

Aquacombine Presentation



PROJECT COORDINATION: METTE HEDEGAARD –
AALBORG UNIVERSITY

Co-funded by:



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Green transition?





Major World Challenge in Green Trans

BY 2030 WE WILL NEED...



50% MORE FOOD
40% MORE ENERGY
30% MORE WATER



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Soil salinity has been reported as a major factor in farmland degradation.



About 6.7 million hectares are considered salt-affected and 72 million hectares are considered sodic in the EU.



24% of globally usable land on Earth is degraded at an estimated economic loss of 490 USD billion per year.

Soil salinity worldwide challenge



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This is a global and European challenge that needs to be addressed and this challenge will become increasingly demanding in order to meet the expected demand of 50% more food, 40% more energy, and 30% more water by 2030.



**50%
MORE
FOOD**



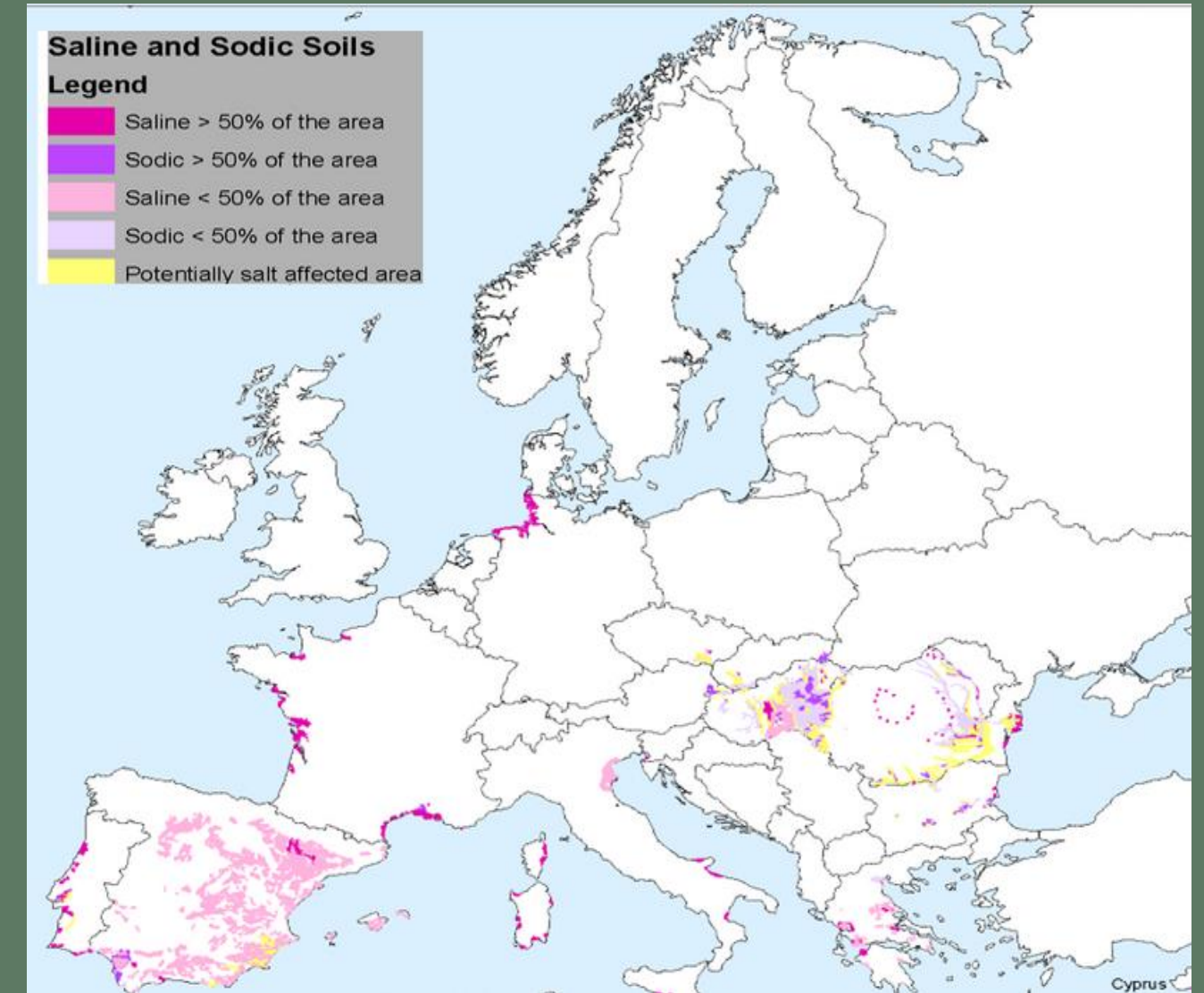
**40%
MORE
ENERGY**



**30%
MORE
WATER**



**By 2030,
we will need...**



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Halophyte are old medicinal plants and offer health benefits that are highly sought after in today's society, where consumption of purpose bred crops and refined food are causing an epidemic in lifestyle diseases.

