

Catching and processing at sea

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Workshop on the future potential of Zooplankton and mesopelagic species, October 1st - 2nd 2018, Reykjavik

Challenge the norm

- Trials in Isafjordurdjup in July October 2018
- New harvesting methods
- Pilot processing plant





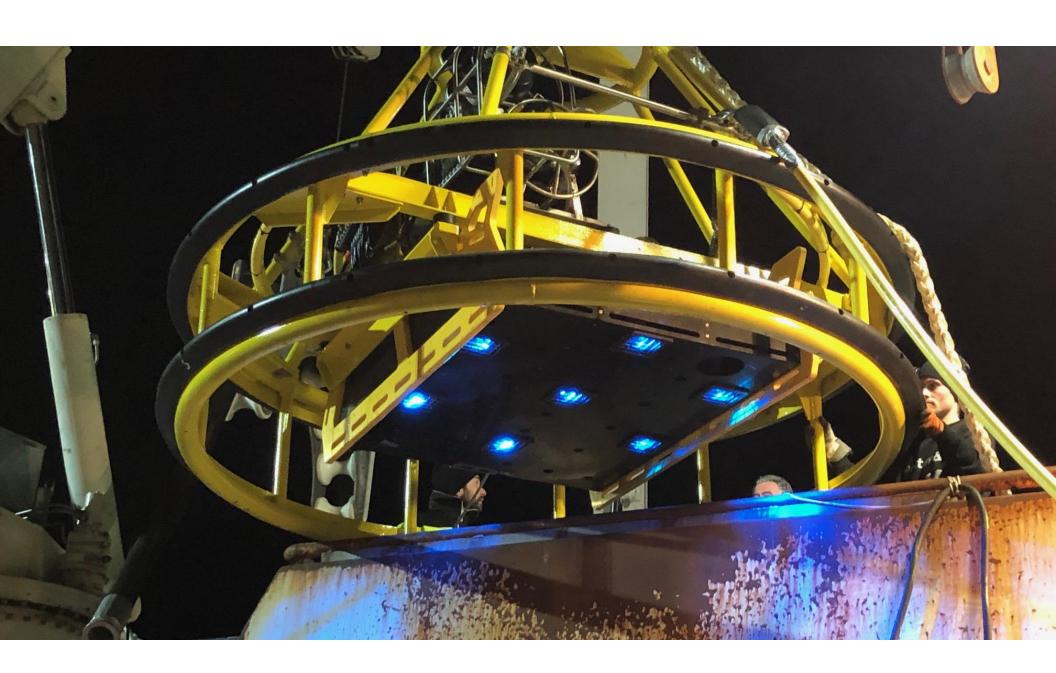




Manta

- Proven efficiency when used for catching krill
- Selectivity with suction holes and lights
- Mesopelagic applications in near future
- Significant CAPEX reduction
- Patent-protected solution













Is it possible to achieve the same with less fuel?

Current method
Fuel consumption when trawling in the South Antarctic

191 ltr/ton*

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New method Fuel consumption when fishing with the Manta

*Robert W. R. Parker (2011) Measuring and Characterizing...





