



The LIFE Programme: Over 20 years upgrading waste management in the EU

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LIFE Programme - Communications Team

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Waste Management
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The LIFE Programme

LIFE = L'Instrument Financier pour l'Environnement

The only EU funding tool exclusive for the Environment

- Born in 1992
- 4 171 projects approved
- 3.4 billion euros for 2014-2020
- Two sub-programs:
 - LIFE Environment
 - LIFE Climate Action



Structure: LIFE 2014-2020

Sub Programme
Environment
2,6 billion € (75%)

Resource efficiency

Water

Res. eff.

Waste

Health

Air

Nature & Biodiversity
min 1,15 billion € (55%)

Habitat & species

Biodiv. strategy 2020

Governance & Information

Sub Programme
Climate Action
864 mio € (25%)

Climate change Mitigation

Climate change Adaptation

Governance & Information

From Roof to Road

(LIFE07 ENV/DK/000102)

DK, Karsten Rasmussen Holding
Thisted A/S (Private company)
Jan 2009 – Jan 2012
€2.07 million (Total) – **€1.02 million**
(UE)



ENVIRONMENTAL PROBLEM

- Felt roofing material contains 40-50 % **bitumen**, compared with 5-7 % in road asphalt.
- At end of life, waste bitumen is **landfilled** or **incinerated** releasing **heavy metals**, **CO₂** and **VOCs** into the air and soil.
- **1.8 million tonnes/year** of waste bitumen from roofing materials generated in the EU. Some 40 000 tonnes in Denmark.

OBJECTIVES

- Demonstrate a method for **recycling bitumen felt roofing material** and use it in **road construction**

METHODOLOGY

- **Collection** of the raw material
- Development of a mobile **processing machinery** for:
 - .Grinding
 - .Sorting
 - .Mixing in the asphalt production
- **Tests** in road construction



RESULTS

From Roof to Road (LIFE07 ENV/DK/000102)

- Development of a **waste collection network** with 150 suppliers (landfills and roofing felt manufacturers)
- **1000 tonnes** of waste roofing material processed
- **Recycling of 70%** of the waste roof, replacing **10%** of virgin bitumen in road construction
- New **good quality asphalt**. All necessary certifications passed except for use on airport runways.
- Reduction of GHG emissions: **1.7 kg CO₂** per kg roofing felt diverted from incineration





PROGRASS

(LIFE07 ENV/D/000222)

DE, University of Kassel + other EE and UK universities
2009 – 2012
€3.2 million (Total) – €1.6 million (EU)

ENVIRONMENTAL ISSUE

Poor management of protected grasslands in Europe due to high conservation costs.



