New bioplastics with improved and advanced properties

SUSPOL

POLÍMEROS SOSTENIBLES

BACK TO THE EARTH

Problem

Most of plastics are oil-based and cannot be recycled

Traditional plastics production will keep growing

Bioplastics > x3 more expensive

Poor processability of bioplastics

Bioplastics production highly dependent on food crops

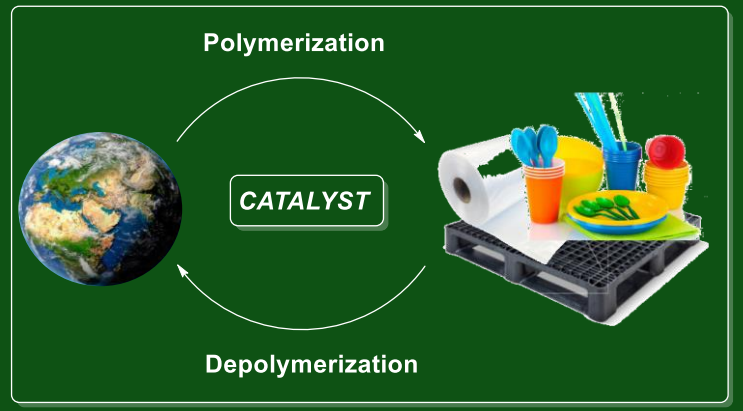
4 % CAGR

2030

€827 B

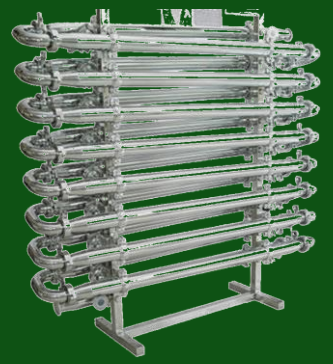
Solution - Value proposition

Versatile catalysts for production and chemical recycling of various biobased plastics such as PLA



Fully circular productive model

Innovative flow chemistry polylactic acid (PLA) production and chemical recycling



>50% less production costs

FLEXsus®

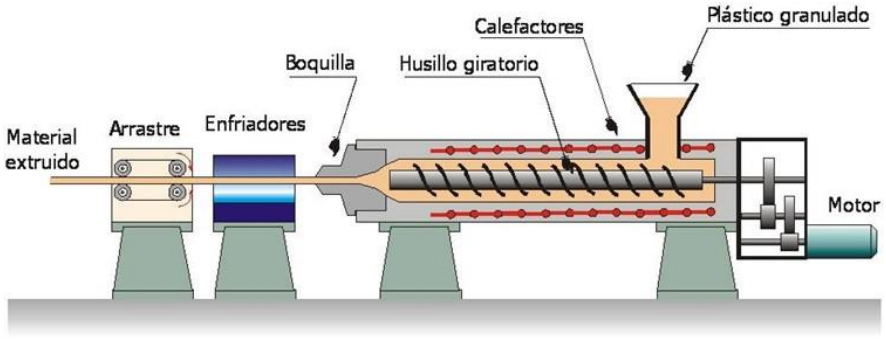
New low-cost, biobased and recyclable plastic to unlock currently inaccessible applications

