



**Monzón factory**

# Key facts about Ercros 2024

**1989**  
Foundation

**1,335**  
Staff

**10**  
Factories

**700 M€**  
Revenue

**29 M€**  
Ebitda

**55.5%**  
Export  
(>100  
countries)

# Production sites

Chlorine derivatives

Intermediate chemicals

Pharmaceuticals



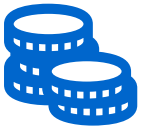
# Key facts about Monzón 2024



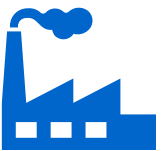
Foundation: 1952



Staff: 31 people

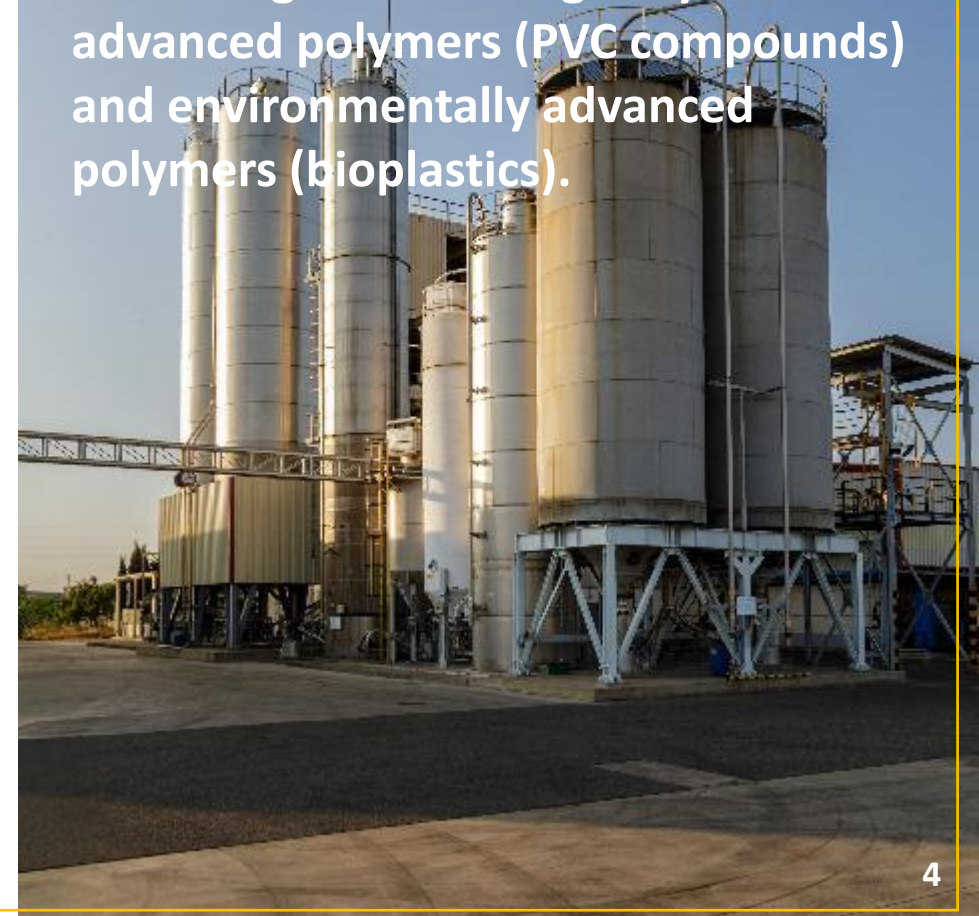


Sales: 18 M€



Production capacity:  
32,800 t/year

The Monzón factory is dedicated to the research, production and marketing of technologically advanced polymers (PVC compounds) and environmentally advanced polymers (bioplastics).





# A bit of history

1952

Start of activity in the Las Paúles industrial estate

1955

Start of PVC production

1960

Start of activity in the La Armentera industrial estate

1981

New PVC compounds plant

2003

New pilot plant

2020

New line PVC compounds extrusion

2022

New bioplastics extrusion line

2024

New photovoltaic plant



# La Armentera and Las Paúles industrial estates



## La Armentera Industrial Estate

- Industrial area: **35 ha**
- Production: plastic compounds (PVC and specialities)
- R+D pilot plant
- Railway siding