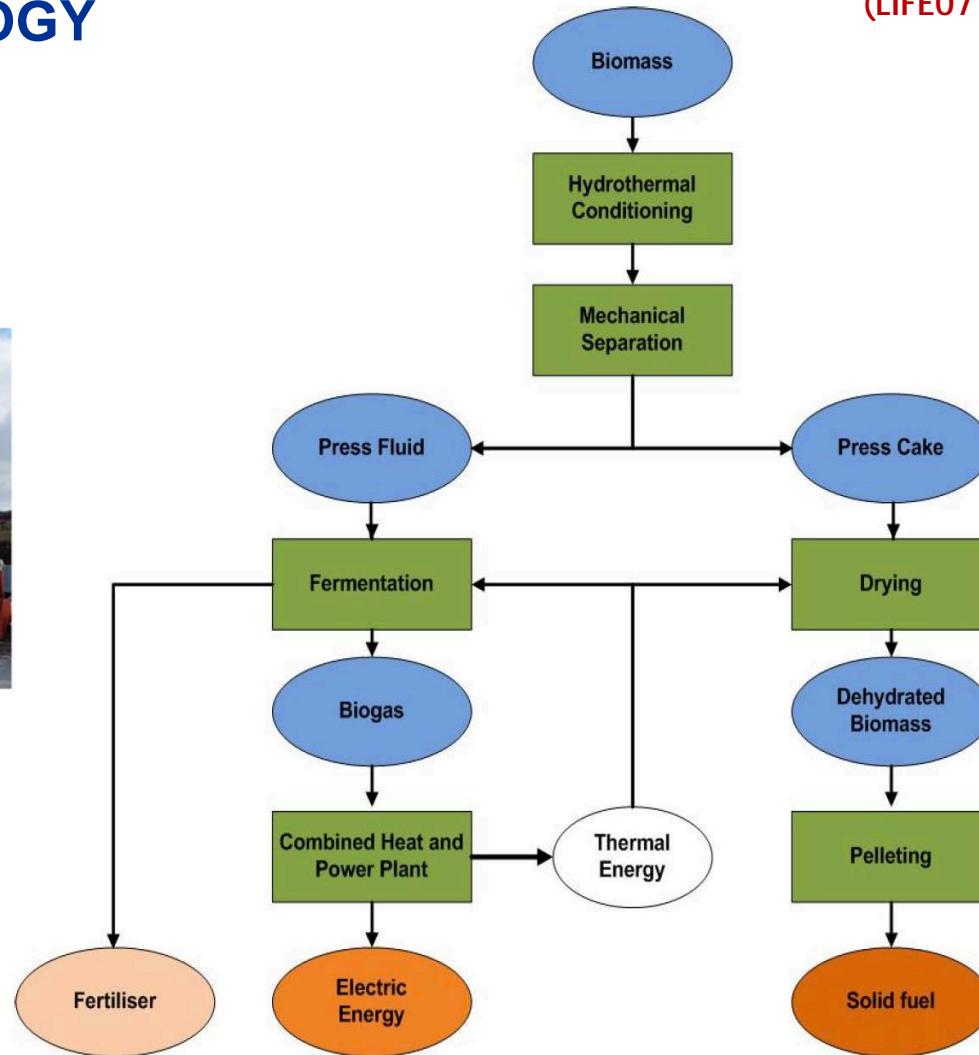
OBJECTIVES

The PROGRASS LIFE project tested an innovative **bio-energy generation** system using biowaste from grassland conservation actions.



METHODOLOGY

PROGRASS
(LIFE07 ENV/DE/000222)

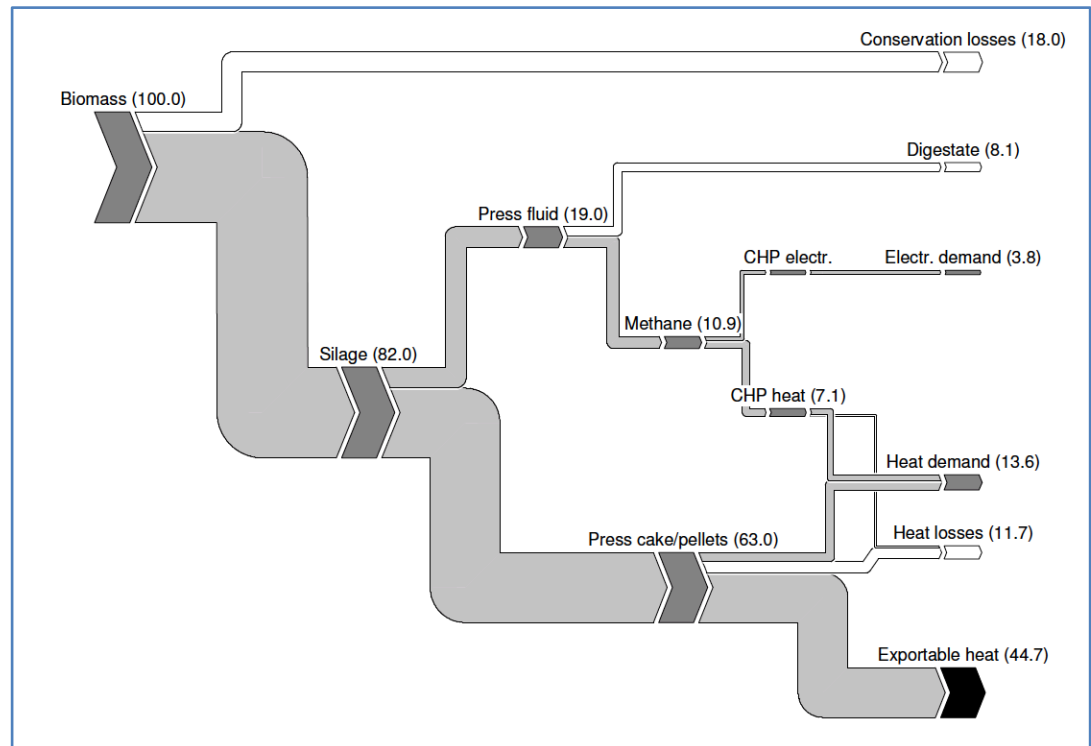


RESULTS

PROGRASS
(LIFE07 ENV/DE/000222)



- **Processing capacity:**
400 kg silage/day
- **Fuel production:**
90 kg dry matter/day
- **Biogas yield:**
7 kW





SEDI.PORT.SIL (LIFE09 ENV/IT/000158)

IT, MED INGENIERIA (SME)
Sep 2010 – Feb 2013
1.9 M €(Total) – 0.9 M €(EU)

ENVIRONMENTAL PROBLEM

Europe dredges 200 million m³/year of port sediments. This sediment is landfilled.



