

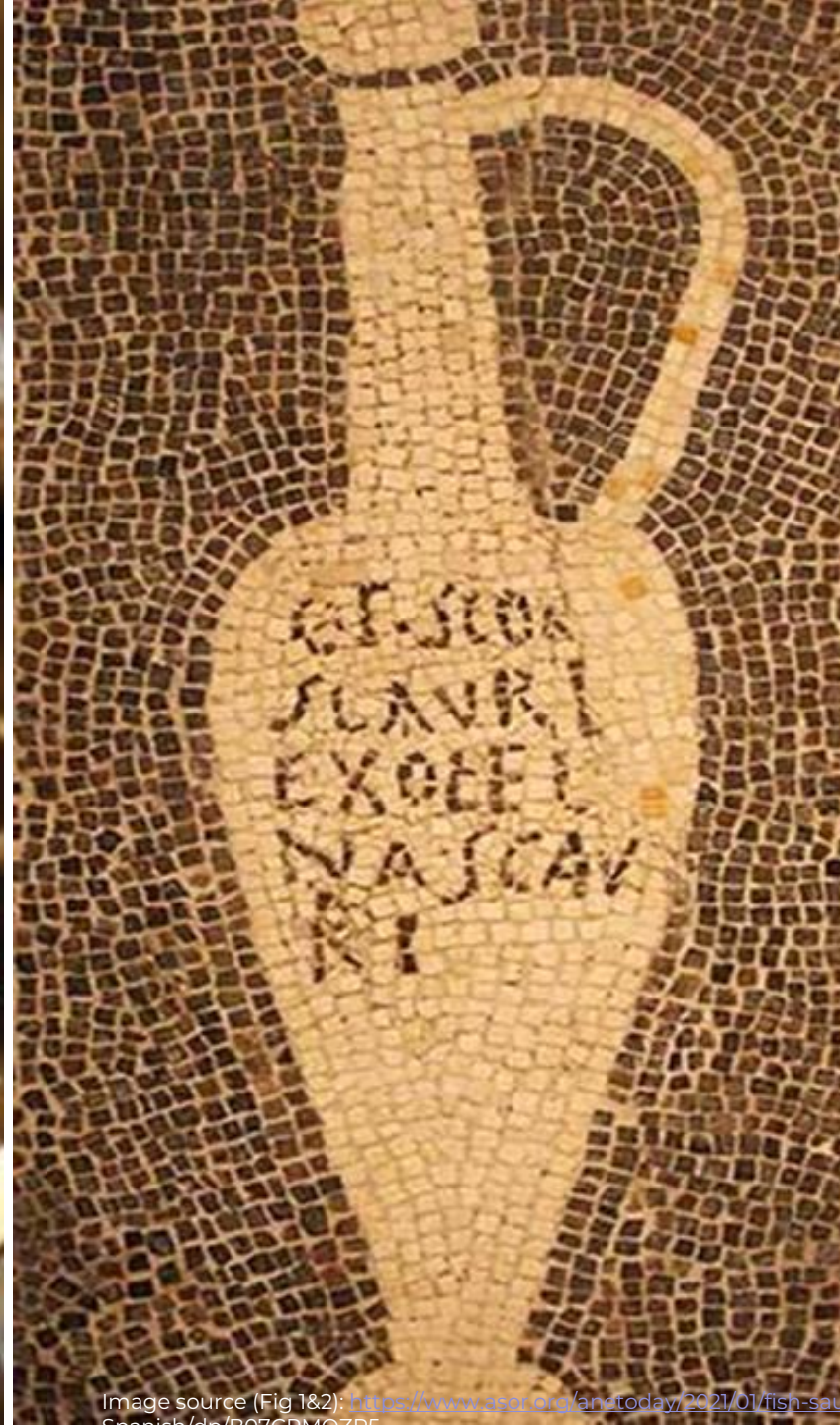
Assessing Waste-Based Opportunities in CPG



