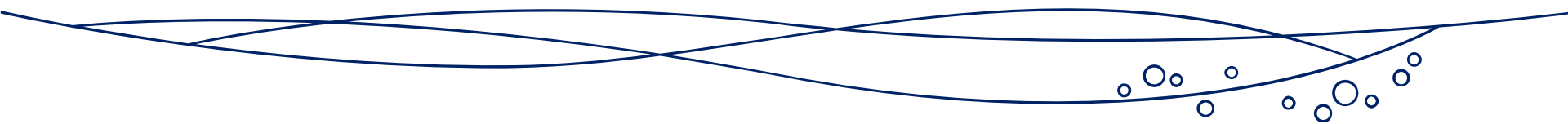




Sotenäs Centre of Symbiosis

2018-11-22





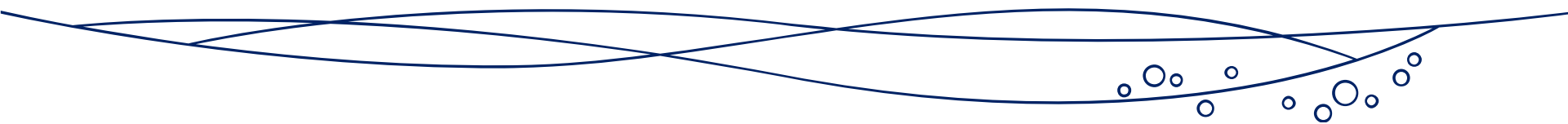
Agenda

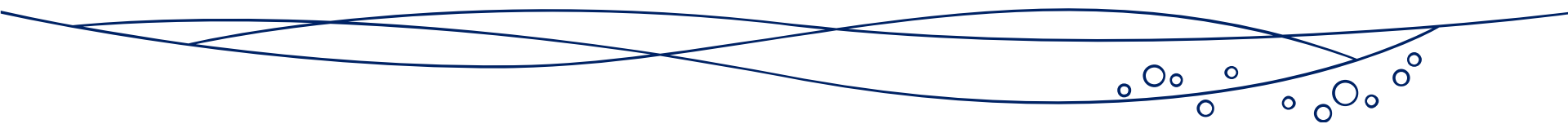
1. About Sotenäs municipality
2. What is industrial symbiosis?
3. Challenges
4. Industrial symbiosis and benefits
5. Sotenäs Centre of Symbiosis





Sotenäs municipality

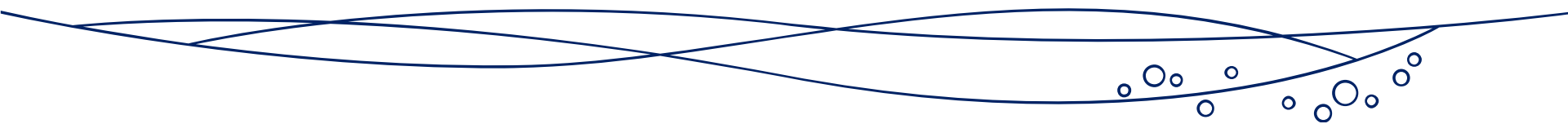






About

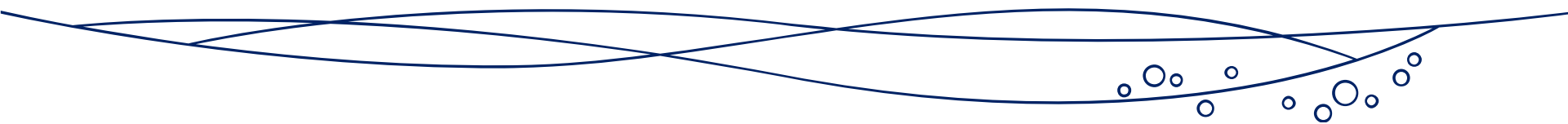
- About 9 000 inhabitants and 14 000 summer residents, 800 000 tourists/year
- The island Smögen is the municipality's most known area
- The Nordic region's leading marine food industry
- There is a culture of entrepreneurship







What is industrial symbiosis?



