

Driving Sustainable Innovation in Salmon RAS Feeds

Maksim Mironenka – BioMar Denmark

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Maksim Mironenka - Regional Sales Manager with BioMar A/S

BioMar and Me



- 15+ years with Aquaculture
- 11 years with BioMar
- B.Sc. In Environmental Engineering
- B.Sc. In Business Administration and Marketing

Passionate for:

Aviation & Languages & Travel

Above & Beyond

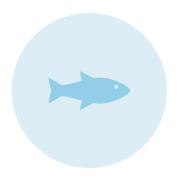




60+ years in aquafeed innovation



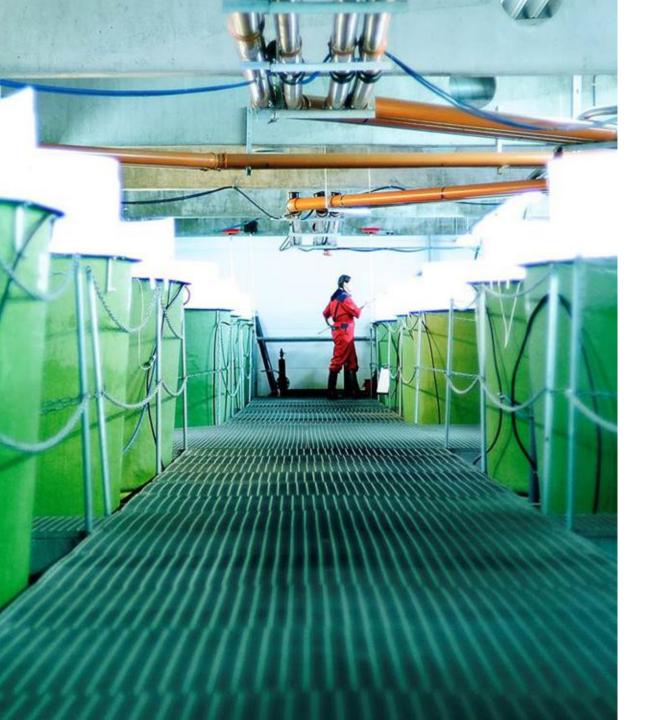
45+ species, 17 production sites across 12 countries



Feed for > 1 million tonnes of salmon annually



Strategy "Above & Beyond": integrating sustainability into every business decision



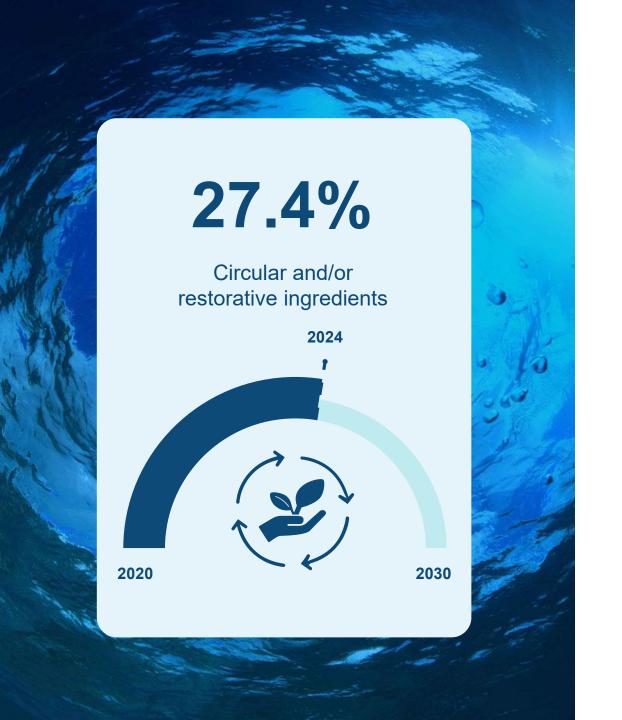


Focus for Salmon & RAS systems:

Commercialization of novel raw materials (microalgae, single-cell proteins, circular marine ingredients

