



Sustainability and competitiveness – can we have both?

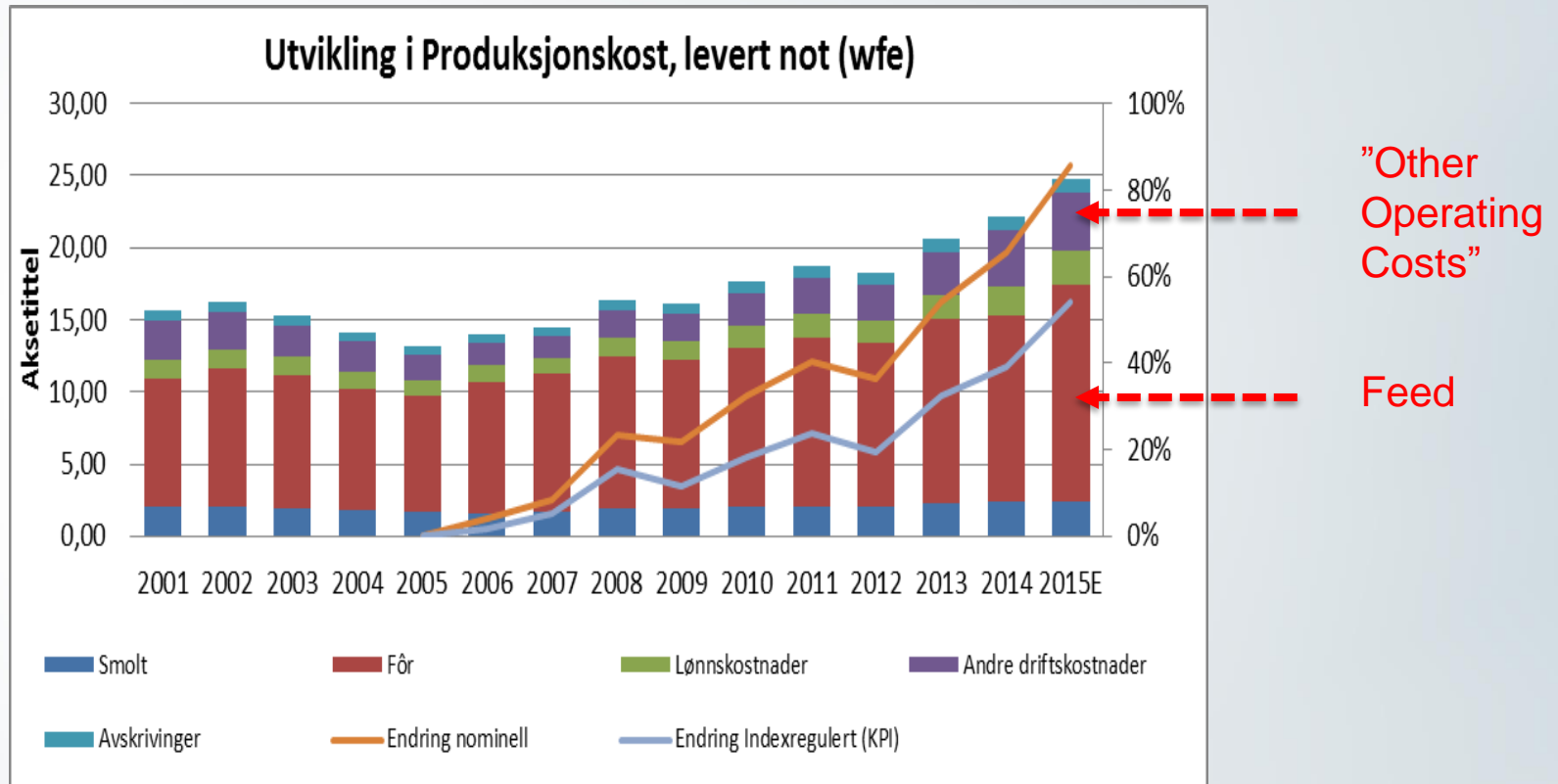
Presentation for Aquaculture Conference, St. Johns, November 10th 2016

