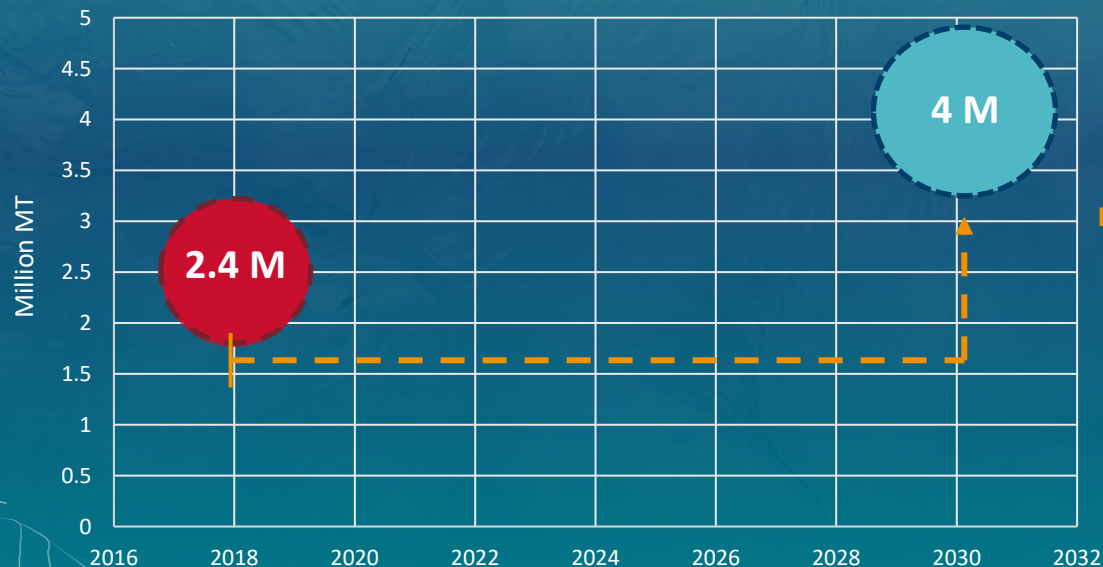




Raw material R&D

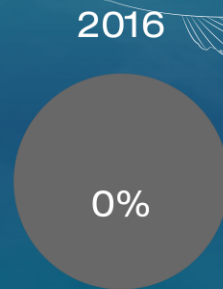
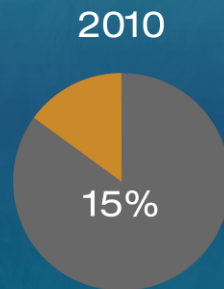
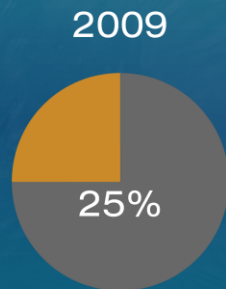
May-Helen Holme, Skretting ARC

Mapping our global ingredient needs



**1.6 mill MT
of ingredients over
the next 10 years**

Dependence on fishmeal in salmon feed



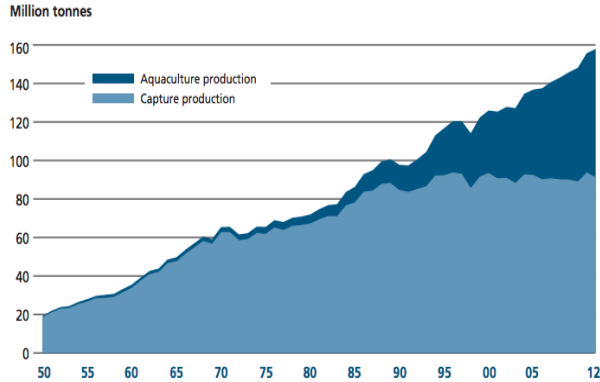
Where will the future raw material come from?