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The
Deciding
Factor



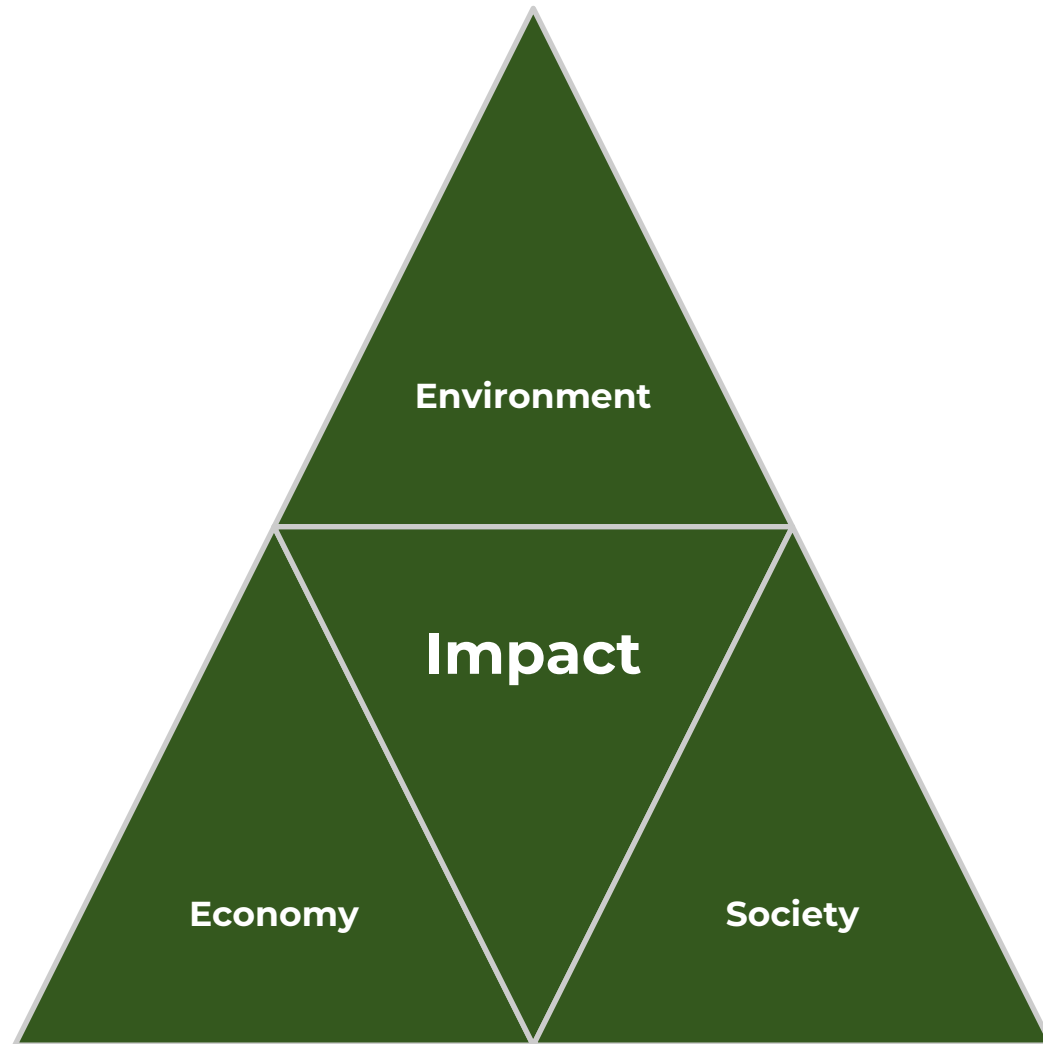
Agenda

Current state of food waste

Prioritizing food waste opportunities

Key challenges

Food waste (FW)



