinars).

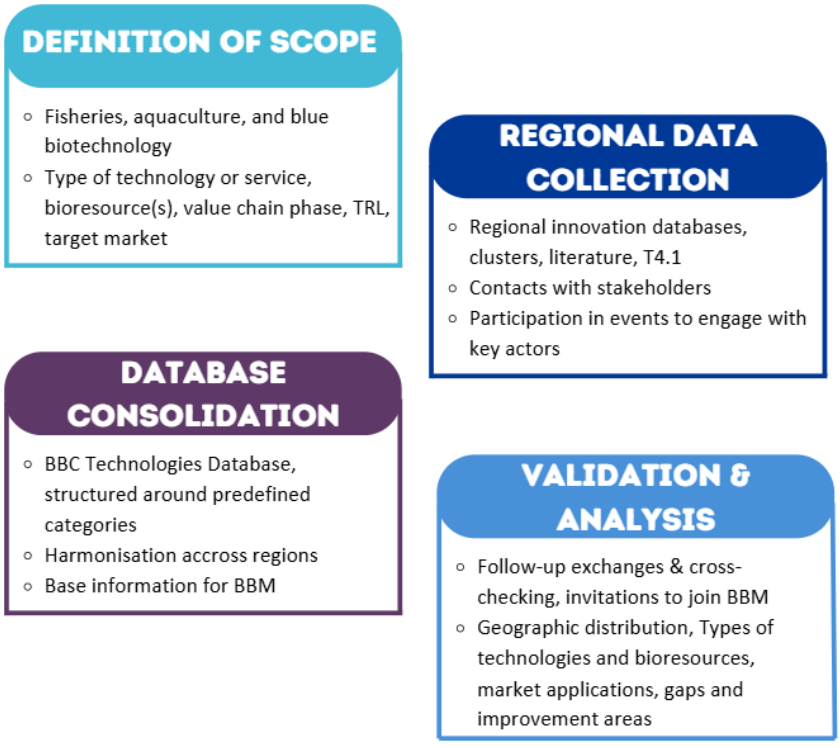


Figure 2 Key stages of the methodology of mapping technologies within BBC project

Mapping technologies in the regions

The BBC consortium has identified a total of 567 technologies in the 9 regions. Iceland and Norway have the highest rates, with 137 and 103, respectively, followed by France with 73, and Belgium, Sweden, and Lithuania with around 60 each. Then in Portugal 47 technologies, and finally Scotland (15) and Estonia (10). This screening work and the BBC technologies database are evolving documents; all partners continue to update them with new technology developers we discover through events or other initiatives. The information gathered in the database is sorted by country and consists of a set of categories that support the consortium to understand the technologies' details as much as possible. The categories are: name of the tech developer, location, technology type, product/service, bioresource, value chain phase, sector, TRL, technology description, target market, keywords and website

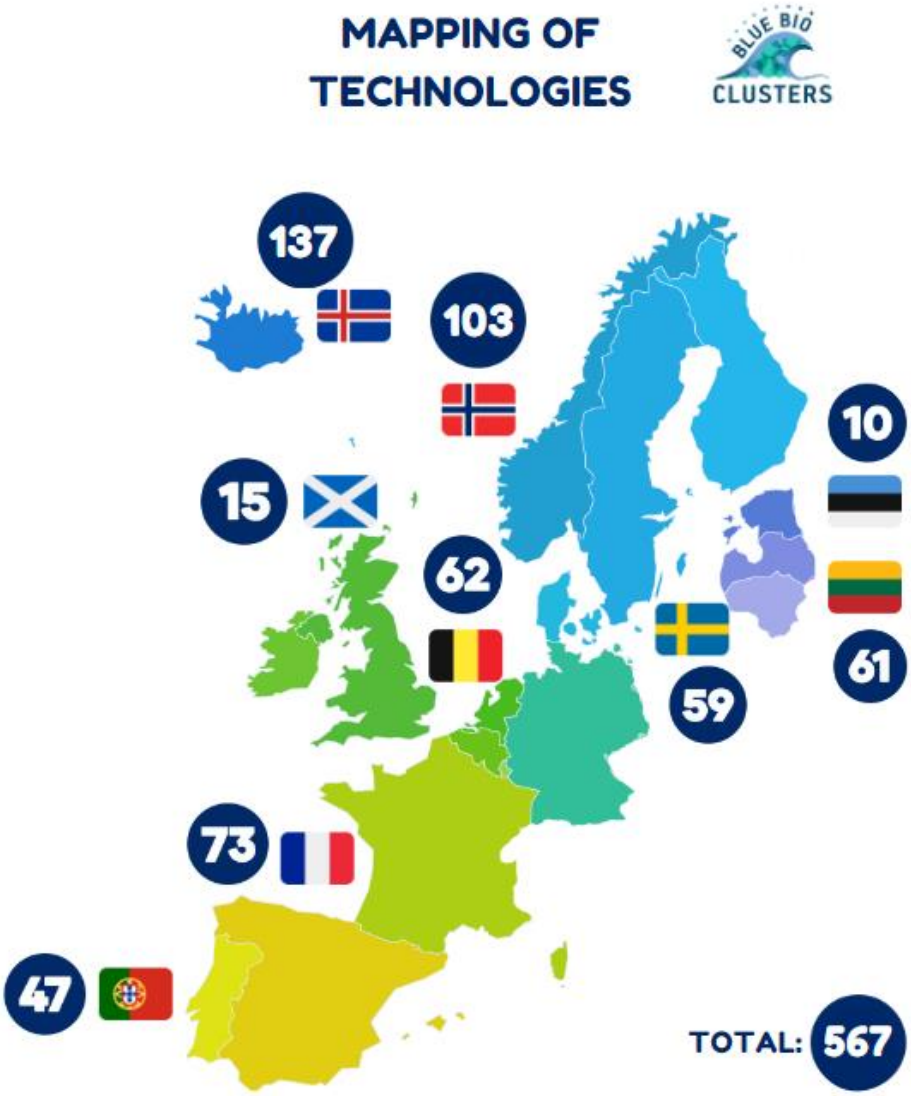


Figure 3 BlueBioClusters mapping of technologies, number of identified technologies' providers per country

The consortium has also identified 58 technologies in other countries, including Spain, Denmark, Germany, Australia, Canada, the Faroe Islands, Finland, Greece, Ireland, Italy, the Netherlands, the UK, and the USA. Including this data is relevant to foster cooperation with countries outside the consortium, as they are also important actors in the development of the blue bioeconomy sector in Europe and worldwide.

Figure 4 mapping of technologies, number of identified technologies' providers in countries outside the regions involved in BlueBioClusters

Types of Biomass

Regarding the results of the BBC mapping, aquaculture is the most prevalent resource base across Europe, reflecting its strategic role in sustainable food production and circular use of marine biomass. Furthermore, we found that algae and microalgae represent a strong innovation frontier, particularly in France, with applications spanning cosmetics, nutraceuticals, and biomaterials and on the other hand, shellfish and seaweed value chains are geographically concentrated, notably in the Atlantic and Nordic regions.
Iceland and Norway demonstrated a high focus on fish co-product valorisation (side streams, by-products). There is an evident alignment between technology development and their strong seafood industries, as well as national bioeconomy strategies.

Below is a general description of the types of biomass identified in the various BBC regions.

FISH
Finfish: Concerns most capture fisheries and aquaculture activities, and the majority of international trade is focused on this sector. The biomass they produce for potential non-food uses includes:
- Whole fish
- Initial processing by-products, such as body slime, wash-waters, and scales

- Fish trimmings
- Specific tissues and raw materials
- Processing wastewaters
- Fish trimmings and rest raw materials may arise on-board vessels, onshore at markets or with primary purchasers, or further along the supply chain with secondary processors

Cartilaginous fish: includes shark, skate, rays and dogfish, all from marine capture fisheries[5].

MOLLUSKS

The highest tonnages of mollusc fisheries and aquaculture are for clams, oysters, mussels and scallops; other important species include gastropods such as whelks.
The biomass they produce for potential non-food uses includes shells, flesh waste adhering to shells, and processing debris, such as trimmings, viscera, and other inedible materials. The utility of flesh waste from molluscs for non-food uses is largely overshadowed by the challenges of effectively utilising the shells. An unknown number of shells is discarded at sea.

CRUSTACEANS

The main crustaceans are prawns, shrimp, crab and lobsters; planktonic crustaceans such as krill are also harvested in increasing amounts. The biomass they produce for potential non-food uses includes shells (carapaces), flesh waste adhering to these, and processing debris, including trimmings, viscera, roes, and other inedible materials. This biomass may become available on-board harvesting vessels or may arise further down the supply chain.

INVERTEBRATES

Most invertebrates in the seafood chain are cephalopods–octopuses, squids and cuttlefish. Octopus produces only 10-20% biomass for non-food use, while squid yields as high as 52%: cuttlebones, squid pens, ink sacs, viscera, eyes, and beaks.

MACROALGAE

As photosynthetic organisms, they are among the most easily cultivated macroorganisms for use in food production, as they are a source of metabolites with unique nutritional properties, such as furanones, polyunsaturated fatty acids, pigments, phycocolloids, and phlorotannins. Some varieties of red algae are also used to produce agarose, which is used as a thickening and stabilising agent in the food industry. The European market is small and consists mainly of wild harvests. Small and large cultivation projects
are progressing.

MICROALGAE

They are among the most widely used organisms in this sector due to the high volume of compounds they can generate—vitamins, proteins with essential amino acids, polysaccharides, fatty acids, sterols, pigments, fibres, and enzymes. The microalgae market is mainly dominated by two species: *Chlorella* and *Spirulina.* The first is a green microalga belonging to the broad phylum of Chlorophyta, which includes both microalgae and macroalgae. It is widely used in cosmetics, food and pharmaceuticals for its anti-inflammatory, antimicrobial and anticancer properties. Pond culture in high sunlight areas of carotenoid and omega-3 fatty acid-rich algae and Cyanobacteria. Closed systems for high-speciality products.

[5] ***Source:*** *Adapted from EUMOFA 2018*

FUNGI AND BACTERIA
An excellent source of bioactive metabolites. Also, for bioprospecting, the use of genetic information or biomolecules for high-value applications (e.g. pharmaceutical applications).

OTHER MACROORGANISMS, such as corals, sponges, tunicates, and other invertebrates, are also a source of bioactive substances. However, technological limitations in their exploitation make their production unsustainable, and it is often not possible to reach the quantities required on an industrial scale.

The distribution of the bioresources concerned by the technology development in the BBC consortium is shown in percentage in Figure 4. Among the 9 regions, macroalgae and fish were the most utilised bioresources, with 38% each, followed by microalgae with 10%, Bivalves (mussels, oysters) with 9%, crustaceans (Shrimps, prawns) with 4%, and finally, 1% for other bioresources.

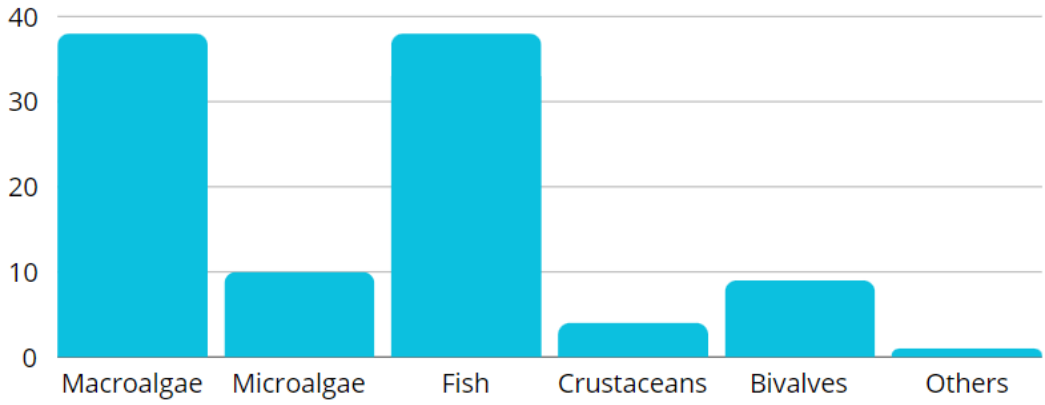


Figure 5 Percentage of bioresources involved in the technology mapping of all regions.

Types of technologies

The promising future prospects for blue technological development hint at tremendous scientific discoveries and technological advancements, offering new opportunities for growth in various areas as blue biotech continues to evolve rapidly in the years ahead (BI, 2023).

We found 3 main sub-sectors:

- **Fisheries**
- **Aquaculture**
- **Blue biotechnologies**

There are three types of fisheries: recreational (for leisure), subsistence (for direct consumption) and commercial or industrial (small-scale business or large-scale for-profit activity). Recreational fishing represents less than 1% of global catches and is therefore not relevant to the scope of the project. Subsistence fishing employs a variety of fishing gear to

capture different species, whereas industrial fishing typically uses specialised gear for intensive fishing (such as purse seines and trawlers) and usually targets a single species.

This sector encompasses a range of fishery-related activities that necessitate technological advancements for the effective implementation of their operations.

Sustainable fishing aims to guarantee species regeneration and protect marine habitats. It avoids overfishing, minimises any negative environmental and social impacts and complies with relevant legislation and regulations (BI, 2023).

- Bycatch reduction devices
- Anti-waste fishing gear
- Electronic monitoring systems
- Fish tracing apps/ platforms for consumers
- Maritime surveillance technologies to prevent IUU fisheries
- Fish tracing apps/ platforms for market players
- Fish health control

Aquaculture is the cultivation and farming of aquatic organisms, specifically the rearing, breeding and harvesting of freshwater, brackish water and saltwater populations under controlled or semi-controlled conditions (EC, 2024). This can be done either through water-based systems, land-based systems or integrated farming. Various marine and freshwater species are farmed, including fish, molluscs, crustaceans and aquatic plants (mostly macroalgae) (BI, 2023).

For fish, molluscs and crustaceans, the aquaculture process is: (i) generating/producing the aquaculture species (breeding), (ii) keeping, feeding and providing medical care for them (rearing), and (iii) catching and killing them for consumption (harvesting). For aquatic plants, the process is: (i) selecting and spawning seedlings (breeding), (ii) growing and tending the plants (rearing), and (iii) harvesting.

Sustainable aquaculture is the farming of aquatic species in a way that reduces emissions, mitigates pollution, uses less plastic and more renewable energies, is more energy and water efficient, puts less strain on supply chains (particularly those of wild fish stocks), uses fewer chemicals and medicines like antibiotics, better respects fish welfare, all while producing high-quality, nutritious seafood and aquatic plants. The fact that aquaculture by-products can be used in several ways also promotes higher circularity in the sector (BI, 2023).

- Genetic improvement of species
- Improving recirculating aquaculture systems (RAS)
- Aquaculture digitalisation
- Fish handling systems
- Remotely operated vehicles (ROVs) for aquaculture

- Oral vaccines
- Alternative feed sources
- Offshore mollusc production
- Offshore macroalgae cultivation
- Crustacean production in RAS
- Integrated multi-trophic aquaculture (IMTA)

As mentioned before, **Blue biotechnology** is the application of science and technology to aquatic organisms, using biological and chemical methods, to produce knowledge, goods and services (EC, 2024).

The applications include everything from extracting chemical products from living organisms, all the way through to optimising the production and processing of these products into marine-derived products, often for commercial purposes.

These products may be intended for use in a diverse range of subsectors, including cosmetics, food, feed and nutraceuticals, pharmaceuticals, energy and biofuels, enzymes, and biopolymers for packaging, clothing, and other applications.

For example, several processes already exist that utilise bacteria and micro- and macroalgae found in industrial wastewater to produce exopolysaccharides (EPS), degradable bioplastics such as polyhydroxyalkanoates (PHA), and spirulina for various biotechnological applications (Sara Daniotti, 2021). Such activities position the sector well to reduce pollution and waste, and contribute to the green transition of other sectors.

- Photobioreactors
- Marine biorefinery
- Marine enzyme applications
- Microalgae-based nutrients & supplements
- Fertilisers & pesticides sourced from marine organisms
- Biofuels from marine resources
- Bioplastics produced from or with marine resources
- Cancer drugs and antibiotics from marine organisms
- Marine-sourced vaccines and vaccine adjuvants
- Marine-based cosmetics

The country's ecosystem is heavily oriented toward fish and aquaculture side-stream valorisation, leveraging its advanced seafood processing infrastructure. Most companies operate at high TRL levels, focusing on protein extraction, collagen, enzymes, and marine bioactives. Iceland shows a complete upstream-to-processing

coverage, but downstream product diversification (e.g., nutraceuticals, cosmetics) remains limited to a few specialised firms.

Technology focus per region

Belgium
This region showed strong involvement in aquaculture and microalgae research. Its profile is distinctively R&D- and innovation-oriented, with a concentration of universities, technology institutes, and biotech startups. Although Belgium lacks extensive coastal resources, it compensates through laboratory-scale cultivation and process optimisation projects.
It serves as a cross-sector innovation hub, testing applications of microalgae, aquaculture waste, and marine biopolymers across various sectors, including bioplastics, feed, and cosmetics.

Estonia
These regions showed a high focus on microalgae and marine biotechnology. The region has a strong technology development based on activities anchored in research institutions and pilot-scale cultivation units. It seems that the region has a strong R&D capacity but limited industrialisation, highlighting a need for investment in scale-up infrastructure and international partnerships to move beyond pilot scale.

France
These regions present a diverse and innovation-driven landscape, with actors across algae, seaweed, microalgae, shellfish, and co-product valorisation.
The activity is geographically concentrated in Brittany, Pays de la Loire, and Île-de-France, reflecting a mix of coastal production clusters and biotech hubs.
France's actors span the entire value chain—from cultivation to high-value applications in cosmetics, nutraceuticals, and pharmaceuticals. This indicates a balanced ecosystem where SMEs and R&D centres co-exist with market-oriented companies focused on end-user products.

Iceland
The country's ecosystem is heavily oriented toward fish and aquaculture side-stream valorisation, leveraging its advanced seafood processing infrastructure. Most companies operate at high TRL levels, focusing on protein extraction, collagen, enzymes, and marine bioactives. Iceland shows a complete upstream-to-processing coverage, but downstream product diversification (e.g., nutraceuticals, cosmetics) remains limited to a few specialised firms.

Lithuania
The country's blue bioeconomy is science-led, driven by universities and R&D consortia rather than industrial producers. Emerging themes include bioactive compound extraction, wastewater bioremediation, and feed applications. Lithuania's actors are mainly concentrated in the cultivation and processing stages, with fewer market-ready outputs, but strong potential for innovation upscaling.

Norway
Primarily concentrated in aquaculture, fish processing, and marine biotechnology.
The country is a global reference for industrial valorisation of fish co-products, notably salmon

and cod by-products. Strong R&D–industry integration supports the development of bio-based materials and feed ingredients. Norway's value chain is highly mature in the production and processing phases, though algae and shellfish remain secondary and emerging sectors.

Portugal
This region showed a strong focus on traditional aquaculture and shellfish farming with novel algae valorisation initiatives. There are clusters along the Atlantic coast, notably in Aveiro and the Algarve, but also in all the coastal cities across the country, where seaweed cultivation, shellfish processing, and marine biotechnology are active.
Portugal's value chains cover harvest to processing, but market-oriented activities (formulation, delivery, product design) remain underdeveloped.
There is strong potential for cross-sector synergies between the fisheries sector and biotech innovation.

Scotland
This region focuses on sustainable aquaculture, fish co-products, and algae valorisation. Driven by a combination of industry consortia and universities, the country is investing in low-impact aquaculture and waste valorisation technologies. Its value chain is strong in production and processing; however, there are some gaps in consumer product development. Synergies with UK marine innovation programmes offer opportunities for scaling algae-based products.

Sweden
This region combines microalgae R&D with industrial biotechnology applications. The focus lies on biorefineries and carbon capture via algal systems, with growing interest in marine-derived biomaterials. The ecosystem is relatively research-heavy but increasingly market-oriented, especially in bioplastics and food additives. Sweden's technology developers appear to primarily focus on the cultivation and processing phases of the blue value chain.
Regarding the general findings of the BBC regions, the following table describes the technology types and provides a maturity summary linked to the TRL ranges.

Technology type	Typical TRL range	Maturity summary
Fish valorisation / biorefinery	7–9	Industrially mature and export-oriented.
Aquaculture systems	6–9	Mature but still innovating toward sustainability and digitalisation.
Microalgae cultivation	3–6	Emerging field with R&D emphasis; strong potential for scale-up.
Algae/seaweed processing	5–8	Advancing toward commercialization, driven by cosmetics and feed markets.
Bio-based materials (chitosan, alginates)	4–6	Pre-commercial; scaling challenges remain.
Sensors & digital technologies	6–8	Growing integration in aquaculture operations.

Nutraceutical and cosmetic formulations	7–9	Market-ready in select firms; regulatory pathways well-defined.

Table 1 BBC mapping highlighting the technology type and the TRLs

Technology readiness levels (TRLs)

The TRL distribution in the BBC mapping of technologies showed a balanced but asymmetric innovation structure. Approximately one-quarter of actors remain in basic research, one-third are in pilot or demonstration stages, and the remaining 40% operate at commercial readiness. This structure reflects the strength of the BBC region's research–industry continuum, key for the blue bioeconomy, but also reveals where intervention may be needed. The large proportion of mid-level TRL activities suggests that it is rich in pilot-scale innovations that have yet to scale up. This transition stage (TRL 4–6) often faces infrastructure, funding, and regulatory bottlenecks, particularly in algae bioprocessing and biomaterial production. Meanwhile, the high number of actors at TRL 7–9 shows that mature sectors like fish valorisation and aquaculture have established stable, profitable models, capable of absorbing emerging technologies once proven viable.
The table below summarises the results of the BBC database with the % of actors in the different TRLs.

TRL range	description	BBC mapping (% of actors on that TRL)	Typical profiles
1–3 (early R&D)	Laboratory and proof-of-concept stages	~25%	Universities, research institutes, early-stage startups (notably in Lithuania, Estonia, Belgium)
4–6 (pilot / demonstration)	Pilot-scale validation, technology optimization	~35%	SMEs and R&D–industry consortia; common in algae cultivation and feed valorisation
7–9 (pre-commercial to market)	Full-scale deployment and commercialization	~40%	Mature industrial actors, mainly in Iceland, Norway, and France

Table 2 BBC mapping distribution of actors and the technology readiness levels

The BBC mapping of technologies showed that Iceland and Norway demonstrate the highest technological maturity levels. In Iceland, technologies associated with fish valorisation and bioproduct extraction consistently reach TRLs between seven and nine, reflecting their industrial-scale implementation. The country's bioprocessing facilities are among the most advanced in Europe, turning fish side-streams into high-value marine ingredients such as collagen, peptides, and protein isolates. Norway displays a similarly high level of maturity, particularly in aquaculture systems, digital monitoring tools, and marine biotechnology. Its

ability to integrate biotechnology and data-driven management into aquaculture operations positions Norway as a leader in sustainable and scalable blue technologies. Together, these two North Atlantic countries embody Europe's industrial frontier in the blue bioeconomy, transforming abundant marine resources into market-ready products through efficient circular processes.

Belgium and France showed a different profile, characterised by technological diversity and innovation intensity rather than pure industrial scale. France occupies a central position within this group, with medium to high TRL levels, particularly in algae and microalgae cultivation, marine biotechnology, and feed and nutraceutical production. The country's ecosystem, combining industrial SMEs, research institutes, and start-ups, bridges the gap between research and commercialisation. French technologies in seaweed-based cosmetics, nutraceuticals, and biomaterials highlight a mature innovation environment that continues to expand into new markets. Belgium's technological profile, while generally at a lower maturity level, reveals a dense network of R&D initiatives and pilot-scale projects. Considering the BBC database, most Belgian actors operate at TRL levels between four and six, particularly in microalgae cultivation and marine biotechnology. Although lacking extensive coastal resources, Belgium compensates through its role as a research and innovation hub, supporting the translation of laboratory research into scalable pilot systems across Europe.

Regarding Portugal and Scotland, these regions demonstrated moderate technological maturity, with average TRLs between five and seven. Both countries build on traditional marine sectors—such as aquaculture, shellfish farming, and fish processing—while integrating modern biotechnologies and sustainability principles. In Portugal, the development of seaweed valorisation and aquaculture biorefineries is gradually shifting the national blue economy from production-based activities toward value-added transformation. Scotland's profile is similar, though with stronger institutional ties between academia and industry. Its innovation ecosystem emphasises process optimisation, sustainable aquaculture practices, and the valorisation of marine side-streams, positioning the country as a model for environmentally integrated production systems.

From the Baltic regions, the approach is more research-oriented, with lower TRL values and a focus on early-stage innovation. Lithuania and Estonia represent research-driven ecosystems where microalgae cultivation, nutrient recovery, and bioprocess development are key priorities. These countries exhibit TRL levels typically between three and six, indicating that the technologies remain in the laboratory or pilot phases. Despite their relatively low maturity, their strong academic foundations and growing involvement in European innovation networks indicate significant potential for scale-up.

In Sweden, the mapping revealed relatively low TRLs, indicating strong research and technology development; however, the type of actors and their objectives on a long-term scale showed a focus on application-oriented development in the future. Swedish initiatives in bio-based materials, biopolymers, and carbon capture through algal systems display TRLs around five to six, highlighting the country's commitment to sustainable materials and industrial biotechnology.

Concerning the technology domains, the highest TRLs are consistently associated with fish valorisation and aquaculture systems, which have reached full industrial deployment in countries like Iceland and Norway. Feed and nutraceutical technologies, along with marine

biotechnology, occupy intermediate levels of readiness, particularly in France and Portugal, where SMEs are actively translating research into commercial products. In contrast, the cultivation of algae and microalgae, as well as the production of bio-based materials, remains largely pre-commercial. Their TRLs typically range between five and six, reflecting an ongoing transition from research to pilot-scale demonstration. Despite their lower maturity, these fields represent some of the most dynamic innovation frontiers in Europe, aligning with growing policy interest in carbon capture, bioplastics, and functional foods. Meanwhile, digital and monitoring technologies are rapidly advancing, often integrated into aquaculture and marine observation systems. These cross-cutting innovations, averaging TRLs between six and eight, are essential enablers for the sustainability and traceability of the blue bioeconomy. The geographical distribution of technological maturity reflects deeper structural dynamics within Europe's blue sectors. Northern Europe, with its established seafood and aquaculture industries, demonstrates an ability to industrialise biotechnological processes efficiently and at scale. Western Europe leads in product diversification and R&D intensity, producing high-value applications in health, nutrition, and materials. The Southern and Baltic regions, although less mature technologically, provide fertile ground for experimentation and innovation, supported by strong academic institutions and EU funding mechanisms. This combination of advanced industrial clusters and emerging innovation zones forms a mutually reinforcing system: industrial leaders benefit from continuous research inflows, while research-driven regions gain pathways for technological deployment and commercialisation.

Region	Technology domains	TRL pattern	Key strength
Iceland	Fish side-stream valorisation, enzyme extraction	High (7–9)	Industrial implementation & circularity
Norway	Aquaculture, marine ingredients, biopolymers	High (7–9)	Industrial integration & scale
France	Algae, microalgae, bioactives, biomaterials	Medium–high (6–8)	Diversified innovation base
Belgium	Microalgae, biotech R&D, pilot biorefineries	Medium (5–7)	Research intensity & innovation
Portugal	Shellfish, aquaculture, seaweed	Medium (5–7)	Coastal diversity & traditional expertise
Lithuania / Estonia	Microalgae, wastewater valorisation	Low–medium (3–6)	Research-driven technology pipeline
Scotland / Sweden	Sustainable aquaculture, biomaterials	Medium (5–8)	Integration of sustainability & bioengineering

Table 3 BBC mapping regions relation with the technology domains and the TRL trends

Markets and applications

Blue biotechnology encompasses a wide range of activities and applications that can serve various markets and uses. The current statistical classification of economic activities in the European Union (NACE) does not have a specific code for *blue biotechnology*, resulting in a lack of official data on the sector's turnover, value added, and employment. However, estimates of the global market value (turnover) of biotechnology range between €2.5 and €3.9 billion; the global blue biotechnology market is expected to grow with a CAGR of 13.9% from 2024 to 2030. The major drivers for this market are the increasing demand in the pharmaceutical and cosmetics sectors, as well as growing research and development (R&D) expenditures and initiatives. (Gotadki, 2024)

Marine Genomics and Synthetic Biology: Marine genomics, sustainable aquaculture practices, marine-derived pharmaceuticals, bioremediation, and marine-based nutraceuticals are among the emerging trends within the blue biotech sector.

