



Mike Ferrari, President
Consortium For Waste Circularity

THE FUTURE

Of The **Food Industry Is Circular !**

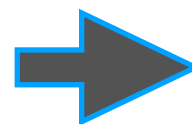


Landfills



The Problem Statement:

- Landfills are filling in the urban cities
- Landfills & Incineration emit potent GHG's
- Recycled content (virgin like) is in short supply



Productive Land



Vision:

- Transform all waste processing to circularity
- End landfills/incineration & associated GHG's
- Remove complex sorting
- Create valued end product for packaging; waste2syngas2eco-methanol



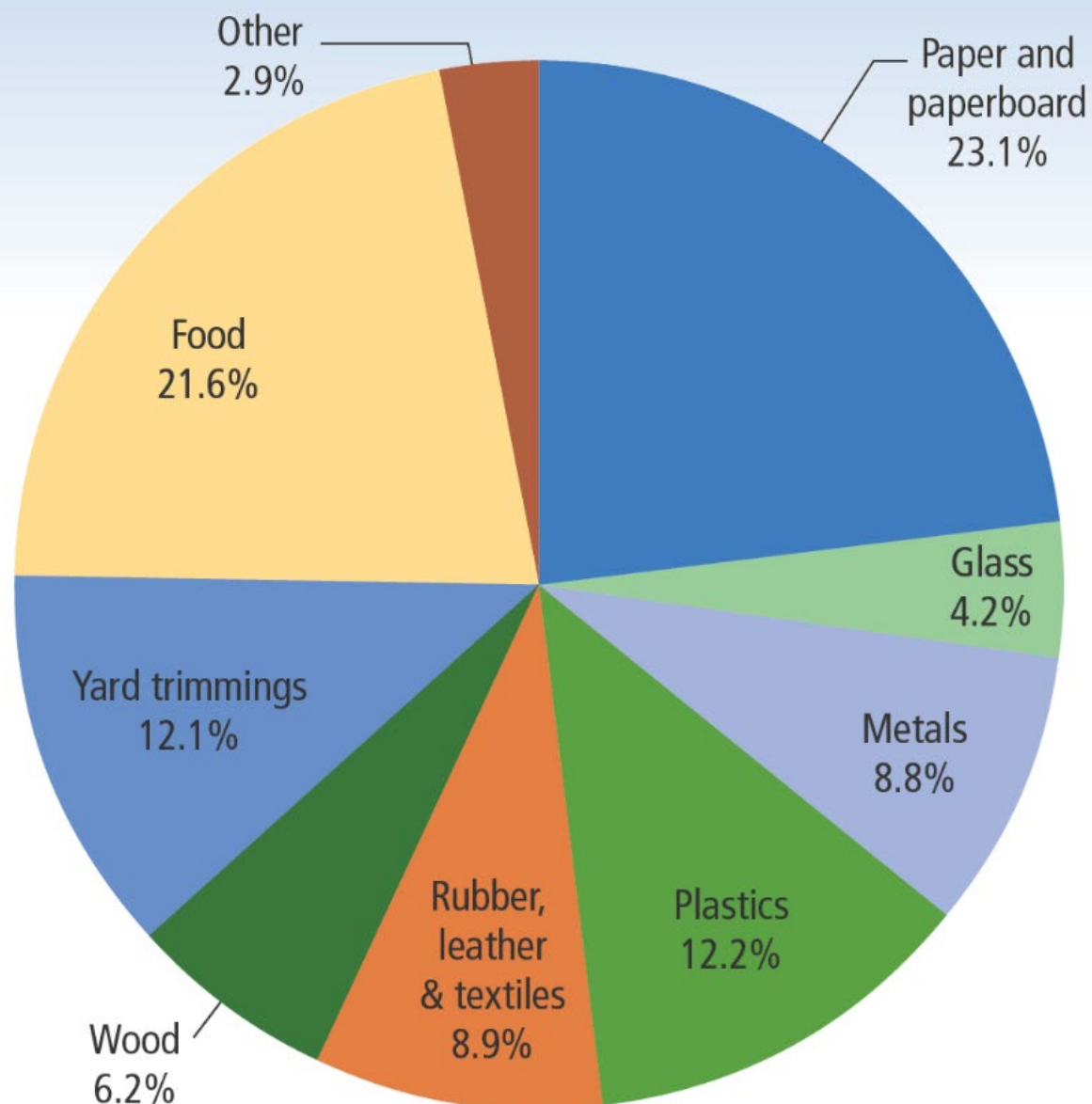
Food Industry Packaging





The Food Industry Contribution To Landfills

Figure 4. Total MSW Generation (by material), 2018
292.4 Million Tons



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/>

Upstream Innovation

Rethinks products and services at the design stage. For example, this can include developing new materials, product designs, or business models.

Downstream Innovation

Affects a product or material after its first use. For example, this can include developing new collection, sorting, and recycling technologies.