Audun Iversen and Øystein Hermansen, Nofima

Ruth Kongsvik Brandvik, Anders Marthinussen and Ragnar Nystøyl, Kontali Analyse AS

Production cost 2001-2015

(Nominal values)

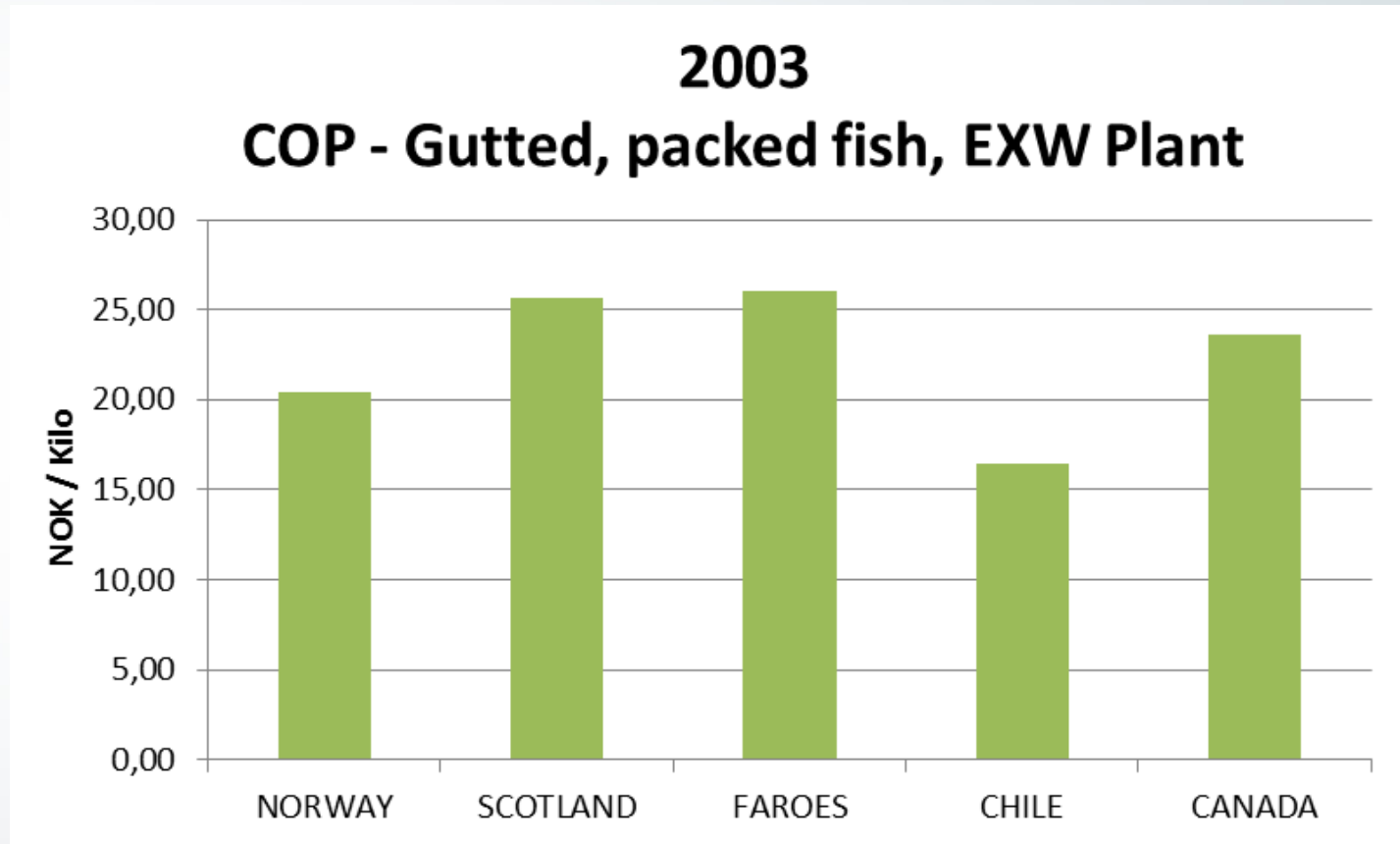


Kilde: Kontali analyse as

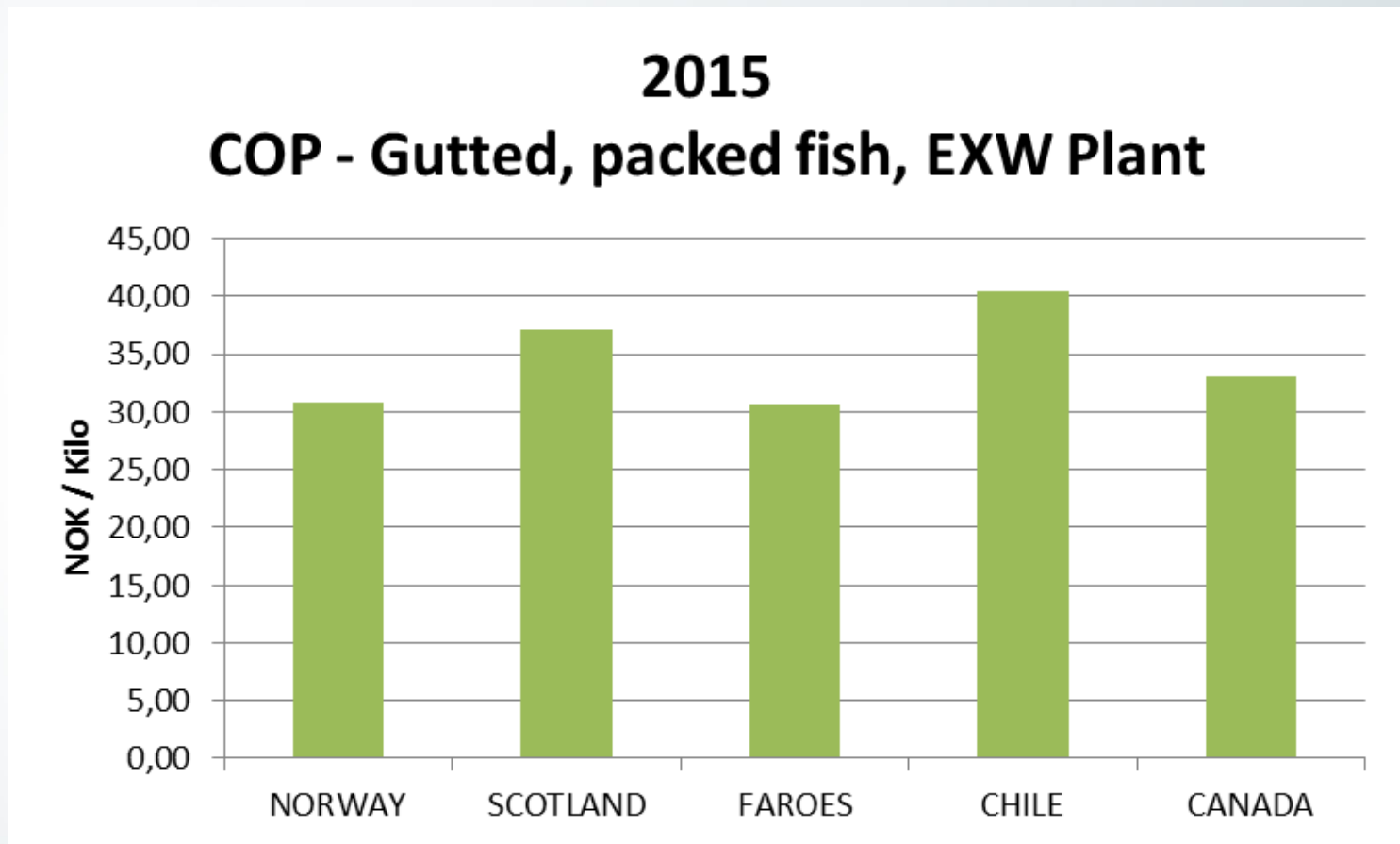
Sustainability and competitiveness – is there a conflict?



