

PARTNERS

The **CLEANLEACH** Project has been launched through the collaboration of a research institute and three small businesses, all operating in the European Union. These companies boast specialized, complementary expertise in the technical solution and marketing plan.

IRTA is a research institute owned by the government of Catalonia. IRTA's purpose is to contribute to the modernization, competitiveness and sustainable development of the agriculture, food and aquaculture industries and the supply of healthy and quality foods to consumers, and to improve social welfare. www.irta.cat

Naturalea is a private company that specializes in landscape restoration in Spain in the field of implementation of bioengineering techniques in areas that include river restoration, constructed wetlands and environmental restoration. www.naturalea.eu

Buresinnova is a private company dedicated to plant architecture and innovation in the sustainable use of plant species in different areas of application. www.buresinnova.com

Salix focuses on landscape bioengineering in the United Kingdom and uses sustainable and ecological solutions to preserve natural habitats (constructed wetlands, soil conservation, river areas). salixrw.com

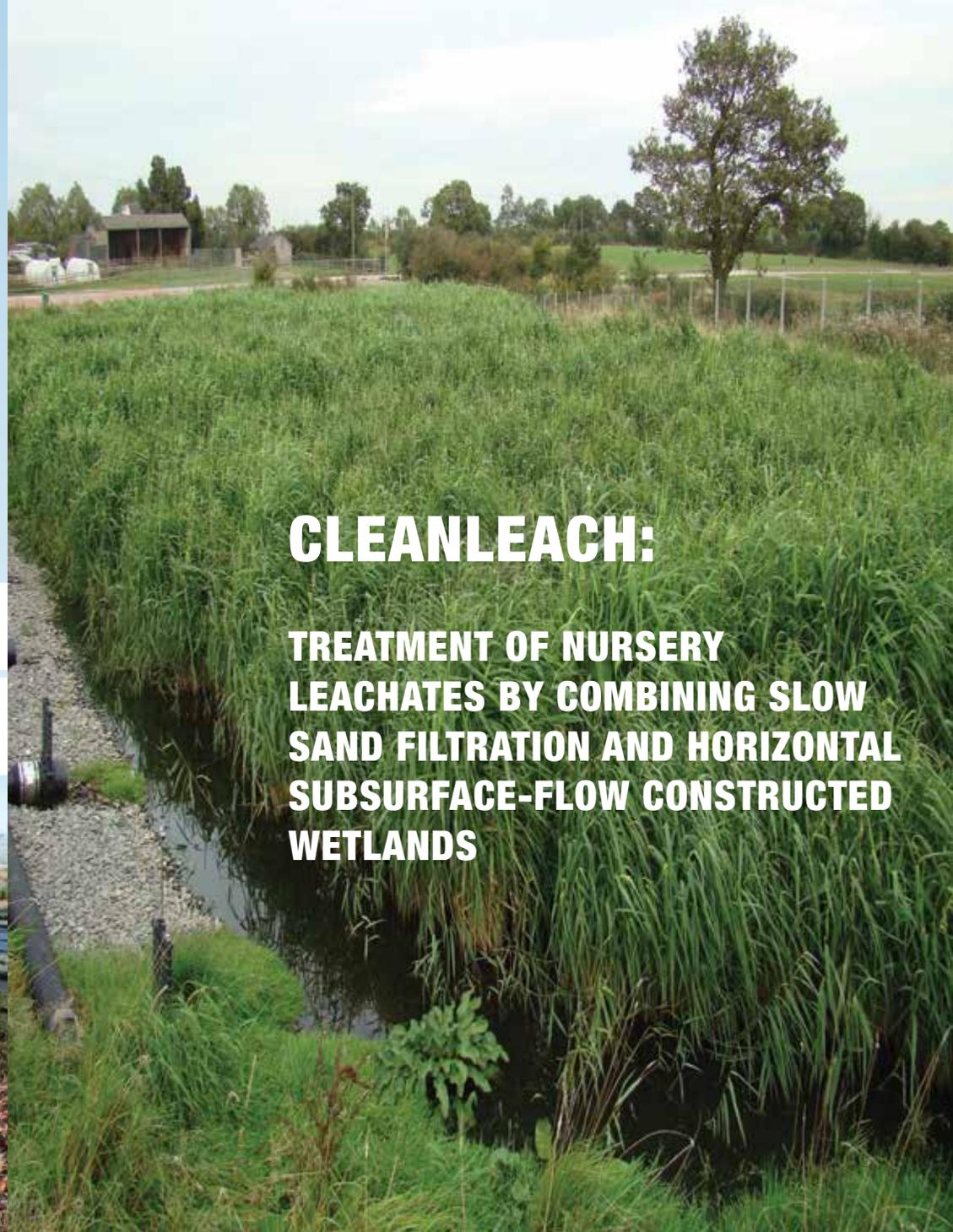
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Sala Graupera nursery



CLEANLEACH:

**TREATMENT OF NURSERY
LEACHATES BY COMBINING SLOW
SAND FILTRATION AND HORIZONTAL
SUBSURFACE-FLOW CONSTRUCTED
WETLANDS**



Co-funded by the Eco-innovation
Initiative of the European Union



Gardening and Landscape Plant Production

Plants for gardening, landscape and reforestation are grown in nurseries. In Europe, the nursery stock industry is very well established and an area of approximately 127,000 ha is devoted to this activity.

In addition to other advantages, growing plants in containers allows for accurate agronomic management as well as easy transplanting in the soil. However, plant production in pots generates leachates that have to be recycled so the irrigation water and nutrients can be re-used. The leachates must also be treated before they can be released into the environment.

IRTA has developed an innovative system for recovering and treating these leachates (**CLEANLEACH**). It is a solution that improves sustainability in nurseries by increasing the efficiency of water and fertilizer use. The system will help increase sales of plants produced using environmentally friendly techniques.



Our aims

The **CLEANLEACH** Project is being co-funded by the European Union's Eco-innovation initiative (ECO/12/332862), which promotes eco-innovative actions aimed at preventing and reducing environmental impacts and contributing to the optimal use of resources.

The **CLEANLEACH** Project will run from October 2013 to April 2016. Its objectives include:

- **To market a system for recovering and treating leachates** that has been developed by IRTA to increase the sustainability of nurseries growing container plants.
- **To develop technological variations on the standard system** currently operating to increase its efficiency, sustainability and control.
- **To replicate this system for sale on the nursery industry market** and for other applications related to greenhouse production and plant architecture.

CLEANLEACH: A solution for leachate use and treatment

The **CLEANLEACH** solution consists of a system for recovering and treating leachates based on the combination of slow sand filtering in situ (under the container area) and constructed wetlands.

The **CLEANLEACH** technology can also be extended to other areas such as sustainable green roofs and green walls in buildings and greenhouse plant cultivation.

The project includes tools such as a business plan and market analysis to identify any constraints to bringing the product to market so they can be tackled and the technology can be successfully marketed. The **CLEANLEACH** project is supported by the European Soil and Water Engineering Group (ESWEG) and the European Nurseries Association (ENA), which will act as agents to market the product in Europe. The Vivers Sala Graupera eco-gardening nursery in Sant Andreu de Llavaneres (Catalonia) is also working actively on implementation of the project.

