



ALGAENERGY

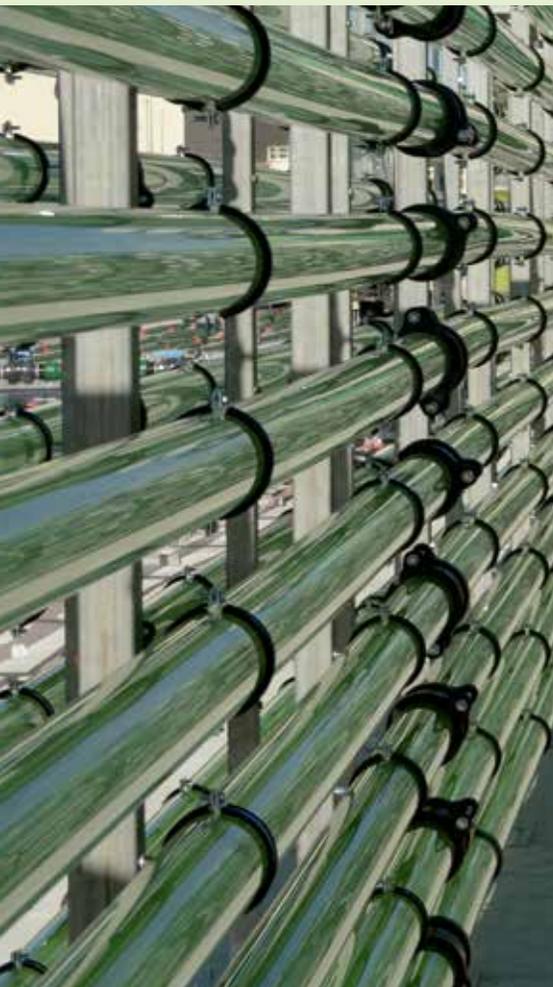
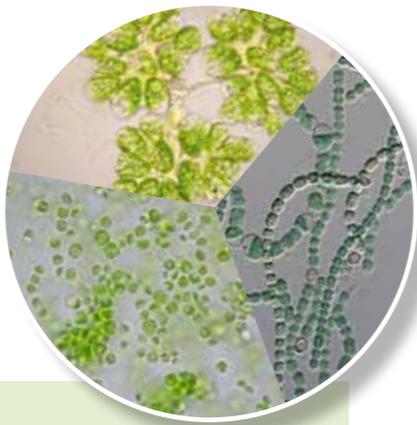


The most innovative bioindustry!



Microalgae:

Not only do we owe them our life...
... but they will also improve it



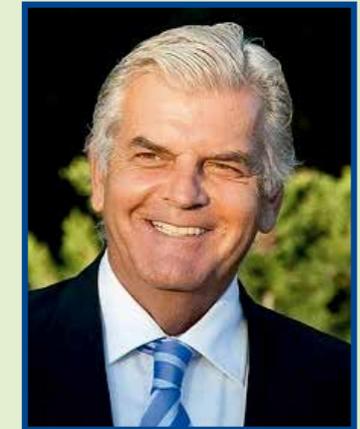
CONTENT

CEO's Message	03
21 st Century Challenges	05
Our work philosophy	06
High quality raw material	07
Technology and production processes	08
CO ₂ biofixation	10
Circular Economy	11
Our evolution	12
Our figures	14
Our brands	15
Management Team	16
Technical Team	17
R&D Projects	18
Awards and recognitions	19

CEO's Message

Dear friend,

No human activity can be as exciting as the one called to simultaneously alleviate the three most serious crises our society is facing: the **food security**, the **energetic efficiency** and the **environmental sustainability**. In this spirit, AlgaEnergy's mission is based on the photosynthesis phenomenon, a biological process which is essential to life on Earth and that microalgae have been carrying out for billions of years. Fostered by light energy, photosynthesis transforms inorganic compounds into organic matter, and our task is to optimize the process in order to obtain highly valuable products derived from this biomass for different sectors, including **agriculture, nutrition, cosmetics, aquaculture, pharmaceuticals** and, in the future, **bioenergy**.



