The Future Of The Food Industry Is Circular!

Mike Ferrari, President
Consortium For Waste Circularity
The Problem Statement:
- Landfills are filling in the urban cities
- Landfills & Incineration emit potent GHG’s
- Recycled content (virgin like) is in short supply

Vision:
- Transform all waste processing to circularity
- End landfills/incineration & associated GHG’s
- Remove complex sorting
- Create valued end product for packaging; waste2syngas2eco-methanol
Food Industry Packaging
Food, plus packaging — make up about 45% of all the materials in U.S. landfills, according to the Environmental Protection Agency.
“New Plastics Economy”
Glaring Omission

Our Vision

In a new plastics economy, plastic never becomes waste or pollution. Three actions are required to achieve this vision and create a circular economy for plastic. **Eliminate** all problematic and unnecessary plastic items. **Innovate** to ensure that the plastics we do need are reusable, recyclable, or compostable. **Circulate** all the plastic items we use to keep them in the economy and out of the environment.

https://www.newplasticseconomy.org/
A 2020 Imperial College of London study reviewed 73 LCAs and most showed plastics outperforming alternatives from a carbon perspective.

https://thisisplastics.com/
Waste-derived Eco-Methanol™ is “recycled content”
MSW

Synthesis Gas
“Syngas”
CO + H₂

Recycled Content
Methanol
CH₃OH

“Virgin”
New stuff

Truly Circular
What Comes Out The Bottom?

- Mixed Metal Ingots (Rare Earth Metals – Ore)
- Slag – Vitrified Glassy Rock (or glassy products)
Syngas Is A Useful Building Block!

Worldwide Syngas Capacity by End Product
MWth - Total 814,000

- Fuels: 38%
- Chemicals: 33%
- Power: 5%
- Fertilizer: 13%
- Hydrogen: 10%
- Other: 1%

The ag industry needs this wedge to expand
The airline industry needs this wedge to expand
The auto/transport industry needs this wedge to expand
The packaging industry needs this wedge to expand
From trash to take off

Instead of household waste going to a landfill, it will now be delivered to a Fulcrum facility and converted into sustainable aviation biofuel.

Trash is collected and delivered to a Fulcrum facility.

Fulcrum's thermochemical process reduces greenhouse gas emissions by 80% compared to traditional jet fuel.

The drop-in fuel meets United's technical requirements.

Clean  » Scalable  » Efficient  » Reliable

Total trash placed in U.S. landfills in one year

Energy equivalent of 10 billion gallons of oil (3 times United's total annual fuel use)

The average American produces nearly 1 ton of garbage a year

That's 65 gallons of biofuels processed by Fulcrum
What Is The Mission Of CWC?

- Align the packaging industry to support the transformation of ALL waste, not just plastics.
- Align the packaging industry to pledge use of eco-methanol™
- Fund R&D, education and outreach
Let’s Redefine A World Without Waste!

Todays Trash Is Tomorrows Eco-Methanol™

1. Join the conversation... CWC linkedin page
   https://www.linkedin.com/company/consortium-for-waste-to-syngas-circularity/?viewAsMember=true

2. Test your manufacturing waste & food packaging

3. Join the Consortium & make it a part of your sustainability strategy

4. Coordinate a food industry discussion to deal with waste
Include In Your Sustainability Strategy
The Transformation of Waste To Endless Circularity!

Join The Consortium For Waste Circularity
Email us: contact@wastecircularity.org

Website: https://wastecircularity.org/