



LIFE - good practice on MSW

6th Intl. Conference on Sustainable Solid Waste Management

13th-16th June 2018, Naxos - Greece

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The LIFE Programme

L'Instrument Financier pour l'Environnement

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

- Since 1992
- 4 772 projects approved (over 700 on waste)
- €3.46 billion for 2014-2020
- Two sub-programmes:
 - LIFE Environment
 - LIFE Climate Action



LIFE10 ENV/IT/000404 – NOW



A new integrated system to eliminate organic waste in the organised large scale distribution



Project beneficiary:

Cantiere Autolimitazione Cooperative Sociale a.r.l. (NGO)

Main aim:

Prevention, recovery and recycling of **food waste** from retailers and donation to charity.



Methodology:

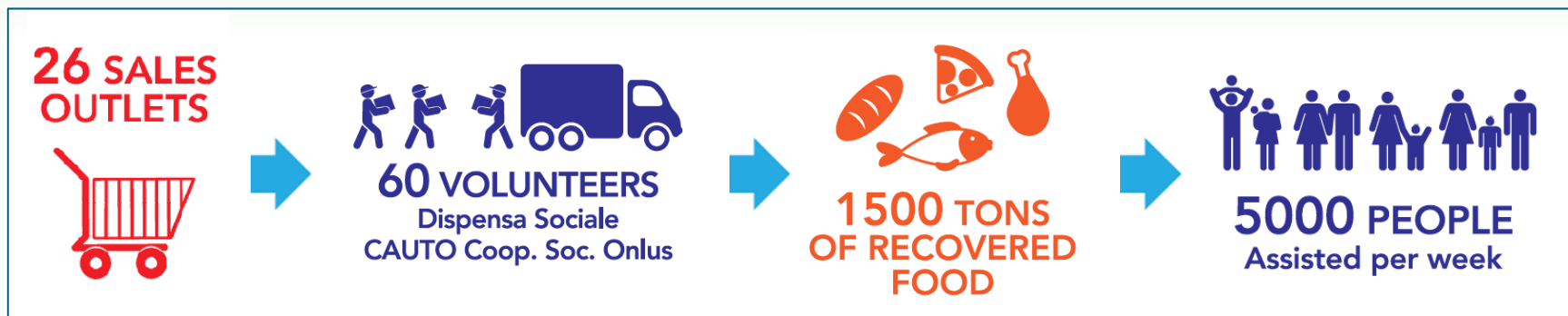
Development of a new **logistical system** for food waste recovery & distribution

[NOW website](#)

Methodology (I):

NOW

LIFE10 ENV/IT/000404



More figures:

- 13 municipalities involved
- 70 charities benefited
- 12 jobs created



[NOW website](#)

Results (I) – Environmental impact

NOW
LIFE10 ENV/IT/000404



Waste:

- **1 513 t** of food recovered for human and animal → 25% of generated in 26 outlets.
- Non-reusable fraction:
 - Organic → compost
 - Non organic → in-house recycling (paper & plastic)



Water: Over 3 750 000 m³/water saved

Land-use: More than 45 million m² of land saved

GHG emissions: 6 750 t/CO₂ avoided





Businesses

HYGIENE/HEALTH AND SAFETY

- improved general conditions of hygiene/health when collected on a frequent basis
- elimination of risks arising from illegal attempts by the needy to recover unsold products

FINANCE

- VAT claim-backs for donations
- savings in waste disposal costs
- savings in the form of tax reductions or weighted rates

LOGISTICS

- less space needed to store goods/waste for long periods
- prompt control of unsold products



Municipalities

FINANCE

- savings in waste disposal costs
- savings in social benefits in the case of direct donations in the local area
- reduced number of trips to convey waste

APPLICATION OF LOCAL AUTHORITY WASTE MANAGEMENT REGULATIONS

- easier compliance with waste collection schemes from local Municipality

**Highly
replicable
system!**

LIFE12 ENV/ES/000079 – REUSING POSIDONIA



14 sustainable dwellings using local resources



Project beneficiary: Institut Balear de l'Habitatge

Main aim:

