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# Trends in bioplastics supply

## Nordic Bioplastic Conference

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# 1. Walki in brief

# Walki in numbers


 **≈ 500M**  
€ Turnover  
(annualized 2021)

 **1400**  
Personnel

 **14**  
Production Plants

 **+ 80 %**  
of our products are  
made from plant-  
based renewables.

**Operating in  
twelve countries.  
Privately owned.**

 **3000**  
test runs in pilot  
plant scale annually.

# We help our clients create value in three distinctive areas



**CONSUMER  
PACKAGING**



**INDUSTRIAL  
PACKAGING**



**ENGINEERED  
MATERIALS**



**Our mission is  
to accelerate the  
world's transition into  
a zero-waste future**

## 2. Sustainable plastics




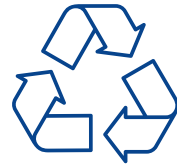
# Towards a zero-waste future



## Renewable, non-biodegradable


Packaging/products from renewable sources  
– fully, partly or limitedly renewable feedstocks

POLYMER	paper PE	
Plant based or waste stream based feedstock	●	●
Fully plant based feedstock	●	●
Circular polymers / chemically recycled	●	●
Mechanically recycled non-food packaging	●	●



## Recyclable


Fully recyclable and/or repulpable packaging  
→ targeting plastics reduction

POLYMER	paper PE	
Repulpable water-based coatings	●	
Extrusion coating within recyclability threshold	●	
Mono-polymer	●	●



## Biodegradable, compostable

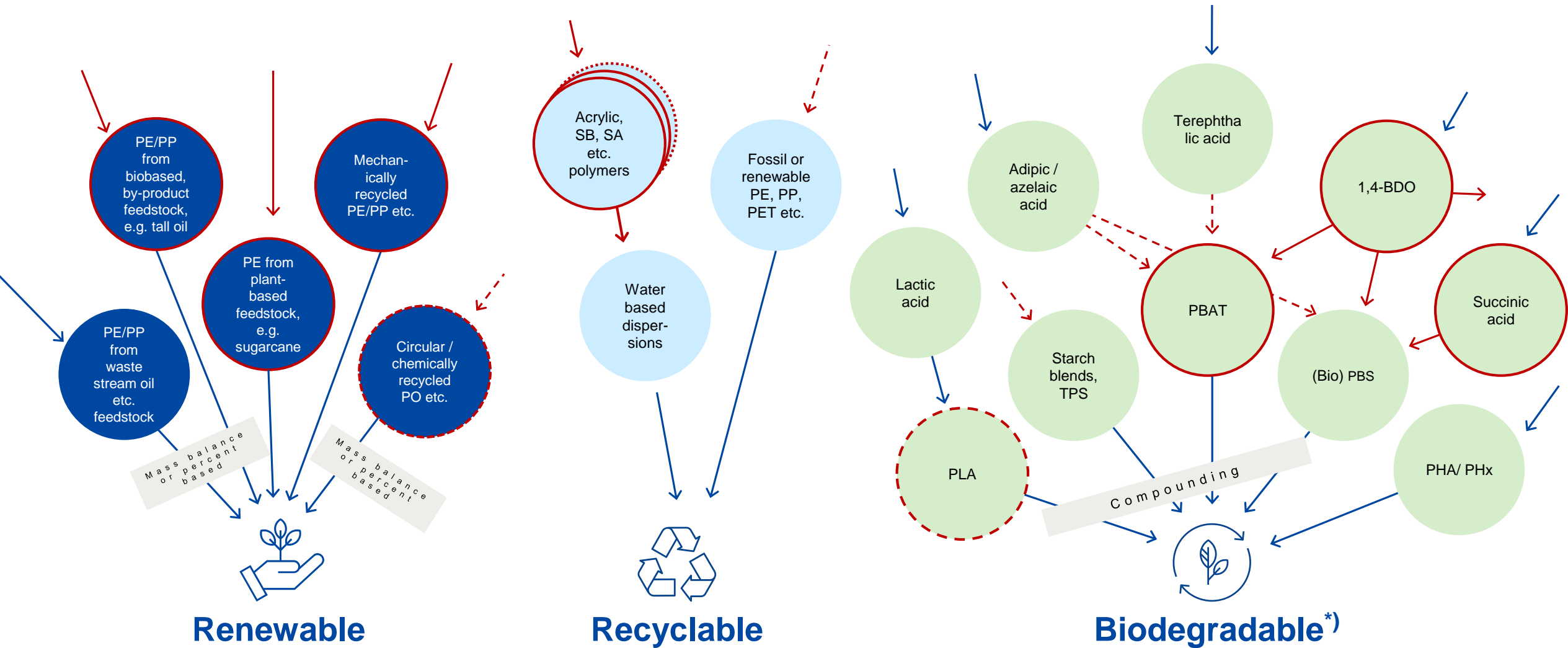
Biodegradable / compostable packaging  
– fully, partly or non-biobased

