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Regeneration - The Basis of Life

Moderator



Isabel Axiö
RMCG



Amanda Sturgeon
Built by Nature



Jennifer Lauber-Patterson
Frontier Impact Group



Phil Ireland
Carbon Neutral



Justin Pilgrim
Cobram Estate Olives Limited



Katy Barfield
Yume Food Australia



Eija Hietavuo
Tetra Pak International

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Circularity 2023 App

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Limited



RENULEUM

A Frontier Impact Group company

FRONTIER
IMPACT
GROUP

Pioneering a Circular Economy Renewable Fuels industry

Fuelling a better future.

Renewable Diesel
Sustainable Aviation Fuel
Green Hydrogen



About Frontier Impact Group

Frontier Impact Group is a climate-solutions advisory and project development firm, deploying specialist expertise at scale to drive financially viable, planet-friendly solutions and accelerate the global race to Net Zero.

We work to ensure the technical, financial, social and environmental success of projects that have impacts on the four pillars for a sustainable environment.



HEALTHY SOIL

Sustainable agriculture and production of soil carbon and other offsets



CLEAN ENERGY

Renewable energy, hydrogen and energy efficiency



FRESH AIR

Reduced greenhouse gas emissions and improved air quality



WATER

Clean water and efficient water usage

About Frontier Impact Group

- Frontier Impact Group is the holding company for all our businesses in the transition to net carbon zero
- All the business are interconnected, and this creates impact multipliers

Planned for 2024



Renuleum Vision



Targeting \$10 billion pipeline (30 projects)

Annual outputs

- 800,000 million litres of fuel
- 340,000 tonnes of biochar
- 180 million litres of wood vinegar
- Avoided 4.1 million tonnes of CO₂e emissions
- Create over 5,000 jobs in regional communities

Narrogin Future Energy Park

- JV Frontier Impact Group and Carnarvon Energy (WA only).
- 18 Million litres of renewable fuel
- 8,000 tonnes of biochar annually
- 6 Million litres of Wood Vinegar
- \$6,700,000 in grant funding from WA government

Mildura Renewable Energy Park

- Development of Australia's second project has commenced
- \$235,000 grant from Sustainability Victoria

Economic Growth

In WA alone our pipeline of projects have the potential to deliver **over \$20 billion GDP** over the life of the projects
(Independent ACIL Allen Economic Report)

