



HEMIX



HEMIX™

(Hemicellulose)

Bioplastics utilizing
wastes from
agriculture, forestry
and fisheries

Hemicellulose Ltd.



The world's first company that developed and manufactured bioplastic resin using **Hemicellulose**

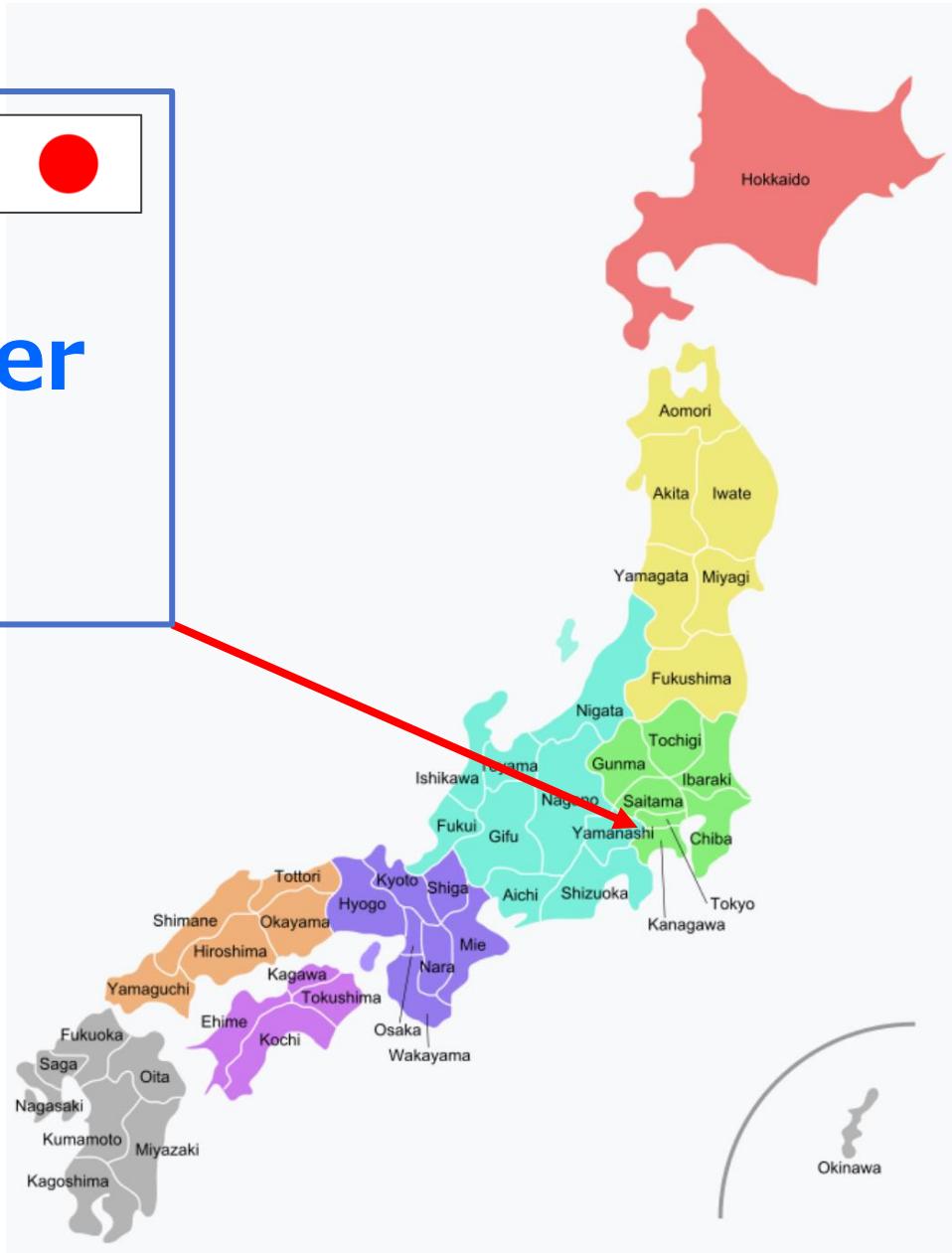
Original chemo synthesis technology that makes bioplastic resin **more transparent and resilient**

- ◆ **Company Name :** *Hemicellulose Ltd.*
- ◆ **Location:** *Kawasaki City, Kanagawa Pref., Japan*
- ◆ **Business Field:** *Bio-plastic Business*
(Hemicellulose resin development, production, sales)
- ◆ **Group Company:** *Business Innovation Partners Co., Ltd.*
(Research & Consulting)

HEMIX™ Bioplastic R&D, Manufacturing Center



in Kawasaki-city,
Greater Tokyo Area



A large, jagged blue iceberg dominates the scene, with a smaller piece of ice falling from its base into the water, creating a white splash. The background shows a hazy, mountainous landscape under a clear sky.