POLYMER	paper PE	
Industrially compostable	●	●
Home compostable	●	●
Marine degradable	●	●

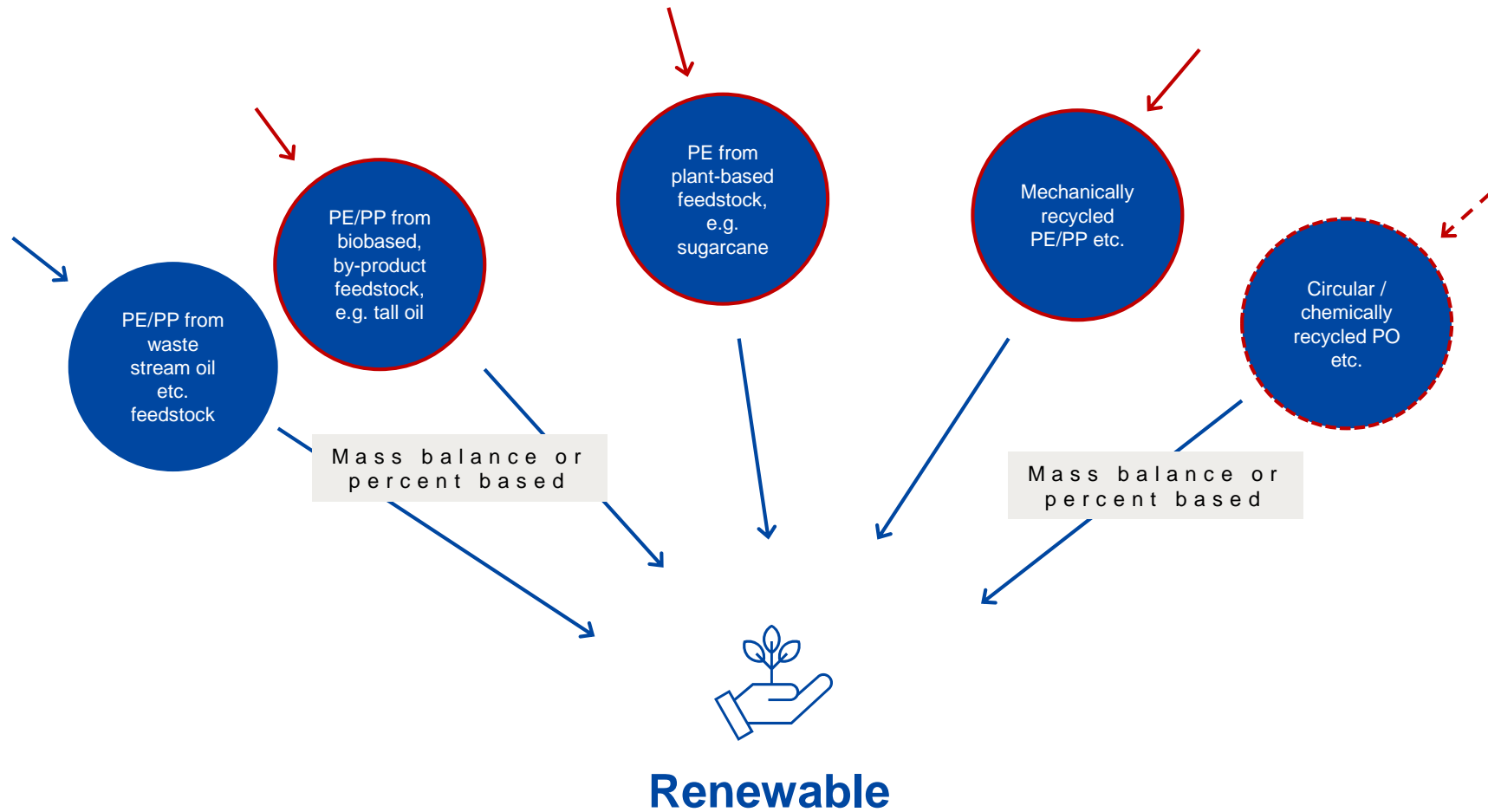
# 3. Supply trends



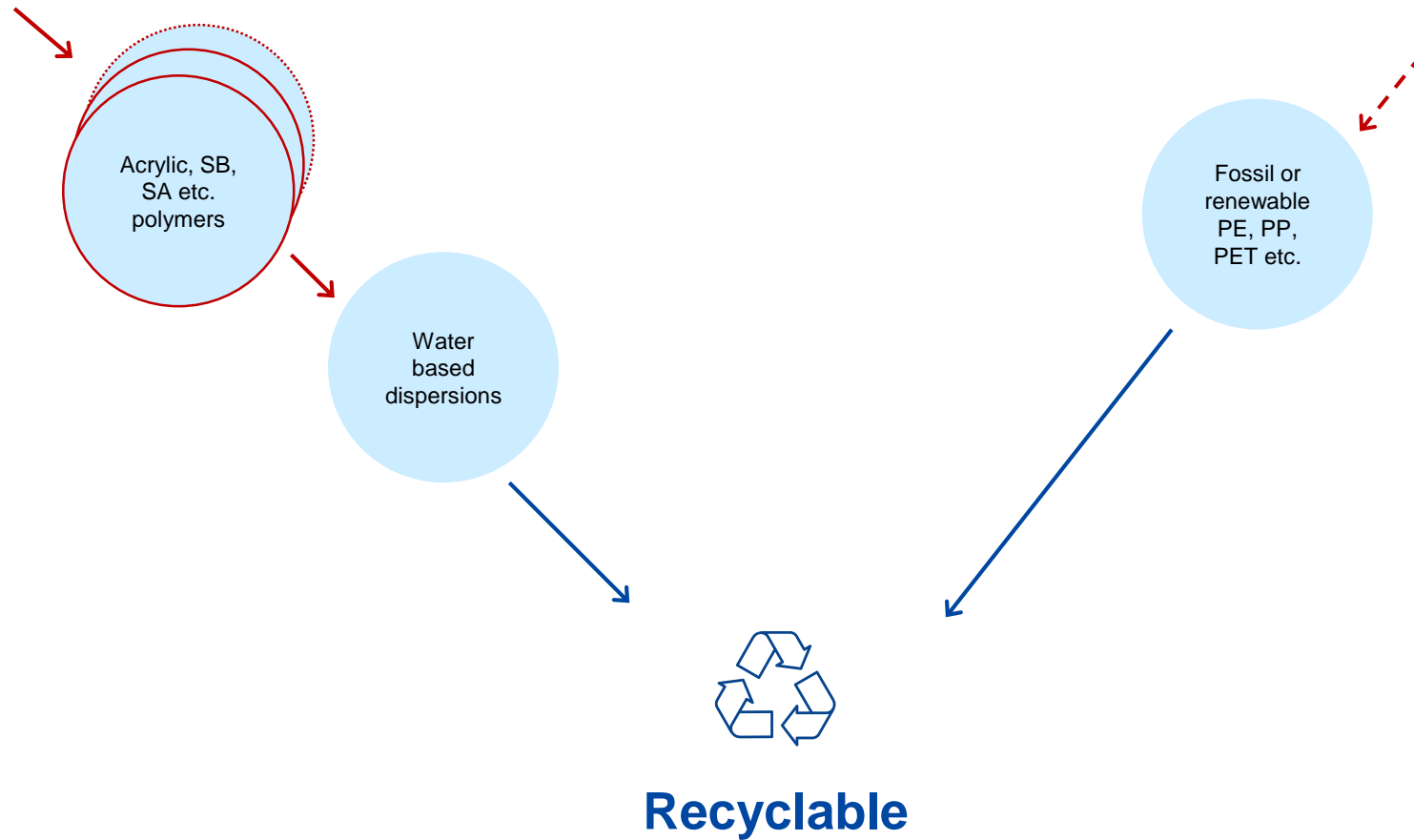
# Sustainable plastics