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June 16th, 2026

HOW TO EAT A 787

CARBON EATER RECYCLING TECHNOLOGY ENABLING SCALABLE & PROFITABLE COMPOSITE MATERIALS RECOVERY

by Jörg Radanitsch (CEO, Co-Founder Carbon Cleanup)
ASA AFRA Annual Conference
Four Seasons Resort & Spa in Las Vegas, NV.

ASA AVIATION SUPPLIERS ASSOCIATION

AFRA AIRCRAFT FLEET RECYCLING ASSOCIATION

THE COST OF COMPOSITE WASTE

Aviation industry increasingly faces a severe “Recyclability Problem” driven by increased composite material share in modern aircrafts (50% by weight in 787/ A350)

1) Current Reality

Reliance on landfills and incineration.

2) High Expense

Rising labor, logistics, and gate fees.

4) Safety Risks

Hazardous dust exposure (HSE).

5) Low Value Output

Shredding produces inconsistent, low-quality batches.

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HOW DO WE TRANSFORM END-OF-LIFE COMPOSITES INTO A

PREDICTABLE, HIGH-MARGIN COMMODITY?

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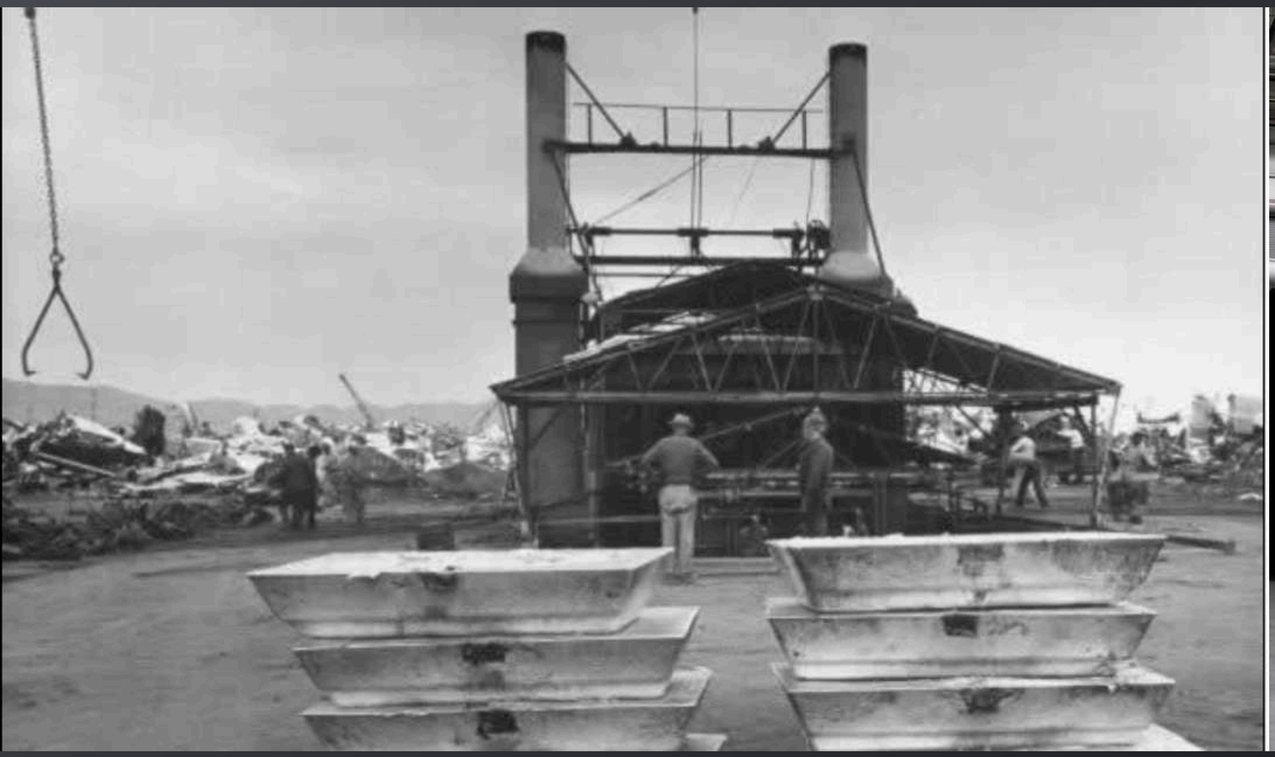
DO YOU KNOW THE WORTH OF YOUR MATERIAL?

