

AVIATION WEEK 

**HOW DOES PARTS RECYCLING BOTH BENEFIT  
AND POSE RISKS TO THE ENVIRONMENT?**

ASIA-PACIFIC



**Nandina REM**  
Aviation Traceability  
&  
CO2 Credits



Allison Nam  
CSO

# The future of supply chain is being created now.

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Significant Change to  
low carbon X-industries  
supply chain



# Business As Usual in Aviation = Environmental Risk



How does parts recycling both benefit and pose risks to the environment?

# Circularity and carbon credits is the new frontier.

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Aviation: just started to look at circularity & carbon offset

Automotive: circularity since Year 2000 to generate carbon credits

Global Emissions Regulations has created opportunity to converge the two industries

"Sustainable Aviation Fuel (SAF)  
too **Expensive**.  
**73% of carbon offsets**  
failed to deliver"



**TRANSPORT &  
ENVIRONMENT**

Integrating circular aluminium across 4  
production sites (3% of total sites) =  
**725k tCO2 avoided in 7 years =**  
**planting 32M trees in 2.8M football fields**



Sources: Transport & Environment, Volkswagen, ICAO

# Aviation supply chain challenges.

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## Supply

**8000+**

Accumulated abandoned planes in boneyards (legally)

**15k+**

Aircraft reaching the end of life in 10 years

## Demand

**7,967 | 4,928**

Airbus|Boeing Backlogs

