Fremtidens Smoltproduksjon

Sunndalsøra

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Building a better working world

Sustainability – Huge value potential for multidisciplinary teaming

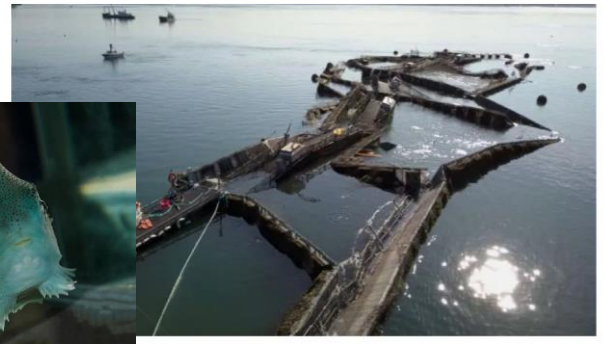
News

Salmon lice costing Norway NOK 5 billion a year

Washington state senate bans Atlantic salmon farming in state waters

Company that runs state's net-pen fish farms says it is considering next moves

Liam Britten - CBC News - Posted: Mar 02, 2018 11:02 PM PT | Last Updated: March 3, 2018



Land-based salmon producer Atlantic Sapphire suffers mortality incident at US farm

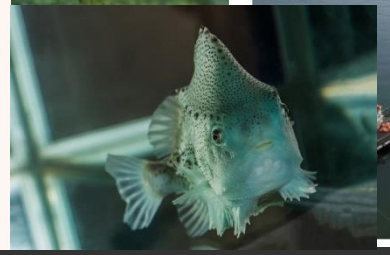
Company blames design issue with its recirculating aquaculture system.

24 March 2021 6:22 GMT *UPDATED 24 March 2021 18:16 GMT*

Death toll reaches 4,244 tonnes as toxic algea bloom hits Chilean salmon

News by **editorial staff** - 9 April 2021

Salmon farmers in Los Lagos and Aysén hit regions continue to fall foul of killer algae.



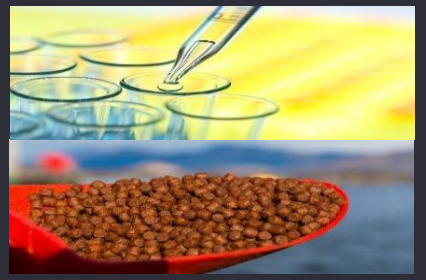
What is Sustainability?

The Norwegian Aquaculture Analysis

+

- ✓ 1,247 companies covered
- ✓ Annual data from 2008 – more than a decade
- ✓ 6 editions published and available on www.ey.com

Technical solutions



Biotechnology

Production

Distribution

Processing

Snapshot of the value chain analysis

(NOK)

