



**BIOTEC**

BIOTEC Biologische Naturverpackungen GmbH & Co. KG

# Plastainability 2024

## SPhere & Biotec Business model and solution vs European regulations

Athens, 12th November 2024

SPHERE is a french family-owned group founded in 1976 and a european leader in household packaging.

The company is a specialist in professional food and non-food packaging.

It is one of the world's leading producers of biobased and compostable materials for film and bags.

SPHERE operates in three main markets.



SPHERE manufactures and distributes innovative product ranges with a low environmental impact.



**BAGS**



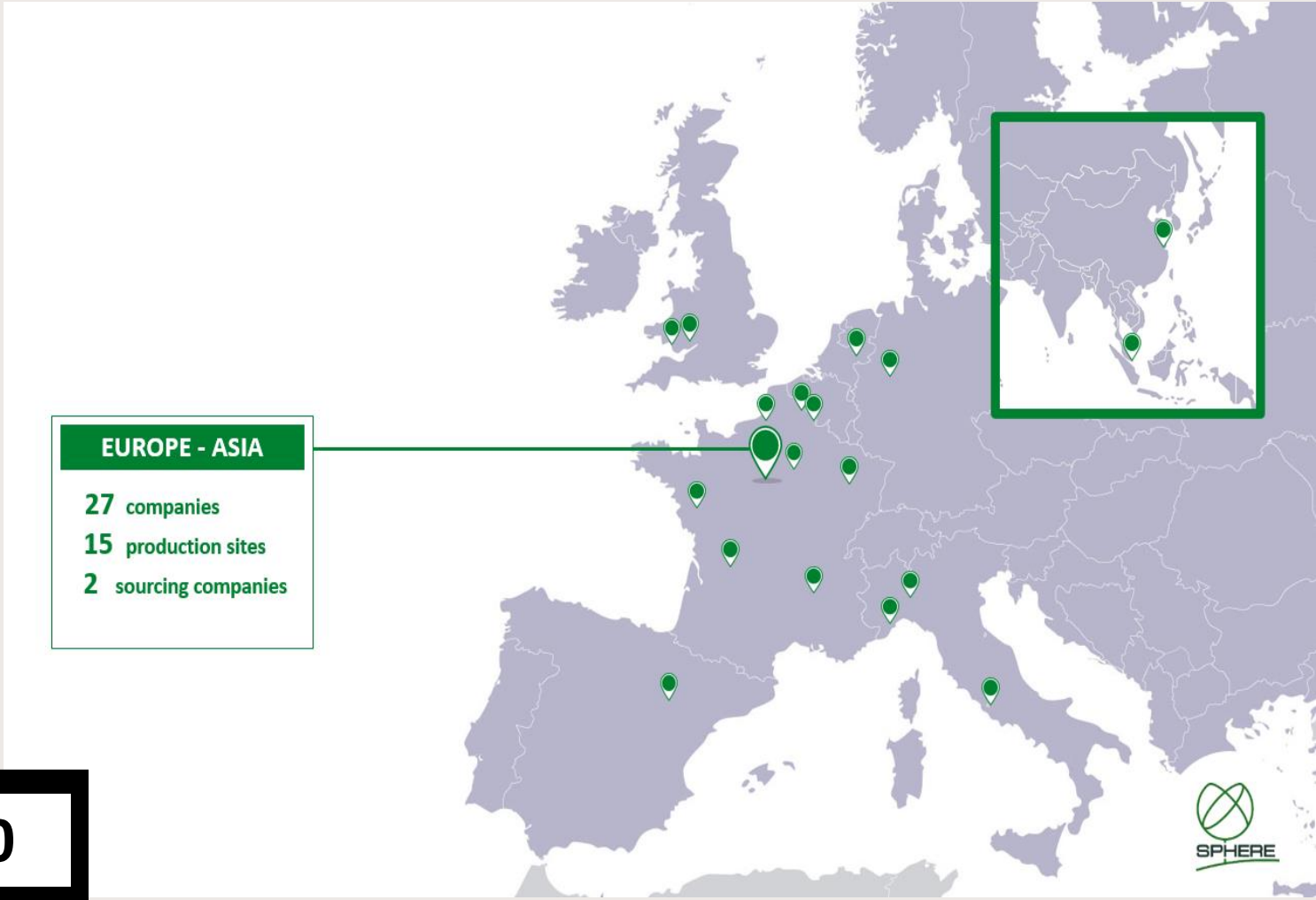
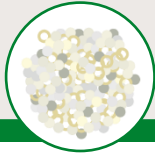
**FILMS and PAPERS**