Note this

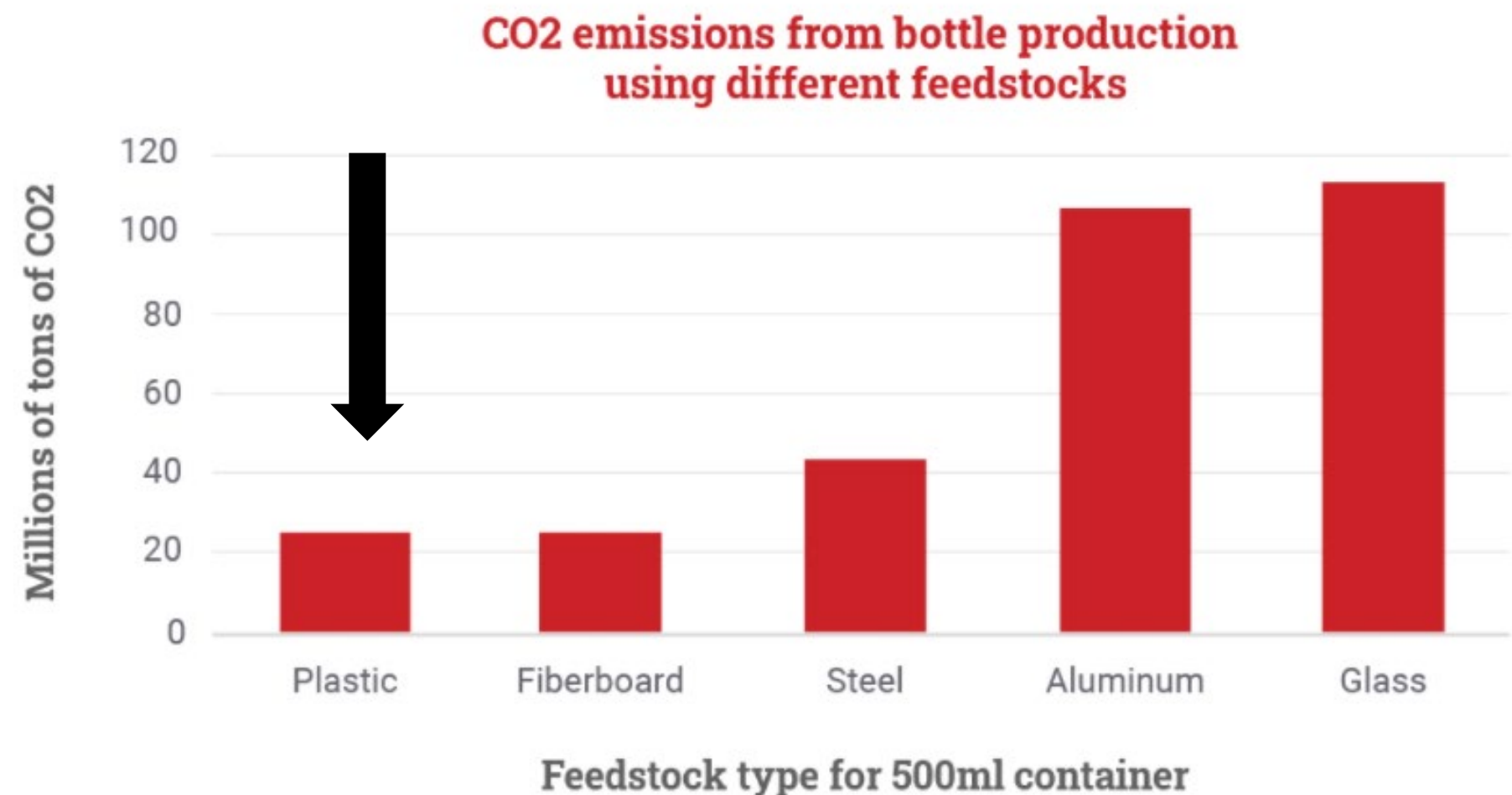
This guide focuses upstream



LCA Plastic –Vs- Alternatives

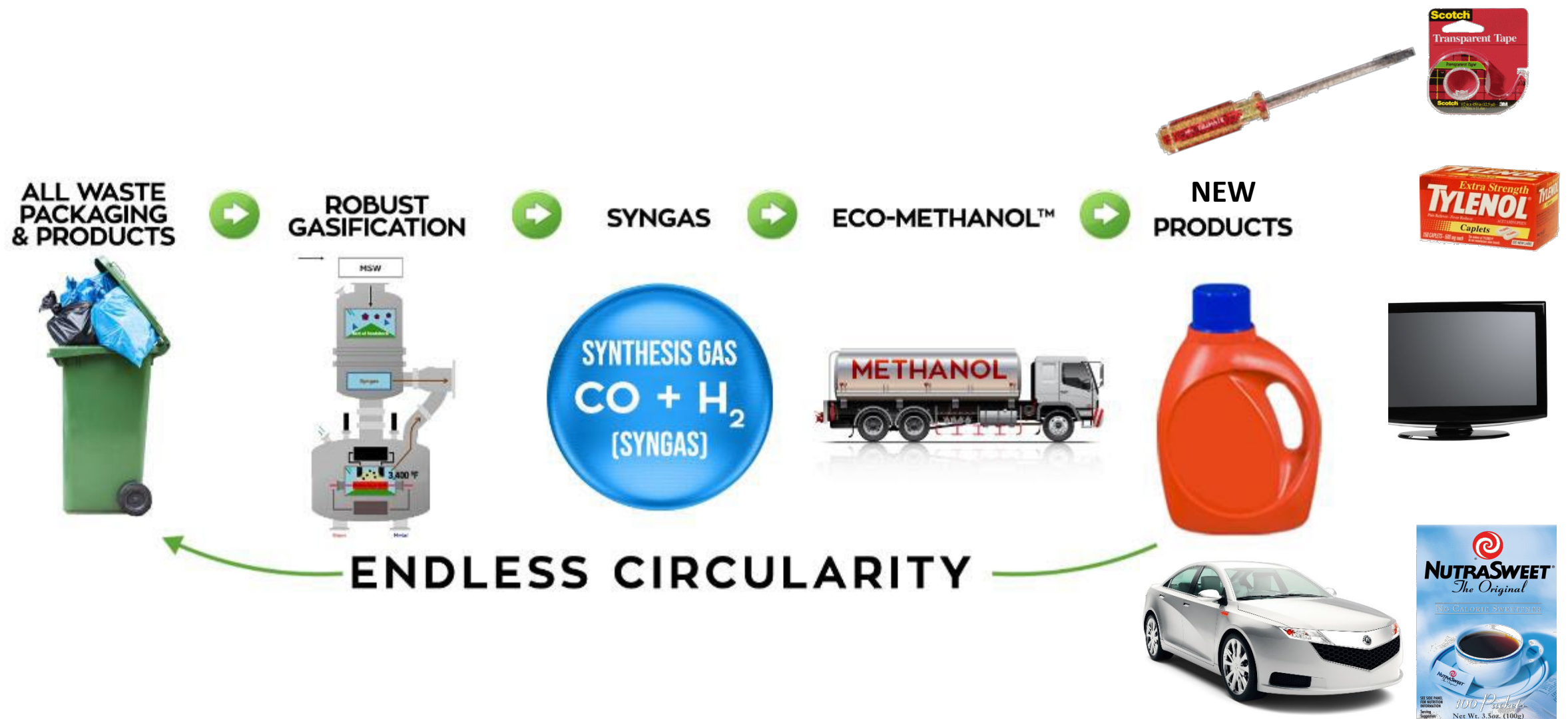
A 2020 Imperial College of London study reviewed **73 LCAs and most showed plastics outperforming alternatives from a carbon perspective.**

