

**THE CONTRIBUTION OF AQUACULTURE TO THE  
CIRCULAR ECONOMY**  
- THE USE OF BY-PRODUCTS IN MARINE INGREDIENTS

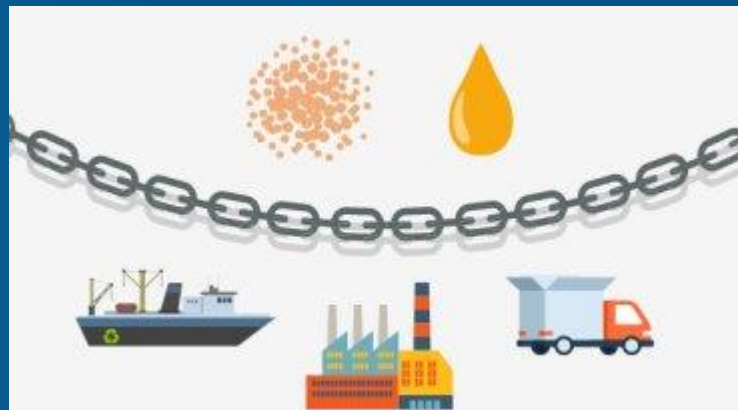
LIBBY WOODHATCH  
EXECUTIVE CHAIR, MARINTRUST  
THURSDAY 30 NOVEMBER



We want to improve responsible fishery sourcing and production of marine ingredients (fish meal and fish oil) globally and aim to keep improving the responsible sourcing and production of global marine ingredients through an accessible programme based on independent, third party conducted audits.