Cost position in 2003



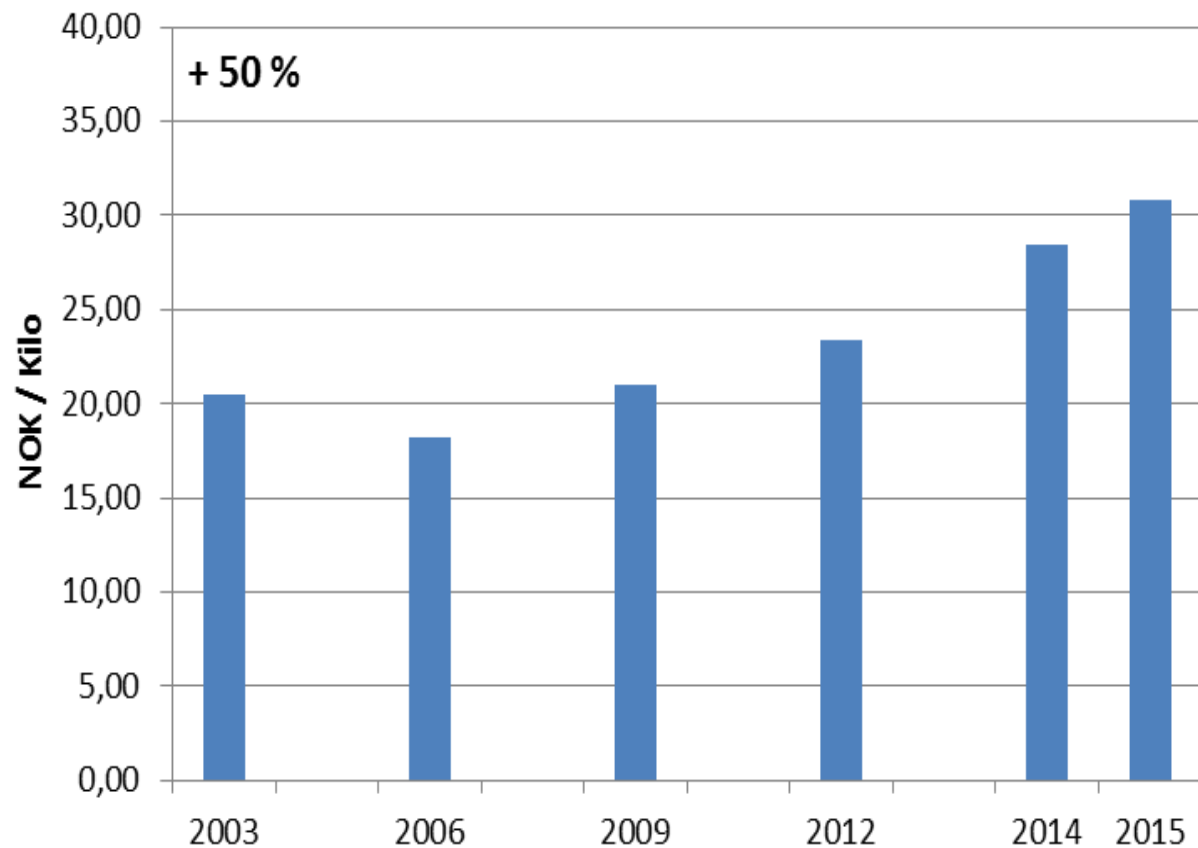
Today's cost position



Norway

- Cost development in NOK

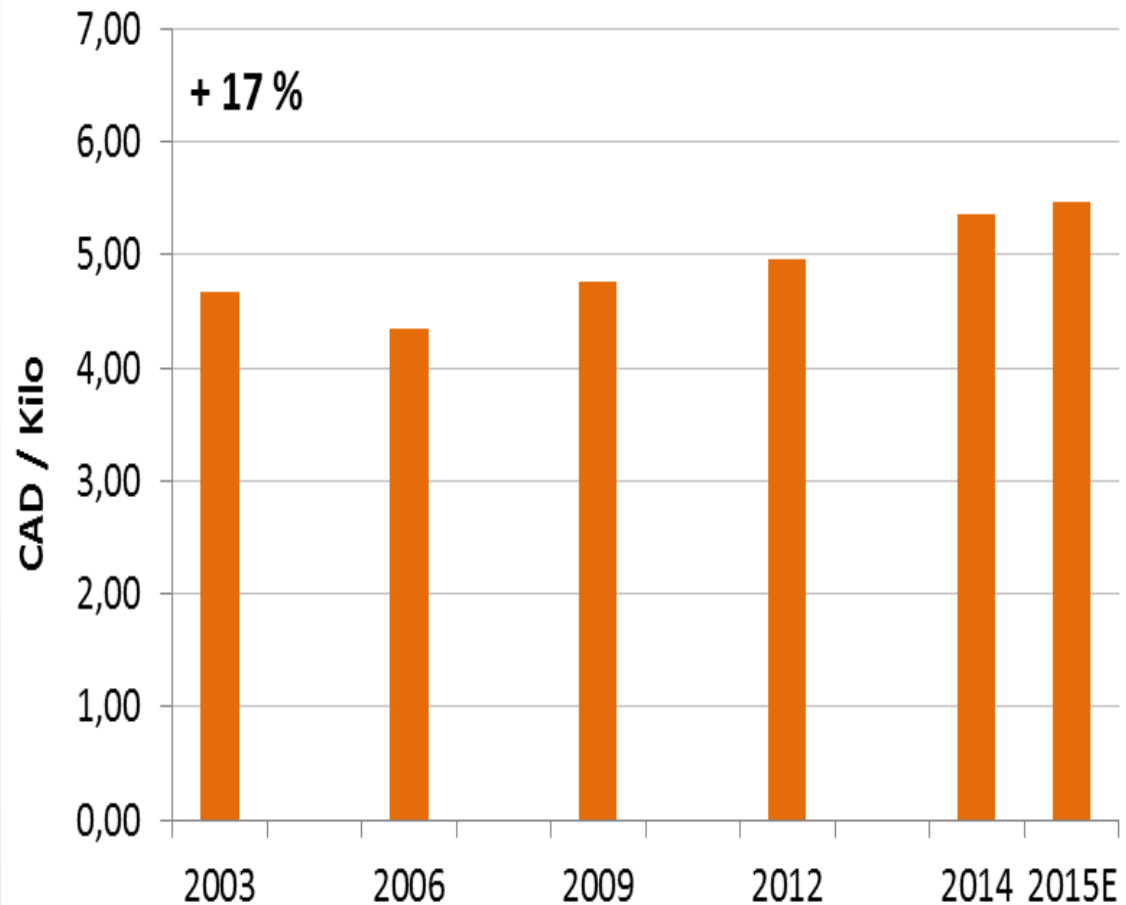
- Feed
- Sea lice
- But all costs increase



Canada

- Cost development in CAD

- Moderate cost increase
- Increased feed cost
- Good biological results
- Increased volume in 2015
- Favourable currency development
- Small sites, less efficient operations
- Difference between east and west
 - Natural conditions
 - Scale and technology
 - Growth potential

