



wrote

THE HISTORY IS WRITTEN

Transforming
Biogas Digestate
in
Profit for Farms



wrote

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“ Our project starts from the daily analysis of what is happening in our territories ”

We live in a border area between large agricultural areas and large industrial settlements where the modern approach to agriculture and livestock farming has improved overall productivity, but has also caused a major imbalance between the resources used and the products obtained.

In particular, we have observed that the development of agricultural anaerobic digesters, which were created to create clean energy, has, however, caused:

- *the presence of thousands of barrels and tractors to dispose of effluent on the land, which travels with a product that contains 4% nutrients and 96% water;*
- *a negative integrated CO2 balance gave the raw materials used and the transport costs;*
- *the use of large volumes of water, an increasingly rare resource.*

Modern agriculture has also impoverished and dried out cultivated land through the use of synthetic fertilisers as well as fungicides, herbicides and chemical insecticides, causing obvious natural soil infertility. The clearest proof of this is when, after ploughing and tilling the soil, nothing grows except the seeds of the planted crop.





“ We recover the water contained in the digestate and transform the remaining solid product into an organic fertiliser ”

The core of our project is based on two different integrated technologies:

- 1. Recovery of the water contained in the digestate and subsequent transformation of the solid product into organic fertiliser capable of increasing soil fertility in a natural way.**
- 2. Inoculation of the fertiliser with microorganisms and bacteria to generate a bio-stimulant capable of accelerating the soil fertilisation process and combating crop adversities in a natural way.**



Biotechnological research and the possibility of calibrating the process on-demand and just-in-time allows us to produce a custom-made biostimulant for different agronomic needs. Wrote technology therefore allows:

Recovering the water contained in the wastewater is returned to the natural cycle.

Reduce the logistical costs of distributing digestate on land by 90%.

Biotechnological valorisation of digestate into biostimulant partially reused at 0 km on the same farm and partially resold in sectors with high added value: professional and hobby gardening.

Reduction of process CO2 related to the just-in-time production and disposal of livestock manure allowing the production of a custom-made biostimulant for different agronomic needs.

“ The only way to drastically reduce CO₂ is to trap it where it is generated: in the soil. ”

It is important to point out that switching to agriculture that uses organic rather than synthetic fertiliser allows the soil to behave like a sponge that stores atmospheric CO₂.

Large foundations are funding technological processes to reduce CO₂ to meet greenhouse gas targets, underestimating the fact that the only way to drastically reduce it will be to trap it where it is generated: in the soil.

Our innovative and traditional approach to agriculture will achieve this goal: greater natural fertility, fewer chemicals, healthier agricultural products for human health, and less CO₂ emitted into the atmosphere.

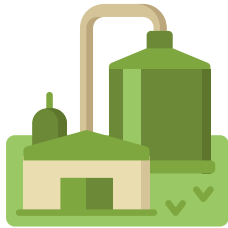
In this environmentally virtuous context, business opportunities arise for all participants in the BioBoost project:

(A) Farms will achieve a drastic reduction in costs related to the logistics of spreading digestate, naturally improve soil fertility and earn extra income from the sale of the upgraded digestate.