Aquaculture and Sustainable Seafood Production: A significant growth opportunity exists in the blue biotechnology market, particularly with respect to sustainable aquaculture practices. Innovations in aquaculture technologies and practices are focused on improving efficiency, minimising environmental degradation, and enhancing fish health. This opportunity underpins the growing market for sustainable seafood production, aligning with global efforts aimed at promoting the responsible management of marine resources (GII, 2024). Marine biotechnology is playing a crucial role in enhancing aquaculture productivity. Through genetic engineering, selective breeding, and disease management, marine biotechnologists are improving the growth rates, disease resistance, and nutritional value of farmed species. Sustainable aquaculture practices are crucial for meeting the increasing global demand for seafood while mitigating pressure on wild fish populations. Marine biotechnology provides tools for environmental monitoring and management in aquaculture and fisheries. Biosensors, bioassays, and molecular techniques are being developed to detect and monitor pollutants, pathogens, and environmental changes. These technologies help ensure the sustainability and health of marine ecosystems. (MRI, 2024)

Environmental Management and Bioremediation: Marine biotechnology presents significant opportunities in environmental management and bioremediation. There is a rising use of marine organisms to address pollution and restore damage done to ecosystems through processes such as biotransformation and bioremediation. These applications promote environmental sustainability while also showcasing the potential of marine resources for dealing with ecological challenges and enhancing ecosystem health.

Pharmaceutical Applications: The pharmaceutical industry is growing through advancements in medications obtained from sea species. On an experimental basis, marine organisms are appealing since they have potential for generating new drugs against various diseases. Therefore, this avenue promotes research efforts and investments in Blue Biotechnology, thereby leading to the development of new medicines or expanding treatment options for various health conditions (GII, 2024). One of the most promising areas of marine

biotechnology is drug discovery. Marine organisms produce a wide array of bioactive compounds with potential therapeutic properties. For example, marine-derived compounds have been used to develop anticancer, antiviral, and anti-inflammatory drugs. The search for new pharmaceuticals from marine sources continues to drive innovation and investment in the field. (MRI, 2024)

Marine-Derived Biomaterials
Marine biotechnology is also making strides in the development of biomaterials for medical applications. Marine collagen, chitosan, and alginate are being investigated for their potential applications in wound healing, tissue engineering, and drug delivery systems. These materials offer biocompatibility and unique properties that are advantageous for medical applications. (GII, 2024)

Algae-Based Biofuels
Algae-based biofuels are a key focus area in marine biotechnology. Microalgae and macroalgae can be cultivated to produce biofuels, including biodiesel, bioethanol, and biogas. Algae offer several advantages over traditional biofuel sources, including rapid growth rates, high lipid content, and the ability to grow in non-arable land and wastewater. Research and development in this area are driving advancements in sustainable energy solutions.

Marine-Derived Bioproducts
In addition to biofuels, marine biotechnology is producing a variety of bioproducts, including bioplastics, enzymes, and bioactive compounds. These products have applications in various industries, including agriculture, cosmetics, and food. Marine-derived bioproducts provide sustainable alternatives to traditional materials, contributing to a circular bioeconomy. (MRI, 2024)

Nutraceuticals and Functional Foods: The development of nutraceuticals and functional foods on the basis of marine sources is a burgeoning business prospect. Such examples include dietary supplements or functional ingredients made from living things found in the sea. In this way, it is driving what consumers want, expanding markets for food from the ocean that has been sustainably extracted, emphasising its nutritional value as well as its role in maintaining good health. (GII, 2024)

In the figure below, we can see the distribution of applications/target markets in the blue bioeconomy sector, with drug discovery being one of the more appealing areas and aquaculture, fisheries, and biofuels being less targeted by technology providers.

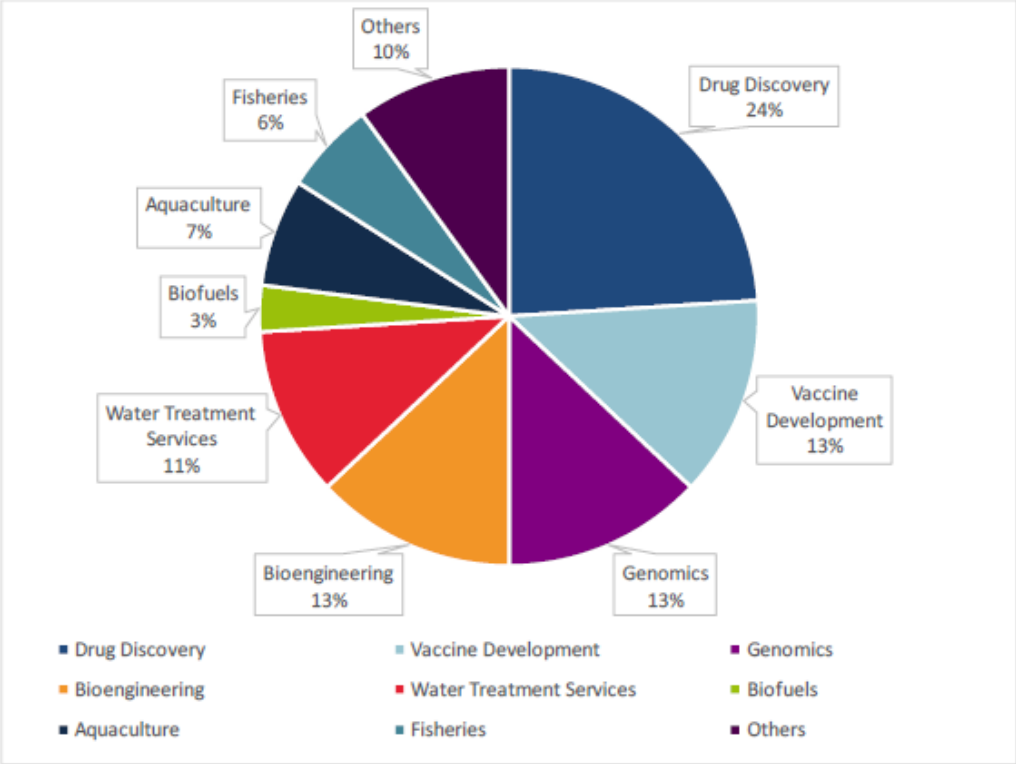


Figure 6 Blue biotechnology market value by application, 2021. Source Market research future in the EU Blue economy report

Regarding the BBC mapping in the table below, the technology category is related to the application and the regions in which the technological developments are involved. The European landscape shows a strong focus on biotechnological and valorisation technologies, especially those related to marine biomolecules and aquaculture byproducts. While classic "production" systems (aquaculture, algae cultivation) remain foundational, upstream digitalisation and downstream biorefinery are rapidly growing.

Technology category	**Typical applications**	**Example countries**
Biotechnology / Marine biotechnology	Extraction of proteins, peptides, polysaccharides, and bioactive molecules from marine biomass	France, Belgium, Iceland, Norway
Aquaculture systems	Land-based and offshore aquaculture, integrated multitrophic aquaculture (IMTA), RAS (Recirculating Aquaculture Systems)	Norway, Iceland, Portugal, Scotland
Microalgae / Algae cultivation	Photobioreactors, open ponds, nutrient recycling systems, CO_2 capture	France, Belgium, Lithuania, Estonia
Fish co-product valorisation	Enzymatic hydrolysis, collagen and gelatin extraction, fish oil and protein isolate production	Iceland, Norway, France

Seaweed valorisation	Cultivation, drying, and processing for cosmetics, food, and bioplastics	France, Portugal, Norway
Bio-based materials / bioplastics	Development of sustainable polymers, composites, and packaging materials from marine biomass	France, Belgium, Sweden
Digital / monitoring technologies	Sensors, data analytics, and control systems for aquaculture performance and environmental monitoring	Iceland, Norway, Scotland
Feed and nutraceuticals production	Formulation of sustainable feeds, dietary supplements, and functional foods	France, Iceland, Lithuania, Portugal

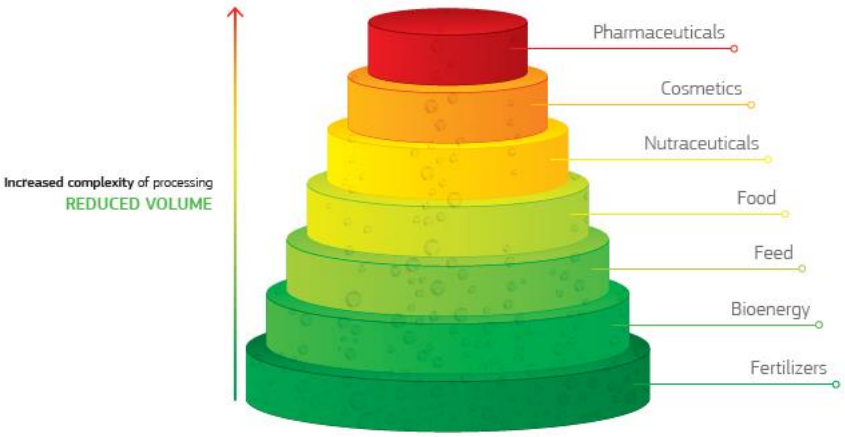
Table 4 Summary of BBC mapping on technology categories, applications and regions

Market Growth Drivers

The marine biotechnology market is experiencing robust growth, driven by several key factors:

- Biodiversity and Novel Compounds: The vast biodiversity of marine ecosystems provides a rich source of novel compounds for various applications.
- Sustainability Focus: Increasing awareness of environmental issues and the need for sustainable solutions are driving investment in marine biotechnology.
- Technological Advancements: Advances in genomics, molecular biology, and bioprocessing technologies are accelerating research and development in the field.
- Government and Industry Support: Government initiatives and industry collaborations are fostering innovation and commercialisation of marine biotechnologies.

The time, cost of development, and availability of bioresources are factors that impact the development of technologies, as well as the target market. In the figure below, we can see the target market pyramid and the different characteristics that are considered.



Products	Time to market (Years)	Cost of development	Resource availability	Need for documentation	Potential market value	Skills and competencies
Pharmaceuticals	10 – 15+	Very high	Limited	Very high	Very high	Extensive medical and market
Cosmetics	3 – 5 +	Low to high	Fair	Medium	High	Toxicology, effects
Nutraceuticals	3 – 5 +	Medium to high	Fair	Medium to high	High	Nutrition and medicine
Food	2 – 5 +	Low to medium	Good	Medium	Medium to high	Nutrition, food science
Feed	2 – 5 +	Low to medium	Very good	Medium	Medium to high	Nutrition, animal science
Bioenergy	2 – 5 +	Low to medium	Very good	Low to medium	Moderate	Energy
Fertilizers	1 – 2	Low	Very good	Low to medium	Moderate	Agriculture, agronomy etc

Figure 7 Marine biotechnology products pyramid values. Based on Whitaker and Fylling-Jensen, Nofima (2018). Source: Blue bioeconomy forum

BlueBioMatch

Launch: September 18th, 2023
Active Users as of September 30th, 2024: 591, 51 countries, 10 thematic groups

Below are some illustrations of the interface. The catalogue of users on the platform is quite interesting. We can send direct messages and look for people considering their location or interests. We can also look for organisations, such as the 169 listed on the product showcase page, where technology providers can add their products and services. These features enhance interaction between users and support the development of technology or commercial partnerships.

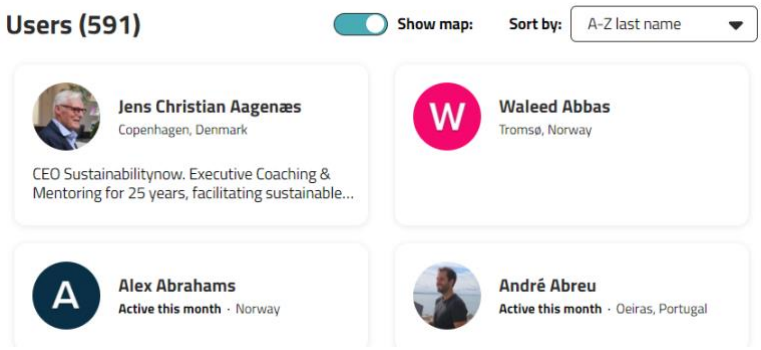


Figure 8 Mapping BlueBioMatch activity and users

Power Algae Ltd
Location: Tartu, EE
Numbers of employees: 2-10
Industries: Biotechnology, Food Production

Alguaia
Location: Brussels, BE
Numbers of employees: -
Industries: -

CCMAR - Centro de Ciências do Mar do Algarve
Location: Faro, PT
Numbers of employees: -
Industries: -

Algiecel ApS
Location: Copenhagen, DK
Numbers of employees: 11-50
Industries: Biotechnology

Algenius Foods
Location: Copenhagen, DK
Numbers of employees: -
Industries: -

Alles Alge e.V.
Location: Rostock, DE
Numbers of employees: 2-10
Industries: -

Figure 9 Catalogue of 169 organisations BlueBioMatch as of 30th September 2024

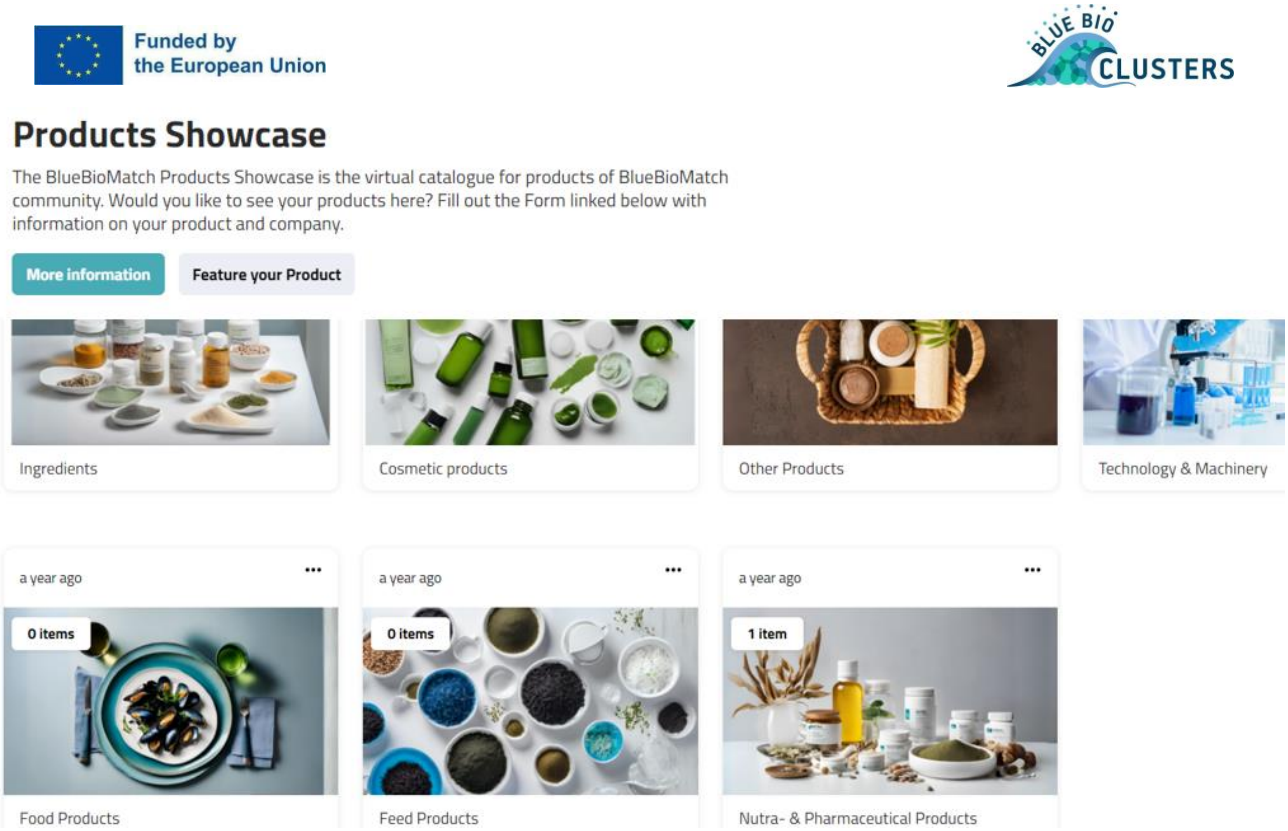


Figure 10 Products showcase BlueBioMatch, where technology providers would present their solutions

Working groups: 11 topic-specific groups were created to support interaction among stakeholders. (The 11th one was published after the anniversary)
List of WGs:

- Algae Working Group
- Aquaculture Working Group
- Mussels Working Group
- Sustainable Fisheries Working Group
- WaveMakers • Early Careers Exchange & Talent Hub
- Ecosystem Services and Valorisation
- Biotechnology Working Group
- Women in the Blue Economy
- BlueBioClusters Matchmaking [private]
- CoP Peniche [private]
- MPA managers & local communities [private]

Activity in the working group still varies widely. The Algae working group is the most established, with 106 members, and regular meetings are organised by the coordination team every two months. The Aquaculture, Sustainable Fisheries and Mussels working groups have an organisation and have also seen engagement from users. In particular, users have turned to working groups with specific questions related to sector-specific technologies Figures 10 & 11.

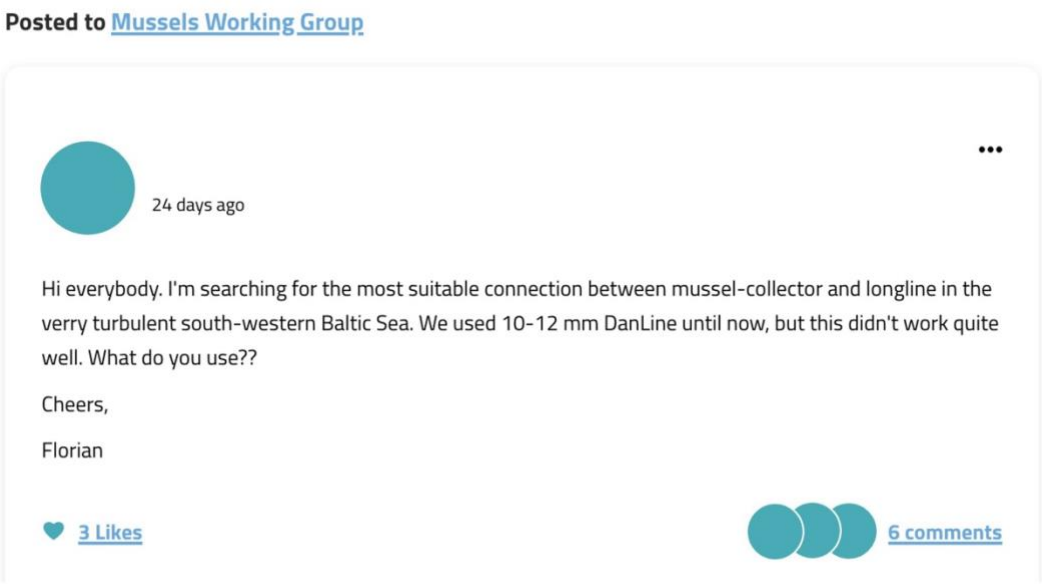


Figure 11 Question from Mussels WG on longline technologies

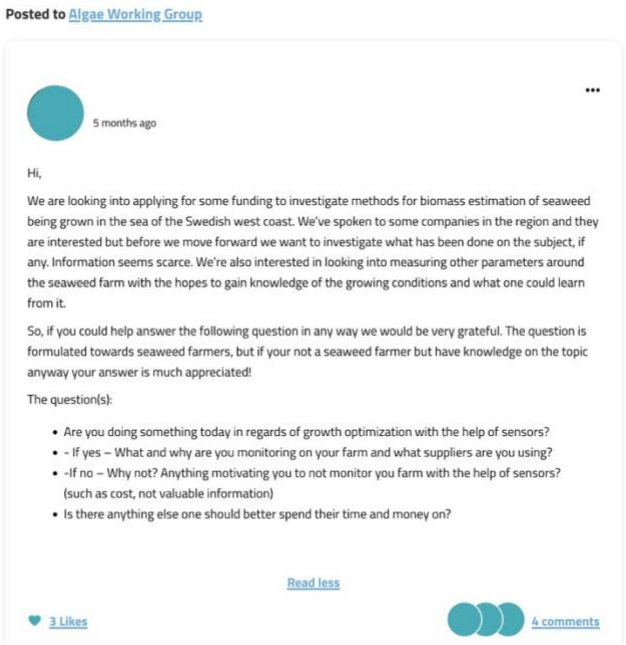


Figure 12 Question posted on Algae WG on algae workshops.

General posting (95), events (101) and opportunities (120) modules are also widely used by users.

Improvement areas for technological development

Sustainable Aquaculture Practices

Emphasising that future systems must be nature-friendly, diverse, and resilient to environmental change. Current aquaculture in Europe remains limited by species uniformity and inefficiencies in pond and recirculating systems, often dominated by low-value species such as catfish. Technological advancements are necessary to promote hybrid aquaculture parks and integrated production systems that combine various species and farming methods to enhance ecological performance and economic resilience. Persistent problems, such as biofouling on ropes and mussel shells, not only reduce productivity but also create waste management challenges. The BBC mapping of technologies highlights the necessity of research into antifouling strategies, improved harvesting methods, and the valorisation of calcium-rich by-products, such as sea squirts and mussel shells, which could serve as new sources of secondary revenue. Equally, there is a growing need to understand the long-term biological and climatic changes affecting marine environments and their implications for aquaculture operations.

In terms of **fishing gear and harvesting technologies**, the need for innovation can reconcile efficiency with environmental protection. Many conventional methods are still intrusive and damaging to marine habitats; more selective, eco-friendly fishing gears are needed. In Iceland, for instance, sea-cage salmon farms face challenges related to fish escapes, which threaten both biodiversity and the industry's reputation, calling for improved containment and monitoring technologies. Other operational inefficiencies, such as the damage caused to facility machinery by fish stomach contents, also require technological solutions that can improve processing efficiency and reduce waste.

Waste management and valorisation

According to the BBC mapping, it appears to be one of the most critical and cross-cutting areas for improvement. Across blue bioresource sectors, a substantial portion of the harvest—sometimes up to 40%—remains unsellable and is discarded, either due to processing losses or the absence of scalable valorisation methods. Advanced biorefinery and extraction technologies are needed to recover valuable compounds from these side-streams. Shellfish residues, viscera, and crushed shells represent both an environmental challenge and an untapped economic opportunity. However, scaling up such valorisation processes remains difficult due to technical and financial constraints, particularly the need for flexible process design and access to demonstration-scale facilities.

Seaweed and algae utilisation

These bioresources have a strong potential but persistent technological limitations. Many coastal areas experience large accumulations of beach-cast seaweed, yet sustainable solutions for converting this biomass into fertilisers or agricultural substrates are still lacking. In addition, algal bloom monitoring and toxin detection require more automated and precise technologies to ensure that cultivation sites are selected safely and efficiently. The absence of reliable data and predictive tools for algae dynamics continues to hinder the scaling of this promising resource base.

Technology development and innovation

The BBC mapping revealed that downstream processing, separation, and purification steps remain complex and costly, while innovation in screening platforms for novel marine

bioactives remains limited. Furthermore, insufficient coordination between academia and industry leads to a “valley of death,” where promising research results are not effectively transferred to commercial applications. Many organisations lack dedicated innovation staff or departments, and researchers often have limited incentives or mechanisms for collaboration with private firms. The BBC project and the BlueBioMatch platform aim to foster a stronger dialogue and develop incentive schemes to promote co-development between science and industry, as well as greater investment in high-risk, high-reward technological innovations.

Infrastructure and resource access

Many coastal and rural regions still lack access to laboratory capacity, water-testing facilities, and reliable IT infrastructure. These gaps not only constrain research and testing but also make it challenging to replicate bioresources under controlled conditions, which is essential for experimentation and product standardisation. Such infrastructural deficits create uneven opportunities across Europe, concentrating innovation in better-equipped regions while leaving others dependent on external facilities.

Shortage of skilled human resources

With the support of the work done under other WPs (WP5-6), this has been identified as a bottleneck in the blue bioeconomy technology development. Recruiting personnel with expertise in marine biotechnology, aquaculture engineering, and process development remains difficult. This shortage affects the sector’s ability to diversify cultured species and to develop and operate advanced bioprocessing systems. To address these issues, the BlueBioMatch platform could be a tool for exchange programmes and training initiatives that would strengthen knowledge transfer between academia, industry, and emerging professionals.

Logistics and supply chain organisation

These areas have been identified as key areas requiring technological and managerial innovation. Value chains in the blue bioeconomy are often fragmented, complex, and inaccessible to smaller actors. Many companies struggle to secure consistent and reproducible biomass supplies, hindering both product quality and R&D efforts. New, streamlined value chains need to be designed to support cross-sector integration and facilitate the flow of resources from harvest to high-value applications. Similarly, a better understanding of product formulation and delivery routes is needed to ensure that bio-based innovations reach their intended markets effectively.

Confidentiality and intellectual property

While protecting proprietary knowledge is necessary, excessive secrecy can stifle collaboration and delay the establishment of standardised testing or safety protocols. Many companies face challenges in determining the mechanisms of action or optimal formulations for new bioactive ingredients, which slows down product development and regulatory approval processes. One solution could be to share testing infrastructures and engage the stakeholders in open innovation platforms that could help balance protection with progress.

Research and monitoring

Environmental science is an enabler of technological advancement. Continuous research is necessary to comprehend the ecological impacts of aquaculture, invasive species such as sea squirts, and broader marine biological changes. Enhanced monitoring of algae blooms, water quality, and species interactions is essential to safeguard ecosystem health while

supporting technological innovation.

Conclusion and perspectives

The report encompasses the mapping, screening and identification of technologies in the nine regions of the BBC consortium. The deliverable provides an overview of the existing blue biotechnology types of technologies, the bioresources mostly used, and potential target markets. Highlighting the diversity, maturity, and distribution of technologies across the partner regions. The analysis reveals an ecosystem that is both dynamic and uneven, where highly industrialised countries such as Iceland and Norway coexist with research-driven regions like France, Belgium, Lithuania, and Estonia. This diversity reflects Europe's capacity to combine scientific innovation with industrial expertise; yet, it also exposes structural disparities that continue to hinder the deployment of technology and market integration.

The results demonstrate that the European blue bioeconomy is undergoing a transition from traditional marine sectors towards high-value, technology-based systems. Mature fields, such as fish valorisation and aquaculture, dominate the upper end of the Technology Readiness Level (TRL) scale, illustrating Europe's strong industrial foundation in marine bioproducts and the circular use of biomass. Meanwhile, emerging domains—particularly algae and microalgae cultivation, marine biomaterials, and digital monitoring tools—show significant innovation potential but remain concentrated at pilot and demonstration stages. This imbalance highlights the need for dedicated support to bridge the gap between laboratory research and industrial implementation.

Several systemic limitations continue to constrain progress. The lack of shared testing and demonstration infrastructure, uneven access to laboratory resources, and weak coordination between research institutions and industry all slow the scale-up of promising technologies. In many regions, innovation is further hampered by workforce shortages, fragmented value chains, and limited funding for cross-border cooperation. The report identifies these weaknesses not as isolated problems, but as symptoms of a wider challenge: the absence of an integrated European framework for technological development in the blue bioeconomy.

Despite these constraints, the mapping also reveals strong opportunities. The diversity of actors and technologies across Europe offers fertile ground for collaboration, knowledge exchange, and the development of complementary expertise. Initiatives such as *BlueBioMatch* demonstrate how cross-sectoral dialogue can strengthen technology transfer and foster transnational innovation networks.

In perspective, achieving a sustainable and competitive blue bioeconomy requires coordinated investment in demonstration-scale infrastructure, human capital, and regulatory clarity. By aligning scientific excellence with industrial capacity and by strengthening interregional cooperation, Europe can move from fragmented innovation toward a coherent, circular, and resilient marine bioeconomy capable of delivering both environmental and economic benefits.

The database is included in Appendix I, allowing for easy consultation of all the information gathered by country. As mentioned, this database evolves continuously and will support the next steps of the project, including technology needs, surveys, webinars/workshops, and interviews with various technology developers. Therefore, this deliverable could be

improved in the next stage of the project.