- Optimisation of existing raw materials
- New raw materials



Optimising marine raw materials

Global catch: 90 mill tons



35 mill MT to human consumption

20 mill MT to industry

35 mill MT to trimmings

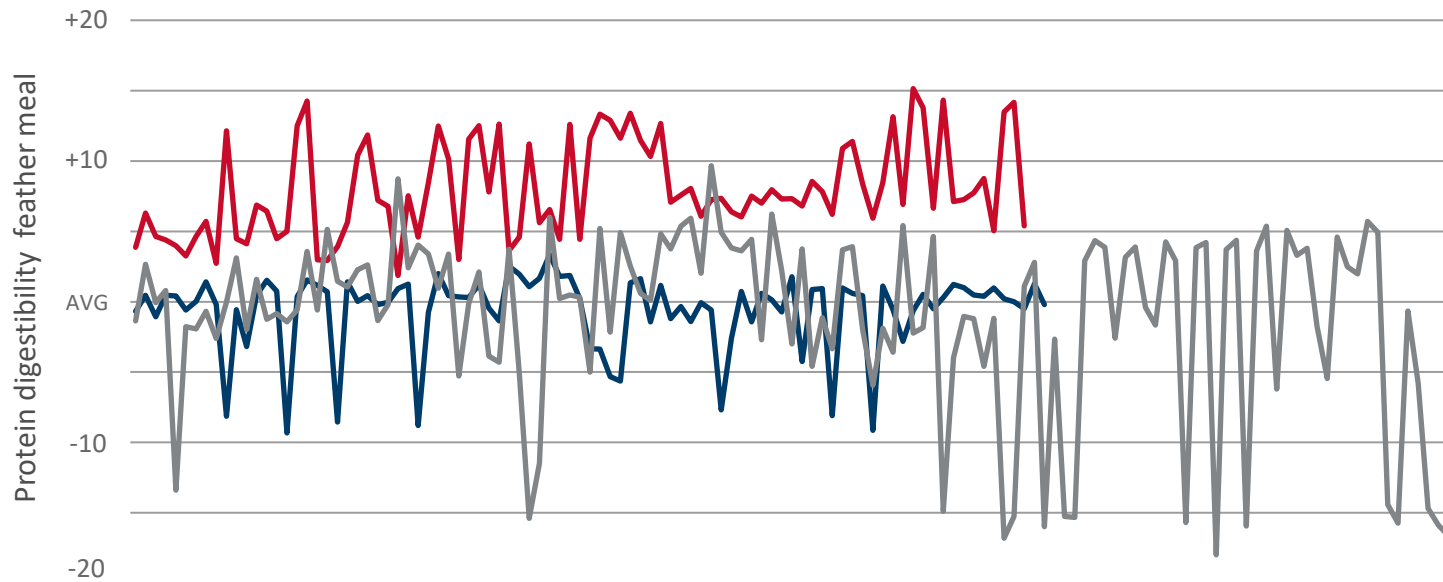
Skretting 2019:

Fishmeal from trimmings: 27%

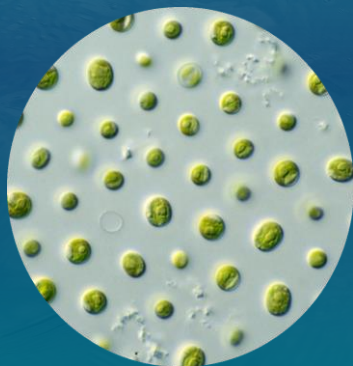
Fish oil from by-products: 27%



Optimising feather meal quality



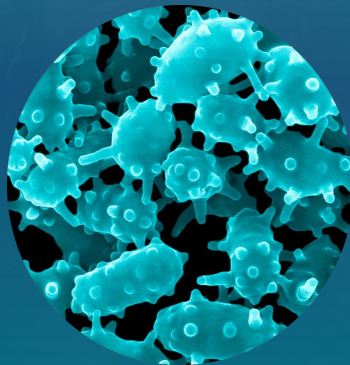
New protein sources



Algae



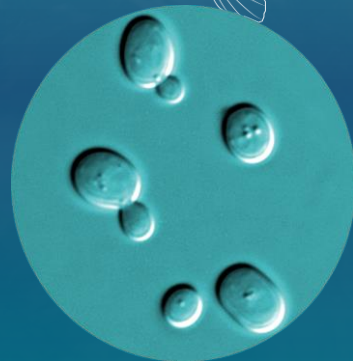
Insect



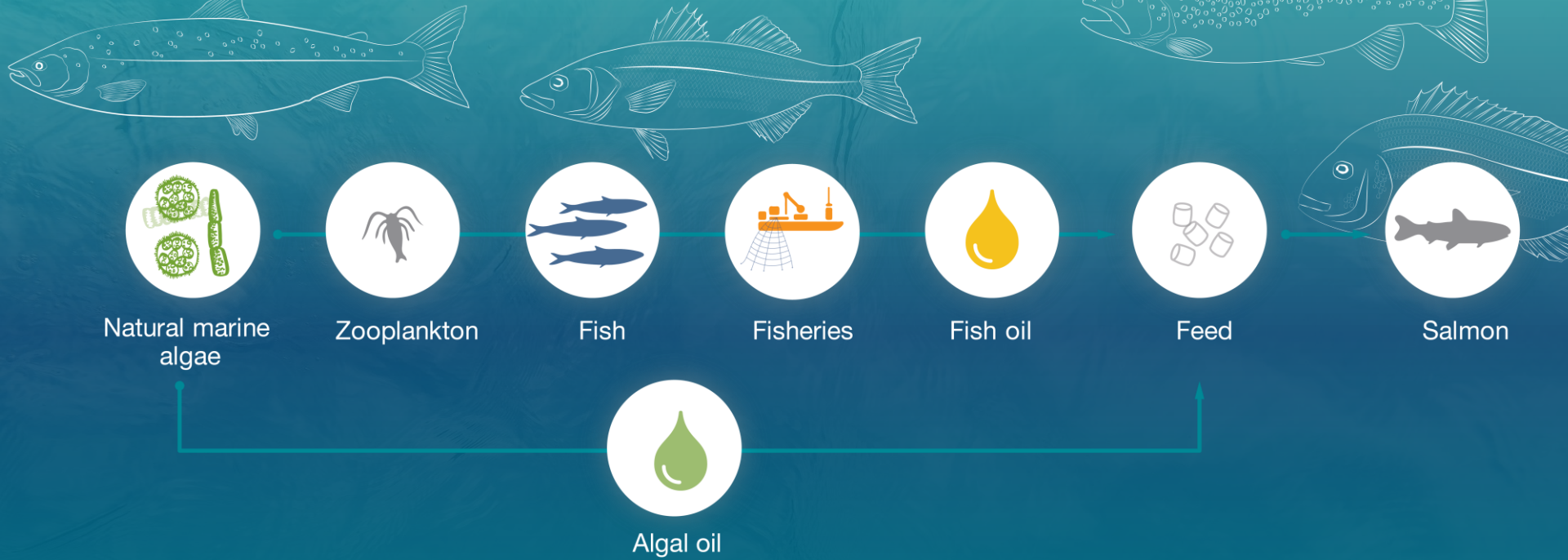
Bacteria



Fungi