This stimulating mission that we are pursuing has been **recognized and supported by the scientific community**, by the national and European authorities, and it has also obtained the contribution of relevant international players, in particular our shareholder Iberdrola and more than 120 collaborators in different **R&D projects at an international level**, all of us firmly committed to make our planet a shared space for coexistence and **to ensure a more sustainable development**.

Finally, I would like to highlight that the scientific rigor which we undertake our business activity with, is perhaps the differential factor that has positioned AlgaEnergy as an **international benchmark in the emerging and strategic sector of microalgae biotechnology**. The best example of this professionalism is AlgaEnergy's team, which is enriched with the permanent contribution of university scientists who regularly collaborate with us. All of us, together, are the driving force for the change that we pursue in AlgaEnergy. Our team is, on the one hand, an inexhaustible source of imagination – which is necessary in all creative activity and even more so in those activities intending to be transcendent – and, on the other, the best testimony of the **enormous talent that Spain treasures, in particular in this field of science**.



21st Century Challenges that the mankind must overcome

	Malnutrition	Environment	Energy
Challenge	<p>The world's population is growing exponentially, meaning food security is a key priority</p> 	<p>Mitigating the climate change is one of the greatest concerns for our society</p> 	<p>Our future will depend on obtaining a more efficient and sustainable energy source</p> 
Opportunity	<p>Microalgae increase the crops' productivity and are the raw material with the highest protein content on the Planet. In addition, they are essential to increase production in aquaculture</p> 	<p>Microalgae are the most efficient CO₂ biofixation systems and the greatest producers of oxygen on the Earth</p> 	<p>Microalgae are a source of 4th generation sustainable and inexhaustible biofuels</p> 

Our work philosophy: Mission, Vision and Values



Our **Mission** is global, namely, to contribute to palliate the three major challenges our society must face: food, environment and energy.



Our **Vision** is assuming the responsibility to develop the microalgae sector and to consolidate AlgaEnergy as the international reference.

The following **Values** are part of our culture, make our **Mission** possible and provide the necessary support to turn our **Vision** into a reality:



Respect

A great commitment to people and their rights, and to nature and the environment



Transparency

Acting with the utmost diligence toward the market management of our activities



Quality

Producing and commercializing products of high added value, which improve the customers' quality of life



Excellence

Striving for the highest quality standards and paying the greatest attention to the details

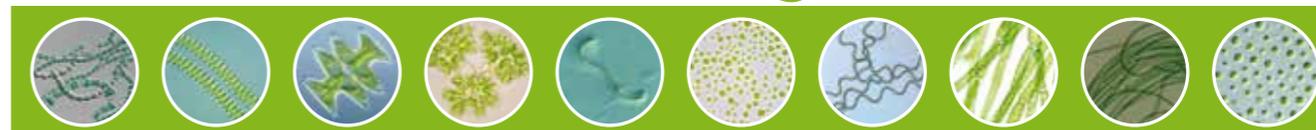


Humility

Keeping that start-up spirit: "Think big, act small"

High quality raw material with immense application potential

Microalgae



They do not compete with human nutrition as they do not need land with agricultural value

They grow in all types of water

There are more than 60 thousand different stains of microalgae

They are the first step in the food chain in the aquatic environment

They are an **inexhaustible source of compounds of great interest** and nutritional value: proteins, lipids, vitamins, carbohydrates, carotenoids, polysaccharides, etc.