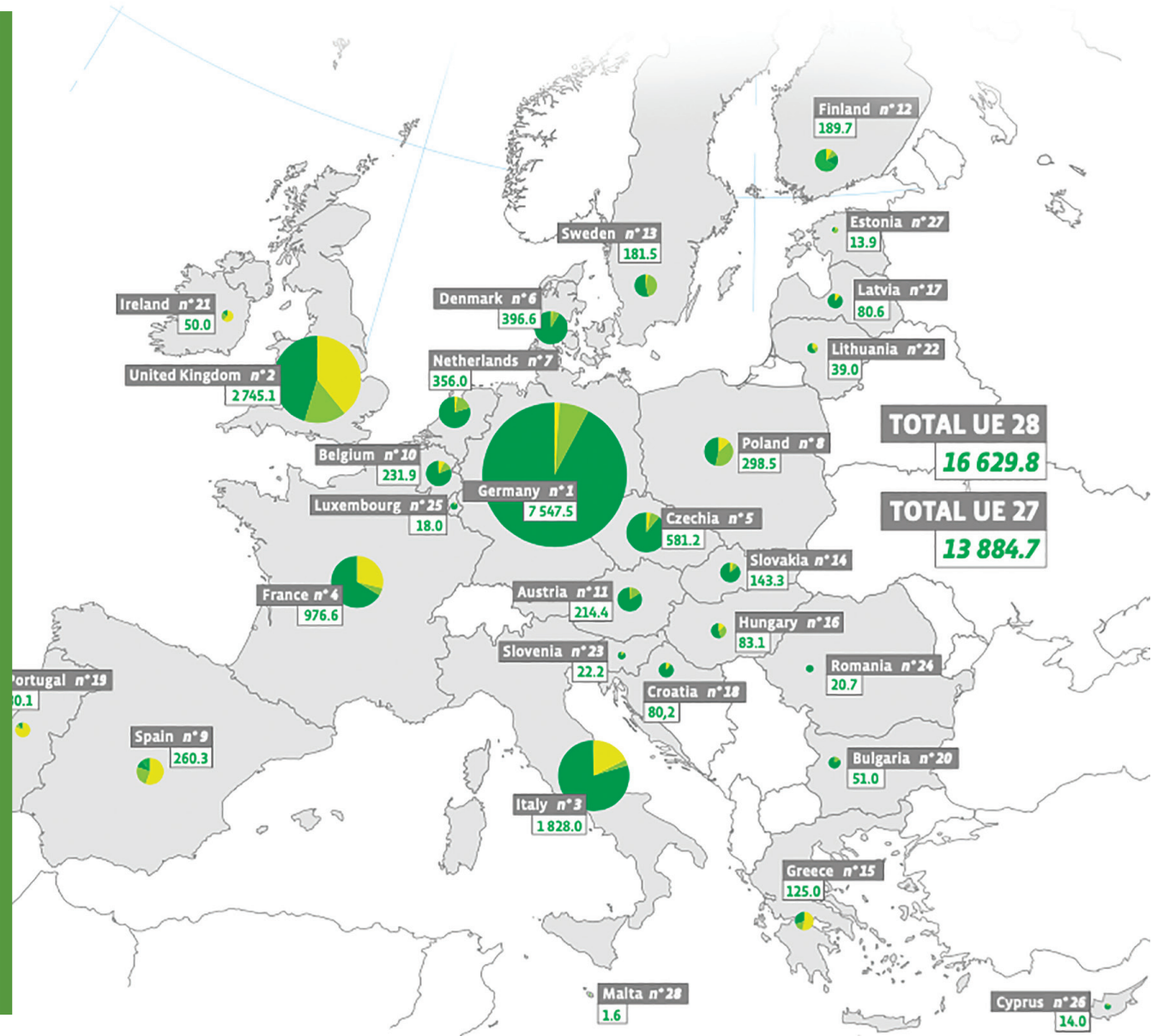
(B) Wrote will take care of the construction and management of the plants, the biotechnological valorisation of the digestate as a biostimulant, generating a product with a value multiplier x 1,000 (value of the digestate € 1.50/ton - market value of the biostimulant € 1,500.00/ton).

A success for the farms, for Wrote and for the land.





There are more than 18.000 Biogas plants in Europe with a growth rate of about 10% per year.



The Technologies

The core of the BioBoost project is based on **three different synergistically integrated technologies:**