Revenue: 259 bn + 1%
EBITDA: 27 bn - 20%

EBITDA margin

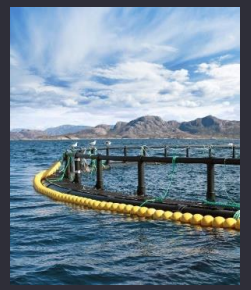
2019: 13.3%

2020: 10.4%

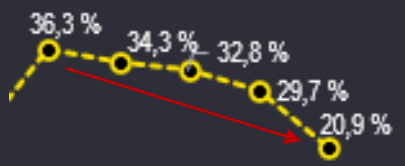
+ 2.9%

- 6.2%

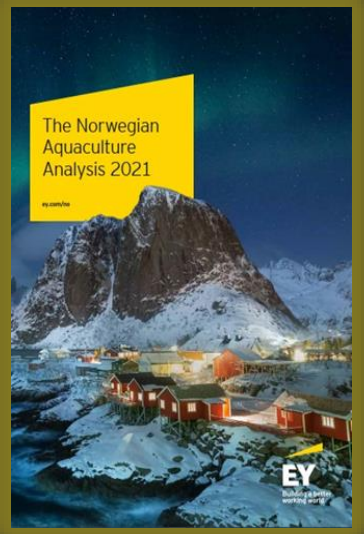
Production segment



EBITDA margin last 5yrs



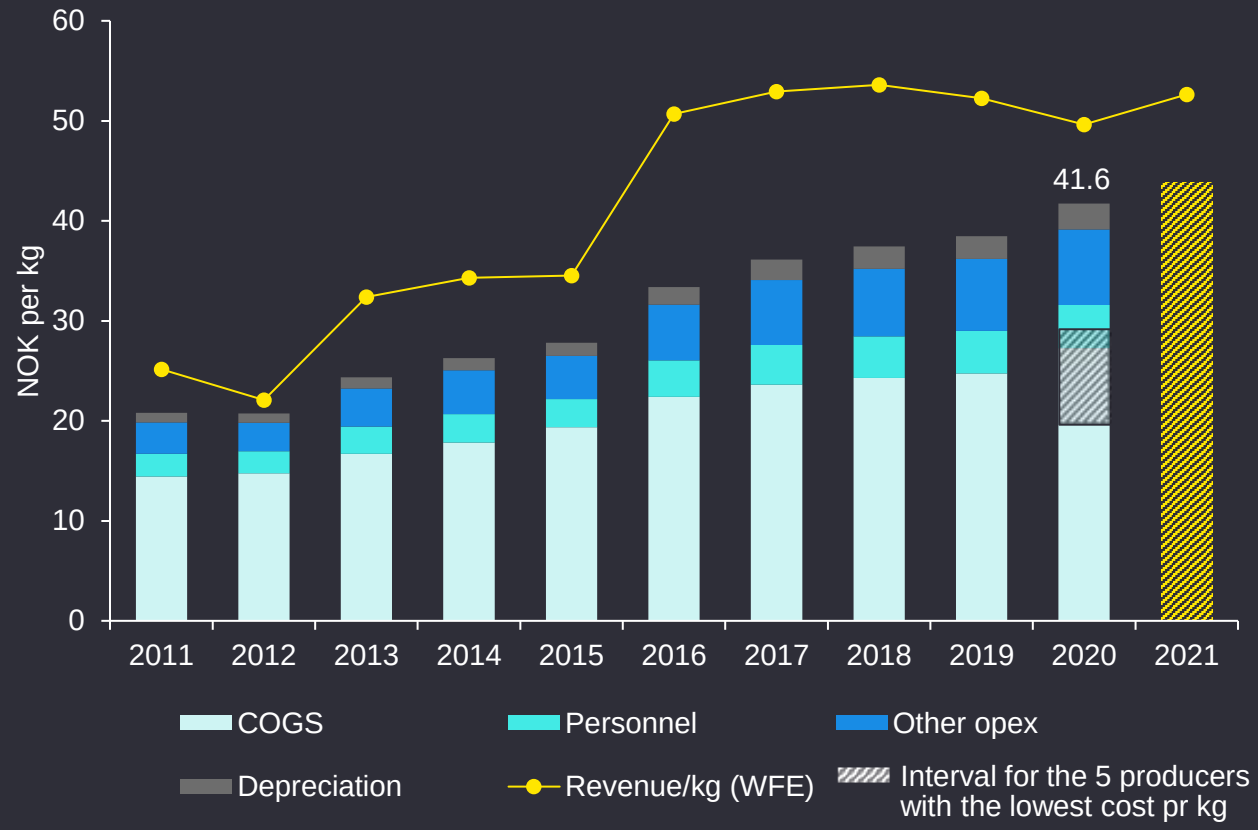
Revenue - 0.8% Costs + 11.6%
EBITDA - 30% Cost/kg + 8.8%



Revenue MNOK		EBITDA MNOK
5 512	BROODSTOCK AND SMOLT	1 433
6 636	TRANSPORTATION ON SEA	2 484
6 572	CONSULTING AND SERVICES	1 068
15 718	PROCESSING	750
6 777	FISH HEALTH	1 209
28 469	FEED	1 501