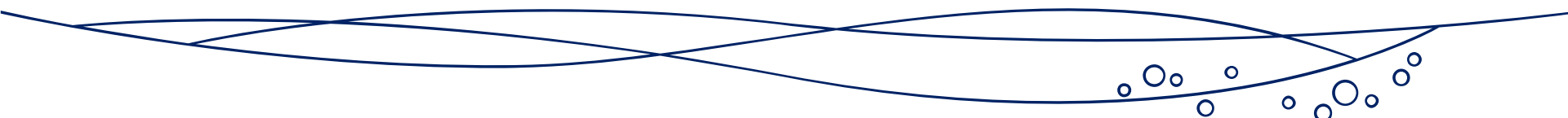
1 + 1 = 3



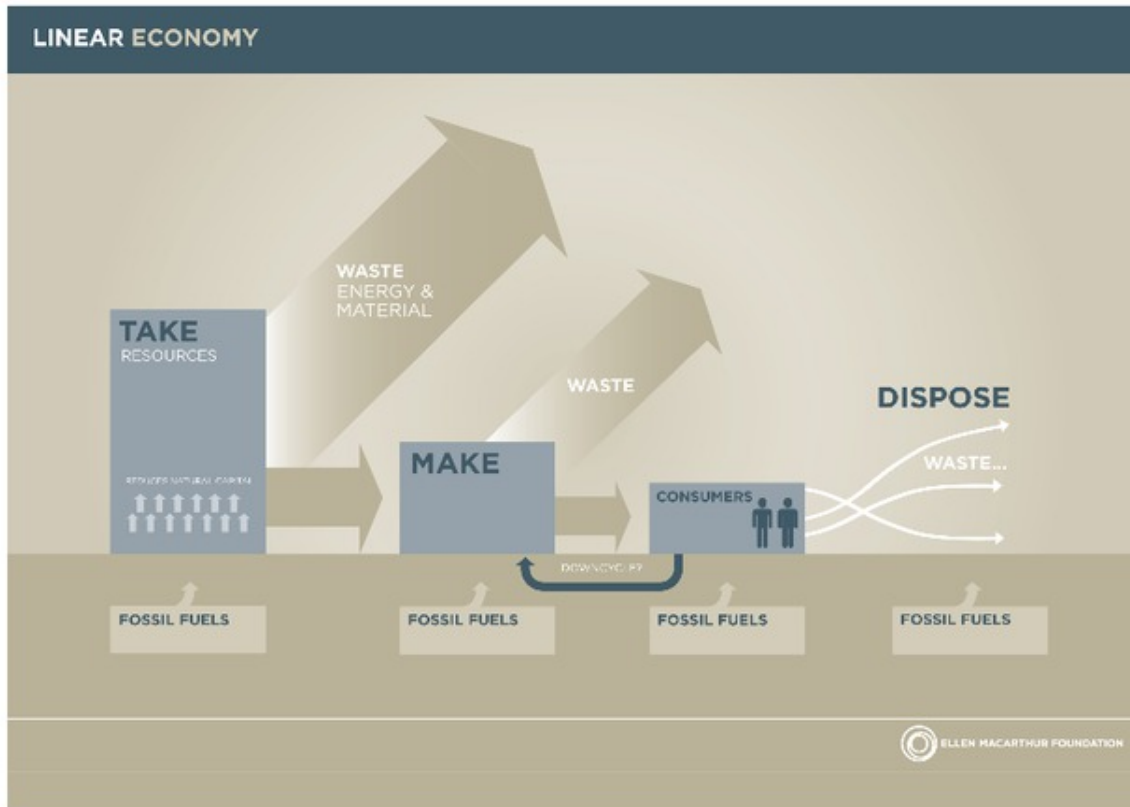
Linear economy



Ellen McArthur Foundation



Linear economy



About 70 % of all waste is created before it reach the consumers



Price



Volume



Ecopyramid

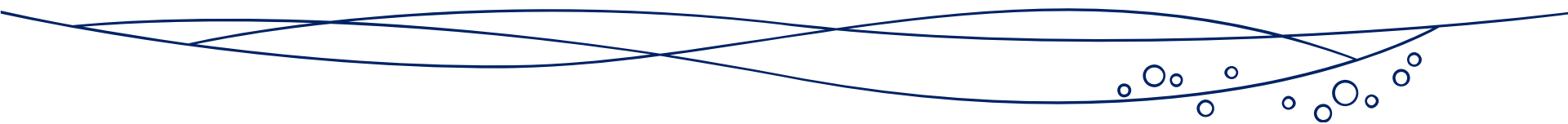


Knowledge about leftovers!



