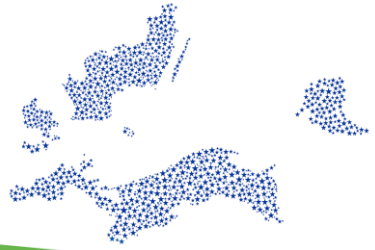
COASTAL BIOGAS

Cluster On Anaerobic digestion environmental Services and nuTrients removAL

Reduction of eutrophication by using cast seaweed

Thies Fellenberg
Agency for Renewable Resources (FNR)



5th COASTAL Biogas Conference
17 June 2021
Online

Partners FNR Fachagentur Nachwachsende Rohstoffe e.V. | Gdańsk University of Technology | BEIC | Roskilde University | Universität Rostock | Lithuanian Energy Institute

Funded by Interreg South Baltic | European Union | European Regional Development Fund

Starting point

Eutrophication of the Baltic Sea

- Major environmental problems
- Negative social consequences

→ COASTAL Biogas aims to tackle this problem and provide solutions

Source: Solrød Biogas

Source: Solrød Strands Strandrensningslaug

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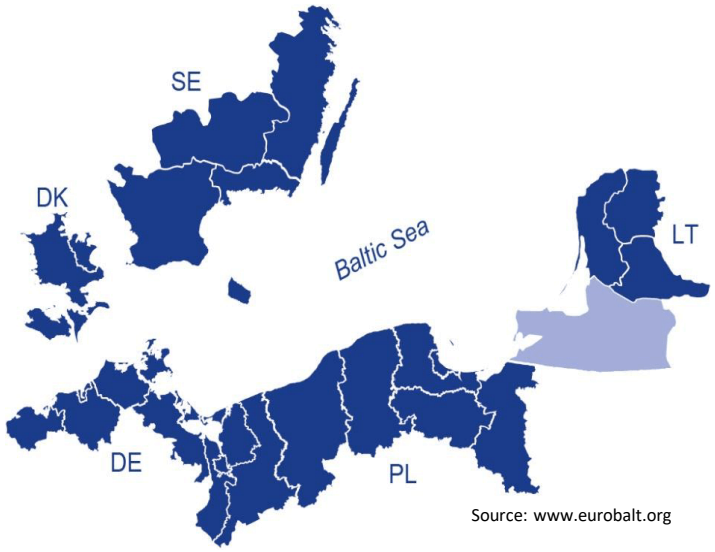
Overview

- Funding programme: Interreg South Baltic
- Project Budget: 1.67 Mill. €
- Duration: 3.5 years (07/2018– 12/2021)
- Participation: 6 partners from 5 countries (DE, DK, LT, PL, SE) + 11 associated partners



Source: www.eurobalt.org

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What the project is about…

Excess of nutrients (N & P) on farmland

Enrichment of nutrients (N & P) in the Baltic Sea (eutrophication)

