



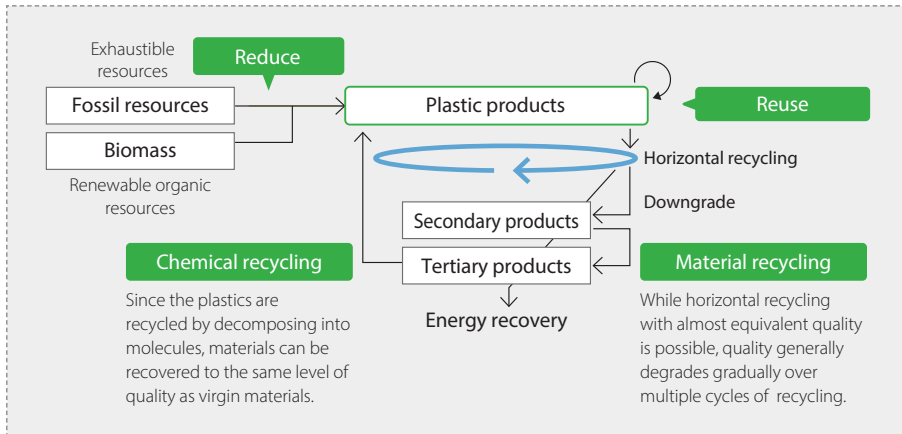
# Contribute to Recycling Resources

## Circular System for Plastics

### Examples of Initiatives

Toward a circular system for plastics, it is important to make an effort to reduce, reuse, and recycle (material recycling and chemical recycling) at each stage of the plastic value chain.

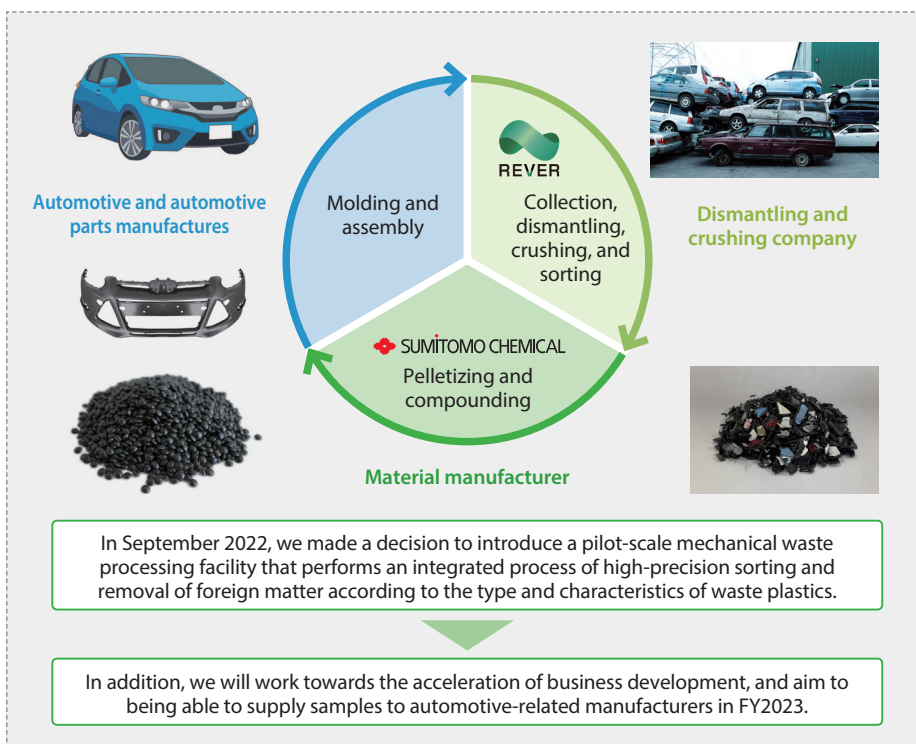
#### Overall Picture of Circular System for Plastics



## Material Recycling

As one of our material recycling initiatives, Sumitomo Chemical and REVER CORPORATION have concluded a business alliance agreement for material recycling of waste plastics derived from end-of-life vehicles. Through this alliance, the two companies will work to build a circular system for recycling waste plastics that includes the whole process, from collection to sorting to recycling into useful plastic resources, and to accelerate business development for plastic recycling.