supply overview



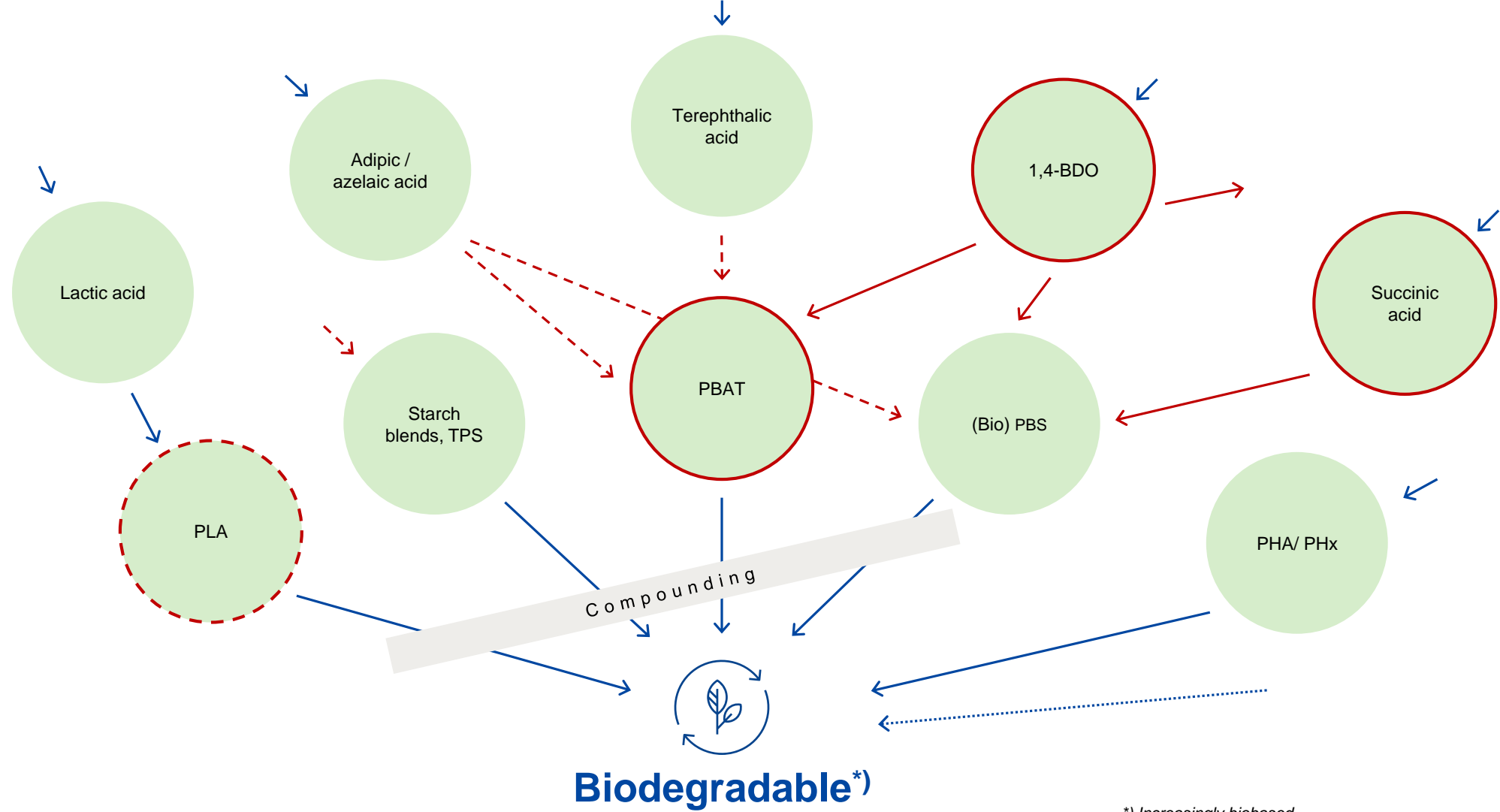
# Sustainable plastics supply for renewables