4.7M tonnes CO2 e reduced per annum

The First Circular Economy



Renewable Diesel Production Model



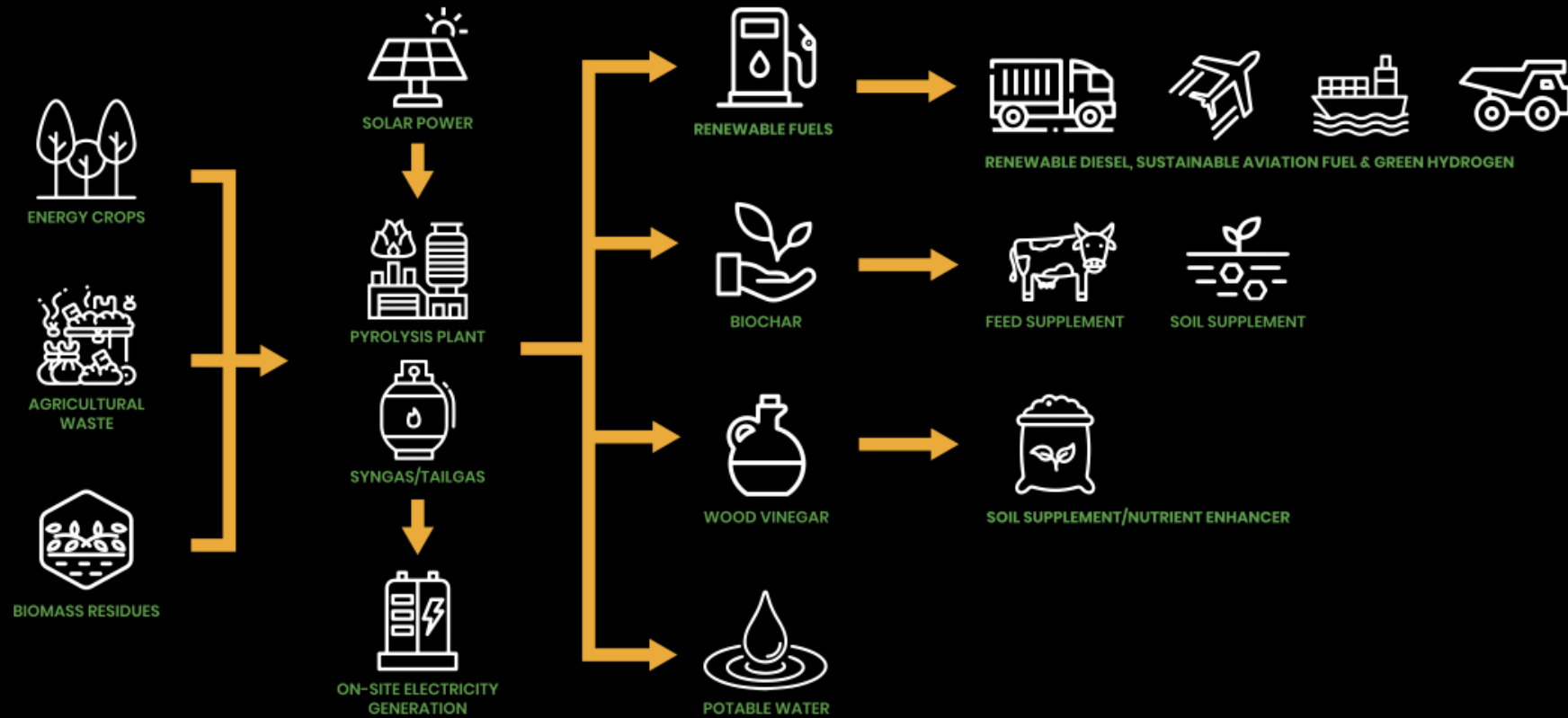
FRONTIER
IMPACT
GROUP

STRICTLY COMMERCIAL IN CONFIDENCE

How does it **work?**

RENULEUM BIOREFINERY PROCESS

- Converts waste & biomass into high quality renewable diesel, SAF and hydrogen



Biochar

Annual production of 11,800 tonnes of graphene-rich biochar as a process by-product



CARBON SOIL ENHANCER

Proven to increase carbon in the soil (Improves microbes)

METALLURGICAL CHARCOAL

Proven market to clean up contaminants from mining

WATER FILTRATION

Proven market in deactivated carbon

WATER RETENTION

Research demonstrates water better retained. Helps resilience to droughts & reduce cost of water

ANIMAL FEED

Improves the nutritional value of fodder and improves the health of the animal

MATERIAL STRENGTHENING

Increases strength of concrete and asphalt when added

Graphene

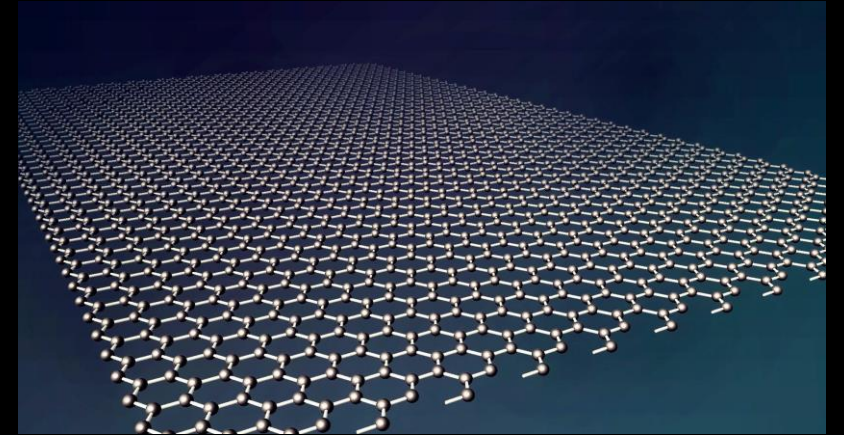
Good quality feedstock will produce high levels of graphene in biochar