**Let us keep the
global temperature rise
to below 1.5 °C**

with Hemicellulose

Plant-derived waste 8 million tons/year...

LET US REDUCE

the CO2 emissions from food loss 4.4 billion tons/year
= 8.2% of total CO2 emissions



GT CO₂E (2011/12)*

SHARE OF GLOBAL GREENHOUSE GAS EMISSIONS (2011/12)*

Production Capacity of Bioplastics



Global production capacities of bioplastics

in 1,000 tonnes

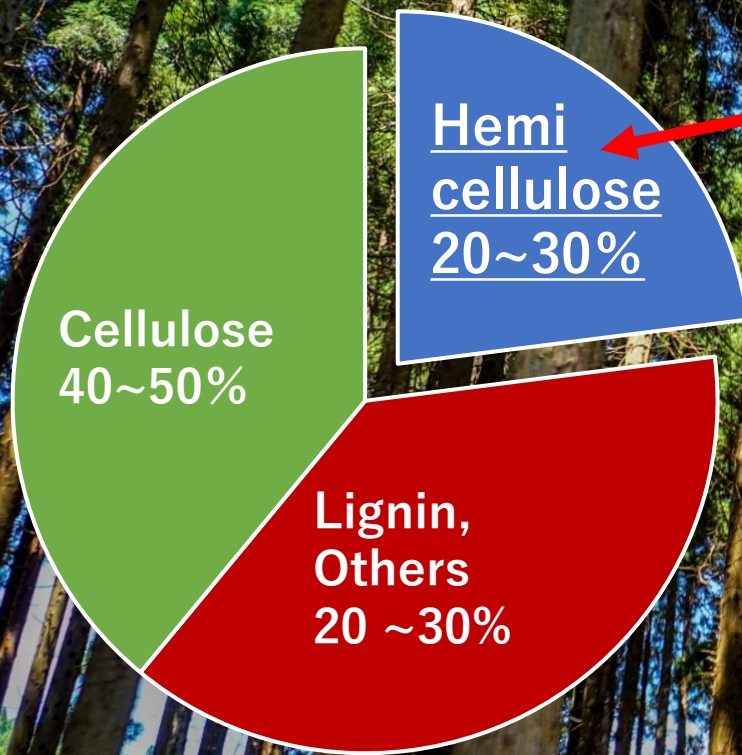


We will contribute to increasing the production capacity of **biodegradable** bioplastics using **Hemicellulose**

Source: European Bioplastics, nova-Institute (2023)

Hemicellulose

Composition of trees/plants



✓ **100 billion tons**

✓ Hemicellulose is the world's most **underutilized** natural resources.



