MAKE NEW STANDARDS. 東海国立大学機構 | NAGOYA UNIVERSITY

Nagoya University
National Composites Center(NCC)

National Composites Center Japan

NCC's Initiatives

Focused on reducing environmental impact and achieving lightweight designs for future mobilities, we're advancing technology in waste plastic recycling and recycled CF utilization.
Key areas include:

- Discontinuous CFRP property analysis and strength prediction.
- Low-LCA cyclic highspeed molding.
- ASR(Automotive Shredder Residue) plastic recycling.
- Recycled CF standardization and quasi-continuous fiber material development.

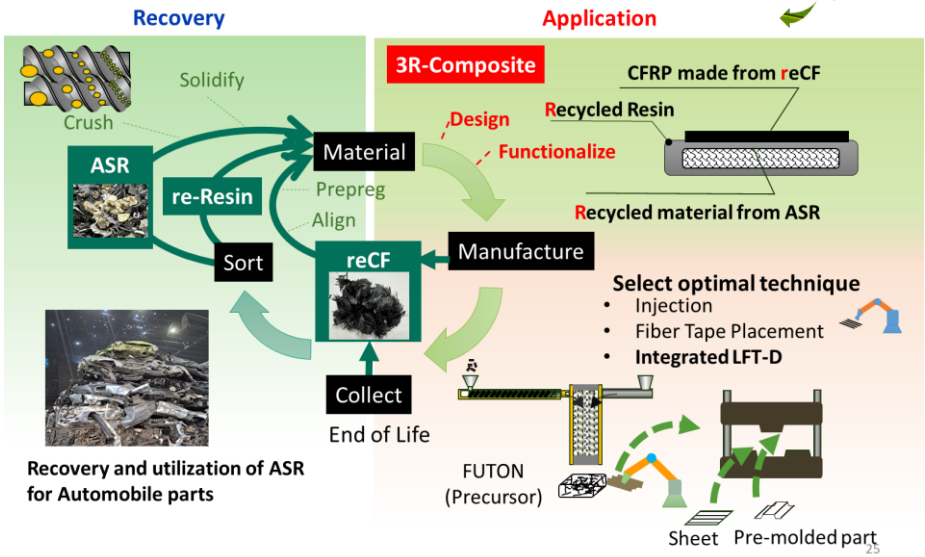
Project for Recyclable Innovative Materials Experimental Proof

nccPrime

Starting FY2023, NCC collaborates with 12 automotive industry partners on sustainable advancements. The project focuses on the **3R-Composite** concept, which combines

- ASR recycled materials
- Recycled resins
- Low-carbon recycled carbon fiber

This technology applies to various molding methods, advancing resin recycling and improving productivity through the Integrated LFT-D process.



Quasi-continuous Recycled Carbon Fibers and Application to the Airframe

To reduce weight and CO_2 in manufacturing and in flight are crucial in aviation. This project focuses on the “air to air” CFRP recycling technology from retired aircraft, development of intermediate material from recovered carbon fibers, aircraft application and demonstration of the technologies. The project is NEDO funded and collaboration among NCC, Fine Ceramics Center, SUBARU, and Jamco.