Highest protein content in the world

Capture CO₂ through biofixation as this gas is their main nutrient. They are able to biofixate up to 2 kg of CO₂ for every kg of biomass produced

Through photosynthesis, they provide us with the oxygen we need. They are responsible for more than **50% of the oxygen we breathe on Earth**

They are **highly productive**, allowing even a daily harvest

Original source of **Omega-3 fatty acids**

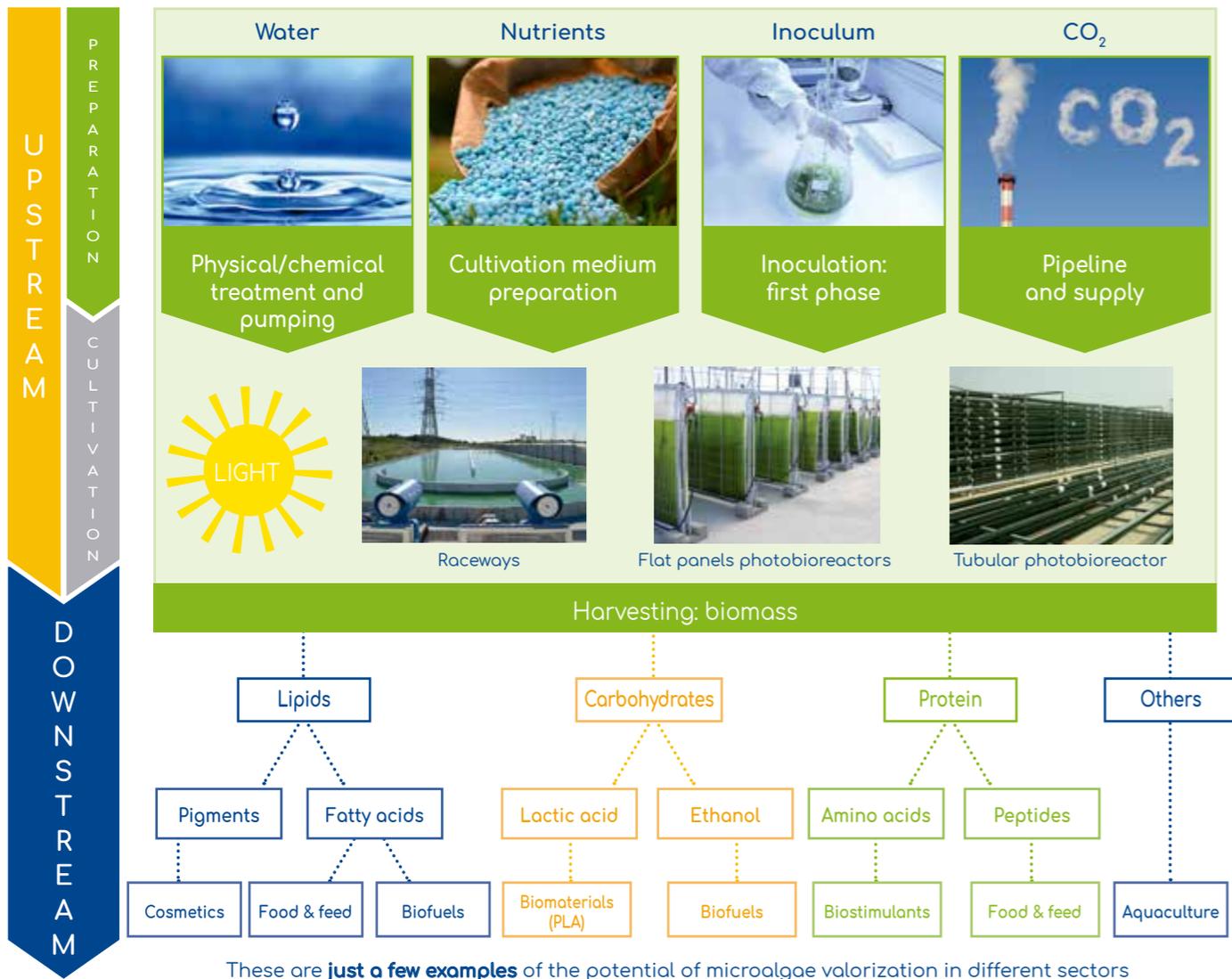
Commercial uses



Microalgae are a **raw material of great value and quality**. Their many properties imply that they have immense potential and are of interest to various sectors and industries.

They are already being applied today in sectors such as **agriculture, nutrition, cosmetics** and **aquaculture**, and they offer an immense potential in the fields of **pharmaceuticals, biomaterials** and **energy** –as precursors to 4th generation biofuels–, among other applications which are currently under research.