WLR

Wrote Liquid Recovery

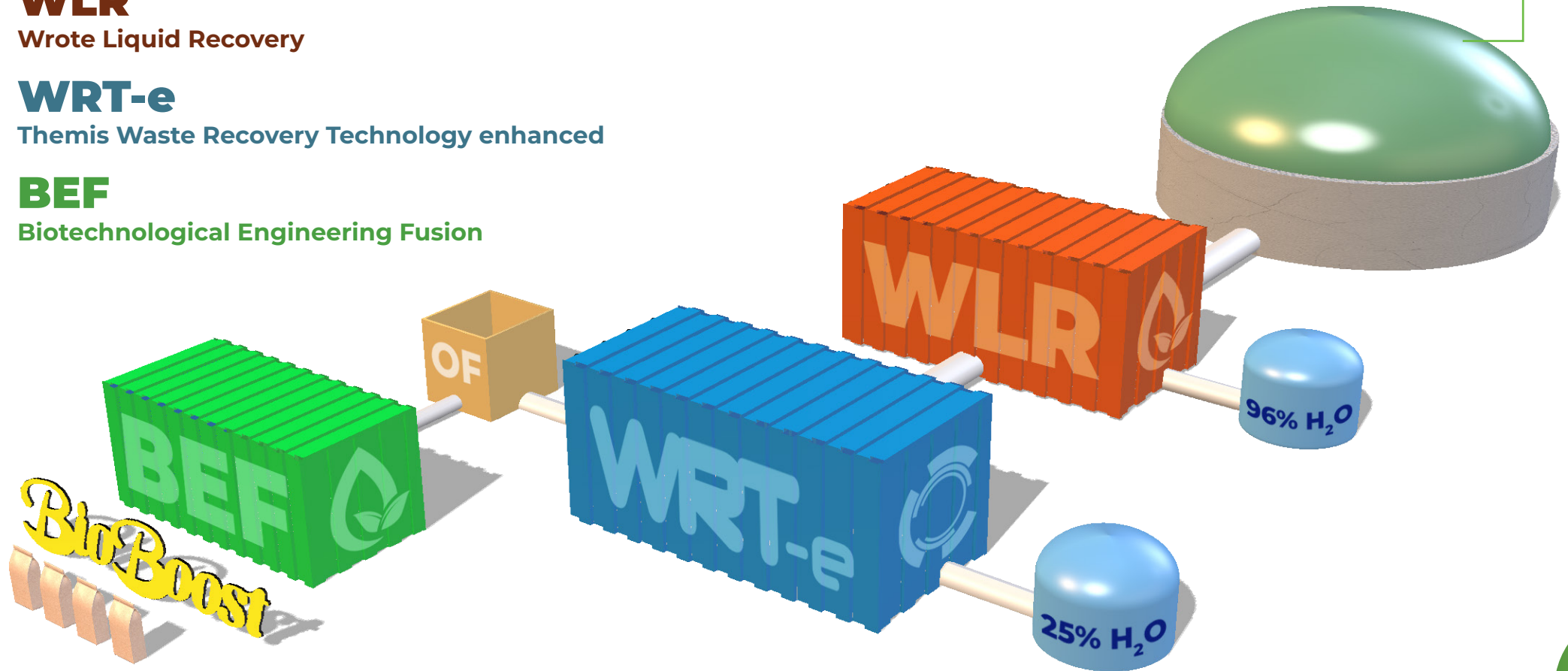
WRT-e

Themis Waste Recovery Technology enhanced

BEF

Biotechnological Engineering Fusion

Each individual machine is modular, making it perfectly adaptable to biogas plants of all types and sizes.



