Befesa, a new home for Waste Foundry Sand

Organisations involved: Befesa Salt Slags Limited, Various Foundries

The Challenge
Through links with the Cast Metal Federation, numerous local foundries contacted NISP West Midlands for assistance in identifying alternative and sustainable ways to reuse spent foundry sand, a waste product of their process. Befesa Salt Slags operate a purpose built facility to treat waste streams produced by the primary, secondary and associated aluminium and iron industry sectors. Over the last few years as the capacity of the plant increased the decision was made to look at other waste streams that were being generated within the foundry industries on the basis of offering an alternative to landfill.

The Solution
NISP have facilitated the relationship between Befesa Salt Slags Limited and numerous foundries within the West Midlands region. The Befesa factory was commissioned in 1998 and is recovering on an annual basis 4000 tonnes of aluminium concentrate with a liquid metal yield of 3-3500t, the re-crystallisation of up to 18000t of salt, which is a mixture of potassium and sodium chloride for reuse within the industry and also as a fertilizer, and the remainder of the mass balance being made up of alumina / aluminium oxide suitable for the aggregate, cement and brick industries. Prior to 1998 the vast majority of these valuable materials were being disposed of to landfill. By way of NISP introducing the foundries to Befesa, deals have been agreed which has resulted in over 10,000 tonnes of material being diverted away from landfill, and into alternative outlets.

The Results
- Additional Sales: £200,000.00
- Businesses Assisted: 4
- CO2 Reduction: 1,020
- Cost Savings: £300,000.00
- Landfill Diverted: 10,000
- Virgin Materials: 10,000

“The assistance from NISP in introducing Befesa to potential customers, and the technical backup, especially connected to environmental issues since then has been vital.”

Ben Arrowsmith
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About NISP

Connecting Industry, Creating Opportunity

NISP is a business opportunity programme which develops mutually profitable links between companies from all industrial sectors so that under used resources such as energy and water, and/or materials from one company can be recovered, reprocessed and re-used by others.

The programme uses actual business opportunity as the mechanism for encouraging resource efficiency and its holistic approach sees it actively dealing with ALL resources including water, energy, materials, logistics, assets and expertise.

NISP is the world’s only national industrial symbiosis programme, and its success here in the UK demonstrates that industrial symbiosis has the potential to significantly reduce industrial and commercial waste and comprehensively lessen the adverse environmental impacts of business.

Driven by Business

NISP is unique in that it is a business-led programme, responding directly to the needs of business, whatever sector that may be. It is delivered via 12 regional offices throughout the UK, each of which works with a business advisory group comprised of key industry representatives. This group assists the regional offices to ensure the strategic direction of the programme is right for each respective region.

Free Membership

NISP is funded through Defra’s funding for business resource efficiency, the Scottish Government, Welsh Assembly Government, Invest Northern Ireland and selected regional development agencies. Because of the way that it is funded, membership of NISP is FREE for all UK businesses, regardless of size, turnover or sector. 10,000 companies are already working with the programme. These include companies such as Shell UK and Lafarge Cement, as well as entrepreneurs and SMEs (which make up over 80% of NISP’s membership).

Partnerships with Purpose

Developing partnerships with purpose is a contributing factor to the continuing success of NISP. The Environment Agency, Resource Efficiency Knowledge Transfer Network, and the Local Government Association each share a unique working relationship with NISP. The programme also works closely with a host of industry trade associations and organisations such as the Chartered Institute of Waste Management and the Institute of Environmental Management and Assessment.

Our Results

In its first three years (April 2005–June 2008) NISP helped its members achieve significant economic and environmental results, including:

- Generating £136 million additional sales in industry
- Saving businesses over £108 million
- Attracting £111 million in private investment
- Diverting 3.8 million tonnes of business waste from landfill
- Reducing CO₂ emission by 4.5 million tonnes
- Creating nearly 800 jobs and safeguarding over 1,200 others
- Reducing industrial water use by 9.2 million tonnes

www.nisp.org.uk

NISP
NATIONAL INDUSTRIAL SYMBIOSIS PROGRAMME