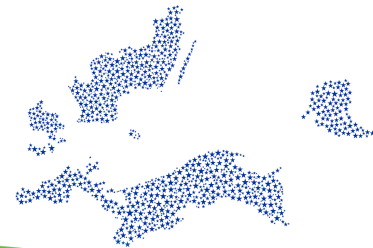




Cluster On Anaerobic digestion environmental Services and nutrients removal

COASTAL Biogas – use of cast seaweed to mitigate eutrophication

Jörgen Held
Baltic Energy Innovation Centre



CONTRA Final Conference
1-2 June 2021

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The challenge



Eutrophication has both ecological and social consequences and is one of the major environmental problems in the Baltic Sea.

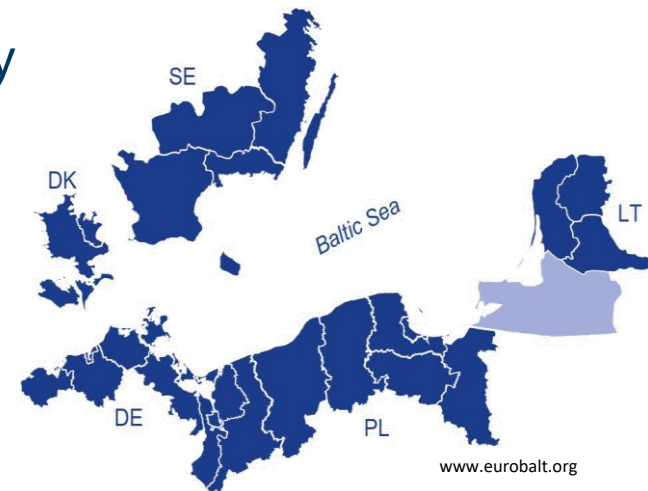
The COASTAL Biogas project is a response to this challenge.



COASTAL Biogas



- Programme: Interreg South Baltic
- Budget: 1,666,820 €
- Duration: 42 months (07/2018 – 12/2021)
- Participation: 6 partners from 5 countries
FNR – coordinator
Gdansk University of Technology
Baltic Energy Innovation Centre
Lithuanian Energy Institute
Roskilde University
University of Rostock



+ 11 Associated partners

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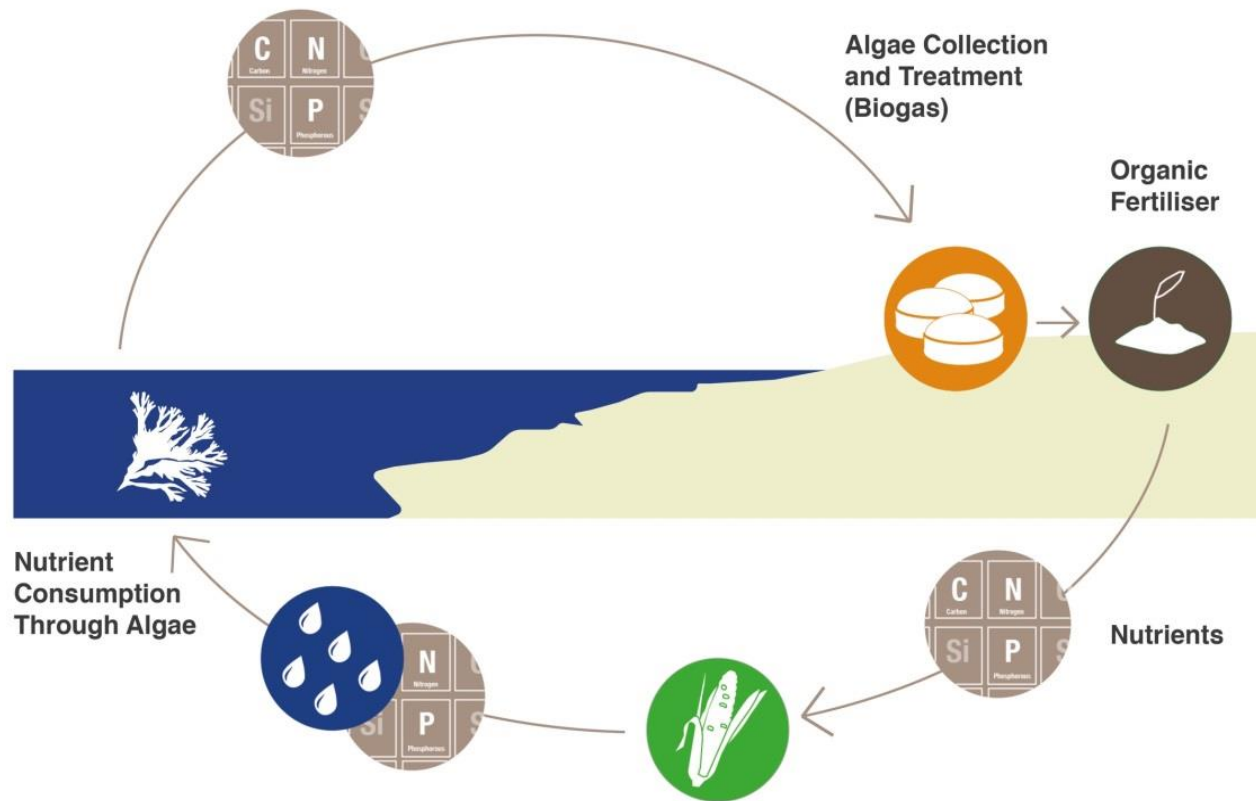