STEP 1 • Nanofiltration

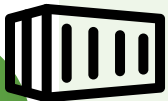
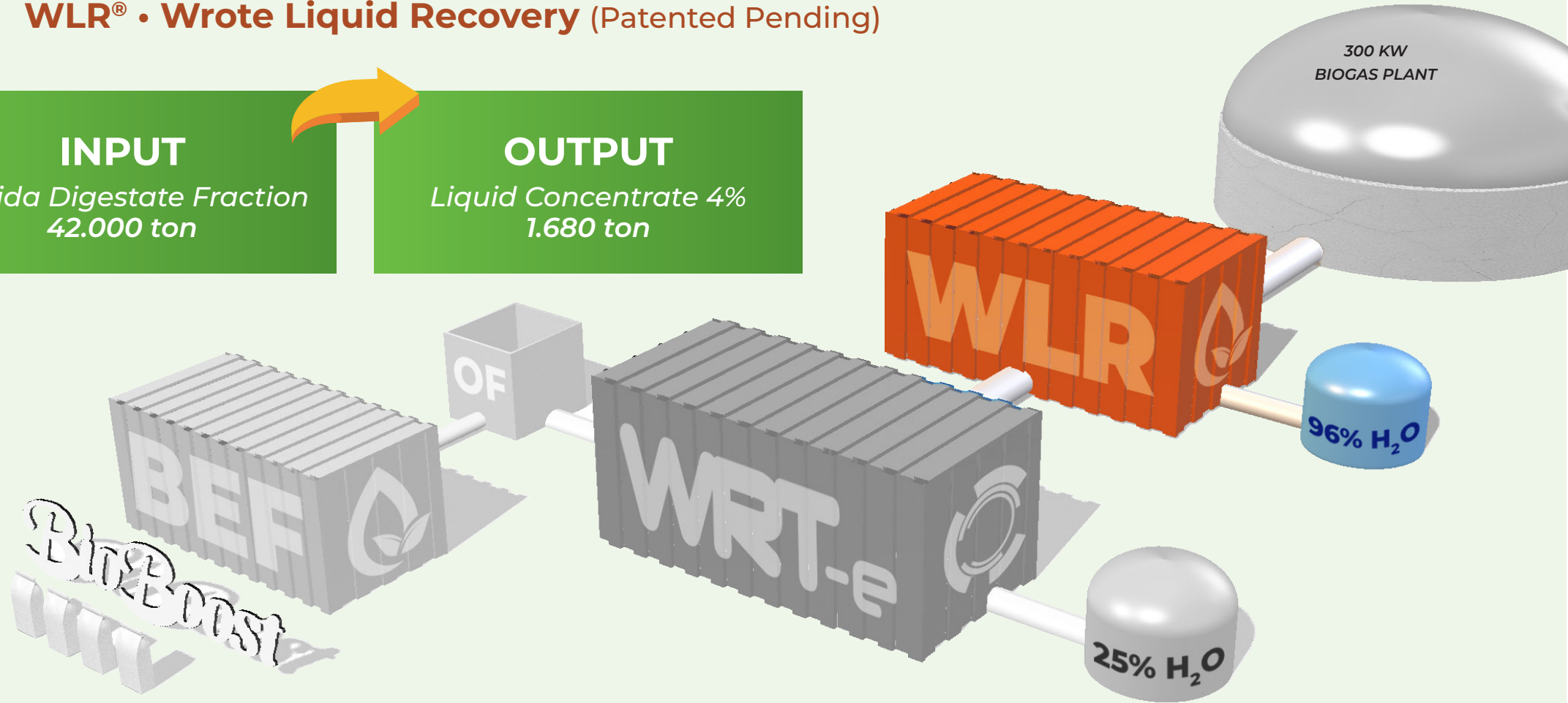
WLR® • Wrote Liquid Recovery (Patented Pending)

INPUT

Liquida Digestate Fraction
42.000 ton

OUTPUT

Liquid Concentrate 4%
1.680 ton



**SKID MOUNTED
(MODULAR INSTALLATION)**

STEP 2 • Exclusive Themis treatment

WRT-e® • Waste Recovery Treatment enhanced (European Patent)