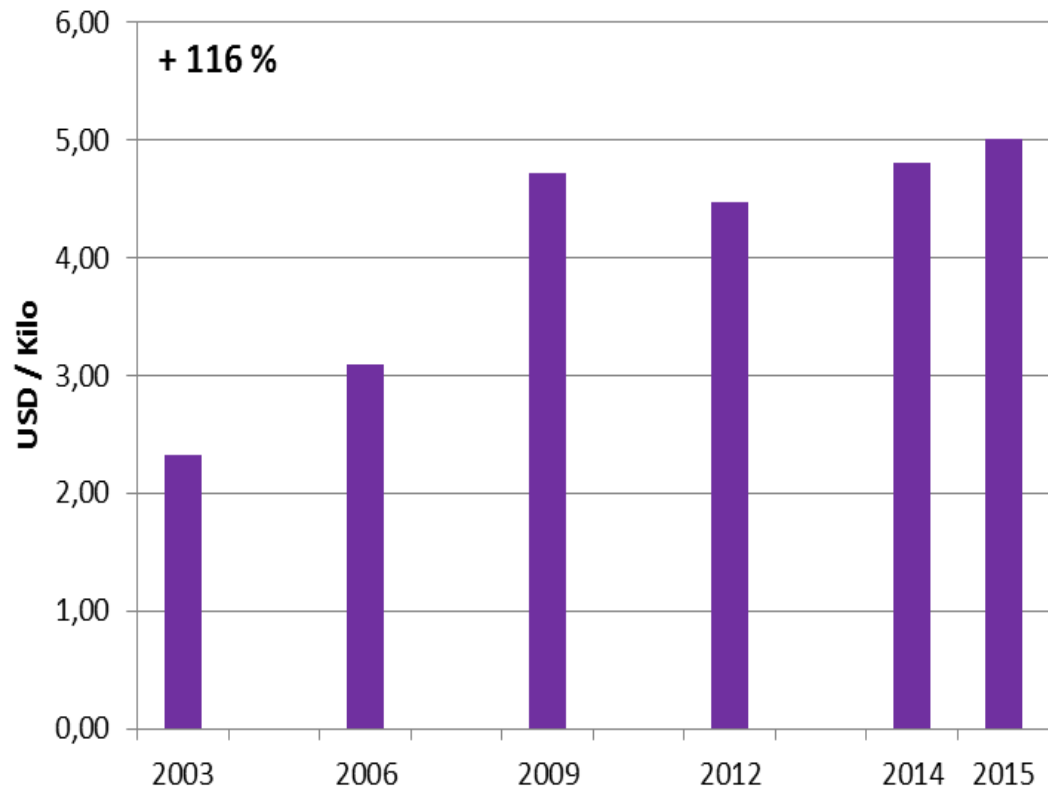


Chile

Cost development in USD



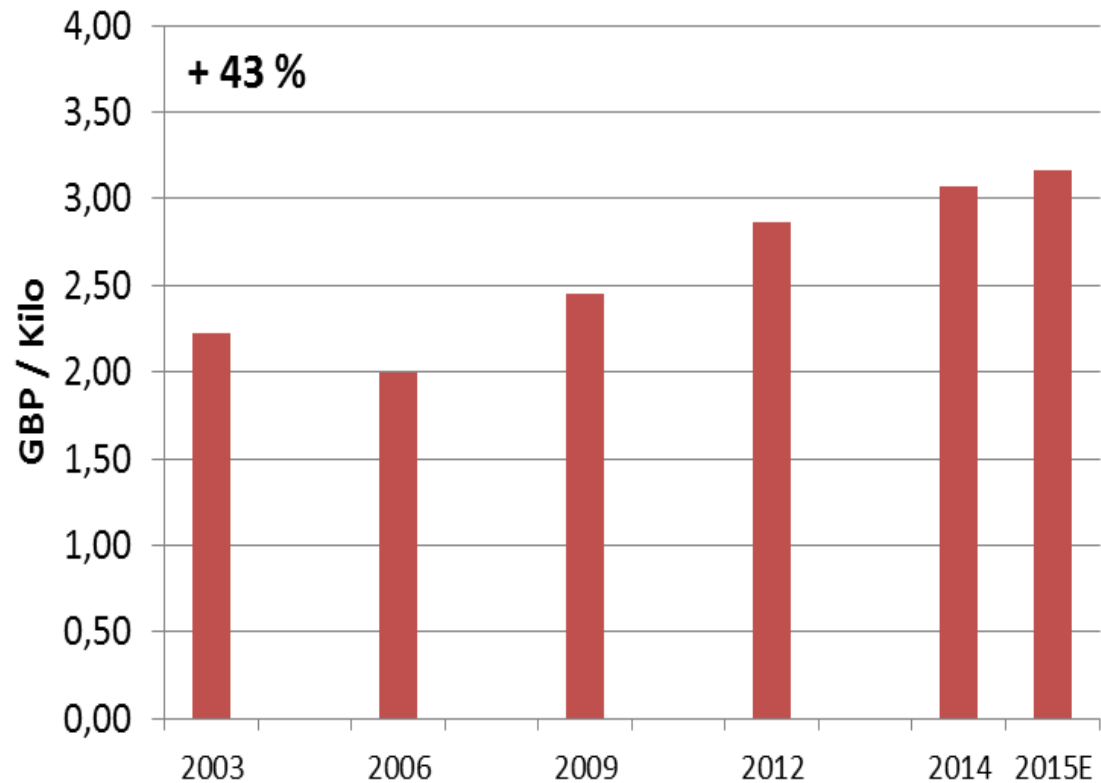
- Rapid increase to 2009
- Moderate increase since
- ISA-crisis 2007-2009
- Disease challenge in later years (SRS)
- Increased smolt cost
- Cost effect of stricter regulations
- In-efficient site structure
- Volcanoes, predators, algae blooms