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Closing the nutrients loop



Collect seaweed – digest it – use the digestate as an organic fertilizer and offset the use of synthetic fertilizer – continuous removal of N and P from the sea.



Angela Clinkscales,
UROS

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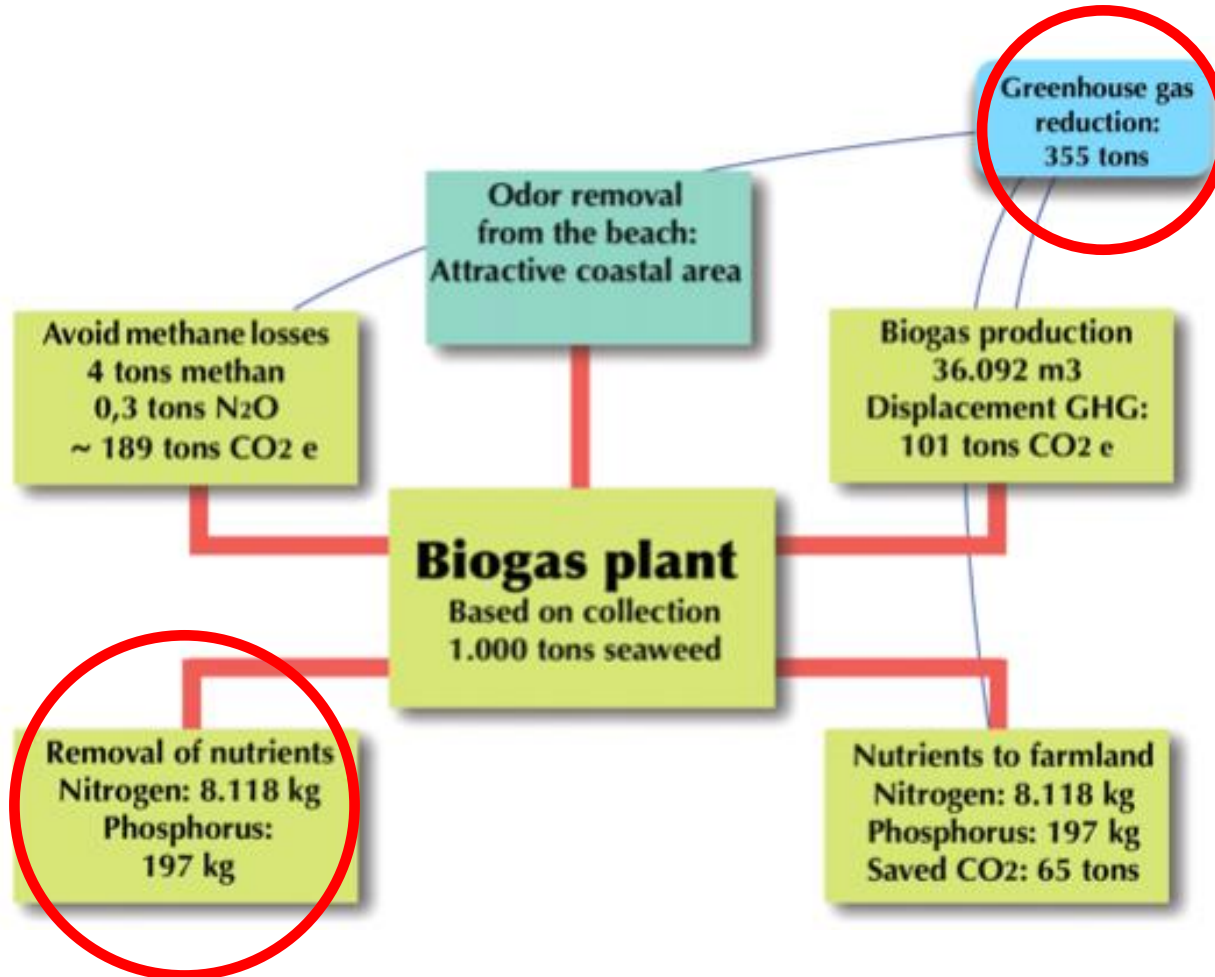
Cast seaweed as substrate



Cast seaweed is co-digested in industrial scale at Solrød Biogas plant in Denmark.