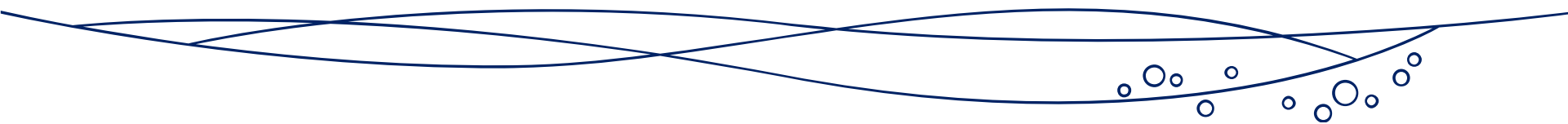


Local challenges



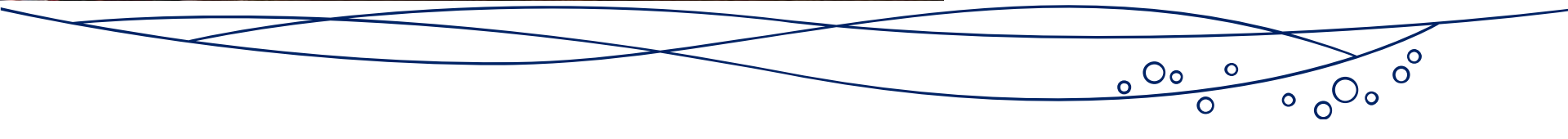


Waste water treatment





Orkla foods





Lerøy



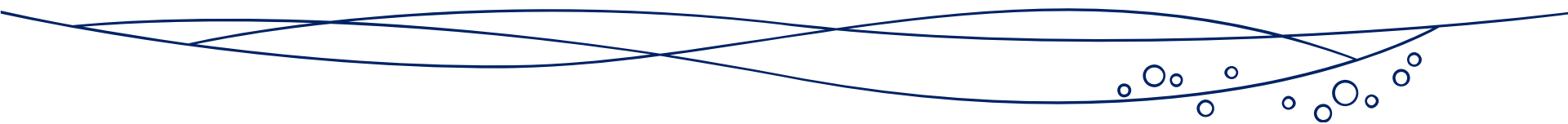


Marenor





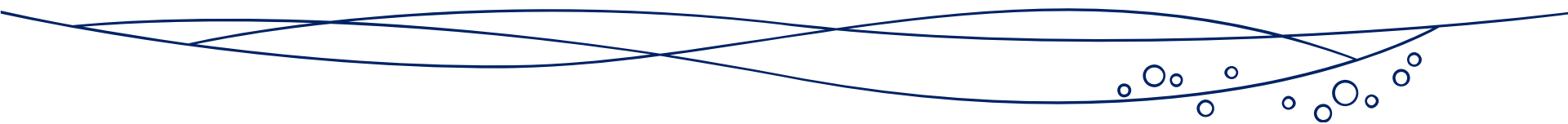
Marine litter and used fishing gears



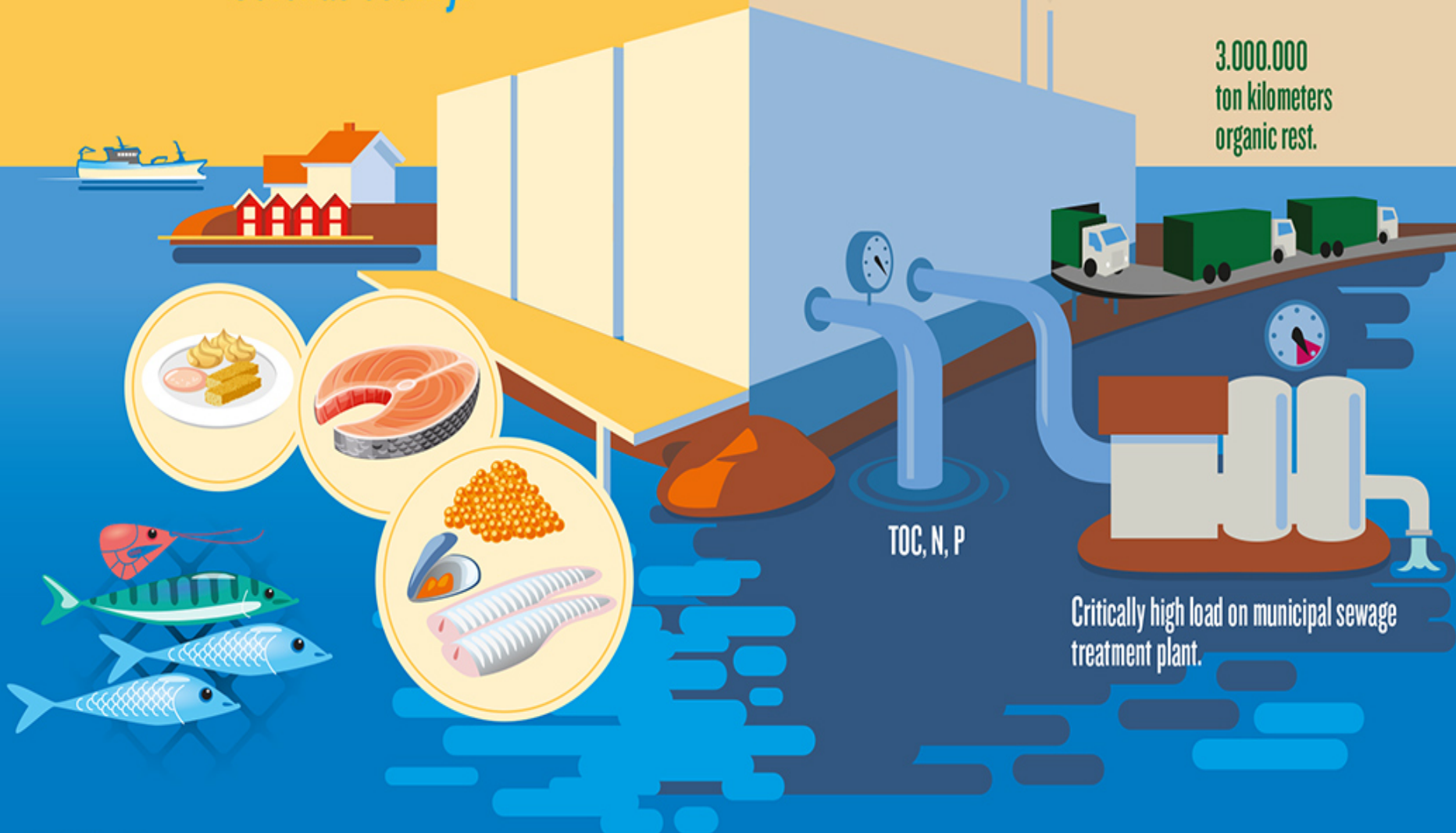




Industrial symbiosis to meet the challenges



Swedens leading suppliers of seafood are located in Sotenäs county!



3.000.000
ton kilometers
organic rest.

