



# Board waste finds new energy solution

“ We pride ourselves on our environmental credentials, but had struggled to find a sustainable disposal route for one particular waste. NISP’s input solved the problem, and saved us money. ”

Philip Hide, Environment Manager  
Sonae Industria (UK) Limited

## THE CHALLENGE

Sonae Industria (UK) Limited’s Wet Electrostatic Precipitator (WESP) abatement process results in 2,000 tonnes per year of a waste product known as ‘WESP crumb’.

The material was previously sent to landfill, but since this option conflicted with Sonae Industria (UK) Limited’s sustainability policy, the company was looking for a more environmentally friendly means of disposal.

## THE SOLUTION

Avanti Environmental Group Ltd was able to collect and dispose of the material for use as a fuel in a renewable energy plant. This not only provided a more sustainable option but also generated significant cost savings for Sonae Industria (UK) Limited.

## RESULTS

- The synergy resulted in the diversion of 2,000 tonnes of material from landfill, with an associated CO<sub>2</sub> reduction of 555 tonnes.
- An annual cost saving of £70,000 is anticipated.

## COMPANY BACKGROUND NISP INTERVENTION

Sonae Industria (UK) Limited is based in Knowsley and manufactures high quality particleboard for use in the furniture and construction industries. Sustainability is a key foundation of the business and reprocessed wood waste makes up 98 per cent of the company’s raw feedstock.

Avanti Environmental Group Ltd operates out of 3 facilities in Knowsley; Charleywood Road site operating waste transfer & treatment and packaging provision & recycling, from where it manages a wide range of waste stream collections including both hazardous and non hazardous material which is sent for the best recovery/recycling options available UK and Europe-wide. Kitling Road site is a full recycling facility for plastics/paper/cardboard and other recyclates and Avanti Environmental Group Ltd also runs a UN testing facility for IPAK and IBC containers and also has a full recycling centre in Scotland and an extensive Environmental services division UK-wide.

Sonae Industria (UK) Limited and Avanti Environmental Group Ltd had previously worked together on the disposal of the ‘WESP crumb’, but new contacts were brought together at a NISP synergy workshop.

Following this introduction Avanti Environmental Group Ltd explored various disposal alternatives and raised the possibility of sending the waste for incineration to generate energy and subsequent trials proved very successful. Throughout, NISP facilitated the partnership between the two organisations and provided support.

# About NISP

## CONNECTING INDUSTRY, CREATING OPPORTUNITY

NISP is an industry-led business opportunity programme. It uses the industrial symbiosis approach to link industrial processes at source to facilitate sustainable production. NISP also identifies mutually profitable transactions between businesses so that under used resources such as energy, water and/or materials from one can be recovered, reprocessed and re-used by others elsewhere in the industrial network.

## DRIVEN BY BUSINESS

NISP is unique in that it is demand-led by industry, responding directly to the needs of business, whatever sector that may be. It is nationally co-ordinated and regionally delivered throughout the UK. Each of the 12 regional teams works closely with a Programme Advisory Group (PAG) comprised of key industry representatives relative to the area and who give their time and expertise on a voluntary basis. The group assists the regional teams to ensure the programme's direction is relevant for each region. PAG members include representatives from Shell UK, Arla Foods, Ricoh Products, Birse Civils, Veolia Environmental Services and Lafarge Cement.

## FREE MEMBERSHIP

NISP is publicly funded so membership is free for all businesses, regardless of size, turnover or sector. NISP has over 13,500 member companies including corporates such as Shell UK and Lafarge Cement, and entrepreneurs, micros and SMEs (which make up over 90% of NISP's membership).

## OUR RESULTS

All of NISP's outputs have been externally verified. Between April 2005 and March 2010 NISP helped its members:

	In-year benefits	Lifetime benefits*
<b>Cost savings to business</b>	£148 million	£780 million
<b>Additional sales to business</b>	£163 million	£880 million
<b>Landfill diverted</b>	6.7 million tonnes	35 million tonnes
<b>CO<sub>2</sub> reduction</b>	6 million tonnes	30 million tonnes
<b>Virgin material saved</b>	9.4 million tonnes	48.5 million tonnes
<b>Hazardous waste eliminated</b>	371,000 tonnes	1.8 million tonnes
<b>Water savings</b>	10.5 million tonnes	47.8 million tonnes

\*Lifetime benefits are based on NISP's experience that a synergy providing benefits will continue to deliver the same level of benefit in the subsequent years based upon the rational expectation that the participating companies will continue with the synergy. For example a synergy delivering 100 tonnes of CO<sub>2</sub> savings in year 1 will deliver 500 tonnes of CO<sub>2</sub> reduction over a lifetime of five years.

NISP is devised and managed by International Synergies Limited and remains the world's only national industrial symbiosis programme. NISP is one of only five Europe-wide initiatives to have been awarded Eco-Exemplar status by the European Commission through its Environmental Technologies Action Plan.



Material change for a better environment

NISP is funded by WRAP to provide industrial symbiosis support to businesses in England.

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