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#	NAME	Location *(Region, Country)*	Technology type	Service / Product	Value chain (Resource: (i.e: seaweed, mussels, fish sink, etc))	Value chain (Phase: i.e: harvest, production, cultivation, processin, supply, storage, delivery)	Sector (Blue or other: i.e: (i.e: Blue economy, agriculture, clean, water, etc)	TRL	Technology description (max 800 characters spaces included)	Target market (max 50 characters spaces included)	Keywords (1-3)	Website
1	Adisseo - Nutriad	Belgium	feed additives	feed products	aquaculture	production	BLUE	9	production of feed additives	Aquaculture professionals	aquaculture additives	
2	Anko Projects Vof	Belgium	land-based cultivation of microalgae	food products	Microalgae (Spirulina)	production	BLUE	7	production of microalgae in bioreactors-food products with microalgae	Human Nutrition	microalgae, food, sidestreams	https://www.companyweb.be/nl/0536876984/an-ko-projects
3	Aqua Bio	Belgium	Sturgeonfarm	food products	caviar	production	BLUE	9	production sturgeon and belgian caviar/ fish feeds	Aquaculture professionals | human nutriton	aquafeeds, caviar, RAS	https://www.aquabio.be/index.php/en/
4	Aquacultuur Oostende	Belgium	growout and nursery system sheltered open water	oysters (food) and shells (waste)	Oysters	production	BLUE	9	the production site also has a local shop and restaurant; they organise guided visits to the site	human nutrition & tourism	Oyster production	https://de-oesterput.be/
5	Aqualota	Belgium	Burbot hatchery	fingerlings	freshwater fish	production	BLUE	9	Production burbot fingerlings in RAS	Aquaculture professionals	burbot, RAS	https://aqualota.be/
6	Arcadis	Belgium	assessment of marine ecosystem services	consulting on sustainable entrepeneurship	marine resources	installation	Consultancy	9	impact assesment	Aquaculture professionals	engineering, consultancy ,ecosystem approach	https://www.arcadis.com/nl-nl
7	Astrofood	Belgium	Production microalgae capsule	microalgae	aquaculture	production	BLUE	9		Human Health & Human Nutrition	microalgae, spirulina, food	https://astrofood.be/
8	Avecom	Belgium	fermentation technology	fermentation tanks	aquaculture	extraction	biotechnology	5	with the technology they are able to transform sludge from RAS systems into single cell proteins	aquaculture, waste water, Feed	bacteria, water treatment, side streams	https://avecom.be/
9	Axabio	Belgium	land-based cultivation of microalgae	feed products	microalgae	production	BLUE	7		Human Health & Human Nutrition	microalgae, astaxanthine	https://algae.proviron.com/en/
10	azaleavandesteene	Belgium	Duckweed production	Food/feed products	duckweed	production	Blue/agri	9	duckweed production	Human Nutrition	Duckweed, agriculture	https://azaleavandesteene.be/
11	Bekaert	Belgium	cages for fish cultivation	production systems	aquaculture (fish)	application	blue & others	9		Aquaculture professionals	aquaculture cages	https://www.bekaert.com/en/products/agriculture/fishing-and-animal-husbandry
12	BEMA scheepswerf	Belgium	fishery ships construction/design	technologies	fisheries	technology	BLUE					
13	Bernaqua	Belgium	feedproduction	feed products	aquaculture	production	BLUE	9	Aqua feeds	Aquaculture professionals	aquafeed, larvae	https://www.bernaqua.com/
14	Bert Groenendaal Consultancy	Belgium	land-based farming of seaweeds and salty vegetables	food products (non processed)	seaweed, salty vegetables	production	Consultancy	5	Seaweed culture consultancy	Aquaculture professionals	seaweed, macroalgae, consultancy	
15	BioBase Europe Pilot Plant	Belgium	processing and refinery of biomass	pilot infrastructure	biomass	extraction	biotechnology	6	A unique pilot facility for process development, scale-up and custom manufacturing of innovative biobased products and processes	Aquaculture & fisheries professionals	bio-product test centre	Home - Bio Base Europe Pilot Plant(bbeu.org)
16	Biolynx	Belgium	fermentation technology		not defined		biotechnology	8	fermentation technology, valuation side streams	Aquaculture & fisheries professionals	bio-fermentation	
17	Bluegreenery	Belgium	production systems and technologies	Seaweeds production	seaweed/salty vegetables	production	BLUE	8	production salty vegetables & seaweeds	Aquaculture professionals	Seaweeds, salty vegetables, IMTA	
18	B-Trout	Belgium	trout farm	food products	freshwater fish	production/processing	BLUE	9	production trout in RAS	Human Nutrition	trout, ras	https://b-trout.be/
19	Building Integrated GreenHouses (BIGH)	Belgium	aquaponics (trout)	food products	freshwater fish	production	Blue/agri	9	production trout in RAS/aquaponics	Human Nutrition	aquaponics, trout,	https://bigh.farm/nl/accueil-nl/
20	Cargill	Belgium	extraction of polysaccharides from seaweed as gelling agents	food additives	seaweed	extraction	food	9	sustainable raw materials/ aqua feed	Aquaculture professionals	aquafeeds, bio-products	https://www.cargill.be/nl/home-nl
21	Colruyt Group	Belgium	offshore cultivation of mussels	food products	Mussels	production & processing	BLUE	8	Smart Technics is an innovative start-up within Colruyt Group whose motto is: from inspiration to implementation. The team offers a wide range of services, from engineering and project management to the design and implementation of technological solutions. Smart Technics is in charge of the design and installation of Colruyt Group's sea farm.	Human Nutrition	offshore mussel production	https://seafarm.colruytgroup.com/nl/home/
22	Crevetec	Belgium	Shrimpfarm	food/technologie/feed/R&D	aquaculture	production/R&D/Consulting	BLUE		*Production shrimp in Bio-Floc *(selective) Breeding of Shrimp	human nutrition & aquaculture professionals. *Local food supply *Sell farming technology *Sell Postlarvae	Shrimp, Vannamei, Biofloc, sustainable	
23	Edward Verbeure	Belgium	micro algae production	production systems	microalgae	production	BLUE					
24	FB construct	Belgium	automatization on fisheries/fish processing	technologies	fisheries	processing	BLUE					
25	Fishway	Belgium	production fishfillet out of cells	food products	fish cells	production	BLUE					
26	GEA maritieme en scheepvaartoplossingen	Belgium	production systems and technologies	algae extraction technology	micro algae	processing	biotechnology	7-9		Industries		GEA maritieme en scheepvaartoplossingen
27	Glimpse.bio	Belgium	Product diversification	Technology design	aquaculture	design	Consultancy	9	consultancy	Aquaculture professionals	productdesign, bio-economy	https://www.glimps.bio/
28	Gro2	Belgium	micro algae production	production systems	microalgae	production	BLUE					
29	Haedes	Belgium	assessment of marine ecosystem services	consulting on sustaineble entrepeneurship	marine resources	License/...	Consultancy	8	evaluation/guidance in valuation ecosystem services	Aquaculture & fisheries professionals. Tenders, license, promotion	ecosystem approach	-
30	Heirbaut Hoeveproducten	Belgium	Micro algae	production/B2C	microalgae	production	Blue/agri		ONland production of microalgae on agriculture farms, sales of "incorporated" microalgae in different farmproduct, different R&D projects	Human Nutrition. Local food supply	Micro algae, product diversification, land, agriculture	Heirbaut Hoeveproducten
31	iCOATS	Belgium	antifouling solutions	coating products	aquaculture	application	blue & others	4	develops biobased solutions for antifouling in marine environment	Aquaculture professionals	bio-coatings, offshore ropes	https://www.i-coats.be/
32	ID-Nutrition bvba	Belgium	feed additives	feed products	aquaculture	productions	BLUE	9	feed consultancy	Aquaculture professionals	consultantcy, feed, additives	
33	IMAQUA	Belgium	R&D platform for shrimp diseases / RAS system for shrimp cultivation	R&D	Shrimps	production	BLUE	4	Is the leading shrimp research service provider worldwide and has been developing shrimp research tools, operating shrimp RAS and producing shrimp feed in Flanders for 8 years. IMAQUA has a team with expertise in various topics of great importance for shrimp culture (health, nutrition, breeding techniques, breeding, RAS design, etc.) and a fully operational shrimp R&D facility where any topic related to shrimp culture can be tested and validated.	Aquaculture professionals	shrimp disease, trials, nutrition	https://imaqua.eu/
34	IMDC	Belgium	assessment of marine ecosystem services	consulting on sustainable entrepeneurship	marine resources	installation	Consultancy	9	impact assesment	Aquaculture professionals	engineering, consultancy ,ecosystem approach	IMDC
35	Impetus	Belgium	Processing technologies	Technology design	aquaculture	design	Consultancy	9		Aquaculture professionals	Bioscience engineering	https://www.impetus.eu.com/
36	Innovad	Belgium	vegetal extraction technologies	animal health and nutrition solutions	all	extraction	feed	9		Aquaculture professionals	animal feed, health	Innovad | Innovative solutions for the livestock industry (innovad-global.com)
37	INVE aquaculture	Belgium	consultancy for feed and disease prevention	feed products	aquaculture (fish)	production	BLUE	9	An international innovative holding with Belgian roots that employs more than 300 people, specializing in advanced and high-quality feeds and disease prevention agents for fish, shellfish and crustacean farming. With production units in Europe, Asia and Central and Latin America, they serve customers in more than 70 countries	Aquaculture professionals	live food, additives, health	https://www.inveaquaculture.com/
38	Jan De Nul	Belgium	growing tables for offshore oyster cultivation	infrastructure	Oysters	production	BLUE	5	pilot project on restoration of oyster reefs within offshore wind farms (part of UNITED project)	Aquaculture professionals	dredger, reef construction	Homepage | Jan De Nul
39	Keypharm	Belgium	formulations for health & nutrition products	human health products	algae	application	food retail	9		Human Health	feed supplements	https://www.keypharm.com/index.php?l=NED&ct=algemeen&h=1&s=6&taalextra=NED
40	Koralliionbio	Belgium	R&D services	R&D services	aquaculture	application	biotechnology	8	R&D for fermentation	Human Health	R&D, cyanobacteria, microalgae	https://www.koralliionbio.com/
41	Kytos	Belgium	microbiota analyses	technologies	not defined	monitoring	BLUE	9	Bacterial monitoring in aquaculture	Aquaculture professionals	shrimp, microbiome, disease	https://kytos.be/
42	Lambers-Seghers	Belgium	seaweed as ingredient in feed products	feed products	aquaculture (fish)	application	BLUE	9	Livestock feed company specializing in feeds for intensive pig, chicken and cattle production. Recently, they are also focusing on the development of fish feeds for aquaculture. Lambers-Seghers offers feeds and supplements for larvae to tank-ready fish. This company uses innovative and sustainable production methods and ensures the most efficient feed formula possible to suit the customer's fish species and way of farming.	Aquaculture professionals	aqua feeds	https://lsaqua.be/en/
43	LeafWheel	Belgium	production systems and technologies	Salty vegetables	salty vegetables	design/production	BLUE	9	production salty vegetables	Human Health & Human Nutrition	production, salty vegetables	
44	Mantis consulting	Belgium	assessment of marine ecosystem services	consulting on sustaineble entrepeneurship	marine resources	License/...	Consultancy	8	evaluation/guidance in valuation ecosystem services	Aquaculture & fisheries professionals. Tenders, license, promotion	ecosystem approach	-
45	Marelec	Belgium	automatization on fisheries/fish processing	technologies	fisheries	processing	BLUE		Automated fish processing equipment	food industry	Technology, food processing	
46	MariFish Inc	Belgium	no specific	Hangar rental (Seawater Plug&play)	seawater	support	BLUE	9	plug and play hangar	Aquaculture professionals	incubator, start ups, bluebio	https://marifishinc.be/
47	MOWI Belgium	Belgium	Fish processing and sidestrem	feed products	fisheries	processing	BLUE	9	Fish processing	Human Nutrition	Fish processing (salmon)	https://mowi.com/contact/mowi-belgium/
48	Nomet	Belgium	macroalge croquettes	food products	macroalgae	processing	BLUE					
49	Ocean Nutrition Europe	Belgium	nutrition	feed products	aquaculture	production	BLUE	9	Aqua feeds	Aquaculture professionals	aquafeeds,Jarvae, artemia	Ocean Nutrition is a manufacturer of premium fish food for marine and fresh water tropical fish
50	OceanBites	Belgium	Macro Algae	production	Macroalagae	production	BLUE	4	(Pilot) Production of Macroalgae(Dulce) in RAS	Human Nutrition. Local food supply	macroalgae, RAS, feed	
51	omni-C	Belgium	AI and sensor	Technology design	fisheries	design	BLUE	9	monitoring fisheries on board	fisheries	Fisheries, data, sensors	https://omni-c.weebly.com/
52	Pleamar	Belgium	aquaculture technology	production systems	aquaculture	design	production	9	design & installation aquaculture production systems	Aquaculture professionals	RAS, design, installation	https://pleamaraquaculture.be/
53	Rijtak NV	Belgium	micro algae production	feed products	microalgae	production	BLUE	9	Mircoalgae production in bioreactor (in agriculture environment)	Human Health	microalgae, agriculture	RIJTAK, Sint-Katelijne-Waver - Phone: 015 31 25... >> Fruit & vegetables - Growers | goldenpages.be
54	Roots	Belgium	AI and sensor for automatization	design	aquaculture	design	BLUE	7-9	AI and sensors for aquaculture production	Aquaculture professionals	AI, sensor, RAS	
55	Serra Maris bvba	Belgium	sea vegetables seed production	food products	sea vegetables	production	BLUE	9	Consultancy salty vegetable production	Human Nutrition	salty vegetables	
56	Shells and Valves	Belgium	Aquaculture expertise	aquaculture consultancy	aquaculture	design/production	BLUE	7-9		Aquaculture professionals	Consultancy, shellfish, restoration	https://shellsandvalves.com/
57	Sioen	Belgium	substrates for cultivation of marine organisms	growth substrates	seaweed	production	BLUE	7	develops biobased and/or biodegradable substrates for aquaculture and biogenic reefs	Aquaculture professionals	bio-material	https://sioen.com/nl
58	Studio Zeewier	Belgium	productdiversification macroalgae	food products	macroalgae	harvesting/import	BLUE	9	seaweed harvestings and food products with microalgae	Human Nutrition	seaweed, food	https://lehomardetlamoule.be/workshop/
59	Tomalgae C.V.B.A.	Belgium	microa lgae production	feed products	micro algae	production	BLUE	9	Microalgae production	Human Health	microlagae	Tomalgae – Microalgae for aquaculture
60	Trome	Belgium	water treatment	technology	aquaculture	technology	BLUE	9	Drum and pump technology for aquaculture	Aquaculture professionals	RAS, drum, pump	Aquaculture | Londerzeel | Trome Drumfilter
61	V.D.S. bvba	Belgium	nutrition	feed products	aquaculture	production	BLUE	9	Aqua feeds	Human Nutrition	aquafeeds, additives	Gespecialiseerde premixen op maat | VDS (vdspremix.be)
62	Vlaamse Visveiling	Belgium	infrastructure for cultivation, landing and distribution of aquaculture products	infrastructure	aquaculture, fisheries	processing	BLUE	8	new building MariFish which is equiped with seawater pipeline and basic infrastructure for aquaculture on land	Aquaculture & fisheries professionals	fish auction	https://www.vlvis.be/Home/News

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1	Berrichi (Furcella OÜ)	Estonia	seaweed valorisation, using extracted compounds from macroalgae	Skincare products	Red algae, microalgae Haematococcus pluvialis		Blue		Using the furcellaran which has a powerful anti-aging and deep moisturising effect	cosmetic industry	Skincare, algae	https://berrichi.ee
2	Est-Agar AS	Estonia	seaweed valorisation, extraction of different compounds from macroalgae	Furcellaran (can be used as stabilizing, thickening and gelling agent in the food, agricultural, cosmetics and pharmaceutical industries)	Red algae		Blue				Furcellaran, red algae	https://estagar.ee
3	Estonian Maritime Academy of Tallinn University of Technology	Tallinn, Estonia	valorization of meat of small-sized shellfish for food purposes in the Baltic Sea region	food from small-sized mussels	small-sized mussel valorisation			3---4	Developing technology to extract meat of small-sized shellfish for food purposes in the Baltic Sea region		food, mussels	https://taltech.ee/en/estonian-maritime-academy
4	Flydoc Solutions LLC	Estonia				Sea Monitoring Systems						
5	Furcella Oü	EE	BlueBio SME	2015	1-10		Natural creams	Alage		Blue		
6	Magrada OÜ	Estonia	seaweed valorisation, using extracted compounds from macroalgae	Skincare products	Brown algae		Blue		Using the extract of Fucus Vesiculosus (Bladderwrack)	cosmetic industry	Seaweed, skincare	
7	MUKK Cosmetics OÜ	Estonia	seaweed valorisation, using extracted compounds from macroalgae	Skincare products	Brown algae, red algae		Blue		Using the extracts of Fucus Vesiculosus (Bladderwrack) and Furcellaria lumbricalis	cosmetic industry	Seaweed, skincare	
8	Nordic Seaweed Solutions OÜ	Estonia		Food products made of seaweed	Seaweed		Blue				Seaweed	https://numami.ee
9	PowerAlgae	Estonia	developing technologies for microalgae valorization, a modular microalgae photobioreactor system for research/microalgae-based industrial CO2 sequestration system	• microalgae photobioreactor system · feed/food compounds from microalgae	microalgae		Blue	6	Photobioreactor ideal for research and lab experiments, as well as for small scale algae farming for high value compounds. ALGACAP is a modular microalgae photobioreactor system, designed to be integrated into an industrial chimney for CO2 sequestration from flue gas. They can provide the system on a turnkey basis, or we can offer the technology as a flue gas cleaning service. POWER ALGAE can supply various microalgae-based ingredients for the food and feed producers.	cosmetic, pharmaceutical, food/feed producers. Microalgae cultivation and valorization	microalge, photobioreactor,	http://poweralgae.edicy.co/
10	Vetik	Estonia, Saaremaa	seaweed valorisation, extraction of different compounds from macroalgae	Red colorant (Phycoerythrin), producing different seaweed extracts, compounds to cosmetics producers	macroalgae, seaweed valorization		Blue	6	Developing the valorization of the whole biomass of the seaweed for cosmetics and other industries e.g producing different seaweed extracts.	cosmetic industry. Vetik is developing the production of a natural (marine algae based) red colorant which is healthy and has potentially skin rejuvenating properties.	seaweed, red colorant, seaweed valorization	https://vetik.eu/#about