2.5 billion tonne



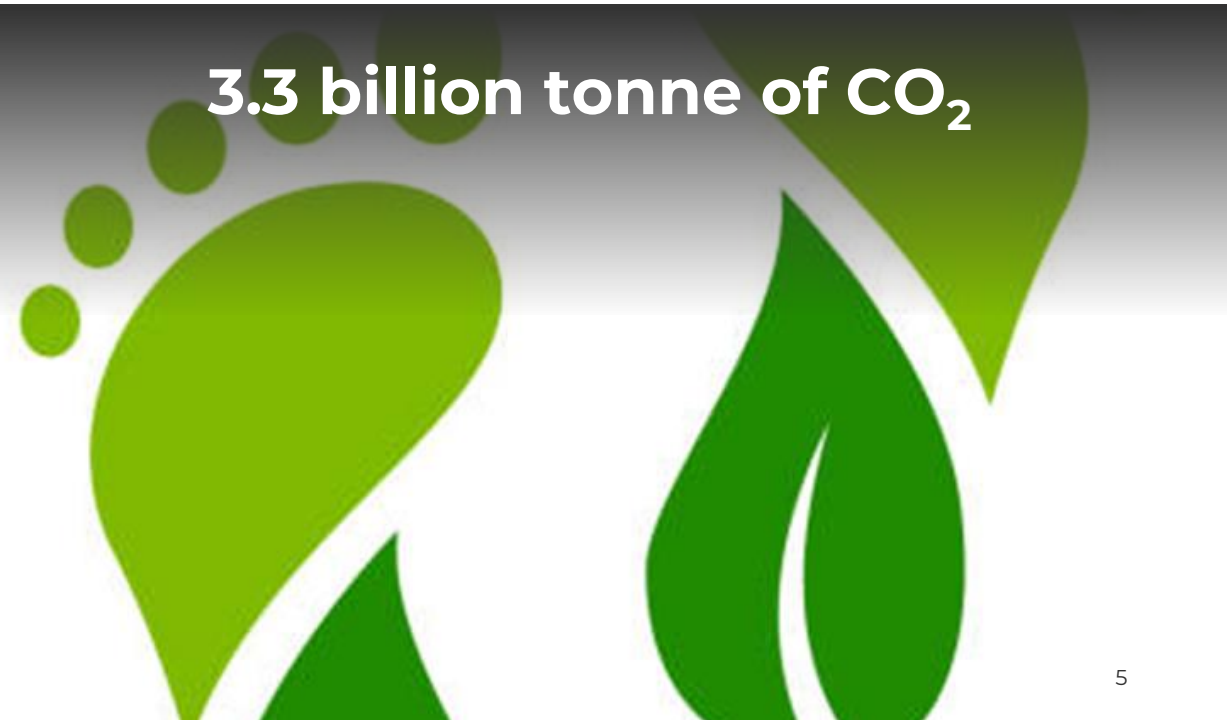
4 billion tonne



40%



3.3 billion tonne of CO₂



2.5 billion tonne

4 billion tonne

**USD 1
Trillion**

40%

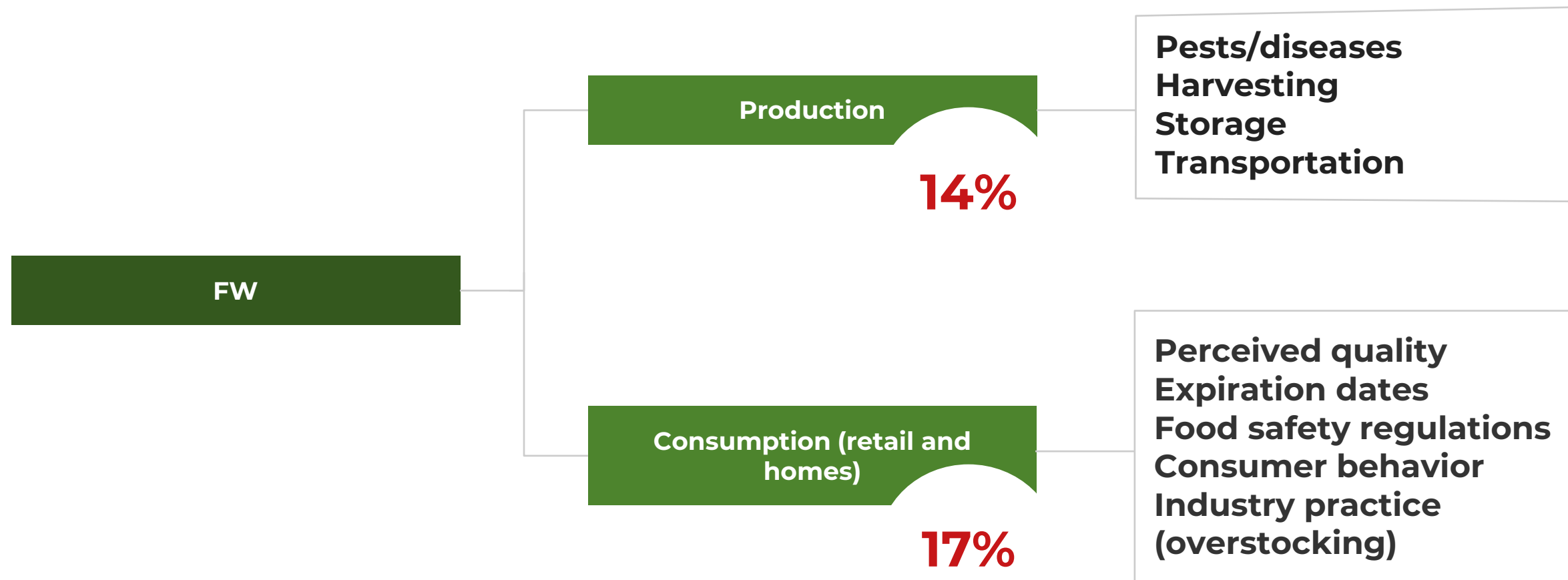
1 billion tonne of CO₂

Global action for tackling FW

- UN Sustainable Development Goal 12.3 aims to halve FW and reduce food loss by 2030.
- The EU committed to halve FW generated per capita at the retail and consumer level by 2030.
- The U.S. committed to reduce 50% food loss and waste by 2030.