TOC, N, P

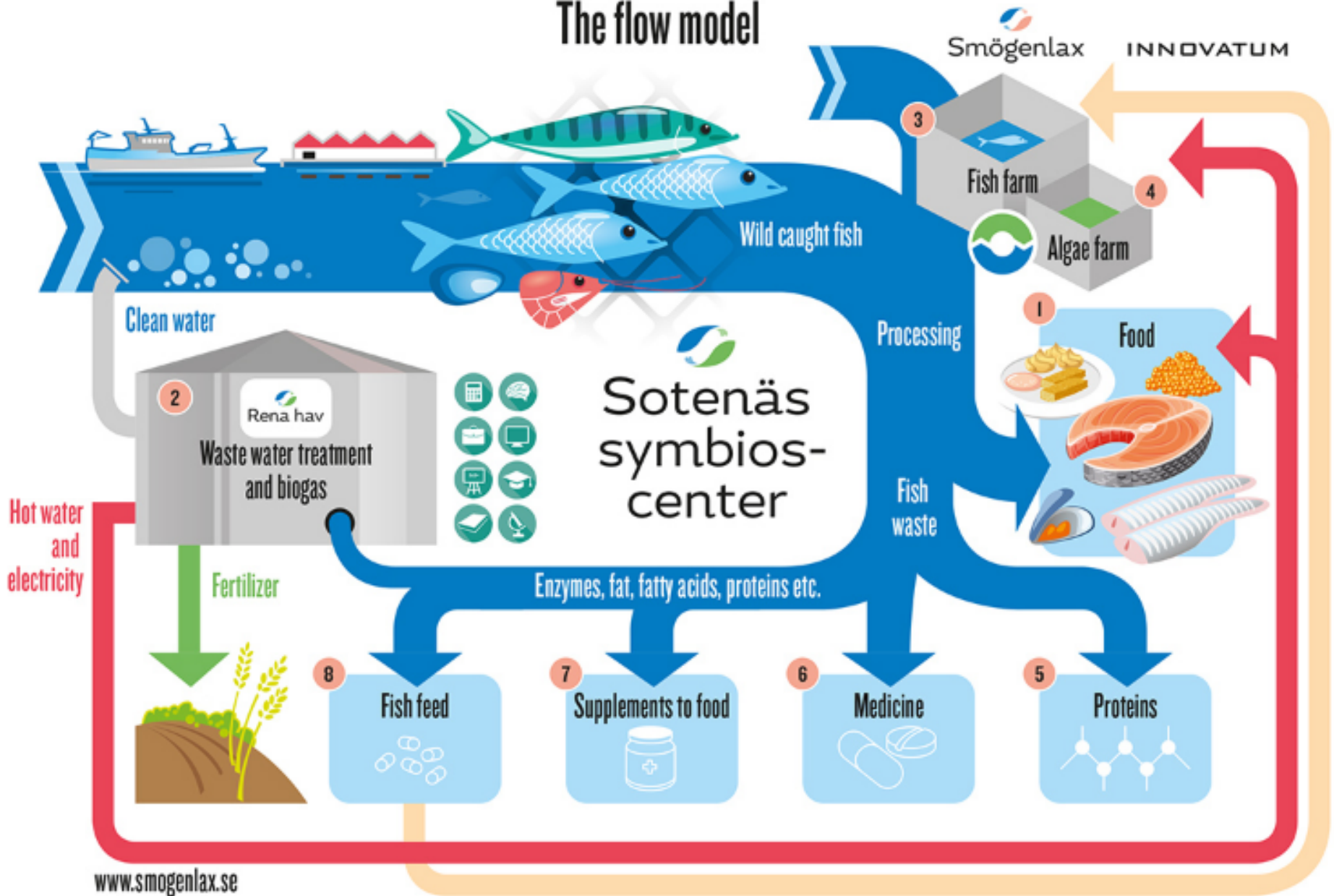
Critically high load on municipal sewage
treatment plant.



Aqua Symbios



The flow model





Marine recycling centre



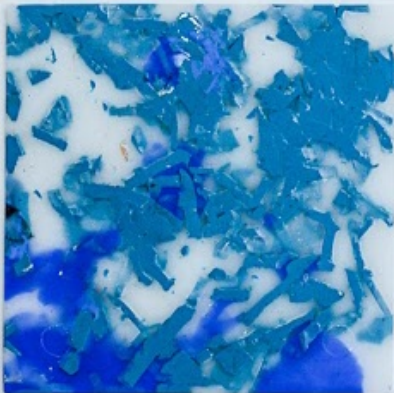
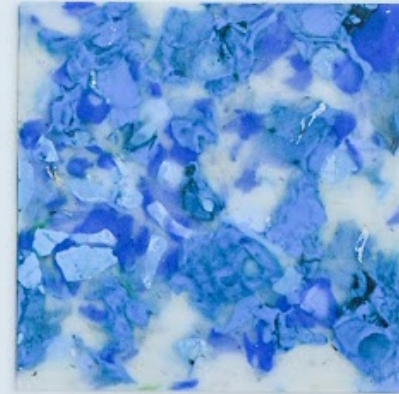
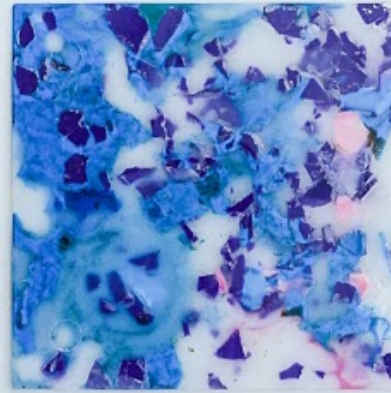
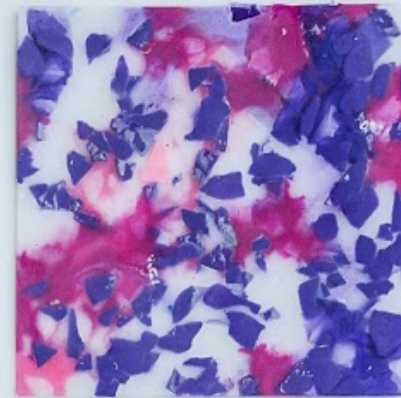
Havsskräp från västkusten blir framtidens mode