To develop a new **green architectural model** for the entire building cycle: design → construction → performance

Methodology:

- Energy & water efficiency
- Traditional architecture techniques
- Green building materials
 - Recycled
 - Km0
 - Sustainable production
- Tested in construction of 14 social housing modules in Spain





Energy efficiency (class A)

- Summer:
 - Harnessing orientation for ventilation & sun radiation
 - Roof insulation → **recycled Posidonia waste**
 - Windows
 - low emissivity glass U
 - Traditional architectural elements (e.g. Shutters)
 - Climbing plants for facade
- Winter:
 - 90 kW centralised biomass boiler (92% yield + hot water)
 - Orientation → optimising direct radiation



Water efficiency

- Faucets:
 - Less than 1 meter from hot water exchanger.
 - Saving mechanisms (pressure & flow reducers, etc).
- 6-m³ rainwater cistern for irrigation
- 17-m³ phyto-purification tank: shower water → toilets
- Gardening:
 - Suitable species (e.g. *Celtis australis*, etc.)
 - Efficient irrigation



Waste reduction

Cut waste by 50% during construction → only 33.38 t generated!

- Reuse excavation aggregates as fillers:
 - Under floorings
 - In gardens
- Reuse crushed YTONG remains → light flooring filler
- Reuse all construction pallets for roofs
- Reuse wood surplus:
 - To cover the gaps in the slabs between rooms
 - Interior woodwork





Waste recycling

Recycled Posidonia for insulation

- Unlimited lifetime:
 - Does not rot & no natural inland predators
 - Used in buildings in 14th century: > 600 years!
- Great insulation material → 185 kg/m³ density
16 cm thickness
 - U: 0.2936 W/m²°C
 - Λ : 0.044 W/mK
- Final product: Roof insulation panels



WARNING

Posidonia should be collected sustainably!



Waste recycling

Recycled Posidonia for insulation





Waste recycling

Recycled Posidonia for insulation



Results

REUSING POSIDONIA
LIFE12 ENV/ES/000079



Outstanding environmental benefits!

- During construction:
 - 60% cut in energy consumption
 - 50% cut in waste generation
- Dwellings performance:
 - 75% cut in energy consumption
 - 60% cut in water consumption

**Highly replicable
methodology!**

[Download the project guidelines](#)

[REUSING POSIDONIA 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!
 - 17-25 November 2018 → [Apply!](#)
- **EWWR awards**

Rewards the most outstanding actions every year



[Website – EWWR+](#)

The EWWR - What is it?

EWWR+

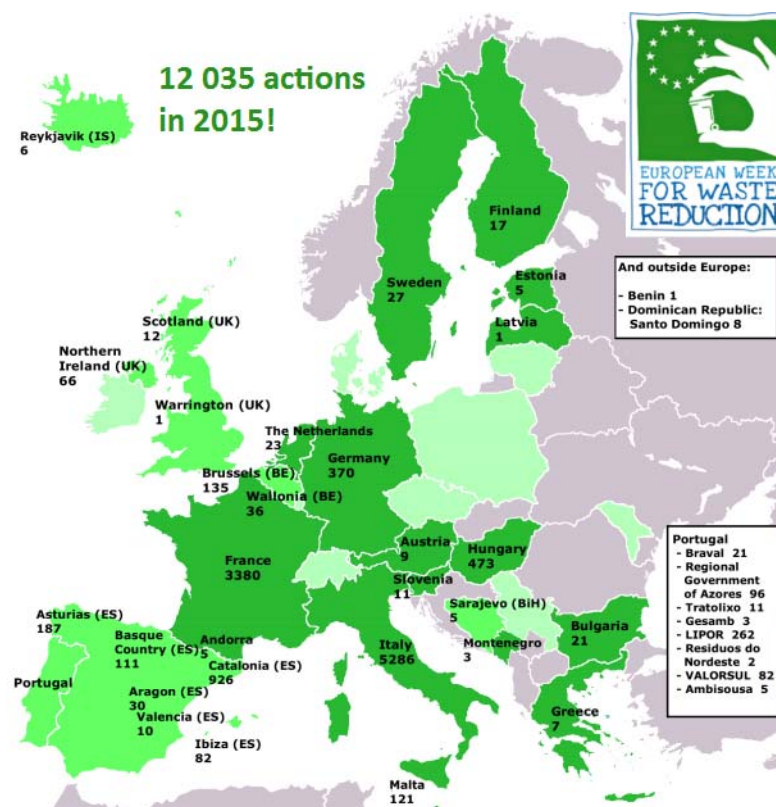
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- **Prevention Thematic Days**
In 2017: **product's second life**

