



## PRESENTATION AGRICULTURE 2.0



**Bjørn Myrseth, CEO**  
Postboks 2032 Nordnes  
5817 Bergen  
Norway  
E-mail: [bjorn.mvrseth@marinefarms.no](mailto:bjorn.mvrseth@marinefarms.no)  
Telephone: Office +47 55 90 44 70  
Mobile +47 90554963

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## Product mix



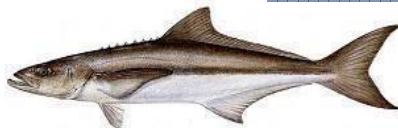
Salmon



Seabream



Seabass



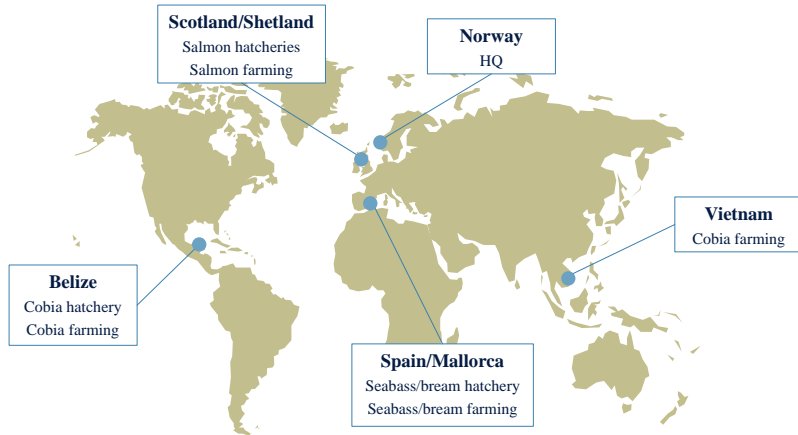
Cobia

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## Regional clusters close to key consumer markets

### Operations overview



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## Diversified and integrated seafood portfolio

### Marine Farms ASA

	Salmon (Lakeland)	Seabass/bream (Culmarex)	New Species
<b>Broodfish / ova</b>	✓	✓	✓
<b>Smolt / juveniles</b>	<ul style="list-style-type: none"> <li>• Prod 07: 8.0m salmon</li> <li>• Prod 08e: 8.0m salmon</li> <li>• Capacity: 9.0m salmon</li> </ul>	<ul style="list-style-type: none"> <li>• Prod 07: 17m bass/-bream</li> <li>• Prod 08e: 18m bass/-bream</li> <li>• Capacity: 20m bass/-bream</li> </ul>	<ul style="list-style-type: none"> <li>• Prod 07: 0.1m cobia</li> <li>• Prod 08e: 0.2m cobia</li> <li>• Capacity: 1.0m cobia</li> </ul>
<b>Farming</b>	<ul style="list-style-type: none"> <li>• Sales 07: 10,200t (gwt)</li> <li>• Sales 08e: 11,500t (gwt)</li> <li>• Capacity: 10,200t (gwt)</li> </ul>	<ul style="list-style-type: none"> <li>• Sales 07: 4,900t</li> <li>• Sales 08e: 6,000t</li> <li>• Capacity: 10,200t</li> </ul>	<ul style="list-style-type: none"> <li>• Sales 07: 50t cobia</li> <li>• Sales 08e: 600t cobia</li> <li>• Capacity: 8,000t cobia</li> </ul>
<b>2007 revenues (MNOK)</b>	<p>456</p>	<p>280</p>	<p>2</p>
	<p><i>High-margin supplier of premium priced Scottish salmon and smolt</i></p>	<p><i>Persistently profitable producer of high quality Spanish seabass/bream</i></p>	<p><i>Attractive position in production of rapid-growing Cobia</i></p>

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## Industrial marine aquaculture

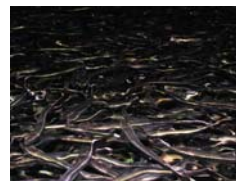
- Developed in cold (salmon) and temperate water (seabass / seabream)
- In tropical waters artisanal
- New big development : industrial  
tropical aquaculture – cobia, tuna, yellowtail, groupers, snappers

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## Background

- **Biology**
  - big tropical "pelagic" fish
  - grow in 20 - 30°C
  - no sex change
  - in books, often linked to pilot fish/sharks
  - the only specie in the family
- **Wild cobia eats**
  - fish
  - shrimp
  - crab



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## Where do we find cobia?



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## Why farming cobia?