**120 days AR &**

**16.5%pa Borrowing Rates**

Severe supply chain shortages in **labour, raw material and working capital**

# Planes flying longer drives USM demand



SOURCE : STRATVIEW RESEARCH

# New Category of Resources for EV Automotive

## Boeing 767



E2E LOGS, RECORD & CO2 TRACKING



80 TONNES ALUMINIUM  
7XX, 6XX, 5XX, 2XX



16KM COPPER  
ALLOYS, WIRING, MESH



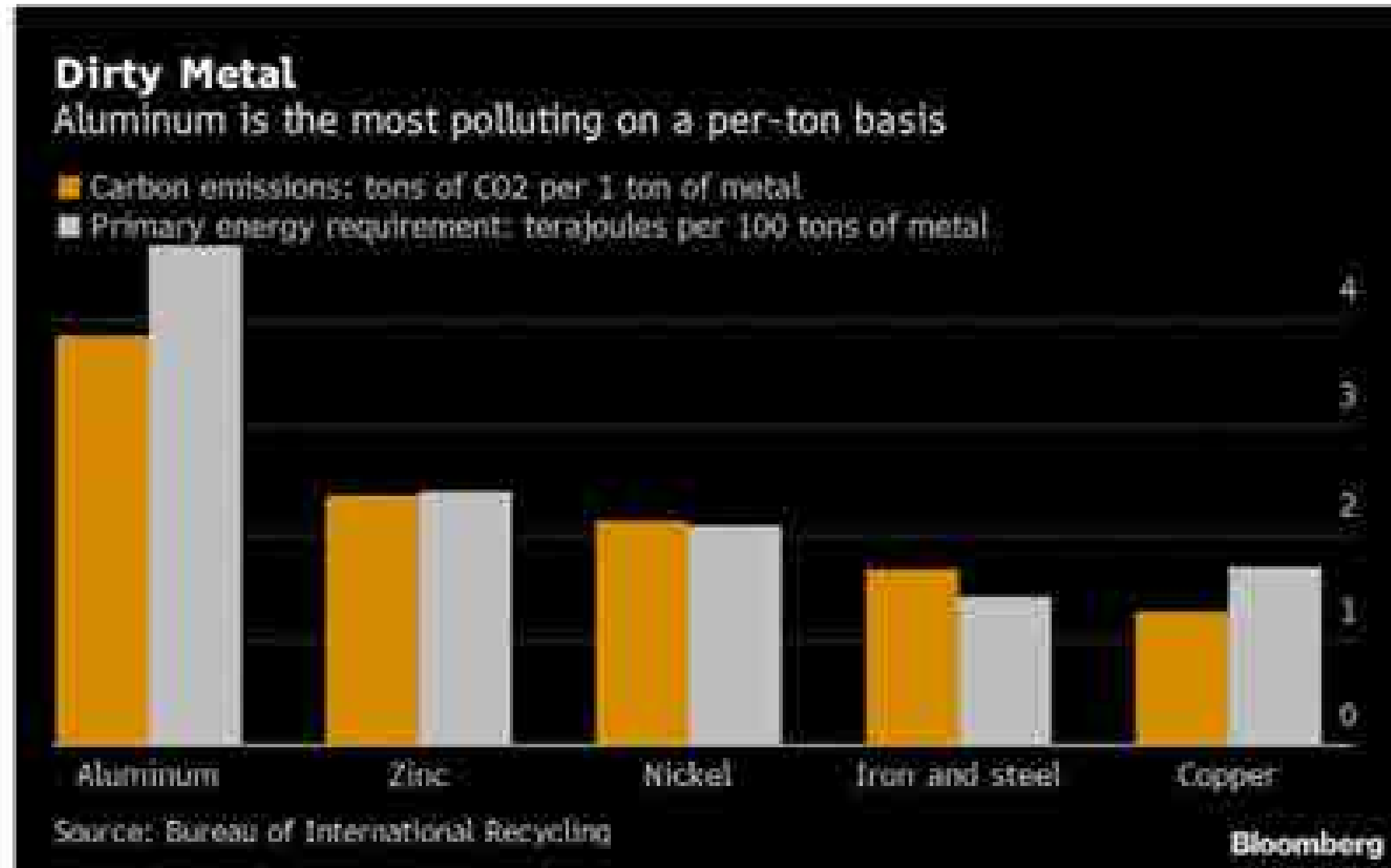
20 TONNES COMPOSITE

...& more

**GENERATE VERIFIABLE AND TRADABLE CARBON CREDITS**

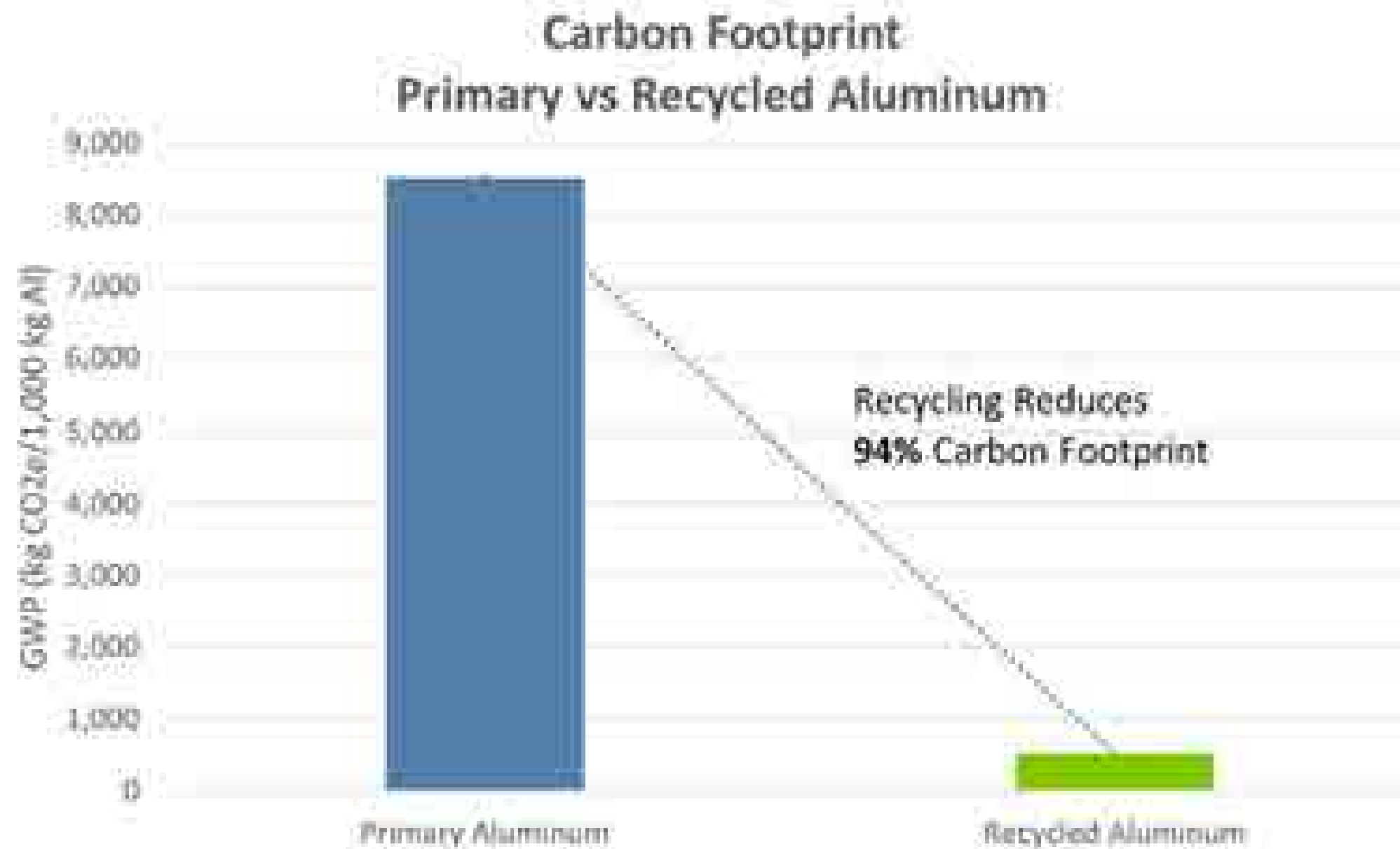


# Virgin vs Recycled what are the Environmental Impact?



Massive amounts of energy to produce raw virgin materials. Globally, virgin aluminium production contributes 4% of total emissions.