Scotland

Cost development in GBP

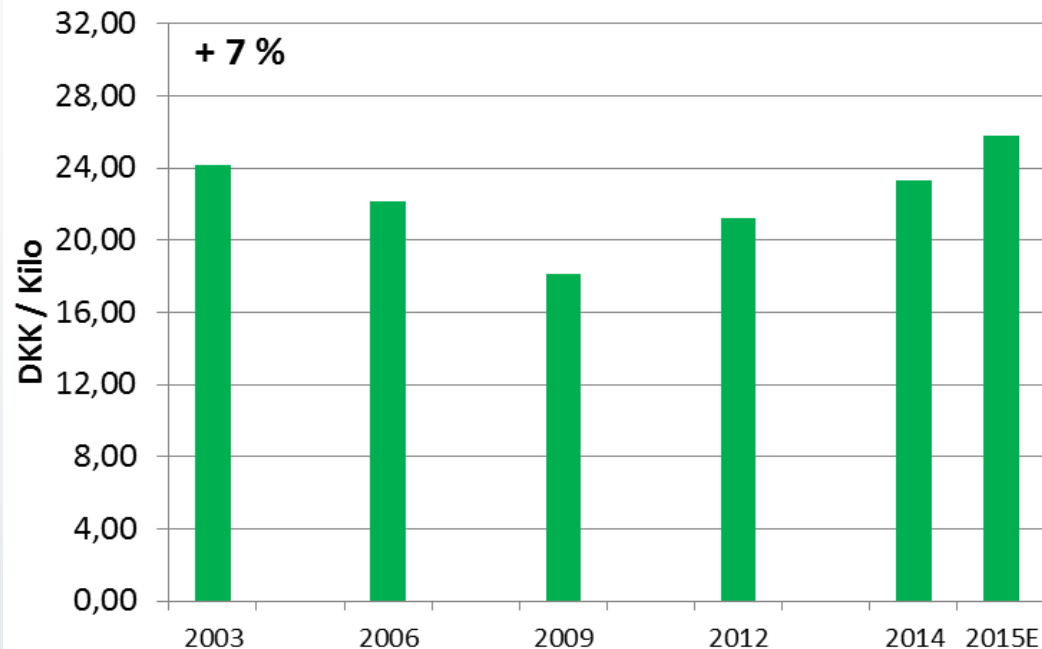
- Steady cost increase
- Feed and health costs
- Expensive smolt
- Small sites, less efficient operations
- Regulation, certification, strong public interest



