



# OUR COMMITMENT TO A CIRCULAR ECONOMY



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The circular economy is something that relies on the will of the government, regional policies and our industries. SPHERE is concerned about environmental issues and plays a crucial role in establishing a sustainable circular economy with the important involvement of all local stakeholders and the value chain. The effect of global warming and the depletion of natural resources are seriously calling into question the current development model.

The reality of global warming is gradually making us more aware of the threat to our civilisation but also more widely to the entire living world. We hence find ourselves faced with three major challenges, as the UNEP highlights<sup>(1)</sup>:

- ◆ **Reducing greenhouse gas emissions** to contain the rise in temperature to 2°C by 2050;
- ◆ **Protecting the oceans, rivers and biodiversity from pollution** (atmospheric, agricultural, industrial, chemical, etc.) caused by human activity;
- ◆ **Preserving natural resources.**

Given this urgency, the European Union and the French Government have taken action by respectively presenting the European Strategy for Plastics and the Roadmap for a Circular Economy. These two strategies are based on the same conclusion:

the linear “manufacture, consume, throw away” model depletes our resources, generates pollution, in

particular in the oceans, and threatens biodiversity. “*We need to work towards a different economy in which we use resources sparingly, products have a longer life, we limit waste, and in which we manage to make new resources from our waste*”<sup>(2)</sup>.

These strategies open the way towards a new, more circular economy with a lower environmental impact in which the various stakeholders (public authorities, manufacturers, farmers, consumers, etc.) are interconnected.

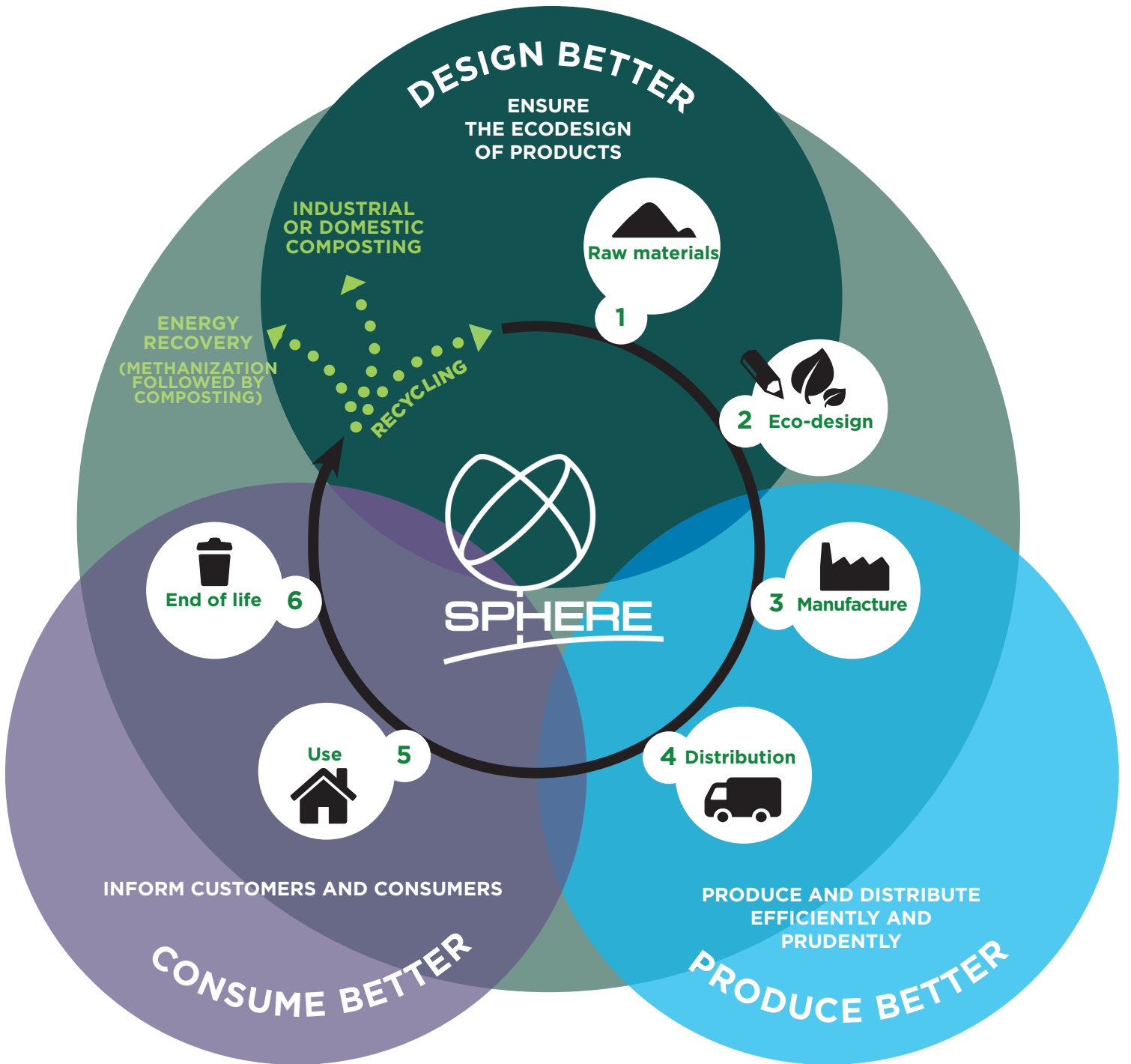
For the past 45 years, SPHERE, a family-owned French group, a European household packaging leader and the world’s leading producer of plant-based, compostable bags, has been aware of the need to take environmental issues into account. It has directed its action towards the circular economy by:

