



LIFE - good practice on solid waste management

5th Intl. Conference on Sustainable Solid Waste Management

21st-24th June 2017, Athens - Greece

Carlos DE LA PAZ, LIFE Programme – Communications Team



ec.europa.eu/life





The LIFE Programme

L'Instrument Financier pour l'Environnement

The only EU funding tool dedicated exclusively to the Environment and Climate action

- Since 1992
- 4 489 projects approved (over 660 on waste)
- €3.46 billion for 2014-2020
- Two sub-programmes:
 - LIFE Environment
 - LIFE Climate Action



LIFE10 ENV/PL/000661 – Biorewit



New soil improvement products for reducing the pollution of soils and waters and revitalizing the soil system



Project beneficiary:

Poland's Research Institute of Vegetable Crops

Main aim:

Develop new **soil improvers** and **soil-less substrates** from **textile** and **agricultural wastes**



Methodology:

Development of a new multi-phase processing plant

[Biorewit website](http://www.biorewit.eu)



Methodology (I):

6 sub-plants:

1. **Grinding:** pellets, agro-nonwovens and soilless and biodegradable substrates;
2. **Impregnation:** for direct use as a non-consolidated fertiliser or for producing eco-activators;
3. **Esterification;**
4. **Mechanical consolidation:** biodegradable agro-nonwovens and soil-less substrates; pellets as organic fertilisers;
5. **Subsoil robot:** to produce soil-less biodegradable substrates;
6. **Processor** of waste organic subsoils.

Results (I):

Biorewit

LIFE10 ENV/PL/000661



New products **ready to reach the market**

Ekofert - organic fertilisers from dried biomass of red clove and lucerne;



Covelana K - biodegradable organic bio-nonwovens enriched with N-rich red clove;



Covelana L - biodegradable organic bio-nonwovens enriched with N-rich biomass of lucerne;



Biopot - subsoil from boon, sheep wool waste and lignite.



[Biorewit website](http://www.biorewit.com)


Results (II):

Biorewit

LIFE10 ENV/PL/000661



- **Flexible** technology!

It can work...  Independently
in groups
full line

- **Multiple environmental benefits**

Soil

Water

Waste reduction



[Biorewit website](http://www.biorewit.eu)



LIFE10 ENV/IT/00365 – PODEBA

Use of poultry dejection for the bating phase in the tanning cycle



Project beneficiary: ENEA Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile

Environmental problem:

- High environmental impact of leather tanning
- Management of poultry manure

Main aim:

To test the use of **deodorised poultry manure** (DPM P120) as bating agent for leather treatment





- **Bio-treatment** for the **deodorization** of poultry manure to be used in laboratory tests and tannery
- **Enzymatic measurements** were carried out on treated poultry manure, in order to test its effectiveness in the bating process
- **Physical-chemical characterization** and **microbiological tests** were performed to verify the **absence of biological risk** for operators
- Treated poultry manure was tested on **different samples of skins** during the bating phase, at laboratory level and at semi-industrial level



Deodorised poultry manure (DPM P210) effectively used as bating agent

- Financial benefits:
 - Leather comply with **industry standards** and **eco-label requirements** for footwear
 - Cost-efficient: DPM P210 at €0.46 per kg, a reduction of €5.9 per tonne of salted leather → **savings of 30.9%**
- Environmental benefits :
 - **Waste**: substitution of 50% of common bating agents with DPM P120
→ re-use up to 3% of the nat. production of poultry manure
 - **96%** and **90%** reduction in **ammonia** and **sulphur** emissions
 - Improvement in quality of **wastewaters** produced by the tannery
 - Significant **energy** savings

Technology ready for market uptake!

[PODEBA website](#)

LIFE10 ENV/RO/000729 – EcoWASTES



New building materials by eco-sustainable recycling of industrial wastes



Project beneficiary:

University “Constantin Brâncuși” din Târgu Jiu

Main aim:

Valorisation of:

- **Ash** from power plants
- Oil drilling **sludge**
- Metallurgical **slags**



→ in the production of **construction materials**

[EcoWASTES website](#)



Methodology:

Analysis & characterisation of the wastes:

- **Bottom ash:** able to replace **70-100%** of lightweight granular aggregates → perlite, calcined diatomite and expanded vermiculite
- **Oil drilling sludge:** able to replace up to 30% of feldspathic clay
- **Metallurgical slags:** high content of calcium oxide and calcium silicates → potential hydraulic binders for structural concrete
- **Fat grey clay** from uncovering works during lignite extraction → plasticizer and ceramic binder (not initially foreseen)



Results:

EcoWASTES

LIFE10 ENV/RO/000729



Four groups of products developed:

- Heat-resistant **lightweight concrete** → better performance (lower heat losses, better adhesion) than common concrete.
- Lightweight fired **bricks**:
 - 20% lighter → lower transport costs
 - Less energy intensive:
 - Lower burning temperature
 - Shorter combustion period
- '**Embossing table**' for road and sidewalks construction
- **Structural concrete** products (e.g. moulded resistance structures, etc)



All these products can be manufactured with existing equipment

Products with high market uptake potential

[EcoWASTES website](http://EcoWASTES.website)

EWWR+



The European Week for Waste Reduction



Project beneficiary: ACR+ (NGO)

Main aim:

Reduce the amount of **waste** in Europe through **awareness-raising** actions

Methodology:

One week of events dedicated exclusively to waste prevention

- information
- training
- awareness rising events



Anybody can participate!

