ECOPHOS

Project ID: 13359
Funded under: FP6-INCO

Waste utilisation in phosphoric acid industry through the development of ecologically sustainable and environmentally friendly processes for a wide class of phosphorus-containing products

From 2005-12-01 to 2008-11-30

Project details

| Total cost: | EUR 1 528 429 |
| EU contribution: | EUR 1 025 000 |
| Coordinated in: | Greece |

Topic(s):
- INCO-2003-D1 - Environmental protection
- INCO-2003-D2 - Adjusting the system of industrial production and communication

Call for proposal:
- FP6-2003-INCO-FP6-2003-INCO-RUSSIA+NIS-1
- See other projects for this call

Funding scheme:
- STREP - Specific Targeted Research Project

Objective

ECOPHOS involves the development of a new research and innovation strategy for the waste minimisation and utilisation in the phosphoric acid industry. The main aim is the development of ecologically sustainable, environmentally friendly, resource and energy saving industrial process technology for the production of a wide class of phosphorus-containing substances. The project focuses on new technologies for (a) the production of useful phosphorous salts (fodder, food and pharmaceutical phosphates), phosphoric acid and phosphates in a cost efficient and ecologically sustainable way, (b) the improvement of existing methods in the phosphoric acid production for the drastic minimisation of waste, (c) the utilisation and processing of industrial solid waste from the production of phosphoric acid and (d) the production of a new generation of phosphoric fertilizers. Mathematical models and computer-aided process engineering tools guarantee the efficient and sustainable operation of the production systems with key objectives the reduction of cost, waste and energy. The new technological advancements will be accommodated in an information system for easy access and utilisation. The newly developed production systems will be classified with respect to both the waste properties and the environmental and sustainability potentials. An expert system will assist the user to select the appropriate production scheme according to the needs and particular specifications. The new methodology will be validated and in future exploited by two major industrial end users one from the EU and one from the NIS.

Related information

- Result In Brief
  - Sustainability in the phosphoric acid industry

- Report Summaries
  - Final Report Summary - ECOPHOS (Waste utilisation in phosphoric acid industry through the development of ecologically sustainable and environmentally friendly processes?)
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Subjects
Coordination and Cooperation - Environmental Protection - Industrial Manufacture - Telecommunications

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