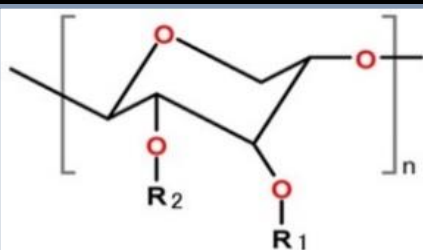
Greenhouse gas
reduction



Transparency



Hemicellulose

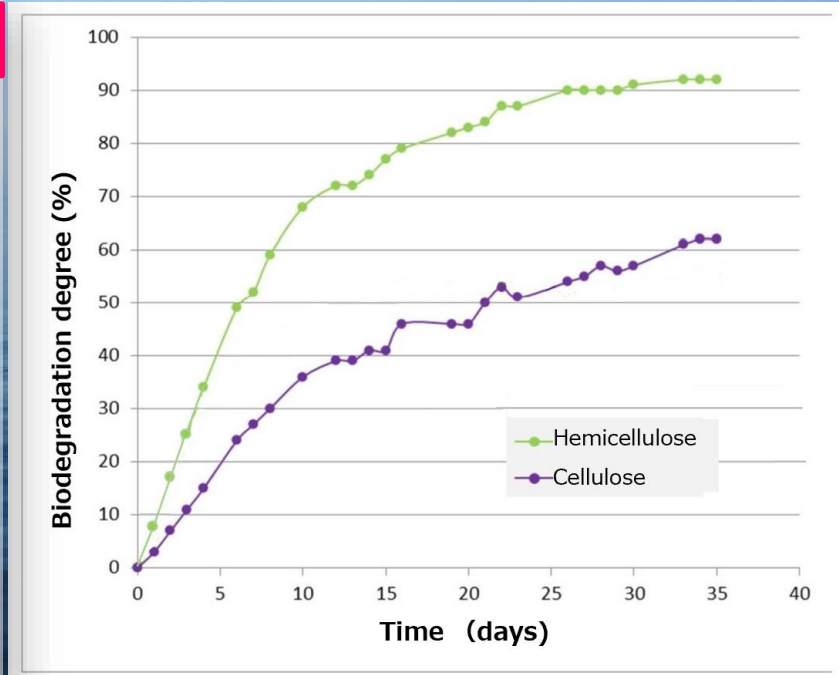
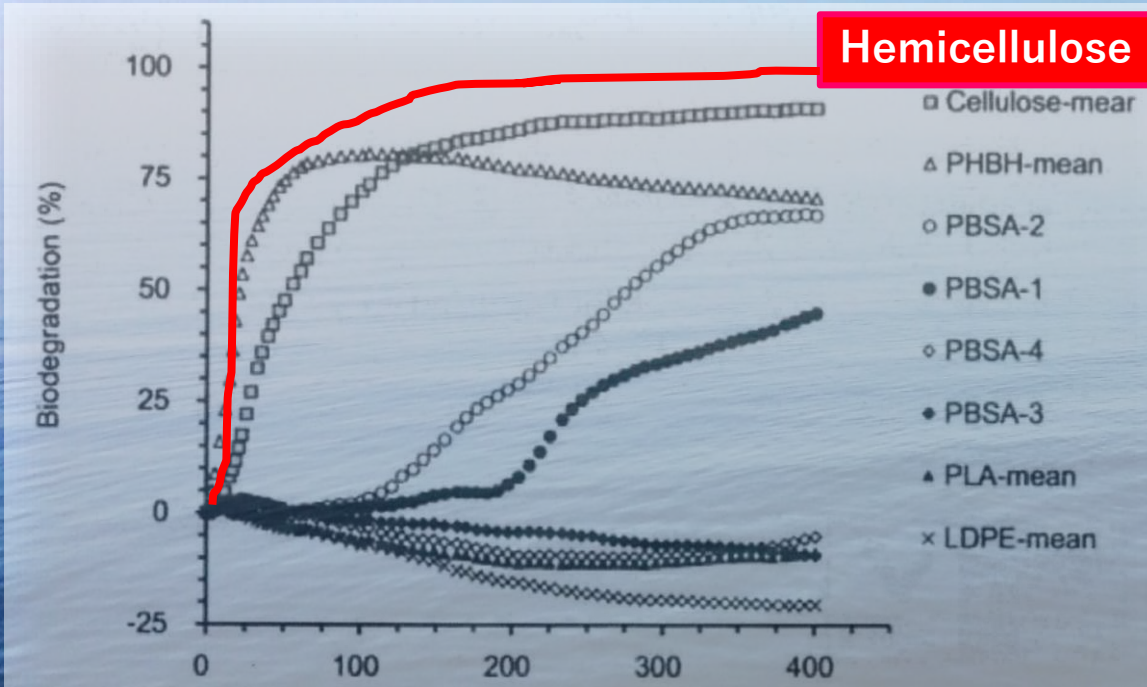