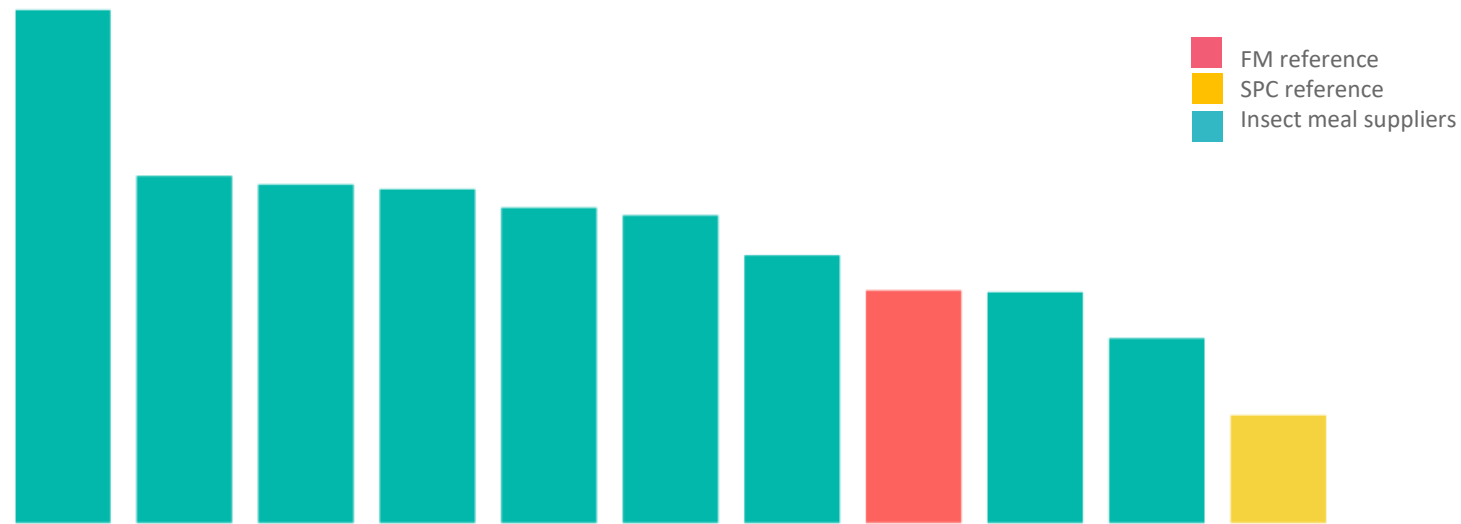
Yeast



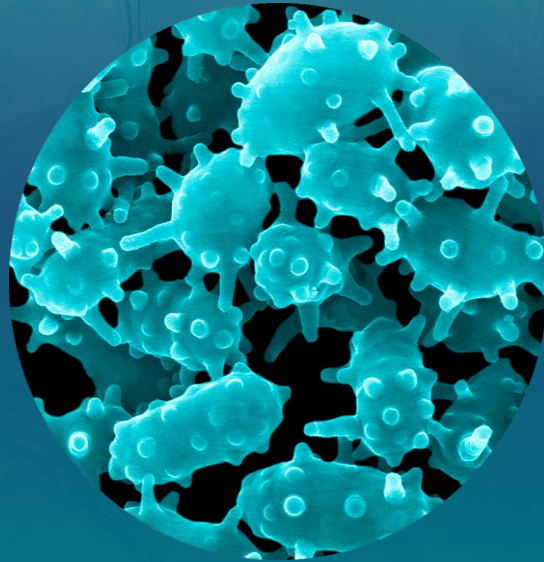
Shortening the natural food chain



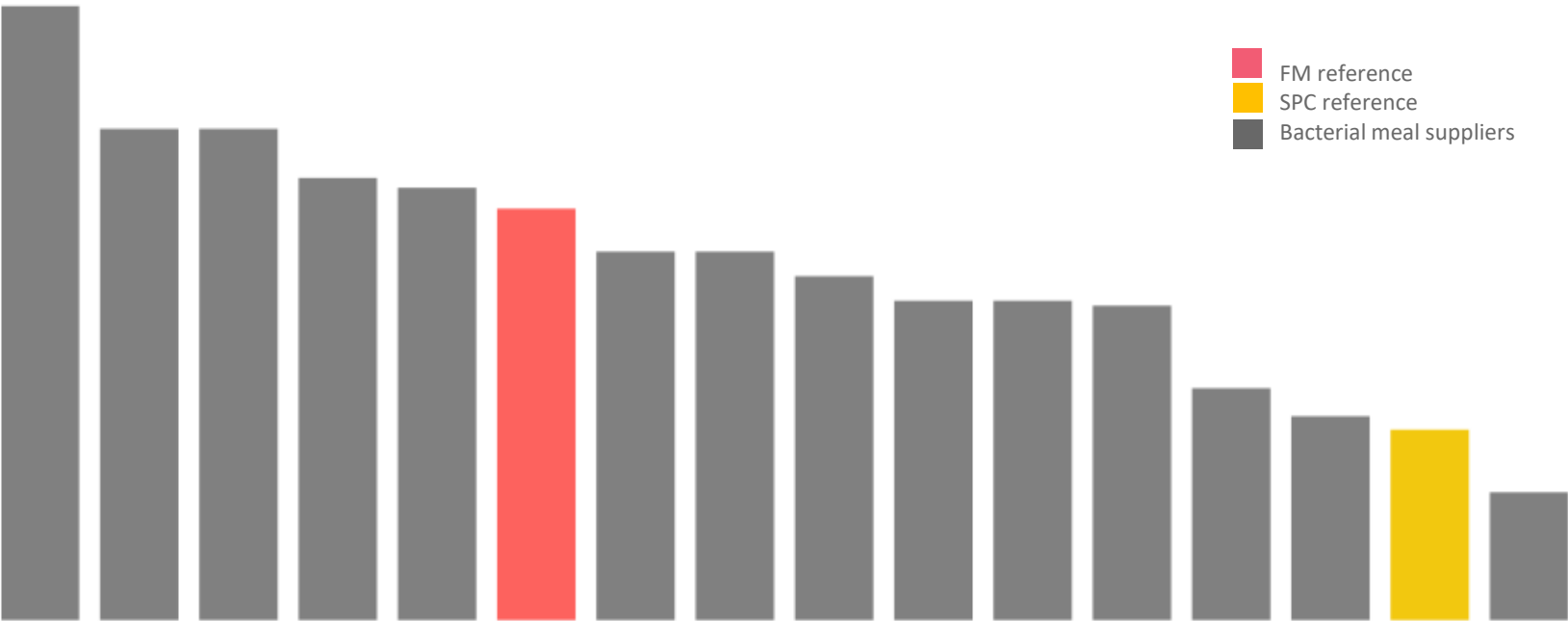
Insect meal price estimates (USD/T)



Bacterial protein



Bacterial meal price estimates (USD/T)





The next generation feed for RAS

Less waste, lower risk, more fish