for a better life

for a better life

olmix Group

ALGAE-BASED NATURAL SOLUTIONS

THE POWER OF ALGAE, SERVING THE PLANET

A desire to provide natural alternatives to agricultural additives led to the creation of Olmix Group in Bréhan, at the heart of Brittany, in 1995. In 20 years, the company has become **one of the major global specialists in marine biotechnology and green chemistry**.

From the start, Olmix Group has innovated in trace elements, transforming by-products into high-value ingredients. Its mission is to make effective use of an abundant untapped resource to promote sustainable food. This approach guides the company's teams worldwide in their work of extracting value from green, red and brown algae.

Palmaria palmata

"The secret to Olmix Group's success has been our visionary approach, identifying marine algae as a renewable raw material with a unexpected potential to help feed 9 billion people sustainably by 2050."

Hervé Balusson, Olmix Group founder and CEO

1995 • *Headcount: 4*
Creation of Olmix by Hervé Balusson
Extracting value from the by-products of copper.

1997 • *Headcount: 15 • TO: 3M€*
Creation of the Mistral brand
First "litter conditioner". First use of clay as a natural alternative to chemical treatment.

1998
Creation of an export department
One person dedicated to exports in a company of 15 employees.

November 2001
European trophy for animal welfare
Introduction of the innovative Mistral concept.

March 2002
Creation of an R&D department
Creation of the Animal Care range. Launch of the MonaLisa (Eureka) program.

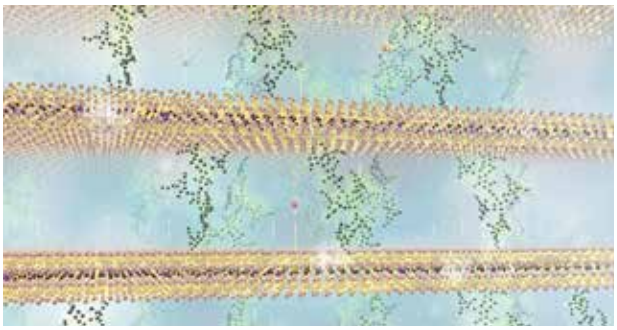
Fucus vesiculosus

AMADÉITE®: AN OLMIX REVOLUTION

In 2004, Olmix made a technological breakthrough by developing an unprecedented biomaterial, Amadéite®.

This patented hybrid material is a unique organo clay produced by associating algal polysaccharides and clay. The modification of the original clay structure significantly increases its natural absorption properties, and has enabled new applications, including binding toxins or heavy metals and improving digestive processes (biocatalysis).

Amadéite® is the result of a successful innovation cluster and has encouraged Olmix Group to pursue further R&D, such as the ULVANS collaborative program, launched in 2012.



>Amadéite®

THE OCEANS: AN UNPARALLELED NATURAL RESOURCE

The oceans, especially their plant biomass, are pools of renewable bioresources whose full potential is still being discovered. Rich in original active ingredients and compounds, algae represent a powerful source of "blue biotechnology."

2004 • *Headcount: 25 • TO: 7 M€*
Amadéite® interlayered clay patent
Creation of a new clay- and algae-based biomaterial.

2005
Initial public offering and geographical expansion
Growth in sales. Development of subsidiaries through internal and external growth.

2006
Acquisition of Melspring
Entry into the plant market.

2012 • *Headcount: 250 • TO: 56 M€*
Launch of the ULVANS program
Algae becomes the main source of innovation at Olmix Group. Emergence of the For Vet range (animal health) and filing of patents.

2017
Acquisition of PRP Technologies & Aroma Celte
24 patents and 2 official approvals

As a specialist in marine biotechnology, Olmix Group brings natural sources of nutrition and health to plants, animals and people, for a complete and consistent food and health chain.

ALGAE: A SOURCE OF HEALTH
AT EACH STEP OF THE FOOD CHAIN

Three strategic fields of activity

> Plant Care

"Growing plants better to better feed animals and humans"

- Soil life activation
- Crops nutrition
- Plant health optimisation contributing to reduce pesticide use
- Soil fertility improvement to limit the use of fertilizers

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> Animal Care

"Raising animals better to better feed humans"

- Environmental hygiene
- Mycotoxin risk
- Digestive efficiency
- Digestive welfare
- Immunity

for a better life olmix Animal Care

> Human Care

"Improving human health"

- Natural emulsifiers and thickeners
- Functional ingredients
- Health molecules

for a better life olmix Human Care

Ulva sp.