Marine
Biodegradability

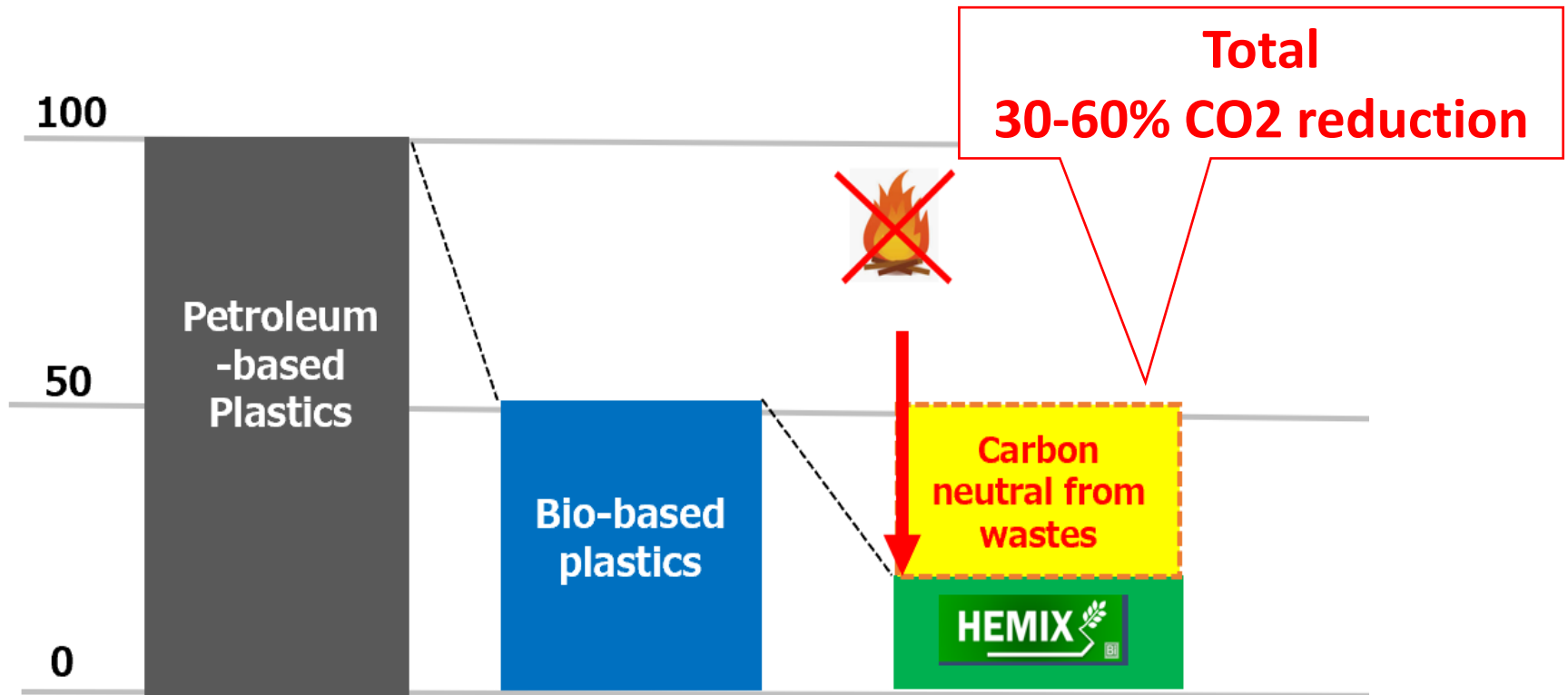


Functionality
(High melt flow)