FW occurs at every stage of the supply chain

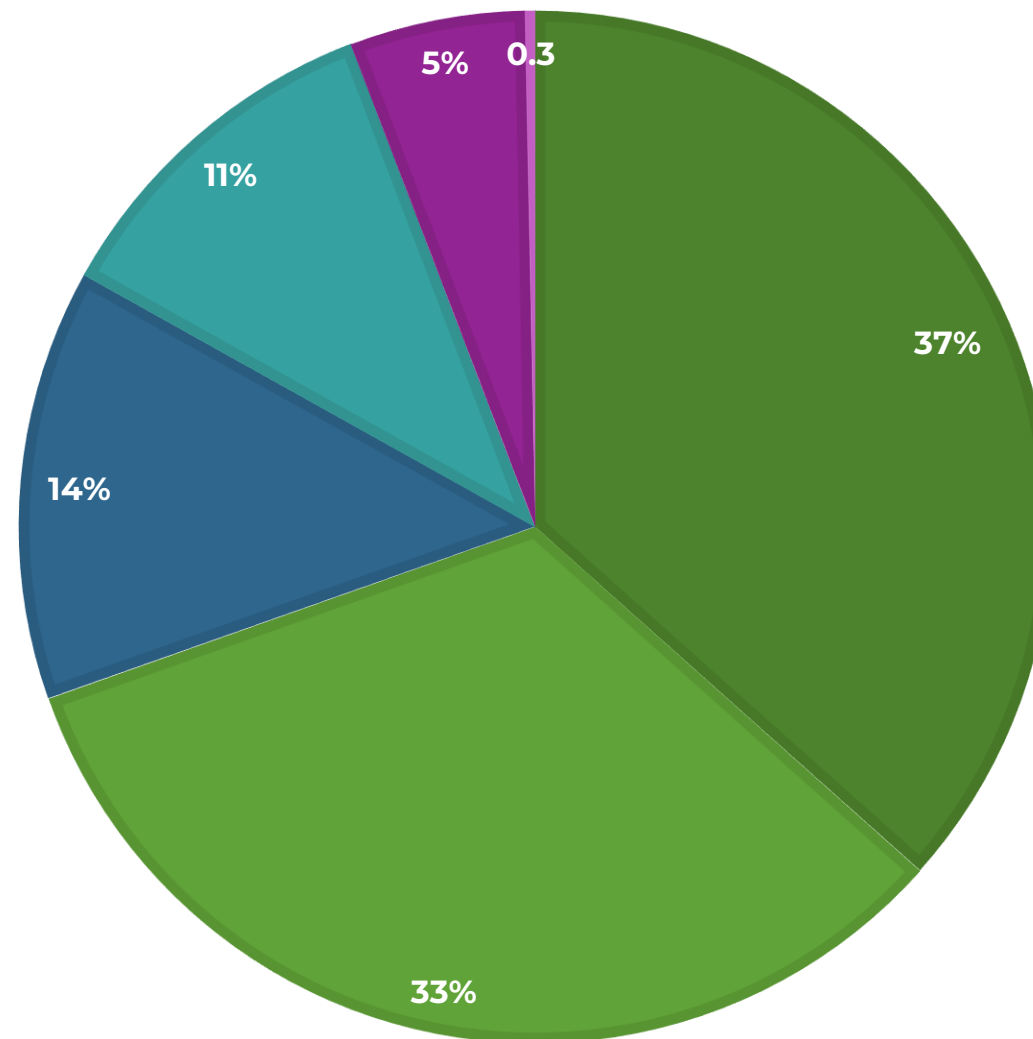


How is waste managed globally?

Food ends up in the landfill, open dump, or is incinerated, and only 5% is valorized into compost