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1	AberActives SAS	Brittany, France	Biotechnology	natural extracts from algal biomass	Algae	Processing	Blue	7	Our laboratory is located on the Laber site of the Roscoff marine Station, a world center of excellence in fundamental research on algae. The start-up proposes the use of bacterial enzymes to transform algal sugar chains in order to manufacture ingredients for cosmetics andnutrition.	Cosmectics, Dietary supplements	we aim to maximize the value of algal biomass through the mild extraction of active compounds. We guarantee an environmentally friendly process. The process is non-energy intensive and does not use organic solvents. These eco-extraction processes allow us to make the benefits of seaweeds available to all.	Cosmectics, Algae, Dietary supplements	https://www.aberactives.com/en/
2	Abyss Ingredients	Brittany, France	co-produits valorisation	VIPP - Very Important Premium Peptides: 8 products	Fish		Blue	9	Abyss Ingredients was founded in 2004 by local (Brittany's) fishing industry actors who wanted to valuate fish by-products, wasted until then. Combining innovation, circular economy and sustainability, Abyss Ingredients aims at answering the growing demand for natural health ingredients of a growing aging-population.	Healthy-aging applications: Cognition, Mobility,Wellness	Our mission is to valuate marine by-products, combining innovation, circular economy and sustainability, to answer the needs of the aging population with natural ingredients. Dietary supplements laboratories, contract manufacturers, R&D centers, our ingredients allow you to develop efficient and differenciating products in order to meet and exceed your clients expectations regarding health and well-being.	Raw materials, fish, co-products, health, wellness	https://www.abyss-ingredients.com/
3	Agriloops	Brittany, France	Biotechnology / Food	Food products : Prawns	Prawns		Blue	9	Agriloops is inspired by nature and designs unique farms that combine the breeding of prawns with market gardening.	Human Nutrition	Prawns raised in France: no freezing, great taste and a zero antibiotic objective. Produced with respect for the environment.	Prawns, Environment, market gardening	https://www.agriloops.com/
4	Agrimer	Brittany, France	Seaweed valorisation	Cosmetics, pharmaceutical, food product	Seaweed		Blue	9		Human Nutrition and Uses	Agrimer has been the leader in processing seaweed from Brittany. The company is specialized in the conversion of marine resources. Our ocean-derived raw materials and	Seaweed, Cosmetics, Nutrition, Agriculture, Pharmaceutics	https://www.agrimer.com/fr/accueil/
5	Alegina	Pays de la Loire, France	Shell valorisation	Porcelain, small construction supplies	Oysters		Blue	9	Provides an outlet for oyster shell, a resource currently considered waste. Developed three types of materials from oyster shells: a porcelain paste, a pavement covering and a substrate for green roofs.	Human uses (house, decoration, etc)	Use of oyster shells as a material for porcelain, green roofs or paving	Oysters, porcelain, shell	https://www.alegina.fr/
6	Algama	Ile de France, France	Algae valorisation	Food product : Algae	Algae		Blue	7	Algama selects the most promising algae and transforms them into actionable ingredients	Human Nutrition	As a food-tech company, Algama harvests the potential of algae to create food that's good for both people and the planet	Algae, Food, Human Nutrition	https://algamafoods.com/
7	Algo Source	Pays de la Loire, France	Microalgae valorisation	Health products based on microalgae	Microalgae		Blue	9	The company identifies the most encouraged molecules within several dozen varieties of microalgae and implements all its expertise in culture and extraction processes to enhance them for the benefit of clinical nutrition, nutraceuticals or cosmetics.	Human Health	The use of microalgae biomass for nutraceutical, health or cosmetic purposes	Microalgae, Health	https://algosource.com/
8	Algolesko SAS	Brittany, France	Aquaculture at sea	Algae in all its forms	Aquaculture Algae		Blue	9	Seaweed cultivation at sea for various customer projects. Our kelp is cultivated in preserved waters off Lesconil, South Finistère, Brittany. From reproduction to harvesting, we are involved in the entire cultivation cycle to guarantee our customers authenticity, quality and traceability.	Human Nutrition		Algae, Aquaculture, Sea	https://www.algolesko.com/
9	Algosolis	Pays de la Loire, France	Microalgae valorisation	Microalgae	Microalgae	Processing	Blue	9					https://algosolis.com/
10	Algues et Mer	Brittany, France	Algae valorisation	Algae products	Algae		Blue	9	For the algae extracts that they manufacture, they only use water to extract the active molecules that are present in these algae. Then, they purify these active molecules by physical filtration processes and these extracts are then incorporated into the various finished products of customers.	Human Health & Human Nutrition	A company that manufactures ingredients for the cosmetics industry and seaweed-based food supplements	Cosmectics, Algae, Dietary supplements	X
11	AMI	Pays de la Loire, France									Research and development in biotechnology		X
12	Azollae	Brittany, France	Algae valorisation										https://azollae.fr/
13	Biocenor												
14	Biocerval	Brittany, France	Fish valorisation, co-products						A subsidiary of Sarla Industries France (part of the Rethmann Group), Biocerval processes fish by-products for animal feed (fish meal and fish oil).				
15	BIOEUROPE / GROUPE SOLABIA	France							Research and Development into the development of active cosmetic and dermocosmetic ingredients using biotechnology (fermentation and enzymology), plant extracts and fine chemistry.				
16	Bioréa	Brittany, France	Cultivating various micro-organisms (microalgae, yeast, bacteria) for nutrition & health, cosmetics, petfood, feed and aqua-culture industries and Taylor-made biomass development, liquid or powder + ready to use or for extraction ». From R&D to oroduction.	Fermentation experts									https://www.bioreа.fr/en/
17	Blue Care Discovery	Pays de la Loire, France	Bioactive compounds	Microalgae for health	Microalgae	Processing	Blue	5	Biotech start-up developing bioactive compounds of microalgae for health.				https://bc-discovery.com/en/
18	C.Weed Aquaculture	Brittany, France	Aquaculture at sea	Algae in all its forms	Algae		Blue	7.9	It is off the coast of Saint-Malo, about ten meters deep that the sea welcomes the cultures of C-Weed Aquaculture. Different species of seaweed are produced on a deep water concession including Wakame (Undaria pinnatifida), Royal Kombu (Saccharina latissima), Atlantic Wakame (Alaria esculenta) under the organic label. They master the hatchery, the cultivation, drying and conducts studies.	Human Health & Human Nutrition	Cultivating algae for the food industry and blue cosmetics	Algae, AGRI-FOOD, Cosmetics, Aquaculture	https://www.c-weed-aquaculture.com/
19	DareWin Evolution	France	Genetic selection of microalgae	screening	Microalgae	screening	Blue	7	Blue biotechnologies are booming: they are committed to a sustainable economy. In this sense, the development of the microalgae sector is essential and promising. Nevertheless, it is necessary to select more efficient micro-organisms. DareWin Evolution uses an innovative dynamic Darwinian selection approach to naturally increase the productivity of microalgae for the production of molecules of interest.	Microalgae uses: food, feed, cosmetics, health, biomaterials		Microalgae, genetic selection	https://www.linkedin.com/company/darwin-evolution/?originalSubdomain=fr
20	Fairscope	France		screening	Plankton	screening	Blue	9	The PlanktoScope V.2.6 is a flow-through microscope designed by FairScope for high-precision imaging of suspended particles, it excels in capturing details of plankton up to 300 µm, enabling comprehensive planktonic studies.				
21	Fiiish	Brittany, France	Fishing	Gear	?		Blue	9	Our whole ethos is based around the design, rigorous testing, manufacture and supply of highly original sport fishing gear that is easy to usse and highly effective. We are obsessed with getting it right and we are driven by innovation. We are Fiiish and we are incredibly proud of what we do.	Fishers	Producing gear for sustainable fisheries	Fishing, Gear	http://fiiish.com/
22	France Haliotis	Brittany, France	Abalon, seaweed, IMTA	Abalon, seaweed for feed and food	Abalon, macroalgae	Production	Blue	9		Food & feed	Food & Feed	Abalon, Green macroalgae, IMTA	https://www.francehaliotis.com/
23	Givaudan	Brittany, France	/	Fragrance, Food	/		Blue	6.7	The cutting-edge technologies draw on science and nature to create high-performing molecules and functional agents, including customised carrier systems.	Human Health & Well Being	Produce breakthrough innovations in food and beverage, beauty and fragrance	Food, Beauty, Fragrance	https://www.givaudan.com/fragrance-beauty/active-beauty
24	Globe Xplore-Algues de Bretagne	Brittany, France	Algae valorisation	Food	Algae		Blue	9	Once picked, the seaweed is transported within 24 hours to our plant in Rosporden. Upon arrival, they are washed to remove their residuals of sand and shells. They are then salted, which allows to preserve them. Then they can be processed, packaged and finally shipped.	Human Food	A pioneer in molecular gastronomy, seaweed food and seaweed-based specialties	Algae, Food, molecular cuisine	https://www.algues.fr/fr/
25	Grand Banc	France	Oysters. IMTA	Food	Oysters	Production	Blue	9		Human Food			
26	GreenSea	France	Algae valorisation	Ingredients	Algae	Processing	Blue	9	We produce and promote algae and micro-algae, transforming them into innovative ingredients.				https://en.greensea-all.com/
27	Halieutica	France	Aquaculture nutrients	Feed for aquaculture									https://www.halieutica.net/
28	Halieuticom	Ile de France, France	/	Fish Products	/		Blue	6.7	Halieuticom provides digital solutions for all actors of the fishing ecosystem based on data collection. We work with and for fishermen, associations, scientists and institutions to build a better fishery for tomorrow. In particular, we strive to encourage engagement and ensure data confidentiality. Experts in fisheries issues and benefiting from a network of national and international partners, we are able to think, design, develop, test and promote any type of digital solution.	Fishermen, associations, scientists and institutions	A French technology company specialized in the design and development of digital solutions for the fishing industry	Fishing	https://halieuti.com/fr/
29	Haliocean	Brittany, France	/	Seafood Production	Seafood products		Blue	6.7	Various specialized, scientific and technical activities	Fishing industries	Advice, expertise and support for seafood products	Seafood Product	https://www.haliocean.fr/
30	Hemarina	Brittany, France	Purified hemoglobin from areca worms	Universal Oxygen	Purified hemoglobin from areca worms		Blue	7	The Hemarina technology platform is based on the particularities of the purified hemoelobin of the arenicolous worm. Arenicola marina.		The 1st universal oxygen carrier for therapeutic purposes	Areca worms, Oxygene	https://www.hemarina.com/
31	Hublot SAS	Pays de la Loire, France	IT software	Software	/		Large-scale distribution	8	Hublot offers your teams powerful management charts that allow you to boost your department results. Former store managers, CEOs and trainers have designed these tools that are suitable for everyone, from beginners to advanced.	Supermarkets, food stores	Provides seafood management software	Software, Fishing department	https://www.hublot.io/
32	Huddle corp	Pays de la Loire, France	Encapsulation technology	Feedstuff	Molecule		Agriculture	8	Enhance the performance of high-value ingredients with Huddle Corp.'s proprietary encapsulation technologies.Fully patented encapsulation technologies address a full range of high-value molecules.	Breeders, farmers	Improvement of feeds by enhancing metabolic actions in the animal gut	Feedstuff, Molecule	https://www.huddlecorp.com/
33	Immun'Vise	France	Microalgae valorisation	Microalgae as biocontrol for agri-agro industries	Microalgae	production and processing							https://www.immunvisebiocontrol.fr/en/
34	Innovalg												
35	Kamaltu	France											
36	Laboratoire Geomar	Brittany, France	Algae valorisation	Agri-Food Products	Algae	Technology Provider (Aquaculture Monitoring)	Blue & Green	9	A leader in the field of sustainable agriculture, Goëmar develops within the UPL group solutions for the protection, activation of the physiology and nutrition of plants from biosourced raw materials including natural algae	Agriculture Professionals	Produce more sustainable agri-food products	Agriculture, Algae, Sustainable	X
37	Laboratoire NividiSkin	Brittany, France	Algae valorisation	Cosmetics	Algae	Haverst and processing	Blue	9	Nividiskin® is a universal dermo-cosmetic skincare product which, in a single step, regenerates, soothes and moisturises all skin types, even the most fragile or atopy-prone, from head to toe, soothes and moisturises all skin types, even the most fragile or atopy-prone, from head to toe, thanks to a powerful active ingredient extracted in Ouessant from organic seaweed harvested on the island.	Human wellbeing	Cosmetics	Algae, Cosmetics	https://nividiskin.com/
38	Le Drezen	Brittany, France	Fish and aquaculture materials and biomaterials	Fish/ aquaculture equipment		Processing	Blue & Green	9	A complete range of fishing equipment. Le Drezen, leading manufacturer of nets in France since 1929, specialises in the design and production of trawls, purse seine nets for tuna, fishing nets and equipment. A referenced trawl fitter for the French fleet, today Le Drezen is the main distributor of fishing equipment and wire rope in France.	Fisheries & aquaculture	Materials & equipment	Fish equipment, biomaterials	https://en.ledrezen.com/
39	Le Gouessant Aquaculture	Brittany, France	fish farming involves feeds with a very high added value and demanding procedures, Le Gouessant Aquaculture manages every stage, from formulation to manufacture										https://aqua.legouessant.com/gn/
40	Lisaqua	Pays de la Loire, France	Permaquaculture	Prawns	Seafood products		Blue	9	Our farms allow us to raise prawns without antibiotics, without polluting emissions, in direct proximity to consumers.	Human Nutrition	Lisaqua is an innovative company that develops a new model of aquaculture farm of gambas with low environmental impact	Aquaculture, Prawns	https://www.lisaqua.com/
41	Maari	Brittany, France	Characterisation of the resource, Collections of strains of interest, Varietal selection & Supply of samples and culture starters	Algae	Algae	Production, screening	Blue	6	Securing resources for a sustainable algae industry				https://www.maari-seaweed.fr/
42	Marport France												
43	Microphyt	France	At the crossroads of life sciences and bio-processes, we develop the next generation of natural ingredients for better living	Microalgae: Phaeoptim, Dunapure	Microalgae	production and processing	Blue	9	Based on a two-phase flow process, they reproduce the natural conditions microalgae need to grow, while optimizing gas-liquid transfer. This ground-breaking innovation makes it possible to cultivate any kind of microalgae including fragile varieties whose cultivation was previously impossible. The microalgae are cultivated without any GMOs or pesticides in a closed environment in which each parameter – from the temperature to the amount of light – is carefully monitored. We guide their growth by providing essential nutrients and enabling photosynthesis from natural light, which can be enhanced using low-energy diodes.	Cosmetics & nutraceuticals		Microalgae, cosmetics, nutrition	https://microphyt.eu/
44	Mon Miracle	Pays de la Loire, France	Algae valorisation	Algae Cosmetics Products	Algae		Blue	9	Development of family recipes with local marine biomaterials for her beauty treatments surrounded by the greatest doctors in natural medicine. Brown seaweed, green seaweed, red seaweed, white seaweed, clays and minerals... The products are the result of more than 20 years of research.	Human Health	Mon miracle is a brand of cosmetics based on seaweed and sea minerals.	Algae, Cosmetics	https://www.respectocean.com/mon-miracle/
45	Morgère SAS												
46	Mussella	Brittany, France	Mussel byssus valorisation	Mussels	Mussels	Haverst and processing	Blue	9					https://www.mussella.fr/
47	Mytillimer	Brittany, France	Classic farmin & co-product valorisation	Food products: soups, rillettes, appetizers, mussels	Mussels, Fish, Oysters	Haverst and processing	Blue	9	Classic farming for sea food and co-productos valorisation for food	Human nutrition	We bring together all the seafood professions, and we are committed to ensuring that our producers provide you with quality products, from the sea to the plate. We can guarantee the traceability of our products because we control the mussel, oyster and trout sectors from A to Z.	Seafood, human nutrition, mussels, fish, oysters	https://www.lacancalaise.fr/
48	Neptune elements	Brittany, France	IMTA systems with focus on seaweed production	Algues	Macroalgae	Production	Blue		System IMTA notably for macroalgae production	Nutrition		Macroalgae, food, IMTA	
49	Ocealys	Brittany, France	Cream textures, serum, lamellar or quick breack emulsions, gelled or biphasic waters, aqueous, liquid, sugar-ester bases, gel cream, foaming, transformation, powder, solid	Face care, body care, hair care, technical and sensory care for SPAs or thalassotherapy, hygiene care, men's care, baby care, care for pregnant women, scented skincare ranges, cosmeceutical skincare, dermocosmetic skincare	Marine extraits	Processing	Blue & Green	9		Cosmectics and human wellbeing		Cosmectics, wellbeing, marine products	https://www.ocealys.com/en/
50	Olmix	Brittany, France	Olmix is a global company specialized in developing, producing and distributing high-value biosourced solutions for livestock and crop farming in more than 100 countries across the world	Macroalgae valorisation for food, feed and human wellbeing	Macroalgae	production and processing	Blue	9					https://olmix.com/
51	OMA Olivier Microalgues	Pays de la Loire, France	Algae valorisation	Spiruline	MicroAlgae		Blue	9	The cultivation is carried out in a closed glass greenhouse (south of Nantes), in an environment and a water quality totally controlled. The water is purified to guarantee the absence of heavy metals, toxins and pesticides. The minerals used for the growth of spirulina are certified for human consumption.	Human Nutrition and Uses	Spirulina Producer	Algae, Spiruline, Food	https://www.olivier-microalgues.fr/
52	Ostrea Design	Brittany, France	Bivalves valorisation	materials from shellfish waste: oysters, mussels, scallops									
53	Percassandre Vendée Aquaculture												
54	Perha Pharmaceuticals	Brittany, France	Development of kinase inhibitors	Kinase inhibitors	Natural Marine Substances		Blue	8 or 9	Natural marine substances are the starting point of Perha Pharmaceuticals' research. Indeed, some of the molecules optimized by Perha Pharmaceuticals' chemists and biologists are derived from natural products isolated from marine organisms. The research on inhibitors is then directed towards two research areas: The correction of cognitive deficits associated with Down's syndrome and, in a second phase, Alzheimer's disease AND The prevention of drug-induced hearing loss.	Human Health	Perha Pharmaceuticals is a biotechnology company specializing in the research and development of kinase inhibitors	Marine Ressources, Kinase Inhibitors, Health	https://www.perha-pharma.fr/
55	Phosphtech	Pays de la Loire, France	Natural Marine Ressources Valorisation	Raw materials & products from marine resources	Natural Marine Ressources		Blue	8 or 9	Their commitment is to develop processes and products that are not only effective, but also safe and environmentally friendly. They advocate the requirement, the performance and the innovation in each of our specialties. The company is involved for you and with you for the benefit of a responsible growth, and respectful of natural resources and the women and men who exploit them.	Human Nutrition & Health Animal Nutrition	PhosphoTech is an international player engaged for more than 20 years in the production of ingredients derived from the valorization of natural marine resources.	Marine Ressources, Nutrition, Health	https://www.phosphotech.com/
56	Plateforme d'innovation Nouvelles Algues	Hauts de France, France	Valorisation of aquatic products or co-products Aquaculture	Technological and scientific services specific to aquatic products	/		Blue	/	They have an experimental aquaculture station based in Wimereux and are thus the only European structure dedicated to aquatic products to have: a Laboratory, a Technological Hall, an experimental aquaculture station.	Aquaculture professionals	A private structure which brings to the actors of the Fishing and Aquaculture sector mutualized means of research and innovation in order to improve the valorization of the aquatic products and co-products and to support the development of a sustainable aquaculture.	Aquatics Products, Aquaculture	https://www.pfinouvellesvagues.com/
57	Polymaris Biotechnology	Brittany, France	Industrialisation of innovative biomolecules	Service on the industrialisation of innovative biomolecules	Marine Micro Organisms		Blue	/	The fermentation techniques developed by Polymaris create the ideal conditions for the cultivation of micro-organisms and the production of natural biomolecules. The control of all the culture parameters ensures an exceptional quality of the products. Polymaris has different bioreactors for laboratory, pilot or industrial phases.	Marine & Maritime Industries	Polymaris discovers, characterizes and selects innovative molecules from marine micro-organisms	Marine Micro Organisms,	https://polymaris.com/
58	SAS Bysco	Pays de la Loire, France	Mussel byssus valorisation	Textile structures and raw materials	Mussel byssus		Blue	9	100% natural fibrous solutions, derived from mussel byssus and wave-resistant for millennia. To meet the technical and environmental constraints of its industrial customers, BYSCO offers high-performance materials in terms of thermal insulation, acoustic comfort, fire protection, system lightening and surface resilience.	Industries	It is the first French start-up to produce textile structures and raw materials from this mussel biomass.	Mussel byssus, Raw materials and circular economy	linkedin.com/company/byscobyssuscomp
59	Scale	France	Fish valorisation, co-products	transforming side products	Scalite: stone-like material entirely made 100% from fish scales	fisheries	byproducts transformation	blue bioeconomy		is the first material ever made exclusively from fish scales, a by-product of the fishing industry, it has a stone-like texture and many others great qualities	Designers, arquithects andcivil engineering	a material for interior design	natural biopolymer sustainable stones
60	Sea4earth	France	Our goal is to develop the processing at an industrial scale, of macroalgae cultivated in France and Europe, for the benefit of human food consumption.	Algae valorisation									https://www.sea4earth.com/
61	Seabelife	Brittany, France	SeaBeLife is a biotechnology company developing two families of patented candidate molecules designed to block regulated necrosis – also known as regulated cell death. Our therapeutic solution has demonstrated, in vitro and in multiple in vivo proofs-of-concept, to be able to simultaneously block two forms of regulated cell death and thus protect organs under attack from disease.	Bioactive compounds for human health	Marine extraits	Processing	Blue	6 (pre-clinic)	We recently discovered that these two regulated necroses communicate together and work in conjunction to kill cells. This means that when dealing with these forms of regulated necroses, it is essential that both are blocked at the same time. The characteristic that makes all molecules developed by SeaBeLife unique is that they fight necroptosis and ferroptosis simultaneously. Currently, as far as we know, no one else in the world is working on such molecules.	Human Health & Well Being			https://www.seabelife.com/en/
62	Seanova	Brittany, France	specialist in marine oils, Seanova has developed a process to fight against the oxidation of lipids by amply increasing their stability thanks to an enrichment in natural antioxidants. This allows the nutritional and organoleptic qualities and the shelf life of the oils (marine and vegetable) to be preserved.	healthy ingredients and innovative formulas from the sea and plants						Nutraceutical, agri-food, human and animal health markets			https://seanova.fr/en/
63	Seppic Pontrieux	Brittany, France	developed several biotechnologies from algae and marine plants to create and produce marine cosmetic active ingredients. Culture of dedifferentiated cells from marine plants or macroalgae cells in a bioreactor not only preserves marine resources, but makes it possible to explore the full potential of these resources.	Marine plants, macroalgae				9					https://www.seppic.com/en/technologies/marine-biotechnologies
64	Spiru'marine	Brittany, France	Seawater Spirulina Valorisation	Health products based on spirulina	Seawater Spiruline		Blue	9	Spiru'Breizh® is grown in high quality sea water, filtered, purified and sterilized by us. It presents the nutritional interests of spirulina itself associated with the virtues of marine plasma. Indeed, sea water is a real source of mineral salts (sodium, calcium...) and trace elements (iron...).	Human Health & Human Nutrition	A confidential manufacturing process unique in the world, that of producing a 100% seawater spirulina	Spirulina, Sea, Health	https://www.spirumarine.com/
65	Symbiomer	Brittany, France	Algae producer and processor	harvesting, seaweed cultivation, drying, crushing, storage and packaging & delivery	Algae	Harvest, production, storage & delivery	Blue	9	Independent company specialising in kelp fishing and harvesting of seaweed in the Côtes d'Armor region. It is the only company in France to sell its seaweed production (fishing, harvesting and cultivation) directly, without any traders or intermediaries. With its fishing licences, nautical resources and qualified team on standby, Symbiomer has unrivalled resources at its disposal to become your benchmark seaweed partner.				https://symbiomer.com/
66	Synoxis Algae	Pays de la Loire, France	Cultivation of Algae	Supply of elements for the cultivation of algae	Algae		Blue	9	At synoxis algae they want to tacitrate the culture of all types of algae. It is quite natural that we have developed a range optimized for the cultivation of macroalgae, whether for R&D or production. They rely on proven technical	Algoculture professionals	Synoxis algae designs and markets since 2018 cultivation systems for professionals in algae cultivation	Algae, Cultivation systems	https://www.synoxis-algae.com/
67	Tech Nature	Brittany, France					Green						https://www.tech-nature.com/
68	Thalos	Brittany, France	/	Support in maritime-related r&d projects	/		Blue	/	/	Maritime professionals	Developers of innovative communication solutions and analysis tools for the maritime world	Innovation, communication, maritime	https://www.thalos.fr/fr/home-fr.html
69	Upcyclink												
70	Usine de Kervellerin	Brittany, France	Natural Materials Valorisation	Natural Materials products	Natural Marine ressources & Eco products		Blue	9	Usine de Kervellerin develops a range of products from natural marine resources (seaweed) eco-products (oysters, scallops, crepidules, ...)	Industries, Human Health, Nutrition and Well Being	Designing a range of products from natural materials	Eco-products, Natural Marine Ressources	https://www.usinedekervellerin.fr/
71	Vita Recherche	Ile de France, France	Collagene	Health products based on collagene	Marine Collagene		Blue & Green	9	This know-how allows to extract, from natural ingredients (plants, algae), molecules with unequalled functionalities, with moisturizing, anti-oxidizing, remodeling or structuring properties.	Human Health	Creation of products for human health based on natural collagen	Collagene, Natural ressources, Health	https://www.vitarecherche.com/fr/
72	Yslab	Brittany, France	developing and manufacturing Medical Devices, Food Supplements and Cosmetics based on marine actives with significant potential health benefits				Blue	9		Human health			https://yslab.fr/en-yslab-designer-and-manufacturer-of-natural-healthcare-solutions-2/
73	ZENI	Pays de la Loire, France	Industrial waste water treatment solution with microalgae	Microalgae for water treatment	Microalgae	Production & processing	Blue	9					https://za-ni.com/en/

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1	3Z	Iceland	Biotechnology						Participates in drug repurposing (using existing drugs for new medical needs) --> usese zebrafish screening technology to screen for effective drugs				https://3z.is
2	4Fish	Iceland	Fish Tech						Developed the machine Tailcutter for fish processing efficiency				http://4fish.is
3	Akraborg	Iceland	Fishery						Prodcution of canned cod liver				https://akraborg.is
4	Akthelia ehf	Capital, Iceland	Biotech	Biotech Pharma	marine ingredients	Retail	Blue		Research and development of pharmaceutical actives (including actives derived from fish skin) to stimulate the body's innate immune system to fight infectious diseases				https://akthelia.is
5	Algalif ehf.	Iceland	Algae						Supplier of natural astaxanthin prodcuts from microalgae				https://algalif.is
6	Alor	Iceland	Other						Development of environmentally sustainable aluminum batteries				https://www.alor.is
7	ALVAR Mist	Iceland	Other						previously operating as D-Tech, ALVAR makes disinfection systems for the food industry				https://alvar.is
8	Angan Skincare	Iceland	Algae						Produces creams & serums using arctic botanicals				https://anganskincare.com
9	Ankeri	Iceland	Other/Software						Cloud-based platform for shipping companies to track and manage fleet performance and sustainability				
10	Aquaponics ehf	Iceland	Fish farm										http://aquaponics.is
11	Arctic Fish	Iceland	Fish farm						Includes fish farms, hatcheries, and smolt				https://www.arcticfish.is/
12	Arnarlax	Iceland	Fish farm						Sea-based salmon fish farming				https://arnarlax.is/
13	Athygli ehf.	Capital, Iceland	Knowledge	PR	PR	Service	Blue	NA	PR & communications agency that provides portfolio management to corporations, NGO's, and government. Provides media relations, social media communication, and strategic communication.				Athygli samskipti
14	Atlantik Legal Services	Capital, Iceland	Legal	Legal	Legal		Blue	NA	Legal firm specializing in finance, with services offered in debt & tax restructuring, corporate law, mergers and acquisitions, and commerical litigation.				http://als.is
15	Atmonia	Iceland	Other						Utilizes a patented electrochemical process to produce ammonia for fuel and fertilizer use				https://atmonia.com
16	Aurora Seafood	Capital, Iceland	Fishing and byproduct utilisation	Fisheries	Sea cucumber		Blue	9	Catches and produces Icelandic sea cucumber, with a focus on maximim utilzation of by-products.				https://www.topbalat.com/aurora-seafood
17	Aurora Sporting Property/Kolskeggur	Capital, Iceland	NA	Liscencing	Recreational fishing		Blue	NA	Company handling recreational wild fishing liscences				
18	Benchmark	Iceland	Fish farm						Aquaculture genetics company, has breeding programmes for salmon, shrimp, and tilapia				https://www.bmkgenetics.com
19	Betri samgöngur ohf	Capital, Iceland	Infastructure	"	Transport		Blue	9	Publicly incorporated company that invests in transport infrastructure in the capital area.				https://betrisamgongur.is
20	Bifrost Foods	Iceland	Other/Food						Production of dried fish and chips snacks				https://bifrostfoods.com
21	BioEffect (formerly SIF Cosmetics)	Iceland	Biotechnology						Production of face & skin serums				https://www.bioeffect.com
22	BioPol	Iceland	Biotechnology						Ocean researchers and ocean mapping, reseraching possibilites of increased value of sea by-products				https://biopol.is
23	Bláa Lónið Heilsuvörur ehf.	Iceland	Algae										
24	Blámar	Iceland							Export fish products in consumer packaging				
25	Blue Ocean Tech	Iceland	Fish Tech						Develops sludge and water treatment systems for aquaculture				https://blueoceantechnology.no/en
26	Borgarplast	Iceland	Fish Tech						Prodcution of plastic containers				https://borgarplast.is/en/
27	CARGOW (Syavarsyn)	Capital, Iceland	Container shipping	Logistics	Tranport		Blue	9	Logistics company providing shipping & transportation services between the European continent, UK, Norway, Faroe Islands, and Iceland.				https://cargow.com
28	ChemoBacter	Iceland	Fish Tech						Provision of tools for quality control measures in the food industry				
29	ChitoCare	Capital, Iceland	Biotech and byproduct valorisation	Biotech pharma and Cosmetics	Shrimp shell		Blue	9 (but other R&D products too)	Skincare company owned by Primex that makes cosmetics and supplements with marine chitosan.				https://www.chitocare.is
30	Cool Wool ehf	Iceland	Fish Tech						Production of wool (instead of plastic) tubs for cooling and chilling				https://cool-wool.com/en/frontpage/
31	Curio/marel	Iceland							part of Marel, Curio develops seafood processing machines for heading, filleting, skinning, and sharpening				https://curio.is
32	Deed Delivery	Capital, Iceland	Legal & Logistics	Logistics	Logistics		Blue	6	Logisitcs and legal services				
33	DIS/DEO Pharma ehf	Iceland	Biotechnology						Manufactures supplements and pharmaceuticals				
34	DrBragi	Iceland	Biotechnology						Cosmetics produced with the same active marine enzyme used by ZymeTech in Penzim				https://www.drbragi.com/
35	Ekran ehf	Iceland	Retail	Wholesale	Mixed		Mixed		Wholesaler of kitchen/restaurant supplies and food				https://ekran.is
36	Eldey Aqua	Iceland	Algae						Cultivation of Icelandic seaweed and development of seasweed based products				http://www.kelp.is
37	Eylif	Capital, Iceland	Biotech	Food supplements	marine and terrestrial ingredients		Blue	9	Produces various health supplements with Icelandic ingredients such as collagen and seaweed.				https://www.eylif.is
38	FeelIceland (Ankra)	Iceland	Biotechnology						Uses pure marine collagen for a variety of health and beauty products, as well as collab soda				https://feeliceland.com
39	Feldur	Iceland							Leather production, including with fish skin				https://www.feldur.is/?lang=is
40	Fine Foods Islandica	Iceland	Other/Food						Ocean-based spices and blends				https://finefoods.is
41	Fisheries Technologies	Iceland	Fish Tech/Software						Created operations platform FishTech for fisheries management, including information like monitoring success, fisheries IT, and data management				https://fishtech.is
42	Fisherman	Iceland	Other/Food						Consumer based online fish store				https://www.fisherman.is
43	Genis	Iceland	Biotechnology						Research and development of pharmaceuticals from chitin				https://genis.is
44	Geo Silica	Iceland	Biotechnology						Calcium based supplements				https://geosilica.is/en
45	GeoSalmo	Iceland	Technology Solutions	Fish farming			Blue		Development of sustainable land-based salmon farms				https://geosalmo.com
46	Greenbytes	Iceland	Other/Software						Order management software for the restaurant industry				https://greenbytes.is
47	GreenFuel	Iceland							Facilities producing green hydrogen and ammonia to replace fossil fuel consumption				
48	Grimur kokkur	Iceland	Other/Food						Producer of packaged foods, including seafood options				https://grimurkokkur.is
49	Gullsteinn	Iceland	Biotechnology						Production of kelp products				https://www.facebook.com/profile.php?id=100067782848401
50	HAF vitamin	Iceland	Algae						Production of omega-3 acids directly from algae and not from the fish				
51	Hafkalk	Iceland	Algae						Algae-based supplements				https://www.hafkalk.is/forsida
52	Haustak	Iceland	Fish Tech						Drying of whole fish heads for soups and stews				https://haustak.is
53	Hyndla ehf	Iceland	Algae						Producer of red algae on land using seawater				https://hyndla.is
54	Ice Fish Farm	Iceland	Fish Farm						Sea-based fish farm in Eastern fjords				https://www.icefishfarm.is/
55	Ice Herbs (owned by Náttúrusmiðjan ehf)	Iceland	Biotechnology										https://iceherbs.is/en/home/
56	Iceland Fish Online	Capital, Iceland	Sales & Logistics	Sales	Whitefish		Blue	NA	Fish wholesale (B2B) company for restaurants and catering services				http://icelandfishonline.com/default.aspx
57	Iceland Responsible Fisheries	Capital, Iceland	Certification	Sustainability certification	Fisheries		Blue	NA	Owned and operated by the Iceland Responsible Fisheries Foundation, they manage the IRF certification programme				https://www.responsiblefisheries.is
58	IceMedico/Hap+	Iceland	Biotechnology										https://www.icemedico.com
59	Iceprotein	Iceland	Other/Food						Extract protein from fish to supply to health industry				
60	Idunn H2	Iceland							Development of Icelands green hydrogen value chain				https://idunnh2.com
61	Íslensk bláskel og sjávargróður ehf	Iceland	Algae						Grows Icelandic blue mussels and sugar kelp				
62	Islensk Hollusta	Iceland	Algae						Prodcution of seaweed, kelp, and algae food products				https://islenskhollusta.is
63	Íslenska Kalkþörungafélagið	Capital, Iceland	marine chalk sourcing	Kalk	Marine algae		Blue	9	Materials, Food & Supplements				
64	iTUB	Capital, Iceland	Fisheries Equipment	Fisheries	Fisheries		Blue	9	Rent insulated plastic tubs made by Saeplast to the fishing industry				https://itub-rental.com

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67	Kælismidjan Frost ehf.	Iceland	Technology Solutions				Blue		Cooling, humidifying, drying & freezing tech for vessels and on-shore operations				https://www.frost.is
68	Kerecis	Iceland	Biotechnology	Medical	Medical		Mixed		Develops and produces wound dressing Omega3 SurgiBind made from cod skin				https://www.kerecis.com
69	Lipid Pharmaceuticals	Iceland	Biotechnology						Focuses on pharmaceutical products from natural marine oils, such as Omega-3				
70	Loki Foods	Iceland	Biotechnology/Food						Production of plant based meat substitutes				
71	Lúxdís ehf	Iceland	Cosmetics						Produces scrubs and masks out of coffee, clay, and seaweed (through SkinBoss product line)				https://skinboss.is
72	Lysi	Iceland	Biotechnology	Retail			Mixed		Develops various supplements from cod liver oil				https://lysi.com
73	Marea	Capital, Iceland	Biotech	seaweed bioplastic	Seaweed		Blue	7 to 8	Research and creation of biodegradable algae bioplastics for sustainable product packaging.				https://marea.is
74	Marel	Capital, Iceland	Processing equipment	Processing equipment	Fisheries and poultry		Blue	9	Marel developed the first electronic scales for fish processing and contributes globally to the development and production of equipment, systems, software, and services for food processing of fish, meat, and poultry.				https://marel.com
75	Margildi	Iceland	Biotechnology						Produer of fish oil from herring				https://www.margildi.is
76	Marinox	Iceland	Algae						Produces line UNA Skincare from bioactives extracted from marine algae				http://marinox.is
77	Maritech	Capital, Iceland	Fisheries Equipment	Processing equipment	Fisheries & aquaculture		Blue	9	Designs and sells software to improve logistics and management in the fishing industry				https://maritech.com
78	Marsyn ehf.	Iceland	Fish Tech/Software						Monitor weather and sea conditions for marine vessels & fisheries				
79	Matorka	Iceland	Fish Farm						Land-based aquaculture farm raising Arctic Char and Steelhead				https://matorka.is
80	Mekatronik	Iceland											https://mekatronik.is
81	MPF ísland ehf	Iceland	Biotechnology						Producers of fish protein				
82	Multitask	Iceland											https://multitask.is
83	MýSköpun	Iceland	Algae						Innovation & research hub with a focus on biotechnology, including breeding and research on algae, bacteria, and microorganism - first company growing spirulina in Iceland				https://myskopun.wixsite.com/myskopun
84	Nanna Lin	Iceland	Biotechnology						Upcoming producer of marine collagen in the North				
85	Niceland	Iceland	Fish Tech						Selling fish, has technology to track your fish				https://niceland.com
86	Nordic Fish Leather	Iceland	Fish Tech						Prodcution of leather from cod, slamon, and wolffish skin				https://nordicfishleather.com
87	Nordur (North Marine Ingredients)	Capital, Iceland	Biotech	Marine ingredients supplier and bioprocessing	Marine ingredients		Blue	9	Biotechnology company using cold adaptive enzymes derived from cod to produce food products, including protein and fish bone powders.				http://north.is
88	Nordurbragd/NorthTaste	Iceland	Other/Food						under NorthTaste, produces fish stock for food consumption				
89	Nordurco (Nordur Salt)	Iceland	Other/Food						Producer of Nordur Salt (food grade)				https://nordurco.com
90	Ocean Excellence	Capital, Iceland	Consultancy	Consultancy	seafood byproduct utilisation		Blue	NA	Consultancy in fisheries byproduct utilisation.				
91	Omega Algae Iceland	Iceland	Algae						Goal to become a sustainable supplier of ingredients extracted from algae				https://www.omegaalgae.is
92	Optimal á Islandi	Iceland	Biotechnology						Food grade additives for the seafood industry				https://optimal.is
93	Optitog	Capital, Iceland	Fisheries Equipment	Low impact fisheries trawl	Fisheries		Blue	8	Utilizing light pulsing technology on fishing nets above the ocean floor to ensure a more sustainable method of fishing shrimp without damaging the marine environment				https://www.optitog.com
94	Pólar Toghlerar/Polar Fishing Gear	Iceland	Fish Tech						Production of trawl doors and ropes with plastics				https://polardoors.com
95	Primex	Capital, Iceland	Biotech and byproduct valorisation	bulk production of chitosan from prawn shells	Shrimp shell		Blue	9	A marine biotechnology company producing sustainable chitosan from North Atlantic coldwater shrimp.				https://www.primex.is
96	Responsible Foods	Capital, Iceland	Food production	Dried protein snacks	diary and fisheries		Blue	7 and 9	Producer of Naera dairy & fish snacks.				http://www.responsiblefoods.is
97	Retina Risk	Capital, Iceland	Medical software	Risk assement app for glocoma	Health		Blue	6	Healthcare technology to assess and care for diabetic eye disease which is a leading cause of blindness.				https://www.retinarisk.com
98	Reykhólar Seabaths/Sjávarsmiðjan (products known as Algae Náttúra)	Iceland	Algae						Seaweed based bath soak				https://www.sjavarsmidjan.is/algae-nattura
99	Rotovia	Capital, Iceland	Plastics	Plastics	Mixed		Blue	9	Plastics tech and materials.				https://rotovia.com
100	Sæbýli	Iceland	Fish Tech						Developed vertical farming technology to raise Japanese abalone				https://auroraabalone.com/
101	Sæplast	Capital, Iceland	Fisheries Equipment	fisheries equipment	fisheries		Blue	9	Designs and produces insulated plastic tubs for fisheries to ensure proper handling and safety of fish.				https://www.saeplast.com
102	Sætækni	Capital, Iceland	Technology type	Fisheries	fisheries		Blue	9	Fisheries Tech				
103	SAGA Natura (also known as Keynatura)	Iceland	Algae						Development of supplements (produces Voxis throat lozenges as KeyNatura)				https://saganatura.is
104	Saltverk	Iceland	Other/Food						Producer of high quality food grade salt				https://saltverk.com
105	Samey Robotics	Iceland							Uses automation to increase productivity of manufacturing				https://samey.is
106	Samhentir Kassagerd ehf	Capital, Iceland		Manufacturer	Packaging	Manufacturer	Mixed		Production of cardboard packaging and various types of food storage boxes				http://www.samhentir.is
107	Samherji fiskeldi	Iceland	Fish Farm						Land-based fish farms raising Arctic Char and Salmon				https://www.samherji.is/is/fiskeldi
108	Sjávariðjan Rifi	Iceland							Fish processing??				
109	Skaginn 3x ehf.	Iceland	Technology Solutions				Mixed		Industrial chilling and food processing technology				https://www.skaginn3x.com
110	Skyr Biotics	Iceland	Other/Food										https://skyrbiotics.is
111	Slippurinn Akureyri	Iceland	Technology Solutions						Ship repair and shipbuilding for Icelandic and foreign fisheries				https://slipp.is
112	Sólsker	Iceland	Other/Food						operated by Matis ohf food research, Sólsker produces Mackerel products				https://solsker.is/um-okkur/?lang=en
113	Stakkar	Capital, Iceland	Software	Sports software	Sports		Blue	8	Fantasy footoball software platform				
114	Star:Oddi	Iceland	Fish Tech						Develops sensors and data loggers to monitor underwater and wildlife environments				https://www.star-oddi.com
115	Stolt seafarm	Iceland	Fish Farm						Land-based fish farm producing sole and turbot				https://www.stoltseafarm.com
116	Strandvari	Iceland	Technology Solutions										
117	Tandrabretti ehf	Iceland	Fish Tech						Prodcues wooden pallets through a mechanized construction process in various sizes				https://tandrabretti.is
118	Taramar	Capital, Iceland	Biotech	cosmetics	seaweed and microalgae		Blue	9	Produces skincare based on marine compounds from seaweed, kelp, and wild herbs.				https://www.taramar.com
119	Þórishólmi	Iceland	Fishery & Production						fishing vessels and boat builders?				
120	Þórverk (known as Thorverk hf.)/Þörungaverksmiðjan hf	Iceland	Algae						Harvests and dries wild seaweed				https://www.thorverk.is
121	Tracio	Iceland	Aqua tech	They offer development of a leading IoT sensor application and related software for the food industry.	Tech solution		Blue	5	They deliver models and systems that support human decision makers to figure out what information is important, how it can impact their operations, and to make effective operational and planning decisions.	Their goal has always been to design affordable and disposable electronic chip technology.			https://en.tracio.is/
122	TrackWell	Iceland	Fish Tech/Software						Fisheries software for tracking and surveillance for marine vessels (also develops workplace management & logistics)				https://www.trackwell.com
123	Trefjar ehf	Iceland	Technology Solutions				Mixed		Production of fibreglass products, mainly boats and marine vessels but also hottubs and bathtubs				https://trefjar.is
124	Triton	Capital, Iceland	Food	seafood export	seafood		Blue	NA	Exporter of frozen fish and fish products, including cod liver and roe.				https://triton.is
125	True Westfjords	Iceland	Biotechnology						Producer of Dropi cod liver oil				https://dropi.com
126	Unbroken	Iceland	Biotechnology										
127	Urban Arkitektar	Capital, Iceland	Architecture	Architecture	Fisheries Mixed		Blue	NA	Commercial and residential building.				
128	URTA	Iceland	Other/Food						Online store selling salt and perservatives				https://webshop.urta.is
129	Útgerðarfélag Reykjavíkur hf.	Capital, Iceland	Technology Solutions	Storage equipment	Fisheries		Blue		Development of fish freezing technology on fishing vessels				https://www.urseafood.is
130	Vaki	Iceland	Fish Tech						Automatic fish counting technology				https://vakiiceland.is
131	Valka/marel	Iceland							Development of equipment and automation solutions for fish processing, includng development of sea cages				https://valka.is
132	VAXA Technologies Iceland ehf	Iceland	Algae						Algae cultivation with green energy for sustainable food production				
133	Visk	Iceland											
134	VSV (parent company of Marhólmar)	Iceland	Fish Tech						Manufacture roe, fish, and fish meal				https://www.vsv.is/partnerships/marholmar/
135	Wise	Iceland	Fish Tech/Software						Business software solutions, including WiseFish for fisheries to track costs of seafood products				https://wise.is/en/
136	Zeto	Iceland	Algae						Uses algae to produce face masks and haircare				https://zeto.is
137	ZymeTech	Iceland	Biotechnology						Producers of Penzim and ColdZyme				