Precision feeding and Al-based farm optimization

Science-based climate targets (SBTi) driving emissions reduction across Scope 1–3





Sustainability Achievements 2024

Goal	2024 Achievement	2030 Target
Carbon footprint reduction	-14.4% / feed tonne	–33% (SBTi aligned)
Circular & restorative ingredients	27.4%	50%
People empowered via capacity building	49,000+	100,000 annually
ASC Feed certification	12 facilities certified	3 more by Q2 26

Sustainability Achievements 2024





Verified deforestationfree soy



1 million tonnes of feed sold with microalgae inclusion



Record-low Forage Fish Dependency Ratio = 0.37



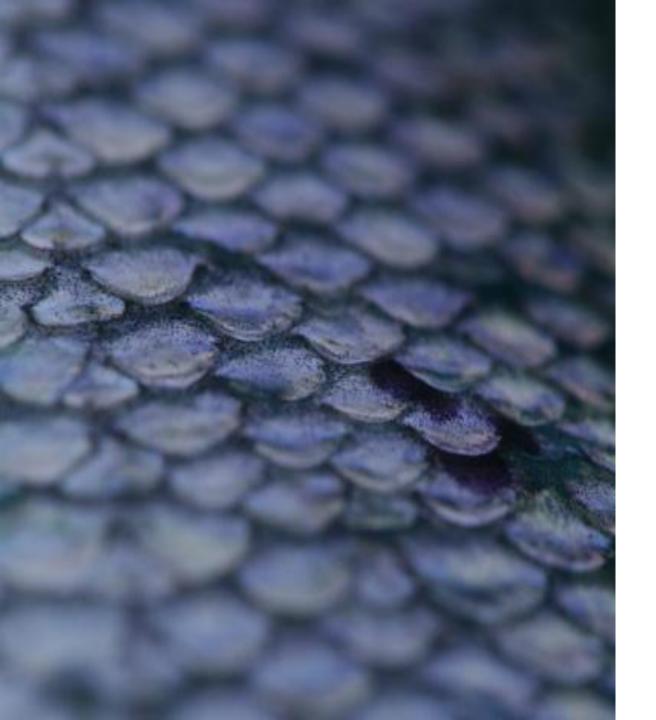
BioSustain LCA tool for carbon tracking (ISO 14040/44 verified)



Performance, Circularity, and RAS Compatibility

BioMar RAS feed advantages:

- Optimized digestibility & water stability minimizing fine solids and biofilter load
- High oxygen efficiency & energy density supporting optimal fish welfare
- Functional additives to reduce off-flavour and improve gut health
- BioMar LCA & data-driven formulation low carbon footprint verified for RAS diets





Performance, Circularity, and RAS Compatibility

BioMar supplies tens of thousands of tonnes of RAS-specific salmon feed annually (ORBIT line), supported by dedicated RAS capacity in Denmark and multi-year supply agreements with leading land-based farms



Performance, Circularity, and RAS Compatibility



Alternative raw materials in BioMar feeds:

- Microalgae oils and proteins
- Single-cell proteins and insect meals
- Trimmings and by-products (e.g., Scottish circular partnership with Lunar & M&S)
- Regenerative agriculture—based crops (low FLAG emissions)

Partnership & Impact



- Collaborating to Decarbonize Salmon Aquaculture
- Founding member of Norwegian Sustainable Feed Mission setting national feed sustainability framework
- Cross-sector collaborations with universities, startups, and certification bodies (e.g., ProTerra, ASC, IDH, ThinkAqua)
- RAS innovation hubs in Denmark, Scotland, and Chile supporting nextgeneration feed testing
- Customer-first sustainability tools: carbon footprint dashboards, precision feeding analytics





Better Feed, Better Food, Better Future

Together with our partners, we're building a resilient, regenerative foundation for the next era of salmon aquaculture.



Thank you



Powered by Partnership Driven by Innovation

www.biomar.com