Factory Standard

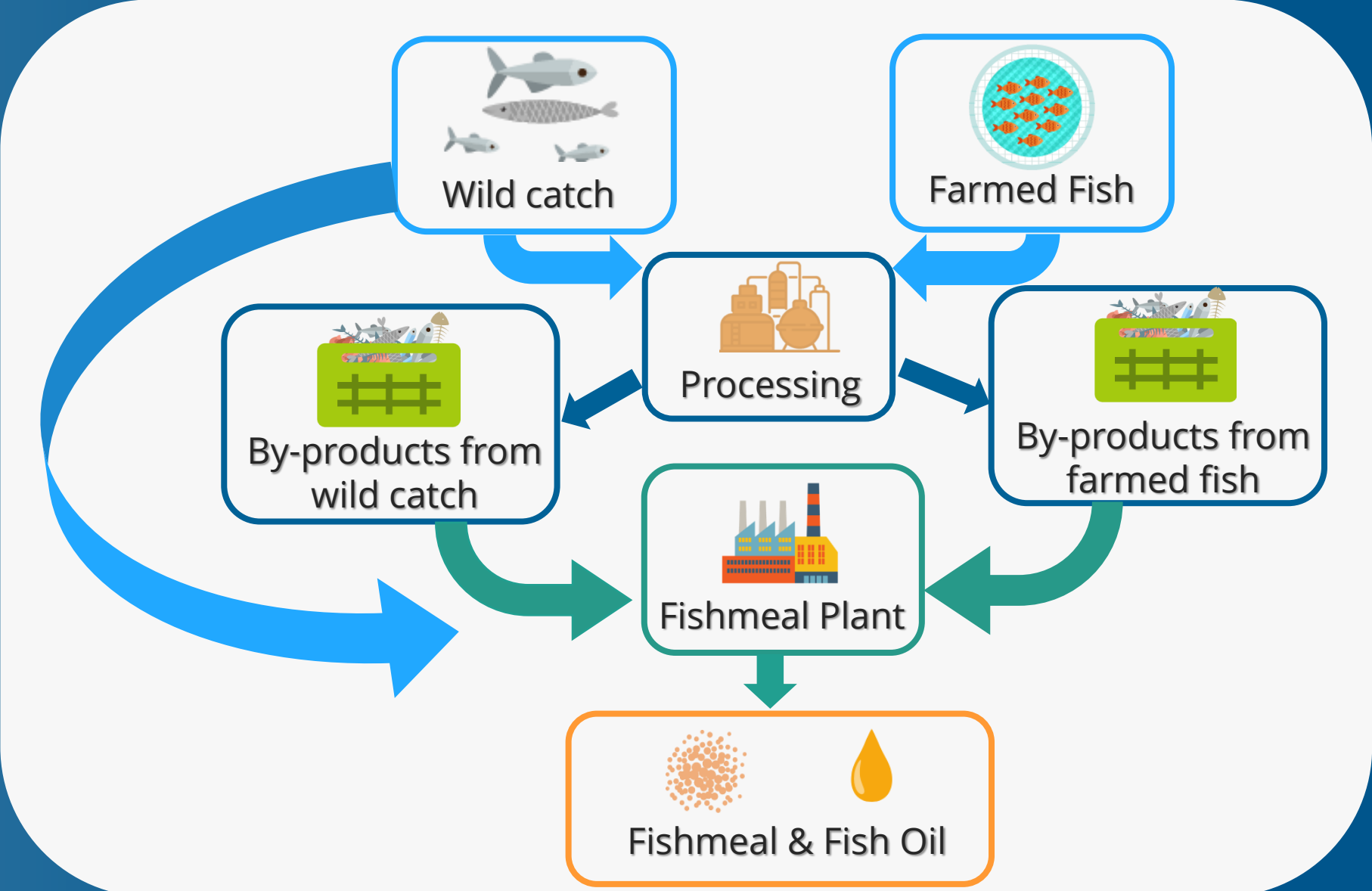


Chain of Custody

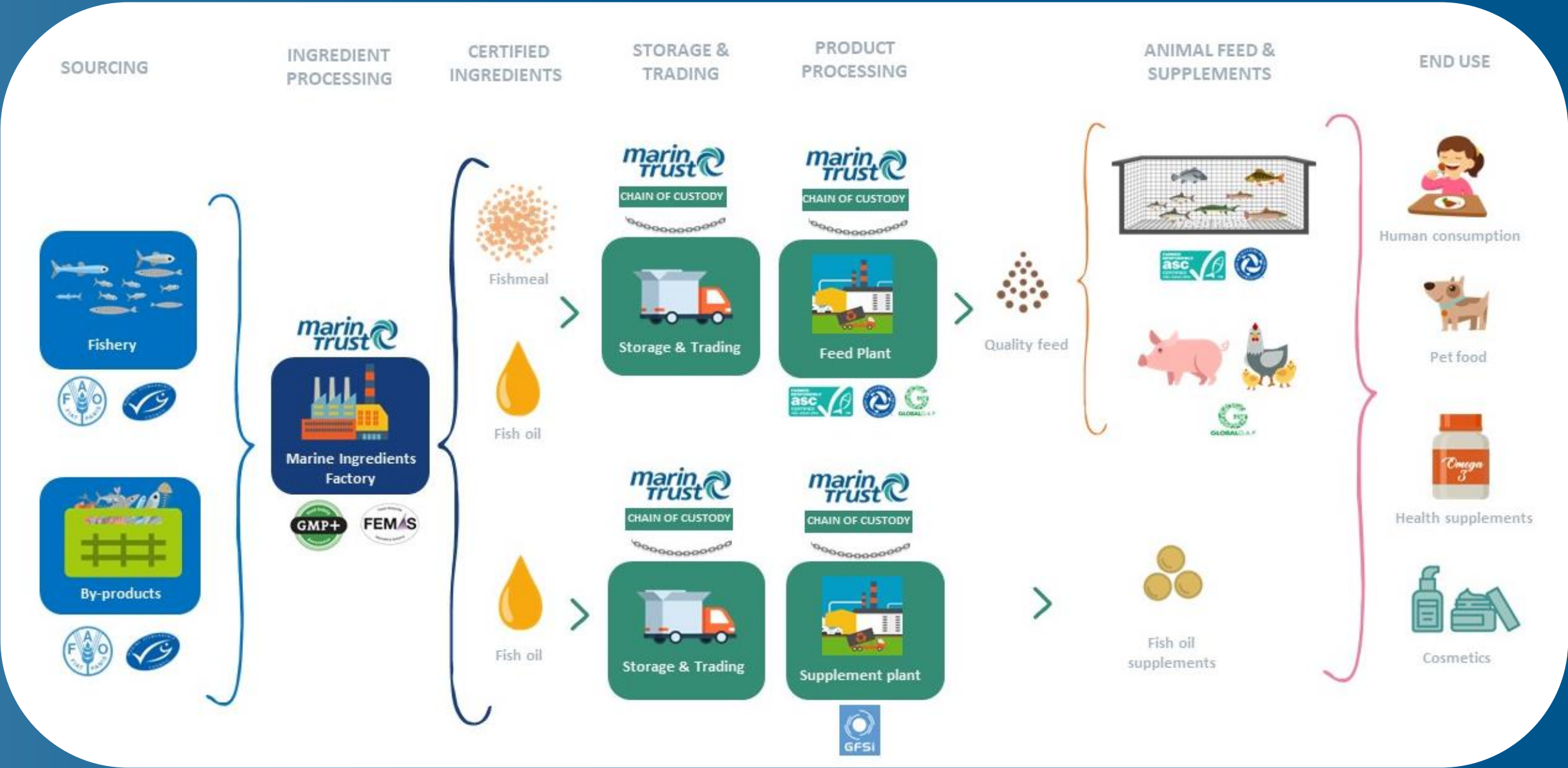


