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
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 [9]
  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

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