The most advanced technologies and production processes in the world...



The UPT® technology, developed by AlgaEnergy, makes possible to obtain high-value, innovative, sustainable and effective products based on a premium raw material.



Laboratories and inoculum rooms



Bubble columns



Optimized next generation raceway



Vertical flat photobioreactors



A glass tubular photobioreactor, the largest in the world

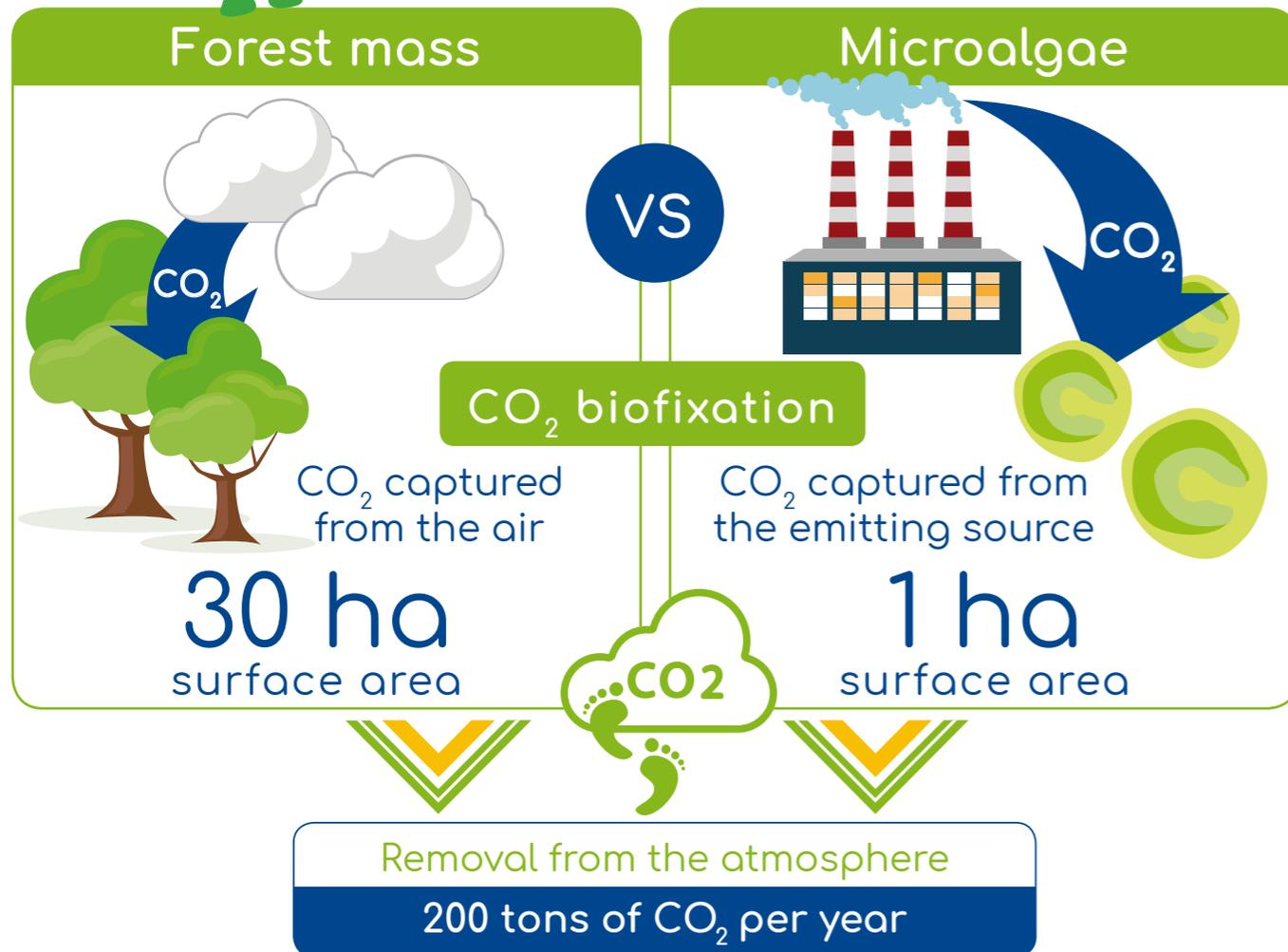


Biomass processing warehouse

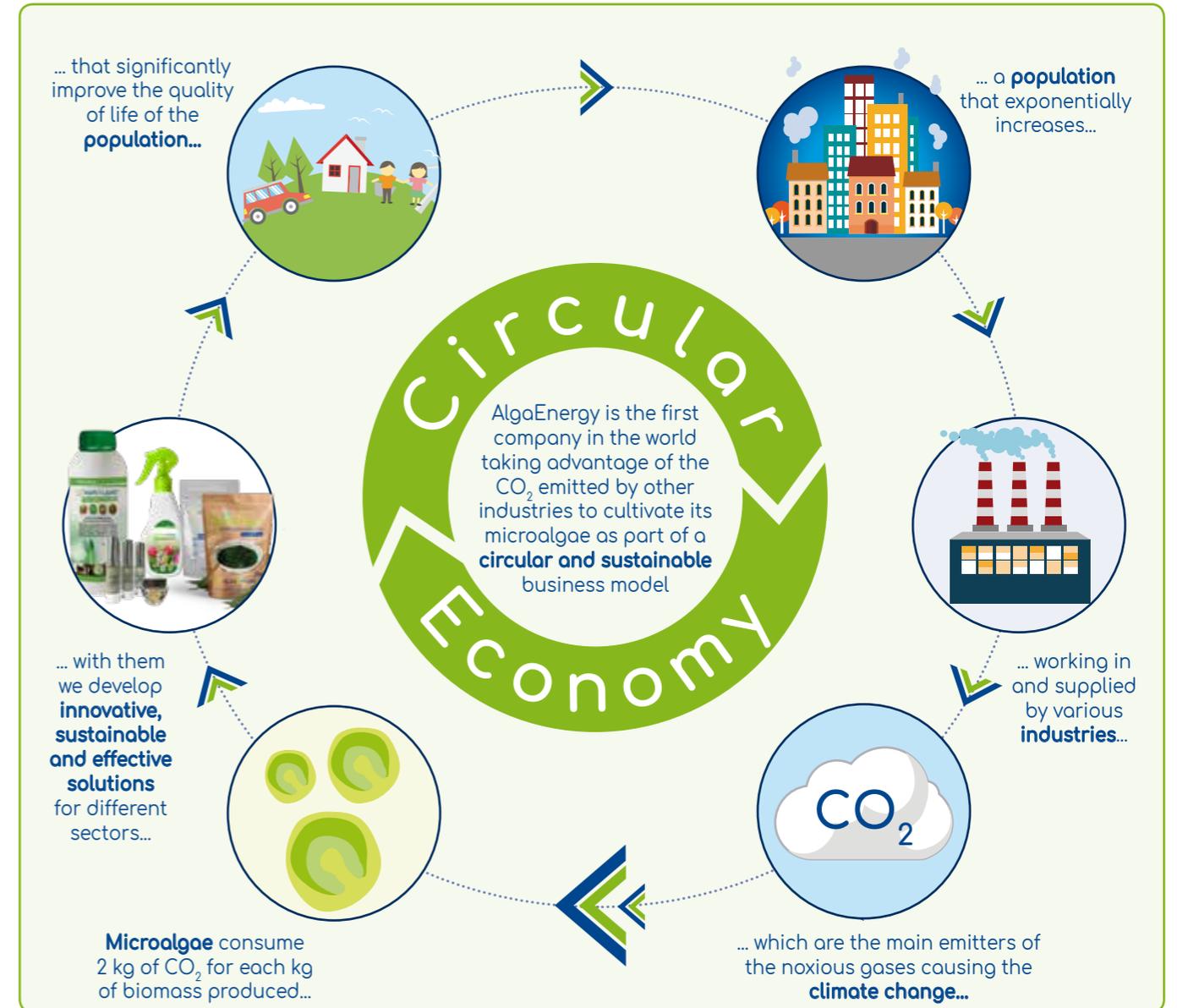
... that allow us to capture CO₂ and prevent its emission into the atmosphere...