#### Circular System





## Contribute to Recycling Resources

### Chemical Recycling

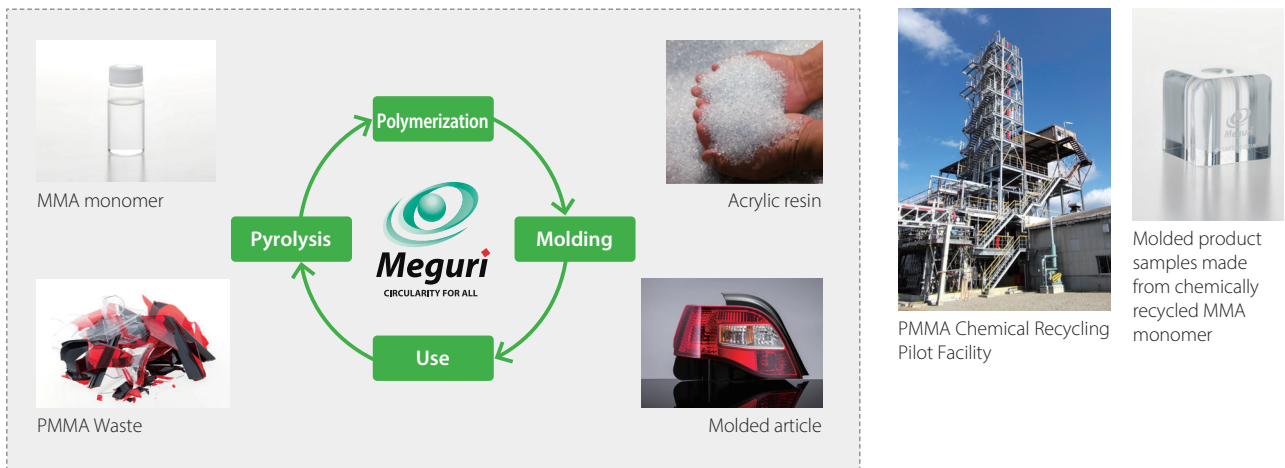
Sumitomo Chemical promotes development of chemical recycling technologies through multiple routes in parallel, by combining our catalyst design and chemical process design technologies, in collaboration with external parties. Utilization of these technologies will reduce fossil resource use and plastic waste emissions, as well as GHG emissions from plastic waste incineration.

#### Chemical Recycling System for Acrylic Resin

Sumitomo Chemical has jointly developed with The Japan Steel Works, Ltd. a technology for pyrolyzing acrylic resin and recycling it, with high efficiency, into MMA monomer, which is a raw material for acrylic resin (polymethyl methacrylate or PMMA). We have built the new pilot facility at Ehime Works and aim to supply samples in the fall of FY2023.

Note: PMMA made from recycled monomers reduces GHG emissions throughout the product lifecycle compared to products derived from fossil resources.

#### System for PMMA Chemical Recycling



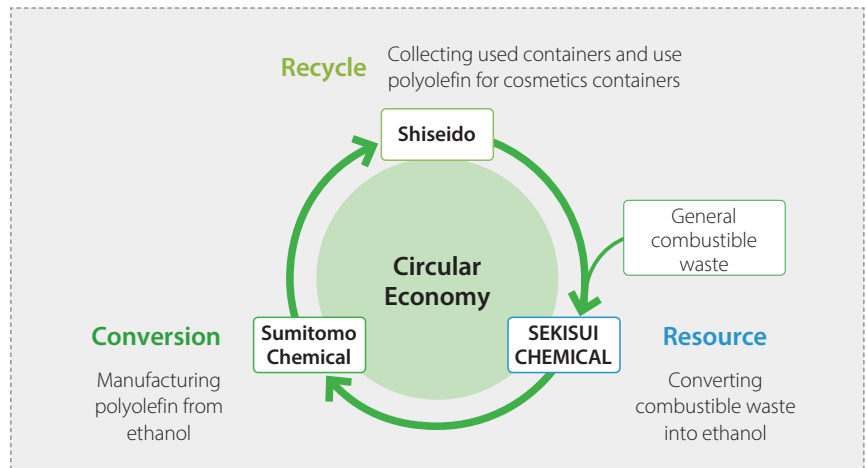
#### Started Sample Production of Ethanol-Based Ethylene for Environmentally-Sustainable Polyolefin

Sumitomo Chemical completed the construction at its Chiba Works of a pilot facility to manufacture ethylene using renewable ethanol as a raw material, ethanol produced from waste by SEKISUI CHEMICAL CO., LTD. (SEKISUI CHEMICAL), and bio-ethanol derived from biomass, such as sugarcane and corn, and started manufacturing samples to develop the market, with the aim of contributing to creating a circular economy. We aim to commercialize ethanol-based polyolefin in FY2025 as an example of our efforts to build a new recycling model for plastic cosmetic containers through collaboration among the three companies, SHISEIDO CO., LTD. (SHISEIDO) and SEKISUI CHEMICAL.

#### Circular Economy Image of Initiatives



Pilot facility to produce ethylene from renewable ethanol





## Contribute to Recycling Resources

### Reduction of Plastic Used in Product Packaging and Use of Recycled Materials

With regard to feasible cases, including products, raw materials, production sites and other materials, Sumitomo Chemical Garden Products Inc. is working as swiftly as possible to adopt materials that reduce environmental burden and aims to switch over to 100% environmentally friendly products by 2030.

#### Soft packaging

The company is contributing to the reduction of the use of plastic.



#### Recyclable materials

The company is using recyclable PET.



The company is acting as a registered member of Plastics Smart (use and reduce plastic containers).



Initiatives of Sumitomo Chemical Garden Products for sustainability (Japanese only)

<https://www.sc-engei.co.jp/sustainability/initiatives.html>

## Looking Ahead

Sumitomo Chemical identified contributing to recycling resources as a material issue to be addressed as management priorities. Going forward, to achieve greater progress, we will continue to further promote initiatives aimed at developing resource recycling technology and promoting practical, socially beneficial applications by leveraging the technological capabilities and insights we have cultivated as a diversified chemical company.