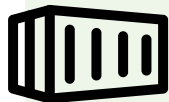
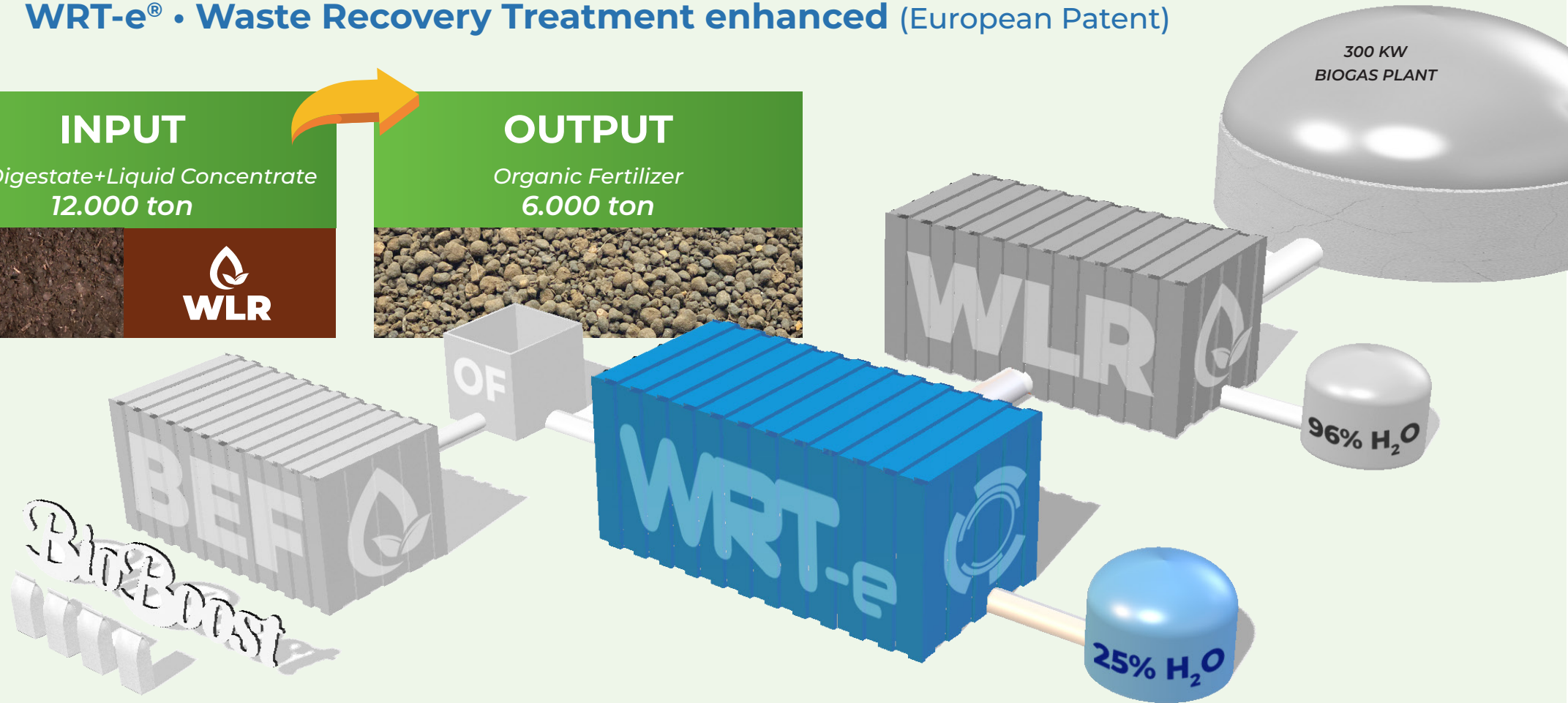
INPUT