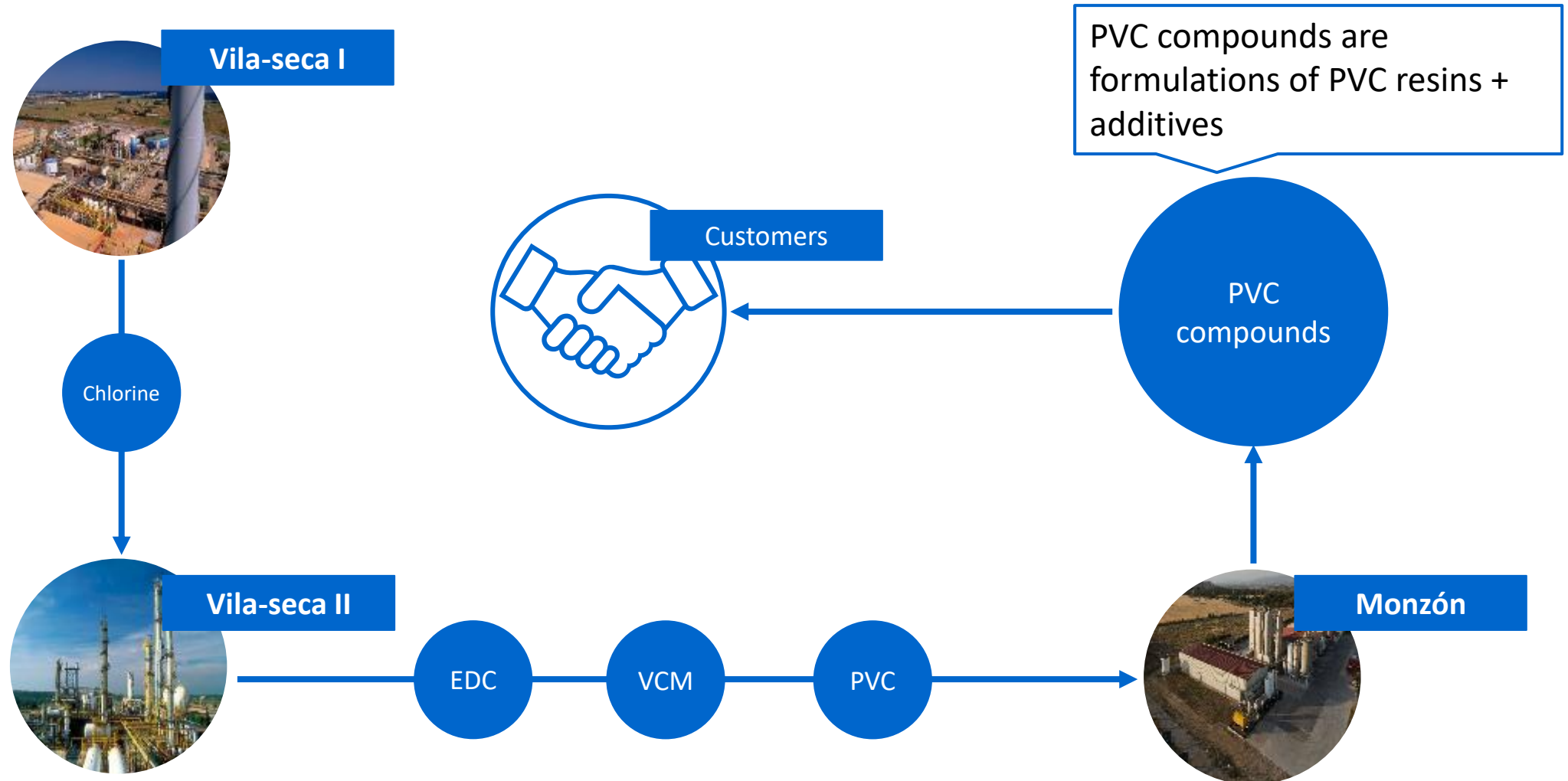
## Las Paúles industrial state

- Consolidated urban land: **2.5 ha**



To Monzón: 2 km  
To Lleida: 50 km  
To Huesca: 70 km

# Integration of the Monzón factory in Ercros





# Types of PVC compounds (1/2)

<b>Extrusion-blow moulding</b>	<b>Applications</b> <ul style="list-style-type: none"><li>▪ Medical drains</li><li>▪ Boats</li><li>▪ Candles</li></ul>
<b>Film extrusion</b>	<b>Applications</b> <ul style="list-style-type: none"><li>▪ Flexible film</li><li>▪ Rigid film (blister)</li></ul>
<b>Rigid extrusion</b>	<b>Applications</b> <ul style="list-style-type: none"><li>▪ Windows</li><li>▪ Panels</li><li>▪ Blinds</li><li>▪ Tubes</li></ul>