As halophyte farming can be done in various scale and for various purpose; both as a healthy food source and as biomass for biorefining, evolving this technology has great potential to boost growth and employment in coastal areas even in areas with low quality soils and arid environments.

Halophyte plants



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Salicornia plant



Fresh tips for food



Short season for food production due to lignification of the plant



Large residue at the end of the season (Typically un-used)

Lignified plant



Not suitable as forage crop

Not suitable for soil enhancement

Approx. 1/3 of total biomass production



Valorisation of the lignified fraction of the biomass will significantly increase feasibility



Approx. 2/3 of total biomass production



Dry Halophyte straw



Extractives fraction



Bioactive compounds

Antioxidants

Anti-inflammatory compound

Antimicrobials



Extractives free fibres



Fibres for biogas

Fibres for feed products
(dietary fibres)



Green succulent halophyte biomass



Green juice



Protein

Lipids

Carotenoids

Chlorophyll

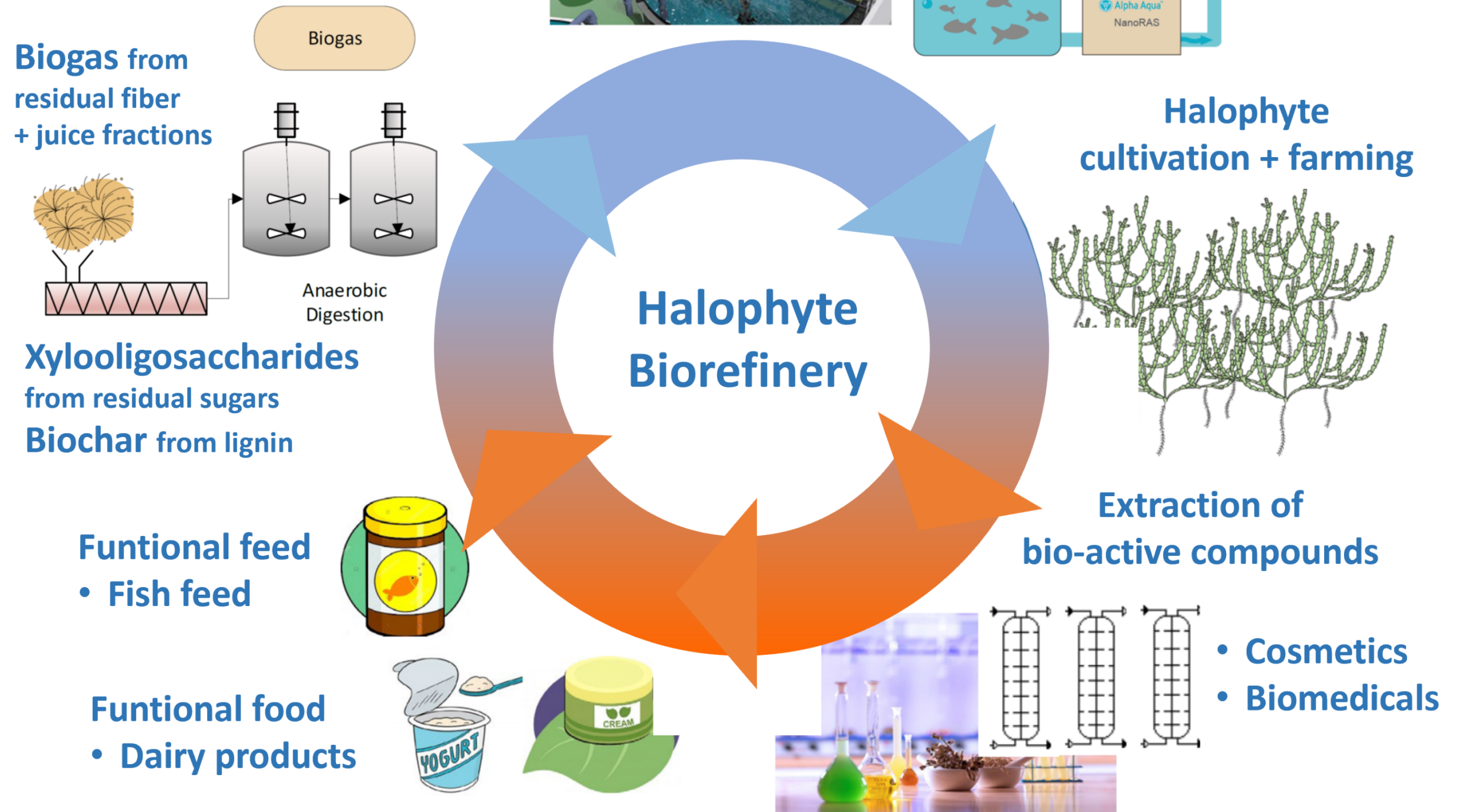


Green pulp



Fibres for biogas

Fibres for feed products
(dietary fibres)



CONSORTIUM



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Thank you!



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