Solid Digestate+Liquid Concentrate
12.000 ton



OUTPUT

Organic Fertilizer
6.000 ton



**SKID MOUNTED
(MODULAR INSTALLATION)**

STEP 3 • Inoculation of micro-organisms

BEF • Biotechnological Engineering Fusion

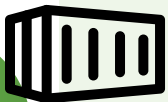
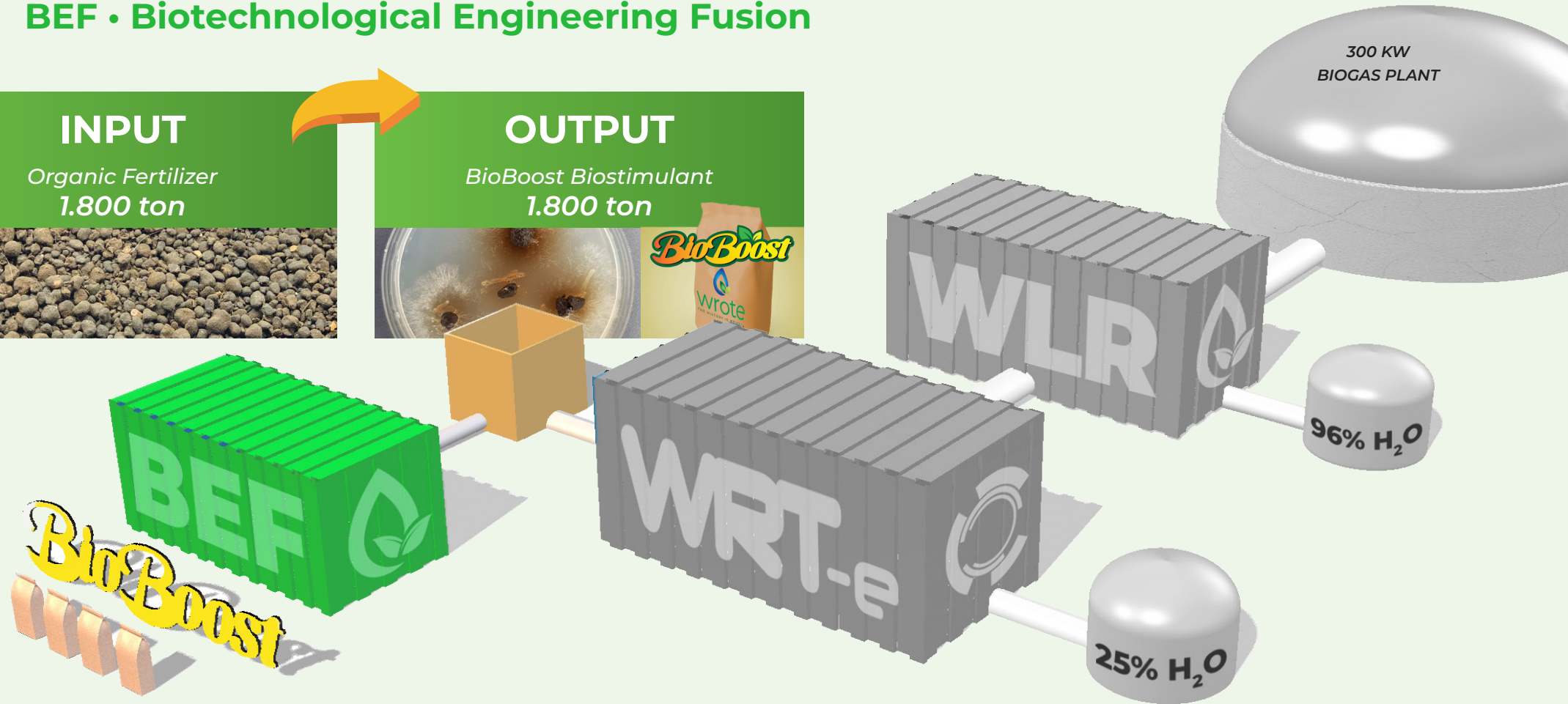
INPUT

Organic Fertilizer
1.800 ton



OUTPUT

BioBoost Biostimulant
1.800 ton



SKID MOUNTED
(MODULAR INSTALLATION)