# Types of PVC compounds(2/2)

## Plasticized injection moulding

### Applications

- Plugs
- Road cones
- Footwear
- Oxygen masks
- Food

## Rigid injection

### Applications

- Pipe parts
- Electrical boxes
- Pool diffusers
- Bases and supports

## Plasticized extrusion

### Applications

- Profiles
- Cables
- Hoses
- Construction tubes
- Medical tubing

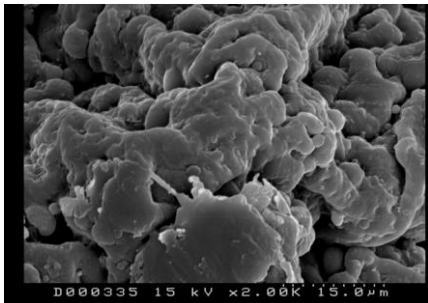
# R+D: PVC resins and compounds

## PVC resins

- Optimization of current polymerization processes.
- Development of new resins.
- Analysis and characterization of market resins.
- Approval of raw materials.
- New polymerization processes.

## PVC compounds

- Optimization of current formulations.
- Valuation of raw materials.
- Formulation adjustment.
- Analysis and characterization of market compounds.
- Development of new compounds.



# R+D: bioplastics

ErcrosBio, the bioplastic twice  
"bio", for its origin and for its  
finish.

## ErcrosBio L

- Based on polylactic acid.
- Of natural origin.
- Industrial compostable.
- Recyclable.
- Very low CO<sub>2</sub> footprint.
- Suitable for 3D printing.
- Suitable for packaging production.
- Formulations adapted to the application.
- Pellet format and aqueous suspension.

## ErcrosBio PH

- Based on polyhydroxyalkanoates.
- Biodegradable in water.
- Of natural origin.
- Compostable at home.
- Recyclable.
- Very low CO<sub>2</sub> footprint.
- Formulations adapted to the application.





# R+D equipment





# R+D and laboratory equipment

- **Universal testing machine:** tensile properties.
- **ATR-FTIR:** infrared spectroscopy.
- **Spectrophotometer:** color parameters  $L^*$ ,  $a^*$ ,  $b^*$ .
- **Götffer rheometer:** rheological properties.
- **Werner-Matthis stove:** static thermal stability.
- **Stoves:** ageing and compostability tests.
- **Izod:** impact properties.
- **DSC:** differential scanning calorimetry.
- **Optical microscopes.**
- **Aquatrac:** moisture meter.
- **Vicat:** softening temperature.
- **Xenotest:** aging by simulating sunlight.
- **Aurburg injector:** sample injection.
- **Labtech extruder:** obtaining PVC pellets, bioplastics, etc. Side feeding of liquids and solids.
- **Flag extruder:** obtaining profiles from pellets.
- **Brabender extruder:** obtaining processing parameters.
- **Brabender internal mixer:** dynamic thermal stability, melt tests, plasticizer absorption.
- **MFI:** Flow meter.

# Cien Atlántida project (1/2)



## Description

- Research into eco-sustainable alternatives to microplastics expressly incorporated in detergent and cosmetic applications.
- Research into biodegradable and compostable packaging complements the final product by reducing its environmental impact.

