Agricultural Reuse of Polluted Dredged Sediments

AGRIPORT

AGRIPORT demonstrates the environmental and economic benefits of innovative phyto-treatment processes to recycle slightly polluted dredged sediments from ports into reusable soil. The project has a high replication potential in the EU and the Mediterranean area as it offers an eco-sustainable alternative to the current expensive methods for treatment and disposal of dredged sediment. The end product is land that can be employed for gardening, environmental restoration of degraded areas and landscaping. The AGRIPORT consortium includes a university, two research centres, three engineering consultants, one port authority and one company specialised in environmental restoration, located in Italy, Israel and Montenegro. Through its three years duration AGRIPORT will optimise the decontamination method and commercialise the process and the recycled soil to port authorities and end-users in Europe and the Mediterranean region. Two pilot applications will be conducted in the ports of Livorno (Italy) and Kishon (Israel). The quality of recycled soil will be validated and a plant nursery will be installed to identify best crops for the treated sediment.

Benefits

Eco-sustainable and economical solution to recycle slightly polluted dredged sediments from ports into reusable soil using phyto-remediation process.

Results

- Optimisation of the process to decontaminate dredged sediments using plants (phyto-treatment) and the identification of crops suitable for growth in the recycled land.
- Reduction of costs for treating the dredged sediment from ports and production of a revenue generating good, land reusable for gardening, environmental restoration and landscaping.
- Estimated 1% of the European/Mediterranean market reached within 2 years after the end of the project. This means some 300.000 m3 of polluted sediment, representing a potential turnover of 9 million €.
- Future uptake of the AGRIPORT process to treat around 30 million m3 (or 20%) of the average 150 million m3 of contaminated sediments dredged yearly in Europe.
- Creation of job opportunities in the sectors related to the AGRIPORT process and product (e.g. design and monitoring of treatment sites; chemical and biological laboratory, monitoring of remediation and recycling processes, etc).

Partners and coordinator

SGI Studio Galli Ingegneria SpA [1]  Italy
<table>
<thead>
<tr>
<th>Organization</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONSIGLIO NAZIONALE DELLE RICERCHE</td>
<td>Italy</td>
</tr>
<tr>
<td>CODRA Mediterranea S.r.l.</td>
<td>Italy</td>
</tr>
<tr>
<td>D'Appolonia S.p.A.</td>
<td>Italy</td>
</tr>
<tr>
<td>DFS Montenegro ENGINEERING</td>
<td>Montenegro</td>
</tr>
<tr>
<td>Livorno Port Authority</td>
<td>Italy</td>
</tr>
<tr>
<td>SGI Studio Galli Ingegneria SpA</td>
<td>Italy</td>
</tr>
<tr>
<td>UNIVERSITA DI PISA</td>
<td>Italy</td>
</tr>
<tr>
<td>THE AGRICULTURAL RESEARCH ORGANISATION OF Israel - THE VOLCANI CENTRE</td>
<td>Israel</td>
</tr>
</tbody>
</table>

**Contact**

SGI Studio Galli Ingegneria SpA  
13 Via della Provvidenza  
35030 Padua Veneto  
Italy

**Contact point**

Name: Pretner, Augusto  
E-mail: augusto.pretner@sgi-spa.it  
Tel: +39-049-8976844

Name: Ms Daniela Sacchiero  
E-mail: daniela.sacchiero@sgi-spa.it  
Tel: +39-049-8976844

**Budget**

Overall budget: 1.393.454,00 € (EU contribution: 49,00 %)

**Key documents**

- [Project Fact File](#)  
  DOC 499.5 KB

**In brief**

Sector: Recycling  
Duration: 04/06/2009 to 03/06/2012
Contract number: ECO/08/239065

Website: http://www.sgi-spa.it

Tags:
- agriculture
- recycling
- water

Media coverage

- Eco-Innovation: la sfida del “profitto ambientale” [10]
  STAMP Toscana - 03/07/2013