Bild från <http://www.bohuslaningen.se>



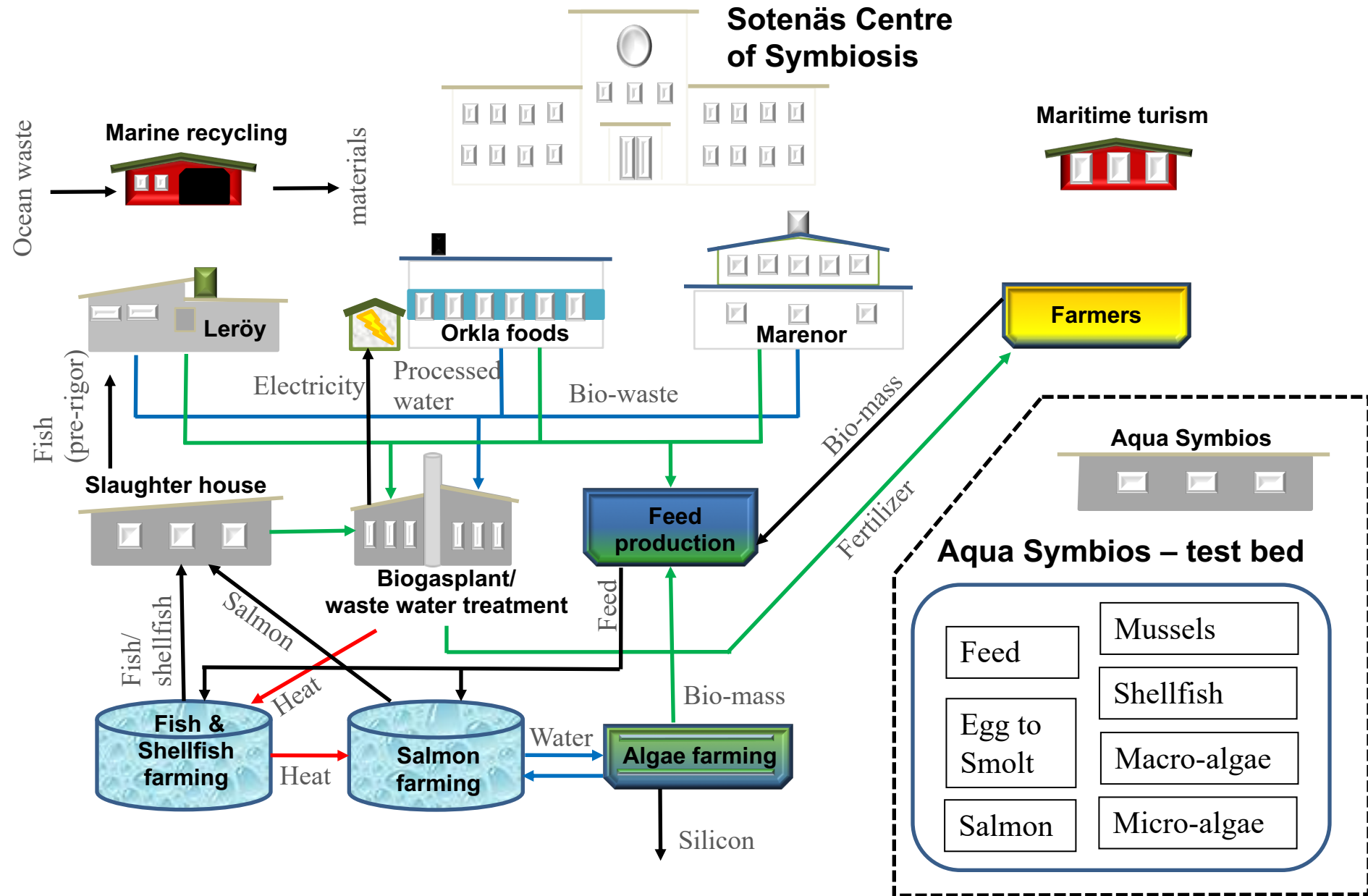






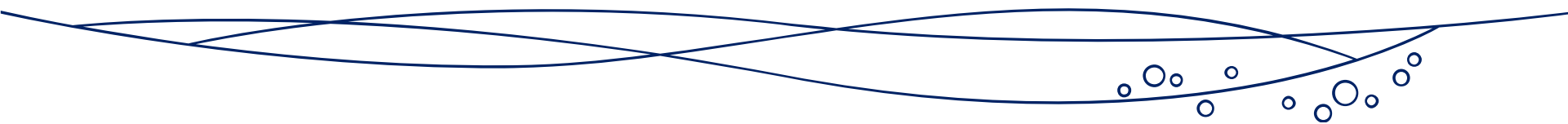
Källa: Examensarbete, Plastic Island, Three Structures based on Transformed Ocean Plastic, Erik Hadin & Emily-Claire Nordang