Microalgae are 30 times more efficient than trees



... fact that makes us a good example of a Circular Economy



Our evolution

Spain, an international cluster and engine of innovation in the field of microalgae. **More than 4 decades of research in microalgae**

Beginning of first investigations
1960-1970

2007

Foundation of AlgoEnergy as a vehicle that consolidates such a huge knowledge and talent

2008

- Prof. Miguel García Guerrero becomes the Scientific Leader
- Agreements with the Spanish National Research Council, Univ. of Seville, Univ. of Stgo. de Compostela and Univ. of Almería

2009

- Iberdrola becomes shareholder
- First successful results in studies on processes and crop growing
- Start-up of the mobile laboratory CO2BIOCAP

Mobile Laboratory



2010

- Start of the CENIT VIDA Project
- Biomass Premium Quality Certification (Univ. of Stgo. de Compostela)
- Design of the Platform for Technology & Experimentation with Microalgae (PTEM)
- Start of the in-house Genetdiesel R&D Programme
- Start of the development of AgriAlgae®

2011

- Collaboration agreements with Iberia and Aena
- The PTEM began operating

Pilot Plant: 1.000 m²
(located in Madrid-Barajas Airport, T4)

PTEM: Platform for Technology & Experimentation with Microalgae



Election as one of the "Top Ten Ideas for Saving Nature" (RedLife)



2012

- Start of the CO2ALGAEFIX Project for industrial CO₂ biofixation
- Start of the FP7 Eclipse Project

2013

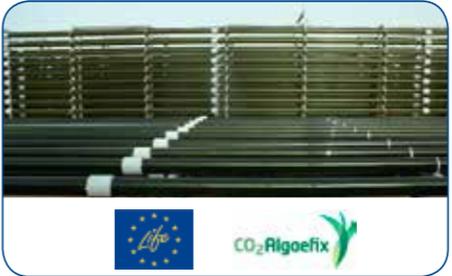
- Start of the FP7 Byefouling Project
- Creation of the Bio-based Industries Consortium (BIC)
- Election as "One of the Most Relevant R&D&I Actions of the Year" (FECYT)

"Sustainability and Environment Award" granted by the Ministry of Agriculture and Fisheries, Food and Environment

2014

- The Arcos de la Frontera Plant began operating

Industrial Plant 10.000 m²
Arcos de la Frontera (Cádiz)



"Research Promotion Award" granted by the University of Almería

2015

- Metasin, Progress and Aliprot R&D Projects beginning
- AgriAlgae® commercialization begins

2016

- "Innovative SME Seal" granted by Spanish Government
- Selected as one of the 25 most innovative CleanTech companies in the world
- "Seal of Excellence" granted by the European Commission
- Selected as one of the SMEs with the greatest potential for growth in Europe. Intercome Project begins
- Great success of AgriAlgae®
- First exports

"European Business Award for the Environment" granted by Biodiversity Foundation (MAPAMA)

2017

- Commercial consolidation of AgriAlgae®

"Environmental Sustainability and Organic Production Award" granted by Infoagro Exhibition

"Biotechnology R&D Award" granted by Expoquimia

2018

- Selected as one of the top companies in the 'European Business Awards'
- Yokogawa becomes shareholder
- First subsidiaries abroad: Japan, Italy, India and U.S.