Related projects

- [EUFIR] A European system for collecting and recycling discarded equipment from...
- [ACE] ACE - ADVANCED PRE-COMMERCIALIZATION OF ECO RUBBER
- [BIOULIX] Bio-hydrometallurgical beneficiation of non-ferrous concentrate from...
- [BP SORTING] BP SORTING - BLACK POLYMER SORTING
- [RECYCLED FIBER] Bringing recycled fiber products to market based on composites waste
- [RECYCLEDPALLETSYSTEM] Closed loop pallet system – production, implementation and recovery of...
- [COFERT] CO2 capture and nutrients recycling using a patented algae system for bio-
- [CAPS] Conversion of paper mill sludge into absorbent
- [CYPROBELL] Cyprobell - Grey Water Recycling Plant
- [E-AIMS] E-AIMS - AUTOMATIC AND INDIVIDUALISED SORTING AND MANAGEMENT PROCESS OF E-
- [SLAG-REC] Eco-innovation in steelmaking: a new system for 100% recycling of...
- [ECOMETRE] ECOLOGICAL METAL RECYCLING
- [ECO SLUDGE] Economically viable solution for the energy autarkic treatment of sewage...
- [SEPARATE] Enabling market uptake of innovative separation and cleaning solutions for...
- [FILMSORT] Enhanced recycling of post-consumer film waste from light packaging by...
- [ECOIMPPACT] Environmental Conservation Obtained by Injection Moulded Pulp P ACKaging...
- [ECO PROTECTION] Evolution of Continuous Production Technology and Trans- ferable...
- [Screen cap] Finescreen supported biological wastewater treatment to enhance plant...
- [FRIT-REC] FRIT-REC - INTEGRATED TECHNOLOGY FOR THE REUSE OF WASTE LIME FROM THE...
- [WPE] From Waste Paper to Furniture
- [OLAX] GLOBAL SOLUTION FOR RECOVERY AND REUSE OF THE INK WASTE OF THE
- [NUMIX] High performance Lightweight aggregate for concrete from the recycling of...
- [ECO-RUBBER] INNOVATIVE USED TYRES RECYCLING AND RUBBER SINTERING PROCESS FOR ECO-
- [EKOPAN] NEW ENVIRO-FRIENDLY ABSORBENT ACOUSTIC PANELS
- [PARILAS] PARILAS - QUALITY ALUMINIUM RECYCLING
- **NATURALISTA** [36] POST-USED SHOES RECOVERY IN FOOTWEAR INDUSTRY AND OTHER APPLICATIONS
- **PROWASTE** [37] PROWASTE - EFFICIENT UTILIZATION OF PLASTIC WASTE THROUGH PRODUCT DESIGN...
- **RECYTUBE** [38] RECYTUBE - INCREASING THE USE OF RECYCLED CARBON NANOTUBE (CNT) COMPOUNDS...
- **RHOSES** [39] Regenerating PVC Hoses and Sponsoring Eco-Sustainability
- **SATURN** [40] Sensor-sorting Automated Technology for advanced Recovery of Non-Ferrous...
- **STAREC** [41] Shredder residue and Tar-containing Asphalt RECycling
- **NATSTOCER** [42] Sludge free-process for the production of innovative natural stone-like...
- **SUPERPET** [43] Super-Clean PET flake process for high quality recycling of PET bottles
- **SUPERTEX** [44] Sustainable Flame Retardant Technical Textile from Recycled Polyester
- **T4T** [45] Textiles for Textiles
- **THE DIAPERS PROJECT** [46] THE DIAPERS PROJECT - A ZERO EMISSION GREEN PLANT
- **TWINCLETOES** [47] Tyre Wire in Concrete Leading to Environmental Sustainability
- **RECTYRE** [48] USED TYRES VALORISATION AS LIGHTWEIGHT FILLER FOR EMBANKMENTS
- **WS-REC** [49] WS-REC - DESIGN AND CONSTRUCTION OF A WINDSCREEN RECYCLING LINE

**Source URL:** https://ec.europa.eu/environment/eco-innovation/projects/en/projects/agriport

**Links**