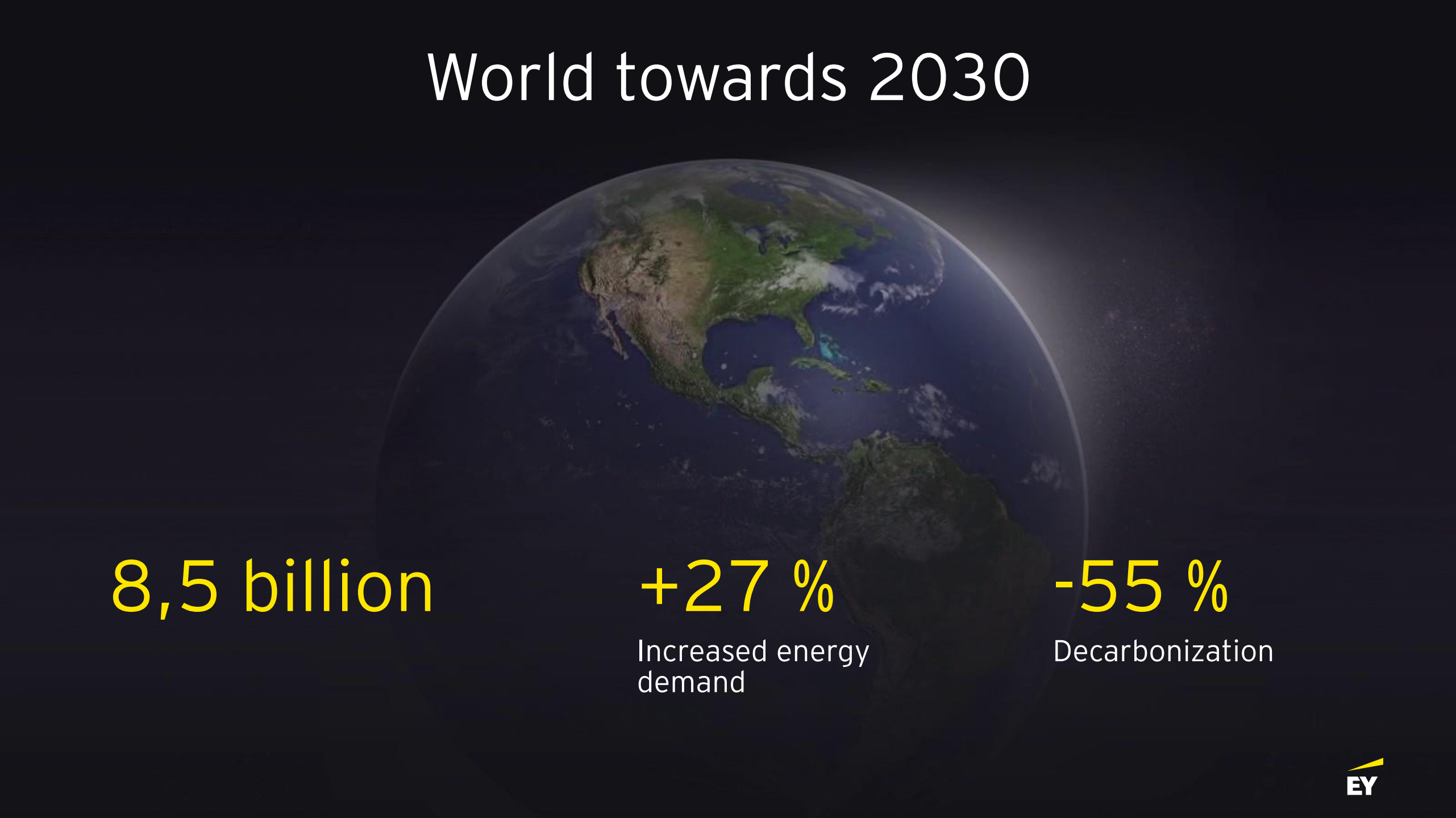
Decrease in revenues per kg , and costs per kg continue to rise