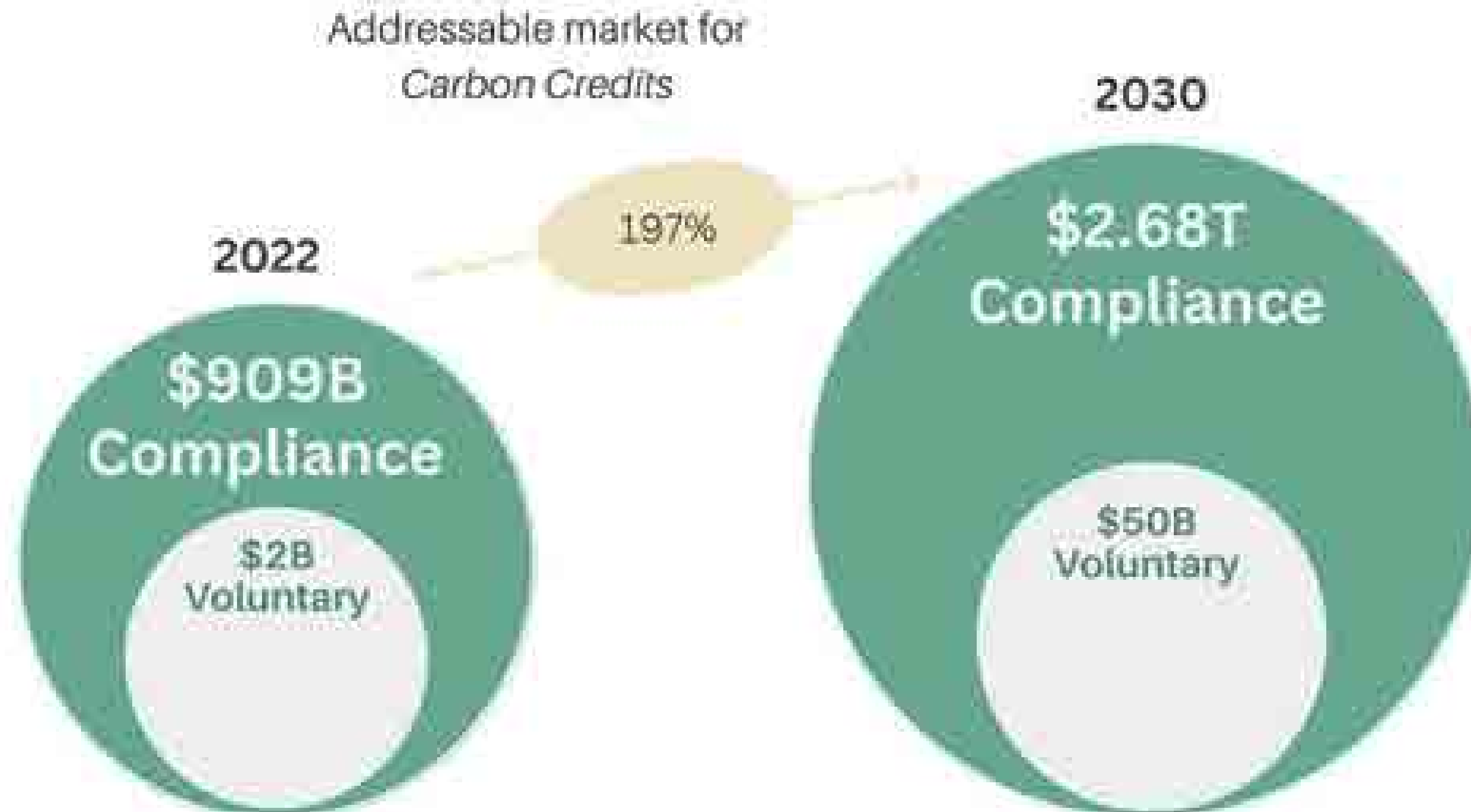
# How is recycling sustainable?



**Aluminum is one of the most recycled—and recyclable—materials in use today.**

**94% reduction in GHG emissions from production + powered by renewable energy sources = GREEN MATERIALS**

# Unlock new funding source for non-BAU retirement



Sources: Reuters, McKinsey, Financial Times

## Be Led by the "HOW"

# How to drive Aviation Traceability & Generate CO2 Credits ?

Nandina REM technology: digitalise asset lifetime, captures proof points of CO2 emission avoidance and provides financial ROI forecast, while integrating their knowledge into our global database.

Upstream  
Manufacturer,  
Suppliers  
& Airlines



Manufacturers 



Airlines




Asset Owners



Tier 1 - n Suppliers 

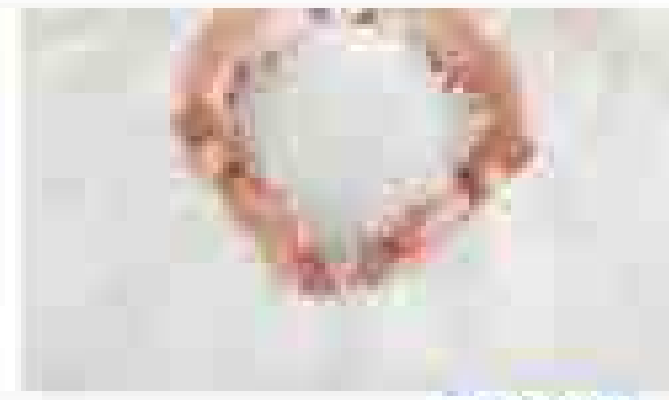
Downstream  
Reprocessors  
& Automotive