PROPERTIES

- Harder than diamond
- 20x more thermally conductive than copper
- 100x stronger than steel
- 1000x more electrically conductive than copper
- Corrosion resistant
- Lighter than paper

APPLICATIONS

- High-strength building materials
- Batteries
- Electronics
- Road surfaces
- Defense



Wood vinegar

Pyroligneous acid, also called wood vinegar or wood acid, is a dark liquid produced by the destructive distillation of wood and other plant materials.

APPLICATIONS

- Fertiliser enhancer
- Soil disease inhibitor
- Pesticide/insect repellent
- Fungicide
- Health products for animals and humans



Find out more



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Keynote



Katy Barfield

Yume Food Australia

IT ALL STARTS WITH THE WHY

MY LEARNINGS AS A SOCIAL ENTREPRENEUR

Katy Barfield OAM - Yume Founder & CEO

17 YEARS. ONE GOAL

2006



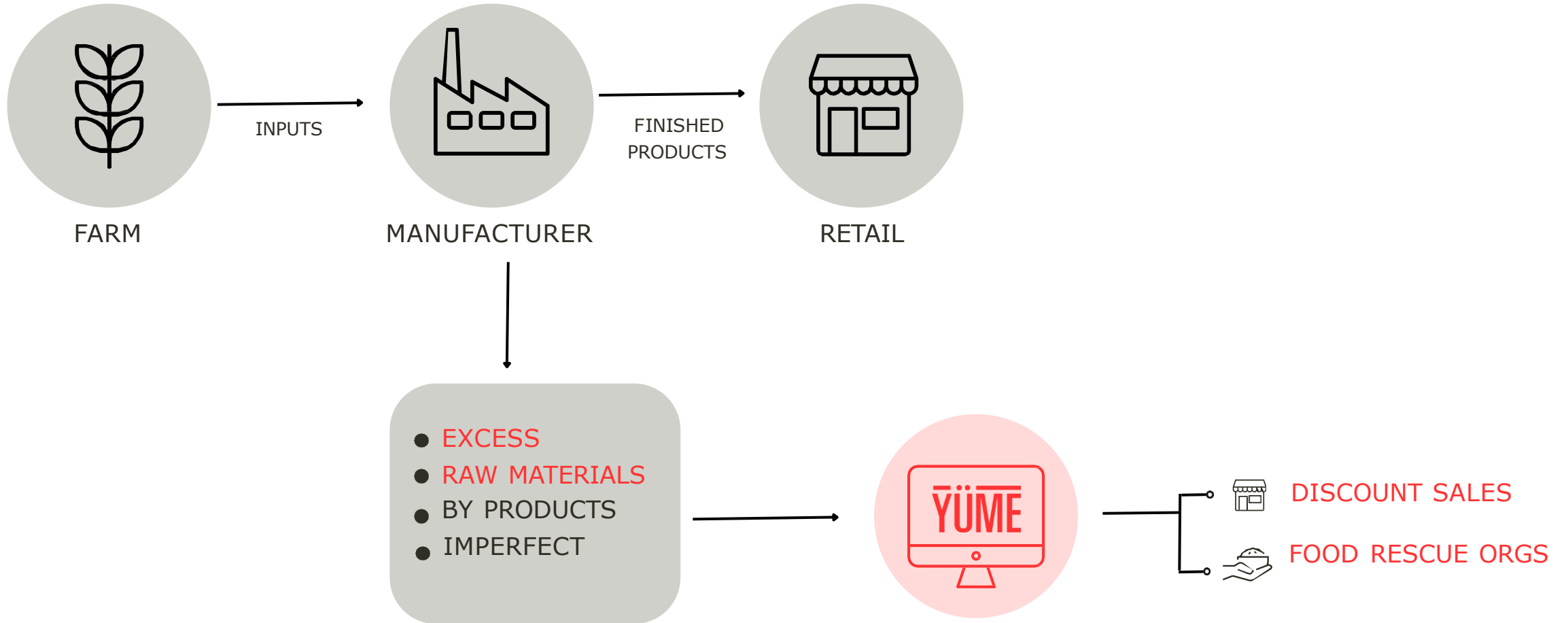
2013

Spade & Barrow

2016

YÜME

A BETTER WAY TO MANAGE SURPLUS FOOD



LINEAR ECONOMIES
