



Cluster On Anaerobic digestion environmental Services and nuTrients removalAL

Reduction of eutrophication by using cast seaweed

Thies Fellenberg
Agency for Renewable Resources
(FNR)



5th COASTAL Biogas Conference
17 June 2021
Online



Universität
Rostock



Funded by



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 Strandrenningslaug

Partners



Universität
Rostock



Funded by

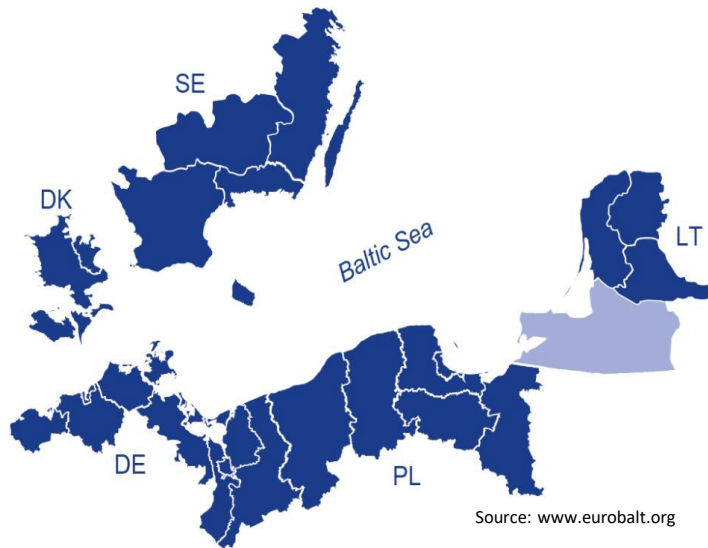


European
Regional
Development
Fund

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

What the project is about...



Source: BEIC | Jörgen Hald

Excess of nutrients (N & P) on farmland



Source: Solrød

Digestate can replace synthetic fertilisers

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



Source: Solrød Biogas



Source: Solrød Biogas

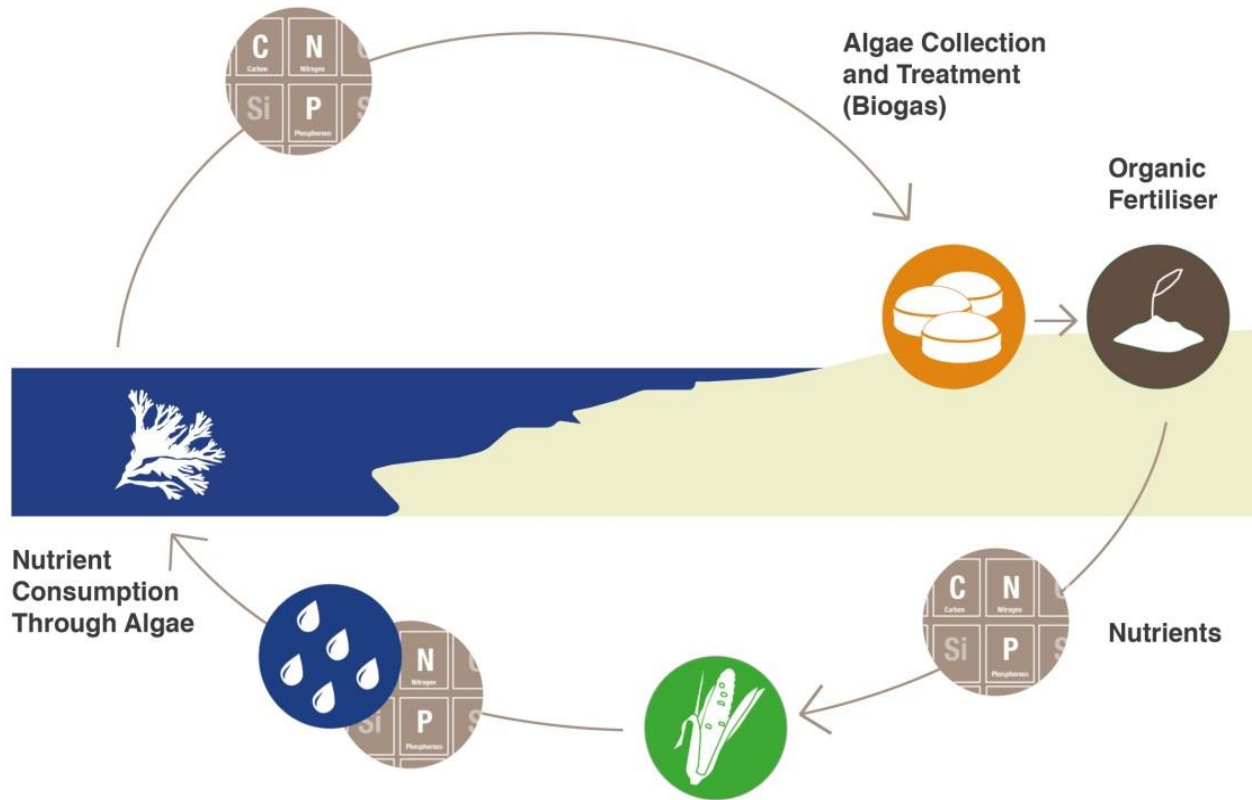
Usage of seaweed as co-substrate for anaerobic digestion

