



SUSTAINABILITY 101

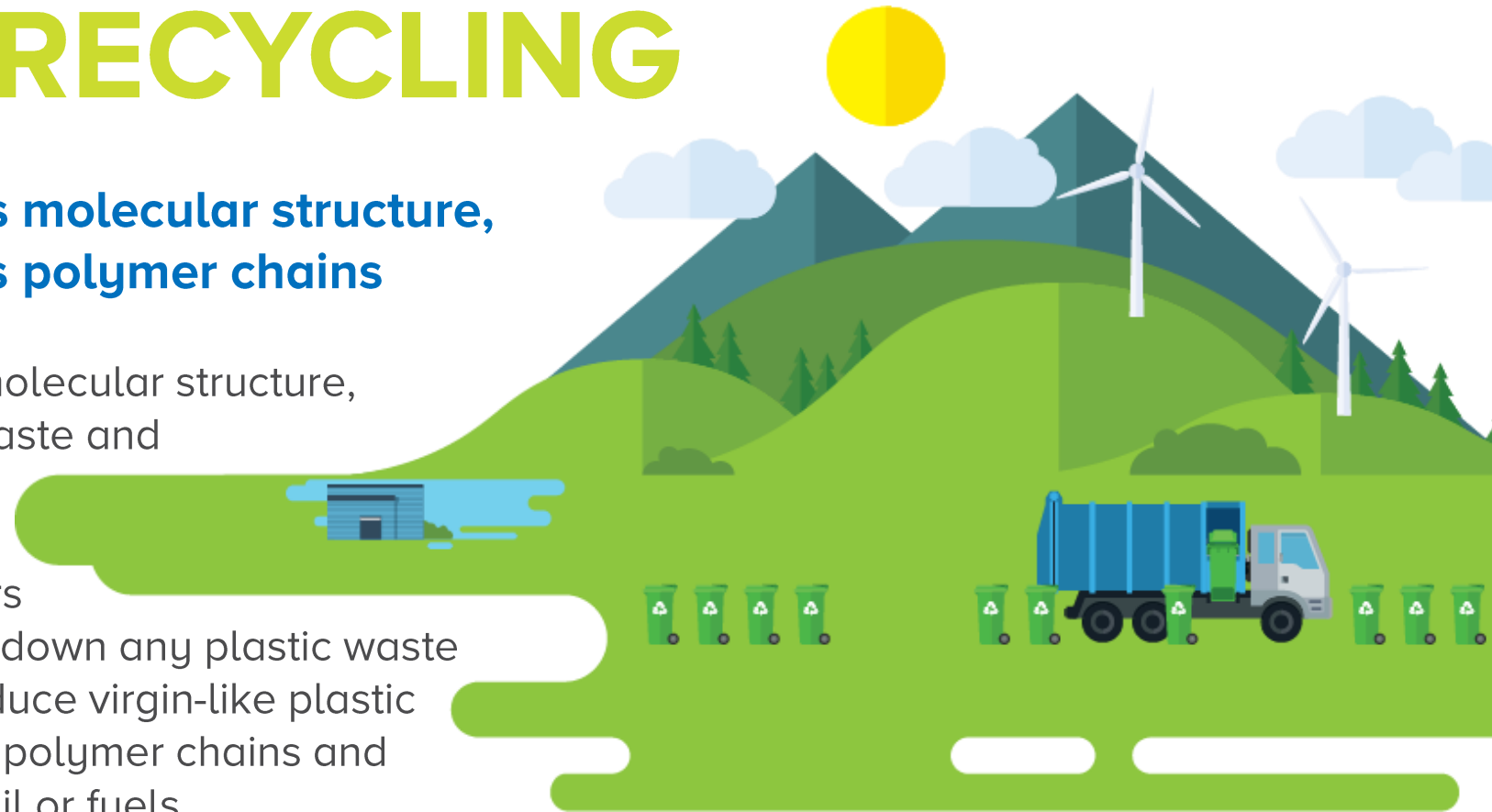
EPISODE 5 – PLASTIC RECYCLING

MECHANICAL & ADVANCED RECYCLING

Mechanical recycling preserves molecular structure, while Advanced recycling splits polymer chains

Mechanical recycling preserves the molecular structure, it mechanically crushes any plastic waste and re-melts it into granulates.