1,522 tons of cast seaweed was processed in 2019. The total capacity of the biogas plant is 226,000 tons of substrate.

Environmental benefits



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

Potential



The annual potential of cast seaweed in the South Baltic Sea area is estimated to ~2,000,000 tons

D3.3 and D4.1



<https://www.coastal-biogas.eu/publications/>

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Socio-economic benefits



Reduce eutrophication - close the nutrients cycle – circular bio-economy and organic farming – less need for synthetic fertilisers

Eliminate the inconveniences with rotten seaweed on the beaches (smell, flies, GHG emissions and release of toxic H_2S) and improve water quality for the benefit of recreation, tourism and value of coastal residential properties. Create local value chains – regional development and new job opportunities





**Save the
date**

Biogas and digestate from cast seaweed - anaerobic digestion

17.06.2021 | 10:00-15:30 CEST

Online – free of charge- limited to 100 participants

[Registration and agenda: https://www.coastal-biogas.eu/events/conference-poland](https://www.coastal-biogas.eu/events/conference-poland)

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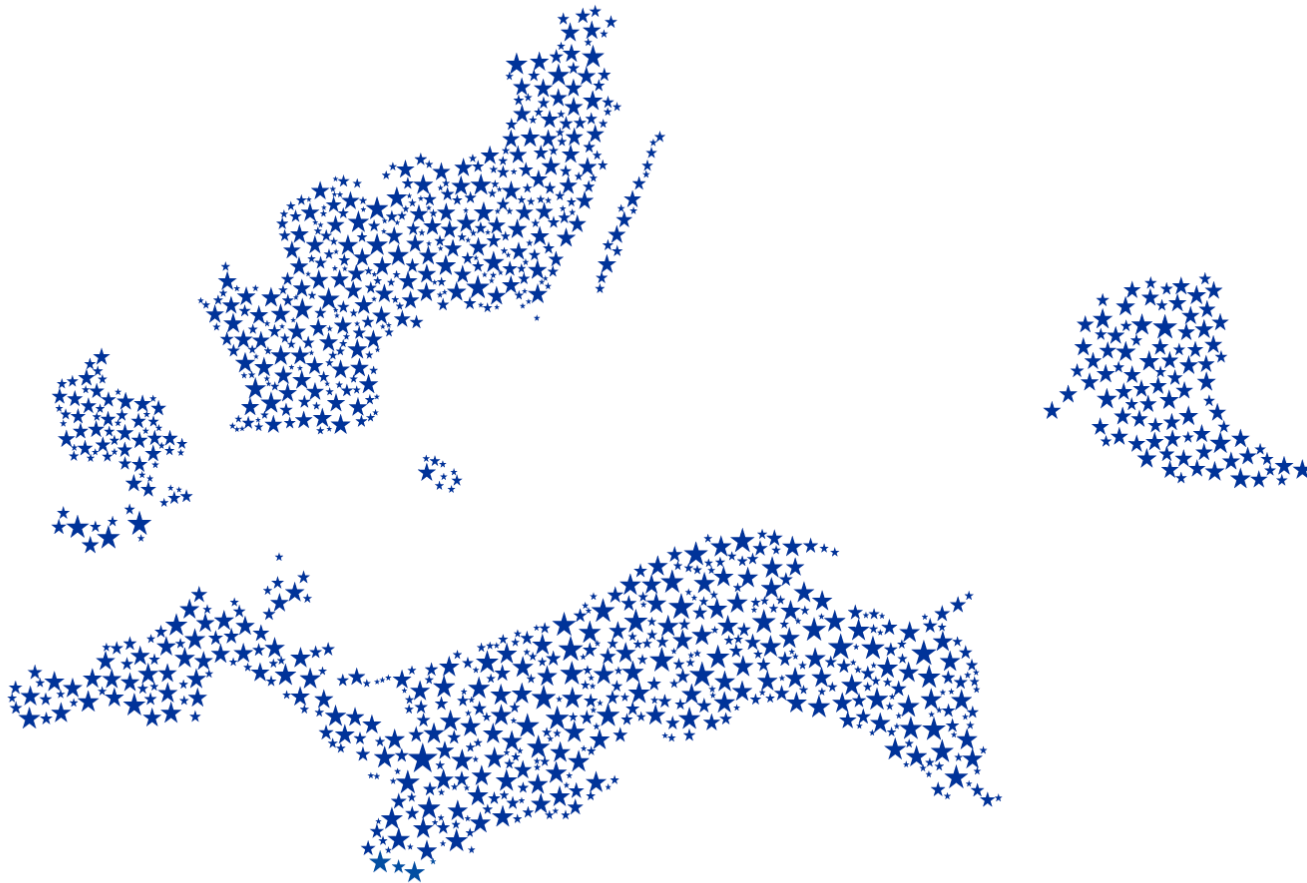
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Thank you!



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