#	NAME	Location *(Region, Country)*	Technology type	Service / Product	Value chain (Resource)	Value chain (Phase)	Sector (Blue or other)	TRL	Technology description (max 800 characters spaces included)	Target market (max 50 characters spaces included)	Keywords (1-3)	Website
1	Akvaservis, UAB	Klaipeda, Lithuania	Manufacture of cordage, rope, twine and netting	Trawls and fishing gear	n/a	n/a	blue	N/A	Excellent engineered trawls and fishing gear using only the best quality materials at competitive prices	N/D	Trawls and fishing gear	http://www.akvaservis-trawl.com
2	Akvatechna, UAB	Vilnius, Lithuania	Wholesale of RAS machinery and equipment, fish feed	RAS equipment, fish feed	N/A	cultivation	Blue	N/A	Equipment for fish incubation and cultivation, fish feed	N/D	RAS equipment, fish feed	http://www.akvatechna.lt
3	Alltech Technologijos, UAB (the Alltech company's branch in Lithuania)	Kaunas, Lithuania	Alltech Coppens is developing, producing, and marketing fish feed	high-quality fish feed	n/d	Fish feed suplay	blue	N/D	N/D	N/D	fish feed	https://www.alltech.com/lt-lt/akvakulturos-
4	Aquae messis, UAB	Jonava region, Lithuania	Freshwater aquculture	Fish products	Fish	Cultivation	blue	N/A	N/D	N/D	Fish products	https://rekvizitai.vz.lt/imone/aquae_messis/
5	AquaQLT	Klaipeda, Lithuania	Recirculating aquaculture systems	RAS for shrimps	Shrimps	shrimp cultivation	blue	4	Innovative technology of cost-effective shrimp RAS tank	RAS aquaculture business. AquaQLT specializes in sustainable recirculating aquaculture systems (RAS), which offer high quality shrimp grown in sustainable methods, without leaving any negative trace in the environment. We are currently in the development process of an innovative shrimp RAS tank, which has the potential to be the leader in cost-effectiveness and save up to 40% of initial investment needed for our clients.	RAS, shrimps	http://www.aquaqlt.com
6	ATLANTIC HIGH SEA FISHING COMPANY, UAB	Vilnius, Lithuania	Marine fishing	Fishing, fish products	fish	fishing, freezing, export	blue	N/A	Industrial fishing. Fish freezing, export	N/D	Fishing, fish products	https://rekvizitai.vz.lt/imone/atlantic_high_sea_fishing/
7	Baltijos delikatesai, UAB	Palanga, Lithuania	Processing and preserving of fish	Canned fish products	Fish	Processing, preserving, sale	Blue	N/A	Production and sale of canned fish	N/D	Canned fish products	http://www.delikates.lt
8	Baltijos jūra, UAB	Klaipeda, Lithuania	Marine fishing	Fresh fish	Fish	Fish supply	Blue	N/A	N/D	N/D	Fresh fish	https://rekvizitai.vz.lt/imone/baltijos_jura/
9	Baltijos Konservai, UAB	Klaipeda region, Lithuania	Processing and preserving of fish, crustaceans and molluscs	Fishing, fish products	Fish	Processing	blue	N/A	N/D	N/D	Fishing, fish products	https://rekvizitai.vz.lt/imone/baltijos_konservai/
10	Baltijos šprotai, UAB	Klaipeda, Lithuania	Marine fishing	Fishing, fish products	Fish	Fishing (fish supplay)	blue	N/A	Commercial fishing in oceans, coastal waters. Harvesting of marine crustaceans, molluscs, whales, turtles, ascidians, sea urchins, crustaceans. Harvesting of natural pearls, braids, corals and seaweed	N/D	Fishing, fish products	https://rekvizitai.vz.lt/imone/baltijos_sprotai/juridinis-asmuo/
11	Baltlanta, UAB	Klaipeda, Lithuania	Marine fishing	Frozen fish	Fish	Processing, freezing	Blue	N/A	The main product of Baltlanta is frozen fish. Company's vessels, flying the flag of Lithuania, fish in the economic zones of Mauritania and Morocco. Fish processing and freezing takes place on board of the vessels.	N/D	Frozen fish	http://www.baltlanta.lt
12	Banginis, UAB	Klaipeda, Lithuania	Marine fishing	Fishing, fish products	Fish	Supply	blue	N/A	N/D	N/D	Fishing, fish products	https://rekvizitai.vz.lt/imone/banginis/
13	Bartžuvė, UAB	Elektrenai, Lithuania	Ponds aquculture	Fresh fish	Fish	Cultivation	blue	N/A	Experienced specialists work here and there is all the necessary production base - fish hatchery (incubator), fry rearing, grazing and wintering ponds, live fish warehouses. The total area of the ponds covers an area of approximately 390 ha. Fish are grown in the ponds - carp, pike, crucian carp, white carp, spotted broadhead, tench, rainbow trout, sturgeon, catfish, starlings	N/D	Fresh fish	http://www.bartzuve.lt
14	Birvėtos tvenkiniai, UAB	Ignalina region, Lithuania	Ponds aquculture	Fresh fish, fish products	Fish	Fish farming	Blue	N/A	The main activity of the company is pond aquaculture. The company carries out conventional fishing activities and organic fishing activities, where special conditions are observed, which are characteristic only for organic production.	N/D	Fresh fish, fish products	http://www.birvetostvenkiniai.lt
15	Dauparų žuvis, UAB	Silute, Lithuania	Processing and preserving of fish, crustaceans and molluscs	Salted, hot-smoked, and cold-smoked fish products	fish	Processing, preserving, packaging, sales	blue	N/A	Salted, hot-smoked, and cold-smoked fish products were the first products in "Dauparų žuvis" company. These products were sold in marketplaces and in small stores. Currently, the production line consists of approximately 120 products. This production line supplies the largest Lithuanian shopping centers, and products are exported to foreign countries. Product assortment consists of culinary fish product, jerked products, and products packed in vacuum sealed packages and cruets.	N/D	Salted, hot-smoked, and cold-smoked fish products	https://dauparuzuvis.lt/lt/
16	Dige, UAB	Mazeikiai region, Lithuania	Processing of fish	Salted, smoked fish products without preservatives	Fish	Procesing, retale	blue	N/A	Fish processing. Salted, somked, fresh and frozen fish	N/D	Salted, smoked fish products without preservatives	http://www.dige.lt
17	Dvaro žuvys, UAB	Sakiai region, Lithuania	Processing and preserving of fish, crustaceans and molluscs	Fish products for food (smoked, salted, frozen)	Fish	Processing, preserving, sale	blue	N/A	Fish processing, wholesale and retail sale of smoked, salted, frozen fish products.	N/D	Fish products for food (smoked, salted, frozen)	https://rekvizitai.vz.lt/imone/smulkios_zuvys/
18	Edega, UAB	Jonava region, Lithuania	Processing and preserving of fish	Fish products	Fish	Processing, preserving	Blue	N/A	The company's range consists of more than 60 named products. About 1,000 tons of fish are processed per year. UAB "Edega" specializes in the production of culinary products from herring and herring fillets, as well as special-tasting products from Baltic sprats and stripers. These products are exceptional both in terms of their aesthetic appearance and taste. After all, the fish caught in the Baltic Sea enters the production unfrozen, fresh, at the same time all the nutrients characteristic of fresh fish and necessary for the human body are preserved.	N/D	Fish products	http://www.edega.com
19	Fishlita, UAB	Klaipeda region, Lithuania	Processing and preserving of fish	Fish products for food	Fish	Processing, preserving	Blue	N/A	fish products	N/D	catfish, smoked,	https://fishlita.lt/
20	FishNet, UAB	Trakai region, Lithuania	RAS aquculture of rainbow trout	Fish products	Fish	Supply, processing	blue	N/A	We grow trouts for 7 years already and recently opened brand new modern re-circulation farm with capacity 240 tons per year.	N/D	Fish products	http://www.fishnet.lt
21	Fjord Sales, UAB	Klaipeda, Lithuania	Wholesale of other food, including salmon fish	Salmon fish and other products	fish	Sales	blue	N/A	Sales of high quality Atlantic salmon products and other products. Business started in cooperation with Norweginan company "Hofseth"	N/D	Salmon fish, fish products	https://www.fjordsales.lt/
22	G. Kanaševičiaus PĮ "DESĖ"	Kaisiadoriai region, Lithuania	Processing and preserving of fish	Fish products for food	Fish	Processing, preserving	Blue	N/A	The company's activity is fish processing. Fish is salted, marinated, baked, and culinary products are prepared in the company's production premises. Frozen herring fillets and herring are mostly processed, they are imported from Norway and Iceland.	N/D	Fish products for food	http://www.dese.lt
23	Giedrupė, UAB	Utena region, Lithuania	Freshwater aquculture	Freshwater fish filets, smoked fish products	Fish	Processing, preserving, retail	blue	N/A	Fish cultivation ad processing. Fresh fish fillets and hot smoked fish are the most successful products. Wide selection: sturgeon, trout, catfish, carp, eel and many others. Quality and food safety are the main priorities of the company, so only fresh fish is used in production, and smoking takes place in a traditional highland smokehouse, where only real black alder wood is burned. The company's products are sold online, in the prestigious markets of Vilnius and Kaunas.	N/D	Freshwater fish filets, smoked fish products	http://www.giedrupe.lt
24	Gonas, UAB	Taurage, Lithuania	Processing and preserving of fish, crustaceans and molluscs	Food products from salmon, white fish, shrimps, tuna; Fresh salmon processing; Clever extra freezing; Private label; Faste delivery to Europe	fish, crustations, mussels	Processing, preserving, packaging, delivering	blue	N/A	N/D	N/D	Food products from salmon, white fish, shrimps, tuna; Fresh salmon processing; Clever extra freezing; Private label; Faste delivery to Europe	https://nordian.group/fresh-fish/
25	ICECO žuvis, UAB	Marijampolė, Lithuania	Processing and preserving of fish, crustaceans and molluscs	Food products from salmon	Fish (salmon)	Processing, preserving, packaging	blue	N/A	ICECO fish produces and sells under its own brands ZIGMAS and JUNGA that are well known in the markets of the Baltic States; it also provides a production service to the largest Lithuanian, Latvian and Western European supermarket chains, i. e. uses formulations preferred by them and produces items with their private labels.	N/D	Food products from salmon	http://www.icecofish.com
26	Inobiostar	Klaipėda,Lithuania	Biotechnology for oil spill treatment	natural oil sorbent	Microorganisms	N/D	blue	6	InoBioTEchBaltija technology: natural sorbent from natural support materials like straw and saw dust in combination with oil-eating microorganisms extracted from the Baltic Sea for oil spills clean-up. No risk of secondary pollution because microorganisms naturally exist in the Baltic Sea environment. Tested in field conditions. InnoAerogel technology: a waste paper based material highly efficient, biodegradable and reusable. It absorbs only fuel, but not water. It locks it inside and does not allow to make spill age again.	Shipping companies, ship repair companies, industry, car repair. oil spills clean-up	microorganisms, oil spills, sorbent	http://www.inobiostar.com/index.php
27	Išlaužo žuvis, AB	Prienai region, Lithuania	Freshwater aquculture	Fresh fish, fish products	Fish	Processing, preserving, sale	Blue	N/A	Even a dozen species of fish grow in polyculture in the ponds. We grow and prepare fish in our farm - from spawn to your table.	N/D	Fresh fish, fish products	http://www.islauzozuvis.lt
28	Jolada, UAB	Klaipeda, Lithuania	Processing and preserving of fish, crustaceans and molluscs	Fishing, fish products	Fish	Processing	blue	N/A	N/D	N/D	Fishing, fish products	https://rekvizitai.vz.lt/imone/jolada/juridinis-asmuo/
29	Juodasis Gandras, UAB	Salcininkai region, Lithuania	Freshwater ponds aquculture	Fresh water fish	Fish	Cultivation, sales	blue	N/A	N/D	N/D	Fresh water fish	https://rekvizitai.vz.lt/imone/juodasis_gandras/juridinis-asmuo/
30	Karališka žuvis, UAB	Vilnius, Lithuania	Processing and preserving of fish, crustaceans and molluscs	Smoked fish products	Fish	Processing, preserving	blue	N/A	N/D	N/D	Smoked fish products	http://www.geroszuvies.lt
31	Kintai, UAB	Silute region, Lithuania	Freshwater aquculture	Fresh fish, fish products	Fish	Cultivation, processing, fresh fish trade	Blue	N/A	The main activity is fishing. The company cultivates various fish (carp, sturgeon, broadhead, grass carp, trout) on an area of almost 600 hectares located in the Nemunas Delta Regional Park. The company distributes its products in Lithuania and abroad in cooperation with the largest retail chains in the region. Also since 2015 UAB "Kintai" is engaged in fish processing and fresh fish trade. A modern fish processing workshop was built on the company's territory.	N/D	Fresh fish, fish products	http://www.kintai.lt
32	Lietuvos ir Norvegijos UAB "NOKVĖJA"	Klaipeda, Lithuania	Processing and preserving of fish	Fish, fish products	Fish	Procesing	blue	N/A	N/D	N/D	Fish, fish products	https://rekvizitai.vz.lt/imone/nokveja_lietuvos_ir_norvegijos_uab/
33	Local Ocean	Lithuanian	shrimp farming solution to create a fully sustainable, low-cost and high-yield shrimp production solution with a small footprint.	schrimps	schrimp	farming	blue economy				Schrimp farming	https://www.localocean.eu
34	Marlinas, UAB	Klaipeda, Lithuania	Marine fishing	Fishing, fish products	fish	fishing	blue	N/A	N/D	N/D	Fishing, fish products	https://rekvizitai.vz.lt/imone/marlinas/
35	MB "Tomo žuvies rūkykla"	Kaunas, Lithuania	Processing and preserving of fish, crustaceans and molluscs	Smoked fish	Fish	Fish processing	blue	N/A	N/D	N/D	Smoked fish	https://rekvizitai.vz.lt/imone/tomo_zuvies_rukykla/
36	Medžiagotyra, VšĮ	Vilnius, Lithuania	seaweed processing	Sustainable algae-based packaging	Algae	Processing	blue	N/D	Algae-based packaging aim to at least to reduce environmental pollution with solid waste - the material is completely organic and compostable, because it is made of only natural ingredients	N/D	Sustainable algae-based packaging	https://www.seaweedfoam.com/blank-1
37	Metelių Žuvys, UAB	Lazdijai region, Lithuania	Processing and preserving of fish	Fish products	Fish	Processing, preserving	blue	N/A	N/D	N/D	Fish products	https://rekvizitai.vz.lt/imone/meteliu_zuvys/
38	Molėtų žuvies rūkykla, MB	Moletai region, Lithuania	Processing and preserving of fish	Smoked fish products	Fish	Processing, preserving	blue	N/A	N/D	N/D	Smoked fish products	https://rekvizitai.vz.lt/imone/moletu_zuvies_rukykla/
39	NS Trading. UAB	Raseiniai, Lithuania	Processing and preserving of fish, crustaceans and molluscs	Fishing, fish products	fish	Processing	blue	N/A	N/D	N/D	Fishing, fish products	http://www.nstrading.lt
40	Ostsee Fisch Kretinga, UAB	Kretinga, Lithuania	Processing and preserving of fish	Fish products for food	fish	Processing, preserving, packaging	blue	N/A	Modern production and logistics center in Rostock and a plant in Kretinga / Lithuania . In both production facilities, the latest processing and packaging technologies are combined	N/D	Fish products for food	https://www.ostseefisch.de/Das_Unternehmen/
41	Piscator, MB	Kaunas, Lithuania	Fish processing, fish products	Food products of catfish, perch, mackerel, eel	Fish	Cultivation, processing	blue	N/A	N/D	N/D	Food products of catfish, perch, mackerel, eel	http://www.samukis.lt
42	Plungės šaltis, UAB	Plunge, Lithuania	Processing and preserving of fish	Fish products for food	fish	storing, processing, preserving, sales	blue	N/A	All white fish processing and sales services	N/D	Fish products for food	http://www.psaltis.lt
43	Raseinių žuvininkystė, UAB	Raseiniai region, Lithuania	Ponds aquculture	Fresh fish, fish products	Fish	Cultivation, processing, fresh fish wholesale	Blue	N/A	Fish farming, fish breeding. Wholesale of live fish (carp, pike, grass carp, crucian carp). Carps, pikes, walleyes, carp for stocking ponds - wholesale	N/D	Fresh fish, fish products	http://www.raseiniuzuvis.lt
44	Šalčininkų žuvininkystės ūkis, UAB	Salcininkai region, Lithuania	Ponds aquculture	Fresh fish, fish products	Fish	Cultivation, fresh fish wholesale	Blue	N/A	Fish (carp) cultivation, sale, wholesale.	N/D	Fresh fish, fish products	http://www.szu.lt
45	Saldoga, UAB	Kaunas, Lithuania	Processing and preserving of fish	Fish products without preservatives	fish	Processing	blue	N/A	Private company of fish processing and preserving	N/D	Fish products without preservatives	http://www.saldoga.lt
46	Šilo Pavėžupis, UAB	Kelme region, Lithuania	Ponds aquculture	Fishing, fish products	Fish	Supply, commercial fishing	blue	N/A	85 ponds with a total area of 600 hectares of water surface. The capacity of our farm reaches 500 tons of marketable fish per year. We grow the following fish: carp, white grass carp, mottled broadhead, sturgeon, catfish, pike, crucian carp, perch, tench. Maitenance of ponds and coastal area	N/D	Fishing, fish products	https://www.silopavezupis.lt/
47	Sirputis, UAB	Siauliai, Lithuania		Equipment	Algae	cultivation, harvesting, processing	Blue	N/A	Solutions for sustainable seaweed cultivation, harvesting, and processing	N/D	seaweed, equipment, cultivation, harvesting, processing	https://sirputis.com/
48	SLP Žuvis, UAB	Silute region, Lithuania	Freshwater aquculture	Fish products	Fish	Cultivation	blue	N/A	N/D	N/D	Fish products	https://rekvizitai.vz.lt/imone/slp_zuvis/
49	Smiltalė, UAB	Silute region, Lithuania	Fishing in Curonian Lagoon	Fishing, traditional smoked fish products	Fish	Fishing, processing, preserving	blue	N/A	Fishing in the Curonian Lagoon and traditional smoking of fish	N/D	Fishing, traditional smoked fish products	https://rekvizitai.vz.lt/imone/uab_smiltale/
50	Spila, UAB	Vilnius region, Lithuania	Functional food	Algae for food	Algae	Processing, preserving, sale			Development of health products. Creation of healthy functional food, especially from microalgae, spirulina and chlorella,which is minimally processed (drying, grinding, mixing) leaving the naturalness and all the benefits created by nature.		microalgae, spirulina, chlorella, functional food	SPILA - kokybiški funkcinio maisto produktai
51	Starkis, UAB	Klaipeda, Lithuania	Marine fishing	Fresh fish	Fish	Fish supply, sale	Blue	N/A	Fish farming, fishing, sale of fresh fish caught in the Baltic Sea.	N/D	Fresh fish	https://rekvizitai.vz.lt/imone/starkis/
52	Stekutis, UAB	Klaipeda, Lithuania	Marine fishing	Fishing, fish products; recreation	Fish	Fishing (fish supply), fish processing	blue	N/A	Fishing in the Baltic sea. Fish processing	N/D	Fishing, fish products; recreation	https://rekvizitai.vz.lt/imone/stekutis/
53	Šventjonis, UAB	Siauliai region, Lithuania	Freshwater aquculture	Carp cultivation, wholesale trade. Commercial fishing	Fish	Cultivation, wholesale trade	blue	N/A	N/D	N/D	Carp cultivation, wholesale trade. Commercial fishing	https://rekvizitai.vz.lt/imone/sventjonis/
54	Tilapis, UAB	Kaunas, Lithuania	Freshwater aquculture	Fish products	Fish		blue	N/A	N/D	N/D	Fish products	https://rekvizitai.vz.lt/imone/tilapis/juridinis-asmuo/
55	UAB "Sea snacks"	Klaipeda region, Lithuania	Processing and preserving of fish	Fish products for food	Fish	Processing, cultivation	blue	N/A	N/D	N/D	Fish products for food	https://rekvizitai.vz.lt/imone/sea_snacks/
56	UAB "Seivalas"	Klaipeda, Lithuania	Marine fishing	Fishing, fish products	Shrimps	Fishing (fish supply)	blue	N/A	Industrial shrimp fissing in the Barents sea	N/D	Fishing, fish products	http://www.seivalas.lt
57	UAB Arvydai	Vilnius, Lithuania	Aquaculture	Stocking of ponds, recreational fishing, aerators and water filters	Fish	Cultivation	blue	N/A	N/D	N/D	Stocking of ponds, recreational fishing, aerators and water filters	http://www.arvydai.lt
58	UAB Norvelita	Raseiniai, Lithuania	Fish processing, fish products	Food products: smoked, canned, fresh fish	Fish	Processing, preserving, packaging	blue	N/A	N/D	N/D	Food products, smoked fish, canned fish, fresh fish	http://www.norvelita.lt
59	UAB Rusnes žuvis	Silute, Lithuania	Processing and preserving of fish	Smoked, salted fish products	Fish	Processing, preserving, retail	blue	N/A	Fish processing. Smoked, salted, cured fish, fish mixes - production, trade.	N/D	Smoked, salted fish products	http://rusneszuvis.lt/
60	Vasaknos, UAB	Zarasai region, Lithuania	Ponds aquculture	Fresh fish	Fish	Breeding, cultivation, transportation	Blue	N/A	Fish breeding, cultivation in ponds and pools, fish sales. Carps, pike, white grass carp, trout, sturgeon are bred here. In the company's incubator, carp and pike eggs are incubated. Ponds are stocked with the larvae of these fish. The largest part of the production consists of carp. About 500 tons of them are grown per year. Trout and sturgeon are grown in the newly built trout breeding pool complex. About 60 tons of trout and 150 tons of sturgeon are grown per year. Every spring and fall, the company sells juvenile fish to stock lakes and ponds.	N/D	Fresh fish	http://www.vasaknos.lt
61	Žuvita, UAB	Klaipeda, Lithuania	Processing and preserving of fish	Fish products	Fish	Processing	Blue	N/A	N/D	N/D	Fish products	https://rekvizitai.vz.lt/imone/zuvita/