Aluminium  
Reprocessor 




Non Ferrous  
Reprocessor 



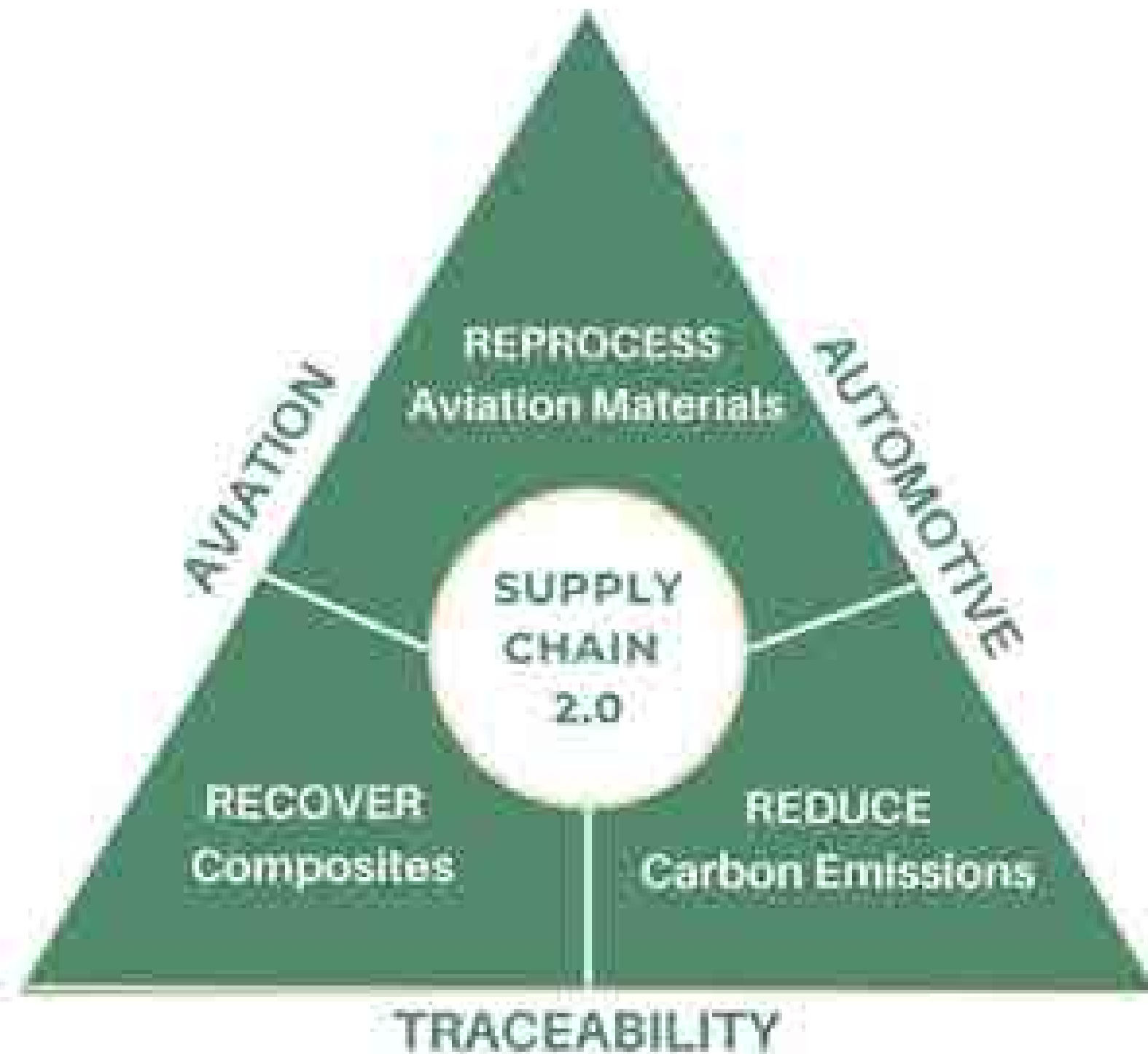
Plastic Resin 



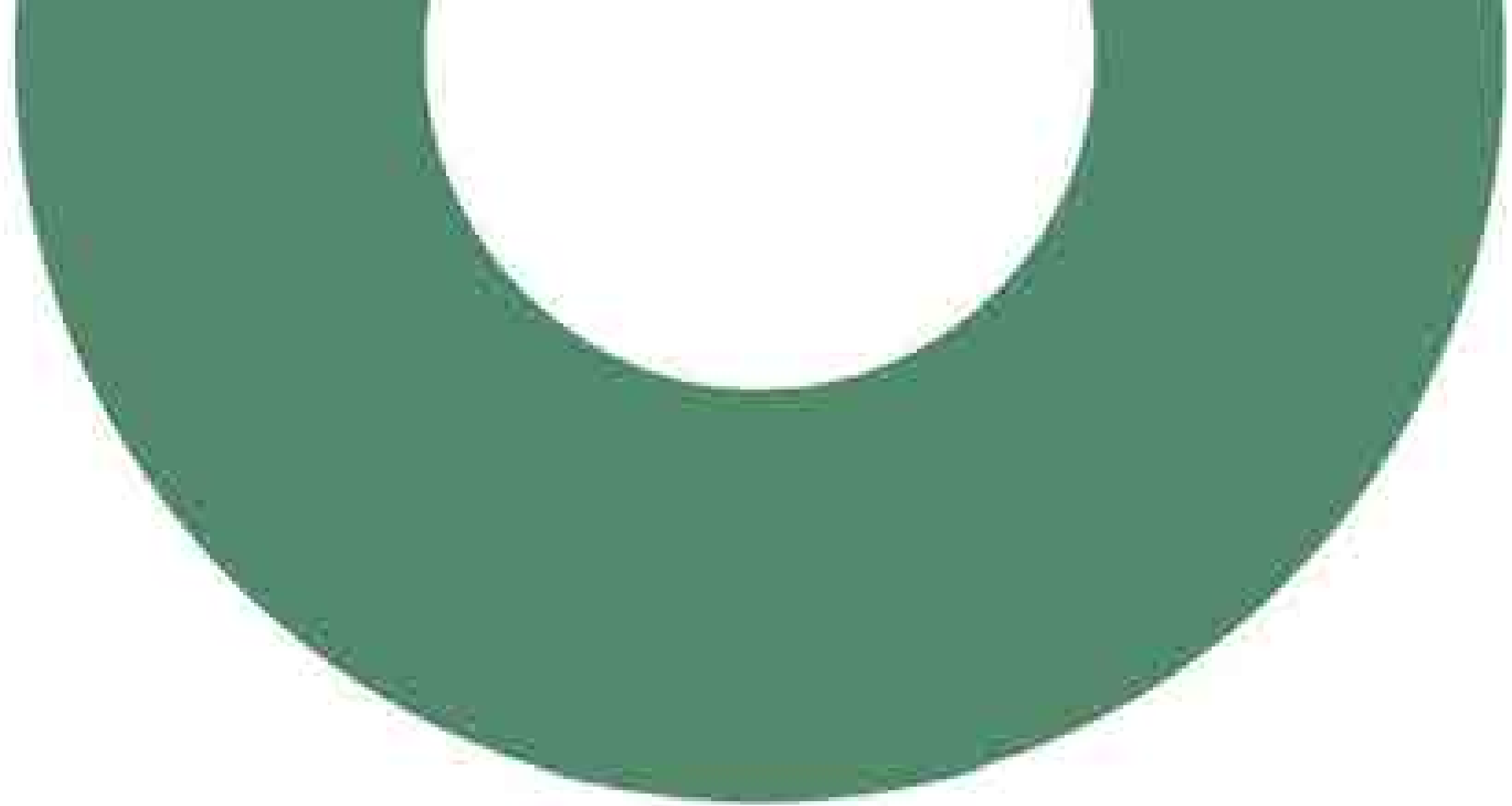
Automotive 

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Join us in creating the new  
**AVIATION GREEN Economy**  
with decommissioned asset.



**THANK YOU**

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