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

**Over 74 000
since 2009**



[Website – EWWR+](#)

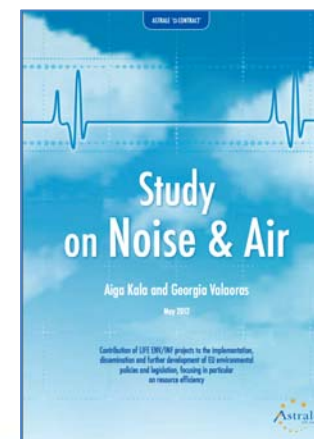


LIFE Communication tools & services

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

Search Results for LIFE Projects

PROJECT TITLE	PROJECT BY	PROJECT YEAR OF FINANCE	LEAD PARTNER COUNTRY	TYPE OF BENEFACTORY
LIFE 019 - Life GreenPavement: Development and promotion of a novel paving solution to reduce...	LIFE14 ENV/GB/000611	2014	GB	University
LIFE - CLEAR HEAT - CLEAR HEAT: Reducing particulate matter caused by wood burning...	LIFE14 ENV/DE/000490	2014	DE	NGO-Foundation
Megapolis Region - Implementation of air quality plan for Megapolis Region - Measures to a health atmosphere...	LIFE14 ENV/PL/000021	2014	PL	Local authority
EMERGENCY LIFE - Implementing technologies and practices to Reduce air pollution of the subway environment...	LIFE13 ENV/ES/000263	2013	ES	Research institution
LIFE - REDPISA - Reduction of exposure of cyclists to urban pollution...	LIFE13 ENV/ES/000417	2013	ES	University
LIFE PHOTOCLUSTER - Air pollution treatment in Barcelona urban environment by means of photocatalytic coatings...	LIFE13 ENV/ES/000603	2013	ES	Research institution
LIFE600000000 - Reduction of SO2 emissions by a new efficient wet desulfurization process using MgO by products (...)	LIFE13 ENV/ES/000600	2013	ES	Large enterprise
LIFE 000000000 - New technical production technology for treatment of dry waste and power the local urban bus ...	LIFE13 ENV/ES/001113	2013	ES	Research institution
LIFE PHOTOCLUSTER - Sustainability of photocatalytic technologies in urban environments from laboratory tests to ...	LIFE13 ENV/ES/001221	2013	ES	Research institution
LIFE BioBlue - "BioBlue Blue Rapid Transit: High Capacity Bus with zero local emissions"	LIFE13 ENV/FR/000281	2013	FR	International enterprise
LIFE - 000000000 - A novel manufacturing process for photocatalytically activated concrete tiles by digital printing...	LIFE13 ENV/IT/000340	2013	IT	SME Small and medium sized enterprise
LIFE Life-Mobility - M - Free electromagnetic parking system for ...	LIFE13 ENV/IT/000340	2013	IT	SME Small and medium sized enterprise



Photos: LIFE Programme



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

2017 call
<http://ec.europa.eu/environment/life/funding/life2017/index.htm>





Thank you for your attention!

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



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