<https://thisisplastics.com/>





Waste-derived Eco-Methanol™ is “recycled content”

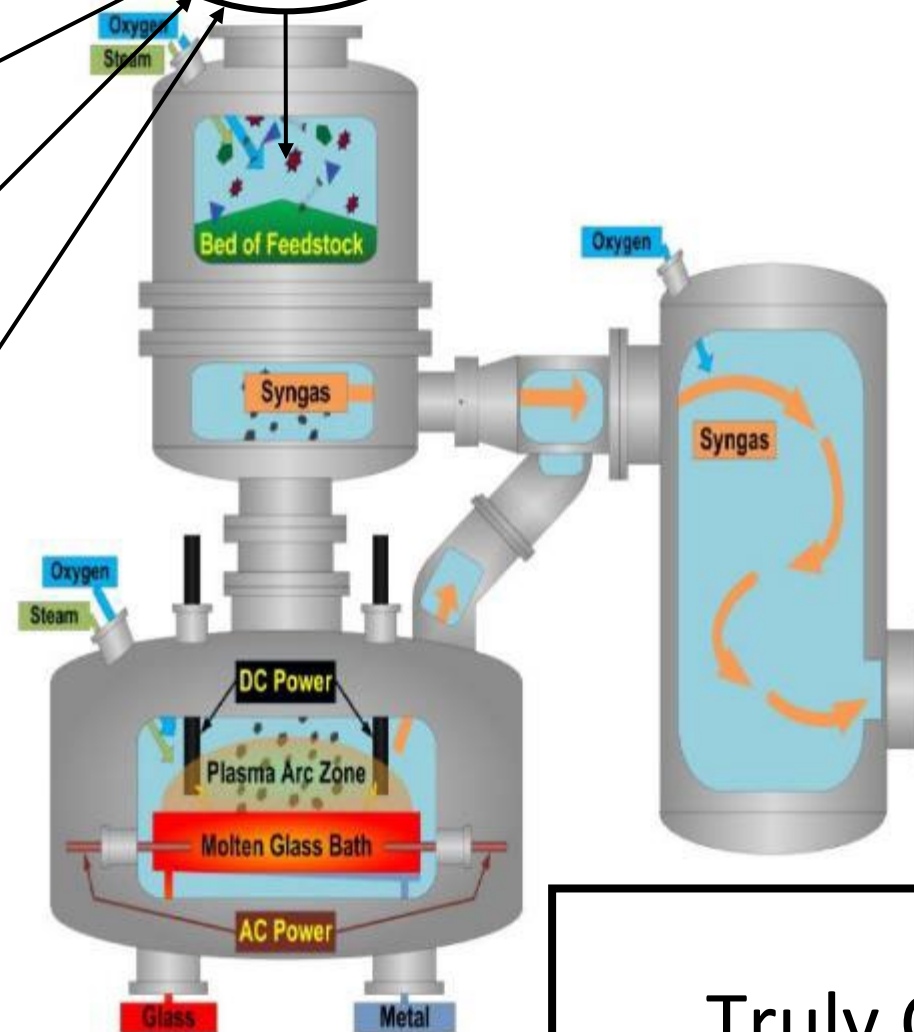




UF UNIVERSITY of FLORIDA



MSW



Synthesis Gas