- ◆ **Innovating and developing new sustainable and renewable materials;**
- ◆ **Integrating an eco-design approach;**
- ◆ **Applying an environmentally responsible industrial policy.**

**TODAY, WITH THIS DOCUMENT, SPHERE IS REAFFIRMING ITS COMMITMENT AND STRENGTHENING ITS AMBITIONS FOR A CIRCULAR ECONOMY WITH A LOW ENVIRONMENTAL IMPACT.**

(1) UNEP annual report - United Nations Environment Programme.

(2) Source: Circular Economy Roadmap 2018.



# 1- ENSURING THE ECO-DESIGN

Given the environmental drawbacks of fossil polyethylene (PE) – greenhouse gas emissions, persistence, and resource depletion – a new, more responsible economy has been established over the past few years. It is becoming more robust and aims to end the use of virgin fossil raw materials in favour of sustainable and responsible alternatives.

## CONTRIBUTING TO PROGRESS IS CENTRAL TO SPHERE'S STRATEGY, WHICH IS CHARACTERISED BY:

### Continuous investment in Research and Development

◆ **For the past 20 years, SPHERE has devoted 5% of its turnover to Research and Development** in new plant-based materials that are biodegradable and compostable in land and marine environments, and in production equipment that improves the processes and the performance of its products.

#### ◆ **200 patents filed**

SPHERE has integrated innovations and needs while adapting to the demands of its committed customers with a responsible product policy.

### An industrial strategy directed at using raw materials that is in line with the issues of the circular economy

#### ◆ **Recycled plastic**

This raw material is used to make bags and packaging products. **In 2021, recycled plastic pellets represent more than 50% of the raw materials extruded by the group.** This proportion has doubled in 20 years. Real expertise is required to combine these secondary raw materials, as their performance may be very different. End products made from recycled polyethylene are themselves recyclable, like those made of virgin materials. Several of the group's sites have obtained the MORE label (MObilised to REcycle). This European label recognises manufacturers with innovative processes that take account of the circular economy.

#### ◆ **BIOPLAST® plant-based, compostable and biodegradable resins**

Since 2005, the company has developed a range of products using BIOPLAST®: a plant-based and compostable material based on GMO-free potato starch produced in France and in Europe. In 2021, this material represents approximately 20% of the group's production. The products using it can be collected with organic waste (food leftovers, garden waste, etc.) for organic industrial or domestic recycling.

#### ◆ **Plant-based resins**

SPHERE uses plant-based polyethylene, a material derived from sugar cane resulting in a reduced or even zero carbon impact for specific products.

# OF PRODUCTS



## An eco-design policy for better products

### ◆ Choice of materials and reduction in the quantities used

In 45 years, SPHERE has reduced the thickness of its bags by more than 30%, limiting the consumption of materials while improving performance. SPHERE replaces conventional plastic with plastic from plants, recycled raw materials and compostable plant-based materials for all its national brand refuse bag ranges. SPHERE also uses FSC® certified materials for its food and non-food paper product ranges.

### ◆ Reduction and selection of additives and pigments

Since 2007, SPHERE has chosen to use mainly water-based inks that are not harmful to the environment.

### ◆ Reduction in the consumption of materials and product reuse

After launching high bin bag formats in 2009, SPHERE then created new market segments with capacities (5 / 25 / 40 litres) in line with developments in household waste sorting. **The plant-based compostable fruit and vegetable bag, launched in 2017, can be used to transport food and, as a second use, to sort food waste for collection specifically aimed at industrial or domestic organic recycling.** In compliance with regulations, the group also manufactures and distributes reusable bags.