Dumontia contorta

OLMIX GROUP

28 LOCATIONS

100 COUNTRIES

HEADCOUNT: 910

2018 TURNOVER:

170 M€

(80% exports)

As a pioneering biotechnology company, Olmix Group has always made a priority of investing in research and development. With an objective of helping to better feed 9 billion humans by 2050, the company has been inventing innovative solutions from marine bioresources for more than 20 years. Its technological advances, involving active ingredients, innovative processes and applications, have already led to 24 patents and 2 official approvals.

INNOVATION IS AT THE HEART OF OLMIX GROUP

12% of employees

Innovation represents 12 percent of Olmix Group employees and 6 percent of turnover. The company's R&D division comprises health and nutrition experts, along with specialists in algae, clay minerals and trace elements. These teams are located at the Olmix Group headquarters in Bréhan, Brittany, which houses the company's laboratories and testing facilities. They also cooperate with universities and research organizations all over the world.

Brittany: land of marine research

With its significant marine science expertise and resources, Brittany is the ideal site for Olmix Group's R&D. This division benefits from the latest scientific advances thanks to one of the world's first research centers specialized in algae (the Roscoff Biological Station, created in 1872), universities, and specialist institutions such as Ifremer (the French Research Institute for Exploitation of the Sea). Brittany is also one of Europe's largest agricultural and agrifood zones, enabling Olmix Group to test the results of its work in real conditions at applied research centers.

Fucus serratus

Lomentaria articulata

FROM R&D TO INDUSTRIAL PROCESSES

The four main stages of Olmix Group's industrial processes

1 > Selection of raw materials (algae, clays and trace elements)
2 > Extraction, complexation and grinding
3 > Formulation
4 > Granulation

All along the industrial processes, Olmix Group follows a HACCP procedure (Algae processed within 48 h, cold chain management...).

> Belt press (separation technology)

Our R&D partners

> PLANT Care:
Vegenov (service provider for the plant industry) and CATE St Pol (technical and economic action committee)

> ANIMAL Care:
Zoopôle de Ploufragan (animal health and food safety center) and INRA (French national institute for agronomic research)

> HUMAN Care:
INSERM (French institute of health and medical research), Valorial and Centre Culinaire Contemporain (culinary innovation centers).

Once tested in France, Olmix Group innovations are exported and approved by specialist institutes and universities worldwide, before being adapted to local markets.

OUR **QUALITY** POLICY

Quality is synonymous with a long lasting relationship with our customers and suppliers. Our perception of quality also means providing intelligent and flexible solutions.

Quality systems existing in the different sites of the group ensure the maintenance and continuous improvement of the high quality level of products, the feed safety control and the consideration of risks that may appear in the production chain.

All of our company sites and stakeholders in the animal feed sector, are approved and/or certified, either in the **GMP+** (in Germany and Netherlands) or in **FAMI-QS** (France). In this way, the animal nutrition industry is assured of the quality and safety of our products. Our products are manufactured following international quality standards.

ISO 9001:2008
ISO 22000:2005

OLMIX GROUP'S **THREE MAIN RESOURCES**

Clay minerals

Understanding clay minerals and their uses is a science in its own right, involving many varieties, such as sepiolite, kaolinite and montmorillonite...

Thanks to their numerous properties, clay minerals boost some active ingredients from algae and promote the effective use of trace elements.

Trace elements

As pure minerals, trace elements are essential nutrients to the life of organisms, in very small quantities.

Trace elements are required for the good health of some physiological functions. In particular, they are needed for building essential functional molecules (e.g. chlorophyll, hemoglobin, etc.), as well as for enzyme activity, as cofactors.

Algae

Algae are an exceptionally varied source of nutrients, and particularly rich in different biologically active compounds.

More precisely, algal sulfated polysaccharides including fucoidan from brown algae, carrageenan from red algae and ulvan from green algae have multiple potential applications as health ingredients.

OLMIX GROUP'S **TECHNOLOGIES**

AMADÉITE®

OEA®

MSP®

SEATECH

DMB DIGESTIVE MICROFLORA BOOSTER

ECO ENZYME CATALYZER FOR ORGANIC SUBSTRATE

XSER

MIP MINERAL INDUCER PROCESS

Fucus vesiculosus

ONE HEALTH

Merci les algues !

