

MOSTRA DOS  
**FUNDOS**  
EUROPEUS



*Pitch de projetos*  
**Investigação  
e Saúde**



# GreenCoLab

Bernardo Carvalho

Investigação e Saúde



# GreenCoLab

# GreenCoLab is a collaborative platform to bridge the transfer of knowledge in the field of algae biotechnology

R&I agenda based on the exploration of microalgae and seaweed for different applications



ACADEMIA



ALGAE  
PRODUCERS



ALGAE  
VALORIZACION



Based at the University of Algarve (Faro) we count on **12 strategic partners** located all over Portugal

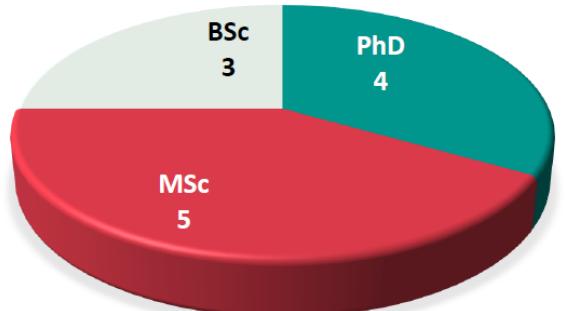


# The team has grown steadily

## 2020

12 Highly Qualified Human Resources

- ✓ 12 work contracts: 4 PhD holders



✓  $5 \times \text{♀} + 7 \times \text{♂}$

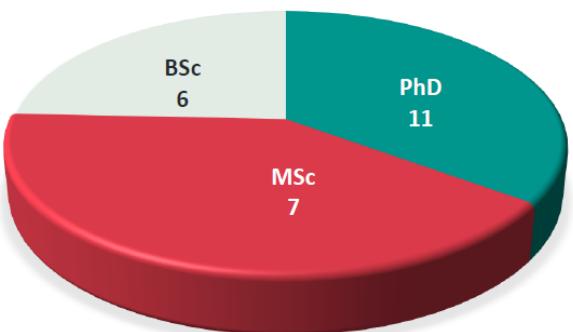
✓ 3 different nationalities

0 PhD students (FCT Grants)

## 2022

24 Highly Qualified Human Resources

- ✓ 24 work contracts: 11 PhD holders



✓  $14 \times \text{♀} + 10 \times \text{♂}$

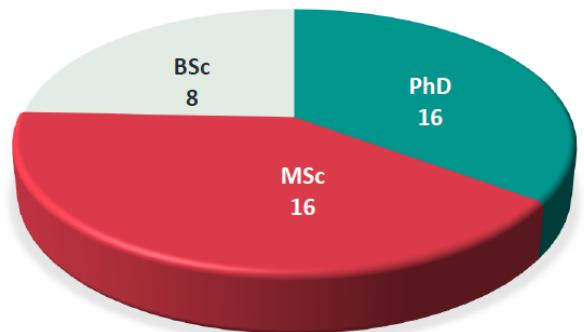
✓ 6 different nationalities

+ 7 PhD students (FCT Grants)

## 2024

40 Highly Qualified Human Resources

- ✓ 40 work contracts: 12 PhD holders



✓  $24 \times \text{♀} + 16 \times \text{♂}$

✓ 6 different nationalities

+ 18 PhD students (FCT Grants)



General Manager  
Hugo Pereira

ADMINISTRATIVE & FINANCE

Financial & Administrative Manager  
Pedro Cláudio

Attorney  
Teresa Pimenta

Finance & Administrative Officer  
Jorge Marujo

Finance & HR Officer  
Sandra Silva

Accountant  
Paulo Custódio

Project Financial Officer  
Ana Oliveira

BUSINESS & OUTREACH

Business & Dissemination Manager  
Daniel Silva

Dissemination Specialist  
Fátima Pereira

Dissemination Designer  
Maria Eduarda Mendes

Service Platforms Manager  
Monya Costa

RESEARCH & INNOVATION

Projects Manager  
Ana Ramos

Innovation Manager  
Payam Mehrshahi

RESEARCH GROUPS

Strain Improvement

PhD Student



Daniel Figueiredo

Technician

Ricardo Francisco

Technician

Inês Trincheiras

Bioprocess Optimization

Group Leader



Pedro Moñino

Technician

Gustavo Nogueira

Technician

Mariana Lima

Animal Nutrition

Group Leader



Ana Gonçalves

Researcher

Maria João Xavier

Technician

Anna Stryzhak

Technician

Rute Félix

Biostimulants & Biopesticides

Group Leader



Florinda Gama

PhD Student

Catarina Viana

Specialist

Luísa Coelho

Technician

Marta Fitas

Food Nutrition

Group Leader



Kricelle Deamici

PhD Student

Inês Guerra

Technician

Sofia Navalho

Technician

Pedro Cunha

PhD Student

Rafael Vitorino

Technician

Carlos Gamarano

Technician

Santiago Diego

Sustainability

Group Leader



Lais Speranza

Technician

Alexandre Lima

PhD Student

Sofia Navalho

PhD Student

Pedro Cunha

PhD Student

Rafael Vitorino

Technician

Carlos Gamarano

Technician

Santiago Diego

Biorefinery

Group Leader



Mariam Kholany

PhD Student

Bernardo Carvalho

PhD Student

Mélissa José

PhD Student

Madalena Mendes

PhD Student

Vítor Spinola

Technician

Maria Lourenço

Molecular Biology | Contaminants

Lab & Security Manager



Cristina Paulino

PhD Student

Gabriel Bombo

PhD Student

Sara Ferreira

Specialist

Madalena Mendes

Vítor Spinola

Technician

Maria Lourenço

SPECIALIZED PLATFORMS

IBAB

Culture Collection Platform Manager



Gabriel Bombo

PhD Student

PhD Student

Specialist

Madalena Mendes

Chemistry

Chemistry Manager



Sara Ferreira

Specialist

Vítor Spinola

Technician

Maria Lourenço



RESEARCH GROUPS

SPECIALIZED PLATFORMS

# Infrastructures

2020 - 2025



# ALGAEREFINE

Establishment of a pilot scale biorefinery for algae biomass fractionation



# ALGAEREFINE Approach

## Technologies

Scalable and available at lab and pilot-scales.

