



Macroalgae & beach cast

For restoration and biomass production

Efthalia Arvaniti, SUBMARINER Network
SUBMARINER Members Assembly 2019



Berlin, 7. November 2019

GRASS project

- unlock the potential of macroalgae as a sustainable biomass in the Baltic Sea Region

Efthalia Arvaniti, PhD
Programme manager SUBMARINER Network EEIG

GRASS upcoming developments in 12 months

- Collecting georeferenced data on macroalgae growth (Uni Tartu)
- Scoping macroalgae species in the Baltic proper (KTH)
- Collecting macroalgae samples and analysing toxicology (and regulations) & Analyse food and feed regulations for macroalgae incl. harvested (Uni Turku)
- Analysing political environment for production of macroalgae (incl processes) (SYKE)
- Creating templates for EIA and analyse MSP for mariculture (LIAE)
- Identifying the possible and most probable end-products & Analysing consumers' perception (NMFRI)
- 18 Stakeholder workshops in DE, SE, EE, LV, PL, FI and RU
- Conference 2020



Events near you: Get involved!

- SAVE THE DATE: **GRASS Conference** 3. June 2020 in Berlin (SUBMARINER).
- Join one of the 18 planned stakeholder meetings in the BSR (DE, SE, FI, LV, EE, PL, RU, DK).
 - Combine stakeholder events with Blue Platform workshops??
- To get informed for upcoming events near you, subscribe to the GRASS stakeholder list!