ARE NO LONGER VIABLE



FOR PURPOSE ORGANISATIONS ARE BOOMING



Why Impact Investing Is Ready To Go Mainstream

The Time For Impact Investing Is Now

'Impact Investing' Teeters on Edge of Explosive Growth

Global impact investment market is US\$1.2 trillion

INVESTMENT

**DELIVER
ON YOUR
MISSION**



TEAM

**PRODUCT
MARKET FIT**

**BUILDING A SUCCESSFUL FOR PURPOSE
BUSINESS IS MESSY!**



**QUESTION YOUR
ASSUMPTIONS.
ALWAYS.**

(SPOILER ALERT, I DIDN'T)

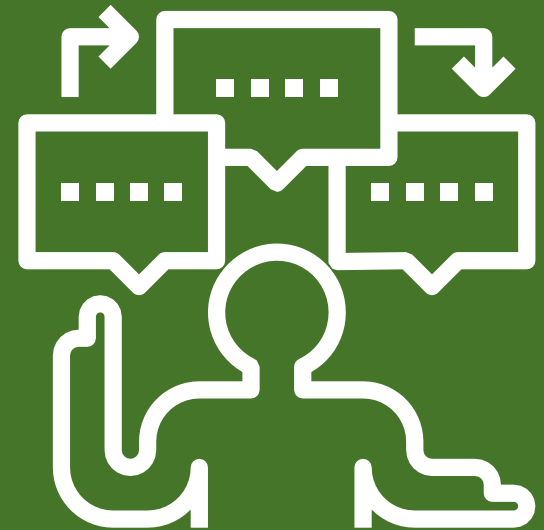
**DON'T ASSUME YOU KNOW THE
PROBLEM**



DO

- ask the right people, the right questions talk directly to your audience
- learn the art of asking questions
- assume nothing
-

"we don't have any food waste"



**DON'T ASSUME ONE
SIZE FITS ALL**



DO

- Hyper focus
- Fix one specific problem at a time



**DON'T ASSUME YOUR
AUDIENCE WILL CARE
ABOUT YOUR MISSION AS
MUCH AS YOU DO!**



DO

- Be customer centric
- Build a solution that works for them (the more it works, the more impact you will deliver)