#	NAME	Location *(Region, Country)*	Technology type	Service / Product	Value chain (Resource)	Value chain (Phase)	Sector (Blue or other)	TRL	Technology description (max 800 characters spaces included)	Target market (max 50 characters spaces included)	Keywords (1-3)	Website
1	Aarja Health	Norway	Biotechnology	Producing pure, safe and highly bioavailable vitamins and supplements combined with Nordic superfoods.	Nutraceutical production		Blue	9	Work with the purest raw materials without additives mixed with Nordic super ingredients.	Clear goal to have world-class products that make a real difference.		https://www.aarjahealth.se/
2	Aker BioMarine	Norway	Biotechnology	Ensuring the well-being of the krill biomass and contributing towards a thriving Antarctic ecosystem.	Fishery and aquaculture		Blue	9	Prevention of lifestyle diseases, better resource utilization, promoting industry responsibility and antarctic ecosystem research.	Improving human and planetary health		https://www.akerbiomarine.com/
3	AlgaePro	Norway	Microalgae utilization	Developing technology for cultivating microalgae	Tech solution		Blue	7	Using the principles of circular bioeconomy to develop technology for cultivating microalgae.	Their aim is to recycle biowaste CO2 and waste heat to fuel the microalgae cultivation.		https://www.algaepro.no/
4	Anteo	Norway	Software solution	Delivers solutions that lead to risk reducing measurements and possibilities for closer cooperation in the industry and research community.	Software solution		Blue	6	Their realtime solutions monitor and alert breach of biosecurity principles.	They aim to become the leading software distributor in the development of the aquaculture industry.		https://www.anteo.no/
5	Aqua Pharma Group	Norway	veterinary services	Delivers disease prevention and control systems for a diverse range of aquaculture segments.	disease prevention and control		Blue	9	Their concepts and innovations ensure minimal environmental impact and maximum animal welfare.	To support farmers in lowering enivonmental impact and increase fish welfare, while bringing factual proof.		https://aqua-pharma.com/
6	Aquabyte	Norway	Software platform	A holistic software platform offering easy installation, continuous monitoring and multiple applications.	Software platform		Blue	7	Their platform will entail healthy fish at a lower cost, as it delivers information for data-driven decision making to increase revenue.	Once the company has optimized its' algorithms for salmon, it aims to move on to other kinds of fish as well as other markets.		https://aquabyte.ai/
7	Aquafarm	Norway	Aquaculture equipment	Closed fish cage for post-smolt production	Equipment		Blue	8	A cost-effective, closed fish cage for post-smolt production that prevents escape of fish, drastically reduces the risk of salmon louse, and reduces the release of organic nutrients and waste into the surrounding environment.	They aim to contribute to increased fish health.		https://aquafarm.no/
8	Aquapro	Norway	Aquaculture byproduct utilization	Contribute to sustainable waste management and develop a technology that can be used to process other types of biological waste for valuable plant and/or energy.	Byproduct utilization		Blue	4	Developing a mobil processing facility to transform slug/waste from the aquaculture industry into combustile material.	Further develop the technology, as well as the creation of solutions for sludge handling, food and biowaste.		http://www.aquapro.as/en/
9	Aquaticode	Norway	AI for aquaculture	They build artificial intelligence for aquaculture	Aquaculture development		Blue	7	Their products boost harvest yield and decrease production cost through non-invasive detection of relevant traits and diseases.	Turning good intentions into great results through their behavioral code.		https://aquaticode.com/
10	Arctic Bioscience	Norway	Biotechnology	Developing products, solutions and technologies based on bioactive marine compounds that are either kept prorietary or pateted.	Nutraceutical, Pharmaceutical and production		Blue	9	Developing products, solutions and technologies based on bioactive marine membrane lipids. One of the key sources is found in Norwegan herring roe.	Provide people with autoimmune disorders an effective and healthy therapy based on novel marine membrane lipids.		https://arctic-bioscience.com/
11	ArcticZymes Technology	Norway	Biotechnology	They offer a wide range of high-quality enzyme products for the most varied applications.	Enzymes		Blue	9	They use access to the marine Arctic to identify new cold-adapted enzymes for use in molecular research, in vitro diagnostics and therapeutics.	With their daily work we want to make an important contribution to a healthier world.		https://arcticzymes.com/
12	AS Bolaks	Norway	Salmon farming	Producing healthy, high-quality seafood	Salmon farming		Blue	9	Throughout their production, they maintain a focus on effective operations, fish health and welfare, quality and documentation of all activities and decisions.	Continue to help write the history of fish farming in Norway, and contribute to the future of the fish farming adventure.		https://bolaks.no/english/
13	Baader	Norway (german ownership)	processing fishery, aquaculture, agriculture	sustainable membrane filtration and equipment for the extraction of biomarine proteins.	fisheries offshore and onshore processing. agriculture (Germany)		Blue and green	9				Home – BAADER Food Processing Machinery
14	Benchmark	Norway	Aquaculture and biotechnology	Delivering salmon ova and genetics for several aquatic species.	Aquaculture and biotechnology		Blue	9	Continuous delivery of genetic improvement to the global aquaculture industry, making them the leading actor in genetics for aquatic species.	Their mission is to be an instigator for sustainable aquaculture.		https://www.bmkgenetics.com/
15	Berg Lipidtech AS	Norway	Biotechnology	Producing a wide range of concentrated EPA and DHA products, in addition to natural fih liver and fish body oils.	Nutraceutical production		Blue	9	Utilizing both molecular distrillation and proprietary enzymatic methods in addition to classical fish oil refining techniques.	Meet all set of specificaitons required by customers, while simultanously minimizing the impact on the environment.		https://www.blt.no/
16	Bioceanor	Norway - France Based	Marine biology	Underwater weather station for real-time and predictive monitoring of water quality.	Underwater weather station		Blue	6	They have built an innovative and unique offer on the market using IoT and machine learning.	Preserving the aquactic environment capacity to support life and nourish humanity in a sustainable way.		https://www.bioceanor.com/en
17	BioFeyn	Norway - Boston based	Biotechnology	Pioneering new forms of nutrient delivery to improve efficiency in salmon farming and other sustainable nutrition markets.	Aquaculture and feed		Blue	7	By optimizing existing ingredients that are already proven to be safe and sustainable, they add value for farmers, feed suppliers, and the environment.	Their goal is to produce the most sustainable and nutrient-packed farmedfish on the market.		https://biofeyn.com/
18	BioMar	Norway - Denmark owned	Aquaculture feed	Providing feed for aquaculture	Feed production		Blue	9	They innovate efficient, safe and nutritous feed for aquaculture with minimal environmental impact.	They strive to develop and deliver truly efficient, sustainable, and healthy feed solutions.		https://www.biomar.com/en/global/
19	Biomega	Norway	Biotechnology	Producing premium food and pet food from seafood raw material	Nutraceutical production		Blue	9	Releasing the full nutritional and functional value of side streams from the salmon industry through innovative biotechnology.	They aspire to be the trusted, inspiring and preferred ingredients partner for the health and nutrition industry.		https://biomegagroup.com/
20	Blue Breeder	Norway	Aqua tech	Revolutionizing fish farm structures, enabling cost efficient, safe and sustainable under water fish farming.	Aquaculture development		Blue	5	Their solution Blue-Hub, are built upon patented technology, guided by an experienced team within technology, and the international market development to the ocean industries.	They aim to make fish health and welfare better.		https://bluebreeder.no/
21	Blue Lice	Norway	Lice elimination	Delivering a product that catch salmon lice	Disease prevention		Blue	8	Reducing the number of lice infestations amd this the need for treatment by catching the salmon lice in the larval stage.	Their aim is to eliminate salmon lice without any adverse effects on the fish or the ecosystem.		https://www.bluelice.no/
22	Bremnes Seashore	Norway	Aquaculture	Providing persistent and high-quality salmon products	Salmon farming		Blue	9	Developing quality products through extensive experience, high levels of fish farming knowledge and innovation at every stage of the process.	Secure a sustainable production, and improve road standards around our production sites.		https://www.seashore.no/en/
23	Brødrene Karlsen	Norway	Fishery and aquaculture	High-quality seafood sourced from the waters of their Arctic location.	Fishery and aquaculture		Blue	9	Deliver seafood while prioritizing environmental protection, food safety and traceability at every part of their value chain.	Aim to have 20% of the workforce with certificates of apprenticeship.		https://www.brkarlsen.com/
24	C Food Norway	Norway	Processing fishery	Producing supreme seafood from sustainable sources. Head, filet trim and bones are transformed to high value products.	Seafood utilization		Blue	9	In traditional seafood processing only 35% of the live fish weight is utlized, mainly for fillets and loins. C Food Norway's focus is to convert also the remaining 65% to high valye consumer products.	To change the food future and the way blue food is consumed by utilizing 100% of the catch.		https://c-food.no/
25	Cargill	Norway - US based	Feed producition	Provides food, agriculture, financial and industrial products, and services to the world.	Feed and innovation		Blue and green	9	They are pioneers in fish feed research and innovation, and has several state-of-the-art R&D facilities.	Their goal is to improve food sercurity and nutrition, improving land use, enriching their communities and contribute to a sustainable aquaculture.		https://www.cargill.no/en/home
26	Chitinor	Norway	Biotechnology	Product range consisting of pure and safe chitosan products.	Nutraceutical production		Blue	9	Reducing pollution of the environment by utilizing the by-products of the fishing industry.	Aims to produce the best possible quality for our customers while ensuring a good and safe working environment that does not pollute our surroundings.		https://chitinor.com/
27	Coast	Norway	Export of seafood	Export of Norwegian seafood to the world	Export		Blue	9	They are challenging their surroundings 360 degrees in order to create value all the way from the producers of raw materials to consumers.	To work for the coastal values, the local community and sustainability.		https://coast.no/
28	Columbi farms	Norway	Aquaculture byproduct utilization	Reusing valuable nutrients from fish farms to produce edible greens.	Circular economy		Blue	7	Their solution can yield up to nine kilograms of edible greens for every kilogram of salmon produced, by reusing valuable nutrients from fish farms.	They aim to provide the world with a circulr and efficint foor production platform.		https://www.columbifarms.com/
29	Doxacom	Norway	Counseling in aquculture and fisheries	Counseling to build reputation through sustainable growth and green energy.	Counseling		Blue	9	Team of counselors with experience, network and interest in the ocean-based industry.	To offer solutions to create solid reputations and clear positions for costumers through ocean knowledge.		https://doxacom.no/
30	Dynaspace	Norway	Aquaculture production data	Provides the shrimp industry with key production data.	Data analysis		Blue	6	By using computer vision, proprietary machine learning algorithms, and their multi-spectral satellite image processing capabilities, they are able to provide real time global information on shrimp farming.	They aim to drive the blue revolution.		https://dynaspace.no/
31	Eagle Enviro	Norway	Biotechnology	sustainable membrane filtration and equipment for the extraction of biomarine proteins.	food, feed, liquid, process, pharmaceutical				treatment of water and liquids			https://www.eagleenviro.no/
32	EasyX	Norway	Aquaculture tank cleaning	Developing a Vertical Cleaning Robot	Tank cleaning		Blue	6	Their Vertical Cleaning Robot cleans and disinfections the fish-tanks at smolt plants and land based fish farms.	Their goal is to increase the cleaning efficiency, reduce hard work under harsh conditions and the amount of chemicals used.		https://easyx.no/
33	Elanco	Norway - Danish owned	Animal health	Development of products and services for prevention and treatment of animal health.	Animal health		Blue and green	9	Delivering innovative solutions that help veterinarians, food producers and others working with animal welfare to protect and improve animal health.	A better life based on healthy foods - an advantage for animals, humans, and our planet.		https://www.elanco.no/index
34	Epax Norway AS	Norway	Biotechnology	Omega-3 concentrates in a wide range of concentrations and EPA:DHA ratios, and in both ethyl ester and triglyceride form.	Nutraceutical production		Blue	9	Deliver ingredients free from environmental and oxidative impurities, and go above and beyond industry standards.	To always deliver purity, quality and innovation.		https://www.epax.com/
35	Eurofins	Norway	Biotechnology	Analysis of environment, food, feed and agriculture, and also counseling.	Analysis		Blue and green	9	Use the most fitting technologies to conduct the analysis'.	Testing for life - to be the world leading supplier in analysis that affects life, health and enviornment.		https://www.eurofins.no/
36	Fishency360	Norway	Aqua tech	A hardware and software solution for fish welfare	Tech solution		Blue	6	Their solution monitors fish health, lice and growth in the pen, by scanning and analysing every passing fish.	Aim to promote affordable sustainable development of the aquaculture industry.		https://www.fishency.no/
37	Garware Technical Fibres	Norway - Indian based	Aquaculture equipment	Production of environmently friendly aquaculture cage nets	Equipment		Blue ++	9	To reach their goal, the R&D departments have multi-discipline experts in the fields of polymers, chemicals, textiles and material sciences.	Provide innovative, application focused solutions to enhance value or our customers globally.		https://garwarefibres.com/
38	GC Rieber VivoMega AS	Norway	Biotechnology	Producing high quality fish oil products.	Nutraceutical production		Blue	9	Lowering the limits for purity and oxidation levels, and now has the lowest environmental toxin limits in the world, far below any industral other standard.	Sustainably source fish oil.		https://vivomega.com/
39	Grieg Seafood	Norway	Aquaculture	Providing healthy and tasty salmon.	Salmon farming		Blue	9	They farm the ocean respcnsibly and with as little impact as possible.	Everyday, they strive to reduce their footprint and farm in co-existence with nature and wild species.		https://griegseafood.com/
40	Halstensen Granit AS	Norway	Processing fishery	Salted cod, haddock, saithe, redfish and greenland halibut.	Fishery and processing		Blue	9	Large, modern boats with longer range, with the whole production set onboard.	To continue to assure that nothing goes to waste during the production on board as the world's first factory vessel with zero emissions from the production.		https://www.granitseafood.com/
41	Hypertermics	Norway	Biotechnology	Bioactive pre-treatment plant that converts biomass into environmentally friendly biogas.	Wastehandling		Green	9	Their business idea is to develop and construct fast-working plants for breaking down and converting different types of biomass in processes at an operating temperature of 80 degrees celsius, based on micro-organisms and bacteria from extreme environments beneath the seabed.	Their aim is to keep a strong focus on R&D and proximity to the individual customer and operating organisation.		
42	Inka AS	Norway	Processing	Purely focusing on processing of fish	Processing		Blue	9	In cooperation with governements, clients and suppliers, they continuously work on improving, assuring aquality and developing new products.	They strive to run their business on a principle of sustainability, and urge to manage their resources in a proper, safe, and advisable manner.		http://www.inkafisk.no/en
43	Innomar AS	Norway	Aquaculture equipment	High-tech fishing traps	Equipment		Blue	6	The fish traps can be equipped with light as an attractor of fish, and sensors for catch monitoring and traceability.	Aim to provide a fish trap that catches fish in a sustainable manner that is gentle to the seabed.		https://www.innomar.no/
44	Innovasjø Akvakultur	Norway	Aquatic solutions	Developing end-to-end solutions for aquatic ecosystems	Analysis, optimization		Blue	9	Designing the world's most technologically advanced aquatic solutions for fish tracking and fish farming, and builds them to whitstand the toughest conditions.	Driven by commitment to make our ocean and freshwater ecosystems sustainable for future generations.		https://www.innovasea.com/
45	KD Norway AS	Norway	Biotechnology	Pharmaceutical and nutraceutical Omega-3 production.	Pharmaceutical and nutraeutical production		Blue	9	Emphasis on chromatographic separation in lipids, and as a result capable of offering lipid and Omega-3 concentrates up to 9% in purity at a commercial scale.	To develop a sustainable path forward.		https://www.kdpharmagroup.com/en
46	Kelpinor	Norway	Marine technology	Production of large-scale cultivation of sugar kelp and winged kelp.	Kelp farming		Blue	7	Developed a method for harvesting and launching kelp, enabling economies of scale.	The technology was developed with the goal of producing kelp as an ingredient for sustainable food, medicine, biofuels, biopackaging and much more.		https://www.kelpinor.no/
47	Kontali Analyse	Norway	Analysis	Provider of data and analysis covering large parts of global aquaculture and fisheries	Analysis		Blue	9	They offer analyses by extensive research, customised for their clients.	Their mission is to always have the deepest understanding of the realm and the species within it, the connections between them and to share their knowledge of seafood to create a more balanced world above and below the surface.		https://www.kontali.com/
48	Lerøy	Norway	Fishery and aquaculture	A wide variety of fish products.	Fishery and processing		Blue	9	A fully integrated company with control and management of an entire range of seafood products from sea to consumer.	Furthe deveop sustainable solutions related to their fisheries and fish farming activity.		https://www.leroyseafood.com/en/
49	Lerøy Havfisk AS	Norway	Fishery	Leasing out fishing trawlers with attached fishing rights to subsidiery company.	Fishery		Blue	9	Mainly catch of white fish, and processing on board.	To become the leading and most profitable global supplier of sustainable, quality seafood.		https://www.havfisk.no/
50	Lerøy Seafood Group	Norway	Aquaculture and fishery	Providing a wide variety of seafood	Aquaculture and fishery		Blue	9	They are not only involved in catches and fish farming, but also package and process fish at their plants and distribute thousands of different seafood products to customers.	Become the leading, and most profitable, global supplier of sustainable quality-seafood.		https://www.leroyseafood.com/en/
51	Lingalaks	Norway	Aquaculture	Supply the world market with Norwegian high-quality salmon.	Aquaculture		Blue	9	Through ideal conditions for their fish at their production sites, and generational experience and knowledge, they are able to keep their farms on a very high level of sustainability.	Their vision is to supply the world market with Norwegian salmon of superior quality.		https://lingalaks.no/en/

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52	Marealis	Norway	Biotechnology	Development and commercialization of novel bioactive peptides.	Nutraceutical production		Blue	9	Creating value out of Marine Raw Materials and By-products that would otherwise go to waste.	Establish the company as a global leader in the development, production, and commecializarion of natural, sustainable, and effective marine-based health solutions for the world.		https://www.marealis.com/
53	Marimetrics	Norway - Canada based	Aqua tech	Designs and develops real-time diagnostic tools for the monitoring of fish health and welfare.	Tech solution		Blue	6	Their solution is focused on helping operators in the aquaculture industry to reduce mortality through the early detection of aquatic animal disease.	Improve fish health and welfare through monitoring.		https://www.marimetrics.com/
54	MOWI Markets Norway A	Norway	Biotechnology	Production of human supplement, pet food and aqua feed ingredients.	nutraeutical and feed production		Blue	9	As a part of the Mowi Group, Mowi Market (Mowi nutrition) enjoys high quality standards of raw material control and routines and thereby passes fresh and high quality ingredients on to their customers.	Continue to deliver quality products, and producing no waste.		https://www.mowinutrition.com/
55	MSD Animal Health	Norway - American owned	Biopharmaceutical solutions	Their industry-leading biopharmaceutical and technology solutions monitor for insight, optimize for precision, and benchmark for performance.	Biopharmaceutical solutions		Blue	9	They help aquaculture producers and consercationists culticate and maintain healthy and sustainable aquatic ecosystems.	Aiming at being efficient, fast and flexible in all operations, responding rapidly to new opportunities and demands.		https://www.merck-animal-health.com/
56	Nordic Pharma Inc AS	Norway	Biotechnology	Production of Nordic Naturals omega oils.	Pharmaceutical and nutraeutical production		Blue	9	Uses excess short-chain fats - a byproduct of the manufacturing process - to produce clean, renewable fuel and hydropower to meet more than 100% of its manufacturing energy need.	Continue being one of the greenest manufacturing facilties in the world.		https://nordicpharma.net/
57	Nordic Wildfish AS	Norway	Fishery	Vertical integrated operation in fishing, primary processing and sales.	Fishery and processing		Blue	9	Deivering white fish, fresh frozen at sea, to seafood processors worldwide, while focusing on maximum sustainable yield.	Further improve their focus on maximum sustainable yie		https://www.nordicwildfish.no/
58	Nordnesgruppen	Norway	Fishery	Ownership and operation of three fishing vessels.	Fishery and processing		Blue	9	All fish is processed and freezed on board.	Developing their philosophy and strategy with a focus on reuse, economic operation and social responsibility.		https://www.nordnesgruppen.no/
59	Norskin	Norway	Aquaculture byproduction	Offer a sustainable and traceable alternative to traditional leather by procuring, sorting and pretreating the highest quality materials from the sea.	Aquaculture byproduction		Blue	7	Norskin is a modern, high-end material sourced from the cold, arctic seas in Northern Norway. The result is an extremely durable, formable and sustainable material.	Our aim is to make it easy to utilize a sustainable quality material that adds value and meaning to any product and brand, and take advantage of materials that otherwise would be discarded.		https://www.norskin.no/
60	NUAS Technology	Norway	enzymatic hydrolysis pilot systems	NUAS Technology AS will develop a hydrolysis process that converts residual raw materials and biomass into high-quality oil, bone and protein	fisheries and aquaculture sector		Blue and green	9				https://www.brukfisken.no/en/bruk-fisken
61	Nutrimar	Norway	Sustainable feed ingredients	Production of feed and food for the pet food and aquaculture sector	Pet food and aquaculture feed		Blue	9	Using of byproduct from the salmon industry to produce feed	Aims to document the effects their production can yield when utlized in feed formulas for salmon in a real-world environment.		https://nutrimar.no/
62	NutriShell	Norway	Biotechnology	Producing high quality feed and food ingredients from marine raw material.	Nutraceutical production		Blue	8	Processing marine rest raw material into new products.	Devoted to their mission of using the marine nutrients of tomorrow to improve the health of fish and pet.		https://www.nutrishell.com/
63	Ocean Visionering AS	Norway	Digitalization	Visualizing processes and scenarios	Strategy		Blue	7	Transforming complex industrial products, processes and scenarios into intuitive design and visuals.	Find solutions to move the industry's activity to digital platforms to save the environment and save costs, while enhancing the costumer experience.		https://oceanvisioneering.com/
64	Olivita	Norway	Biotechnology	Products made from omega-3.	Nutraceutical production		Blue	9	Patented combinition of seal meal, antioksidants and vitamine D.	Continued growth and quality production.		https://olivita.no/
65	Optimar	Norway	processing fishery and aquaculture	Optimar is a global leader for automated fish processing systems for use on board fishing vessels, on land and in aquaculture. These systems are installed as turnkey projects, either independently or in connection with third-party products. Moreover, as a full-service provider, Optimar offers complementary software products and services – from remote diagnostics and online service through to spare parts, maintenance, and retrofitting.	Fishery and aquaculture		Blue	9	automated fish processing systems, robotization and automation and provides fish handling solutions and processing equipment adapted for vessels, land-based factories, and the fish farming industry. As a systems integrator, we provide the time, talent and technology required to turn your vision into reality – from initial plan to completed project.	fish handling with care		https://optimar.no/
66	Optimeering Aqua	Norway	Aqua tech	Builds and deliver advanced optimization and artificial intelligence systems to transform the way customers make decisions.	Tech solution		Blue	7	They deliver models and systems that support human decision makers to figure out what information is important, how it can impact their operations, and to make effective operational and planning decisions.	Effectivize and improve decisionmaking in aquaculture.		https://bioplan.ai/
67	Orivo AS	Norway	Testing and certificaiton	Delivering evidence-based testing and certification services to the global food, feed and supplement industry since 2014.	Control		Blue and green	9	Replacing a lot of paper-based documentation that is traditionally applied by using state-of-the-art product testing technologies.	Ensure that the value chain in the food and feed industry is built on evidence.		https://orivo.no/about/
68	Patogen	Norway	Biotechnology	Develop and sells gene technology analysis	Analysis, prevention of disease		Blue	9	Developing and selling gene technolog analysis used to reduce disease-related loss in the aquaculture industry.	Their vision is to inspire actions for healthier fish by providing expertise and high-quality data to generate sustainable growth of seafood production.		https://www.patogen.com/
69	Pharma Marine AS	Norway	Biotechnology	Pure, sustainable, premium quality omega-3 products.	Nutraeutical production		Blue	9	Delivering premium quality products, meaning products that are from sustainable raw material, produced in an environmentally friendly way with optimal tecnology and process, and then quality tested.	Further develop their products to optimize both the processes and tecnologies.		https://www.pharmamarine.com/
70	Pharmaq	Norway	Pharmaceutical	Providing safe, efficient and high-quality fish health products to their customers.	Pharmaceutical		Blue	9	By preventing and treating diseases, their products contribute to an increase in animal welfare and an improvement in food safety while lessening the burden on the environment.	Support sustainable growth in the aquaculture industry and deliver environmentally friendly, safe and effective health products to the global aquaculture industry through targeted research and dedicated colleagues.		https://www.pharmaq.com/en/pharmaq/
71	POLAR ALGAE	Norway	Seaweed farming	Products made from seaweed.	Seaweed farming		Blue	9	A sustainable harvesting method, including centralized harvesting rights, new state of the art drying facilities and harvesting vessels, sustainable harvesting and high purity and yield.	Aim to create, develop and maintain a sustanable business providing the highest quality of products for growth, feed and human health.		https://www.polaralgae.no/
72	Pronofa	Norway	Feed, food and foodstuff production	Producing new and sustainable animal proteins for use in feed, food, and foodstuff.	Feed, food and foodstuff		Blue	6	Producing new and sustainable animal proteins from tunicates and insects.	Contribute to the development of new, sustainable ways of producing food and animal feed.		https://pronofa.no/en/
73	Proximar Seafood	Norway - Japan based production	Land-based salmon farming	Production of land-based grown Atlantic salmon in Japan	Aquaculture		Blue	9	Basing their fish farming on Recirculating Aquaculture System-technology, that ensures a solid track record and provides ideal growth conditions for Atlantic Salmon, with low inherent complexity.	They intend to obtain certification of their facility through the Aquaculture Stewardship Council (ASC), a voluntary certification scheme based on environmental and social criteria.		https://www.proximarseafood.com/
74	Pure Lobster	Norway	Aquaculture	The first to conduct intensive farming of Australian red claw in land-based facilities.	Land-based farming		Blue	7	Combining red claw´s unique features with existing Recirculating Aquaculture System (RAS) technology, sustainable organic feed and fresh Norwegian water.	Manage to sustainably farm Australian red claw.		https://www.purelobster.no/
75	QuantiDoc	Norway	Mucosal health management	Helping customers take the guesswork out of fish health and welfare	Tech solution		Blue	5	Their award-winning technology, Veribarr™, verifies *objectively* the health of barriers such as skin, gills and intestines.	Improve fish health and welfare through technology.		https://www.quantidoc.no/
76	Ramoen AS/Eros AS	Norway	Fishery	A wide variety of species of wild fish.	Fishery		Blue	9	Fishing on, among others, an eco-riendly factory trawler with hybrid propulsion and low Nox emissons.	To be a fishing company leading and inspiring others, by being a forerunner in the development of deep-sea fishing in the North Atlantic.		https://www.ramoen.no/
77	Resqunit	Norway	Aqua tech	They will provide fishermen, marine industries, research institutions and governments with ocean knowledge and data.	Tech solution		Blue	8	Their unit will release the buoy after a specified amount of hours or days in the s	Their aim is to dramatically reduce the impact of ghost fishing and plastic pollution.		https://www.resqunit.com/
78	Resqunit	Norway	systems to reduce the loss of fishing equipment in the oceans, through an innovative backup buoy with a timer release mechanism which allows the location and retrievement of equipments lost at sea.	buoy system	n/a	fishing	blue economy				trap recovery system	http://www.resqunit.com
79	RIMFROST AS	Norway	Biotechnology	Pure and sustainable omgega-3 products made from krill, including Krill Oil and Krill Powder.	Nutraeutical production		Blue	9	Conducting a patented enzymatic hydrolysis technolog to process the krill offshore, immediately after harvesting.	Ensuring that their operations are sustainable and do not affect the ecosystem, through onboard inspctions and supporting research.		https://www.rimfrostkrill.com/
80	Salmo AS	Norway	Aqua tech	They are building a platform that enables salmon farming companies to trade biomass effectively and safely.	Tech solution		Blue	4	Assisting biomass trade in the aquaculture with market search, planning and contract handling.	The company was created with a mission to optimize the utilization of existing salmon farms and licenses in Norway.		https://www.salmo.io/
81	Scantrol Deep Vision	Norway	Fish measuring	Development and sales of their fish measuring board andunderwater camera system.	Fish measuring		Blue	7	Their fish measuring board and underwater camera system will improve catch value, reduce bycatch and trawl more efficiently.	Through innovative new technology they work towards creating resilient solutions for a greener future.		https://www.deepvision.no/
82	Seaborn AS	Norway	Aquaculture	Major distributor of Norwegian salmon and fjord trout, as well as Icelandic salmon	Sales		Blue	9	Trough sustainability, great service, and continued cooperation they ensure availability.	Aims to act as the link between production in Norway and the global market for salmon and trout.		https://seaborn.no/
83	Seaforest AS	Norway	Seaweed farming	Seaweed - Winged kelp and sugar kelp	Seaweed farming		Blue	9	Farming sustainable, nutrious and pesticide-free seaweed.	Aims to enable large scale ocean seaweed farming by innvoating cultivation technology, and bring new high-valye products to the market.		https://seaforest.no/
84	SeaRAS	Norway	Water management in aquaculture	Delivers services and products that aims to achieve the best possible water quality.	Water management		Blue	6	The companys' solution helps reduce technical and financial risk in water recycling systems, through their award-winning products and solutions on water management.	Their aim is to use their technology to reduce fatalities.		https://searas.no/
85	SeaSmart	Norway	Aqua tech	They have developed a drone for continuous measurement of environmental conditions in the cage that is wireless, cost effective and maintenance-free.	Tech solution		Blue	8	Their drone collects information on fish appetite, stress level and welfare provide reduced feed, better planning and reduced mortality.	Their goal is that their product will give continuous water quality information in the cages resulting in reduced mortality, increased production and good documentation.		https://www.seasmart.no/
86	Sekkingstad	Norway	Aquaculture and fishery	Production, sales and marketing of seafood	Aquaculture, fishery and distribution		Blue	9	Continuously finsing new and better solutions, and introducing new ways of processing and distributing their seafood products.	They strive to find ways to improve both the quality of their products and to reduce the footprint of their own, their customers and their suppliers value chain.		https://sekkingstad.no/
87	Sintef Fiskeri og havbruk A	Norway	Marine technic and marine biology research	Research and innovation tied to the ocean	Research and innovation		Blue	9	Contributing to shape the future sustainable systems and utilization of the ocean's resources.	Continue Norway's leading position in marine technic and marine biology research.		https://www.sintef.no/ocean/
88	Smart Farm AS	Norway	Aquaculture Systems incl. underwater									
89	Stella Polaris	Norway	Prawn production	Producing coldwater prawns, and supplies cooked, peeled and frozen prawns to retail, foodservice and industry customers all over the world.	Prawn production		Blue	9	High levels of expertise in all areas, from fishing vessels to production on land to sales and logistics, enable us to supply prawns of premium quality, all year round.	Develop new high-value products from the prawn shell, to fulfill their financial and moral responsibility to create value from the whole prawn.		https://www.stellapolaris.no/
90	Strand Sea Service AS	Norway	Shipping and fishery	White fish and pelagic fish	Shipping and fishery		Blue	9	Sustainable fishing, where conservation of resources are secured.	Continue to grow and find new ways to utilize our fishing resources.		https://www.strand-rederi.no/
91	TANGO Seaweed AS	Norway	Seaweed farming	Seaweed product made with winged kelp and sugar kelp	Seaweed farming		Blue	9	Producing seaweeds in accordance with nature's principles, and delivering products that are healthy for people, as well as for the environment.	Improving marine resources for future generations.		https://www.tangoseaweed.no/
92	Teksło Seafood	Norway	Seaweed utilization	Production and sales of seaweed products	Seafood utilization		Blue	8	They harvest wild seaweeed by hand from islets and reefs.	Their mission is to get seaweed on the table.		https://teksloseaweed.no/
93	Teksło Seafood	Norway	seaweed handpicked from certified north Atlantic waters. We rotate our harvesting in a way that secures a sustainable regrowth in each place, without doing any damage to the biological fauna. After harvesting, we dry the seaweed in a self-developed dryer room, built inside of an old traditional boathouse.	seasonings	seaweed	harvesting and processing	blue economy				seaweed products	https://teksloseaweed.com/
94	Thalasso	Norway	scalable, autonomous and electric harvesting aquatic technology	harvesting bloom solutions	sargassum	harvesting	blue economy				sargassum management	https://www.thalassoocean.com/
95	Trofi - Tromsø Fiskeindust	Norway	Feed production	Producing first feeding diets for both freshwater and salt water speci	Feed		Blue	9	Developing innovatory feeding protocols in order to succesfully reduce the use of artemia without lack of growth or mal-development of the fish.	Build a brand of first feed that may hold the best nutritional composition in the world.		https://www.trofico.no/en/
96	Vela Seafood AS	Norway	Fishery, aquaculture, processing and export	Crustacean, salmon and white fish	Fishery, aquaculture, processing and export		Blue	9	Integrating sales an export for their fishing vessels.	Continued focus on sustainability and quality		https://www.velaseafood.no/
97	Vesterålen Havbruk	Norway	Fishery and aquaculture	Production of frozen cod, haddock and pollock	Fishery and aquaculture secto		Blue	9	Developing farming and catch-based aquaculture of Atlantic cod, with focus on high quality of the raw materials.	Increase the number of sites for cod farming.		https://www.vesteralenhavbruk.com/en/
98	Viking Aqua	Norway	Land-based salmon farming	They are building the world's most sustainable and technological land-based salmon farm.	Salmon farming		Blue	4	They will create a stable and optimal environment for the fish with minimal external disturbances and fish welfare as the central indicator.	Their ambition is to produce the happiest, healthiest, and best-tasting salmon in the world.		https://www.vikingaqua.no/
99	Vital Seafood AS	Norway	Biotechnology	Production of raw fish oil and fish meal	Nutraeutical production		Blue	9	Producing fish oil and fish meal from fresh quality controlled raw material of salmon and trout.	Aim to develop more self-reliant and resilient food network; imrpove local econimies and to affect the environment by using local resources		https://www.norsksjomat.no/about/vital-seafood
100	Vitbit AS	Norway	Biotechnology	Production of complementary feed and treats	Dog and cat feed		Blue	9	Production of complementary feed and treats for dogs and cats, made by 100% arctic white fish.	Their goal is that all their producst will meet the requirements for MSC-certicication.		https://www.vitbit.no/
101	Wai Genetics	Norway	Biotechnology	Their insights, quickly and accurately map the status of the bacterial balance from a water sample.	Analysis		Blue	8	With use of high precision analysis tools, with most advanced technology and machine learning we provide information for smarter decision-making in order to reduce risk and increase profitability in biological production.	Contribute to the UN SDG's through our insight.		https://waigenetics.no/indexEN.html
102	WellFish Diagnostics	Norway	Health assessment	They provide rapid, non-lethal fish health assessment	Analysis		Blue	7	They provide rapid, non-lethal fish health assessment for the aquaculture sector using blood based clinical chemistry analysis.	Their goal is that these results should facilitate continuous health monitoring to support data informed husbandry decisions, improving fish health & welfare management.		wellfishdiagnostics.com
103	Zooca (Calanus AS)	Norway	Biotechnology	Production of aquaculture nutrition for people and as fish feed	Nutraceutical production		Blue	9	Harvesting the zooplankton called Calanus finmarchicus and producing products that are packed with nutrients and 100% chemical and additive free.	Their ambition is to redefine health benefits and pioneer a new breed of more than omega 3, good for you and the planet.		https://zooca.eu/