The Improver Programme

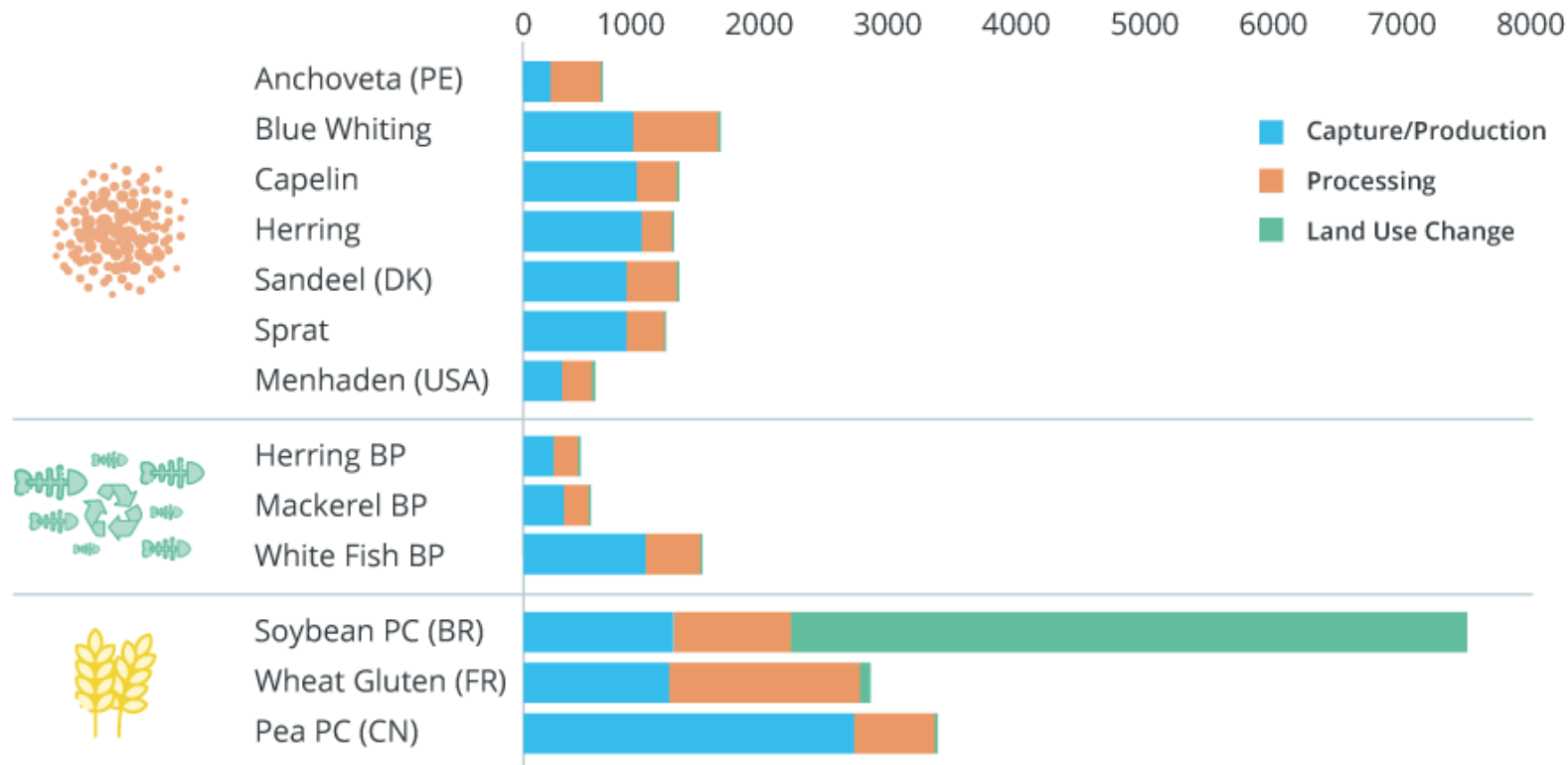
# Sourcing & production of marine ingredients