Advanced or Chemical recycling refers to a range of technologies that break-down any plastic waste so it can be used as feedstock to produce virgin-like plastic to manufacture new products, it splits polymer chains and supplies raw material such as crude oil or fuels.



WHAT IS THE DIFFERENCE BETWEEN MECHANICAL & ADVANCED RECYCLING?

The two processes should be seen as **complementary**, ensuring more plastic remains in the value chain



Mechanical Recycling has allowed us to develop the capabilities to recycle many plastic formats, however can't be used multilayer or heavily contaminated plastic waste streams.

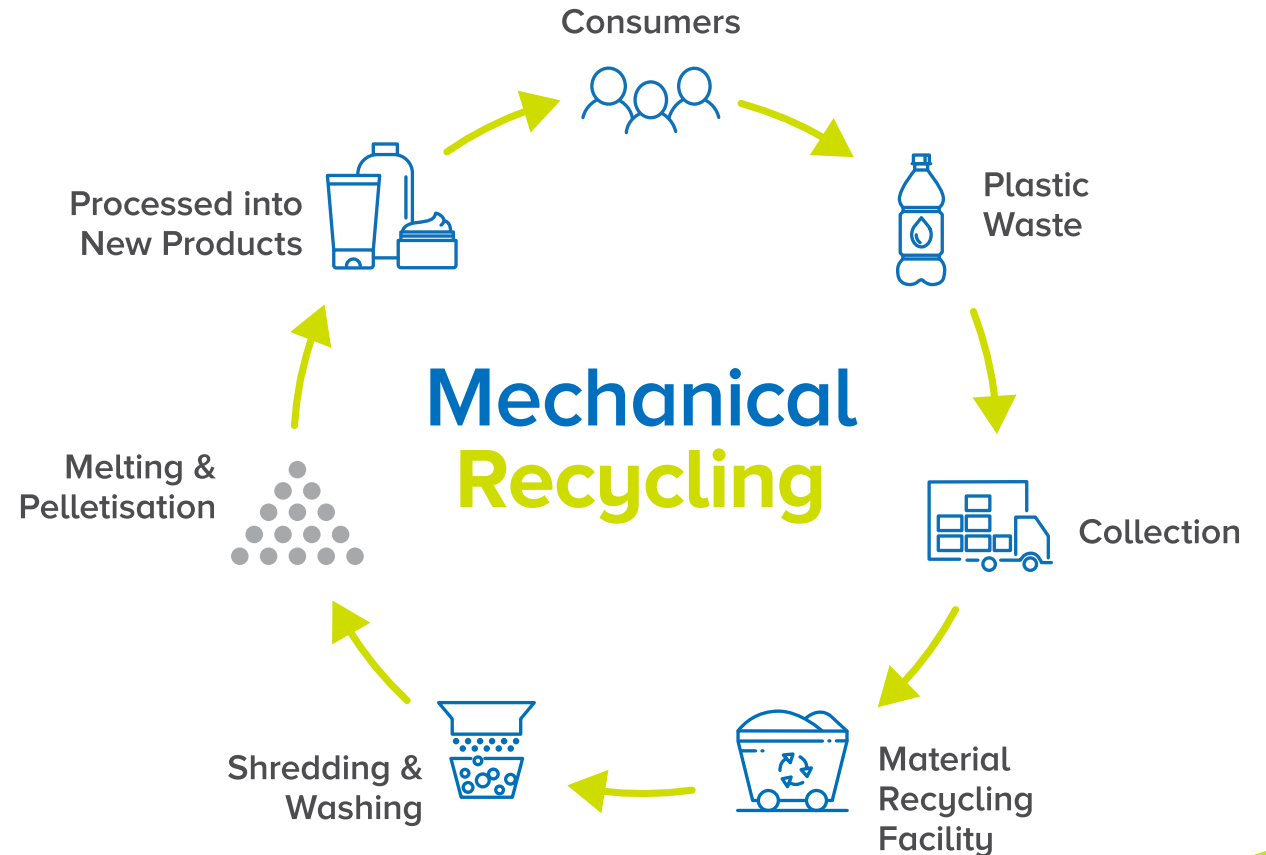
Advanced Recycling can utilize mixed plastic waste streams, removing all contamination in the process

MECHANICAL RECYCLING WASTE STREAMS

PCR Material can be derived from a range of sources including full-stop commercial, agricultural, or household waste.