Very flexible

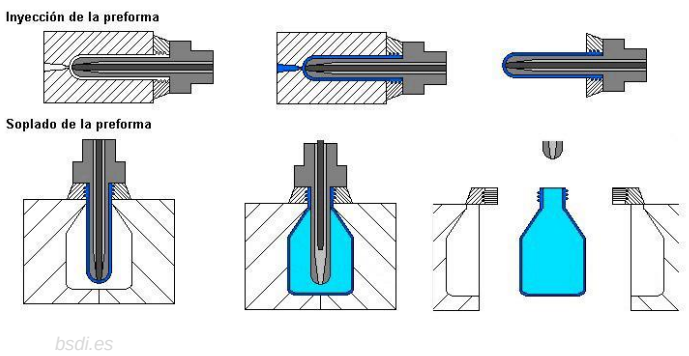
High tensile strength

Very stretchable

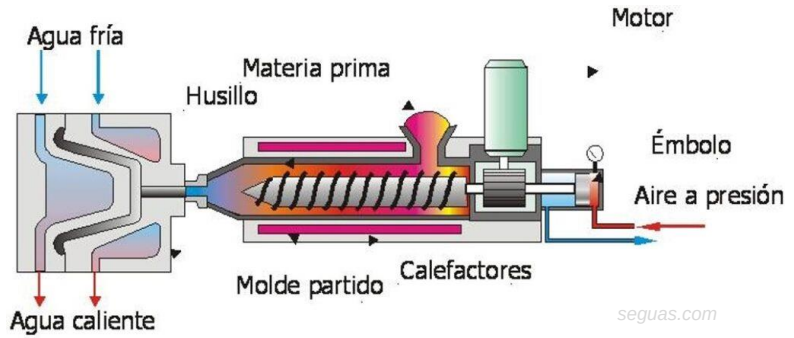
Customers



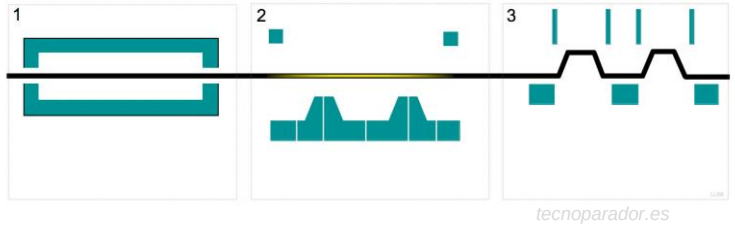
Extrusion



Blowing



Injection



Thermoforming

Textile

Packaging

Agriculture

Dental

PLANETA INCORA

ECOALF