The aluminum infrastructure works because it transformed "waste"
into a predictable, standardized, high-margin commodity.



→ We developed the CARBON EATER to produce standardized material output from composite waste.

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HQ: Traun, Austria
Founded: by Jörg Radanitsch in 2020
+20 years of experience in material science
+special machine engineering

Business Units:

- Special Machine Manufacturing
- Recycled Materials Sales
- Engineering Projects

Trusted by global brands and partners

BOEING · FACC · sgl carbon · PARAT TECHNOLOGY · KTM TECHNOLOGIES · isovolta GROUP · Lenzing Plastics · RIVIAN · CARACOL · HEXAGON PURUS · HEAD · EDAG · PEAK TECHNOLOGY · YIZUMI

Experience needed to close the loop

HEXCEL · TERRACYCLE · greiner · FH OÖ UNIVERSITY OF APPLIED SCIENCES UPPER AUSTRIA · ENGEL · Berkeley UNIVERSITY OF CALIFORNIA · WOOD K PLUS · Thermo SCIENTIFIC

Co-funded by the European Union · DE REM CO · RE CREATE · FFG Forschung wirkt. · Funded by the European Union · EuCIA The European Voice of Composites

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CARBON EATER

CARBON EATER

- ✅ Zero-emission robotic microfactory
- ✅ Dust-free
- ✅ Low-Cost Process
- ✅ Generates Predicable Output Material

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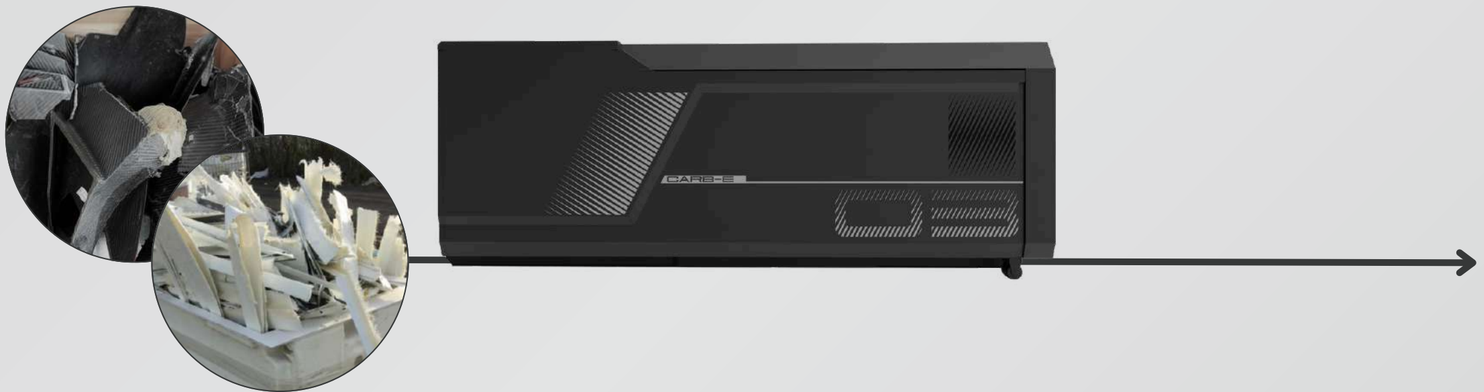
CARBON EATER MATERIAL OUTPUT

FIBER REINFORCEMENT FOR NEW PRODUCTS

1) Low CO2 Footprint
2) Standardized Quality
3) Free from contaminations
4) Fully traceable

SCRAPS &
END-OF-LIFE WASTE



Fiber reinforcement for new composite parts: panels or technical injection molded/ 3D printed parts.