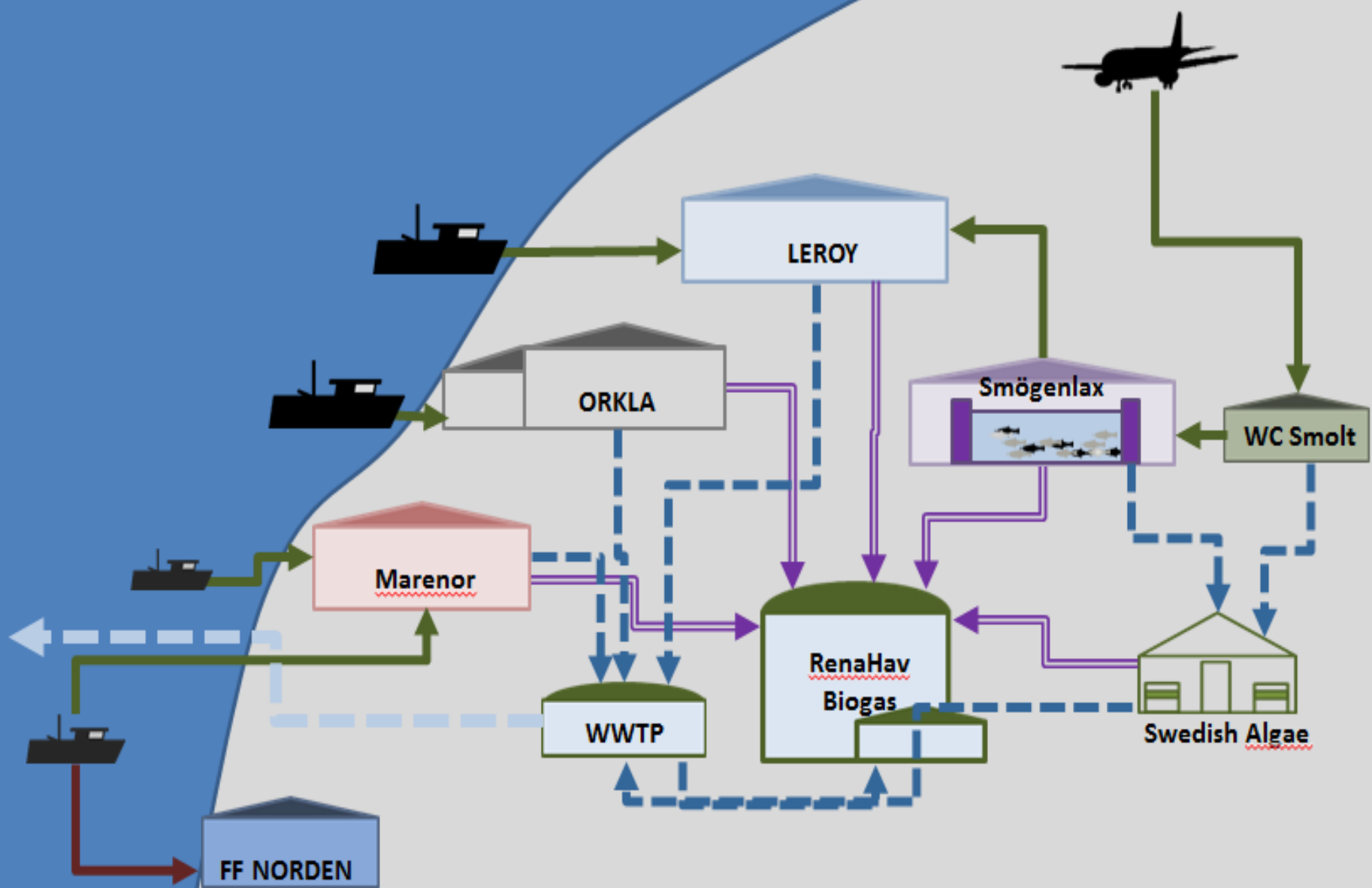
Symbiosis in Sotenäs





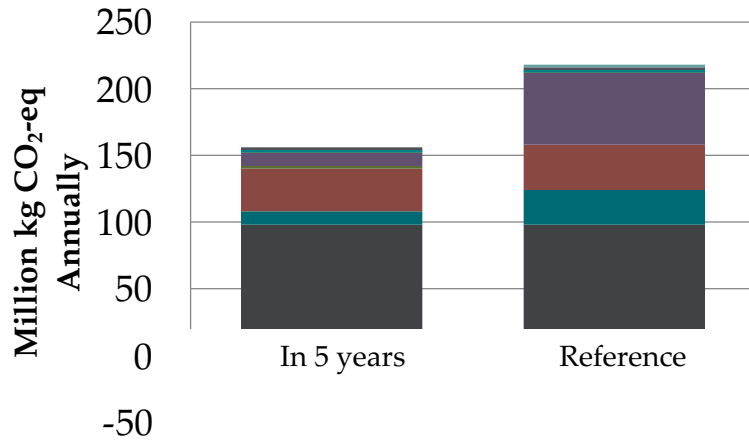
Benefits



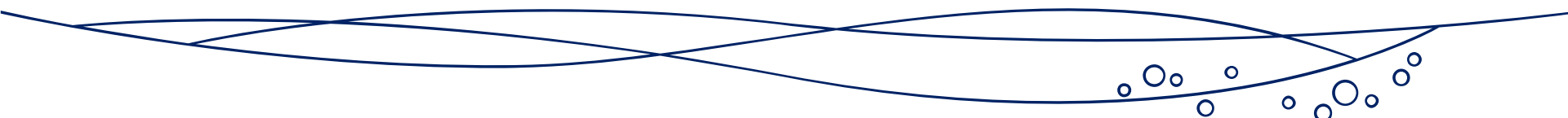




Reduced CO₂-emissions

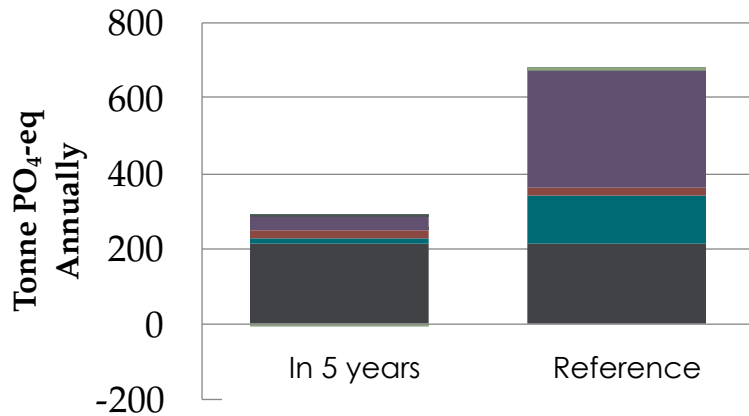


Reduction of 60 000 ton
CO₂-eq/year

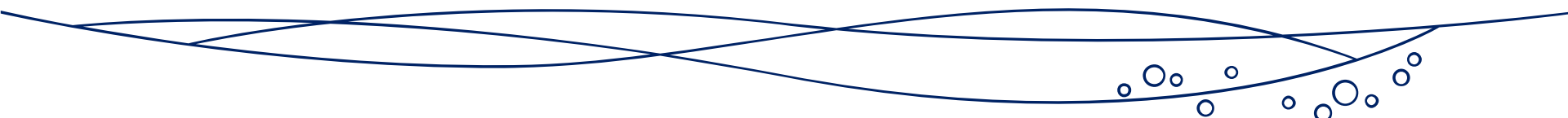




Reduced eutrofication

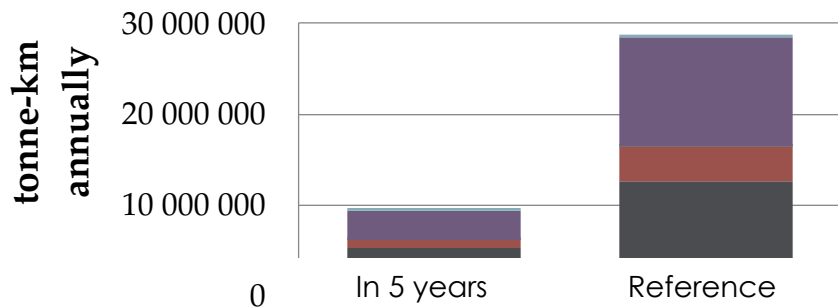


Reduction of 388 ton PO₄-eq/year.

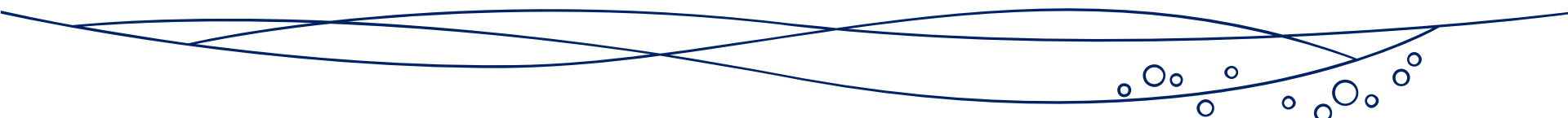




Reduced transportation



Reduction of transportations
with 19,3 miljoner ton-km/year.





Socioeconomic benefits

Benefits	In 5 years
Retained or new jobs	100
Number of new companies	25
Increased sales	400 MSEK/yr
Research and innovation support	50 MSEK/yr
Reduced cost of waste transportation	164 MSEK/yr
Number of visitors	2000 pp/yr





Is this only for Sotenäs?