[Website – EWWR+](#)

The EWWR - What is it?

EWWR+
LIFE12 INF/BE/000459



- **European Week for Waste Reduction**
 - Thousands of [actions](#) on waste reduction, product reuse and materials recycling
 - Examples:
 - . Training in companies/NGOs/PAs
 - . Awareness-raising actions in schools
 - . Info campaigns, flashmobs, exhibitions, furniture design... Anything!
 - 18-26 November 2017 → [Apply!](#)
- **EWWR awards**

Reward the most outstanding actions every year

[Ceremony](#) 18 May 2017, Barcelona (ES)



[Website – EWWR+](#)

The EWWR - What is it?

EWWR+

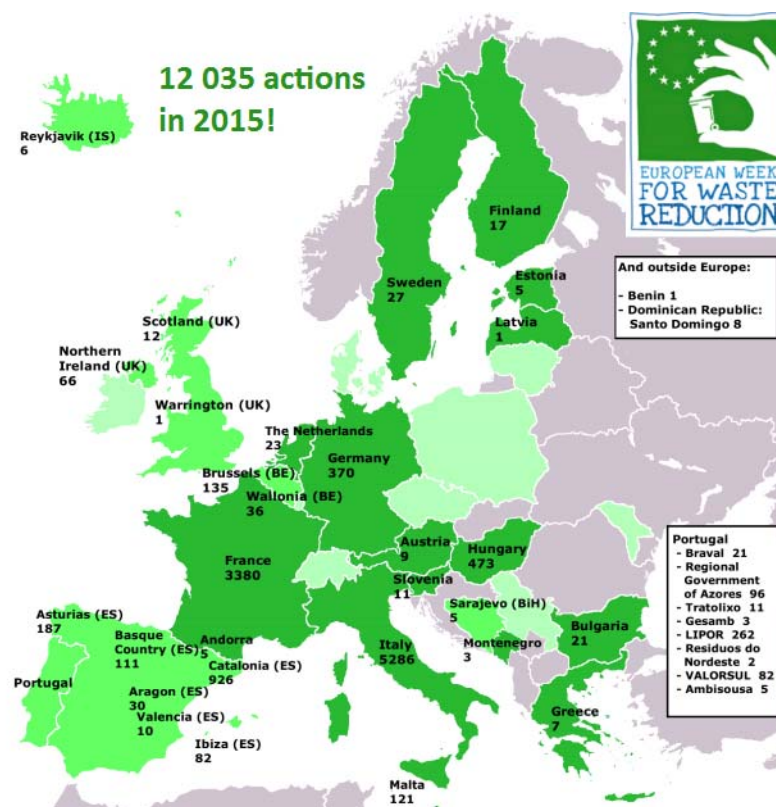
LIFE12 INF/BE/000459



- **Prevention Thematic Days**
In 2017: **product's second life**

- **European Clean-Up Day**
Collecting litter in nature →
organise your own!

**Over 74 000
since 2009**



[Website – EWWR+](#)

More information



New Regulation 2014-2020:
[Regulation \(EC\) No 1293/2013](#)



National Contact Points:
Information on eligibility and project preparation
<http://ec.europa.eu/life/contact/nationalcontact>



Funding:
General information
<http://ec.europa.eu/environment/life/funding/life.htm>

Photos: LIFE Programme

2016 call – indicative planning
<http://ec.europa.eu/environment/life/funding/life2016/index.htm>





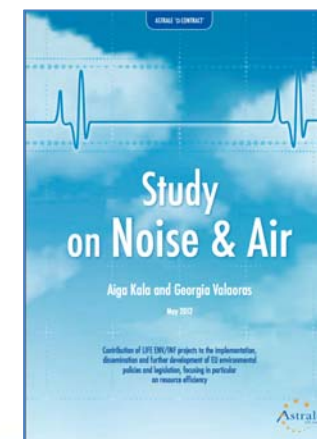
LIFE Communication tools & services

- [LIFE website](#)
- [Project database](#)
- [Thematic publications](#)
- [LIFE thematic brochures](#)

