



Project Information Sheet

Sensor-sorting Automated Technology for advanced Recovery of Non-ferrous metals from waste (SATURN)

Programme area:	First Application and Market Replication Projects, Recycling
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Website:	www.saturn.rwth-aachen.de
Benefits (max. 150 characters incl. space):	Reduction of CO2 emissions Conservation of resources of non-ferrous metals Minimizing toxic waste streams Extension of value-added chain in EU
Keywords:	Non-ferrous metals, recycling, sensor based sorting
Sector:	E38.2.1 - Treatment and disposal of non-hazardous waste E38.3.2 - Recovery of sorted materials
Type of solution	Product, process, technology, eco-balance
Duration:	03/08/2009 – 30/04/2012
Budget:	€ 1.649.322 (EU contribution: 48,1 %)
Contract number:	ECO/08/239051/SI2.534294

Summary

The SATURN project focuses on the demonstration of enhanced recovery of non-ferrous metals from waste using sensor-based sorting technology. Starting in August 2009, a pilot plant will be installed and demonstrated in Salzgitter, Germany and in operation in October 2009. This innovative sensor sorting process will be tested and optimised under real market conditions evaluating waste from different EU countries.

Europe faces changes in waste legislation, requiring a pre-treatment (incineration or bio-mechanical treatment) step before final disposal in EU member states. Current separation methods rely mostly on manual sorting taking place outside Europe resulting in the loss of these resources. The SATURN process will demonstrate effective separation of non-ferrous metal fractions including aluminium or copper. By establishing and demonstrating a cost effective process through the SATURN project, advanced sorting can take place in the EU, increasing both European added value and energy efficiency by improved recycling rates. In addition, it will provide waste sorting companies with an effective sorting technology to reach the new targets set by the EU in waste legislation.

Expected and/or achieved results

- Establishment of a pilot plant that is able to produce non-ferrous metal products with high purities.
- Increased chain of added value in the European recycling sector.
- Enhancement of the energy efficiency in the production of items made of non-ferrous metals.
- Implementation of sustainable development / Sustainable management of resources.



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