"Syngas"
 $\text{CO} + \text{H}_2$

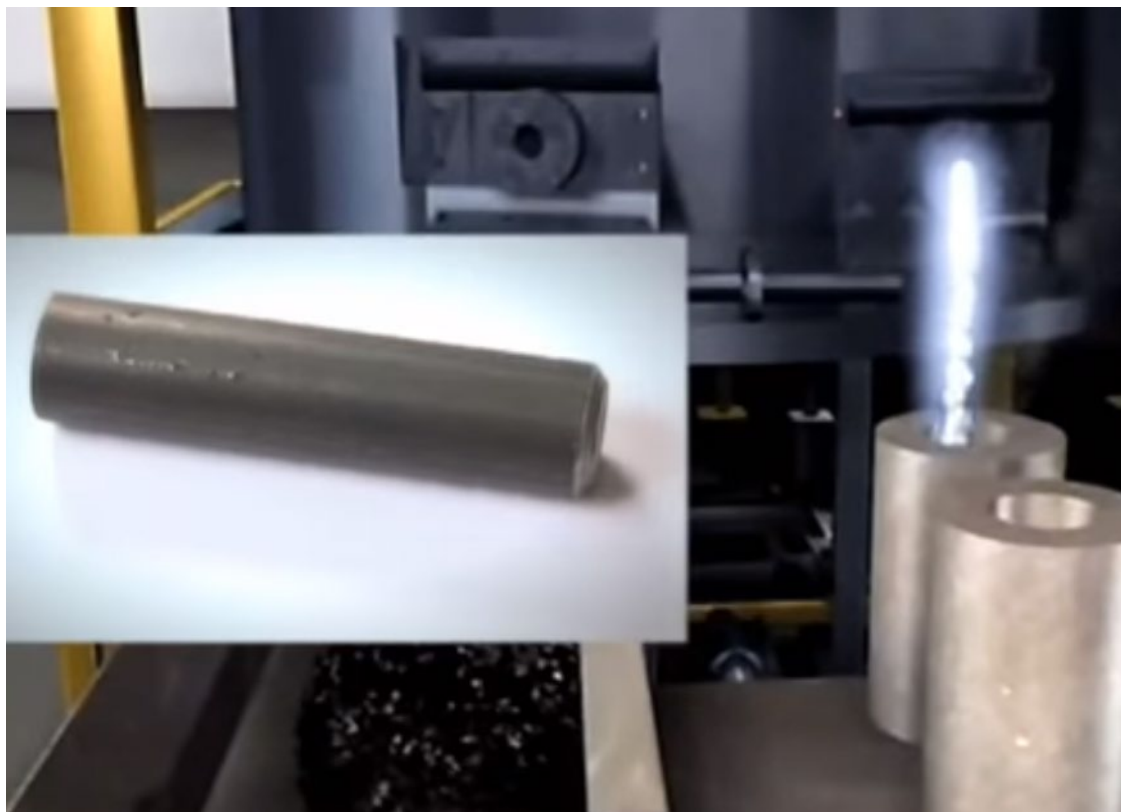
Recycled Content
Methanol
 CH_3OH

"Virgin"
New stuff

Truly Circular



What Comes Out The Bottom?