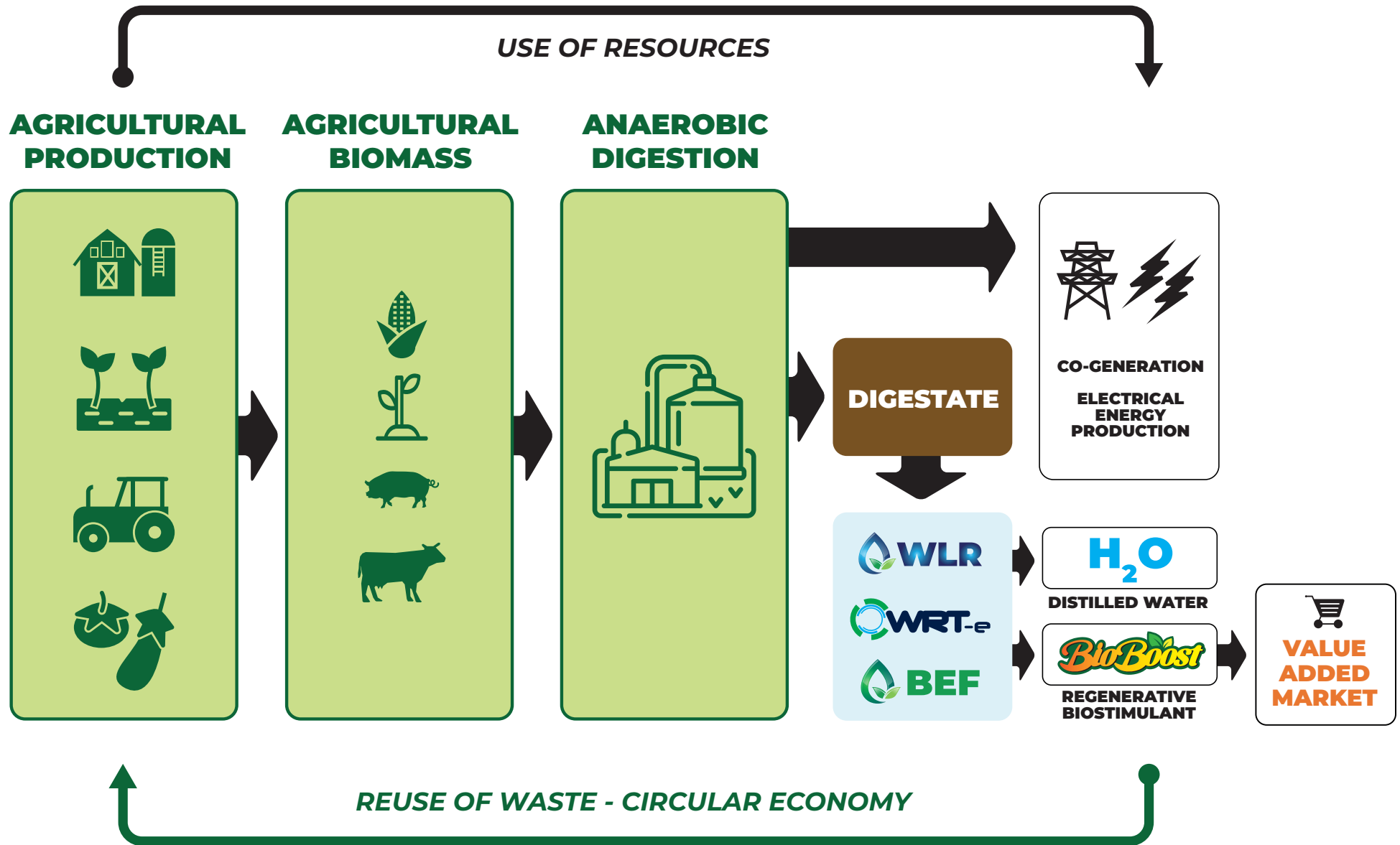


TABLE OF COSTS (FARM WITH 300 kW PLANT)

Technologies costs (WLR + WRT + BEF)	1.300.000 €
Annual depreciation cost	130.000 €
Opex costs	290.000 €
TOTAL COSTS	420.000 €

ANNUAL ECONOMIC BENEFIT

Savings	310.000 €
Revenues (sell of BioBoost)	350.000 €
TOTAL BENEFITS	660.000 €

TOTAL NET VALUE
+ 240.000 €



“ LESS CHEMICALS, MORE NATURAL. ”

Modern agriculture has more soil fertility to the use of synthetic fertilizers, chemical products.

Inoculation of organic fertilizers with microorganism accelerates the natural soil fertilization process and fight adversities in a natural way.



“ HEALTHIER FOOD ”

Healthier agricultural products for human health.

Organic fertilizers crops produce healthier food without toxic elements.



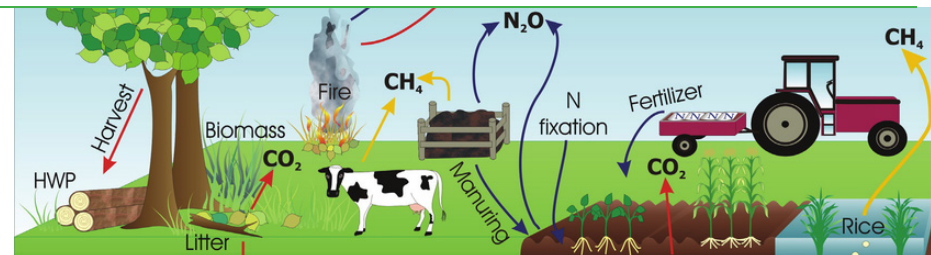
“ CO₂ PROCESS REDUCTION ”

Our technologies can achieve 95% reduction of transportation requested by traditional production.