Business Innovation Award AgroExpo

Macfrut Innovation Award

Our figures: AlgaEnergy at a glance

2
listed
multinationals
as shareholders



19
Awards
to our commitment to
innovation and sustainability



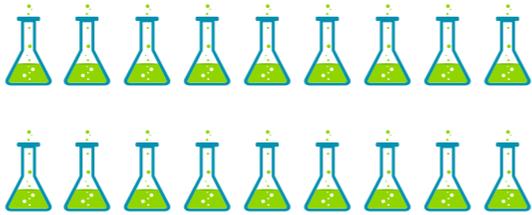
We collaborate in the realization of
10
Master's Theses/year



More than **150** partners
(companies,
R&D centers
and universities)

We participate in

18 R&D projects
amounting more than
77 M€ investments



Active
member of
14
associations
and
organizations



8 brands



R&D collaboration
agreements with
more than
15 universities
around the world



Our brands: high-added value products

AGRIALGAE®
High quality agricultural
biostimulants based
on an optimized
combination of different
microalgae

ALGAEPISCIS®
High quality
biomass from
different strains
of microalgae for
aquaculture

MAREVITE
microalgae biotechnology
End products and
compounds to
produce cosmetics
and body care
products

ALGAEFOOD®
Functional
products and
ingredients
with interesting
applications in
the field of human
nutrition

ALGARDEN®
A household range
of biostimulants
for gardens, house
plants and urban
vegetable gardens

PHYCOALGAE®
An extract used as
natural coloring in
food and cosmetics,
among other
applications

ALGAEFEED®
Functional additives
for its application in
animal feed

ALGAEDIESEL®
4th generation biofuels
with great energetic
power which are
environmental friendly



Management team: experience, ability and leadership



Augusto Rodríguez-Villa

President & Managing Director
Solvency and business experience

Lawyer and entrepreneur. Founder and President of the most important security group in Spain in the 80's. In the 90's he introduced in Spain the automotive brands Mazda, Kia, Chevrolet and Cadillac. His group became the largest car importer in Spain. **His entrepreneurial efforts have created 3,500 jobs.** He was selected "Executive of the Year" (Chamber of Commerce, 1998) and decorated by the Spanish Government. **Two of his companies entered the list of the 150 largest companies in Spain.**



Dr. Miguel García Guerrero, Prof.

Chief Scientific Officer & Director:
Talent and international prestige

He holds a Ph.D. in Biology, is University Professor and Member of the Royal Academy of Sciences (Seville). **He is one of the few internationally recognized researchers in microalgae** –he accumulates more than 4 decades dedicated to this field of science–, holding several patents on biological and microalgae processes. He was Vice President of the CSIC and **Director of the Institute of Plant Biochemistry and Photosynthesis** (Seville). He was decorated twice by the Spanish Government.



Carlos Rodríguez-Villa Förster

General Manager & Director:
Solid leadership

Economist. **He has experience in business development,** international sales, public relations, media management, e-commerce and biotechnology. He has been Project Director for the leading newspaper 'USA Today', elaborating socio-economic and investment reports on emerging economies in Latin America. **He has experience in international expansion.** He was the CEO of Zalando Spain, where he was responsible for Zalando's successful business expansion to the Spanish market.

Reference Shareholders



The Spanish company Iberdrola is the world leader in renewable energies. It has more than 40 thousand employees and assets of around 120 bn Euros. It is shareholder of AlgaEnergy since 2009.



Yokogawa is a Japanese company established in 1915, an international benchmark in the technology sector. It has 113 subsidiaries and around 20,000 employees. It is shareholder of AlgaEnergy since 2018.

Multidisciplinary team: professionalism, talent and passion



María Segura

Deputy General Manager & Technical Director



José María Ortega

Financial Director



Carmela Pérez

Business Development Director



Manuel Zoreda

Sales Manager Agricultural Division



José Mº de Gregorio

R&D Project Manager

Highly skilled employees: Doctors, Biologists, Chemists, Industrial and Agricultural Engineers, Lab Technicians, etc.

+ Externalized scientists within specific R&D projects

A solid team to implement the internationalization plans



Douglas Ry Wagner, PhD.

