

A NATURAL RESPONSE TO THE MAIN CHALLENGES OF TOMORROW'S WORLD

> AGRONOMY - ENVIRONMENT HEALTH - FOOD - COSMETICS



CANNING-

SEARC

### Visit Schedule 3 STEPS



Factory Industrial fermenters

Around 1h



#### **Products / Fields trial**

- Presentation of soil microbiota and impact in agriculture
- Livestock effluent valorization

Around 1h



Lab Microbiology lab

Around 1h

## WHO WE ARE ?

#### AT THE VANGUARD OF THE INFINITELY SMALL

A leader in microbial ecology, Greencell produces micro-organisms and transforms them into innovative ingredients.

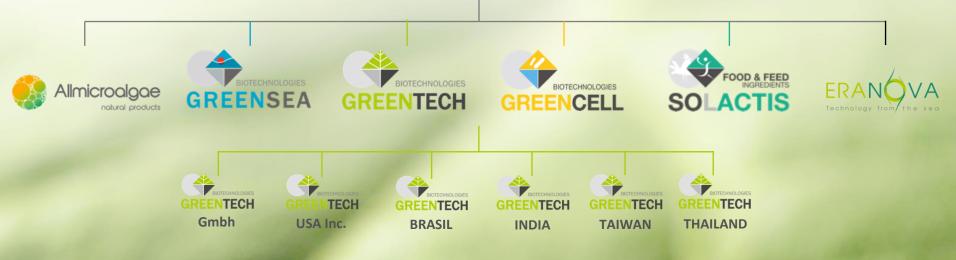
For 25 years, Greencell has been a pioneer in biotechnology, an expert in industrial fermentation (solid and liquid), with reference products in biostimulation, biocontrol and treatment of polluted environments.

Greencell is also a pioneer in microbiota research.



### **GREENTECH GROUP** ORGANISATION









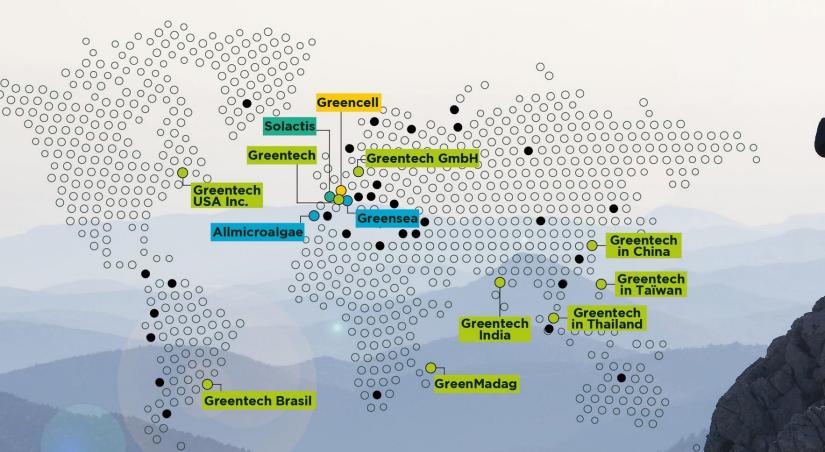


### **GREENTECH GROUP** PRODUCTS FOR THE FUTURE

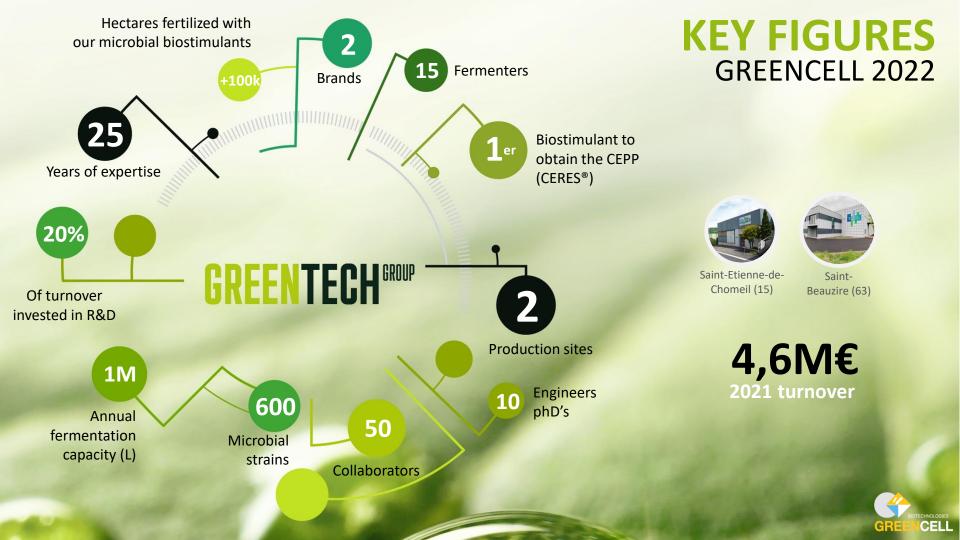
The Greentech Group companies are united in meeting the challenges of tomorrow by combining **scientific innovation**, **sustainability and ethics**.



