



# Best LIFE Environment Projects 2010



EUROPEAN  
COMMISSION



environment

# Introduction

For the last seven years, EU Member States represented on the LIFE Committee and the European Commission's LIFE Unit have selected the best LIFE Environment Projects for special attention. For the 2011 Awards, Member States chose 13 projects that represent the most recent successful LIFE Environment projects in terms of contribution to immediate and long-term environmental, economic and social improvements; degree of innovation and transferability; relevance to policy; and cost-effectiveness. These projects are featured in this publication.



Photo: Andre Close

*The winners of the Best LIFE Environment 2010 held as part of the "LIFE for our environment: success stories and future challenges" conference in the European Parliament*

The 13 winners were presented with awards by Alban de Villepin from the LIFE Environment and Eco-innovation Unit, at a special awards ceremony held in Brussels during Green Week 2011 as part of the "LIFE for our environment: success stories and future challenges" conference in the European Parliament. "We are fully aware of the

hard work involved in all the projects," observed Mr de Villepin.

The seventh Best LIFE Environment Projects exercise is the product of an established identification and evaluation process based on a set of best practice criteria, developed by EU Member States in collaboration with the Euro-

pean Commission. The projects with 'beneficiaries', or project holders, from across the EU27, cover a wide range of important environmental themes: reducing noise, air and water pollution; developing environmental management systems; pioneering bioenergy chains for agriculture and industry; recycling raw materials and ending harmful emis-



sions. Mitigating the effects of climate change is a particular focus of a number of the most successful of this year's projects, illustrating the link between LIFE projects and wider EU policy.

Speaking at the "LIFE for our environment" conference, Janez Potočnik, the European Commissioner for the Environment, said that "We believe there is a strong case for maintaining a specific financial instrument in the service of environment [and] climate policy and we believe LIFE's impact on policies should be increased."

### SELECTION CRITERIA

The objective of the awards programme is to help improve the transmission of LIFE Environment project results by using a set of criteria to identify those projects with the highest potential for long-term environmental improvement. From the 13 projects that concluded in 2010/2011 and that have been selected as 'Best' projects, four have been awarded the title, 'Best of the Best'.

Scoring of completed LIFE Environment projects was launched in the summer of 2004. The system was introduced by the Commission, following an initiative taken by Sweden and the Netherlands. After a meeting at The Hague in May 2004, a set of 'best practice' criteria was developed in co-operation with the



Photo: Andre Close

Janez Potočnik - European Commissioner for the Environment

Member States. The criteria adopted were: projects' contribution to immediate and long-term environmental, economic and social improvements; their degree of innovation and transferability; their relevance to policy; and their cost-effectiveness. In view of the importance of these criteria to the success of a project, beneficiaries are also required to provide an 'After-LIFE Communication Plan' and an analysis of the long-term benefits of the project with their final report. This information forms an integral part of the evaluation process.

Projects were initially technically assessed by the LIFE Unit's external monitoring team, provided by the Astrale consortium. The monitors ranked all the projects that ended by December 2010 to produce a first list. The final selection was undertaken by the Member States under the coordination of Herlinde Vanhoutte (from the Belgian Federal Public Service "Health, Food Chain Safety and Environment") using the agreed set of criteria to identify the projects to receive awards.

Mr Bodini and Ms Santori present the results of the LIFE Kolisoon at the Best LIFE Environment 2010 awards ceremony



Photo: Andre Close



# Best projects

Environment  
2010



## Belgium: **Greening the clean up of ships' hulls**

The ECOTEC-STC project demonstrated a non-toxic antifouling paint for ships' hulls that, together with an underwater maintenance scheme, has the potential to greatly reduce the environmental impact of antifouling.

**T**he fouling of ships' hulls increases drag, thereby causing speed loss and increases in fuel costs of up to 40%. It also makes regular visits to shipyards for hull cleaning necessary. Whilst antifouling paints are an effective and economic means of protecting hulls from corrosion and of preventing aquatic organisms from sticking to them, they

commonly have a harmful impact on the environment. In 2001, the International Maritime Organisation (IMO) banned the use of paints containing TBT (tributyltin). Most antifouling paints nevertheless slowly release heavy metals and harmful biocides into the marine environment, where they pollute harbour bottoms, kill sea life and enter the food chain.

The Belgian ECOTEC-STC project sought to address this problem by demonstrating a durable non-toxic antifouling paint that, together with an underwater maintenance scheme, adequately stops ship-hull fouling, whilst also providing a Best Available Technique to minimise the risk of ships transferring non-indigenous marine



species (NIS). The project concept was demonstrated on different types of vessels and in the different waters of the Baltic and Mediterranean seas and the Pacific and Atlantic oceans. The new paint, Ecospeed, was shown to provide a non-toxic alternative to the likes of copper-based paints. It also reduced ships' fuel consumption, thus avoiding emissions of greenhouse gases.

Comparative testing of the new paint showed improvements in terms of environmental performance over the lifespan of a vessel over other paints, such as Foul Release and copper-based SPC. Ecospeed only needs to be applied once every 25 years, meaning that if it was used by 80% of the world fleet it would save an estimated 12 million l/yr of paint (as well as associated transport costs). Using the same assumption, the beneficiary further estimates savings

*The Ecospeed paint needs to be applied once every 25 years and emits 13 times fewer VOCs*



*Comparison of the same container ship with a conventional biocidal antifouling (left) and Ecospeed (right) after spending a period of 2.5 years operating in the Baltic Sea*

from a switch from biocidal antifoulings to Ecospeed of 28.5 million tonnes/yr of fuel and of 90 million tonnes/yr of CO<sub>2</sub>.

The project's studies also showed that significantly smaller amounts of Volatile Organic Compounds (VOCs) are released into the atmosphere with each application of Ecospeed in comparison to traditional antifoulings. It is estimated that over a period of 25 years, nearly 13 times fewer VOCs are emitted with Ecospeed than Foul Release, and more than 23 times fewer VOCs are emitted than with a copper-based SPC coating scheme. Ecospeed is also 100% free of biocides.

### ATTRACTING WIDESPREAD INTEREST

One of the main benefits of the new system is that it allows vessels to stay out of drydock for 10 years or longer, rather than three-to-five years with existing antifouling paints. This not only represents a huge cost saving potential, it could also help ease predicted future shortages of drydock space for larger vessels.

Perhaps unsurprisingly therefore, the ECOTEC-STC concept has attracted widespread interest as an antifouling alternative: more than 100 coats of Ecospeed were applied in the course

of the LIFE project, of which more than 50 were full hull applications. The beneficiary believes that its concept will create new business opportunities in all major European ports. By the end of the project it had set up service stations in Spain, India, the US and Gabon and signed agreements with external service contractors in many more locations.



### BELGIUM

**Project number:** LIFE06 ENV/B/000362

**Title:** ECOTEC-STC - Demonstration of a 100% non-toxic hull protection and anti-fouling system contribution to zero emissions to the aquatic environment and saving 3-8% heavy fuels

**Beneficiary:** Hydrex N.V.(BE)

**Contact:** Manuel Hof

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**Website:** www.hydrex.be

**Period:** Jun-2006 to Dec-2009

**Total budget:** €5 201 000

**LIFE contribution:** €1 525 000