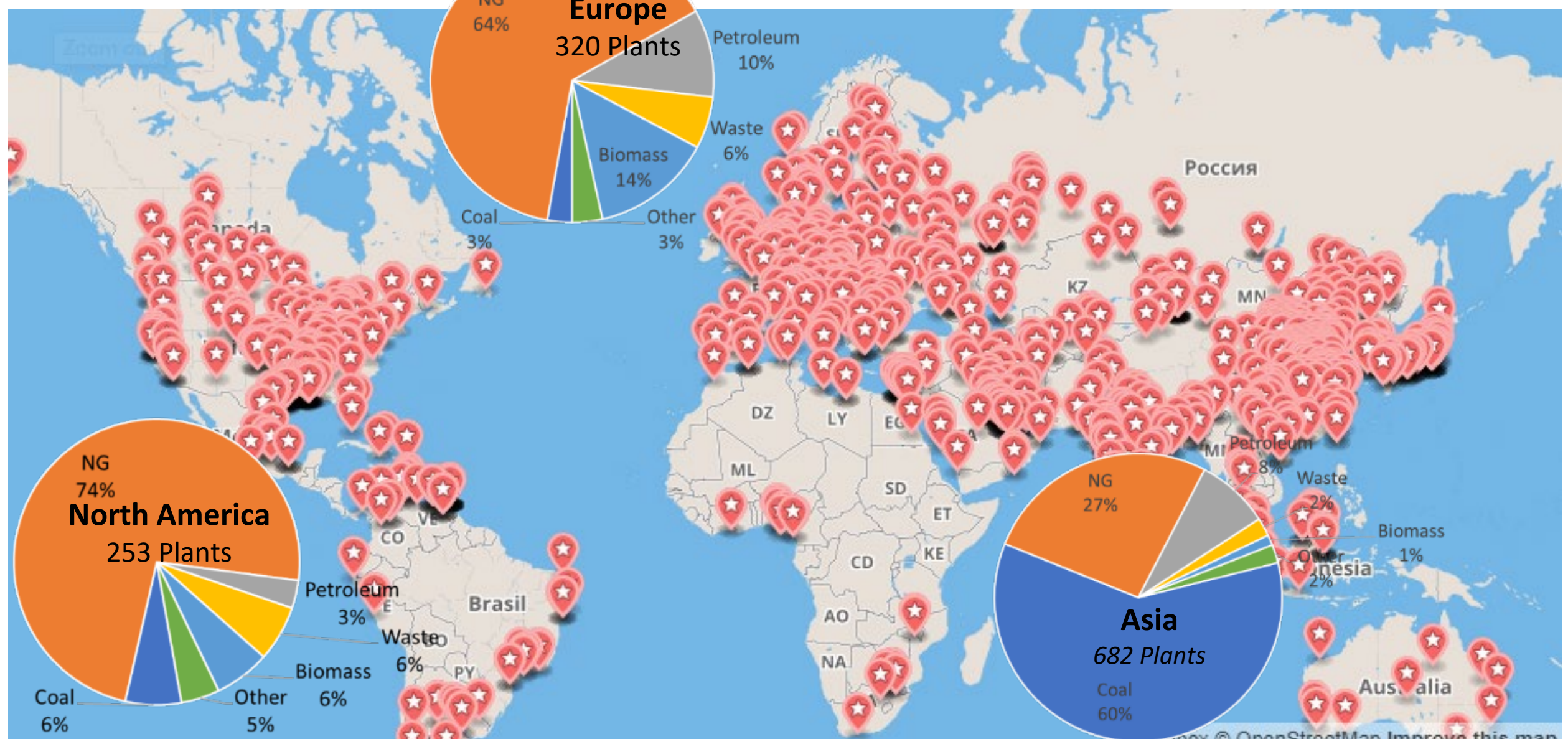


Mixed Metal Ingots
(Rare Earth Metals – Ore)



Slag – Vitrified Glassy Rock
(or glassy products)

Syngas Facilities by Feed & Region (source: GSTC)