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CASE STUDIES

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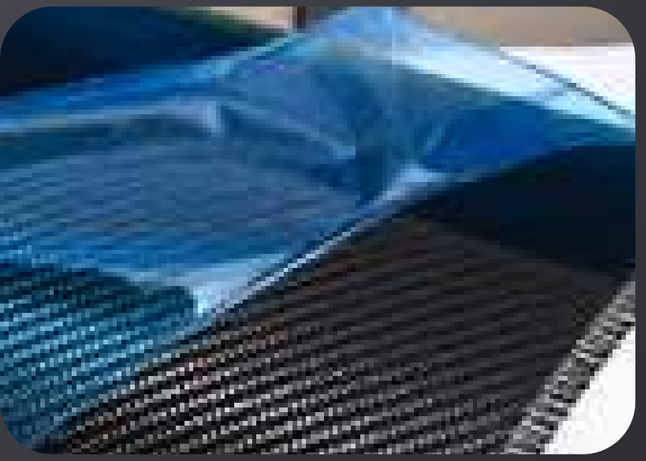
Case Study: Reuse of Materials in Aerospace

Input Material: Carbon Fiber Prepreg + LDPE Backing Film
Final Application: Access Panel (rPErCf)

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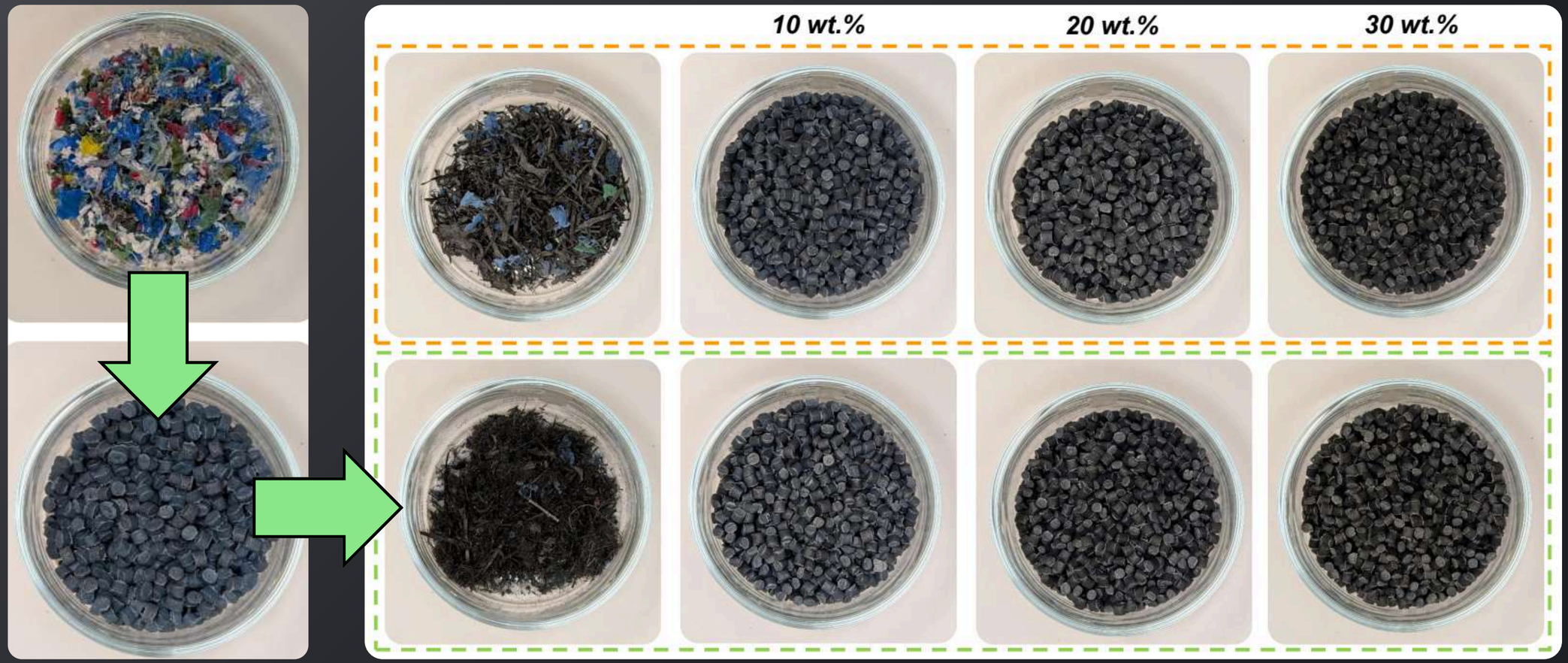
Case Study: Reuse of Materials in Aerospace