HR Hijos de Rivera

Ebro

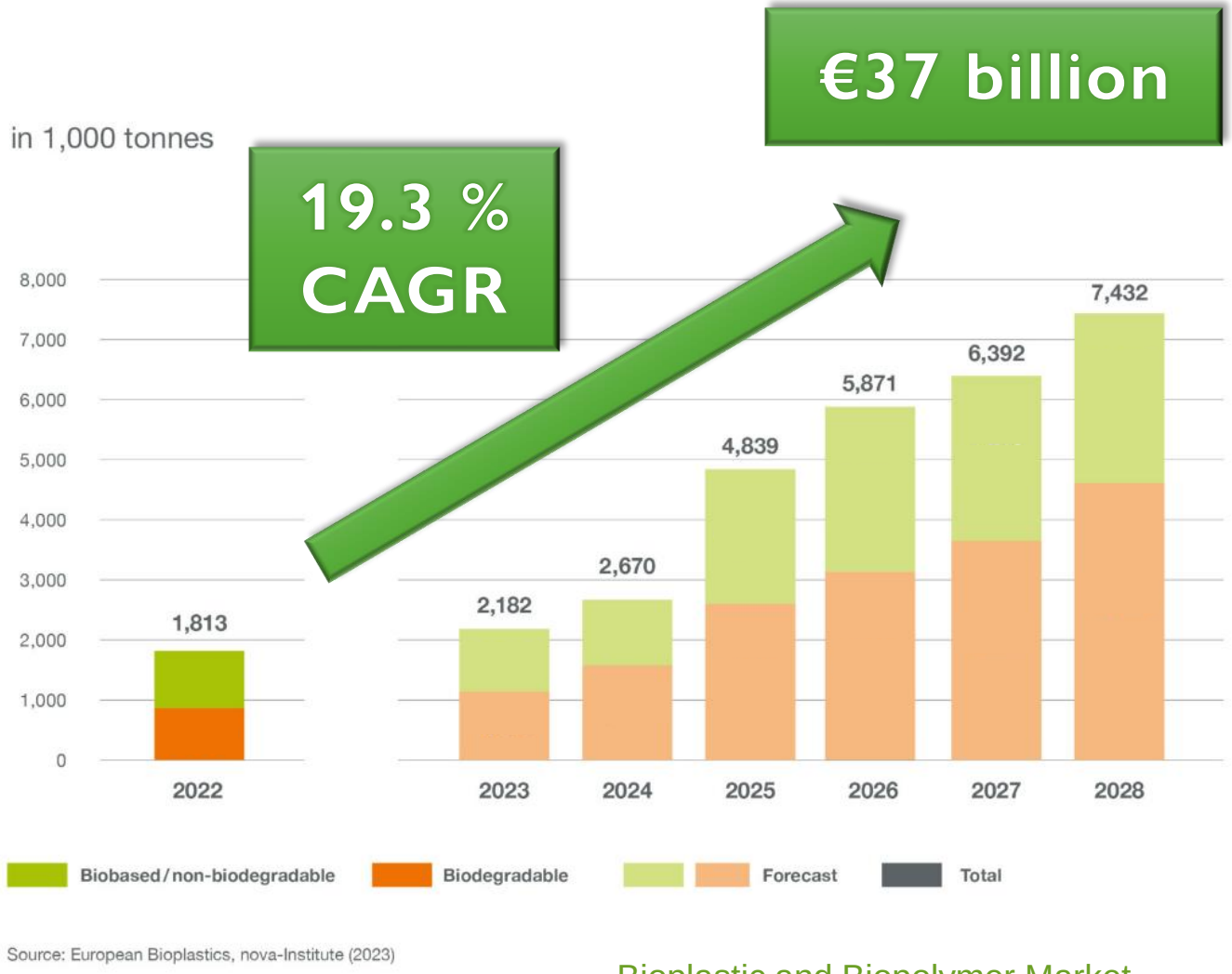
sp·berner
RECYCLED PLASTIC SOLUTIONS

Refresco IBERIA

secretaligner

Global Market Potential

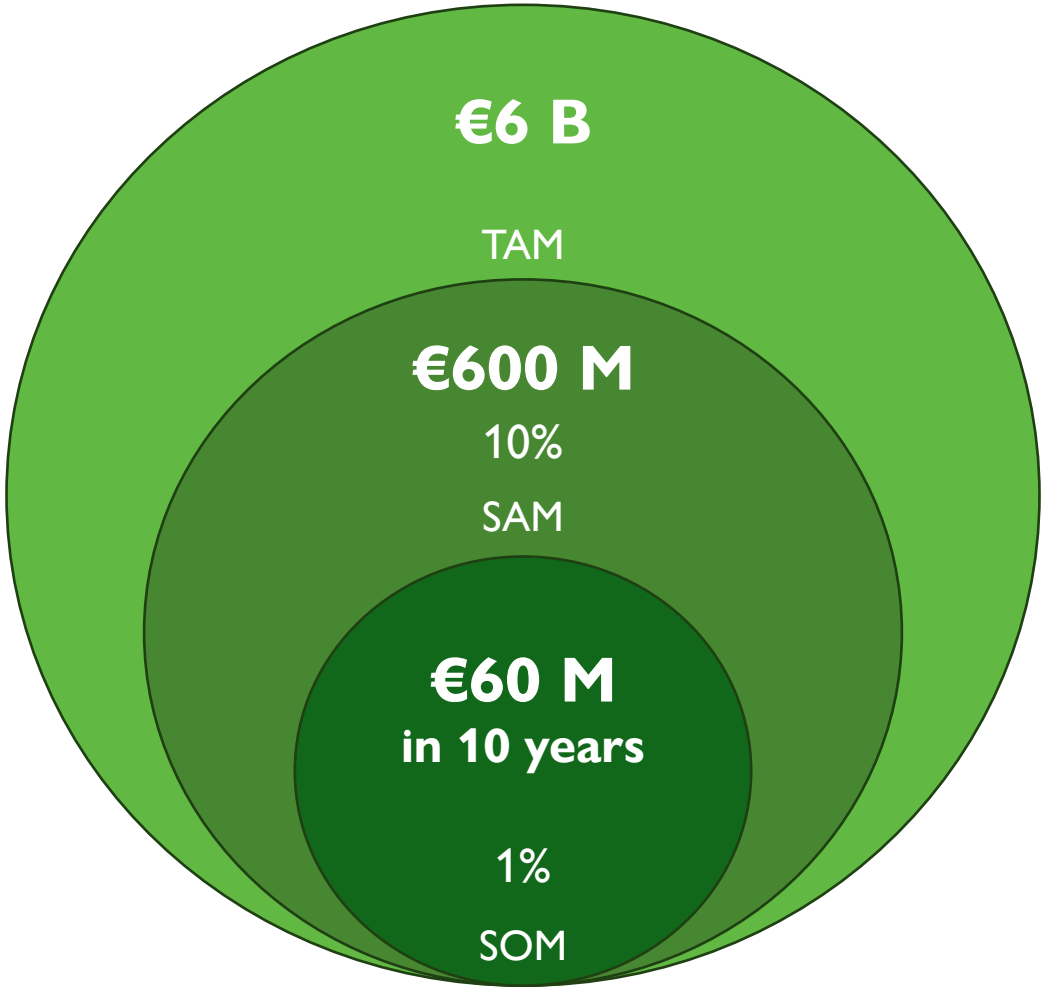
The global market is projected to reach more than €37 billion by 2028, registering a **CAGR of 19.3%**