President of AlgaEnergy International Agribusiness



Operating in more than 20 countries

Some of our R&D Projects: Striving for research excellence

 <p>INTERCOME</p> <p>The European Commission chooses AlgaEnergy as one of the 6 SMEs with the greatest growth potential in Europe</p>	 <p>BIOBASED INDUSTRIES</p> <p>Create business tools towards a sustainable, innovative and competitive Europe</p>	 <p>CO₂ALGAEFIX</p> <p>Biofixation of CO₂ from industrially emitted real flue gases by microalgae culturing</p>	 <p>BYEFOULING</p> <p>Production of antifouling coatings for mobile and stationary maritime applications</p>
 <p>ECLIPSE</p> <p>Development of novel materials from microalgal waste</p>	 <p>CENITVIDA</p> <p>Integral valorisation of microalgae biomass</p>	 <p>METASIN</p> <p>Research and develop ready to market multifunctional active ingredients, foods and nutritional complements</p>	 <p>ALIPROT</p> <p>Research and Development of protean ingredients and foods with healthy and technological features targeting specific population groups</p>
 <p>PISCIS</p> <p>Develop a microalgae production process whose result is a high quality microalgae biomass to be used in aquaculture</p>	 <p>PROGRESO</p> <p>Research in innovative technologies which allow the obtaining of nutritional products of high added value</p>	 <p>CO₂BIOCAP</p> <p>Create a mobile CO₂ capturing system, using stationary emission sources for subsequent biological fixation of microalgal culture</p>	 <p>GENETDIESEL</p> <p>Production of biofuels from certain microalgae and cyanobacteria.</p>

We lead and take part in **R&D Projects** amounting over 70 M€ investments

The recognition to our commitment to innovation and sustainability

The distinctions to our activities and research work...

 <p>2009</p> <p>"Madri+D" Prize, awarded by Madrid Regional Government Foundation Madri+D</p>	 <p>2012</p> <p>One of the "Ten Best Ideas to Save Nature" RedLife Magazine</p>	 <p>2013</p> <p>Awards for Sustainability and the Environment Mapama</p>	 <p>2014</p> <p>Research and Development Promotion University of Almería</p>	 <p>2016-2017</p> <p>European Business Awards for the Environment Biodiversity Foundation</p>
---	---	--	--	---

... and to the most innovative products

 <p>2017</p> <p>Award Biotechnology R&D Expoquimia</p>	 <p>2017</p> <p>Award for Environmental Sustainability and Organic Production InfoAgro</p>	 <p>2018</p> <p>Business Innovation Award Agroexpo</p>	 <p>2018</p> <p>Macfrut Innovation Award Macfrut</p>
---	---	---	---

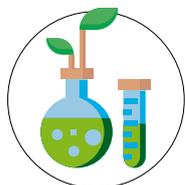
Other Recognitions:

 <p>2013</p> <p>One the 3 most remarkable and innovative actions in terms of R&D</p>	 <p>2016/2017</p> <p>European Business Award for the Environment</p>	 <p>2017 2018</p> <p>CEPYME Awards. Finalist in the Category of Technological Innovation</p>
 <p>2016</p> <p>One of the 25 most innovative CleanTech companies in the world</p>	 <p>2016</p> <p>Seal of Innovative SME, issued by Ministry of Economy & Competitiveness</p>	 <p>2018</p> <p>European Business Awards. Finalist in the Category of Innovation</p>
 <p>2016</p> <p>Seal of Excellence, issued by the European Commission</p>	 <p>2017</p> <p>Selected by the EC as one of the companies "with the greatest growth potential in Europe"</p>	 <p>2018</p> <p>CEIM Awards, Finalist in the Category of Innovation</p>



R&D

More than 4 decades
of specialized
research



Innovation

Leading R&D
projects at an
international level



Technology

Exclusive and
cutting-edge
internationally



Quality

Certified products and
processes. Maximum
attention to detail



Trust

Our customers'
satisfaction is our
top priority



Follow us on



 **ALGAENERGY**

Avda. Europa, 19 | 28108 Alcobendas, Madrid (Spain) | info@algaenergy.es | (+34) 91 490 20 20 | www.algaenergy.es