



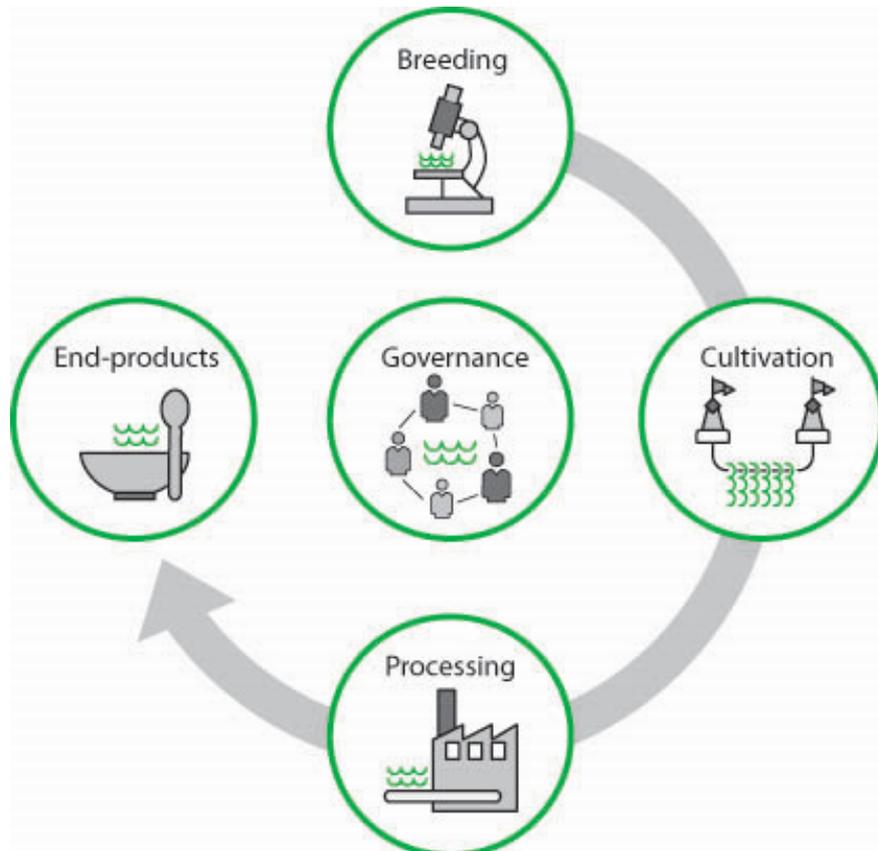
7 & 8 November 2017

The Netherlands

Seagrass Agriculture

6th international seaweed conference

ABSTRACT BOOK



Benelux



Den Haag

Cargill



**NOORDZEE
BOERDERIJ**



The Somos project, risk management and first results

Sander van den Burg PhD

Wageningen University & Research

Sander.vandenburg@wur.nl

@sander_vdburg

About the author

An environmental scientist by training, Sander has studied the socio-economics as well as environmental aspects of seaweed aquaculture, processing and use in multiple national and EU funded projects. After obtaining his PhD degree at Wageningen University and a short outing to sustainable building, Sander started work at Wageningen Economic Research, with projects dealing with sustainable use of green (land) and blue (sea) space. Since 2011, he is involved in research on the potential of seaweeds, including economic feasibility studies, LCA, studies into impact on ecosystem and consumer acceptance of seaweed food products. Various projects – including MERMAID, TripleP@sea and SOMOS - focused on the feasibility of multi-use of offshore wind farms. Where MERMAID sought to design multi-use of offshore wind farms, together with various stakeholders, the SOMOS project seeks to identify, assess and find ways to deal with the risk of multi-use.

About the company/institute

Wageningen University & Research

Droevendaalsesteeg 4

6708 PB Wageningen, The Netherlands

+31 (0) 317 480100

www.wur.nl/en

To explore the potential of nature to improve the quality of life'. That is the mission of Wageningen University & Research. A staff of 6,500 and 10,000 students from over 100 countries work everywhere around the world in the domain of healthy food and living environment for governments and the business community-at-large. The strength of Wageningen University & Research lies in its ability to join the forces of specialized research institutes and the university. It also lies in the combined efforts of the various fields of natural and social sciences. This union of expertise leads to scientific breakthroughs that can quickly be put into practice and be incorporated into education. This is the Wageningen Approach. The domain of Wageningen University & Research consists of

three related core areas: Food and food production; Living environment and Health, lifestyle and livelihood.

Abstract

As maritime sectors – including offshore energy generation, aquaculture, and tourism – grow, pressure on the sea space increases. This pressure leads to competition between different users of the seas and has led to research on the potential of multi-use of sea and ocean space. Earlier studies that researched multi-use have resulted in technical designs, studied technical feasibility, assessed economic feasibility, developed business plans and/or identified social and regulatory barriers. A recurrent reported bottleneck to the development of multi-use is lack of insight into the risk of multi-use. It is argued that this lack of insight – and subsequent absence of procedures for risk management - hinder insurance and financing.

The SOMOS project, funded by Lloyds Register Foundation, is a joint research project of Wageningen Research and TNO that aims to develop a meaningful safety assessment and control to stimulate the production of energy and food at sea. The project has five objectives: (1) Demonstrate that multiple economic activities can take place at sea in a sufficiently safe fashion, (2) Establish a method for assessing the safety of multiple economic activities at sea, (3) Identify tools which must be used to carry out the analyses and assessments required to ensure an acceptable safety level , (4) Provide a proof of principle, based on demonstrators, of safe use of sea for combined seaweed and energy production and (5) Create capacity in the marine and maritime community of policy makers, certifiers and operators and initiate a public debate on this issue of safety of multiple uses of marine space with all the stakeholders: politicians, financiers, businesses, operators, legal representatives and societal groups.

Halfway through the project, this presentation bundles the first results of identification of hazards and opportunities, identification of tools for risk assessment currently used, as well results of evaluation of relevant governance in place. Based on the project's first stakeholder workshop and additional interview with stakeholders, a list of hazards is identified, looking from three perspectives: (1) food and feed safety, (2) operational safety of employees and equipment, and (3) safety of the wider environment.

Based on this information, a draft framework for the assessing the safety of multi-use at sea is presented. Given the uncertainties and complexities for many of these hazards, the framework also addresses the question: "Where and how should stakeholders be involved in various stages of safety assessment and control. The next SOMOS workshop is scheduled right after Seagriculture to further discuss the framework, and application of the proposed framework to selected case-studies. With SOMOS, we aim to make a valuable contribution to the development of safe multi-use, in the context of existing rules and regulations.