The International Aluminium Institute has undertaken its annual Material Flow Model update, looking back at almost 70 years of historical data from mining to product, recycling and trade for nine regions and globally.

**2019 GLOBAL RESULTS**
- **33 million tonnes** Modelled recycled production (excluding alloying elements added at the remelting plant)
- **64 million tonnes** Primary production: tapped electrolytic metal
- **95 million tonnes** Reported global semis shipments – 50% more than in 2010

**POST-CONSUMER SCRAP**
Since 1990, post-consumer scrap availability from end-of-life products has surpassed pre-consumer scrap.

There was a record **20 million tonnes** of post-consumer scrap intake in 2019 – representing about 60% of scrap intake – equivalent to saving 300 million tonnes of greenhouse gas emissions.

**Global scrap intake (Mt)**
- **20 Mt, 60% of scrap intake**

...and 20% of global sourced material for aluminium production.

**Global sourcing (Mt)**
The biggest post-consumer scrap intake in 2019 came from used packaging (rolled products).
**PRE-CONSUMER SCRAP**
Pre-consumer scrap – stagnated in 2019 due to flat aluminium consumption from 2018 to 2019.

Of these 14 million tonnes:
- 51% was sheet and foil
- 27% was extrusion scrap
- 16% was castings

**GLOBAL OUTLOOK**

80%

Global demand for aluminium is expected to increase by 80% by 2050, due to rapid population and economic growth and the drive for sustainable solutions for a low-carbon society. This demand could be met by a 50/50 balance of recycled and primary metal, based on 2019 collection rates for end-of-life products.

**FUTURE SCENARIOS**
The 2021 update includes two scenarios with data to 2050.

1. **The 2021 IAI REFERENCE SCENARIO** - an update to the 2020 IAI Reference Scenario using additional data.

2. **The 2021 HIGH DEMAND SCENARIO** (based on CM Group), which uses the growth rates based on CM Group aluminium demand research.

**FIND OUT MORE**
The International Aluminium Institute’s Material Flow Model update has been published on Alucycle. The 2021 update includes a complete historical dataset for 2019, and a 2020 partial dataset, including primary aluminium production, alumina production, inventories, regional semis shipments and trade of bauxite, alumina, aluminium, semis, final products and scrap. Visit Alucycle.