OVERVIEW

For more than 20 years, Galactic is regarded as being one of the world’s leaders in biotechnology serving the food, feed, personal & health care, and industrial markets. Based on its valuable experience in lactic acid fermentation and the development of many other derivatives, the company continuously creates sustainable, innovative and health-friendly solutions. Galactic’s tight links with its distributors and customers helps to pursue an innovative and solution-oriented approach. Galactic is the result of teamwork between financial partners having a strong belief in the applications, successful researchers and visionary people striving for excellence.

OUR MISSION

At Galactic, we are already imagining the world of tomorrow. A world in which choices are based on what’s best for nature and mankind, and that opens up countless possibilities. Galactic develops natural solutions for applications in the food, feed, personal & health care, and industrial markets. Specialised in food safety, nutrition and green chemistry, Galactic offers health and environmentally-friendly alternatives including lactic acid, lactates and many other innovative product-based solutions.
Innovation is at the heart of Galactic’s activities. Based on our valuable experience in lactic acid fermentation and the development of many other derivatives, we continuously work to achieve scientific breakthroughs in the field of food safety, nutrition and green chemistry.

Building tight links with scientific organisations, our distributors and customers in particular, helps us to pursue an innovative and solution-oriented approach.
Part of our main priorities lie in addressing some of the world’s great challenges by developing the most innovative and health-friendly solutions at the highest standards. This is made possible by the commitment of our dedicated team who actively contribute to Galactic’s success.

Over the past 20 years, Galactic has become a major player on the international market. With headquarters in Belgium and production facilities in Europe, Asia and America, we progressively develop our portfolio of natural solutions in order to meet our customers’ needs wherever they are located in the world.
SHAREHOLDERS

GALACTIC Group

100% 100%

GALACTIC Inc

GALACTIC Bioquimicos
Note: Percentages denote the controlling share when different from ownership.
HISTORY

FROM LACTIC ACID PRODUCER

Implementation of production capacities, set up of sales network & development of expertise

In partnership with FinaSucre, Bioprocess Technology is established with a 1,500 tonnes lactic acid capacity

Galactic becomes the world’s 2nd largest producer of lactic acid, all production is exported to 40+ countries

Galactic enters the Chinese market through the B&G joint-venture with BBCA Biochemical, for a 50,000 tonnes, production capacity

Galactic expands to the USA, with the creation of a local subsidiary

Futerro is founded to produce poly-lactic acid (PLA)


The company changes its name to Galactic as the production capacity scales up to 15,000 tonnes

Capacity doubles to reach 30,000 tonnes as Galactic opens its capital to Compagnie du Bois Sauvage

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Futerro is founded to produce poly-lactic acid (PLA)
Galactic expands its production of calcium lactates

B&G opens a sales office in Japan

The company goes into the production of esters

The US plant increases its capacity to 15,000 tonnes

A subsidiary is established in Curitiba, Brazil

Launch of the “Clean Label” range, expanding the non-lactic acid portfolio and reinforcing Galactic’s positioning as a “natural solution provider”

The Galactic Innovation campus, a new R&D centre, opens in Anderlecht, near Brussels

Investment in new production lines in Belgium to expand the production of high value derivatives.

Valorisation of production capacities, sales network & expertise
# SECTORS WE COVER

## A VAST RANGE OF APPLICATIONS ACROSS VARIOUS SECTORS

### FOOD

<table>
<thead>
<tr>
<th>HUMAN FOOD</th>
<th>PET NUTRITION / FEED</th>
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</table>
| • Beef, poultry & seafood  
• Beverages  
• Bakeries & pastries  
• Dairy & Cheese  
• Confectionery  
• Fruits & Vegetables | • Animal feed  
• Pet food |

**Highly effective solutions combining clean-label, food safety, shelf-life extension, flavour enhancement, texture improvement, colour stability.**

**Sustainable and cost-effective solutions to ensure preservation, safety, mineral fortification, pH regulation, shelf-life extension.**

### INDUSTRY & CARE

<table>
<thead>
<tr>
<th>INDUSTRY</th>
<th>PERSONAL, HEALTH &amp; HOME CARE</th>
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</table>
| • Bio-solvents  
• Agro-chemistry  
• Bio-plastics  
• Depollution  
• Paper, textile & leather | • Personal care & cosmetics  
• Home care  
• Pharmaceuticals |

