



Polar Algae: A new macroalgae industry in Finnmark



Our vision A NEW SUSTAINABLE BIOTECH INDUSTRY IN FINNMARK

- Create work places and local value from local resources in Finnmark
- Mechanical harvesting of *ascophyllum nodosum* (Grisetang)
- Production in local facilities for drying and processing



The Polar Algae Team

- Investor Hammerfest næringsinvest Jeanette Moland CEO in Hammerfest Næringsinvest
- Investor Pro Barents Trine Bredal Hauan, chair of Polar Algae board
- Stig Ove Hjelmevoll PhD in micro biology
- Caroline Haukeland, Founder and development of Polar Algae
- Edel Maria Brynjufsen, co founder
- Nikolai Haukeland co founder, MBA



People we collaborate with :

- Algaia, Caen-Frankrike
- Kjetil Olsen, Prosjekt og drift AS, Hammerfest
- Båt og Motor, Hammerfest
- Local fishermen

Hammerfest - 70°N

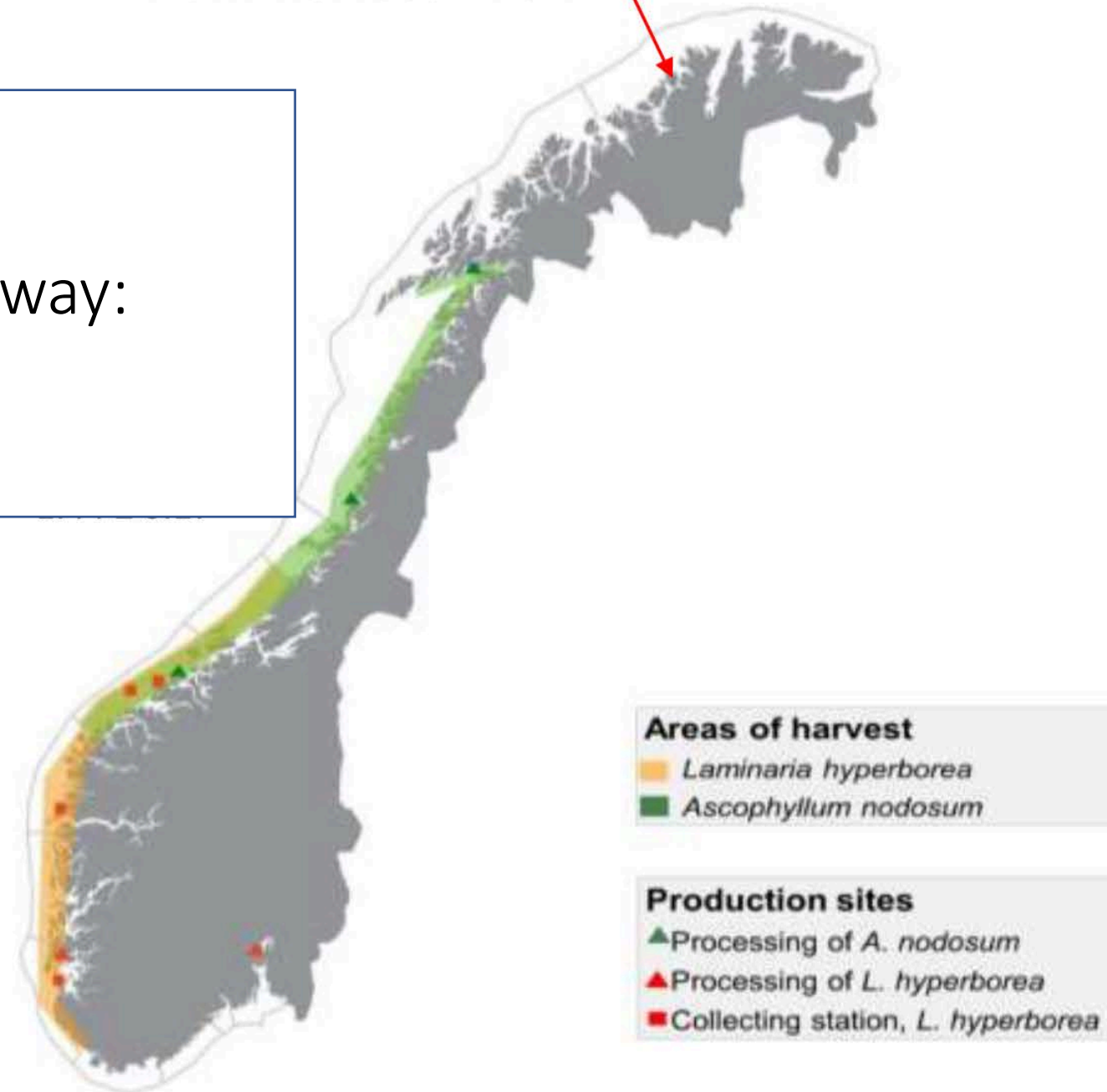
Harvesting and production in Norway:

DUPONT:

Harvest 180.000 tonn stortare (*Laminaria hyperborea*)
- Turnover 1,5 billion kroner

ALGEA:

Harvest 10.000 tonn grisetang (*Ascophyllum Nodosum*)
- Turnover 163 million kroner



Seaweed Resources in Finnmark

- 204 locations in Finnmark mapped
- 10 percent of Ascophyllum in Norway is in Finnmark
- A potential for harvesting of
 - Yearly 30.000 tons Ascophyllum
 - Sustainable harvesting model of 10-20 percent

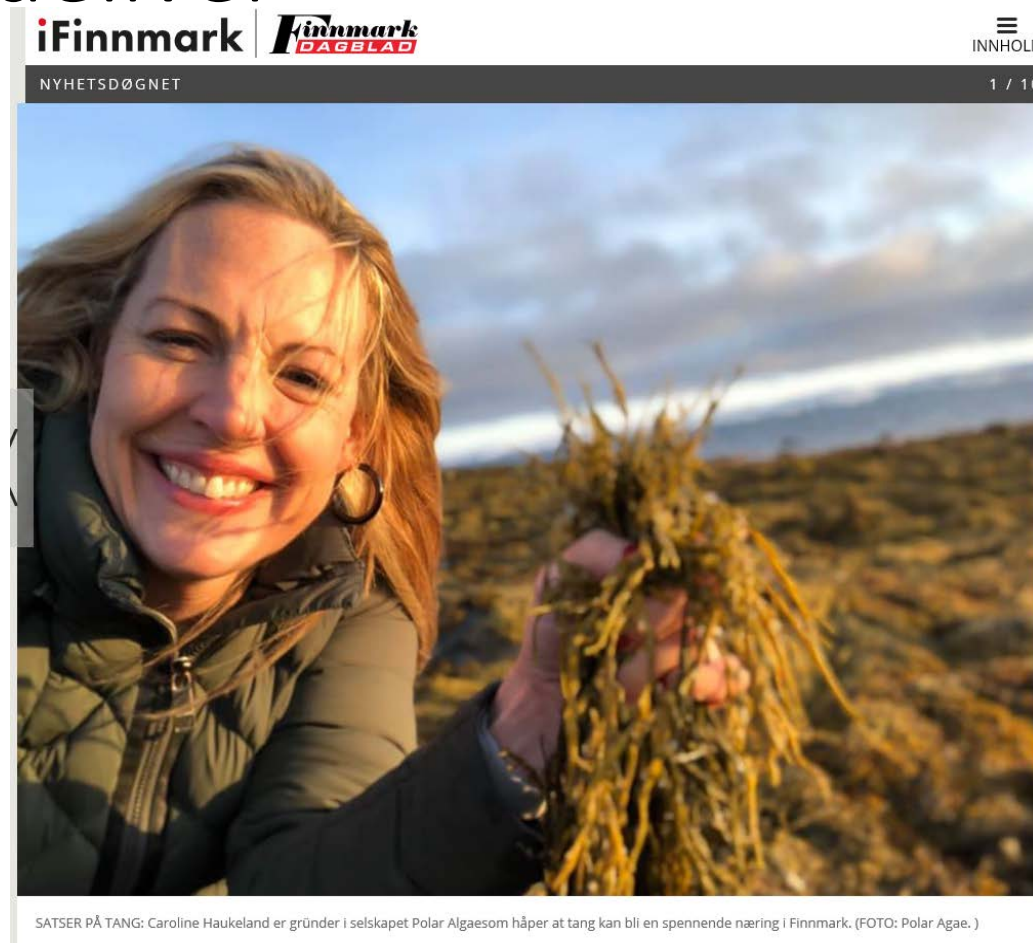




The coast of Finnmark is one sixth of the equator

- We have mapped the biomass of ascophyllum in Finnmark
- Finnmarks coast is 6844 km
- In West Finnmark there is a potential to harvest 20.000 tonnes of asco per year, and in the east another 14.000
- One landowner, Finnmarkseiendommen (FEFO), owns 95 % of this land
- Asco harvesting is not regulated in Norway, permission is granted by the land owner

Granted a test permission to harvest 1000 ton 2020, with an option to increase the volume and area if we prove that its sustainable and that we deliver





Seaweeds from Finnmark to a potential international market



In addition to the biomass mapping we have done

- A lab scale project to extract and analyze valuable components in our asco
- Then an upscaling of the same extracts at a pilot scale level
- Promising and interesting results



Developing our business

2020
Dried Asco

- Customers in place
- First sales Autumn 2020
- Proof of concept

2021
Biostimulants
Dry Asco

- Product and market available
- First sales of bio stimulants summer 2021.
- Test product in 2020?

2022-
Biostimulants
Dry Asco
Functional ingredient

- Market and product to be developed
- B2B dialog with potential customers within cosmetics/health industry.
- Samples to potential customers Q1 2020-



Biostimulants



Dry asco



Functional active ingredient

How do we create the new industry?

- Crucial test phase summer 2020
- Harvesting and test production for the market next season
- Plan and financing needs to be ready
- Clock is ticking!
- Luckily there is a strong local will for us to succeed!



POLAR ALGAE supported by:

MABIT

ET NÆRINGSRETTET FOU-PROGRAM
INNEN **MARIN BIOTEKNOLOGI** I NORD-NORGE