BE AWARE OF MISSION

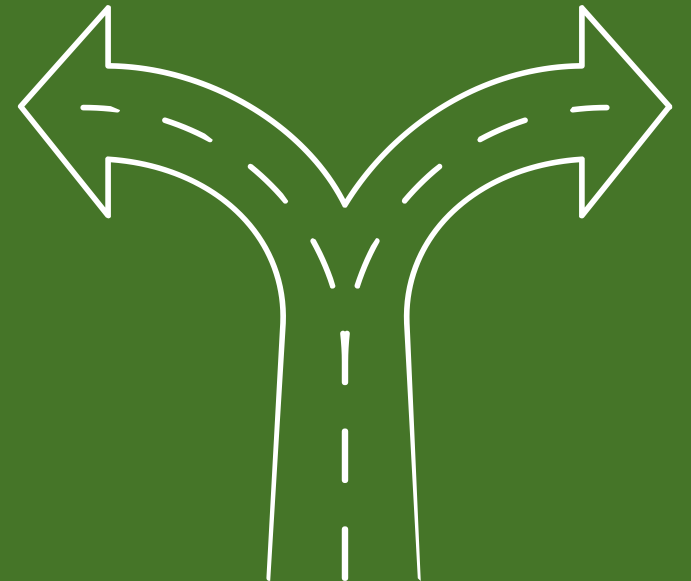
CREEP

impact



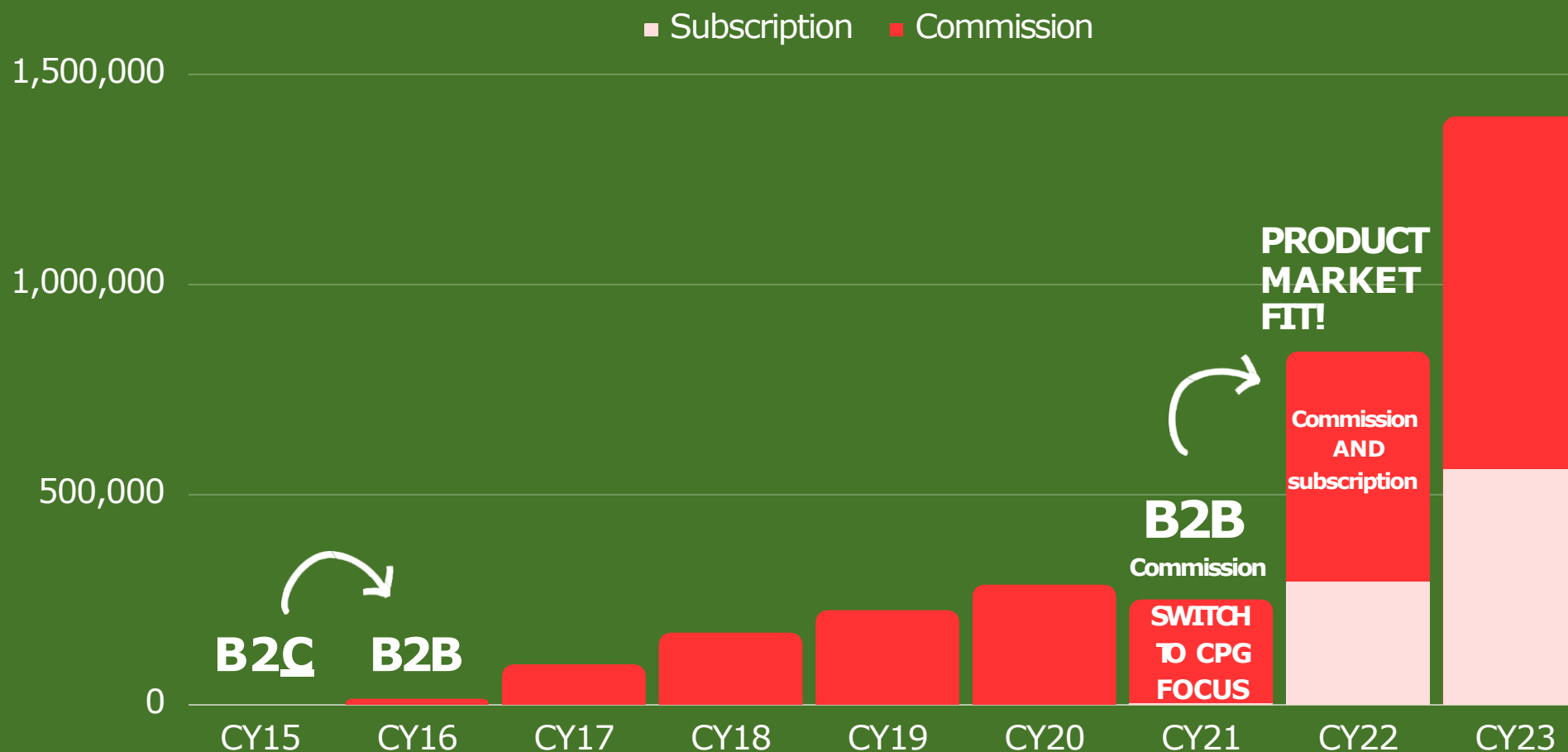
financial viability

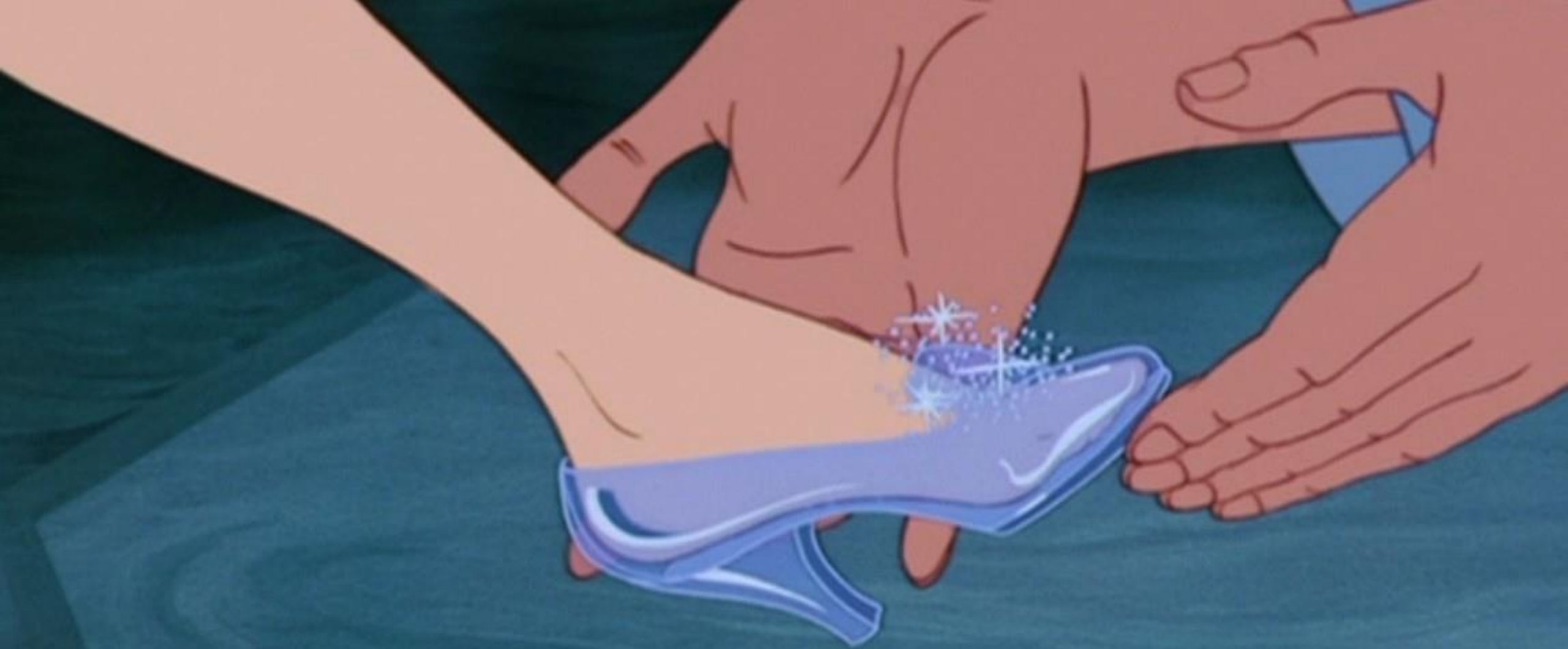
**DON'T ASSUME YOUR FIRST
REVENUE MODEL IS BEST
(OR RIGHT)**





continuously test if your revenue model serves your organisation





**THEY PAY FOR IT, THEY LOVE IT
& THEY TALK ABOUT IT**

1



COMFORTABLE WITH THE UNKNOWN

PROBLEM SOLVERS

PASSIONATE

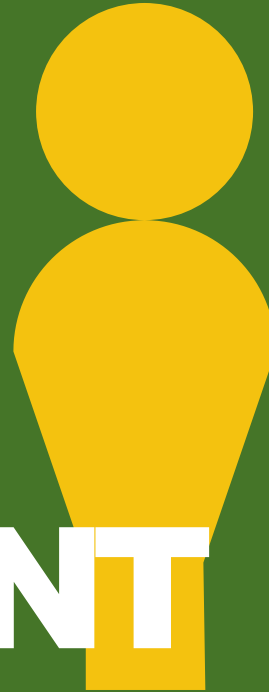
INTEGRITY

INDEPENDENT

RESILIENT

LATERAL-THINKERS

NON-INDUSTRY





17 YEARS AGO...

TODAY

Yume works with industry leaders...