Mesopelagic fishing

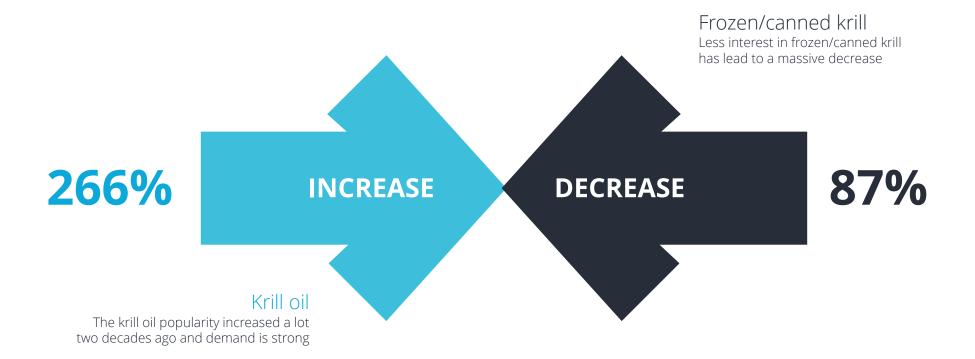




Lantern fish, Myctophum punctatum



Production trends for two decades



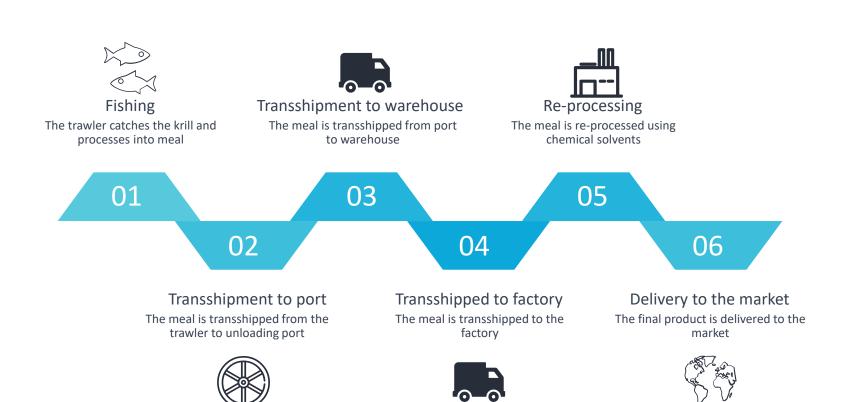


Pilot plant processing

- Achieve higher production yields
- Produce high value products
- Preserve the complex Omega-3 chains
- Key element in a new industry value chain
- No deterioration of raw material prior to processing



Current krill oil value chain



Future krill oil value chain



Fishing and on-board processing

The fishing vessel catches and processes krill on-board



Delivery to the market

The final product is delivered to the market



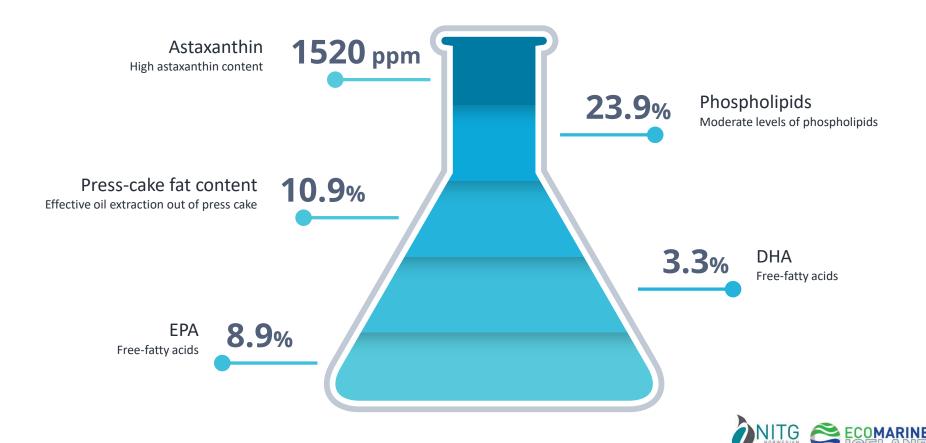
Transshipment to port

The oil and meal is transshipped to port with the fishing vessel





Production results

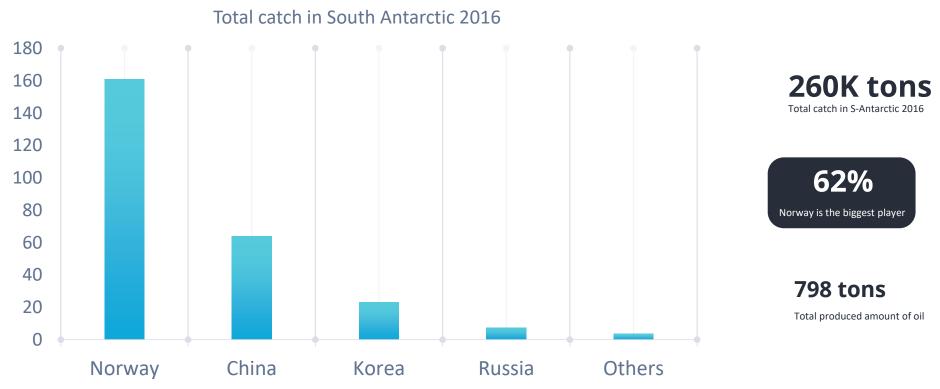


Achievements

- Caught sustainably in harmony with nature
- Produced fresh after catching
- Solvent free oil
- Extremely high astaxanthin content
- Krill meal containing low levels of fat (~10%)



Where are the opportunities?





South Antarctic trawl fleet



Super(krill)food

North Atlantic krill

- Can be consumed as is
- Low fluoride
- Higher astaxanthin content

Southern Antarctic krill

- Requires extensive processing
- High fluoride content

Is there any way of producing krill into a superfood without compromising freshness and quality?