Currently, most PCR is derived from mixed waste material with little traceability of previous function. The contamination levels and therefore safety of the recycled material cannot always be guaranteed.

Outside of PET and some HDPE, most PCR is non-food grade.

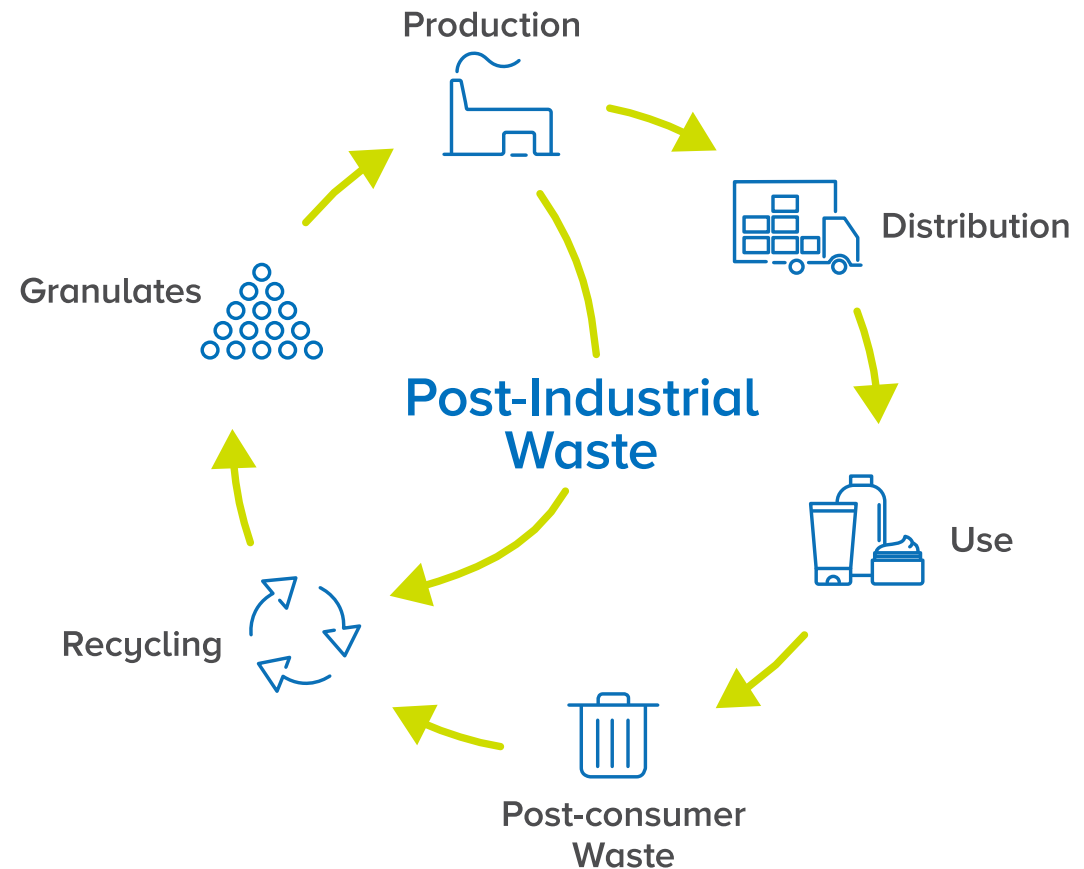


MECHANICAL RECYCLING WASTE STREAMS

PIR is the material entering the recycling stream prior to reach the end user

PIR excludes reutilization of material that has not been modified and is being reclaimed in the same process that generated it.

