Sustainability thought through to the end: Cradle to Cradle®

Exploring new avenues to drive forward recycling – this is another of REMONDIS’ strengths. Which is why we support the Cradle to Cradle® design concept which calls for products to be manufactured in such a way that all their components can be processed and/or recycled without any loss in quality.

Biological Cycle
- For products of consumption

Technical Cycle
- For products of service

Cradle to Cradle® is a registered trademark of McDonough Braungart Design Chemistry, LLC
Figures to be proud of – the input & output volumes at REMONDIS’ Lippe Plant

Our plant in the German town of Lünen is both our company’s head office and a centre of technology. Every year, 800,000 tonnes of recycled materials are produced from waste at this site alone – helping to cut carbon emissions by 466,000 tonnes.

- **Output**: 221,000 MWh energy
- **Input from external companies**: 1,034,000t
- **Internal circulation of materials**: 64,000t
- **Production-related losses**: 158,000t
- **Output to external companies, materials recycling**: 38,000t
- **Output to external companies, energy recovery**: 6,000t
- **Input from external companies [t]**
- **Internal circulation of materials [t]**
- **Production-related losses [t]**
- **Output to external companies, materials recycling [t]**
- **Output to external companies, energy recovery [t]**
- **Internal use of produced energy [MW]**
- **External use of produced energy [MW]**

**Output**
- **406,000t raw materials**
  - **64,000t** biomass (industries, power plants, etc.)
  - **45,000t** metals (Fe, non-Fe), glass, plastics, wood, etc.
  - **35,000t** plastics (granulates incl. AlphaHH, RADDIPUR, RADDIPOR)
  - **191,000t** process-related water loss due to drying stages
  - **285,000t** FGD & chemical gypsum
  - **74,000t** organic waste, plant & tree cuttings, other
  - **130,000t** old wood, screening residue
  - **56,000t** animal fat, auxiliary/raw materials
  - **9,500t** diverse primary products
  - **87,000t** diverse primary products, such as waste alkaline solutions, aluminium hydroxide, waste acids
  - **107,000t** slag
  - **35,000t** e-waste
  - **20,000t** waste plastics

**Input**
- **1,034,000t from external companies**
  - **6,000t** air pollution control system (APCS) gas generation
  - **51,000t** composts/biomass
  - **5,000t** landfill
  - **6,000t** wastewater treatment
  - **100,500t** white pigment (paint/plaster industry, paper industry)
  - **38,000t** wood processing
  - **94,000t** process-related water loss due to drying stages
  - **72,000t** animal carcasses, raw materials
  - **9,500t** diverse primary products
  - **87,000t** diverse primary products, such as waste alkaline solutions, aluminium hydroxide, waste acids
  - **107,000t** slag
  - **35,000t** e-waste
  - **20,000t** waste plastics

**Output to external companies, energy recovery**
- **189,000 MWh** energy
  - **13,000t** metals slag recycling
  - **10,000t** metal recycling
  - **10,000t** metal recycling

**Output to external companies, materials recycling**
- **64,000 MWh** energy
  - **12,000t** rendering plant
  - **7,000t** plastic recycling
  - **1,000t** plastic recycling
  - **1,000t** plastic recycling

**Input to external companies**
- **189,000 MWh** energy
  - **12,000t** production of sodium aluminate
  - **12,000t** production of white minerals
  - **158,000t** production of biodiesel
  - **13,000t** plastics recycling
  - **1,500t** plastic recycling
  - **4,000t** composting plant material
  - **45,000t** plastic recycling
  - **1,000t** plastic recycling
  - **5,000t** plastic recycling
  - **1,500t** plastic recycling
  - **5,000t** plastic recycling
  - **10,000t** mineral recycling plant
  - **38,000t** fluidised bed power plant
  - **3,500t** biomass-fired power plant
  - **64,000t** biogas
  - **3,500t** biomass-fired power plant
  - **64,000t** biogas

**Additional Information**
- A further approx. 400,000t of different materials are moved between the on-site facilities.