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Value from waste

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Denso

The following case study is paraphrased from National Industrial Symbiosis Programme's (NISP) [Pathway to a low carbon sustainable economy \(PDF\)](#).

The Challenge

DENSO Manufacturing UK produces automotive air conditioning units and engine cooling systems for the automotive industry. Potassium Aluminium Fluoride was generated as hazardous waste by this manufacturing process, which was costing the company £30,000 per year to dispose of.

The Solution



The NISP network brought DENSO together with Mil-Ver Metals, a producer of aluminium alloy at the forefront of aluminium recycling in Europe.

Mil-Ver Metals now collects the 15 tonnes per year of hazardous material from Denso and reprocesses it to produce aluminium ingot, which is then sold on and used to manufacture high quality alloy wheels.

The Results

- Hazardous waste diverted from landfill: 15 tonnes per year.
- Cost savings: £30,000 per year

External links

DENSO - [Environmental and Social Report 2009/10 \(PDF\)](#)

NISP Network case study provided courtesy of [International Synergies Limited](#).

Sekisui Alveo

The following case study is paraphrased from National Industrial Symbiosis Programme's (NISP) [Pathway to a low carbon sustainable economy \(PDF\)](#).

The Challenge



Sekisui Alveo produces foam products for the automotive sector. Trim materials that had been through the cross-linking process could not be re-used so had to be compacted and land-filled.

The Solution

The NISP network brought Sekisui Alveo together with Globally Greener Solutions, who use the waste material to produce panels for houses.

The Results

Globally Greener Solutions is now reprocessing up to 400 tonnes of plastic material that is sold into the market per year, while Sekisui is saving on disposal costs and improving its environmental performance and resource efficiency.

- Cost savings of £25,000 per year.
- Carbon dioxide reduced: 6,389 tonnes per year
- Landfill diverted: 500 tonnes per year.

- Virgin materials saved: 500 tonnes per year.

External links

Sekisui Alveo [website](#)

[NISP Network](#) case study provided courtesy of [International Synergies Limited](#).

Terra Nitrogen (UK)

The following case study is paraphrased from National Industrial Symbiosis Programme's (NISP) [Pathway to a low carbon sustainable economy \(PDF\)](#).

The Challenge

Terra Nitrogen (UK) manufacture ammonia, which generates 12,500 tonnes of carbon dioxide per year.

The Solution



The NISP network brought Terra Nitrogen together with John Baarda Ltd, who grow tomatoes. The carbon dioxide generated by Terra Nitrogen is now pumped into a greenhouse where it boosts plant production by up to 50%. Steam from the Terra nitrogen site is also being used to heat the greenhouse. This ensures crop production is cost effective throughout the winter, which eliminates 'air miles' associated with importing tomatoes from Spain during the colder months.

The Results

- Carbon dioxide reduced: 12,500 tonnes per year
- Jobs created: 80

[NISP Network](#) case study provided courtesy of [International Synergies Limited](#).

MBA polymers

The Challenge

Traditional plastics recycling produces low-value plastic, because damage to the molecular chain length compromises the material's performance. Therefore, high-value plastics used in durable consumer goods are typically produced from crude oil, with 0% recycled content.

The Solution



MBA Polymers has spent 20 years refining its plastic recycling process, which enables it recover high-value plastic from consumer goods and produce a recycled plastic that is almost identical to the virgin equivalent.

The Results

- 175,000 tons materials processed each year, diverted from landfill or incineration.
- 80 per cent of the energy and 1-3 tonnes of CO2 saved for each tonne of virgin plastics MBA replace.

Source: [MBA polymers press release](#).

External links

- [MBA Polymers website](#)
- MBA polymers [Applications for EvoSource™ plastics](#)

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