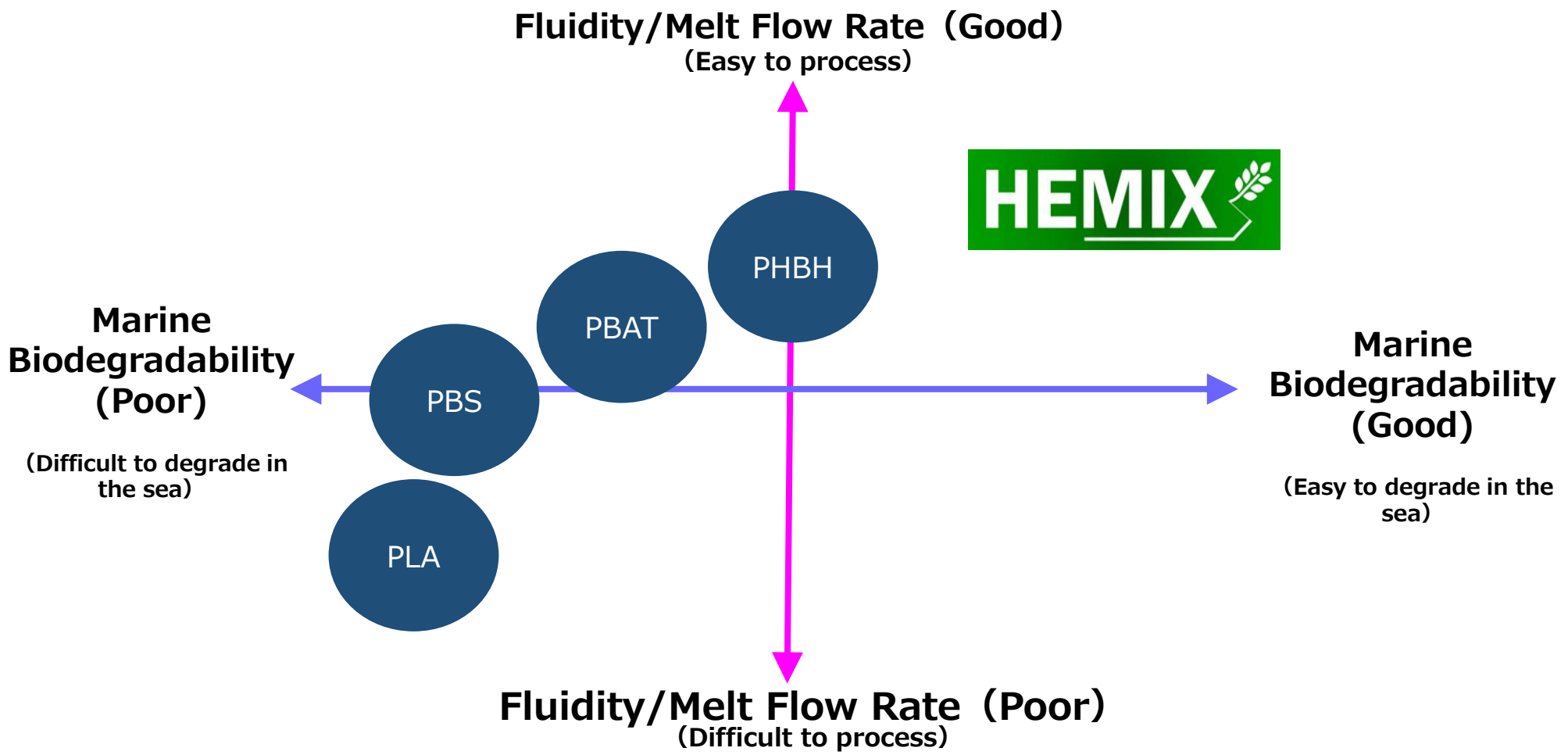
Hemicellulose degrades **the fastest** of all