Search Results for LIFE Projects

130 Projects were found that meet your search criteria. Showing 1 to 10 of 130

PROJECT TITLE	PROJECT NO.	PROJECT YEAR OF FINANCE	LEAD PARTNER COUNTRY	TYPE OF BENEFICIARY
LIFE 01N - Life Greenhouse: Development and promotion of a new indoor growing system to meet...	LIFE14 ENV/04/00041	2014	GR	University
LIFE - CLEAN HEAT - CLEAN HEAT: Reducing particulate matter caused by wood burning...	LIFE14 ENV/04/00040	2014	DE	NGO Foundation
Mezopotamia Region - Implementation of air quality plan for Mezopotamia Region - Responses in a healthy atmosphere...	LIFE14 ENV/04/00021	2014	PL	Local authority
IMPROVE LIFE - Implementing technologies and practices to Reduce air pollution (of the subway environment)	LIFE13 ENV/06/00029	2013	ES	Research institution
LIFE - REDPISA - Reduction of exposure of cyclists to urban pollution...	LIFE13 ENV/06/00047	2013	ES	University
LIFE PHOTOCLYSTER - Air pollution treatment in European urban environments by means of photocatalytic systems...	LIFE13 ENV/06/00060	2013	ES	Research institution
LIFE66666666 - Reduction of SO2 emissions by a more efficient and decentralised process using HgO by products (...)	LIFE13 ENV/06/00060	2013	ES	Large enterprise
LIFE PHOTOCLYSTER - Air pollution treatment in European urban environments by means of photocatalytic systems...	LIFE13 ENV/06/00113	2013	ES	Research institution
LIFE PHOTOCLYSTER - Sustainability of photocatalytic technologies in urban environments: From laboratory tests to...	LIFE13 ENV/06/00121	2013	ES	Research institution
LIFE Roadbus - "Electric Bus Rapid Transit: High capacity Bus with zero local emissions"	LIFE13 ENV/06/00081	2013	FR	International enterprise
LIFE - GREETALIFE - A novel manufacturing process for photocatalytically activated concrete tiles by digital printing...	LIFE13 ENV/07/00040	2013	IT	SME Small and medium sized enterprise
Offroad Life Working - Off - Road electrically guided system for...	LIFE13 ENV/07/00040	2013	IT	SME Small and medium sized enterprise



Photos: LIFE Programme





Thank you for your attention!

carlos.delapaz@neemo.eu

** Disclaimer: Unless stated otherwise, all pictures and tables on this presentation belong to the EU or the LIFE project featured on the slide.*



ec.europa.eu/life





LIFE10 ENV/RO/000731 - MEDWASTE

Microwaves ecofriendly alternative for a safe treatment of medical waste



Project beneficiary: National Research and Development Institute For Nonferrous And Rare Metals

Main aim: To demonstrate the effectiveness of microwave technology for the disinfection of medical waste

Methodology:



Medical waste collection in resistant bags and containers



Treatment

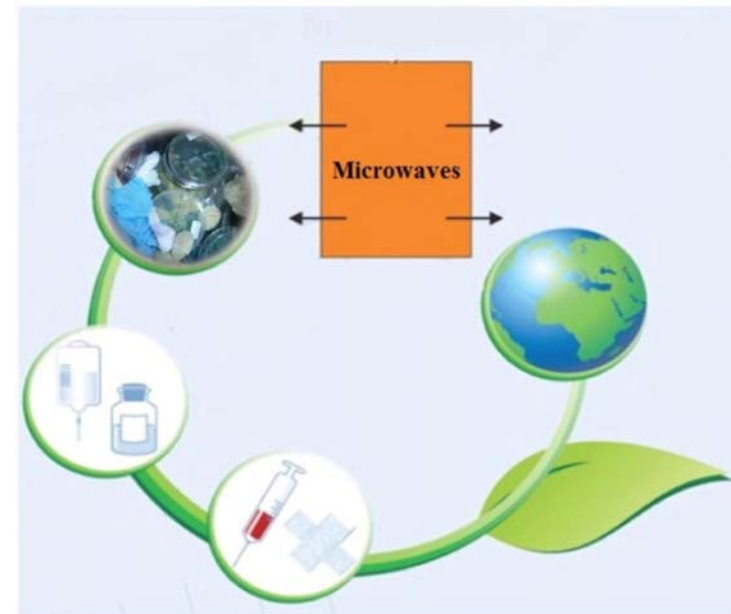
- **Automated** (no contact needed prior to disinfection)
- Up to **60L**
- Treatment duration: **45mins** (including cooling)
- Temperature reached **100 °C**

[MEDWASTE website](#)



Results:

- **Effective** for disinfecting the waste
- More **cost-efficient** & **environmentally friendly**:
 - **No transport** needed as treatment is made on-site
 - **Less energy-intensive** than incineration or autoclaving:
 - No external source of steam or reactive needed
 - 30-50% cheaper
- **Faster** than state-of-the-art technology



Highly replicable technology!