FW MANAGEMENT %

■ Sanitary landfill ■ Open dump ■ Recycling
■ Incineration ■ Composting ■ Other

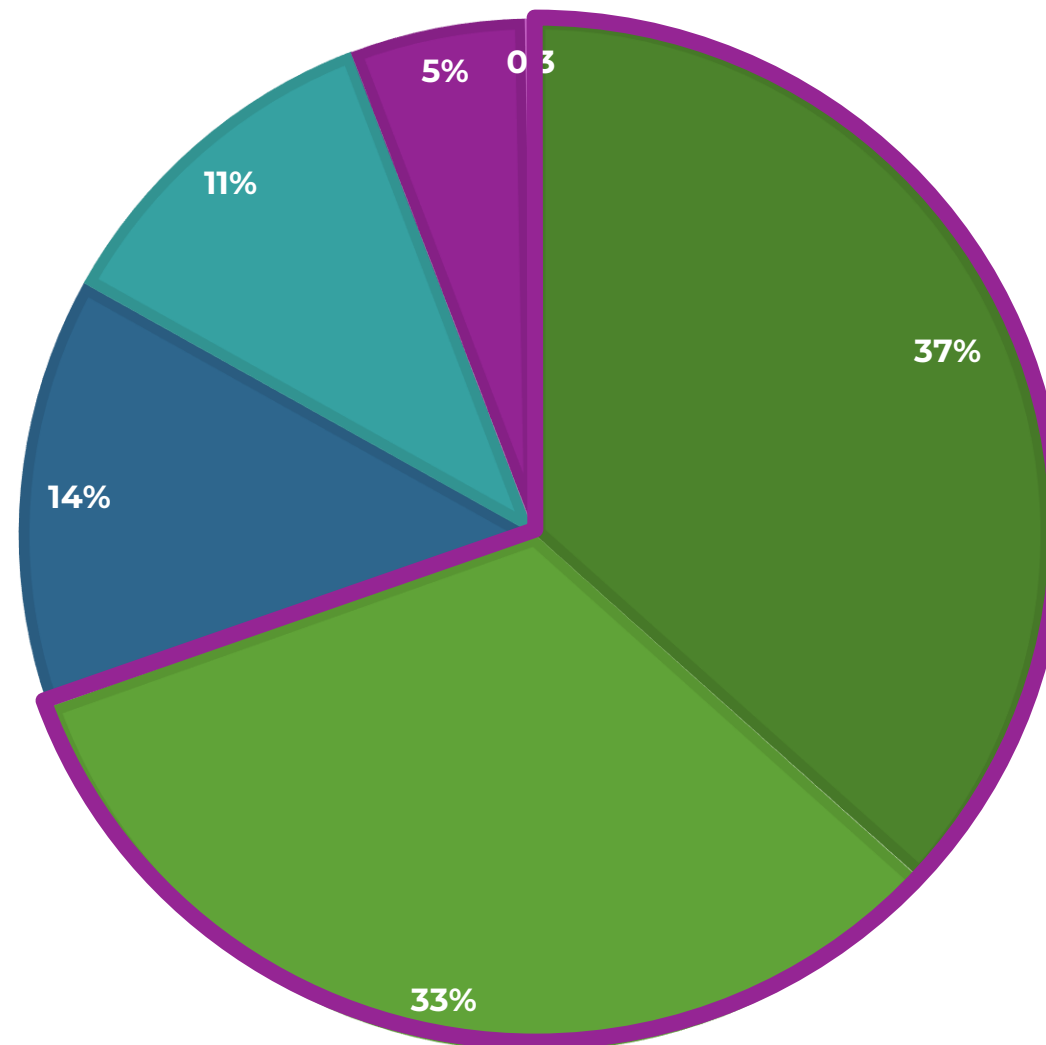


How much of an opportunity is there?

Seventy percent of FW is available for valorization, equivalent to an estimated USD 700 billion

FW MANAGEMENT %

Sanitary landfill Open dump Recycling
Incineration Composting Other



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Why valorization?

1. Plant kingdom (source of FW) is rich in metabolic diversity, comprising over 20,000 structurally distinct metabolites, a potential cheap feedstock for valorization.
2. Capturing the value of waste instead of incineration or paying to get rid of waste.
3. Opportunity for CPG players pledging to go carbon neutral by 2030 to reduce their Scope 3 emissions.



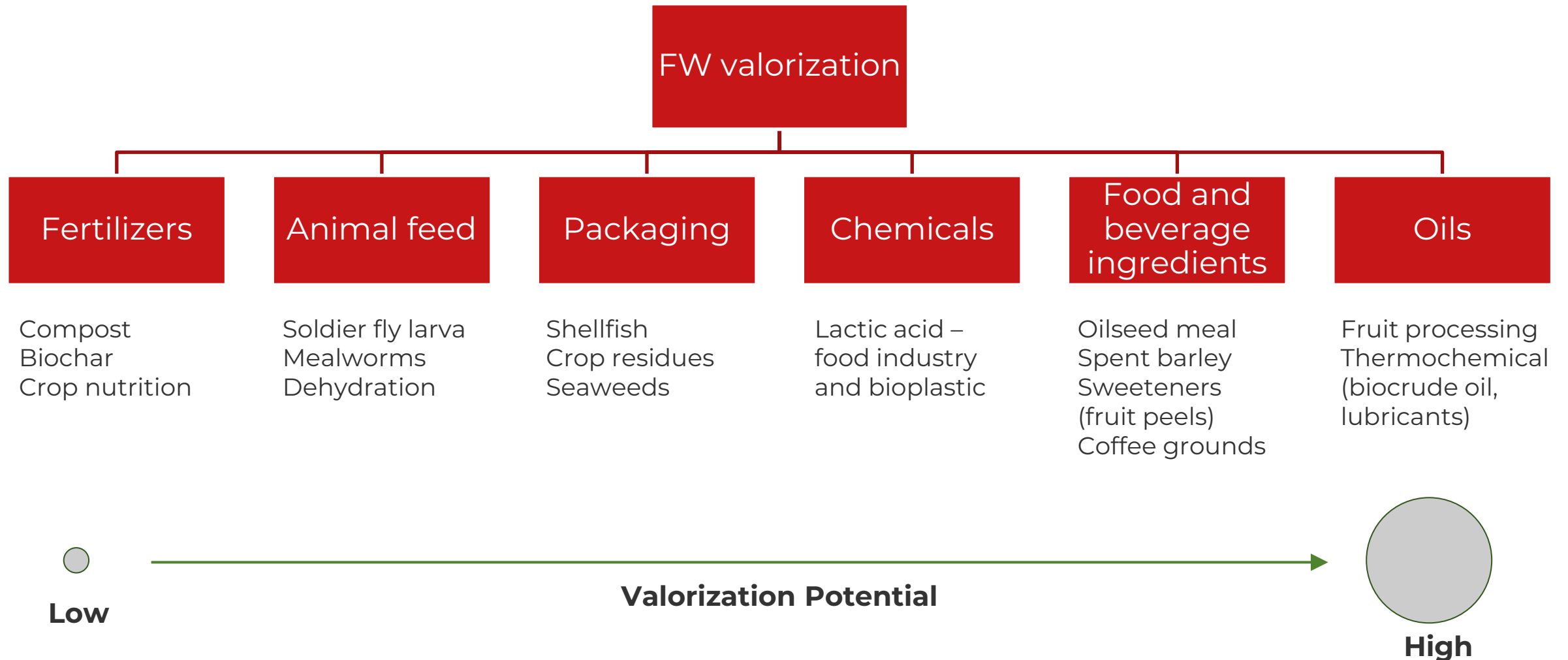
Prioritization requires a balance across 3 metrics



