



### SUSTAINABILITY 101

**EPISODE 6 – BIODEGRADABLE PLASTICS** 

### BIODEGRADABLE PLASTICS

Biodegradation is a natural chemical process in which organic matter is decomposed in CO2, Water, and Biomass by living microorganisms found in nature (such as bacteria and fungi) and reabsorbed into the planet without harming the environment.

Biodegradable plastics are those that decompose under certain conditions into natural substances.





#### **BIODEGRADATION VS. COMPOSTABLE**

Why it isn't as easy as saying "biodegradable plastics"



Biodegradable in soil



Biodegradable in fresh water (such as rivers)



Biodegradable in marine water (such as oceans)



# THE CHALLENGES OF BIODEGRADATION

Why it isn't as easy as saying "biodegradable plastics"



Composting is a human-driven process that consists of an accelerated biodegradation process due to optimized circumstances (e.g. a certain temperature, timeframe, etc.).

**Standards** for "biodegradable plastics" mostly refer to industrial composting, and not biodegradable in open nature, since the conditions there can be unpredictable.



#### WHY ISN'T ALL PLASTIC BIODEGRABLE?

#### Biodegradable plastics are not a universal solution to plastic waste



Standards for biodegradable plastics mostly refer to the Industrial Composting of organic waste under controlled conditions (temperatures over +50°C for weeks).



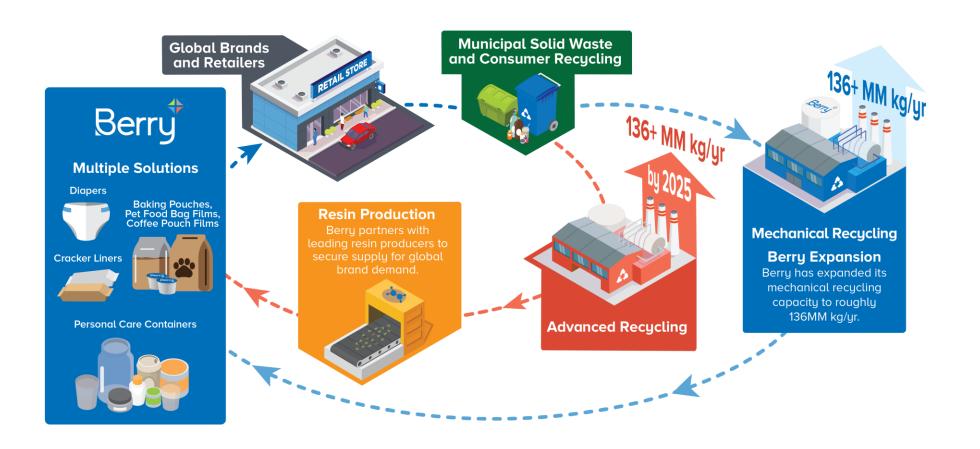
That is why biodegradable plastics are not a solution to marine litter and plastic pollution, since biodegradation in water can take many years due to the low temperatures.



Biodegradable plastics cannot be recycled with most plastics.



## Berry is a leader in the industry for Recycling Capacity and Access to Advanced Recycled Material





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Stay tuned for the next episode