Removal of nutrients by collection of cast seaweed

Usage of seaweed as co-substrate for anaerobic digestion

Digestate can replace synthetic fertilisers

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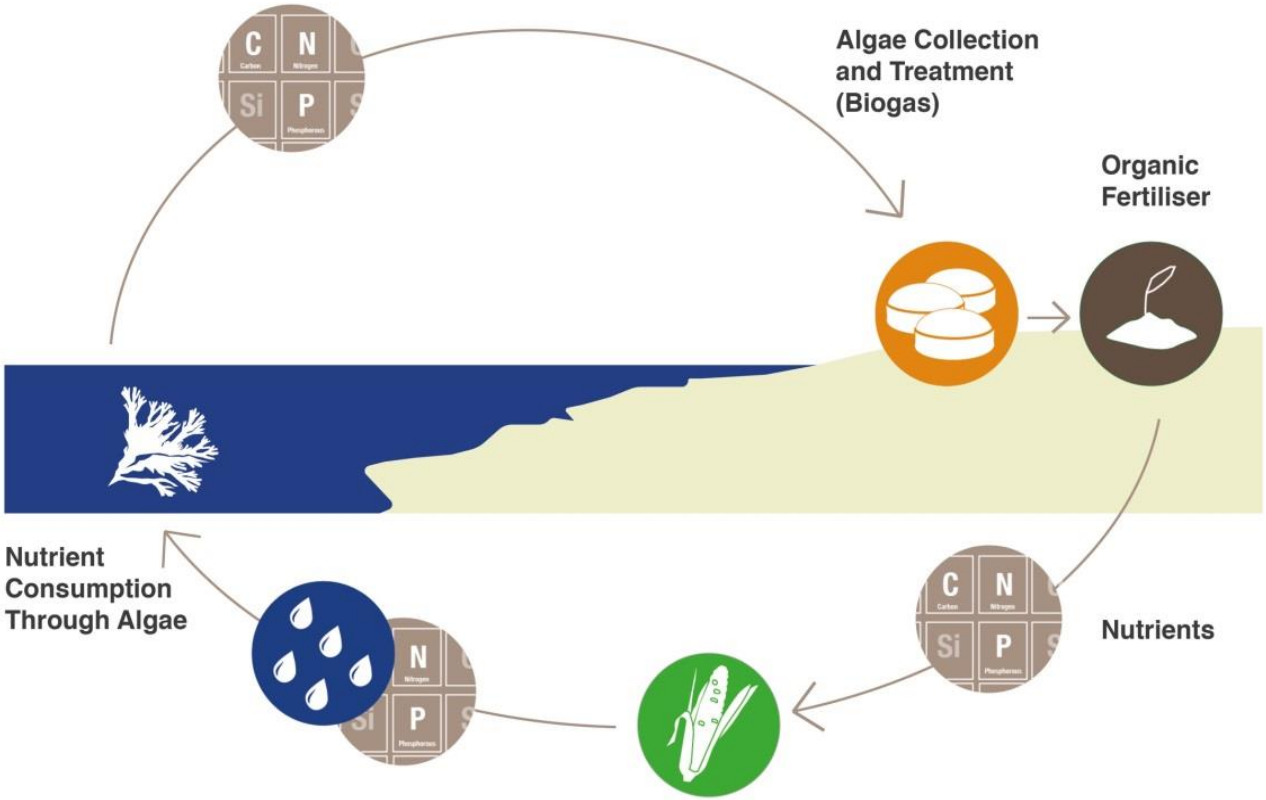
Closing the nutrient cycle



Source: Angela Clinkscales, UROS

Partners
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Usage of seaweed as co-substrate

- co-digested in industrial scale at Solrød Biogas plant in Denmark;
- 1,522 t of cast seaweed processed in 2019;
- Total capacity of the biogas plant is 226,000 t of substrate.