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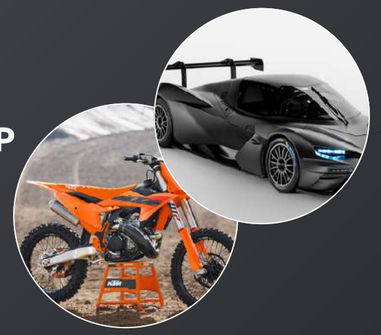
REUSE OF MATERIAL OUTPUT

KTM TECHNOLOGIES X carboncleanup

A: end-of life carbon fiber

B: end-of life PP



100% recycled Compound

break disc protection

100% Closed Loop Innovation

Partner: KTM Technologies
Waste: EOL Automotive Waste
End Product: Closed Loop Parts for Motorcycle

✅ Parts fulfill End-Of-Life Vehicle directive with the intention of using 30% end-of life materials and assuring full recoverability of the parts.

✅ Improved part performance through optimized lightweight design and reduced material consumption. (Weight Savings -80%)

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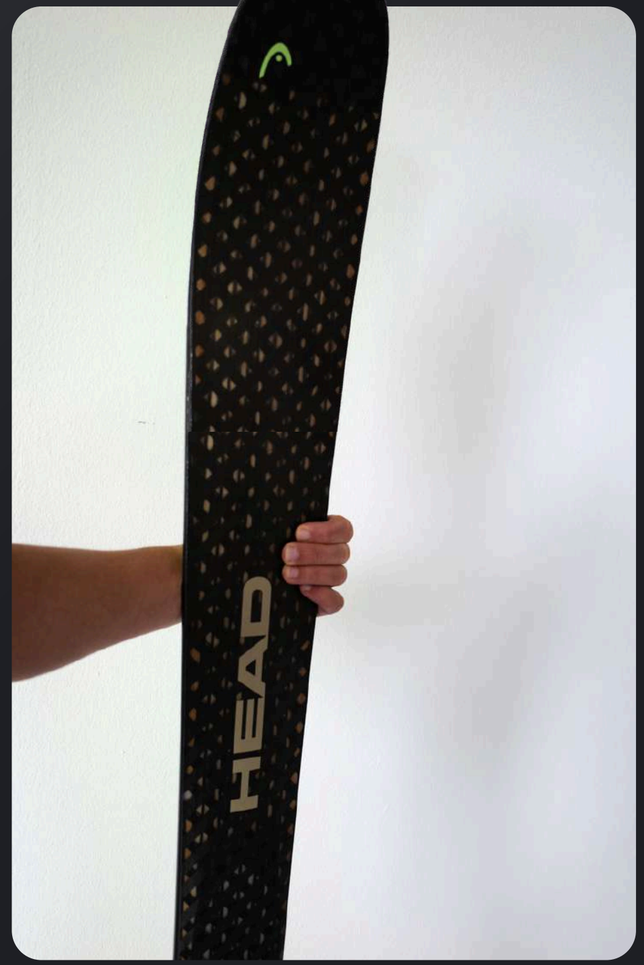
Case Study: Sports

HEAD® X carboncleanup

Partner: HEAD
Long-time Partner HEAD recycles Carbon Fiber Waste from Tennis rackets and ski accessories with carbon cleanup and reuses recycled Carbon Fiber in Injection Molded parts, replacing virgin fibers.
Material: PA6 rCF30

CO2 Footprint: -93%*
Weight Savings: -20%*
*(compared to original material: PA6GF)



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THE ECONOMICS

$0,80 USD

NEW REINFORCEMENT COST

>

$0,11 USD/ kg

PROCESSING COST

Produce ressources as cheap as 0,10 USD - 0,30 USD instead of paying for landfilling it.