OBJECTIVES

To develop an integrated system for

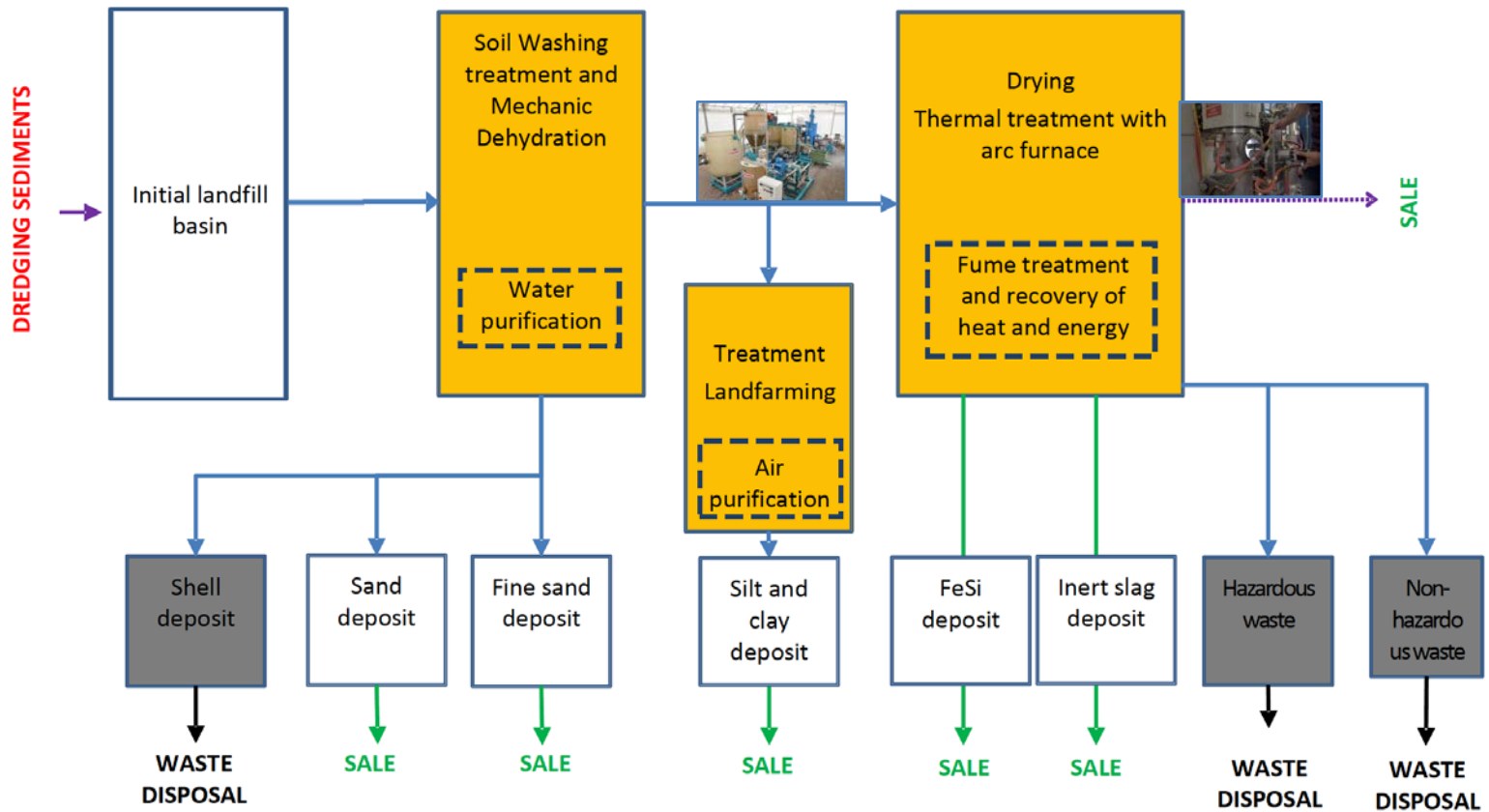
- ➔ Treating
- ➔ Recycling
- ➔ Valorising

dredged sediments from ports.



METHODOLOGY

SEDI.PORT.SIL (LIFE09 ENV/IT/000158)





SEDI.PORT.SIL (LIFE09 ENV/IT/000158)

METHODOLOGY & RESULTS

Recovery of 99% of the materials in the sediment

- **Coarse sand** for beach nourishment;
- **Fine desalinated sand** → for entombments and other construction uses;
- **FerroSilicon alloys** (50% Silicon) → steel industry;
- **Vitrified inert materials** → low quality construction (or entombment) materials;
- **Non-polluted clays** → road beds or road foundations;
- **Heat**, in the form of water at 90 °C → long-distance heating networks to surrounding industrial plants



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>

EU Communication tools and services :

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





Thank you for your attention!

Questions?

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BIOGRID

(LIFE07 ENV/E/000829)

ES, EDP (private company) + other
ES and NL private companies
2007 – 2013
€2 million €(Total) – €0.9 million
(EU)



ENVIRONMENTAL PROBLEM

In the next 20 years, world carbon dioxide (CO₂) emissions are expected to increase by 1.9% annually. This increase will mainly come from the burning of fossil fuels for energy production.



