

SUSTAINABILITY AND CIRCULAR ECONOMY POTENTIALS IN TERMS OF FOOD WASTE

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SUSTAINABILITY

SUSTAINABILITY MEETS THE NEEDS OF THE PRESENT
WITHOUT JEOPARDIZING FUTURE GENERATION

SUBSTANTIAL OPPORTUNITY FOR BUSINESSES READY TO SEIZE IT

Market size \$2.6 Trillion -220,000 t CO₂ / year

Global market for new circular
agrifood products by 2030

WHAT IS SUSTAINABILITY?

INTERDEPENDENCIES BETWEEN 3 BIG THINGS



ENVIRONMENT

- Air
- Water
- Soil
- Energy



ECONOMY

- Managing scarce resources
- Profit instead of costs



SOCIETY

- Interaction among individuals
- Interactions among communities

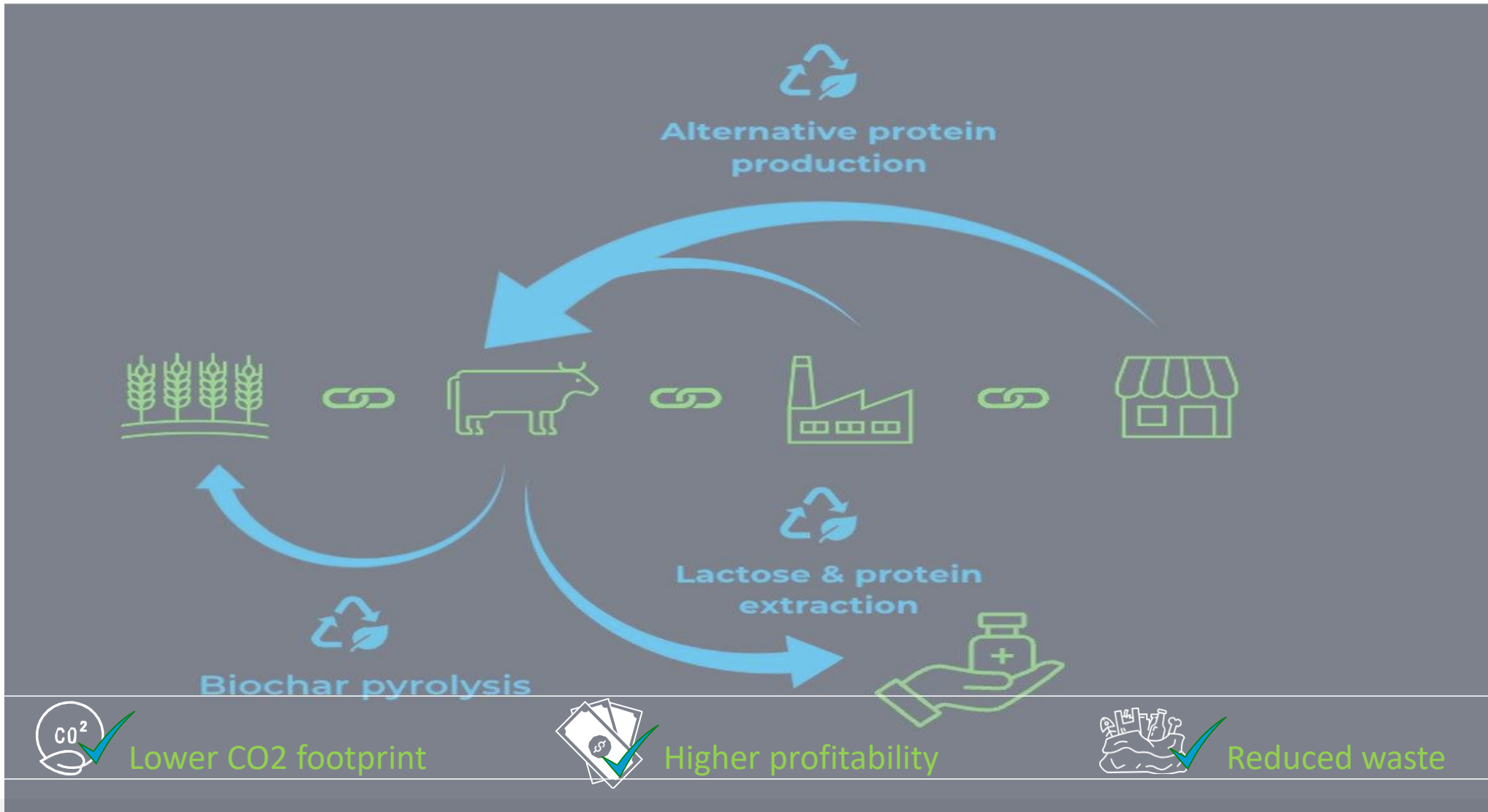
WHY TO FOCUS ON SUSTAINABILITY?