Source: European Bioplastics, nova-Institute (2023)

Bioplastic and Biopolymer Market Size & Forecast by 2034 | FMI

Market Size - Europe



Bioplastics & Biopolymers Market Worldwide Revival: Promising Growth Outlook until 2030

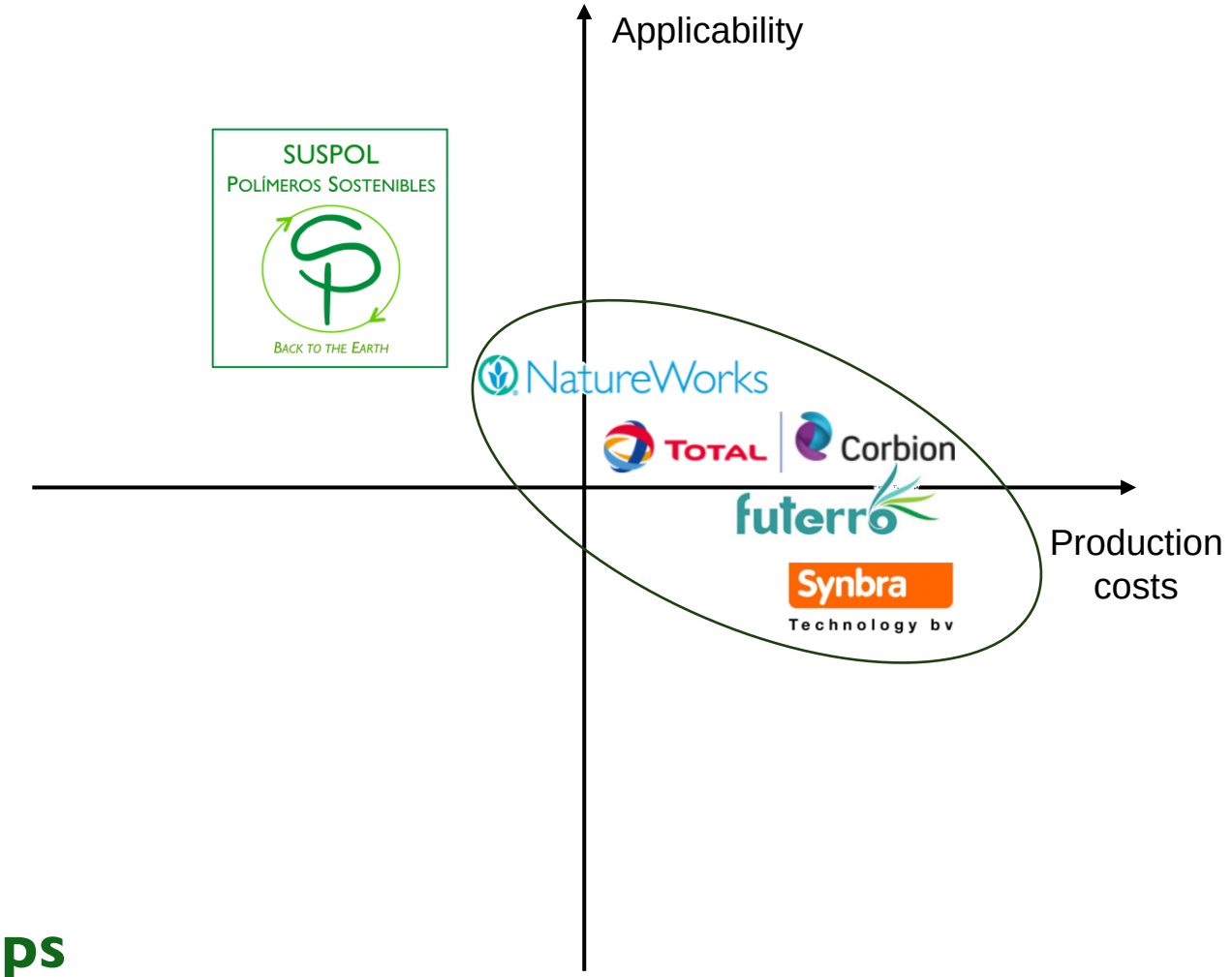
Competitive Landscape

Robustness
Patented versatile catalysts for production and chemical recycling of bioplastics

x2 cheaper bioplastics
Mild reaction conditions and low energy consumption for production and chemical recycling processes

FLEXsus®
New bioplastic to unlock applications in textile and packaging sectors

Cutting dependence on food crops
Chemical recycling for raw materials recover



Financial projections

Cost of raw material 0.4 €/kg

Selling Price 1.2 €/kg

Break even

Profit and Loss	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
kilograms	0	200.000	400.000	800.000	1.600.000	3.200.000
Income	**0**	**240.000**	**480.000**	**960.000**	**1.920.000**	**3.840.000**
Variable costs	0	80.000	160.000	320.000	640.000	1.280.000
Production staff (direct)	0	30.000	53.200	79.800	106.400	133.000
Gross Margin	**0**	**130.000**	**266.800**	**560.200**	**1.173.600**	**2.427.000**
General staff	40.000	70.000	150.000	250.000	300.000	350.000
Company Overheads	20.000	20.000	20.000	20.000	20.000	20.000
R&D expenditure	10.000	30.000	100.000	200.000	300.000	400.000
Equipment Rental	20.000	20.000	20.000	50.000	50.000	50.000
Profit Before Taxes	**-90.000**	**-10.000**	**-23.200**	**40.200**	**503.600**	**1.607.000**