Removal of nutrients by collection of cast seaweed



Source: Preben Larsen

Closing the nutrient cycle



Source: Angela Clinkscates, UROS

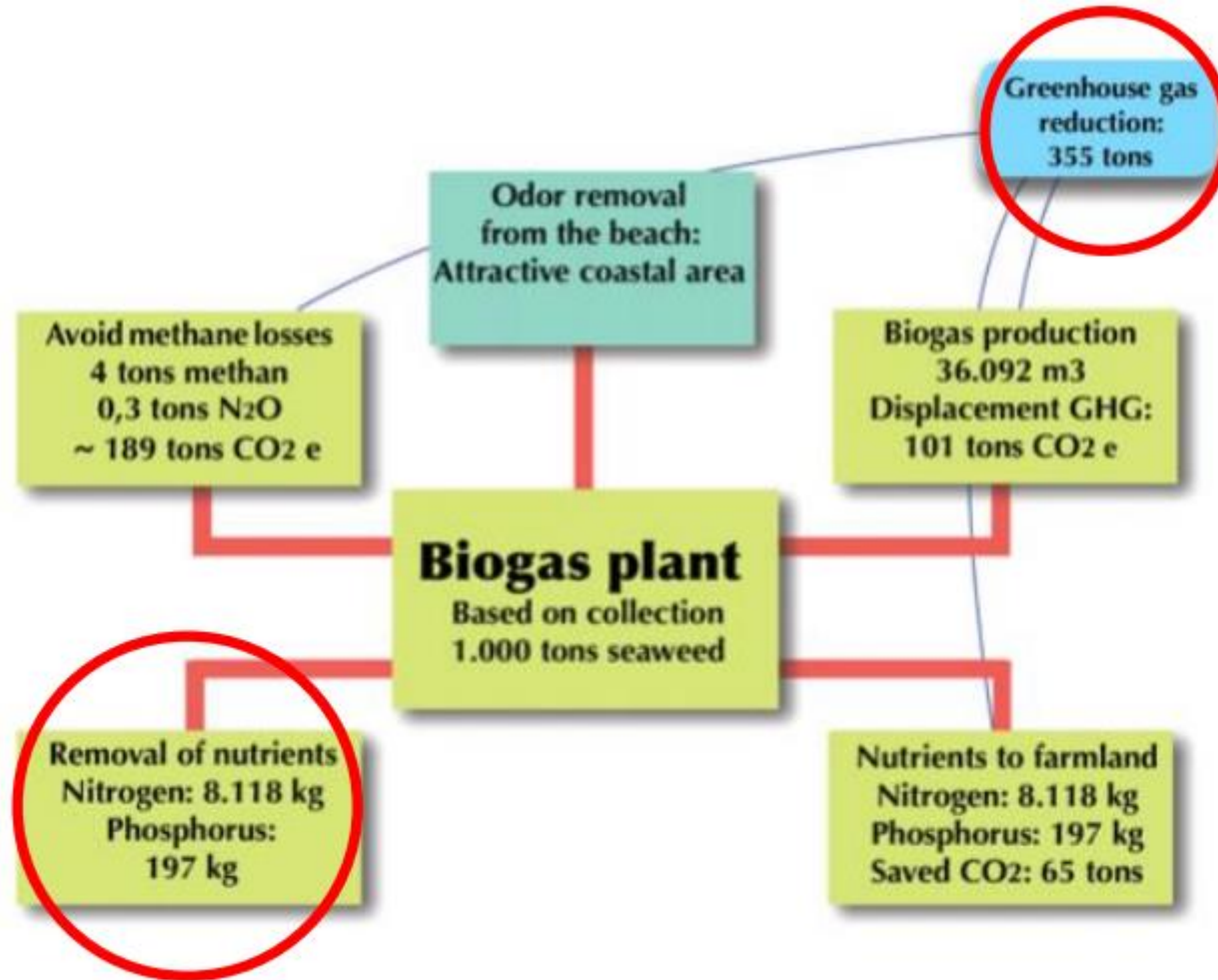


Usage of seaweed as co-substrate

- 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.



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.

Partners



Universität
Rostock

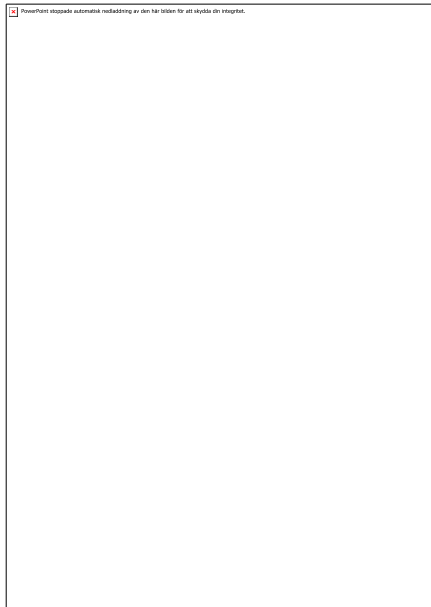


Funded by



European
Regional
Development
Fund

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/>



www.coastal-biogas.eu



Cluster On Anaerobic digestion,
environmental Services
and nuTrient removAL

COASTAL Biogas


Interreg South Baltic Programme

CONTENT

- About
- GDPR
- Partners
- Project description
- Member area
- Internal documents
- Newsletter
- Publications
- Events
 - Conference Sweden
 - Conference Denmark
 - Conference Lithuania
 - Conference Germany
 - Conference Poland
- Links
- Contact

ABOUT

The COASTAL Biogas project objective is to provide solutions based on anaerobic digestion of cast seaweed to coastal regions to tackle eutrophication, contribute to the transition to a circular bio-economy and improve prosperity.



Cast seaweed in the Kage bay, Denmark. ©Solrad Strands Strandrenningslaug

The project has received funding from the European Regional De-

ACCESSIBILITY

- Toggle High Contrast
- Toggle Font size

NEWS

- First steering group meeting
December 4, 2018
- COASTAL Biogas kick-off
July 11, 2018

ARCHIVE

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

Partners



Universität
Rostock



Funded by



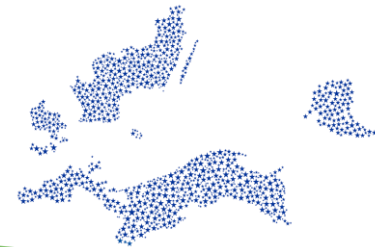
European
Regional
Development
Fund



Cluster On Anaerobic digestion environmental Services and nuTrients removal

Thank you!

Thies Fellenberg
Agency for Renewable Resources
(FNR)



5th COASTAL Biogas Conference
17 June 2021
Online

Partners



Universität
Rostock



Funded by



European
Regional
Development
Fund