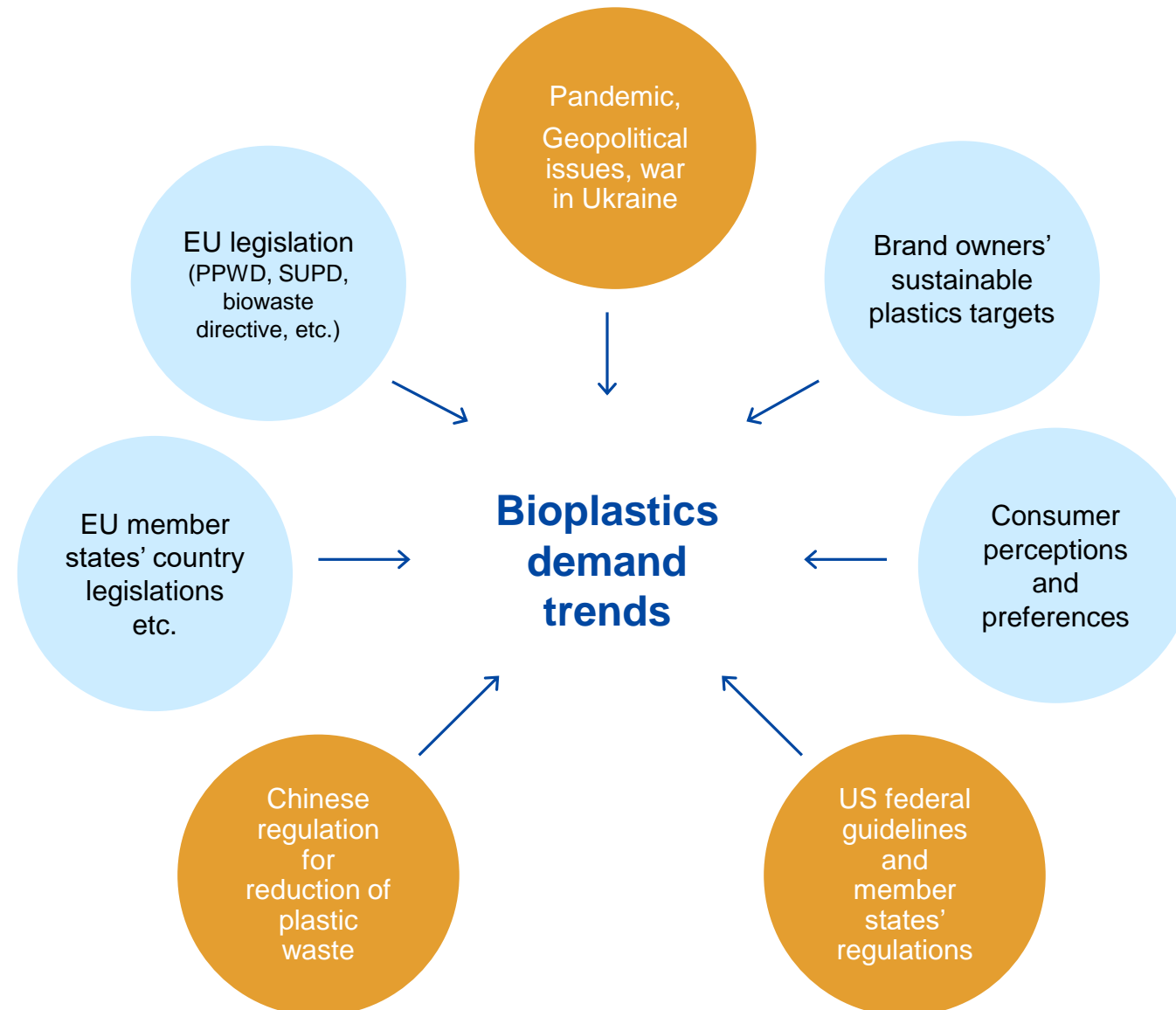
# Sustainable plastics supply for recyclables