PIR is higher quality than PCR and generally, has less contamination, as well as improved traceability.



ADVANCED RECYCLING

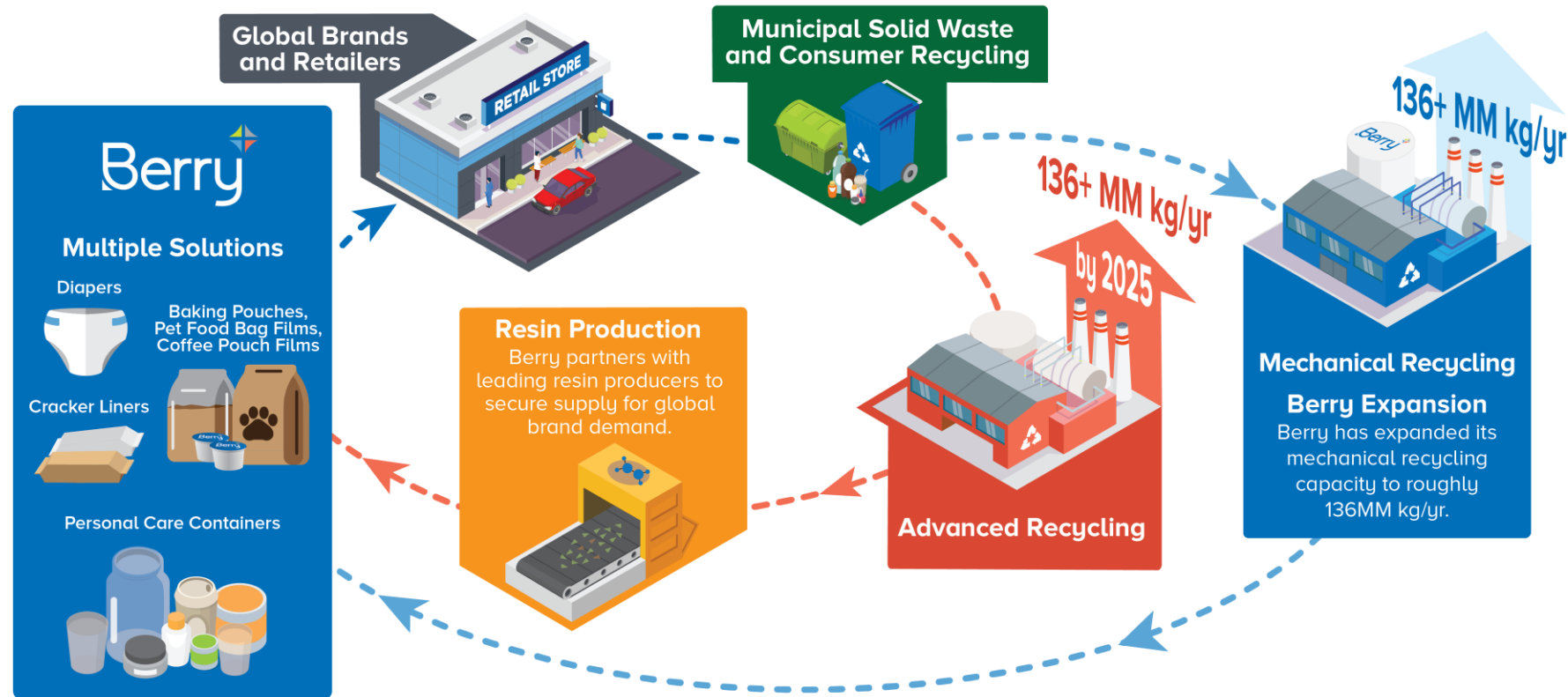
Advanced recycled plastic is virgin-quality material with the same physical properties and regulatory approvals as virgin polymers.

Benefits of Advanced Recycled Polymers

- Can process material that is difficult to mechanically recycle or is heavily contaminated and destined for landfill or incineration
- Same quality and physical properties as virgin plastic
- Reduced fossil fuel consumption vs. to virgin polymer production
- It can be used in applications requiring hygiene & medical grade material
- Material is certified to the ISCC certification



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