PESTICIDE FREE - ANTIBIOTIC FREE - CHEMICAL ADDITIVE FREE

Mastocarpus stellatus

THE OLMIX GROUP'S **GLOBAL APPROACH**

A healthy food chain *thanks to algae!*

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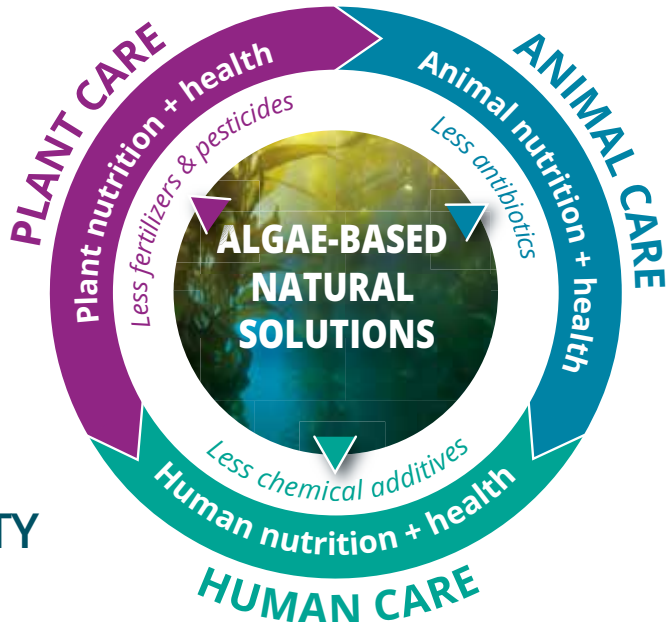
The three Olmix Group divisions: Plant Care, Animal Care and Human Care, innovate in pursuing the same objective: producing more with less, while improving food safety and respecting animals, people and the environment.

They find their resources in algae, clays and trace elements.



THREE STRATEGIC FIELDS OF ACTIVITY
TO PRODUCE MORE WITH LESS


Bifurcaria bifurcata

Plant Care

"Growing plants better to better feed animals and humans"

Expertise fields: field crops, viticulture, arboriculture, horticulture, sports fields and gardens.
Objective: Optimising soil fertility, feed and reinforce crops resistance while limiting the use of fertilizers and pesticides

1 > Sustainable solutions

By Improving the soil structure and its organic status, the soil fertility increases and the plant vitality is enhanced. Olmix Plant Care innovative products help the plant to optimize its own stress relieve possibilities. Productivity increases without reducing quality performance.

2 > Make better use of raw materials

The Plant Care division offers solutions to optimise the use of nutrients by plants. Products retaining water and nutrients in the soils, and promoting the life of soils make a positive impact on the environment, optimizing the use of natural resources and avoiding pollution.

- Soil life activation
- Crops nutrition
- Plant health optimisation contributing to reduce pesticide use
- Soil fertility improvement to limit the use of fertilizers

Animal Care

"Raising animals better to better feed humans"

Expertise fields: animal health and nutrition.
Objective: improve animal welfare and breeding while limiting the use of antibiotics and synthetic additives.

1 > Boost natural defenses
Algae-based feed ingredients are rich in microelements and biologically active molecules, helping to boost animal health defenses. By retaining toxins, Animal Care products protect animals' natural defenses, resulting in a drop in the use of antibiotics.

2 > Make better use of raw materials
The main priority of the Animal Care division is optimizing the use of resources to avoid wasting raw materials and water. Its innovations help animals to obtain the most benefit from their food.

3 > Better respect the planet, people and animals
Animal Care products are natural, respecting the environment, people and animals.

Olmix Animal Care offers global programs to contribute to reduce antibiotic use:

- Environmental hygiene
- Mycotoxin risk
- Digestive efficiency
- Digestive welfare
- Immunity

Human Care

"Improving human health"

The Human Care business unit of Olmix Group, sublimes algae properties by developing algae-based natural ingredient for the food, nutraceutical and human health industries.

1 > Improve food transformation: by proposing a natural alternative to reduce the use of chemical additives, the Human Care division offers new possibilities to the agrifood industry.

2 > Better feed people: one of Olmix Group's activities is enriching foods with algae extracts during manufacturing, salting and other processes to improve health through food.

3 > Identify health molecules from algae.

- Natural emulsifiers and thickeners
- Functional ingredients
- Health molecules

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