**ALUMINUM ROLLS and TRAYS**



**DISPOSABLE and TAKE-AWAY**

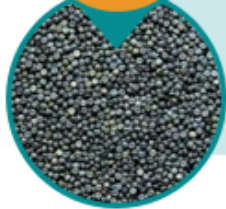


### SPHERE INVESTS IN MATERIALS THAT BRING ABOUT TO A REDUCED ENVIRONMENTAL IMPACT

The SPHERE group is committed to an industrial strategy that seeks to use raw materials that comply with the challenges of the circular economy.



#### RECYCLED PLASTICS DERIVED FROM THE CIRCULAR ECONOMY



For over 20 years, SPHERE has been using polyethylene in its products, which makes up a significant portion of recycled plastics coming from selective sorting by private households, or professional.



#### PLANT-BASED PLASTICS



Since 2011, SPHERE has used plant-based polyethylene - a material made from ethanol - **with a reduced or even zero carbon impact.**



#### BIO-COMPOSTABLE MATERIAL



Since 2005, SPHERE has developed a range of products that use plant-based, compostable material made from inedible potato starch, which is produced in France and GMO-free.  
 → **FOR TARGETED USES 200 BIOTEC patents**



#### PAPER / CARDBOARD / WOOD



Since 2008, SPHERE has produced and marketed paper packaging made from cellulose, a renewable natural resource.



## Key Competences

- ▶ Development and Production of completely biodegradable and compostable materials
- ▶ No use of Plasticizers and GMO raw materials
- ▶ Use of renewable raw materials
- ▶ **Focus on starch technologies**

## Key Indicators

- ▶ Installed capacity: > 40.000 t/a
- ▶ Potential capacity: > 70.000 t/a
- ▶ Employees: 75
- ▶ Sales: 73 Mio € (2020)
- ▶ Technikum
- ▶ Analytical Laboratory
- ▶ ISO 9001, 14001, 50001: 2021 certified

## Research and Development

- ▶ Experience since 1991
- ▶ More than 250 patent applications worldwide
- ▶ Annual R&D Budget > 1,5 Mio €
- ▶ Since 2011 100 % of all powers from renewable resources



## **European Union Single Used Plastic Directive**

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**Members States have to ban most of single used plastics such as light bags , straws, cutlery, cotton bud sticks ...etc**

**There are some exemptions for compostable plastic items such as fruit and vegetable bags, tea bags, coffee capsules and coffee filters .**

**For the time being this list is limited but can be extended by Member States ;**

**Italian government has extended this list to cutlery, straws and other single used items .**

## PPWR regulation

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**This regulation is based on 2 pillars :**