Development in costs, revenue and EBIT per kg in the sea farming segment



- Revenue per kg decreased by 2.6 NOK from 2019 to 2020
- Costs per kg rose by 50% from 2015-2020
- Lowest cost per kg in 2020 was 20.0 NOK
- EBITDA per kg decreased by 33% from 2020 to 2019

World towards 2030



8,5 billion

+27 %

Increased energy demand

-55 %

Decarbonization

Global megatrends and new taxonomy standards will highly impact the future of aquaculture production

Exponential climate changes

Overconsumption of natural resources

Demographic changes and urbanization

Decarbonization and biodiversity

Genetics, ecosystems and industrial biotechnology

Technology and AI

Source: EYs megatrends 2020

Towards 2050:

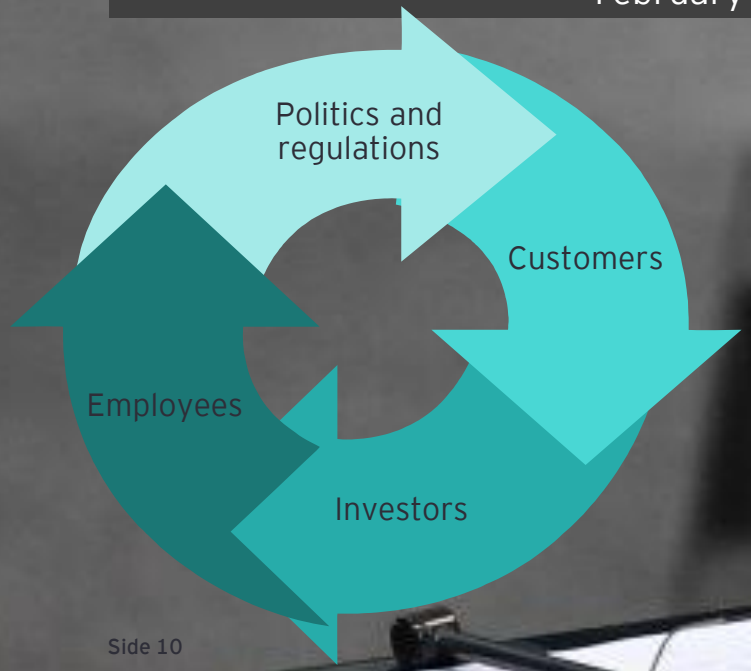
- Protect
- Produce
- Economic growth

European Green Deal

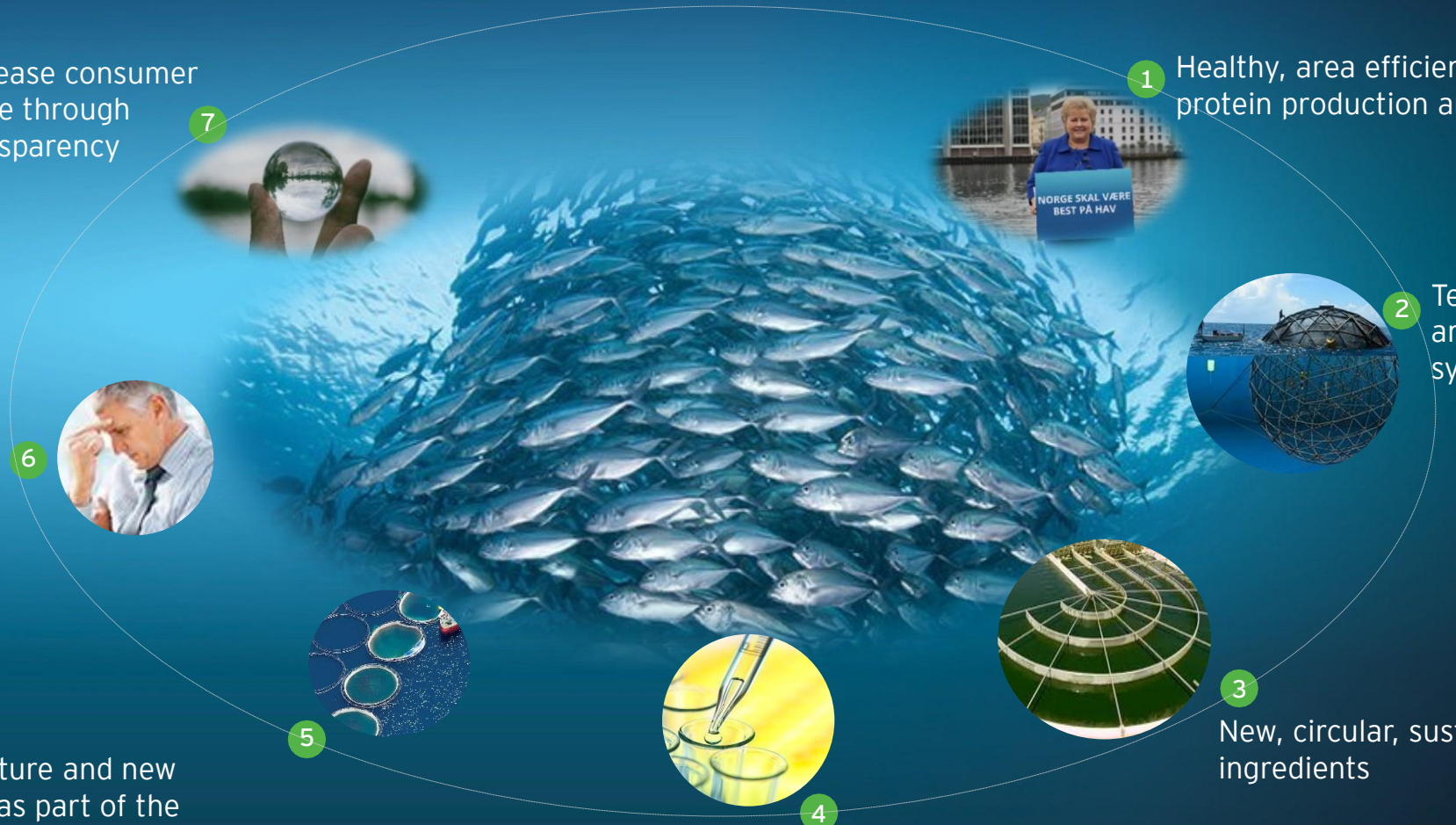
'The European Green Deal is our new growth strategy – for a growth that gives back more than it takes away.
The EU Taxonomy and
"The plan that we present today, to mobilise at least €1 trillion, will show the direction and unleash a green investment wave."

This is Europe's Man on the Moon moment.

Ursula von der Leyen, President of the European commission, February 2020



Opportunities for sustainable aquaculture growth



1. Healthy, area efficient and sustainable protein production and new species
2. Technology, AI, sustainable and safe production systems and locations
3. New, circular, sustainable feed ingredients
4. Sustainable vaccines, nutrition and biological therapeutics
5. Aquaculture and new species as part of the solution
6. Insight based aquaculture and global governance
7. Increase consumer value through transparency

Five battles Norwegian aquaculture must win

Ocean-based solutions

Biological and technological standards

Green infrastructure / Industrial symbiosis

Upcycle all biological material

Standardize data and industry-wide implementation / License to operate

GREENSPOT MONGSTAD: WIN-WIN MODELS IN THE NEW EUROPERAN HUBS FOR CIRCULARITY

- Goal is to increase material recycling to e.g. 99%
- And to share infrastructure
- Increase energy recycling up to 40%
- Increase water recycling