- To increase competitiveness by saving energy and material
- To respond to buyers' requests / EU regulations
- To develop sustainable products for an increasing market demand
- As part of the corporate strategy

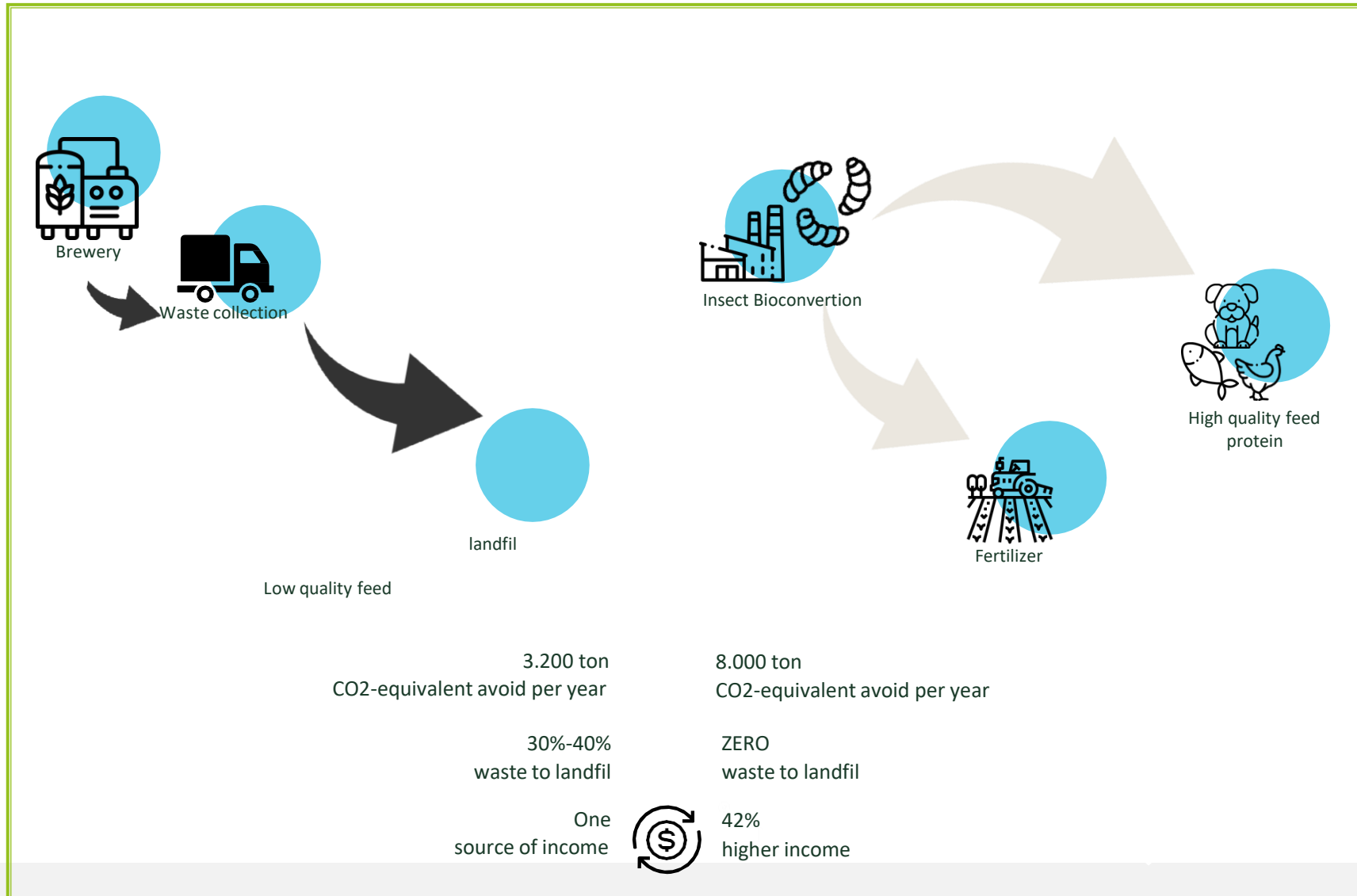


SUSTAINABILITY AND CIRCULARITY IN AGRICULTURE, FOOD AND BEVERAGES INDUSTRY

→ Circular high-value-added products



Brewery Example Circular Business model



A brewery company produce 50,000 ton of Brewery spent grain (BSG) annually. BSG is a by-product of the brewing process. Currently, a third party buys the BSG for EUR 3.5 per ton to be used as livestock feed without further treatment. Untreated BSG ended up at the landfill.

VCG.AI deploys circular technology VCG.AI identified insect bioconversion as the most appropriate solution to treat BSG. Black soldier fly larvae consume BSG as feedstock. Every two weeks, we harvest protein from larvae and organic fertilizers.

Example case study developed by VCG.AI, 2023

SUSTAINABLE PRACTICES

Reduce

Energy, waste,
water,
resources

New Products

Sustainable
products for the
same market

New Opportunities

Create value from
residuals /waste

Reduce dependency on virgin material
Cost reduction, waste reduction, new income,
higher profit



UN-ACTION PLAN: THE TRANSFORMATION OF OUR PLANET 2030



Established 2015

World's suggested best plan to build a better world for people and our planet by 2030



TEAM



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BIOCHAKING LABORATORY