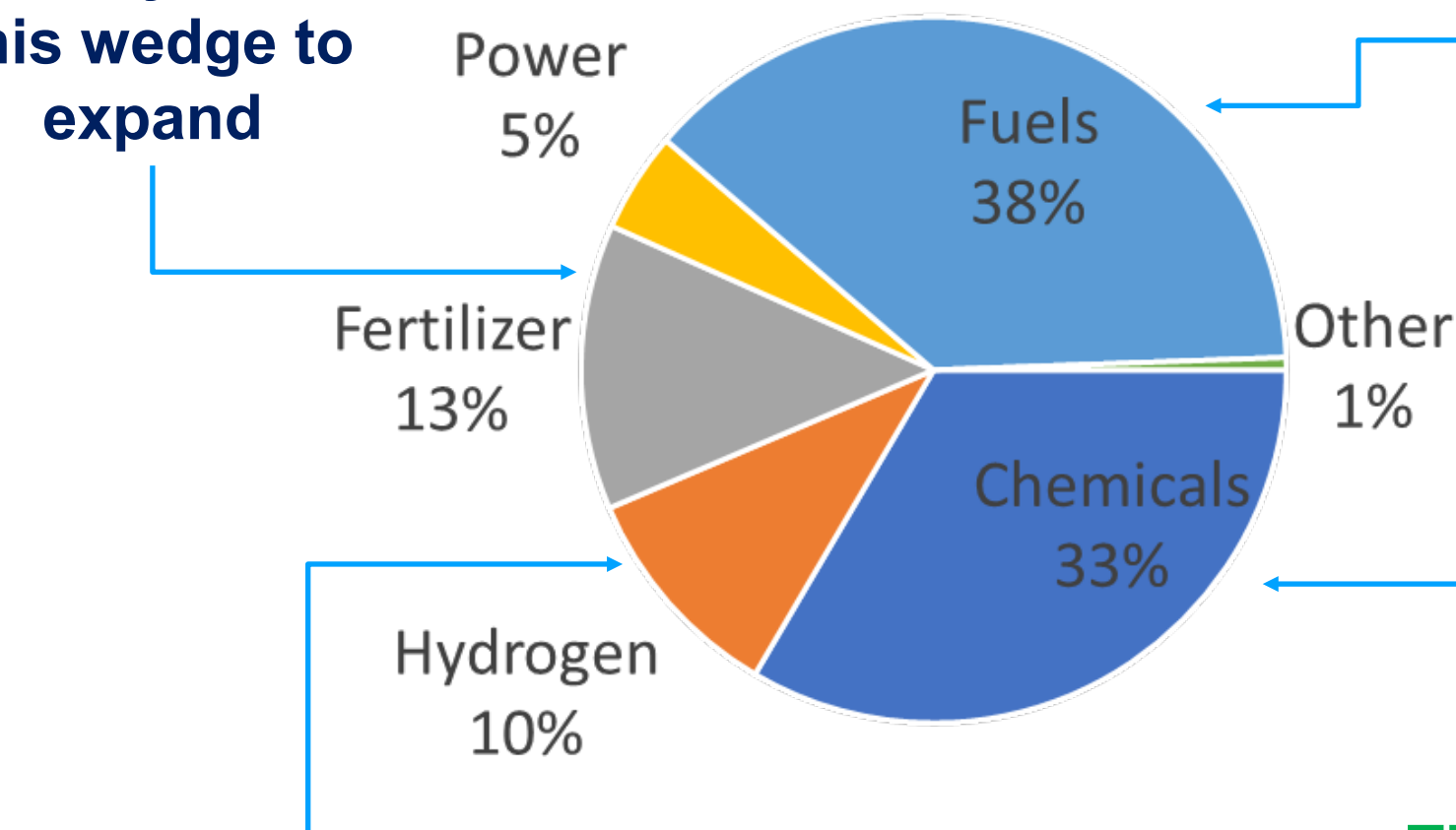


Syngas Is A Useful Building Block!

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

**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**



Nevada





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!

Today's Trash Is Tomorrow's 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>