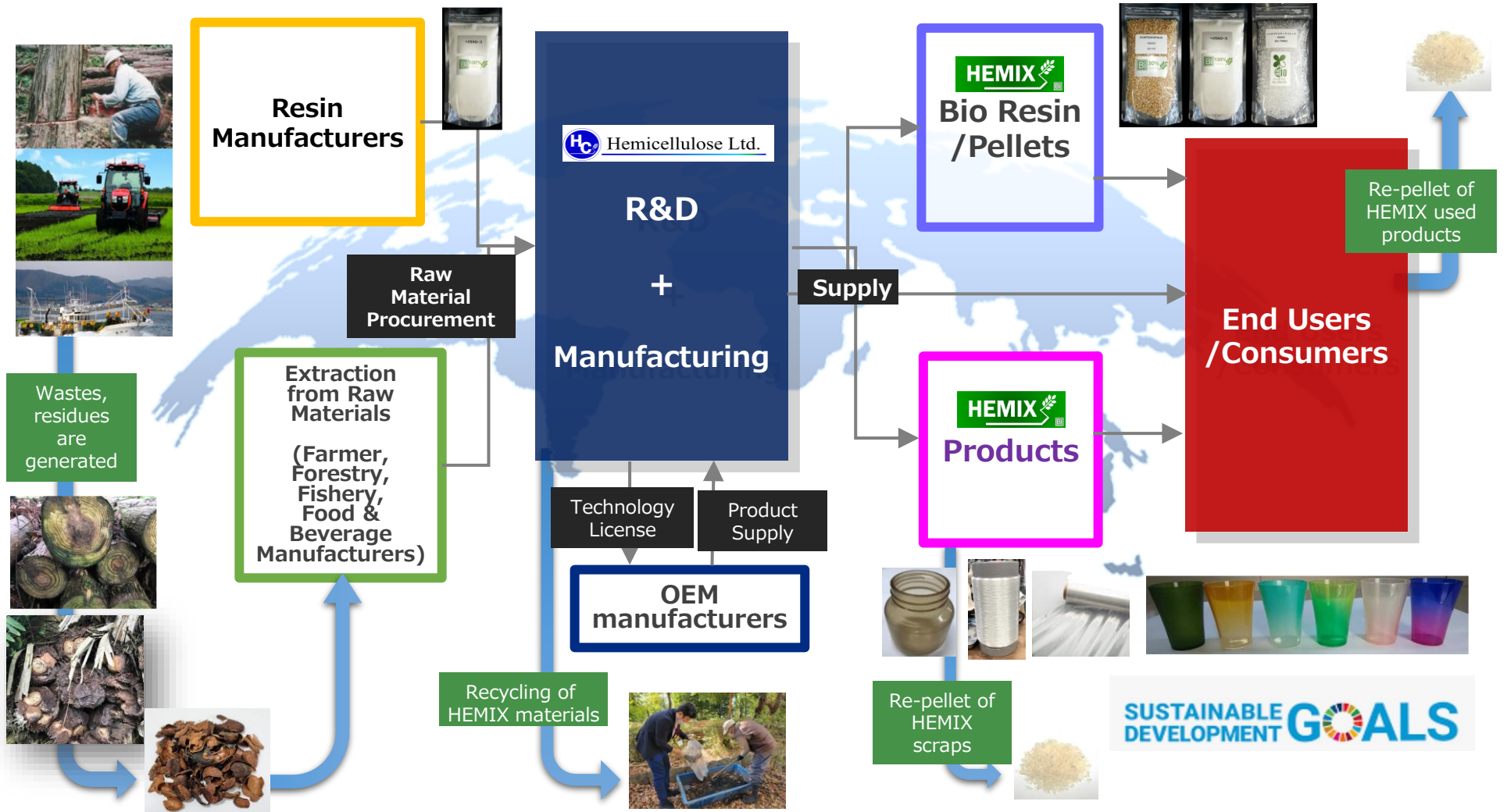
Remaining CO2 emissions can be reduced further by using **wasted materials that contain hemicellulose**. This will avoid the chance to combustion of waste.



Hemicellulose offers excellent melt flow rate and marine bio-degradability.



Our strong supply chain network supports us to provide HEMIX™.



HEMIX™ pellets can be made into **various products:**



Tumblers



Tumblers



Dessert Cups



plastic model



Model rocket



Cosmetic containers



Trays



Flowerpot



Light guide plate





Films (thickness: less than 0.25 mm)



Sheets (thickness: 0.25mm or more)