### Downstream Process

Cell disruption	Extraction	Purification / Fractionation	Stabilization
High Pressure Homogenization	Solvent extraction	Micro/ultrafiltration	Spray Drying
Milling	Enzymatic hydrolysis	Centrifugation	Freeze Drying
Enzymatic hydrolysis		Precipitation	

## Target Products

### Enriched Extracts:

Pigments | Proteins | Polymers

### Functional Ingredients



# Our New Headquaters...

>Q1 2026

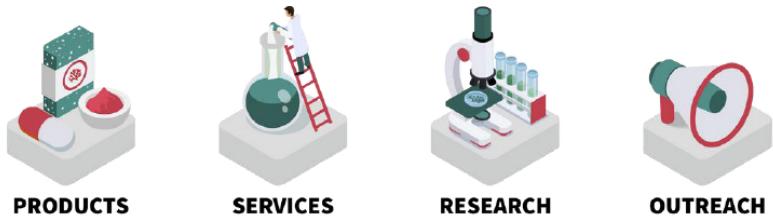


**Direção Regional de  
Agricultura e Pescas do  
Algarve | DRAP**

Patacão, Faro, Portugal



## What we do



## R&I Agenda

6 Action Lines

Covers the whole value chain

Innovative products & services

High focus on sustainability

### AL 1 Governance & Management

#### AL 2

##### Algae Cultivation

- 2.1 Biobank and Strain Improvement
- 2.2 Biological Contaminants & Microbiome
- 2.3 Technology Development

#### AL 3

##### Algae Processing

- 3.1 Harvesting & Drying
- 3.2 Biorefinery
- 3.3 Biochemical Characterization

#### AL 4

##### Algae Products

- 4.1 High-Value
- 4.2 Human Nutrition
- 4.3 Animal Nutrition
- 4.4 Agriculture

### AL 5 Sustainability

5.1 Circular Economy Approaches

5.2 Life Cycle Analysis

5.3 Techno-Economic Analysis

### AL 6 Commercial Exploitation & Outreach

6.1 Business Model for Services

6.2 Business Model for Products

6.3 Marketing & Outreach

# R&I agenda

## Working Groups



 Working Group  
**Strain Improvement**



 Working Group  
**Bioprocesses Optimization**



 Working Group  
**Contaminants**



 Working Group  
**Biorefinery**

## Platforms



 Platform  
**Chemistry**



 Platform  
**Molecular Biology**



 Working Group  
**Food Nutrition**



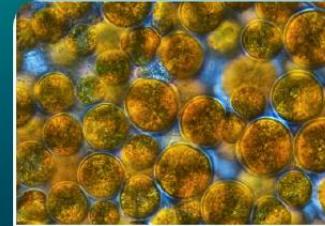
 Working Group  
**Animal Nutrition**



 Working Group  
**Biostimulants & Biopesticides**



 Working Group  
**Sustainability**



 Platform  
**Culture Collection  
IBAB**



 Platform  
**Biorefinery**

# Clean Culture® molecular kit

## Contaminant Detection Solution

- Colorimetric test
- No DNA extraction needed
- Early detection of contaminants:
  - Paraphysomonas sp.
  - Poterioochromonas malhamensis
  - More contaminants under development

Reduce culture collapse in large-scale, avoiding economic losses

9 INDUSTRY, INNOVATION  
AND INFRASTRUCTURE

PRODUCTS

# Biorefined Ingredients Catalogue

## Raw materials

- Flexible biorefinery “zero-waste” approaches
- Green solvents
- 50 ingredients developed
- Thorough biochemical and bioactivity characterization

Functional and versatile renewable ingredients



# Algae-based Biostimulants and Biopesticides

- **ALLFERTIS®**
  - Novel biofertilizer/biostimulant product developed in collaboration with Allmicroalgae
- **Blended products of microalgae and seaweeds**

Reduces chemical inputs and increases crop yields by 21–52%.


 Allmicroalgae  
 nature products

 CRES  
 ALGARVE  
 2020

 COMPETE  
 2020

 PORTUGAL  
 2020  
 European Union  
 European Regional  
 Development Fund

We continue to develop  
industrial solutions  
in co-promotion...



AquaDiversify



iOysters

Algaelicious



# THANK YOU!

Let's stay in touch!



*Bernardo Carvalho*

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[geral@greencolab.com](mailto:geral@greencolab.com)



**PRR**  
Piano de Recuperação  
e Resiliência



**REPÚBLICA  
PORTUGUESA**



Financiado pela  
União Europeia  
NextGenerationEU



**MIR**  
MISSÃO  
INTERFACE



**ANI**  
AGÊNCIA NACIONAL  
DE INovação



**ALGARVE**  
2030



**PORTUGAL**  
2030



Cofinanciado pela  
União Europeia



**fct**  
Fundação  
para a Ciéncia  
e a Tecnologia