- **Cobia has all the traits you want for a farmed fish**
  - Excellent eating qualities
    - Boiled, baked, deep fried, sushi & sashimi, etc.
  - White flesh
  - Large fillets
  - High on Omega-3
  - Do well in cages
  - Fast growth
  - Year round egg supplies
  - Efficient production
- **The market wants more fish**
- **The market wants “new species”**
- **Demand for white meat fish is increasing**



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## Cobia Cuisine



Cobia sashimi "surf and turf"



Pickled Asian Cobia

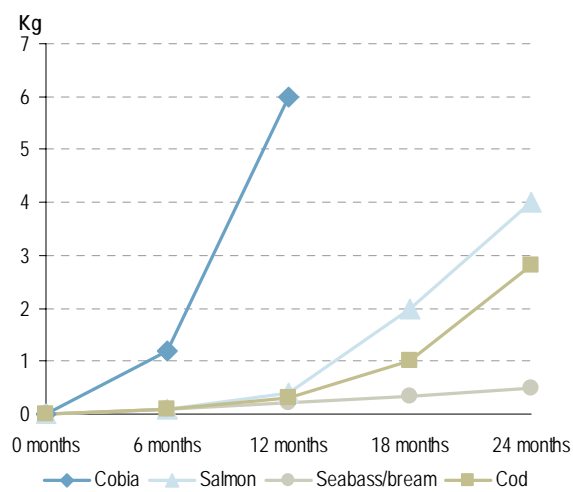


Cobia confit with herbs

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## Fast growth



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## World catch – world production of Cobia

- **Estimated world catch in 2004**
  - USA 94 tonnes
  - Mexico 135 tonnes
  - West Africa 150 tonnes
  - Brazil 919 tonnes
  - Middle East 4.426 tonnes
  - China, Taiwan 643 tonnes
  - Malaysia 669 tonnes
  - Philippines 1.904 tonnes
- **Total 8.940 tonnes**
- **Estimated world production in 2007**
  - China 20.000 tonnes
  - Taiwan 4.000 tonnes
  - Vietnam 2.000 tonnes
  - Caribbean 1.000 tonnes
  - Philippines 500 tonnes
  - Thailand 500 tonnes
  - Japan 500 tonnes
- **Total 28.500 tonnes**



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## History of MAFA's cobia activity

- ACFK in Florida from 2002 to 2007
- Belize
  - cobia in cages from 2006
- Vietnam
  - permits 2003
  - cobia in cages from 2006



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## What we have today:

- **Belize:**

Hatchery – capacity 1.5 – 2.0 mill  
Seasites – capacity 4000 tonnes – applied for more sites  
Cages – capacity 2000 tonnes  
Shorebase, all required infrastructure  
Workboats  
Barges  
Invested:



- **Vietnam**

10 seasites – capacity 4000 tonnes  
Cages – capacity 2000 tonnes  
Shorebase  
Workboats and barges  
Invested:



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## Experience from 2006 - 2009

- juvenile quality
- mortality
- handling and harvesting
- feeding
- people
- costs
- operating in Vietnam and Belize
- routines and protocols in place
  - hatchery (Belize)
  - farming
  - environmental monitoring
- farming to European standards

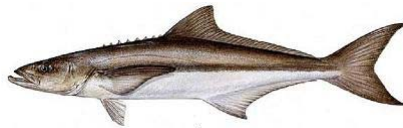


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## Sale of cobia, round weight

	2007	2008	2009
Belize	50	378	182
Vietnam		88	33
<b>Total</b>	<b><u>50</u></b>	<b><u>466</u></b>	<b><u>215</u></b>



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## Markets

### Belize

- Sold everything fresh into USA
- Aquagold Inc in Fort Lauderdale
- 40 customers



### Vietnam

- Sold everything fresh to Asia
- Now frozen to USA, Europe and Japan
- Building up customer base



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## Future markets

- Asia – fresh and frozen from Vietnam
- Europe – frozen from Vietnam
- USA – frozen from Vietnam
- USA – fresh from Belize
- Cheap processing in Vietnam
- Sushi – sashimi market



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## Competitive advantage today:

- Good sites
- Experienced teams
  - experience from cobia production
  - experience from cobia marketing and sales
- Experienced owner – fish farming know-how
- Years ahead of competitors
- Possible brand building
- Ready to grow
- Capacity : 4000 tonnes with 5 mill USD investment in biomass

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### Target production costs:

Belize : USD 3,50

Vietnam : USD 3,00

Production cost atlantic salmon: USD 3,00

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### Planned turnover (mill USD)

Year	2010	11	12	13	2014
Turnover					
mill USD	7	10	20	35	45

New funding required: 20-25 mill USD

Looking for partner to share the risks (and costs)

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## Cobia – the fish of the 21<sup>st</sup> century



High in Omega - 3

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