#	NAME	Location (Region, Country)	Technology type	Service / Product	Value chain (Resource)	Value chain (Phase)	Sector (Blue or other)	TRL	Technology description (max 800 characters spaces included)	Target market (max 50 characters spaces included)	Aim & application (max 50 characters spaces included)	Keywords (1-3)	Website
1	a4F	Portugal	microalgae production	designed systems of microalgae production	microalgae	producing	blue	9	Technical Services: Microalgae strain isolation and characterization Specialized analytical services: Pigments, Fatty acids, Elemental analysis, Contamination diagnostic and control tools, Supply of pilot scale amounts of microalgae (kg), Biomass enrichment and isotope labelling, Test-trials and performance comparisons for different production and downstream equipment	microalgae producers	A4F is specialized in the design, build, operation and transfer (DBOT) of commercial-scale microalgae production units, using different technologies that better adapt to our Customers' business.	microalge	A4F - Algae 4 Future
2	Acuinova (Flatlantic)	Portugal	Aquaculture - Fresh out of ther seatank; efficiently onshore	Flatfish	Fishery	producing	blue		Fresh out of ther seatank; efficiently onshore			Sustainable flatfish	https://www.flatlantic.pt/
3	ALGAESYS	Portugal	Wastewater recovery solutions for all Carbon Negative, Energy Positive	wastewater treatment	phototrophic biomass	residuals treatment	food and beverages industries		The ALGAESYS system removes nitrogen, phosphorus and carbonaceous pollutants absorbs micro-plastics and heavy metals destroys persistent organics, disinfects to at least EU Class C without additional treatment absorbs atmospheric carbon dioxide, approximately 15 grams per cubic meter of wastewater treated	food and beverages industries	This mechanism results in considerable savings on energy, equipment, labour and maintenance.	bioremediation	https://www.algaesys.eu/
4	ALGAplus- Produção e comercialização de algas e seus derivados, Lda.	Portugal	Integrated Multiptrophic Aquaculture (IMTA	sustainable farming of seaweed species (7)	Seaweed	producing system	blue		Integrated Multiptrophic Aquaculture (IMTA) - Natural bioremediation tool based on the conciept of circular, blue bio based economy, integrating fish aquaculture with organic certification throughout all process.	Food	The main objective was to respond to the growing need of the food and cosmetics market, to obtain natural, sustainable and differentiating marine ingredients and products, both for their functionality and for their origin, through a resource that was not explored in the national panorama.	seaweed	https://www.algaplus.pt/en/
5	Algicel	Portugal	cultivation of microalgae in closed photobioreactors.	Astaxanthin (capsules)	microalgae	producing system	blue	9	Haematococcus Pluvialis microalgae is produced through a patented technological process. It is a closed system, consisting of vertical indoors and outdoors photobioreactors that allow a high degree of purity and quality. It insures high productivity, excellent process parameters control, great flexibility, efficiency and operability.	Consumers in general, Pharma stores	dietery enrichment and improve well being	Astaxanthin	https://algicel.pt/en/
6	Algikey	Portugal	applications of biomass and microalgae extracts	Shole biomass and extracts Macro and micro algae (spirulina, chlorella, tetraselmis, odontella, dunaliella, Nannochloropsis, phaedactylum, haemtococcus	microalgae	producing	blue			Nutraceuticals, food, aquaculture, animal feeding, cosmetics	Promote the production, distribution and consumption of macro and microalgae, ensuring that everyone can access these revolutionary raw materials, creating value for the entire value chain and thus contributing to a more sustainable planet.	micro and macroalgae	https://www.algikey.com/en/about-us
7	Allmicroalgae	Portugal	PBR's, Fermentation Reactor, Autotrophic Reactor, Industrial Tibular Reactor, Pasteurization, centriguge and spray dryer	microalgae biomass and extracts	microalgae	producing	blue		The strains are maintained at the most suitable conditions for cell division, and when they reach higher concentrations, they are ready to be transferred to a larger volume, with more space to keep growing. Fermentation starts in a Glass reactor and later moving to an Industrial scale reactor. This phase initiates in a Glass autotrophic reactor, later moving to a Flat panel reactor, in this case also known as Green Walls. In the Industrial Tubular Reactors, algae naturally grow outdoors in the sun. The strains are maintained at the most suitable conditions for cell division. The live algae culture is filtered to separate the solid biomass from the liquid phase. Process of heat treatment of biomass, applied to reduce the number of any existing pathogenic microorganisms. The concentrated biomass is centrifuged to separate even more liquid from the algae. The final product from this step is a fresh paste. At this stage, the algae biomass is processed into a fine powder. The final product is packaged, labeled and stored.	human nutrition, nutraceuticals, animal feed, agriculture and cosmetic	We produce high nutritional value microalgae, in a sustainable way, with the objective of making our products affordable and accessible to those who want to benefit from its properties.	microalgae	https://www.allmicroalgae.com/en/about-us/
8	AMBERSEA - Iberponics	Portugal	Aquaponia	inland prodution to grow fish and seaweed in a circular and controlled environment, reusing all resources while also producing freshwater and having zero waste!	seaweed (ulva, Nori) /amberjack	producing system	blue economy	4	First Recirculating Aquaculture System (RAS) in the Iberian Peninsula to grow Greater Amberjack together with macroalgae through a new nature-based Seawater Aquaponics solution (IMTA circular technology), with positive water and carbon footprint	aquaculture producers	Innovative RAS technology improving fish growth and sustainability and to grow macroalgae in the same recirculating system as finfish	Recirculating aquaculture system	https://www.aquaponicsiberia.com/project/ambersea/
9	Aqualgae	Portugal	supply of products and equipment to the design and industrial facilities, we approach industrial digitalization to the aquaculture industry and the microalgae sector	microalgae production units and data monitoring	equipment supplier	microalgae	blue			Aquaculture, human consumption, agriculture, waste management, cosmetic-pharmaceutical, CO2 mitigation	improve the microalgae production systems and the aquaculture industry, contributing to the competitiveness and productivity of the sector, through sustainable and energy efficient actions.	aquaculture	https://aqualgae.com/en/contact/
10	ArtiReef	Portugal	sustainable alternative to the live rock currently being used in aquariums by developing a new material from oyster culture waste from the Aveiro Ria in Portugal. The artifical rock is a substitute to extracting natural rock, decreasing threats to natural reefs.	coral	oyster waste	oyster	blue economy					coral	
11	Azores Life Sciencs (Ignae)	Portugal	EPC Factor liposomes	human cosmetic products	Trees, plants, flowers, algae, mineral-rich thermal water	transformatio n	blue economy, cosmetics					cosmetics	https://ignae.com/pt
12	Biomimetx	Portugal	antifouling solutions	BMX-11	environmental bacterium	producing	blue	8	BMX-11 consists on the optimized combination of biological compounds designed by Nature to create a potent "green" biocide, that fully incorporates in marine paints and replaces traditional toxic biocides. BMX-11 is efficiently produced by an environmental bacterium owned by BioMimetx. When released into the environment, the intrinsic biodegradability of its components ensures full degradation in a short time. However, when incorporated in paints, BMX-11 is stabilized and has a prolonged activity and availability, becoming the ultimate antifouling agent for submerged surfaces.	painting manufacturers, vessels owners, aquaculture producers	BMX-11 is the new antifouling additive for marine paints. It replaces all classical solutions used in distinct market segments. Benefits of BMX-11 for Paint manufacturers: compliant with latest regulatory aspects, enables low biocide loading, fully capable of replacing classical antifouling agents, adaptable to different paint formulations. Benefits of BMX-11 for vessel owners: prevents fouling, promotes reduction of fuel consumption, reduces regular cleaning, removes the risk of introduction of invasive species, improves environmental toxicity profile. Benefits of BMX-11 for Aquaculture farmers: reduces regular cleaning, increases the rate of water exchange, improves environmental profile, innocuous to farmed species.	fouling	https://www.biomimetx.com/
13	Biotrend	Portugal	bioprocesses	technological bioprocesses services (bacteria, yeasts and fungi, protist, microalgae)	biomass to chemicals, biopolymers or recombinant enzymes	bioprocess	Biotech	9	Advanced services help designing cost-competitive processes that are robust at industrially relevant scales, particularly in the area of industrial and marine biotechnology. We are experienced in dealing with a wide range of natural or genetically modified microorganisms. We work with real-life renewable raw-materials to produce a wide range of products, from biomass to chemicals, biopolymers or recombinant enzymes.	biotech companies bioplastic, bioenzymes, biomass cell extracts	We work with real-life renewable raw-materials to produce a wide range of products, from biomass to chemicals, biopolymers or recombinant enzymes. Our advanced bioprocessing know-how has been serving clients from small biotech startups to global corporations.	Bioprocess biomass microorganism	http://www.biotrend.pt/
14	Bitcliq Technologies SA	Portugal	intelligent information systems and solutions for digital transformation, with a special attention on the sea area	IT	sea monitoring	monitoring	blue economy					blue tech	https://www.bitcliq.com/en/home-eng/
15	Blue Oasis Technology	Portugal	Offshore Renewable Energy, Ocean Cleaning and Sustainable Maritime solutions using modern Industry 4.0	renewable energy	sea	engineering	blue economy					off shore energy	https://blueoasis.pt/
16	Bluemater, S.A.	Portugal	wastewater and gas treatment technologies for local governments, private and public companies and also to the industries	wastewater and gas treatment technologies for local governments, private and public companies and also to the industries	waste water	water treatment	other					waste water bioremediation	https://www.bluemater.com/pt-pt/
17	Buggypower - Gestão e Produção de Biomassa, Lda.	Portugal											www.buggypower.eu/pt/
18	Casulo - Unipessoal, Lda. (Seaweed Solutions; Seaforester)	Portugal	Replant the ocean and restore seaweed ecosystems using innovative seaforestation techniques	seaweed farm solutions	macroalgae	farm	blue economy		seeding of small stones with seaweed spores, growing them on land in specialised nurseries and deploying them in the sea. The seeded stones can be scattered from a boat without the need for divers or technical equipment, providing a low-cost and scalable seaforestation solution. We have been testing and promoting the technique through research projects in Portugal and overseas.			seaweed farming	https://www.seaforester.org/
19	Circular Blue	Portugal	reuse of raw materials considered waste in different sectors, specifically in textiles,	textils, eco-cabin	waste / byproducts	upcycling	blue economy					circular blue	https://nietaatelier.com/index.php?id_lang=3
20	Circular Ocean - Reciclagem de Resíduos	Portugal	Marine litter transformation	re-purposed marine litter	none	upcycling	blue economy					circular ocean	http://www.circularocean.eu/
21	CVR - Centro para a Valorização de Resíduos	Portugal	waste management, respecting the stages of the process in an economically and environmentally way.	Lab and consultancy services	waste	waste management	other					waste valorisation	https://www.cvresiduos.pt/
22	DOCAPESCA - Portos e Lotas	Portugal	not applied	fishing sector, playing a crucial part in its innovation, growth and assurance of the finest catch, underpinned by a chain of value that is striving to expand									http://www.docapesca.pt/
23	Easy Harvest	Portugal	Monitoring and Management of harmful algae blooms	Monitorization, harvesting and management of seaweed	seaweed	harvest	blue economy					Harmful Algal Blooms	https://www.easyharvest.pt/
24	Exogenus Therapeutics	Portugal	transform waste materials from the microalgae industry into nanovesicle-based healthcare solutions.These solutions come from recovering extracellular vesicles from wastewater to be used for commercialization while the "purified" water returns back to the system, tackling the reduction of wastewater.	Purify waste water and extact byproducts	bioactive compounds from waste water	processing	Blue economy, Comsetics, Nutraceupticals	3	using byproducts for cosmetic and nutraceuptical	microalgae producers / cosmetics and nutraceuticals	transform waste materials from the microalgae industry into healthcare solutions.These solutions come from recovering wastewater compounds to be used for commercialization while the "purified" water returns back to the system, tackling the reduction of wastewater.	Bioremediation healthcare	https://www.exogenus-t.com/
25	Eyecon Group	Portugal	Data service and monitoring	HABTRAIL is a deep learning model developed specifically for tackling harmful algal blooms (HABs) on a larger scale in ocean and coastal areas at a lower cost as compared to conventional in-situ methods.	n.a	monitoring	Blue economy / water	5	satellite imagery and automated machine learning to provide sustainable coastal water monitoring in order to mitigate environmental risks, such as harmful algal blooms. , capable of detecting and monitoring the expansion of HABs with water quality pigments derived from Sentinel-2/-3 as an alert system; offers another data service through a mobile app, which is capable of identifying HABs in near to real-time by uploading a "suspicious picture" of the water.	municipalities, Harmful Algal Blooms in coastal regions	create effective applications to mitigate environmental risks.	Harmful Algal Blooms	https://www.eyecon-group.com/ https://www.habtrail.com/
26	Horta da Ria	Portugal	sustainable salicornia farming	food beverage	salicornia	farming	blue economy					Salicornea	https://hortadaria.pt
27	HYDROMOD	Portugal				IT	IT data monitoring solutions, hiseas platform	Aquaculture, water quality					
28	Incilta Seaweed Solutions	Portugal	seaweed-based bioactve solutions	bioactive ingrediantes	bioactive extraction	processing	petceuticals, nutraceuticals, food& baverage					seaweed solutions	https://www.inciltaseaweedsolutions.com/
29	Innovation Multiplier, Lda	Portugal	CO2 capture devices	Direct air capture and marina carbon farm	none		blue economy					Carbon credits	https://innovamulti.tech/
30	Lusalgae	Portugal	biotechnology for seaweed extracts	seaweed operating	seaweed	R&D	blue economy		Processing and biorefining of seaweed and other marine organism; IMTA – seaweed farming in shore allowing eco-sustainable growth of fish and other marine organisms in order to obtain seaweed biomass;	cosmetic, pharmaceutical, food producers	Develop sustainable algal biotechnology in an environment of innovation and bioremediation.	seaweed extracts algae bioprocesses	https://www.lusalgae.pt/lusalgae_en.html#about-us
31	MadeinSea, Produção Marinha Sustentável, Lda.	Portugal	Blue Biotech products	marine salts	seaweed, microalgae, fish and marine invertebrates	farming and transforming	blue economy					marine salt	https://www.madeinsea.pt/
32	MARINNOVA - Marine and Environmental Innovation, Technology and Services, Unipessoal, Lda.	Portugal	products and strategies to improve the growth, productivity, competitiveness and environmental sustainability of aquaculture	Aquaculture servies: nutrition and quality, feed formulation, experimental trials, pathology, immunobiology, consultancy	n/a	farming	blue economy					aquaculture services	https://www.marinnova.pt/
33	Matereospace, Lda.	Portugal	Software for data management	Software for Data management	n/a	monitoring	wild farms, coastal farms	8	UNDERSEE relies in oceanographic models to provide ocean data from the past up to 10 days in the future, including temperature, salinity, oxygen, chlorophyll. MATERIOn-situ monitoring, customized platform, alarms and critical limits alerts, remote control, sensors management, trend analysis	ocean infraestructures (farms), fisheries and in-land infraestructures	At MATEREO we combine data from different sources including in-situ sensor, satellite radar measurements and third-party data sources (weather, traffic loads, etc.) to provide real-time analysis, insights and metrics about the current state and the evolution of critical infrastructures in a single web platform.	Water Data Acquisition Systems	https://matereo.com/
34	N9ve	Portugal	Development of algae-related technologies to separate, concentrate and recover technological critical elements	bioactive ingrediantes	seaweed	R&D	blue economy					techonological critical elements	https://n9ve.pt/
35	Necton - Companhia Portuguesa de Culturas Marinhas, S.A. (Phytobloom)	Portugal	operating different microalgae cultivation technologies, both for freshwater and marine microalgae, ranging from open to closed systems	Microalgae and Traditional Sea Salt	microalgae marine salt	cultivation	blue economy feed, cosmetics, food and nutraceuticals					microalgae	https://necton.pt/
36	Next Generation Chemistry, Unipessoal Lda	Portugal	using bioscience to create greener solutions	Dyes, finishings, technical textiles, anti microbials, bio surfactants	biomass (various)	R&D	textilas					Bioscience	https://ngc.bio/
37	NUMAR	Portugal	production food through offshore cultivation of macro algae and development of seaweed-based food products while helping the decarbonisation of the environment.	seaweed and seeds	seaweed	producing, processing	blue economy	5	offshore cultivation of macro algae	food industry / seaweed producers	rethinking traditional food. We develop seaweed based food products while helping the decarbonisation of the environment.	Seaweed macroalgae	https://numarbiotech.wixsite.com/sines
38	Oceano Fresco Unipessoal, Lda.	Portugal	regenerative farming	clams	clams	farming and harvesting	blue economy					European clams	https://oceano-fresco.pt/
39	Ria Search	Portugal	Research in aqquaculture	batches of experimental aquafeeds and facilities to perform in vivo nutrition and health-related trials on fish and shrimp	fish, schrimps	R&D	blue economy						https://www.riasearch.pt/
40	Scoparia Lda (Body Ocean)	Portugal	drying process of our algae, exclusive BODY OCEAN extracts are produced with biological certificate from KIWA SATIVA.	bio renegerating face cream	algae	transformatio n	blue economy and cosmetics					wild & organic skincare	https://bodyocean.pt/
41	Sea4US - Biotecnologia e Recursos Marinhos, Lda.	Portugal	Marine Biology and Electrophysiology and focuses on compound library generation, drug discovery and preclinical development from marine substances and compounds	biotechnology company specializing in the discovery and development of new drugs based on novel marine compounds for unmet clinical needs, which require new chemical approaches and new molecular solutions	Marine Biology and Electrophysiology and focuses on compound library generation, drug discovery and preclinical development from marine substances and compounds	marine bioresources exploitation and R&D	blue economy					marine clinical needs	https://sea4us.pt/pt/
42	Seaculture S.A.	Portugal	fish farming off-shore	seabass seabream and salmon	fisheries	farmingand comercialisati on	blue economy food					off-shore fish farm	https://www.jeronimomartins.com/en/about-us/what-we-do/agribusiness/
43	SEAentia	Portugal	recirculating aquaculture system (RAS)	meagre production	aquaculture	farming	blue economy food		The RAS design will be perfectly adapted to improve fish performance, and scientific research on the farmed species will allow developing adequate growth models and feeds. Production of meagre under completely controlled conditions in SEAentia facilities.	large companies and general consumers, japonese and asia cuisine	All tanks will be equipped with pH, dissolved oxygen, and other sensors to continuously monitor water quality. This system will be linked to web interface and to an alert system that will send an SMS or e-mail in case of any balance disruption. Our aim is to produce top quality fish in the most sustainable manner by combining novel aquaculture engineering with scientific research. SEAentia will pioneer in meagre production from hatchery to commercial size in a sustainable and environmental-friendly RAS where animal welfare is a major concern.	meagre RAS	https://www.seaentia.pt/
44	seaExpert - Serviços e Consu	Portugal	freeze-dried, sun dried, dried in the dark,	Fisheries observation and consultancy , seaweed supplier (whole or drinded)	fishing, seaweed	harvesting, processing	blue economy					cosmetics, feed, biotechnology	https://seaexpert-azores.com/?page_id=2924&lang=en
45	SPAROS Lda.	Portugal	raw materials, mixing & milling, low shear extrusion, high-shear extrusion, drying, crumbling, vacuum coating, sieving, packaging	Hatcgery feed, zebrafeed, feednetics,	raw materials	R&D aquaculture feed	blue economy					nutrition in aquaculture	https://www.sparos.pt/
46	Tech4Med	Portugal	innovative formulas of bioactive, smart, and nanotechnological materials, using advanced knowledge, for industrial applications in textiles and cosmetics. Our strategies are based on recycled biomaterials and bioactive ingredients from industrial, forest and sea wastes.	biobased sustainable solutions	biomaterials and bioactive ingredients (undustrial, textiles, sea)	R&D	bio economy						https://www.tech4med.pt/
47	WeDoTech - Companhia de Ideias e Tecnologias, Lda.	Portugal	Research, Development and Innovation (R&D&I) and Technical Consultancy company in Environmental, Food and Chemical Engineering.	Biofiltration, obit, optimoudor	n/a	R&D	food and chemical engineering					biofiltration	https://www.wedotech.pt/pt-pt/

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1	Atlantic Mariculture	Scotland	Cultivation and biostimulant	ocessed seaweed to biostimul	Seaweed	cultivation/processing	Blue and Green	6	Cultivation and processing to biostimulant	Biostimulants and biomass	Mostly biostimulant and biomass	Seaweed cultivation	https://www.atlanticmariculture.co.uk
2	BioMara	Scotland	Processing, biorefinery	bactives for human consumpt	seaweed	processing	Blue and Green	6	biorefinery	Human food	fucidon and additive for bread	Processing biorefinery	https://www.biomara.tech
3	Cauntec	Scotland	Chitosan production from raw shellfish byproduct	Chitosan powder, Chitosan fibre	Shellfish	processing	blue	9	CuanTec process raw shellfish byproduct (shells) into chitin and chitosan using their prorietary technologies	Health, cosmetics, nutraceuticals, coatings, thickeners, biostimulats, water purification	Mostly biomedical for Chitosan Fibres, mostly beauty for Chitosan powder	shellfish, chitosan, biomedical	Chitosan production, Cuantec, Scotland
4	Ecocasade	Scotland	Primary processing	Various	Seaweed	processing	Blue	9	Drying, shredding, packing, wet shredding, cleaning,	Dependent on cultivation company	Various, mostly biostimulants and food	seaweed, primary processing	https://www.eco-cascade.com/
5	Herbidean Seaweeds	Scotland	seaweed	supplement/ plant growth st	seaweed	wild harvest	blue	7	Hebridean Seaweed Company processes the raw ascophyllum nodosum into high quality environmentally friendly organic seaweed products.	Animal feed supplement, plant growth stimulant/ skincare	Animal feed supplement, plant growth stimulant/ skincare	seaweed	The Hebridean Seaweed Company
6	Horizon Seaweed (part of Caherush Enterprises	Scotland	seaweed harvesting and primary processing	d market, animal feed, cosme	seaweed	harvesting/ primary processing	Blue and Green	9	Basic includes drying	Food market	food market, health, animal feed, cosmetics	seaweed, food	https://horizonseaweed.com
7	IBioIC	Scotland	ALL - Network for Bioeconomy	Industry support and match-making	ALL Biotechnology	ALL	Blue and Green	1 to 9			Support and stimulate bioeconomic activity across the UK		IBioIC - About Us
8	Kaly	Scotland	Seaweed cultivation	Biostimulant	seaweed	cultivation	Blue	4	Just starting and not clear that they have produced a product	Mainly the biostimulant market and the blue carbon/nature based solutions		seaweed, NBS	Introduction - KALY
9	Kelp crofters	Scotland	Seaweed cultivation	Biostimulant and soil improve	seaweed	cultivation/processing	Blue	9	Selling product		Aimed at the plant biostimulant market	Seaweed biostimulant	KelpCrofters
10	Marine Bioplomers	Scotland	Alginate extraction from Ascophyllum Nodosum and Laminaria Hyperborea	alginate for various applications	Seaweed	processing	blue	7	processes seaweed to extract aglinate	food/ drink industry	Food/ drink	alginate, seaweed	Seaweed Component Extraction | Marine Biopolymers Ltd - MBL
11	Oceanuim	Scotland	Biorefinery/ green chemistry approach to processing seaweed for bioactives	bioactives for human consumption	Seaweed	processing	blue	9	Processes seaweed through biorefinery process for several environmentally friendly, organic, halal, vegan, seaweed products	Health, skincare, food	Health and wellness (bioactives)	seaweed, health, bioactives	Home - Oceanium
12	South West Mull and Iona community Trust	Scotland	Cultivation	Raw seaweed	Seaweed	cultivation	Blue	7	Cultivating seaweed	Food, feed, biostimulants, cosmetics, packaging	Wet and dry biomass for sale	Seaweed cultivation	About Us : South West Mull and Iona Development | Community Led Sustainable Solutions (swmid.co.uk)
13	Ufraction8	Scotland	microfluidin separation techniques, multiplexing precisely manufactured micro channels into arrays, or "stacks" of devices, it is possible to create a modular approach to scale processing volumes.	microfluidics-based filter systems	bio-manufacturers	R&D	bio economy					bioseparation technology	https://www.ufraction8.com/
14	Uist Asco	Scotland	Hand harvesting	feed, biostimulant, nutraceuticals	Seaweed	harvesting/ primary processing	Blue	9	hand harvesting wild seaweed	feed, biostimulants	Soil conditioners and feed supplements	wild harvest, biostimulants	Uist Asco | Scottish Seaweed Company | Ascophyllum Nodosum
15	Xanthella	Scotland	PBR producer/microalgae/seaweed	PBR for microalgae productio	seaweed/microalgae productic	production	Blue	9	Xanthella produce their own range of photobioreactors but have worked in the production of biomass for a range of markets.	Target market has mainly been food and aquaculture	Food, sale of PBRs and contract research for others	PBR, microalgae	https://xanthella.co.uk