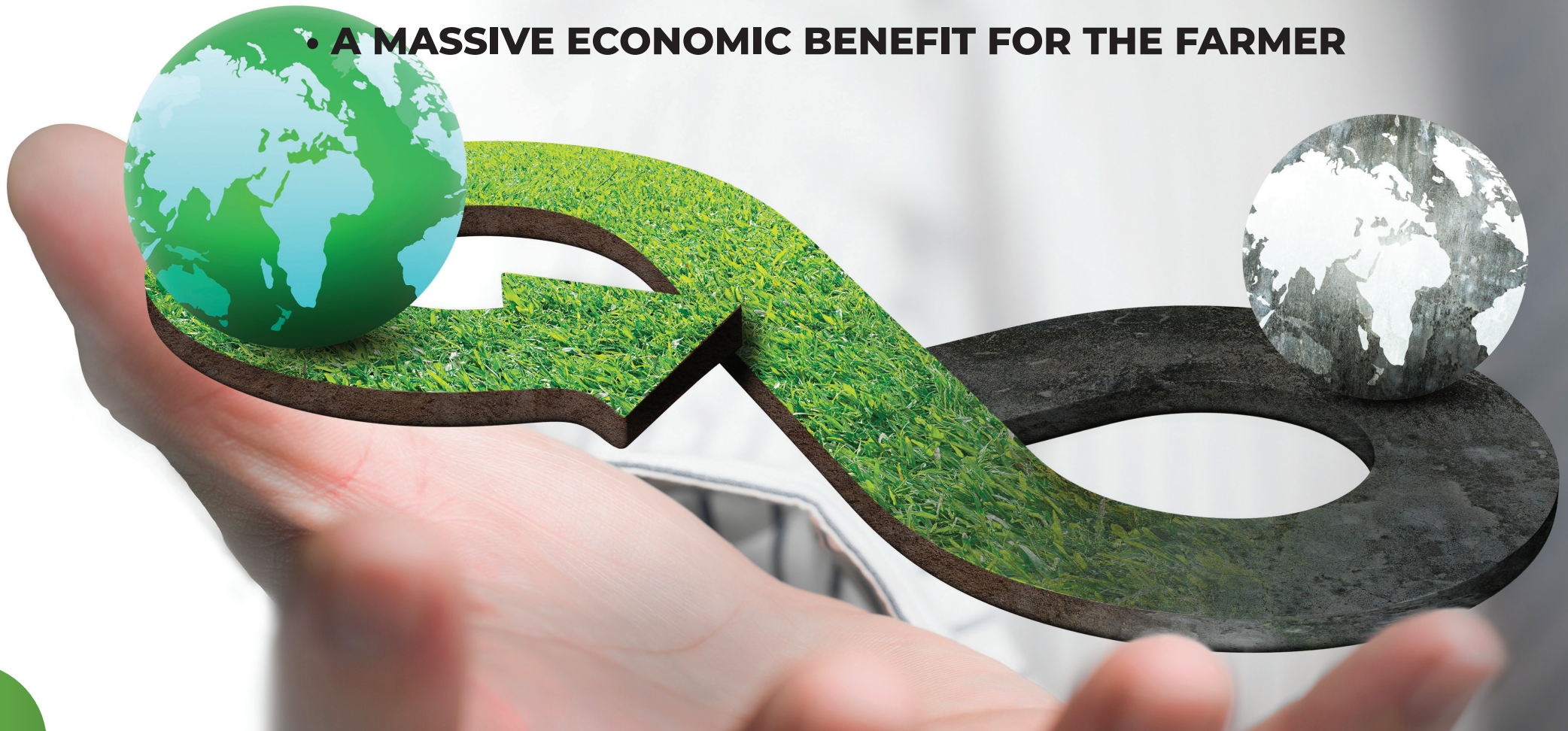
“ CO₂ ATMOSPHERE REDUCTION ”

Organic fertilizers, rather than synthetic fertilizers, allows the soil to behave like a sponge that stores atmospheric CO₂.



**We transform waste into a new resource
by creating a virtuous circle of Circular Economy with:**

- **A HUGE POSITIVE IMPACT FOR THE ENVIRONMENT**
- **A MASSIVE ECONOMIC BENEFIT FOR THE FARMER**





The future is written through the past.

Transform manure into energy through anaerobic digestion, digestion waste into organic fertilizer with bacteria and microorganisms, growing crops without synthetic fertilizers and transforming cultivated soils into the largest CO₂ accumulator in the world.

Future technology for the sustainable healthy agronomic practices of the past.

Wrote now.



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