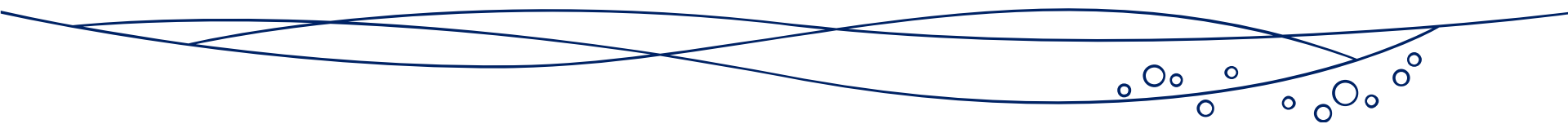
- A circular economy in Sweden can contribute to over 100 000 new jobs, 3 % GDP increase and 70 % CO2 reduction to 2030.

The Circular Economy and Benefits for Society
Swedish Case Study Shows Jobs and Climate as Clear Winners





Sotenäs Centre of Symbiosis





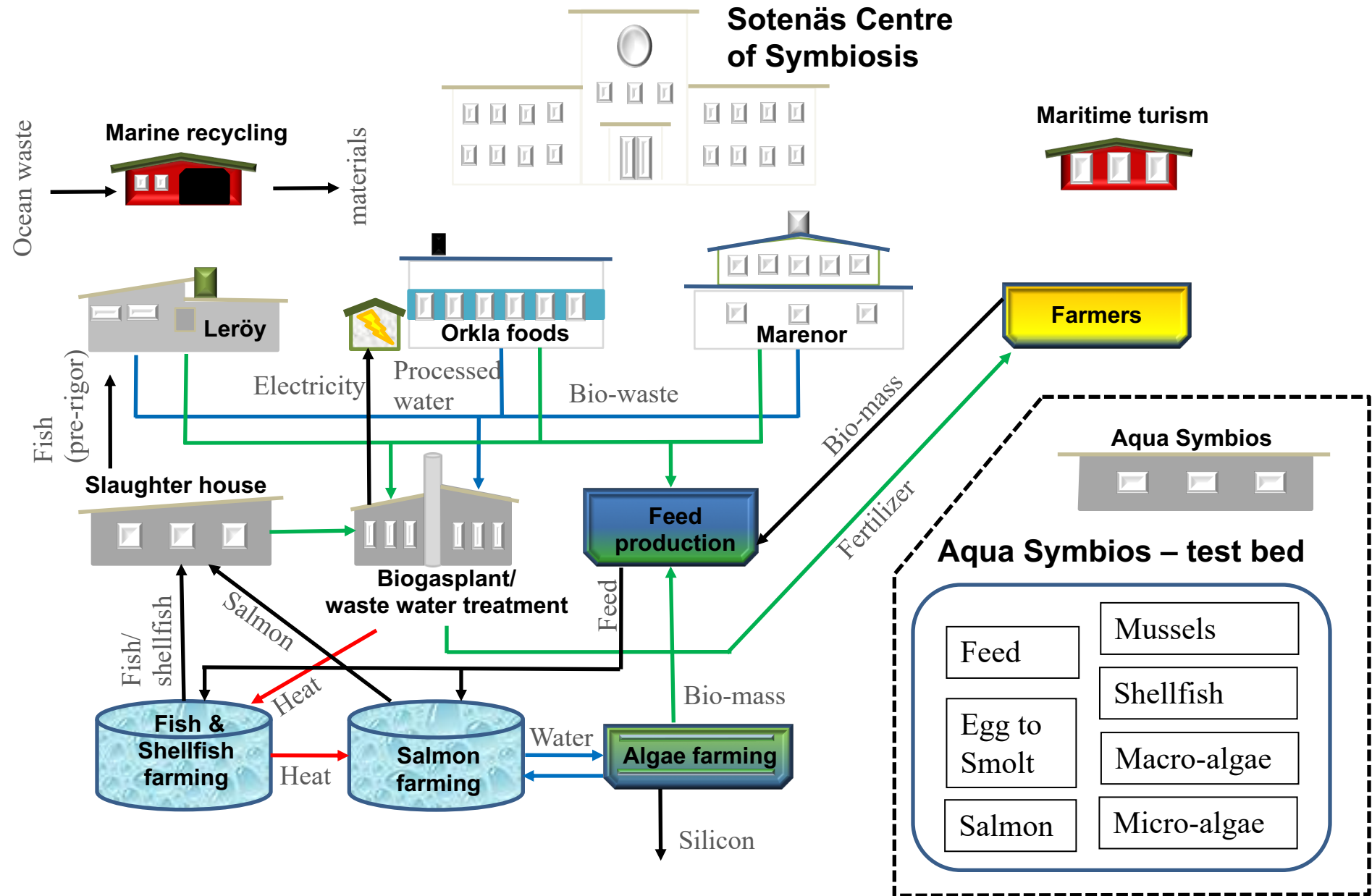
Sotenäs Centre of Symbiosis



"Sotenäs Centre of Symbiosis shall be a leading actor in maritime development. We are an innovative hub in an environment where the human meeting is the basis for the transition to a circular economy. With the sea the basis, we strengthen the existing business and create opportunities for new green business."



Symbiosis in Sotenäs





Questions?!

Contact us!

Peter Carlsson

Peter.carlsson@sotenas.se

0709-649278