seafarm
269 9111

MAKROALGER FÖR ETT
BIOBASERAT SAMHÄLLE



CHALMERS
UNIVERSITY OF TECHNOLOGY



GÖTEBORGS
UNIVERSITET

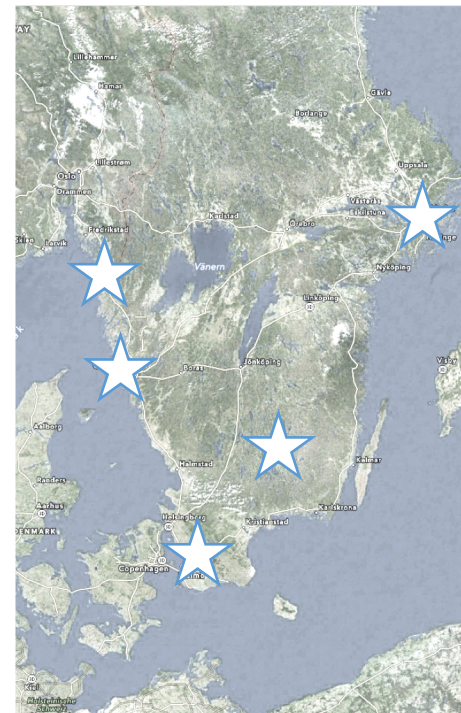
Linnéuniversitetet

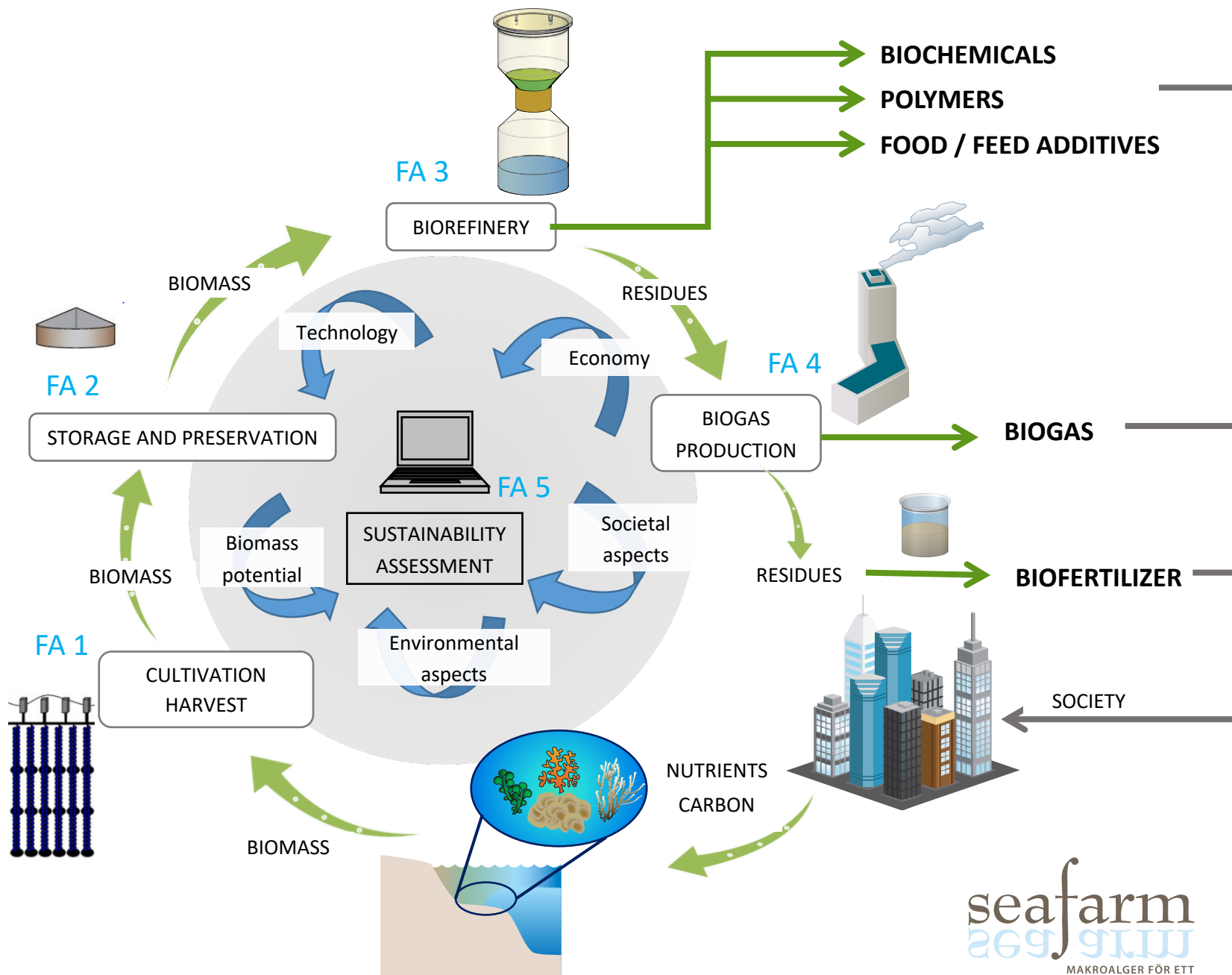


LUNDS
UNIVERSITET



Forskningsrådet
Formas





- Contra focuses on areas/beaches where the beach wrack is removed anyway and seeks alternative solutions for the use of beach wrack that (is considered as waste) is ought to end up in the landfill.
- Both, SDU and UniTartu participate in **sustainability and ecological assessment with and without beach wrack removal**; SDU examines two locations in Denmark: Nyborg and Køge); Uni Tartu examines the region Kakumäe Beach (Tallinn, Estonia).

Business cases



1. DE: Production of fertilizers/soil improvement products
2. DE: Feasibility study of vapo-thermal carbonization (MEC)
3. DK: Beach wrack as a compost material in landfill biocovers to increase the biological oxidation of methane
4. RU: coastal protection (dunes and sand fore-dune wall)
5. Kalmar SE: Biogas – beach wrack for anaerobic digestion process
- 6A. PL: Analysis of pollutant flux to coastal zone originating from decaying algae & sea grass on beaches
- 6B. PL: Compost in fertilizer production.





SUBMARINER planned interactions with CONTRA

- SUBMARINER aims to create strong synergies with
- CONTRA/GRASS on environmental benefits and risks & socio-economic opportunities surrounding harvested seaweed (incl. beach cast, free floating etc): exchange data, develop joint stakeholder meetings/workshops, publications
 - Connect SDU & UniTartu with LIAE
- The Baltic Blue Biotechnology Alliance mentoring programme
- Develop joined events

BIOFISK case

Harnessing beach cast of wild seaweed and eelgrass as biomass for new productions and services.

Feasibility test of cast as medium for breeding insects for use in the production of protein fish feed.



GULDBORGSUND

Future challenges and triggering actions for macroalgae & beach cast

- What are the next steps in macroalgae production and use? What are the challenges and what knowledge do we still miss?
- Who is interested in and can contribute in the topic?