### ◆ Optimising packaging

SPHERE has changed the packaging of its national brand

refuse bags: from the dispensing box to shrink film to the current simple paper strip. Likewise, the Group supports its customer-retailers in changing the packaging of their refuse bag and food and non-food contact packaging ranges.

### ◆ Product life cycle analyses

Since 2011, an ACV study carried out with PWC on the range of plant-based polyethylene refuse bags has certified the environmental benefits of innovations.

# 1- ENSURING THE ECO-DESIGN

**AS A PIONEER IN THE DEVELOPMENT OF NEW MATERIALS, SPHERE ANTICIPATES THE ECO-RESPONSIBLE TRENDS EXPECTED BY CONSUMERS BY WORKING ON MATERIALS BEST SUITED TO PRODUCTS' LIFE AND END OF LIFE**



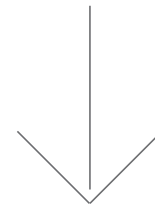
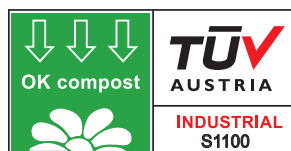
## **SPHERE focuses on combating marine pollution.**

For several years, SPHERE has directed its research towards developing a biodegradable material that is broken down by the micro-organisms in seas, lakes and rivers while being resistant to rainwater. No residue remains that could have harmful effects on the marine environment, including in the event of ingestion by aquatic fauna.

**This key innovation should lead to the production of a range of specific products that limit the pollution caused by accidental discharges into the environment, and especially aquatic environments,** by conventional products (in particular along the Asian coastlines, regions in which a lot of plastic film is released into the environment).

In the past 10 years, progress has been made in the plant-based and compostable products sector. SPHERE aims to develop new, patented applications.

SPHERE is specifically targeting an increase of 25% per year (for the next five years) for its production of BIOPLAST® plant-based and compostable resins.



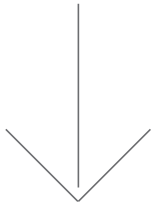
## **Support for initiatives promoting the separate collection of bio-waste.**

SPHERE offers local authorities plant-based bags and compostable materials to enable the collection of bio-waste and promote end of life through domestic home or industrial composting.

Given the obligation for local authorities to offer bio-waste source separation to all inhabitants by 2024, **SPHERE and its partners are involved in experiments to collect bio-waste in voluntary collection points close to living areas.**

In France, bio-waste accounts for more than 20 million tonnes of waste collected each year (for all households and businesses together: restaurants, shops, food producers and processors). France produces around 6.6 million tonnes of food waste.

# OF PRODUCTS



## **The expansion of sorting guidelines will increase the plastic recycling rate.**

Most European countries have a policy for sorting and collecting household packaging. The environmentally-aware European population also contributes to the increase in the quantities of sorted products and their industrial or organic recycling.

Alongside its overall ecological offering, SPHERE includes more than 50% recycled materials in its products. The group assists its customers with the selective collection of household waste by making collection bags available and recovering them in order to process and recycle them for reuse in its production.



## 2-PRODUCING WITH EFFICIENCY

SPHERE has always invested in production equipment that uses the most up-to-date technologies. The group is also developing an industrial policy based on a circular economy, good management of the value chain and an anti-waste policy.

**THE PRODUCTION AND TRANSPORT STAGES OF THE FINISHED PRODUCTS REPRESENT APPROXIMATELY 10% OF THE ENVIRONMENTAL IMPACTS OF THE PRODUCT'S LIFE. SPHERE ACTS WITHIN ITS PRODUCTION UNITS, THROUGH:**

◆ **“Zero waste” policy**

100% of production waste from the factories is reintroduced into the manufacturing process as raw materials for the production of its finished products.

◆ **Systematic waste sorting**

Waste cardboard, paper and plastic from head office and the factories are managed via the appropriate sorting channels.

◆ **Optimised logistics**

SPHERE's production units are situated near to where the products are consumed, thus reducing the carbon impact and boosting Western Europe's economic development.

◆ **Factories' environmental quality certification**

To date, 85% of the group's industrial sites are BRC, ISO 14001 or ISO 9001 certified.

◆ **An environmentally responsible transport policy**

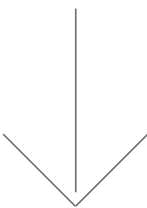
The group mainly uses the services of certified carriers that are signatories of the ADEME “CO2 Objective” charter, equipped with EURO 6 vehicles, and which optimise their itineraries and loads and train their drivers to adopt ecological driving habits.

◆ **Controlled water consumption**

Development of closed circuit cooling systems and treatment of wastewater.