Source: Solrød Biogas

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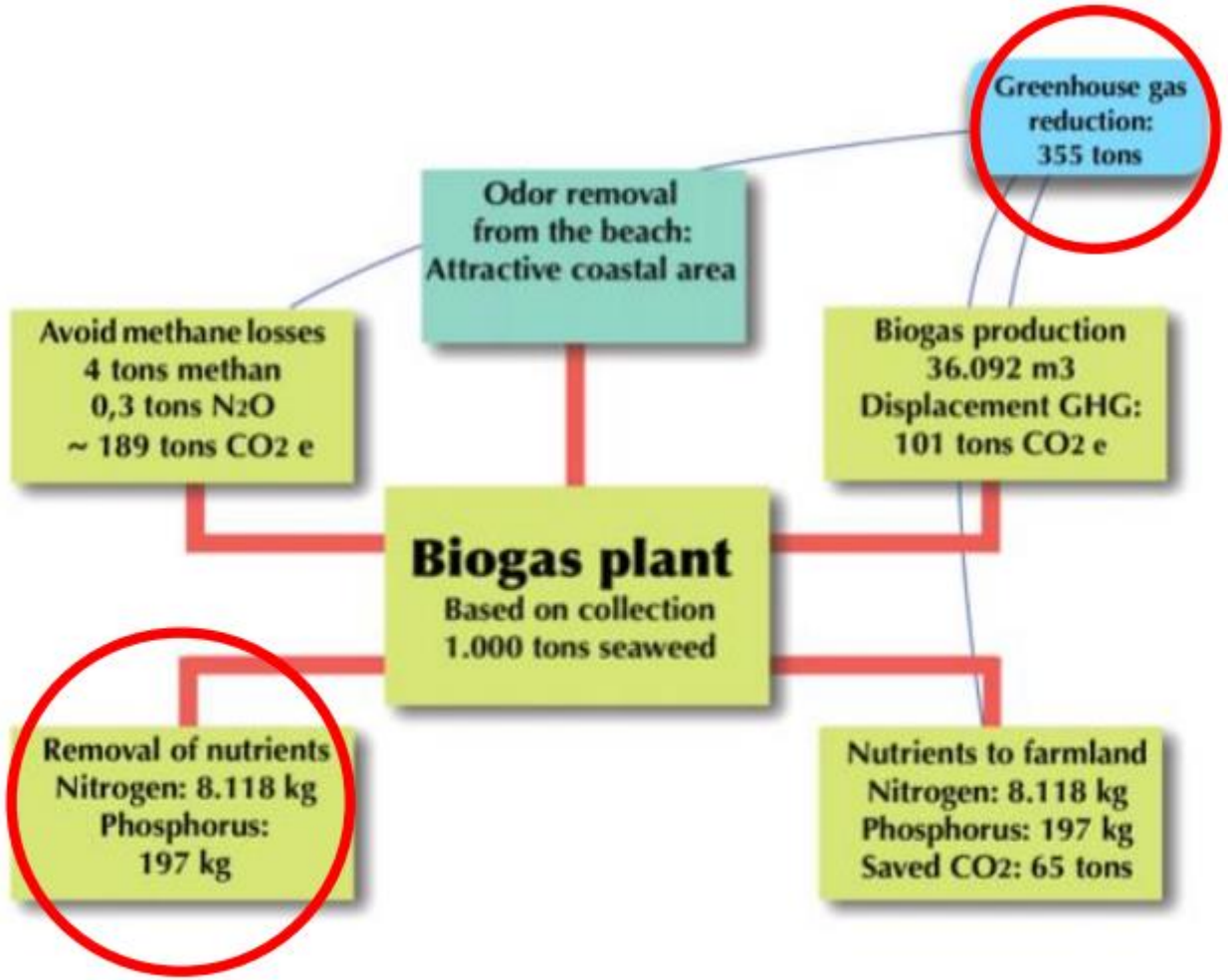
Environmental benefits



Source: Prof. Tyge Kjær, Roskilde University. Presented at 4th COASTAL Biogas conference.

Socio-economic benefits

- Eliminate the inconveniences with rotten seaweed on the beaches (smell, flies, GHG emissions and release of toxic H2S);
- Improve the water quality for the benefit of recreation, tourism and value of coastal residential properties;
- Create local value chains – regional development and new job opportunities.

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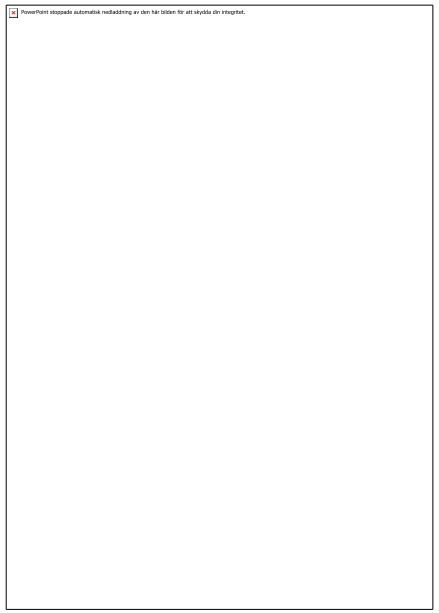
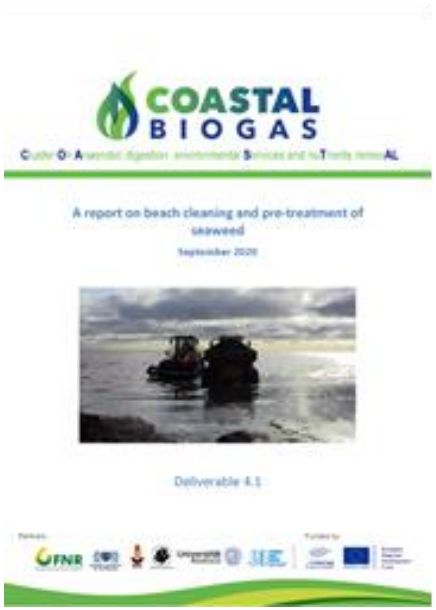
Outputs





Report on the potential of cast seaweed and policy frameworks

Report on beach cleaning and pre-treatment of seaweed

Take a look at the project‘s website → https://www.coastal-biogas.eu/publications/