## Collaborating technology centres

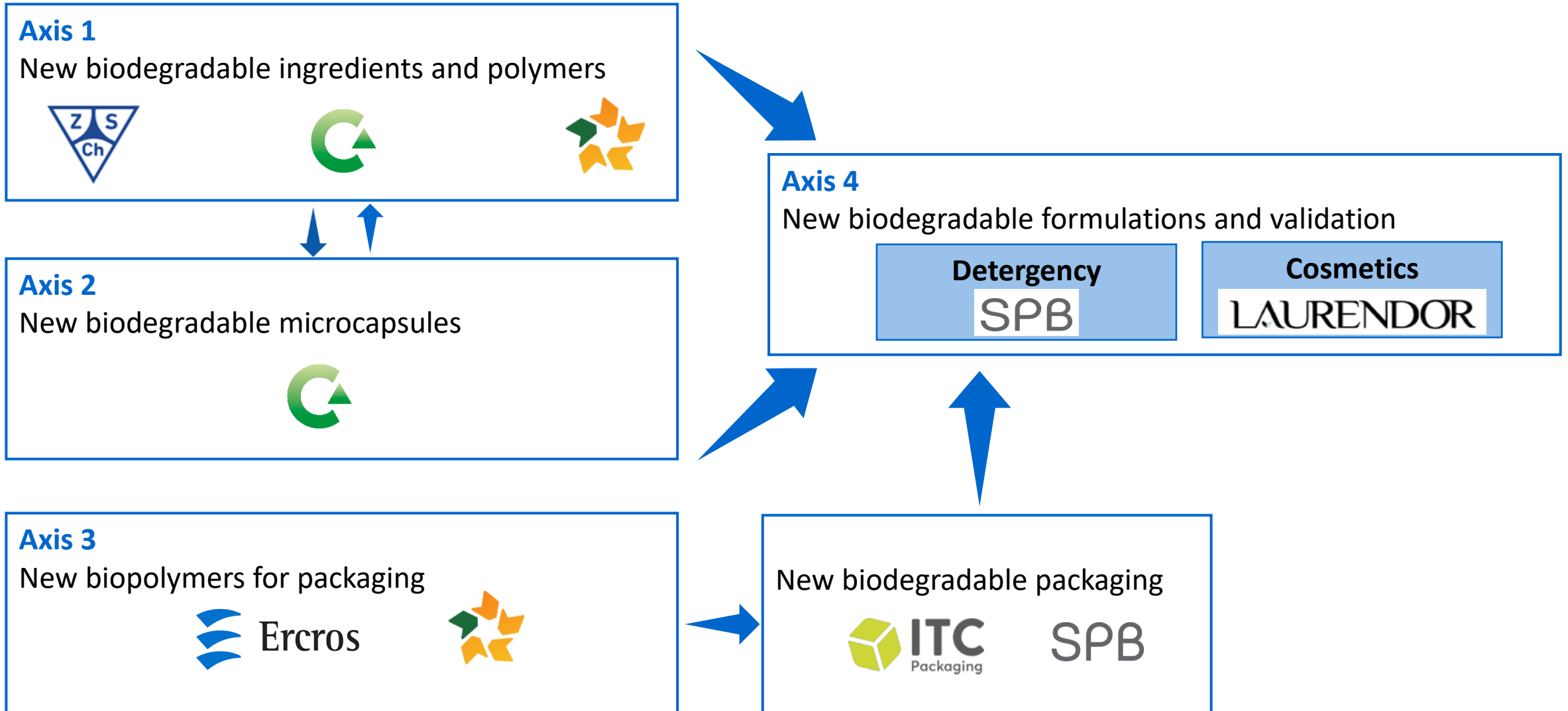


## Participating companies





# Cien Atlántida project (2/2)



# Pinremat project



## Description

- Development of a new generation of PVC profiles with insulation foam insert.
- Incorporation of recycled plastic materials in the process.

## International collaboration

- Project of the Inno-Espamaroc industrial R+D programme.
- Joint participation of Spain and Morocco.

## Environmental benefits

- Reduction of the rate of plastic waste.
- Reduction of greenhouse gas emissions.

## Energy benefits

- Improvement of thermal insulation in buildings.
- Reduction of energy consumption associated with air conditioning.

## Participating companies



## Collaborating technology center



# Nautilus project



## Description

- Development of antifouling, bio-based and biodegradable paints for marine applications.
- Public-private collaboration.

## Objectives

- Develop and validate new sustainable paints.
- Evaluate their environmental impact on the ecosystem.
- Demonstrate the viability of biopolymers in marine applications.

## Innovative approach

- Study of the impact and biodegradation on the marine environment.
- Promotion of low toxicity paints.

## Environmental benefits

- Sustainable alternative to conventional paints.
- Lower toxicity and environmental footprint.