SCALE^{UP}
community-driven
bioeconomy development



 THE RECURSIVE

[THERECURSIVE.COM](https://therecursive.com)

Skopje's New Biotech Lab Takes a Biohacking Approach to Biowaste

In an era where science and technology are pushi...

SUSTAINABILITY IN FOOD PRODUCTION

Food manufacturers can implement innovative practices to become more sustainable:

- Reduced usage of water
- Using renewable energy
- Reusing waste from food production, or
- Introduce sustainable packaging solutions



COMPANIES THAT APPLIED SUSTAINABLE PRACTICES

IGNEA

beauty of the skin is in simplicity

ENVIRONMENT

- Substitutions of importing raw material from overseas
- Using organic practices for own production



COMPANIES THAT APPLIED SUSTAINABLE PRACTICES

SOCIETY + REDUCTION OF WASTE

External

- Fair trade helps local farmers benefit
- Organic production supports the environment
- Local production reduces the use of energy for transportation

Internal

- Sustainable packaging



COMPANIES THAT APPLIED SUSTAINABLE PRACTICES

ENVIRONMENT + ECONOMY + WASTE REDUCTION

- Match superfood is a unique concept for purpose-driven eco brands delivering products that are good for the planet
- Less than 25 Employees
- Strong growth after focusing on sustainability
- Innovative packaging
- By product used as a material for new product

SUSTAINABLE PRODUCTS



SUSTAINABLE PRODUCTS

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community-driven
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SUSTAINABLE PRODUCTS