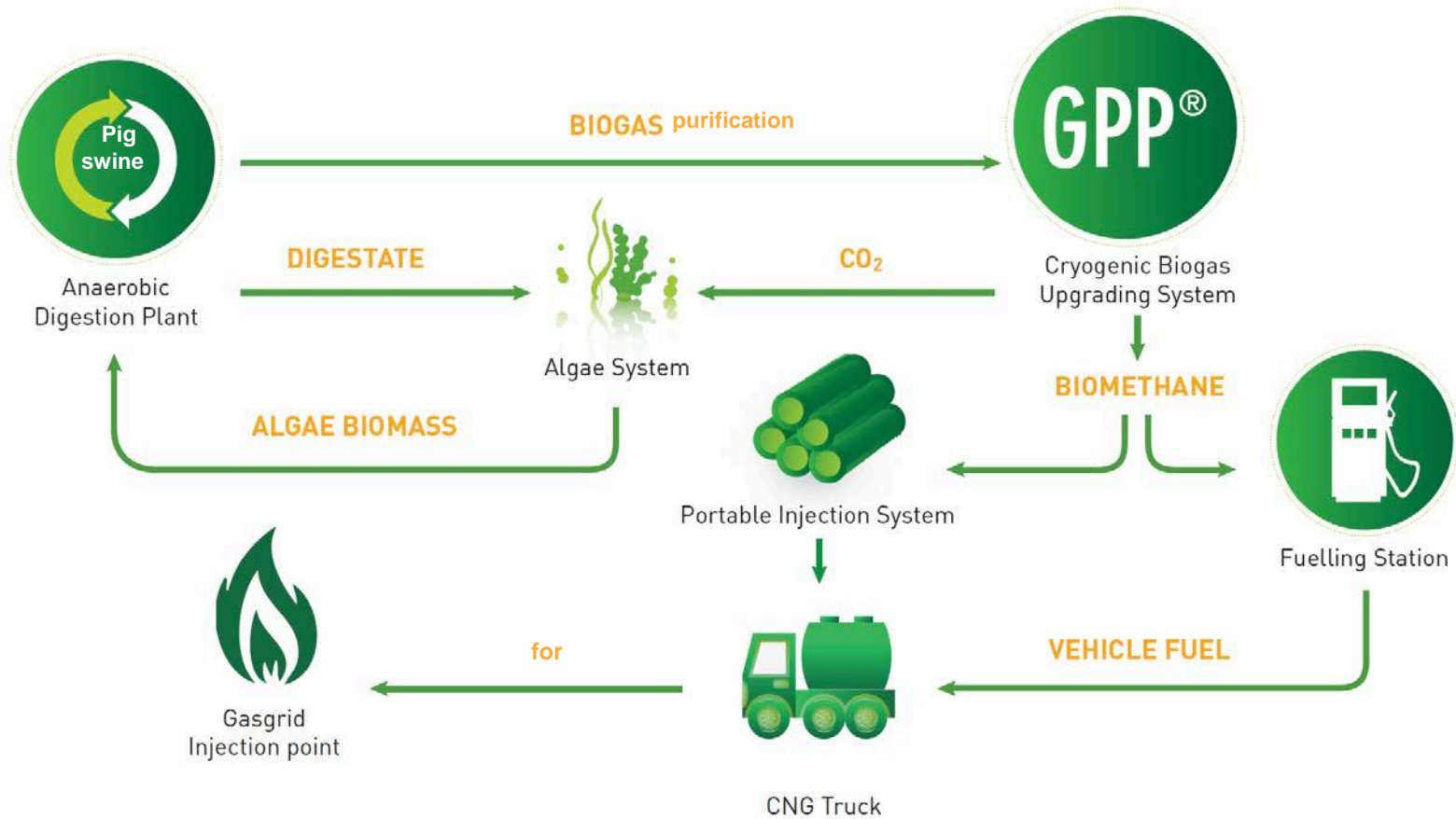
OBJECTIVES

To show the feasibility of producing bio-methane from biogas at a competitive cost and **use** it for:

- **injection** into the **natural gas grid** and
- **as transport fuel**

METHODOLOGY overview

BIOGRID (LIFE07 ENV/E/000829)





BIOGRID (LIFE07 ENV/E/000829)

RESULTS

- Development of a **carbon-negative biomethane production** and distribution system linked to organic waste management
- Demonstration of **algae cultivation** with digestate and CO₂ from biogas purification + **reuse** of algae biomass for biogas production
- Development **first 100% biomethane-fuelled** vehicle in Spain
- **First biomethane injection** in the Spanish natural gas distribution network
- **High replicability potential** → economically viable for plants with capacity of over 500 Nm³/h