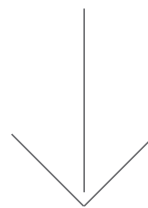


## SPHERE IS CONTINUING AND STRENGTHENING ITS COMMITMENT TO PRODUCE MORE SUSTAINABLY AND RESPONSIBLY WITH:



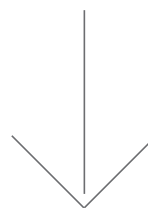
### A strengthened “zero loss of pellets” commitment.

SPHERE and its subsidiaries are taking part in the *Operation Clean Sweep* to prevent the loss of pellets at their production sites. Procedures and equipment support this commitment.



### Strengthening of its carbon footprint reduction approach.

SPHERE, supported by an independent agency, is setting up a carbon assessment and a CO2 emissions action plan for each of its sites.



### Certified sites close to its customers.

The 15 production sites in Western Europe (including 7 in France) can meet local demand and benefit from operating close to the group’s customer base. Both our French and European certifications and our management systems are proof of an enhanced industrial synergy focused on demand, quality and traceability.



# 3 - INFORMING TO CONSUME BE

SPHERE has always pursued an educative, informative communications policy, openly discussing its activities in line with its values of high standards, commitment, boldness and cohesion.

## SPHERE HAS ALREADY LAUNCHED COMMUNICATION CAMPAIGNS DIRECTED AT ITS CUSTOMERS AND CONSUMERS, WITH:

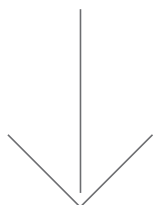
### ◆ A “zero waste” policy

On-pack information about sorting: SPHERE provides sorting information on its packaging and has also launched a process to encourage its customers to introduce this marking on products bearing their brand.

SPHERE supports its customers in implementing their sustainable commitments (choosing new and more responsible materials, eco-design, waste management, etc.).



## SPHERE UNDERTAKES TO STRENGTHEN ITS COMMUNICATIONS WITH THE FOLLOWING INITIATIVES:

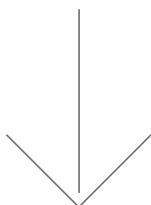


### Educational, transparent communications about the new raw materials used.

- ◆ **Introducing instructional communication tools** about the plant-based and compostable material, BIOPLAST®.

- ◆ **Collaborative work** with professional groups or public institutions to shed light on new compostable, plant-based materials as alternatives to conventional plastics and which function as part of the circular economy.

- ◆ **As part of the Roadmap for the Circular Economy**, SPHERE undertakes to include more recycled materials while ensuring their quality and traceability. SPHERE is also involved in several working groups within the plastics processing industry and with the relevant authorities.

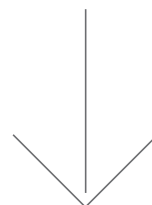


### Educational communications about the products' various uses and end of life.

- ◆ **Regular partnerships** with professional associations aimed at communicating to professionals and the general public through conferences and trade fairs.

SPHERE took part in the digital communication campaign by Elipso, the flexible and rigid plastic packaging companies' union, aimed at combating misconceptions about plastic products.

- ◆ **Support** to government agencies and local authorities in the way they address the issues of collecting, sorting, recycling and composting household waste.



### Communications to consumers and government agencies promoting recycling and composting.

- ◆ **Promoting and publicising** these new solutions through the establishment of partnerships with stakeholders (associations, ESUS, municipalities, local actors, etc.).

- ◆ **Working with institutional bodies** towards branding that ensures consumers have access to clear information about products.



# ABOUT SPHERE

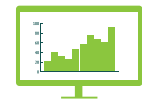
Founded in 1976, SPHERE is a French family group, the European leader in household packaging and one of the world's leading manufacturers of plant-based, compostable bags for films and bags. With 15 production sites in Europe, seven of which are in France, an annual production of 220,000 tonnes of films and bags of which 180,000 tonnes are extruded products and 40,000 tonnes of rolled products, SPHERE recorded turnover in 2020 of €640 million and employs 1,480 people.

SPHERE is committed to a coherent, pragmatic approach to the fight against plastic pollution and climate change. Its development strategy is to innovate for future generations with the following main goals:

- ◆ Reduce the volume of virgin plastics;
- ◆ Use the appropriate material for each product according to its end of life;
- ◆ Increase the share of recycled materials in its products;
- ◆ Favour the production of compostable plant-based raw materials;
- ◆ Eco-design new biomaterials taking into account the end of life.



**Creation of the Group**  
1976



**Consolidated turnover**  
€640 M IN 2020



**Average workforce**  
1,480 employees

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