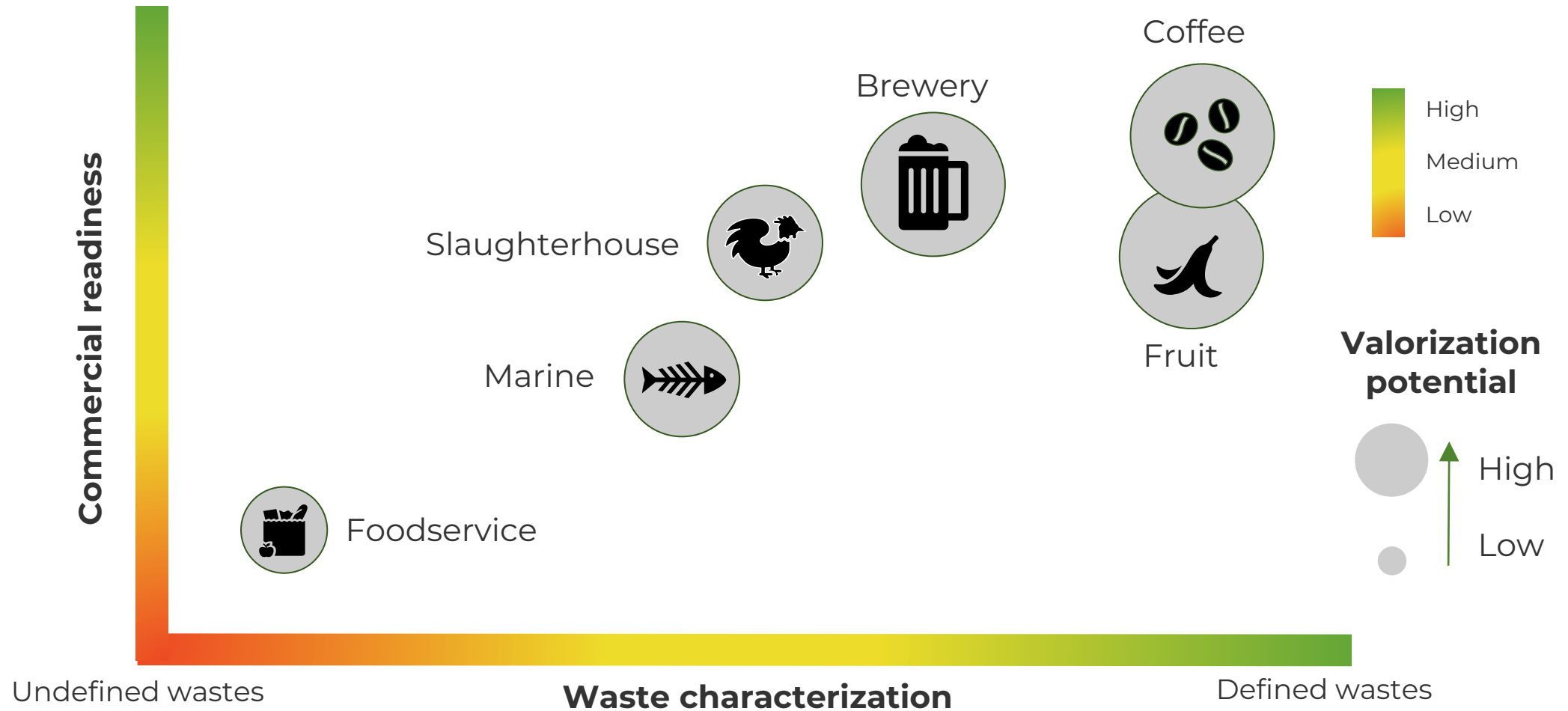
Prioritization requires a balance across 3 metrics



Numerous opportunities are emerging for FW valorization



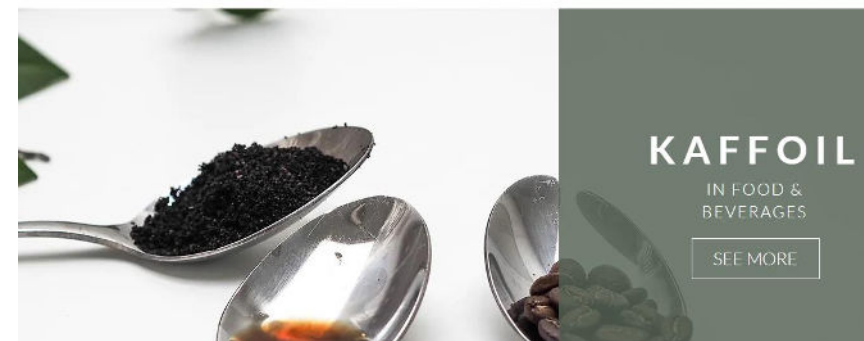
Opportunities emerge from FW prioritization



Coffee grounds to food, cosmetics and nutraceuticals



Coffee grounds offer opportunities to monetize high-percentage, lower-value ingredients as well as low-percentage, higher-value ingredients in single products.