\$19 MILLION returned to businesses

7 MILLION KGS OF FOOD
redistributed to other businesses & charities



THE FUTURE IS IN
OUR HANDS

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Eija Hietavuo

Tetra Pak International



How can we feed the world without starving the planet?

Eija Hietavuo, VP Corporate Affairs Tetra Pak

20 November, 2023



With a strong history and legacy, we are a world leading food processing and packaging solutions company

Pioneers in food technology for ~70 years



*"A package should save more than it costs."
— Dr. Ruben Rausing*

Our purpose

We commit to making food safe and available, everywhere and we promise to protect what's good: food, people and the planet.



Today's ecological challenges are all connected

#3

Global food systems
account for more than

1/3

of global greenhouse
gas emissions⁴.

#4

The world is losing

137

wildlife species –
every day, largely
driven by the
clearing of forests
for agriculture⁵.

#5

Global waste is
projected to increase

70%

by 2050⁶.

4. [FAO.org](https://www.fao.org/news/story/en/detail/country/FAO-2021-03-09). (2021, March 9). *Food systems account for more than one third of global greenhouse gas emissions*. Source: Food and Agriculture Organization of the United Nations.

5. Mitchell, C. (2022, July 16). *Deforestation: Clearing The Path For Wildlife Extinctions*. Source: World Animal Foundation.

6. [Worldbank.org](https://www.worldbank.org/en/news/press-release/2018/09/20/global-waste-to-grow-by-70-percent-by-2050-unless-urgent-action-is-taken). (2018, September 20). *Global Waste to Grow by 70 Percent by 2050 Unless Urgent Action is Taken*. World Bank Report. Source: Worldbank.org.



Collective action can help transform global food systems

Increase access to safe, nutritious food

Reduce food loss & waste

Build sustainable food value chains



Increase access to sustainable food, while reducing losses

**Co-innovating
for sustainable
food & beverage
production**

**Enabling dairy
production for
smallholder farmers**

**Upcycling by-
product and food
waste**

**Processing
technologies to
reduce waste**

**Supporting
programmes for
child nutrition**

**Prolonging
shelf life**



Strengthening packaging circularity

Design for recycling

Scale-up collection, sorting and recycling infrastructures

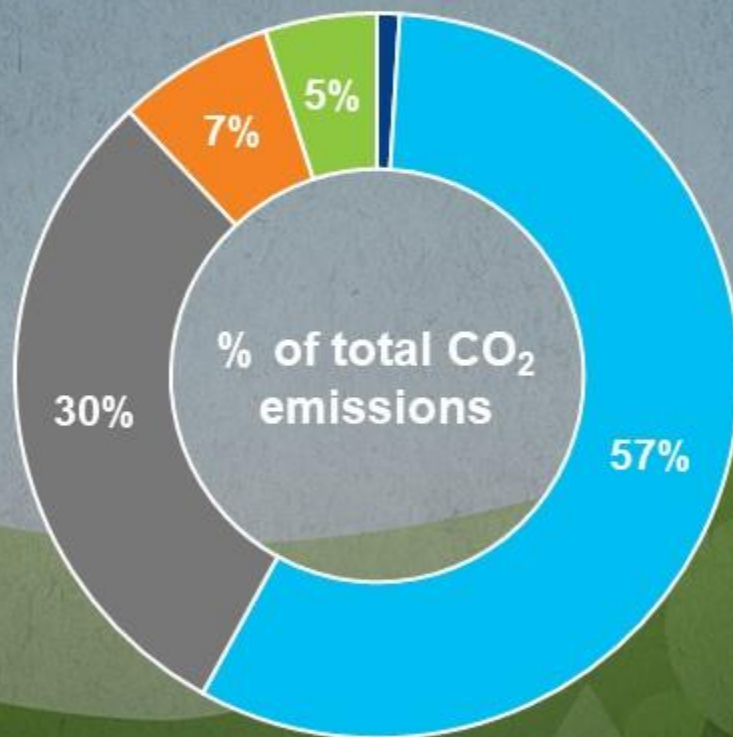
Increase & expand use of recycled material