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1	Agrenco	Malmö, Sweden	Machines and systems for food processing industry and biological side-stream treatment in food industry	Manufacturer and supplier of processing technology for food industry including seafood	Manufacturing of seafood ingredients to consumer products as well as treatment of biological sidestreams and waste in food processing	processing food	Blue seafood	9	Agrenco specialises in machines for food manufacturing . There is a patented GreenBox that can handle biological waste in food processing industry. The waste goes through a process where only a bacteria-free powder remains. The biological waste is reduced by around 75%-85%. The process takes 8 to 15 hours depending on which GreenBox is used. GreenBox handles corrugated cardboard and paper up to 15% of the content. Food waste is emptied directly into the machine. The waste is reduced to a 100% sterile biological mass that can be used as fertilizer in flower beds or thrown in the bin. No external additives or microorganisms are used in the process.	Food processing industry		Technology, food processing	https://www.agrenco.se/
2	Algblomman	Sweden	Macro algea events and workshops	food services, recipe development, turism, workshops	macroalgae	Harvestring, processing, cookshops	Blue	7	Cookchops, seeweedsafari, events, turism	Resturants, other companies, consumers		Macro algea, Turism	https://www.algblomman.com/
3	Aquafood AB	Sweden	Processing food	Take care of the side streams from fish production for upcycling into high-value components and increase efficiency and sustainability in the value-chain.	Fish	Food processing, sidestreams	Blue seafood	5	Our technology uses the heads, fins, frames, meat remaining on the bones, etc. that constitute the sidestreams of regular fish production. With these raw materials, we create high-quality, and high-value oils, a unique, premium, and high-functionality protein mass of food grade quality as well as marine collagen.	Food industry, life science		Technology, food processing	https://aquafood.se/
4	Axolot Solutions AB	HQ Helsingborg, Sweden also Finland and Norway	electrochemical technology, AxoPur unit consists of four elements: A power source, a reactor module, flotation (or in a few cases sedimentation) and a control system.	system solutions for purifying and recycling of water/wastewater	land-based fish farming	Technology for primary production	blue and marine	8 or 9	core tehnology is AxoPur® whereby dirty waters are separated into clean water and a small amount of solid floc. The driving force is electricity.	B2B, landbased fishfarmers	technology easily and efficiently removes suspended solids, transition metal ions, emulsified/dispersed oil/fat/grease, phosphorus and most dissolved substances of some size. This opens the door to many more applications than the above, e.g. within food processing (e.g. slaughterhouses – usually phosphorus, fat, protein and blood), chemical industry, oil processing, (bio-)fuel manufacturing/handling, algae harvesting and processing, fertilizer upgrading (selective removal of cadmium), phosphorus recycling and many more. Emerging pollutants Emerging pollutants is a notion to cover contaminants commonly not measured in wastewater flows but at the same time being of an increasing concern. Here we find substances like PFAS, microplastics, medical residues and others. Our technology proves capable of removing many of the contaminants found in this group as well, although thorough testing is always necessary required here and analytical methods to evaluate the removal is sometimes a challenge.	Technology. landbased fishfarming	http://www.axolotsolutions.com
5	Biopolymer Products of Sweden AB	Göteborg, Sweden	biotechnology	Environmentally friendly corrosion prevention primer based on Mussel Adhesive Protein (MAP), Medical glue from mussels	mussels aquaculture	value-added product from mussle shell side streams	blue and marine	8 or 9	protein based adhesive	marine - boats, Medical industry	Biopolymer Products of Sweden AB is developing an environmentally friendly corrosion prevention primer based on Mussel Adhesive Protein (MAP), and has patented a production method of MAP. The protein based adhesive has an ability to replace water from a surface which results in the ability to adhere to surfaces as well as to cure in a wet environment. The aim is to develop an environmentally friendly and user friendly universal primer that will improve the adhesive strength for coatings on metals and polymeric materials as well as prevent corrosion of metals.	Anti-fouling, medical glue	(To be updated)
6	Biopolymers of Sweden	Sweden											
7	Blue Fields	Sweden	Macroalgae cultivation and harvest	sea lettuce, ulva	macroalage	cultivating, harvesting	blue seafood	5	Cultivation and harvesting of Ulva spp. sea lettuce on the west coast.	B2B, B2C seafood		Sea lettuces	https://www.bluefields.se/
8	Blue Lobster	Sweden/Denmark	Digital plattform for connecting sustainable fisherman directly with customers	Digital plattform and marketplace for B2B	fish and seafood marketplace	logistics, marketplace seafood	Blue and marine	6	Our platform connects low impact fishermen with buyers who have the capacity to accept deliveries straight from the harbor. We organize the logistics to bring fresh, sustainable seafood directly from harbor to customer.	fisherman and restaurants	Blue Lobster is a mission driven company aiming to bring fresh, sustainable seafood to everyone's table. Our long term objective is to create the conditions for a better fishing industry. We split up this huge task into 4 areas where we see potential for improvement: efficiency, sustainability, fairness, transparency.	Technology, digital plattform	https://bluelobster.app/
9	Bohini AB	Sweden	Seafood valorization consultant	Services in seafood valorization	Mussels, algae, fish	Food processing and end co	Blue seafood	4	Providing inspiration and consulting services to school kitchens and others looking to integrate new seafood products from side-streams into their menus.	public sector B2B			https://www.bohini.se/
10	Cabinplant A/S	Global/Sweden	food processing machinery		fish and seafood	production, processing and packaging	Food	9	Fish processing equipment for processing of fish(herring & mackerel) and shrimp to end consumer	food industry		Technology, food processing	https://www.cabinplant.com/
11	CanTec	Sweden	food processing machinery	Machinery and parts for food processing machinery	fish and seafood	production, processing	Food	9	Sales	Food processing industry		Technology, food processing	https://www.cantec.se/
12	Carapax Marine Group AB	Lysekil, Sweden	hardware - equipment for aquaculture and fisheries	1.) BIVALVE AQUACULTURE EQUIPMENT - PRIMARILY FOR MUSSEL AND OYSTER FARMING 2.) EQUIPMENT FOR SIMPLE DIVERLESS INSTALLATIONS OF MARINE SCREW ANCHOR 3.) SUPPLIER OF CREELS, POTS AND CAGES FOR CATCHING CRUSTACEANS, FISH AND SNAILS	mussels, ocean fisheries and marine tech	Technology for primary production - aquaculture and wild harvesting	blue and marine	8 or 9	Aquaculture eqipment such as: Mussel Farming Systems, Fisching equipment including creels and pots, hauling equipment, rope and floats. Marine mooring eqipment.	Primary producers aquaculture		Technology, aquaculture	https://www.carapax.se/
13	Catxalot	Sweden	Harvesting wild algea	food products, education, workshops	macroalgae	Harvesting	Blue	6	Harvesting wild algea. Also offering workshops, cooking classes and alge diving/harvesting events	Restaurants, consumers		Macro algea, Turism	https://catxalot.se/en/home
14	Clinton Marine Survey	Göteborg, Sweden	marine surveys	offer high quality hydrographic and geophysical surveys for navigation, dredging operations, charting, marine construction and more.	Blue biotech, serveys	Offshore wind, offshore tidal surveys	blue	9	We offer high quality hydrographic and geophysical surveys for navigation, dredging operations, charting, marine construction and more.	B2B		biotechnology	Home | Clinton Marine
15	Cresponix	Sweden	Landbased aquaculture systems - RAS	land-based grown shrimp	crustacean	Primary production, cultivation	Blue	7	Landbased cultivation of tropical shrimps/Scampi	B2B		sustainable shrimp	https://cresponix.se/
16	Ecopelag	Sweden				Aquaculture	Mussel aquaculture	Pet food	7 to 9				
17	Finnvacum	Sweden, Finland	Machines and materials for the food industry	Manufacturer and supplier of machines from processing to labelled consumer packaging and quality monitoring and materials required by the packaging machines.	Manufacturing of seafood products and packaging solution for seafoods	food processing and packaging	Blue seafood	9	Production technology for the packaging and processing of seafood. Even plastic materials to suit the packaging needs of the industry.	small, medium and large processors of meat and fish	Finnvacum supplies customers comprising small, medium and large processors of meat and fish, cheese manufacturers, and food factories with a selection of high-quality products that meet the industries' needs concerning slicing, weighing, packaging, labelling and quality control, in both small and large production units.	food processing	https://www.finnvacum.fi/en/
18	Flocazur AB	Göteborg, Sweden	Innovative cleantech technology	Water cleaning, separating industrial liqids	land-based fish farming, bio-refinery process water	Technology for landbased fishfarming	blue	9	We are a company that works with innovative cleantech technology. We define our self as an access to companies, universities, municipalities and country administrations that need to survey information about different environmental or industrial purifying and separating liquids projects. If you need assistance with a project or help with starting and designing a new project, we offer our knowledge and commitment so that you may attain your goals.	fish farming - landbased aquaculture, bio reffenadery		biotechnology, landbased fishfarming	https://flocazur.com/
19	Gårdsfisk	Sweden	Landbased aquaculture systems - RAS	Supplier of landbased aquaculture systems to farmers for contract breeding of fish	land-based fish farming	fish breeding, farming	Blue aquaculture	8	Supplier of a aquaculture system designed for landbased fish farming of LAT: *Oreochramis niloticus* *Clarias gariepinus*	farmers and landowners wanting to start a landbased fish farm	We offer a proven system for fish breeding. We install the system at your place and are available to assist in the commissioning process. Then you buy fry from us and we buy the fish from you and sell it on to restaurants, wholesalers and shops, consumers under the Gårdsfisk brand - a great fish from Swedish farms.	Lansbased fish farming	https://www.gardsfisk.se/
20	Garos	Jönköping, Sweden & Poland	Automated machine solutions for seafood industry	Manufacturer and supplier of various automation solutions for seafood industry production.	Fish and food processing	processing food	Blue seafood	9	GAROS specialises in machines and system solutions for the Global cured meat, poultry and fish industries. We supply everything from design, development to manufacturing, installation and support.	Fish processing - salting (brine injection), packaging (vacuum pack)	Used to help fish industry to prepare fish for packaging and sale to end consumer.	Technology, food processing	https://garos.se/
21	Glufs AB	Sweden	Processing animal feedstock	Producing food and suppliments for dogs from mussels.	Mussels	Processing animal feedstock	Blue	9	Producing healthy dogfood and supplements using side streams from blue mussel production. Selling direcly to consumers through a webshop.	consumers		Animal feedstock, mussels	https://glufs.co/
22	HÅVA	Sweden	Landbased aquaculture systems - RAS	land-based hatchery & grown shrimp	crustacean	Primary production, cultivation	Blue	6	Landbased cultivation of tropical shrimps/Scampi	B2B		sustainable shrimp	https://www.hava.se/
23	Havstensund Ostron	Sweden	Harvesting cultivated and wild oysters	food products - aquaculture	oysters	Cultivating, harvesting	Blue	9	Cultivating and harvesting cultivated oysters, harvesting wild oysters, Tursim and events	Resturants, other companies, consumers		Oystes	https://havstenssundsostron.com/
24	ITECH	Göteborg, Sweden	biotechnology	anti-fouling	marine vessels/transport	Blue biotech - anti fouling	blue biotech	9	developers of Selektope - an active antifouling agent that repels barnacles from ships	marine-boats	We develop, market and sell the performance ingredient, Selektope® for use in marine antifouling coatings	biotechnology, anti-fouling	https://i-tech.se/
25	Kaira Nordic	Sweden	Cultivating and harvesting macro algea	food products	macroalgae	Cultivating, harvesting	Blue	4	Cultivation and harvesting sugar kelp, mostley manually.	Restaurants, consumers		Macro algea	https://kairanordic.com/
26	Kingfisher offshore AB	Sweden	BlueBio Startup	1989	1-10		Musselfarms and surveynets	Mussels, seaweed		Blue			
27	KOASTAL	Sweden	small-scale algae cultivation	education and services for algae farmers	macroalage	Primary production, education, distrubution	Blue	4	Provide knowlege, support, eqipment, hemp with licence for algea farmers	B2B, upcoming algea farmes		algae farming	https://www.koastal.se/
28	KOBB	Sweden	macroalgae cultivation and harvesting	Dried/Frozen seaweed	macroalgae	Cultivation, harvesting, processing	Blue	9	Cultivation, harvesting and processing of macro algea, primarly sugar kelp and sea sallad. Processing to salted/pickeld foodingridiens.	B2B		Macro algea, Sugar kelp	https://kobb.nu/
29	Marel	Global/Denmark/Iceland	food processing machinery		fish	processing	food	9	Automated fish processing equipment	food industry		Technology, food processing	https://marel.com/en
30	Marine Taste	Sweden	Sea squirt/Ciona cultivation, harvesting, processing, product development	food products	ciona	Cultivation, harvesting, processing	Blue	8	Cultivation of Cirona, harvesting and processing in to different food products.	Public meals, food distrubutors, super markets, consumers, resturants.		sea squirts, Cirona	https://marinetaste.com/en/home/
31	Mounid	Sweden	microalgae pigment extraction	algae-based textile ink	microalgae	Micro algea processing to ink	Blue	4	Processing micro algea to textile ink	B2B, textile companys		algae ink textile	https://www.mounid.se/
32	Musselbaren	Sweden	Processing muselmeat	food services, recipe development	mussels	processing food	Blue	9	Processing mussels into minced musselmeat, recepie development, workshops, turist events including cooking and boatride, food service	Public meals, food distrubutors, super markets, consumers, resturants.		Mussels, food	https://www.musselbaren.se/ljungskile/
33	Musselfabriken	Sweden	mussels - valorization, product development	food products, turism, education	mussels	Processing	Blue	5	Producing minced musselmeat an using that as base for several different dishes such as patties, balls, burgers. Also looking for ways to process/upcykle the musselshells and offer turist events.	Public meals, food distrubutors, super markets, consumers, resturants.		mussel mince, Turism	http://www.musselbaren.se/musselfabriken
34	Musselfeed	Sweden	protein extraction process	Protein for food and feed	mussels	Processing	Blue	9	Processing (minceing and drying) sidestreamed musselmeat to musselpowder. Used for human or animal consumption.	Public meals, food distrubutors, super markets, consumers, resturants.		Mussels	https://musselfeed.com/
35	Nippon Gases	Sweden, Norway	packaging	MAP - Modified Atmosphere Packaging (MAP) packing is the tool that helps maintain product freshness for a prolonged period of time, offering various carbon dioxide gas mixes for seafood.	Seafood	Packaging	Blue	9	The MAP process prolongs the shelf life of seafood and also maintains the appearance, taste and texture for optimum presentation and longevity.	Food industry		Technology, food processing	https://nippongases.com/ie-en/for-aquaculture-and-fisheries
36	Nordic Seafarm	Sweden	macroalgae cultivation and harvesting	Dried/Frozen seaweed, foodproducts	macroalage	Cultivation, harvesting, processing	Blue	9	Cultivation, harvesting and processing of macro algea, primarly sugar kelp and sea sallad. Processing to dried and/or frozen ingridiens.	B2B - Restaurants, food distributors, super markets, public meals		Macro algea	https://www.nordicseafarm.com/
37	Nordic Water	Mölndal, Sweden	Water cleaning	Water cleaning, sedementation, custom made process solutions	land-based fish farming, bio-raffenadery process water	Technology for landbased fishfarming	blue	9	Nordic Water is a leading supplier of screening, sedimentation and filtration equipment to municipal and industrial water treatment plants. With 60 years' experience in the industry, the company has a large installed base of equipment that will continue to receive industry-leading support as always. For Sulzer, the deal is an excellent match for the company's existing portfolio of pumping, mixing, aeration and solids reducing/removal solutions that offer reliability and efficiency to water and wastewater handling applications. Coupled with Sulzer's global presence and involvement with water treatment projects around the world, the acquisition enables a greater appreciation for Nordic Water products and the improved sustainability they offer.	land-based fish farming, bio-raffenadery process water		biotechnology, landbased fishfarming	https://www.nordicwater.com/sv/
38	Orust Shellfish	Sweden	Cultivating and harvesting mussels and oysters	food products - aquaculture	mussels, oysters	Cultivating, harvesting	Blue	9	Cultivating and harvesting mussels and oysters	B2B - Restaurants, food distributors, super markets		Mussels, Oysters	https://www.orustshellfish.se/
39	Ostrea	Sweden	oyster hatchery, microalage cultivation	oyster hatchery & oysters	oysters	Primary production, cultivation	Blue	8	Cultivation of oysters and micro algea	B2B		wild oyster hatchery	https://aquaculture.se/
40	Pegust Utveckling AB	Sweden											
41	Pelagic Seafood Sweden AB	Sweden	Processing food	Food from minced herring such as balls, parries, nuggets.	Fish, herring	Food processing	Blue seafood	6	Producing dishes from minced herring such ass balls, patties and nuggets. Selling the products direcly to restaurants and public kitchens, and direcly to consumers bye a foodtruck.	Restaurants, public meals, consumers		Food processing, fish	https://pelagicseafood.se/
42	Pond Fish & Greens	Sweden	Landbased aquaculture systems - RAS	aquaponics	farmed fish	Primary production, cultivation	Blue	8	Landbased farming/cultivation of tropical fish			Landbased fishfarming, Aquaponic	pondfishandgreens.com
43	Rena Hav	Kungshamn, Sweden	Water cleaning	Circular treatment of waste and Fishfarming	land-based fish farming, making biofuel and fertilizers	Value added from fish process water to fertilizer and biofuel	blue and marine	9	We convert the fishing industry's waste into clean energy and biological fertilizer for local agriculture, while significantly reducing harmful emissions into the sea and air.	water cleaning, making fertilizer and biofuel		Water cleaning, landbased fishfarming	https://renahav.nu/
44	ReOcean	Sweden											
45	Saga Aqua	Sweden	RAS aquaculture products and design servies	RAS system	farmed fish	production, processing	Blue	9	manufacturer of small- to medium-sized landbased recirculating systems (RAS)	B2B, fishfarmers		Technology, landbased fishfarming	https://sagaaqua.com/
46	Scandinavian Seaweed C	Sweden		Dried seaweed	Wild seaweed		Blue					Seaweed, sustainable harvest	https://www.scandsea.se
47	Scanfjord	Sweden	Mussels cultivation and harvesting	blue mussels	mussels	Cultivating, harvesting	Blue	9	Cultivation and harvesting blue mussels	B2B - Restaurants, food distributors, super markets		Blue mussels	https://www.scanfjord.se/
48	Sea pattern	Norrköping, Sweden	Technology for ocean data analysis	Provide a new ocean currents data analysis' method based on physics informed AI in order to generate both a flow map showing the underwater currents and predictions in a specific region.	Ocean data analysis	Aquaculture sector - fish farming, mussels and seaweed farming.	blue	9	Seapattern is a swedish start up working with a new ocean currents data analysis' method based on physics informed AI in order to generate both a flow map showing the underwater currents in a region (in high detail) and also predictions of the same field. The tools are eco-friendly, durable, flexible and connected to provide reliable data capture. This technology can be used in several fields and we are now focusing on the blue energy and aquaculture ones. In fact, SeaPattern is developing a technology and a method that would accelerate the development and growth of the aquaculture sector, from fish	ocean data analysis	Used to accelerate the development and growth of the aquaculture sector, from fish farming, to mussels and seaweed farming.	Technology	https://www.seapattern.com
49	SEAC AB	Sweden	Fish processing manufacturer										
50	Seatrients	Sweden	sustainable and healthy food products made from sea moss	seasonings	moss	farming and transformation	blue economy food					moss	https://www.seatrients.com/
51	Simris Alg	Sweden		Algae Omega-3	Microalgae		Blue					Algae farming, Biomemetics, Biotechnology, Plant-based omega-3, sustainable food	https://www.simris.com/
52	SmögenLax	Sweden	Landbased aquaculture systems - RAS	salmon smolt	landbased fishfarming	Primary production, cultivation	Blue	4	Landbased farming/cultivation of salomond	B2B		Landbased fishfarming	https://smogenlax.com/
53	Sustainable Perspectives	Sweden											
54	Swedefish Machinery AB	Hyssna, Sweden	technology for fish processing	Swedefish machinery will provide infrastructure technology for fish processing	Fish processing	processing food	Blue and marine	9	Manufacturing automation machinery for the food industry, with particular emphasis on the fish processing and canning industries. Our specialty is machinery for the processing of pelagic fishes, such as sprats, herring, mackerel and anchovies. Machinery especially for conveying, feeding, nobbing, filleting, skinning and packing. Our main focus is pelagic species such as herring, sprats, sardine and mackerel. You will also find products that suit other industries in the food business such as the meat industry. Our range of retracting conveyors (or shuttle conveyors) is one example of machines that can be used for all kind of products.	Fish processing - filleting, skinning, salting, packing,	Fokus on pelagic fish and the canning industry.	fish processing	http://www.swedefish.se/
55	Sweden Pelagic AB	Sweden	Processing food	Producing minced meat from herring	Fish, herring	Food processing	Blue seafood	9	Making miced fishmeat from the "less attractive" parts of the fish.	Food industry, restaurants		Food processing, fish	https://swedenpelagic.se/
56	Swedish Algae Factory	Sweden	biotechnology	Algica for use in cosmetics and solar cell technology	Microalgae	production and extraction	Blue biotech	9	Cultivation of algae group diatoms and extraction of high-tech silica shells - Algica	B2B cosmetic companies, solar cell manufacturing		Algica	https://www.swedishalgaefactory.com/
57	Tångkullan	Sweden	Wild macro algea - harvesting and processing	food products, workshops, turism	macroalgae	Harvesting, processing	Blue	9	Harvesting wild algea, processing and selling food products, offering workshops and algea events	Restaurants, consumers		Macro algea, Turism	https://tangkullan.se/
58	Ten Island Seafarm	Sweden	macroalgae cultivation and harvesting	food products, turism, education	macroalgae	Cultivation, harvesting	Blue	7	Cultivation and harvesting sugar kelp, mostley manually. Also offer algae related turist events.	Restaurants, consumers		Macro algea, Sugar kelp, Turism	https://ten-island-seafarm.business.site/
59	Volta Greentech	Sweden	landbased microalgae cultivation and harvesting, drying	Feedstock for cows	microalgae	primary production and ingredient preparation	Blue	8	Landbased cultivation of red algee, harvesting, processing/drying	B2B, farmers, feedstockproducers		CO2 reduced beef, red alge	https://www.voltagreentech.com/about/

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1	Adapta	Spain	Technology Provider (Block Chain /Aquaculture Monitoring)										
2	Advance Nonwoven A/S	Denmark	CAFT (Carding Air-laid Fusion Technology) introduces unparalleled flexibility and capacity in air-laid processing ; production line and an advanced spray system.	, Growth mats for micro greens, Textile waste for solid textile boards, Seaweed for insulation	Processing, manufacturing equipment	9	provide a nonwoven technology that focuses on minimizing waste and creating material loops with solutions made from recycled material and natural fibres.	sustainable, circular economy business	create a circular economy for your business	direct contact	natural, recycled fibre		
3	Algenladen GmbH	Germany		Merchandise, edible seaweed and seaweed containing food	Seaweed		Blue					AlgaeFood, E-commerce, Food, Marketing, Retail	https://www.algenladen.de/
4	Aquacopa	Germany		Marine plankton for raising fish larvae	Plankton		Blue					Copepods, Fish larvae, Microalgae, Plankton, Rotifers	https://www.aquacopa.de/
5	AromatEco	UK	We sustainably produce chemicals from carbon dioxide and other sources using microbes. We take these microbes and use a photosynthetic process to create chemicals that you would use in everyday products in a much more renewable way.									photosyntetic microbes	
6	Baader Fish	Germany	Aquaculture Processing Systems										
7	Blue Lobster	Denmark	Direct Sales Systems										
8	Blue Research	Denmark	Consultancy	Low-trophic aquaculture	Aquaculture								
9	CM Aqua Technologies	Denmark	Water treatment	filtration, sludge drain, de-licing and protein skimming to oxygen generators	water	9	filtration, disinfection and oxygenation of water	watertreatment	environmental-friendly water treatment	direct contact	filtration, watertreatment, aquaculture		
10	Erwin Sander Elektroapparatebau GmbH	Germany				products for aquaculture ponts	Aquaculture products, RAS systems	Aquaculture	9	Recirculating aquaculture systems (RAS),	Aquaculture operators		direct contact
11	Evenor-Tech	Spain				Evaluation Systems							
14	Flexsea	UK	compostable biopolymer material derived from seawe	biopolymer	seaweed	transformation	blue economy					biopolymer	https://flex-sea.com/
36	Konree Innovation Ltd	Ireland	Pest elimination	Robotic pest management an	Pest management and contro		Blue	5	Their robotic pest management and control solution can transform the aquaculture industry and quality of life for aquaculture fish species.	Their solutions aim to solve the current obstacle to growth in open pen sea farmed salmon production.			https://konreeinnovation.com/
37	Kraken Robotic GmbH	Germany				Subsea Monitoring Systems							
38	Kramer Machines	Netherlands				Mussel and fish Processing	design and manufacture of stainless steel machines and installations for the fishery, fish processing	Fish, mussels	8 to 9				https://www.kramermachines.nl/en/
39	Kuehnle AgroSystems	Hawaii	Biotechnology	Developed a patented and lo	Tech solution		Blue	7	Their ferentation technology produces natural astaxanthin for the aquafeed market.	They aim to be the aquafeed sector's rescue with natural coloring.			https://www.kuehnleagro.com/
40	Mills	Finland				Food App							
41	Notpla	UK				Alginate BioFilm / Coating							
42	Ocean Rainforest	Faroe Islands				Aquaculture	Aquaculture	Aquaculture	9				
43	OriginByOcean	Finland				Biorefinery	Biorefinery	Biorefinery					
44	Pennotec	UK				Chitosan- Recovered Aquaculture Feed / Chitosan Coatings							
45	PureAlgae	Denmark	Aquaculture	Aquaculture	Aquaculture								
46	RELICTA	Italy	Fish Biopolymer Biofilm						Relicta solution is a water-soluble bioplastic material obtained from fish processing waste and suitable for packaging solutions. In particular, from fish skin is possible to obtain, through a specific mixture, a transparent and odourless plastic film. The plastic, due to its composition is compostable, biodegradable and water-soluble. Water solubility is the most important feature of our product which opens up new ways of disposal for this material.				
47	SeaChange BioChemistry	Canada	Seaweed utilization	Has developed a method to e	Seaweed utilization		Blue	7	They have developed a proprietary method to extract multiple high value chemicals from brown seaweed in a single process.	Contribute to a more sustainable use of the oceans' resources.			https://seachangebiochemistry.com/
48	SFTec Oy	Finland	Technology type	Seaweed drying + biochar	Proc essing	6 to 8	Seaweed drying + biochar						
49	Sustainable Feed Ltd	UK	Aquaculture Feed										
50	Technopackaging	Spain	Chitsoan Biofilm / Coating										
51	The Kelp Garden	Spain	cultivate a variety of sustainable seaweed to be distributed as fresh raw material to several industries, while reducing the carbon footprint in transportation.										http://www.linkedin.com/in/thekelpgarden-tkg-9a4b9b23a
52	The Seaweed Shack	Germany		Project Development			Blue					Algae, Algae based cosmetics, Algae farming, Algae food products, AlgaeFood, Aquaculture, Communities, Cultivation, Education, Food, Foraging, Knowledge, Macro algae, Plant-based omega-3, Seaweed	https://www.theseaweedshack.co.uk
53	TomKat Global Solutions	Australia	Environmentally responsible packaging	They offer an environmentally responsible packaging solution	Packaging		Blue	8	They have developed an environmentally responsible packaging solution in a reusable form designed to protect perishable and temperature sensitive products, preserve the environment, save money and help meet environmental targets on sustainable packaging.	They aim to contribute to build a better, more sustainable future globally.			https://www.koolpakbox.com/
54	Viva Maris	Germany		Highly innovative food products	Seaweed		Blue					Algae food products, Highly innovative food products, Macro algae, Organic algae, Seaweed products	https://www.viva-maris.de
55	Vyld	Germany		Absorbent Intimate Care	Seaweed		Blue					Regenerative, Science based cosmetics, Seaweed products	https://www.vyldness.de
56	W•SENSE	Italy	Deep-tech	Underwater monitoring and c	Tech solution		Blue	8	Their techonologies enables multi-modal secure wireless communications and networking among submerged and surface sensing and robotic platforms.	Their aim and focus is innovative, robust, reliable, performing and secure communication and monitoring systems.			https://wsense.it/
57	WaterCycleTech - Graphene Water Technologies LTD	UK	Advanced membranes and innovative filtration systems for the production of valuable minerals and clean water	technology spans mineral extraction, concentration, and crystallisation and water purification systems	water	extraction	metals and minerals					deep tech	https://www.watercycletechnologies.com/
58	WING-ICT	Greece	IT	IT data monitoring solutions	Aquaculture, water quality	7 to 9					Aquaculture, water quality		