Multiextraction strategy

Building a multiextraction strategy
for consumer products

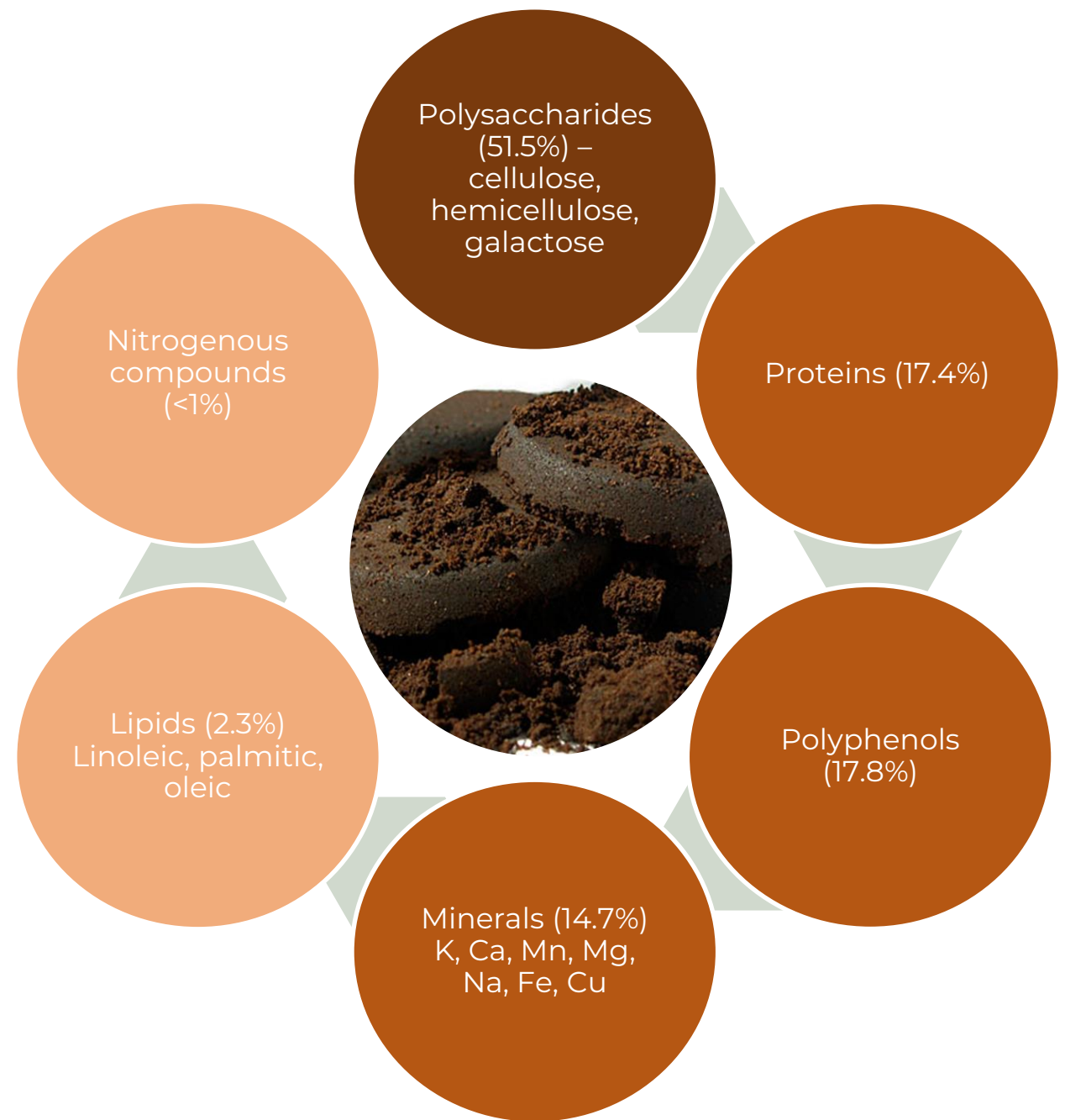
Caffeine

Antioxidants

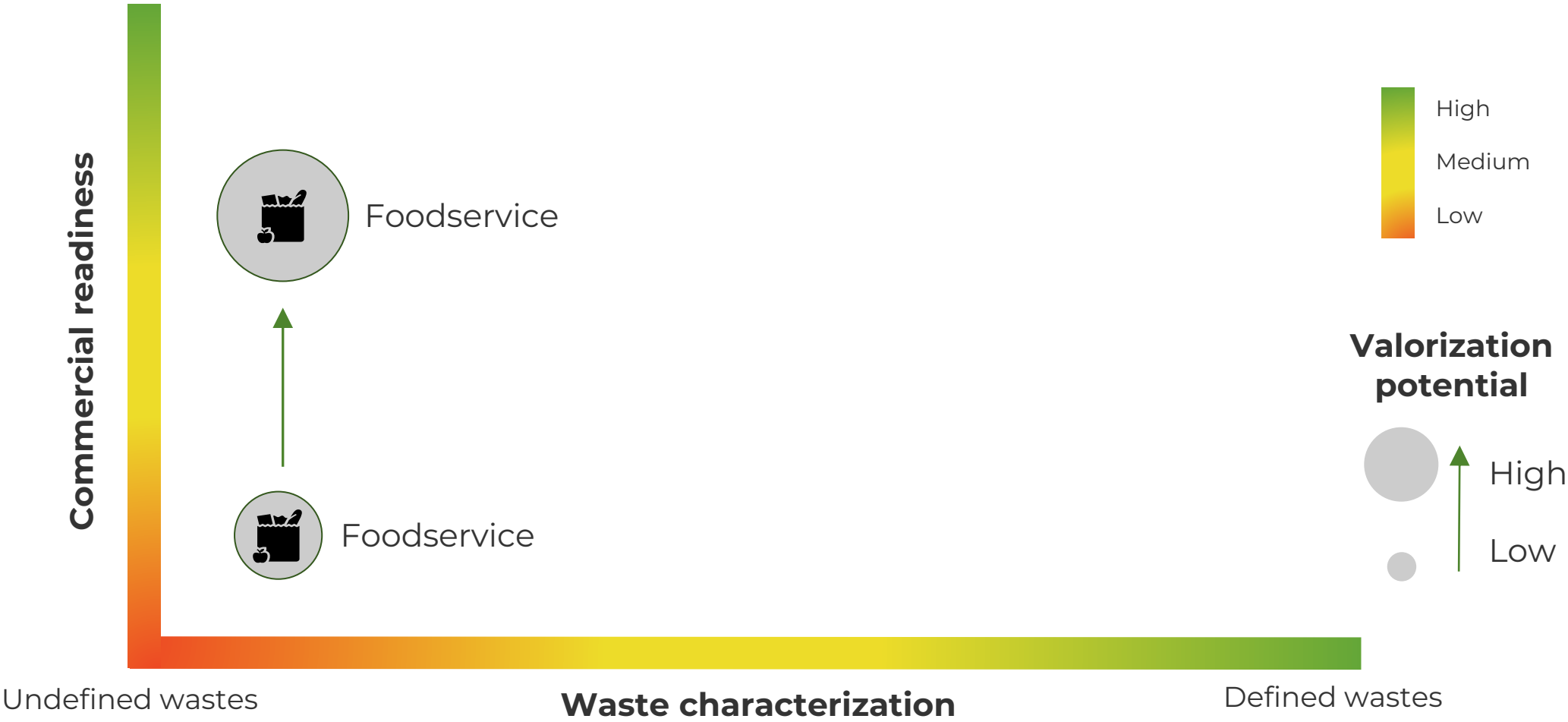
Oils

Fibers

Colors



Opportunities improve position as additional markets and value are identified



Case Study – Do Good Chicken

Valorization of food waste to chicken feed

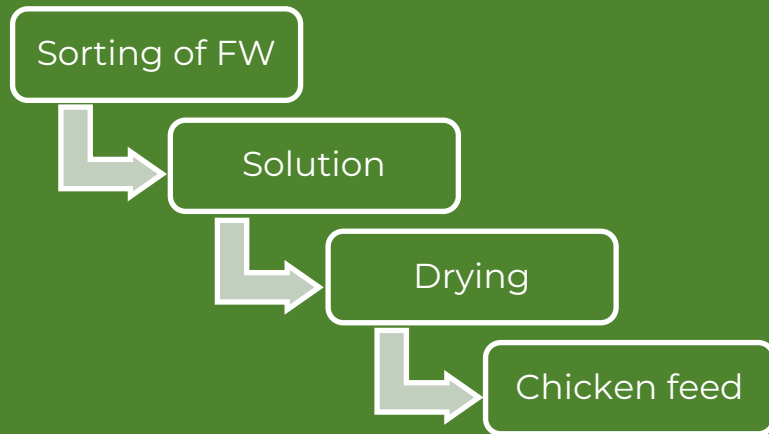


Image source bottom: <https://dogoodchicken.com/product/>

Case Study – Do Good Chicken

Linking a complex FW to a complex food source enables Do Good to capture a premium



USD 6.5
million in
2022



Upcycled Food Association's progress supports a tangible opportunity

USD 769 M - Investment
1,046% - Growth
840Mlbs - FW valorized
236 - Upcycled products



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FW valorization challenges

**Consistent
supply of FW**



**Appropriate
technology for
scaling**

AgriProtein

**Regulatory
barriers**



Key takeaways

1

Food waste impacts environment, economy and society. Monetary value of USD 1 trillion

2

Valorization of FW is in early stages of growth, has potential to generate new revenue streams

3

CPG companies should formulate pertinent valorization tactics using the three-matrix Lux framework.

Thank you

A link of the webinar recording will be emailed within 24–48 hours.

UPCOMING WEBINARS

MARCH 29

What Is Body Neutrality and Why Is It Incredibly Relevant to Food, Apparel, and Health and Wellness Companies?

APRIL 19

Identifying Where Algae's Latest Bloom Will Decarbonize Sustainable Alternatives

MAY 17

How to Build a Sustainable and Profitable Oil and Gas Company Through Digital Innovation



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