Creating & raising awareness for collection & recycling



Full value chain approach is needed for climate impact

Breakdown of Tetra Pak value chain impact, 2021



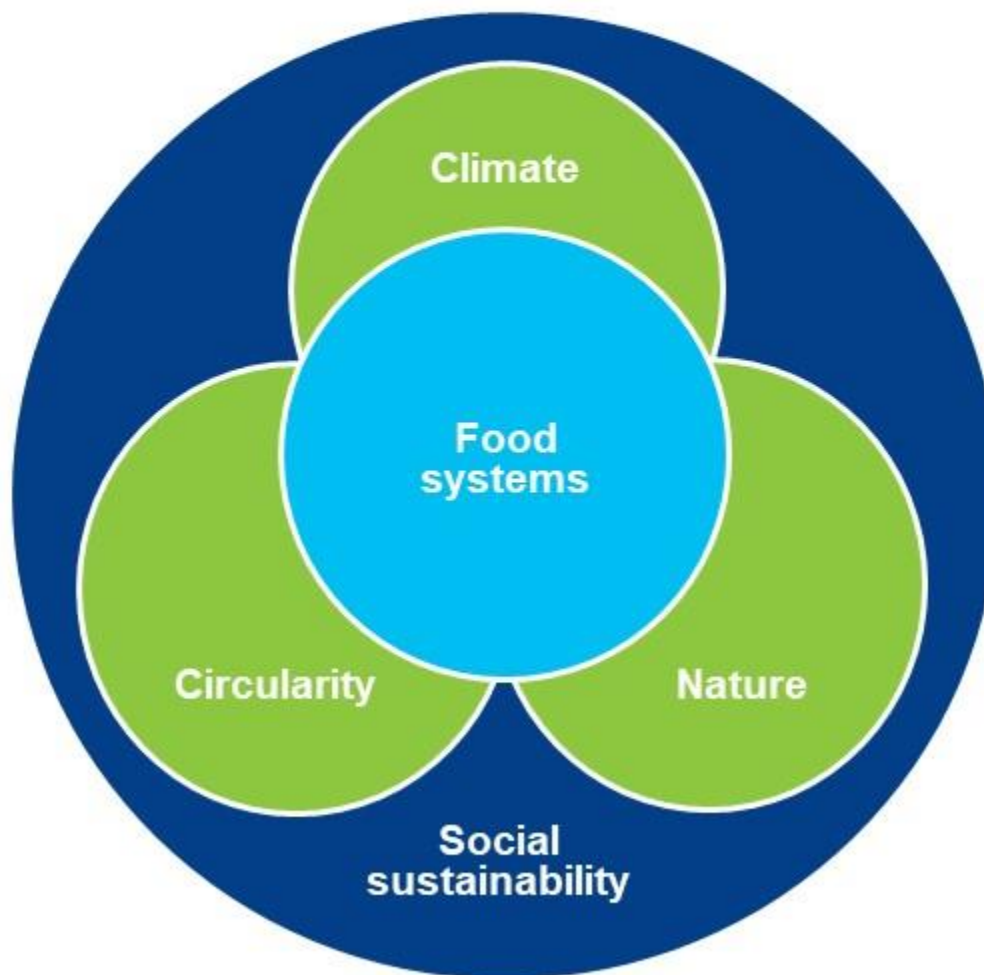
■ Tetra Pak operations ■ Use of sold equipment ■ Purchased material & other upstream ■ End of life ■ Transport



Our approach

Towards sustainable food systems

Food.
People.
Planet.





Tetra Pak is a world leading food processing and packaging solutions company. Working closely with our customers and suppliers, we provide safe, innovative and environmentally sound products that each day meet the needs of hundreds of millions of people in more than 160 countries. With more than 25,000 employees around the world, we believe in responsible industry leadership and a sustainable approach to business.

www.tetrapak.com

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