# MarinTrust Value Chain

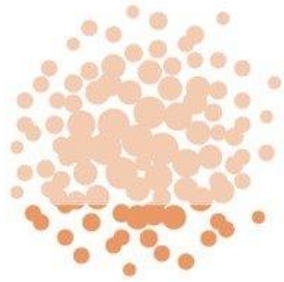


# CARBON FOOTPRINT (KG CO2 EQ. PER TONNE OF PRODUCT)



Source: based on data provided by Dr Richard Newton. University of Stirling, UK

# The use of by products, which would otherwise have been discarded, reduces pressure on the oceans



**30%**

of the world's fishmeal production already comes from byproducts



**51%**

of the total fish oil production already comes from byproducts



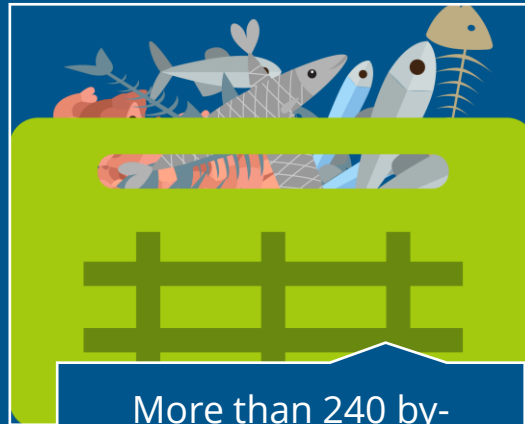
# Approved by-products



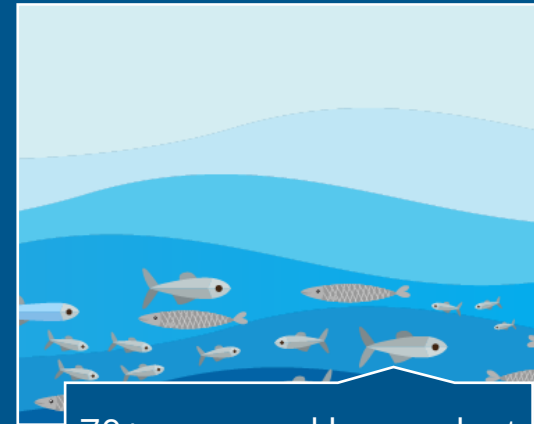
*Approved by-product raw material from wild capture sources  
MarinTrust also recognises by-products from aquaculture species.*



Facilities in 20 countries



More than 240 by-products being used (species + stocks)



70+ approved by-product species

Common species



Tuna



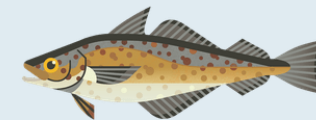
Haddock



Sardinella



Mackerel



Saithe



Plaice

# Next steps: Moving marine ingredients forward through continuous improvement

Increasing **accessibility** for responsibly sourced and produced marine ingredients.



Encouraging the use of **by-products**.

Progressing the Standard's focus on **environmental**, and **social impacts**, both at the **factory** and on the **vessels**.

Laying the foundations towards **fully traceable** marine ingredients through standardisation of data.



**Thank you**

**[www.marin-trust.com](http://www.marin-trust.com)**