

## Guldborgsund – a bioeconomy hotspot





# Municipality of Guldborgsund

- Rural municipality
- Richest soil strong reputation for plant breeding expertise
- DK seed breeding center
- 328 km coastline
- Low business activity
- Shrinking population
- Good transport infrastructure





# Unanimous city counsil mandate

Make a platform to support local development of bio economy through valorizing surplus and waste biomass and bio energy production in order to:

✓ create new jobs
✓ reduce CO<sub>2</sub> emissions
✓ boost local knowledge and science activities
✓ green the businesses

The municipality of Guldborgsund facititates but does not invest



Guldborgsund: strategic focus on bioøkonomi

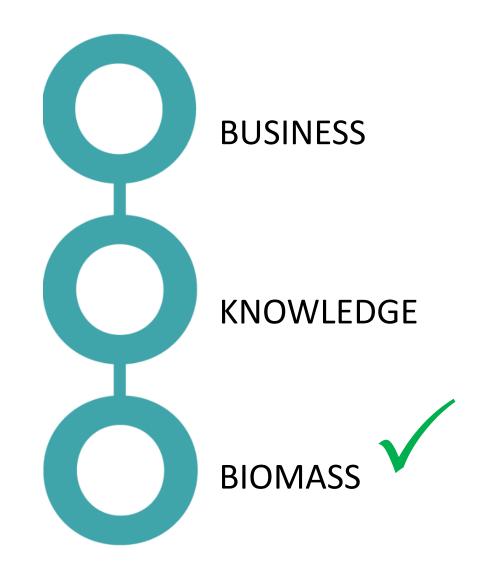
- Basis for new jobs through
- A green economy



# What actions do we take ?

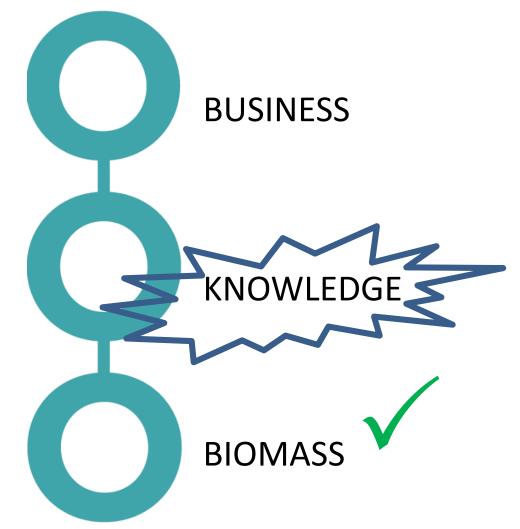










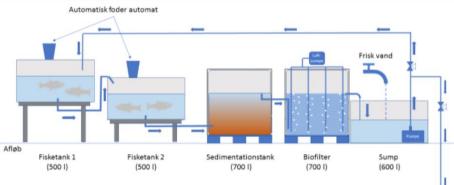




#### InnoAquaTech











Algetank (udenfor) (1000 l)



### Partnerskaber og samarbejdsaftaler



CENTER FOR CIRKULÆR BIOØKONOMI

AARHUS UNIVERSITET





European Regional Development Fund



**EUROPEAN UNION** 

SDU 🎓

SUBMARINER NETWORK



CARL VON OSSIETZKY **UNIVERSITÄT** OLDENBURG





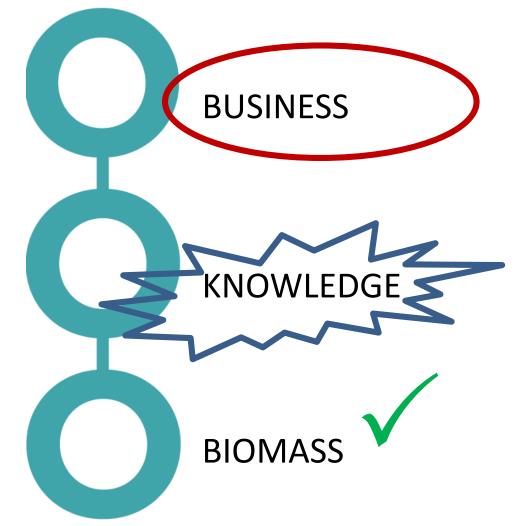






#### GULDBORGSUND









### Danish Bioeconomy Conference







GULDBORGSUND

Examples of local biomass/residual resources to be valorised through **Circular Bioeconomy.** 

We work with green and blue biomass:

- Sugarbeet leaves
- Straw
- Round goby
- Beach cast
- Seaweed
- Surplus electricity













ALLIANCE

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.

### Case #8: Guldborgsund Municipality Mentors: DTI (1), SUBM, KTH (2)

## **BIOFISK: beach cast biomass for feed?**

- Main idea: instead of paying lots of money to clean and dispose of beach cast, GBS would like to see if it can form a basis for a new feed product, attract production companies and save money!
- Progress since early summer
  - 48 samples from 6 coastal areas in GBS June October
  - 48 samples dried, measured for dry matter, pH, conductivity, sand and ash in DTI labs. All samples evaluated regarding content of eel grass, bladder wrack, sea salad, fedtemøj, etc.
  - 9 samples sent to EUROFINS show no challenges regarding heavy metal content
  - Beach cast mixed with a) bio pulp and b) malt mash (25-75%) and fed to BSF larvae: Up to 25% beach cast acceptable for larvae growth rate.
- Needs/challenges 2018:
  - Test and trial of feed mixtures , contact with feed companies
  - Proof-of-concept, business case, beach cast perspectives
  - Documentation re: cultivation of root veg in beach cast (KTH ?)
  - Documentation of micronutrients and probiotic qualities
  - EU restrictions of bio pulp as novel feed content





6<sup>th</sup> partner meeting, 9.-11. April 2018, CPH.



### Visit our homepage: bioguldborgsund.dk

#### GULDBORGSUND = ET VÆKSTCENTER FOR BIOØKONOMI