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CASE STUDY: PROVING PHYSICS AND ECONOMICS WITH THE INDUSTRY LEADER

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STEP 1) MAXIMIZING MATERIAL VALUE

Composite Sandwich Panels are notoriously difficult to recycle due to the honeycomb cores and bonded skins.

Seperation of Materials:
The CARBON EATER cleanley seperates the core from the outer fiber layers.

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STEP 1) MAXIMIZING MATERIAL VALUE

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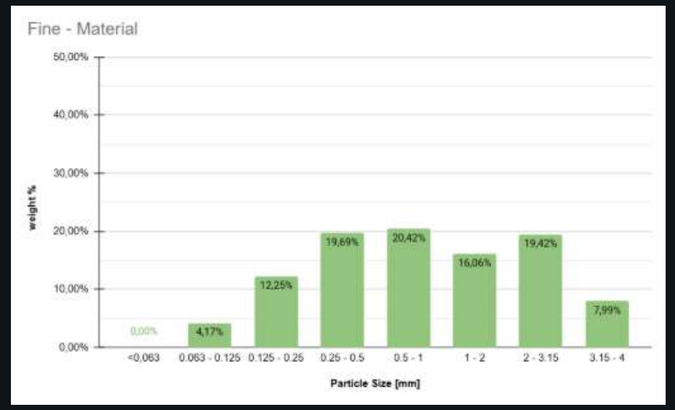
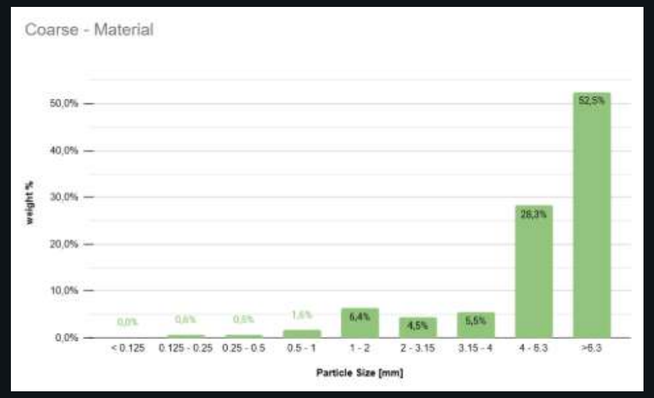
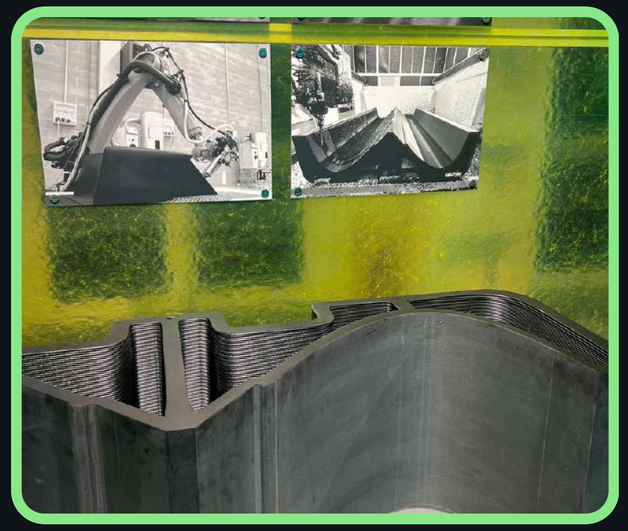
RECLAIMED MATERIAL TYPES

Material Output: Fine Fraction





STEP 2) HIGH VALUE REUSE EXAMPLE



CARBON EATER transforms complex scrap into materials ready for **existing manufacturing methods.**

By outputting a plug-and-play secondary commodity, we succesffuly enable the creation of non-flying Aerospace products, replacing virgin materials, e.g. 3D printed molds.

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ARE YOU HUNGRY?

WANT TO TURN YOUR BIGGEST LIABILITY INTO A HIGH-MARGIN COMMODITY? REACH OUT AND LET'S GET A CARBON EATER INTO YOUR WORKFLOW!

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