**Recycling (mechanical and chemical)**

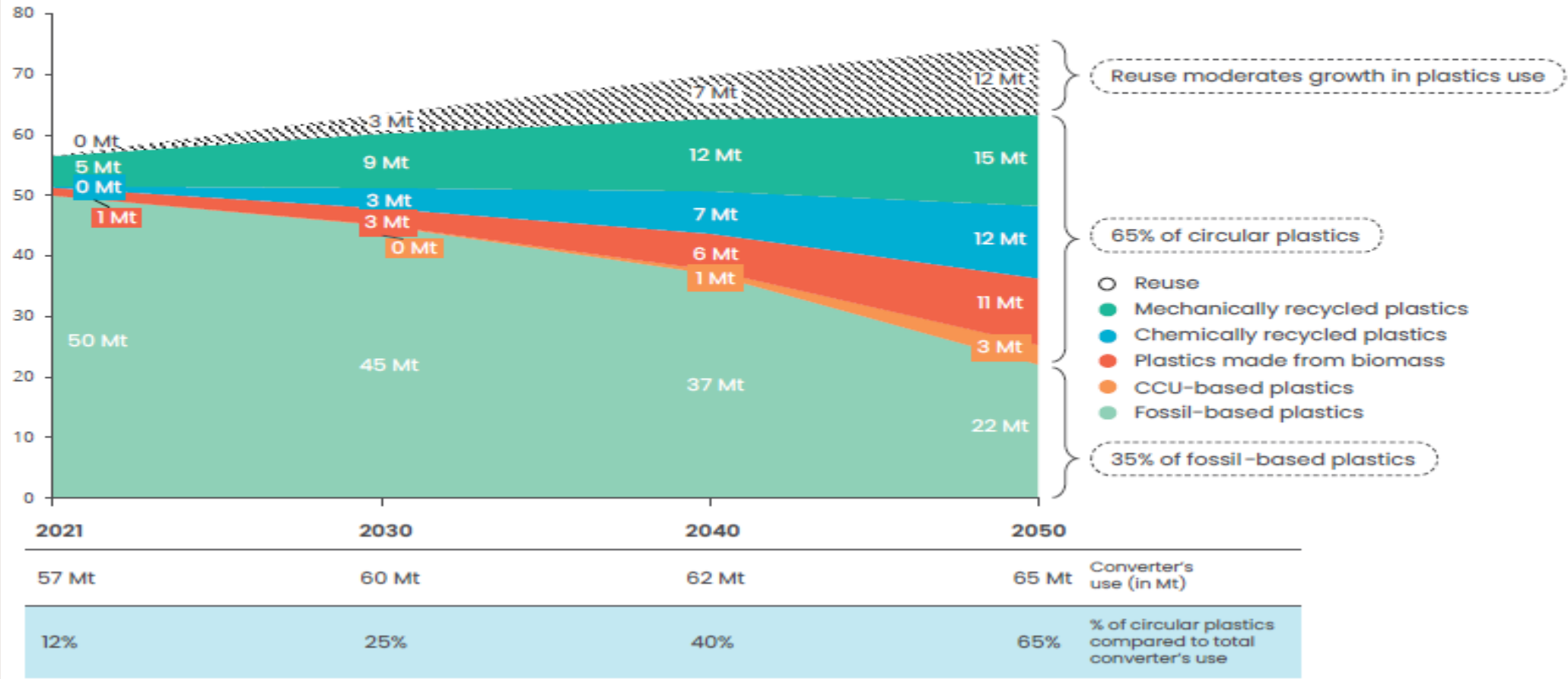
**Re-using**

**This regulation will come immediately into force in each EU Member States.**

**For each EU Member States there will be some opportunities to adapt PPWR for compostable solutions. The vote will take place in December 2024 ;**

## Plastic Europe vision (Sept 2024)

**Figure 3:** With the support of policymakers and increased collaboration with value chain partners, circular plastics will be able to grow and gradually replace fossil-based plastics<sup>1</sup>





## Our vision

A strategy respecting Directives and Regulations based on different sources of raw materials