## Participating companies



## Collaborating technology centres





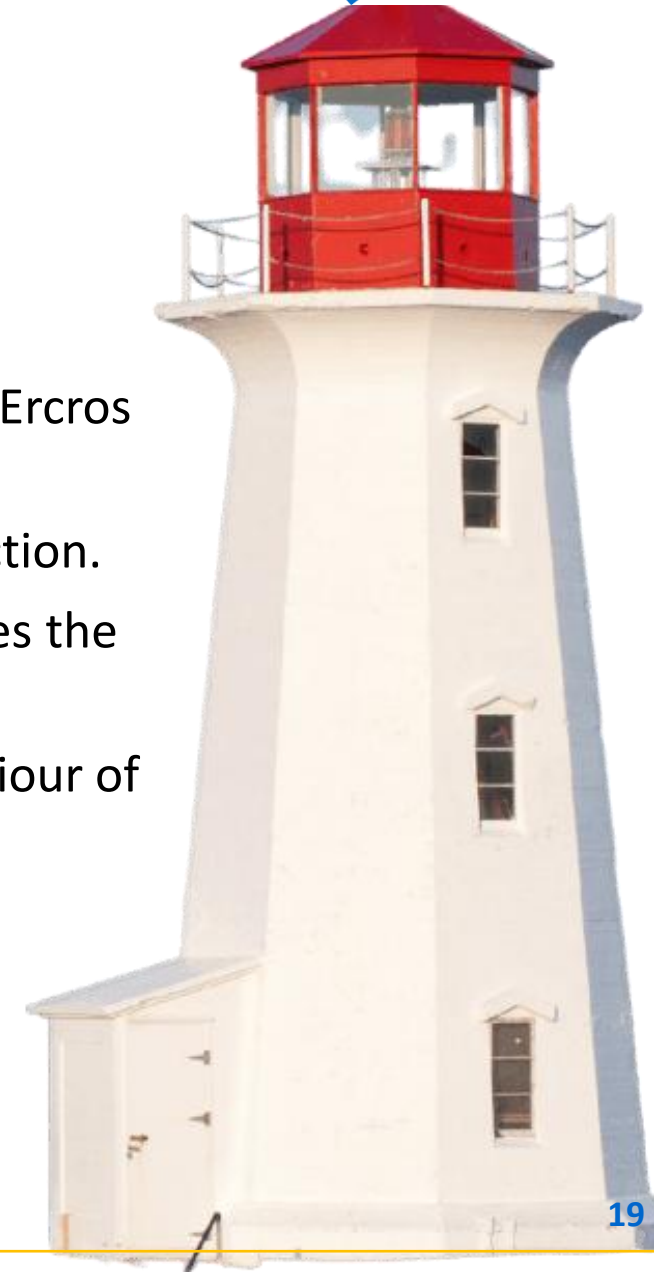
# Certifications

- **ISO 14001:** Reference standard for the environmental management system.
- **EMAS:** Eco-Management and Audit Scheme.
- **OCS:** Operation Clean Sweep Certified, zero microplastic losses.
- **VinylPlus Supplier:** Sustainable production of PVC compounds.
- **IPES:** Spanish and sustainable plastics industry.
- **ISO 14064:** Standard for the verification of CO<sub>2</sub> emissions.
- **ISO 9001:** Standard that certifies quality.
- **ISO 45001:** Standard that accredits health and safety management.
- **Sigos:** A standard that accredits the application of a healthy organizational management system.
- **CSR Company:** Certification of the Responsible Care program as a CSR company.
- **IBGC:** Certificate of compliance with the good corporate governance index.
- **UNE 19601:** Accreditation of the criminal compliance management system.
- **ISO 27001:** Standard that certifies the data protection system.
- **AEO:** Certificate from the AEAT as an authorised economic operator.



# Governance and CSR

- **EcoVadis:** CSR rating agency. Ercros has obtained 87/100 points.
- **Responsible care:** Good practice programme promoted by the chemical sector. Ercros has obtained 85/100 points in the self-assessment questionnaire.
- **Global Compact:** Program promoted by the UN that contains 10 principles of action.
- **ASG Lighthouse rating:** Promoted by the Spanish Institute of Analysts, it assesses the level of compliance with ESG criteria. Ercros has obtained 86/100 points.
- **Carbon Disclosure Project (CDP):** An organisation aimed at assessing the behaviour of affiliated companies with respect to the climate emergency.



# Sustainable Development Goals (SDGs)

In the development of its activity, Ercros contributes to the fulfilment of the 17 SDGs set out in the UN 2030 Agenda, although it has a special impact on:

- **SDG 3:** Good health and well-being.
- **SDG 6:** Clean water and sanitation.
- **SDG 7:** Affordable and clean energy.
- **SDG 8:** Decent work and economic growth.
- **SDG 9:** Industry, innovation and infrastructure.
- **SDG 12:** Responsible consumption and production.
- **SDG 13:** Climate action.



# Partnerships and collaborations





**For more information**

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