**Bio-sourced solutions with a wide range of functions including descaling, cleaning, pH regulation, degreasing, neutralisation, bio-solvents for mechanical cleaning, polymers and resins removers, additives for paints, inks, or chemical product formulations.**

**Natural solutions for moisturising, whitening & cleansing, anti-ageing, surfactant, antimicrobial, descaling. Intravenous, parenteral and dialysis solutions.**
## KEY APPLICATIONS

**MOST SOLUTIONS HAVING MULTIPLE APPLICATIONS**

<table>
<thead>
<tr>
<th>Acids</th>
<th>Salts</th>
<th>Blends</th>
<th>Esters &amp; Amides</th>
<th>Proteins &amp; Enzymes</th>
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<tbody>
<tr>
<td>Galacid™</td>
<td>Galafow™</td>
<td>Galanium™</td>
<td>Galimax™</td>
<td>Galicare™</td>
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<tr>
<td>Lactic acid</td>
<td>Sodium/Calcium lactate</td>
<td>Calcium lactate</td>
<td>Sodium lactate</td>
<td>Potassium/PLA</td>
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<td>Mineral lactates</td>
<td>Calcium lactate</td>
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<td>Sodium lactate</td>
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<td>Calcium lactate</td>
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<tr>
<th>Food</th>
<th>Meat</th>
<th>Confectionery</th>
<th>Dairy products</th>
<th>Sauces</th>
<th>Seafood</th>
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| Pet nutrition  | 🐕                            | 🍩                                    | 🍦               | 🍤                  | 🍤                  |
|                | 🐕                            | 🍩                                    | 🍦               | 🍤                  | 🍤                  |

| Pharmaceuticals & Cosmetics | 🍨                            | 🍭                                    | 🌟               | 🌟                  |
|                            | 🍨                            | 🍭                                    | 🌟               | 🌟                  |

| Industry        | 🛠                            | 🛠                                    | 🛠               | 🛠                  |
|                | 🛠                            | 🛠                                    | 🛠               | 🛠                  |

**NATURAL SOLUTIONS PROVIDER**
OUR PEOPLE

AT GALACTIC
WE THRIVE ON DIVERSITY

380
COMMitted
EMPLOYEES

> 2000
CUSTOMERS

~ 100,000
TONS OF PRODUCTS
EACH YEAR

> 500
PRODUCT REFERENCES
STRONG INVESTMENTS IN R&D

- 10% of total staff
- 5% of sales turnover
- >20 patent families

GALACTIC INNOVATION CAMPUS

As a Business Incubator, Galactic offers long-term renting solutions to small biotech companies.
- A lab cell of 65 m² with all bio-tech facilities (purified water, air, etc.) is the standard state-of-the-art available renting unit.

GALACTIC FOOD DOCTOR™

- Metagenomic is an innovative technology that identifies the DNA of all microorganisms in one single analysis. Galactic identifies the microorganisms responsible for the alteration of a product and develops the exact solution to prolong the product’s shelf-life.
- Predictive modelling tools to accurately predict Listeria monocytogenes growth. This assists customers in facing the challenges of meeting higher quality and safety standards.

TAILOR-MADE SOLUTIONS

- Most of our customers have requirements that are specific to their applications and processes.
- A dedicated team of experts with strong experience and knowledge in formulation chemistry is available to help designing new solutions together with customers.
- Our formulations include blends of lactic acid with other organic acids, special buffer solutions, blends of lactate salts, natural label-friendly spice extracts, blends of lactate esters, etc.
WORLDWIDE SALES

Sales breakdown by entity (2016)
- Galactic SA: 42%
- Galactic Inc: 20%
- B&G: 38%
- Cosmetics & Pharma: 3%
- Feed: 6%
- Industrial: 17%

Sales breakdown by geography (2016)
- North America: 21%
- China: 21%
- Japan: 10%
- Rest of Asia: 9%
- Latin America: 8%
- EMEA: 31%

Sales breakdown by application (2016)
- Food: 74%
- Industrial: 17%
- Feed: 6%
- Cosmetics & Pharma: 3%

1994 YEAR OF ESTABLISHMENT
65 ACTIVE IN 65 COUNTRIES
380 EMPLOYEES WORLDWIDE

UNITED STATES (Milwaukee)
BELGIUM (Brussels)
JAPAN (Tokyo)
CHINA (Bengbu)
BRAZIL (Curitiba)

NATURAL SOLUTIONS PROVIDER