Taxes			-5.800	10.050	125.900	401.750
Result	**-90.000**	**-10.000**	**-17.400**	**30.150**	**377.700**	**1.205.250**

Financing needs	-100.000

€2-3 M round for scaling up

Current financial projections don´t include its effect on sales and expenses

Development roadmap

TRL 3 500 g/day — Scale-up in 1L reactor

2 months — **€35k**

TRL 4 10 kg/day — Scale-up in kilolab 20L reactor

4 months — **€40k**

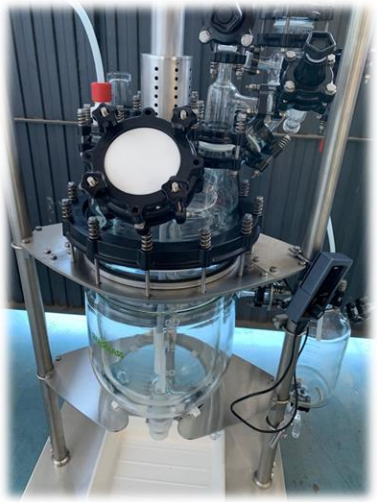
TRL 5 30 kg/day — Pilot plant scale-up 40L

2 months — **€17k**

TRL 6 30 kg/day — Processing of mixtures

4 months — **€17k**

TRL 7 30 kg/day — Prototype validation



Subcontract optimisation and scaling service of CQAB-UAH

Reaction complete 100%
Mw >600 kDa

Subcontract to process FLEXsus®-based formulations and develop prototypes for key sectors

Formulations valid for sectors of interest

Prototypes validated in a real environment

Core Team

Dr. Palenzuela

Founder and CEO

Luis Domínguez

Financial advisor

Albert Mestre

Technology advisor

GROW Venture Partners

Venture capital

Prof. Mosquera

Co-founder

Dr. Sessini

Co-founder

Dr. Whiteoak

Prof. Jiménez

Dr. Tabernero

Scientific advisors

Universidad de Alcalá

SOSCATCOM

Seeking...

Profile
Chemist / Materials Engineer

Chemical processes and optimization knowledge

Profile
Mechanical / Process Engineer

Knowledge of industrial processes and scale-up

Profile
Polymer Technician

Experience in processing and formulation of plastic mixtures