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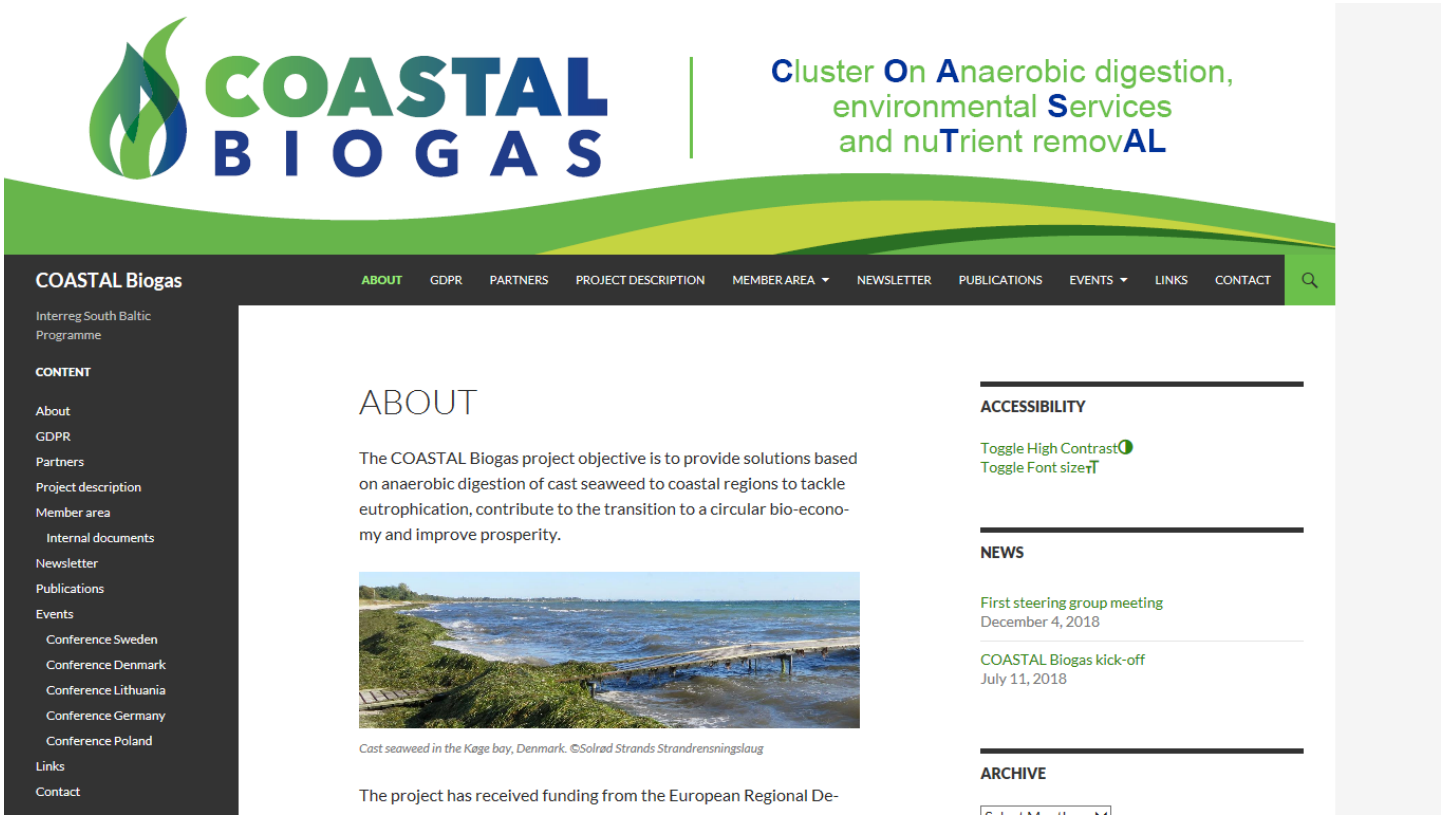

- Information kit & publications
- Events (free registrations and presentations)
- Newsletter

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Thank you!

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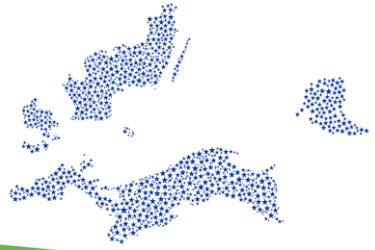

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