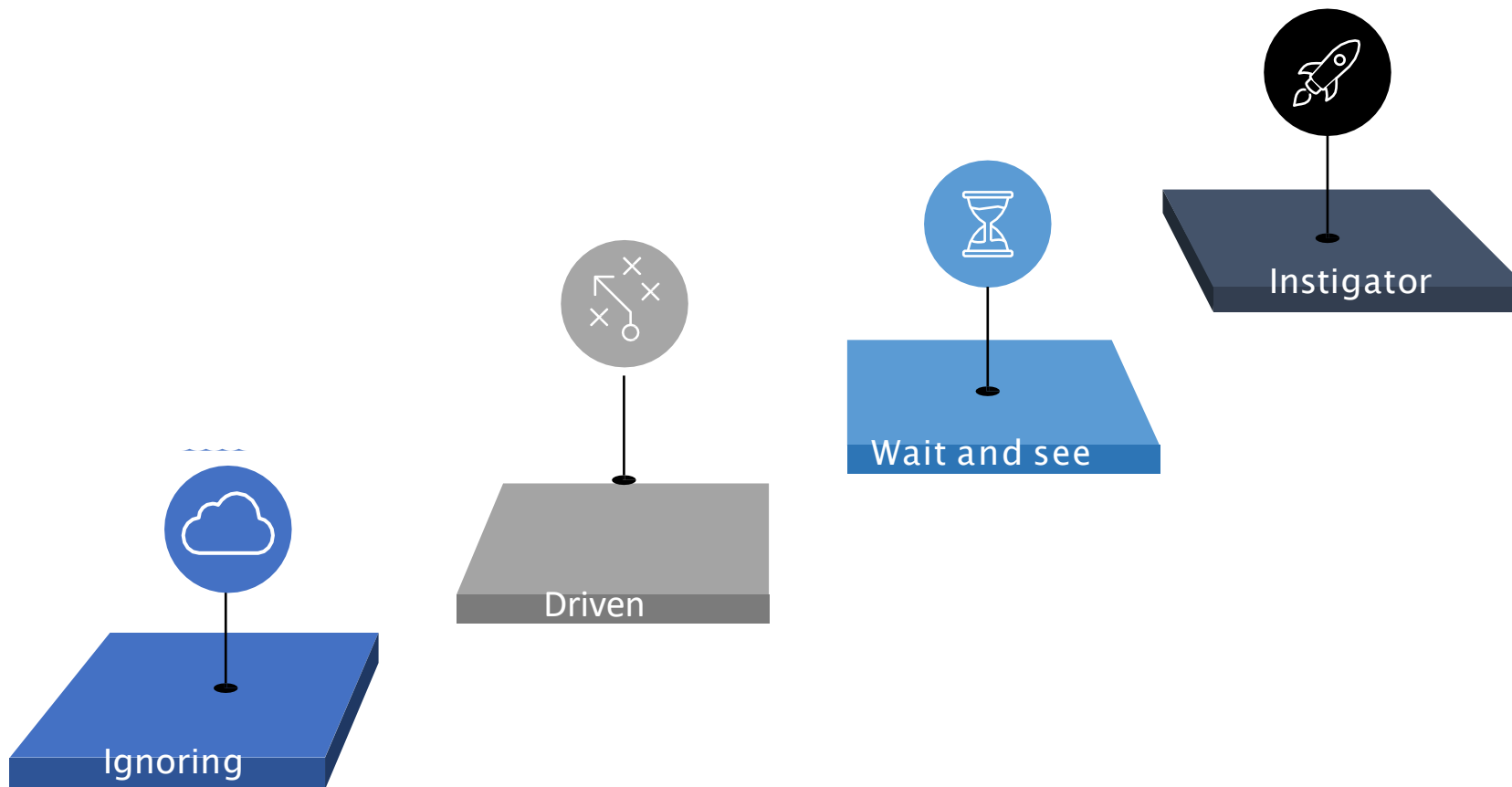
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SUSTAINABLE PRODUCTS

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THANK YOU FOR YOUR ATTENTION

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PROJECT PARTNERS



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