# Sustainable plastics supply for biodegradables

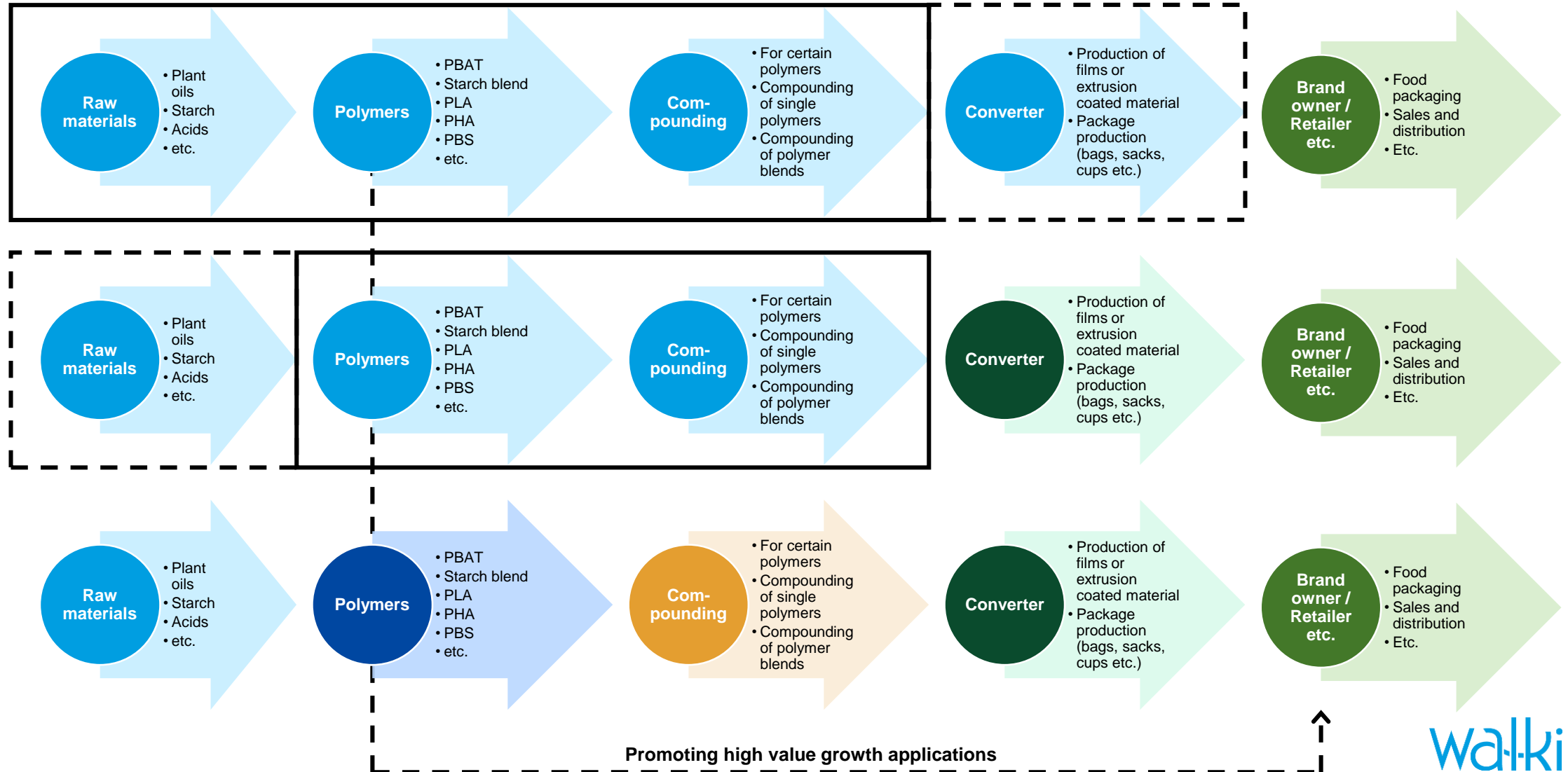


# Factors affecting bioplastics demand trends

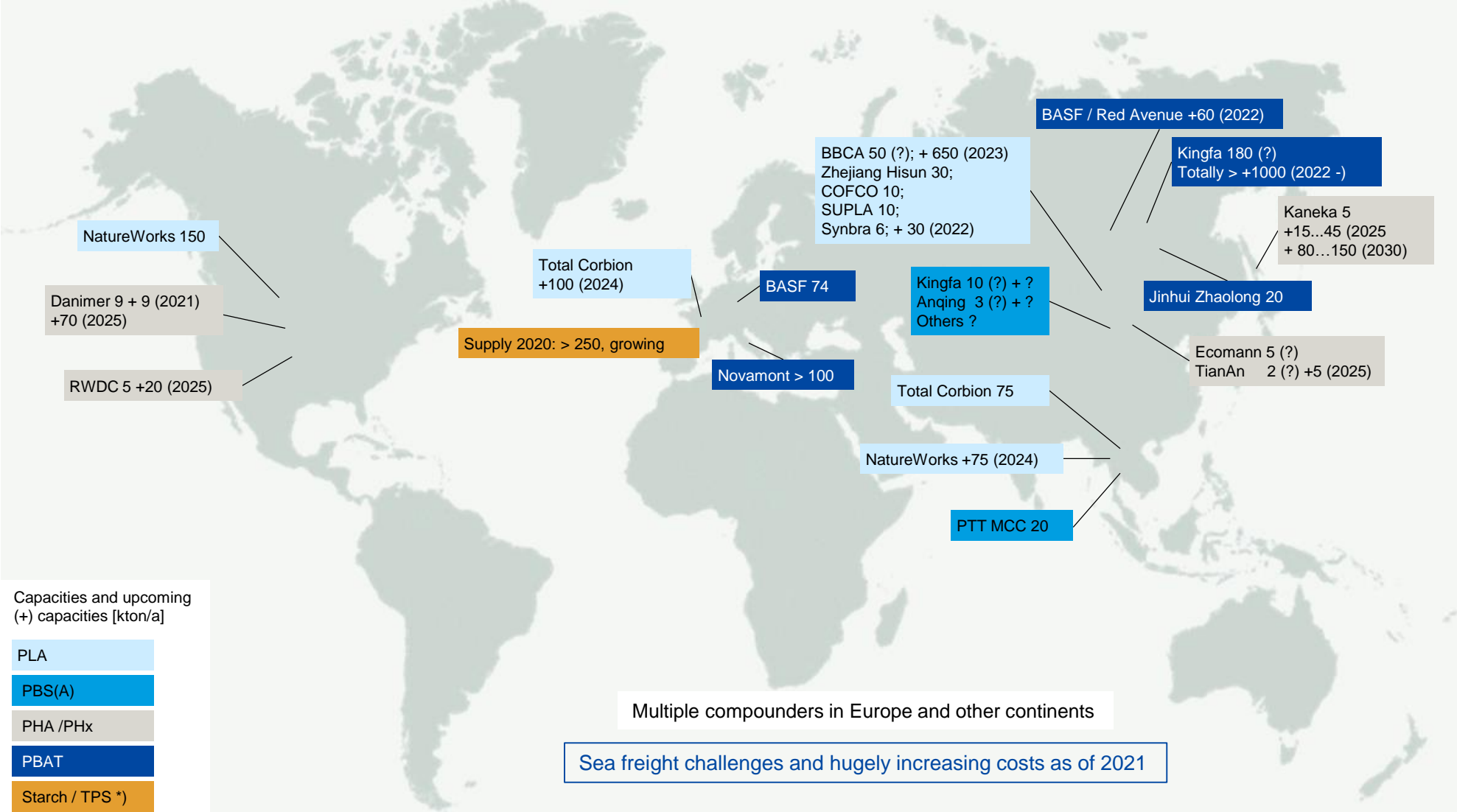


# Biodegradable plastics supply chain trends

Levels of Integration



# Factors affecting biodegradable plastics' supply trends



\*) In EU, annual production of starch is estimated to 11 Mton/a, of which about 2 % used for TPS



# Summary



- Several options for sustainable plastics prevail: renewable, recyclable and biodegradable
- Biobased, non-degradable: supply enabled by major PO suppliers; still mainly mass balance approach
- Circular PO's: availability in small scale until larger investments ready; still mass balance approach
- Mechanically recycled, transparent LDPE/LLDPE grades (non-FCM) currently face limited availability
- Bioplastics trends are impacted by EU and country legislations, by legislation in the USA and China and by brand owners' sustainability targets etc.
- Within supply chains of biodegradable polymers, the level of integration is increasing
- New capacity of biodegradable plastics is being built in China and SE Asia, some new capacity in the USA, but less in Europe. Biodegradable packaging in EU may focus on certain applications also in the near future.



# Towards a Zero Waste Future

**We contribute  
with our actions.**

**Thank you.**