Trays





PET bottles

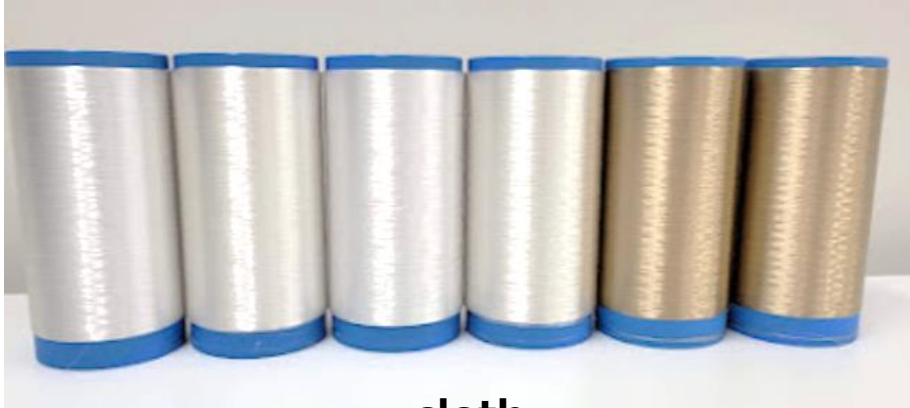


Cosmetic Containers & Bottles





Threads



cloth

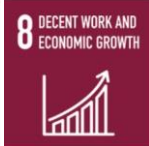


Gauze



Clothing

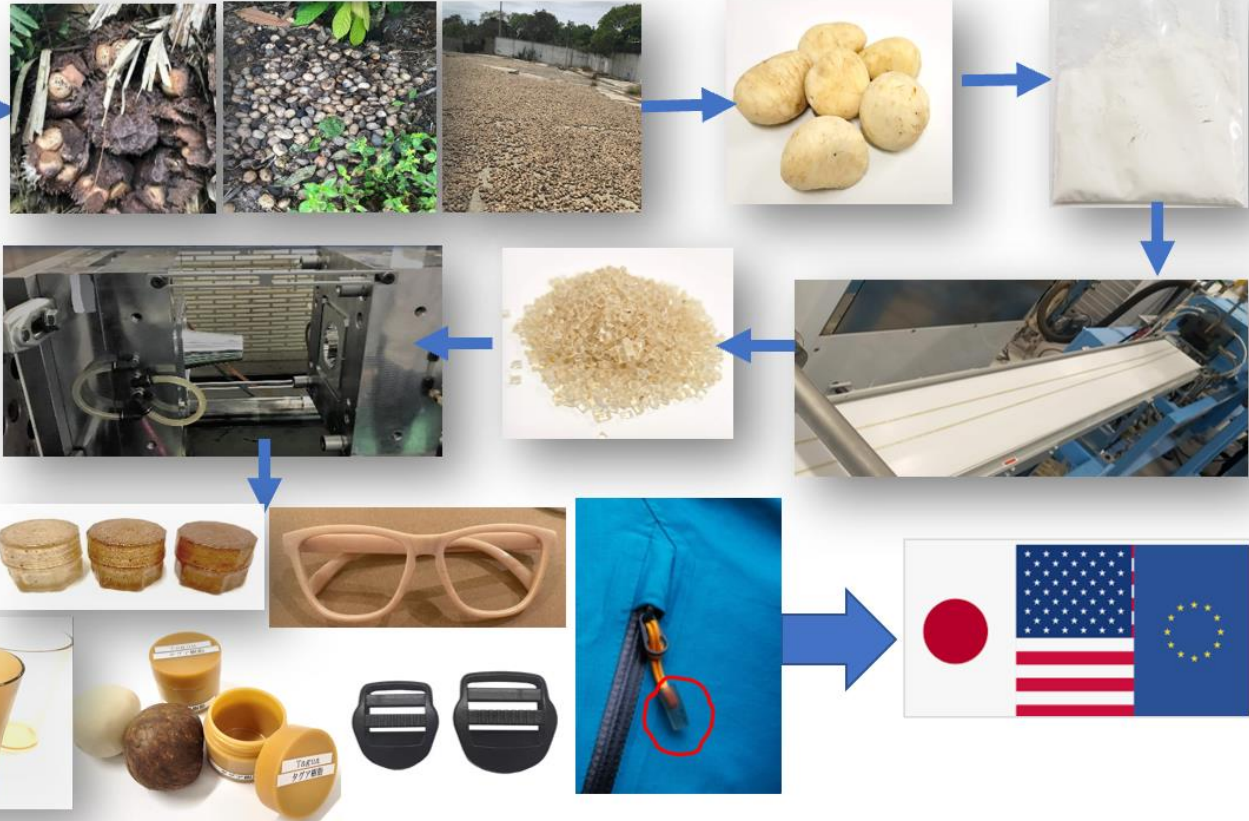




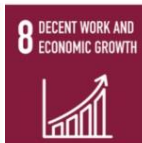
Adding to contributing to CO2 reduction we will also **save the tropical rain forest** as well as **create new job opportunity for local people.**



Tagua-tree



SDGs action example 2 : HEMIX™ + Cacao husk



Will create new job opportunity for local people with HEMIX™





Innovate for the Earth

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