Eco-innovation in steelmaking: a new system for 100% recycling of electric-arc furnace slag

SLAG-REC

The SLAG-REC project aims at realising a new system for slag recycling and also introducing it to the market through a mix of market preparation activities targeting electric-arc furnace operators in Europe. The project activities will be executed through the strategic collaboration of three partner enterprises: the steelmaker (inventor and first applier of the new system), the engineering specialist and the machinery constructor. The output of the innovative slag treating system is a product which can perfectly substitute the actually used natural sand and gravel – not renewable natural resources - for example in road construction without any risk of swelling. By use of this system an enormous quantity of slag deriving from steelmaking can be saved from simple dumping - in Europe 12 million tons/year are actually dumped! - by transformation in a re-usable prime material.

Benefits

An innovative system can transform electric-arc furnace slag in a re-usable prime material to be used for example in road construction.

Results

- By the end of the project the expected results are: 1)the first applied system constructed and validated in ASO Siderurgica Srl; 2)a business model for European electric-arc furnace operators which analyses the costs and benefits of the investment in the new system.
- On the long run: 1)minor use of natural resources for road construction and their substitution with recycled EAF slag; 2)minor quantity of electric-arc furnace slag dumped and minor costs of slag handling; - greener steelmaking sector.

Partners and coordinator

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<thead>
<tr>
<th>ASO Siderurgica Srl [1]</th>
<th>Italy</th>
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<td>Cabra Engineering S.r.l. [2]</td>
<td>Italy</td>
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<td>MaschinenFabrik Liezen und Giesserai Ges.m.b.H. [3]</td>
<td>Austria</td>
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Contact

ASO Siderurgica Srl
Contact point

Name: Roberti, Roberto
E-mail: r.roberti@aso.it
Tel: +39-030-6841011

Budget

Overall budget: 1.366.935,00 € (EU contribution: 43,00 %)

Key documents

  PDF 2.24 MB
- Project Fact File [5]
  DOC 366 KB

In brief

Sector: Recycling
Duration: 27/06/2009 to 26/06/2011
Contract number: ECO/08/239025

Tags:
  dairy
  recycling

Related projects

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- AGRIPORT [8] Agricultural Reuse of Polluted Dredged Sediments
- BIOLIX [9] Bio-hydrometallurgical beneficiation of non-ferrous concentrate from...
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- RECYCLEDPALLETSYSTEM [12] Closed loop pallet system - production, implementation and recovery of...
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• [SUPERTEX] [36] Sustainable Flame Retardant Technical Textile from Recycled Polyester
• [T4T] [37] Textiles for Textiles
• [THE DIAPERS PROJECT] [38] THE DIAPERS PROJECT - A ZERO EMISSION GREEN PLANT
• [TWINCLETOES] [39] Tyre Wire in Concrete Leading to Environmental Sustainability
• [RECTYRE] [40] USED TYRES VALORISATION AS LIGHTWEIGHT FILLER FOR EMBANKMENTS
• [WS-REC] [41] WS-REC - DESIGN AND CONSTRUCTION OF A WINDSCREEN RECYCLING LINE


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