### OUR PLAYING FIELD







## OUR EXPERTISE

#### INDUSTRIAL FERMENTATION

- > Aerobic or Anaerobic Production
- > Liquid and solid
- > Bioconversion
- > Strain library: 600 microbial strains

# OUR MARKETS

AGRI-FOOD

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#### **OUR MARKETS**

AGRONOMY



#### ENVIRONMENT



# \*

#### HEALTH AND WELL-BEING

**COSMETIC - NUTRACEUTICAL - PHARMACEUTICAL** 





## MICROORGANISMS & AGRONOMY

#### BIOSTIMULATION

#### BIOCONTROL

#### **3 ACTION MODES**

- Stimulation of growth Nutrient regulation/release - Detoxification
- Induction of natural plant defences
- Antagonism towards pathogens
- Spatial and trophic competition

#### RESULTS

#### PERFORMANCE Efficiency & Quality ++



- Degradation of organic matter
- Phosphorus solubilisation
- Better root development
- Resistance to abiotic stresses
- Better implementation

#### CÉRÈS® 1<sup>st</sup> BIOSTIMULANT ON THE MARKET TO OBTAIN A CEPP



# MICROORGANISMS & AGRONOMY

GREENCELL



#### **4 LINES OF PRODUCTS**

NATURAL BIOSTIMULANTS BASED ON MICRO-ORGANISMS	NATURAL BIOSTIMULANTS BASED ON MICROALGAE	PRODUCTS DEDICATED TO FARMING	PRODUCTS PHAGE-BASED
CERES		Making the most of slurry and manures.	Treatment of Melon crops
	CORÉOS		
	THE INFINITELY SMALL		
FONGIBACTER	IN THE SERVICE OF FIELD CROPS		



#### CDMO SUPPORTING YOUR INDUSTRIAL FERMENTATION PROJECTS

# **AGILITY & EXPERTISE**

From your conceptual ideas and benchtop developments to routine production, GREENCELL builds solutions on industrial fermenters.

All our **services** (production, R&D, quality control...) and **industrial resources** allow the **agility** required for a controlled industrial transfer.





# OUR FACILITIES

#### **INDUSTRIAL CAPACITY**

- 2 PRODUCTION SITES
- **15 Liquid fermenters** from 1L to 5000L.
- Aerobic and Anaerobic production, CIP (Cleaning in Place) and SIP (Steam Sterilisation in Place) batch fed for all liquid fermentation and freeze drying processes.
- 3 centrifuges
- **2 freeze dryers** (7L and 15L trap). Solid-state fermentation in Roux boxes, petri dishes and in a regulated tray cabinet.
- **Controlled atmosphere production areas** with ISO8 to ISO5 particle classes.
- 4 freezing chambers -50°C for 450L of biomass.



# **NOS CERTIFICATIONS**

Registered in a **HACCP approach**, the industrial teams respect the GMP (good manufacturing practices)

Greencell is **ISO 22000 Food Safety Management** and **FSSC 22000 certified** for the two production sites.

In terms of our procurement, all our **suppliers go through a selection, approval and monitoring process** to ensure that they meet the specified requirements.



# **FSSC** 22000





#### 10 engineers/phD's

#### **Active laboratories**

- Fundamental research
- Characterisation of the strain library
- Industrial process development
- Quality analysis
- Molecular biology
- Microbiota research

#### Many partnerships

Végépolys, Agri sud ouest, biocontrol consortium, IBMA, Agroecology Development Committee, AFAIA, MOPAD

#### **Recognised achievements**

- Submission of biocontrol AMMs
- 30 articles published
- 5 theses supervised and defended

20% of the turnover invested each year

# OUR R&D



THANK YOU FOR YOUR ATTENTION

CANNING ...

SEARCH

Greencell Biopôle Clermont-Limagne 63360 Saint-Beauzire