Recycled polymers

Biobased polymers

Compostable material

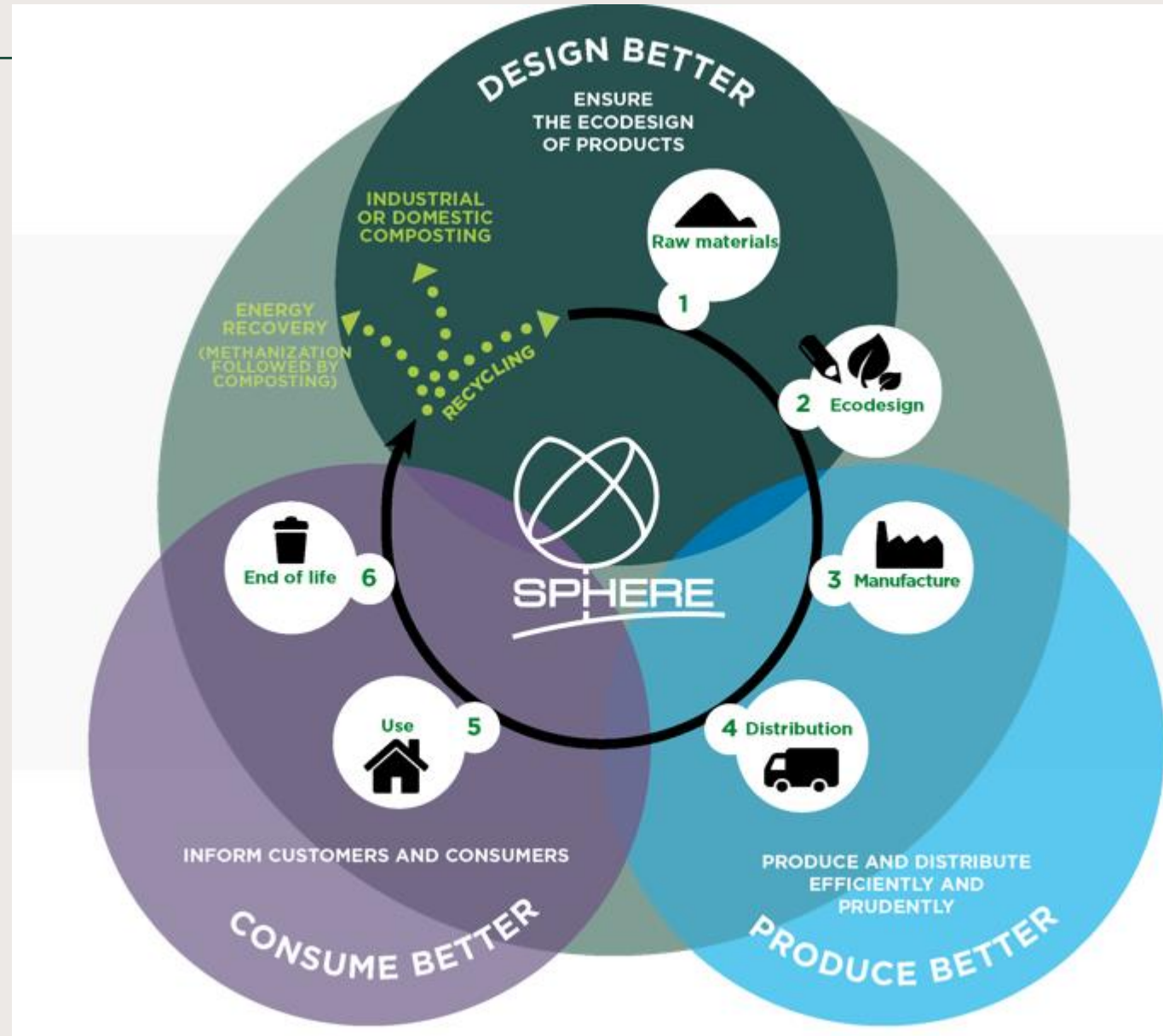
Eco conception of the product from the origin of the raw material to the end of life of the product

Evolution of the waste treatment solutions :

Recycling

Biogas (Methanization)

Industrial compost



## Share services and Share insights

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We are members of plastics packaging associations all over Europe

Elipso (France) [www.elipso.org](http://www.elipso.org)

IK (Germany) [www.plasticpackaging.de](http://www.plasticpackaging.de)

We are member of Plant Chemistry Associations (ACDV)

[www.chimieduvegetal.com](http://www.chimieduvegetal.com)

We are member of European Bioplastics Association (Eupb)

[www.european-bioplastics.com](http://www.european-bioplastics.com)

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[www.sphere.eu](http://www.sphere.eu)

[www.biotec.de](http://www.biotec.de)

[www.orbitpolymers.com](http://www.orbitpolymers.com)

**Thank You**