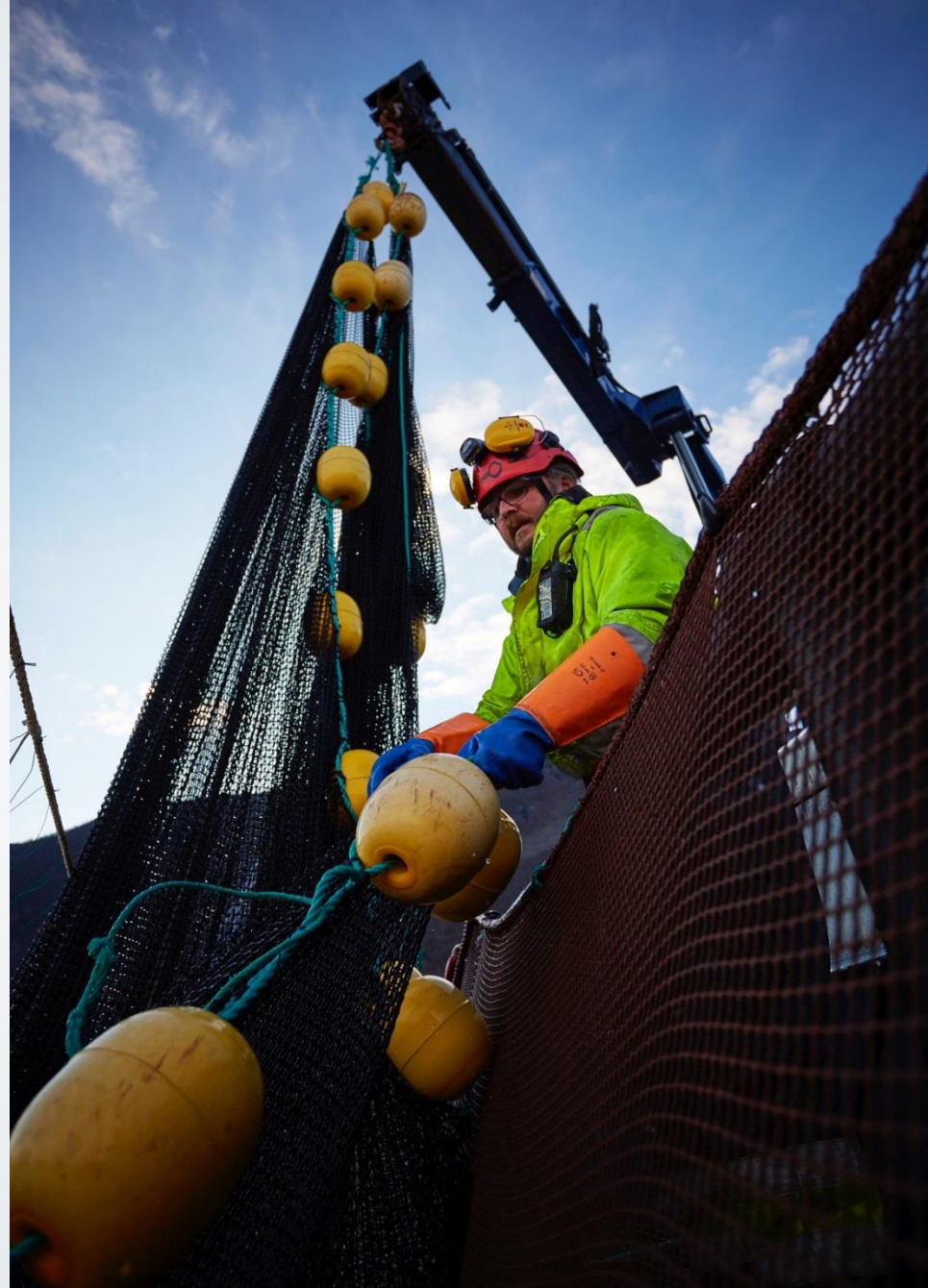
The Faroe Islands

- Cost development in DKK

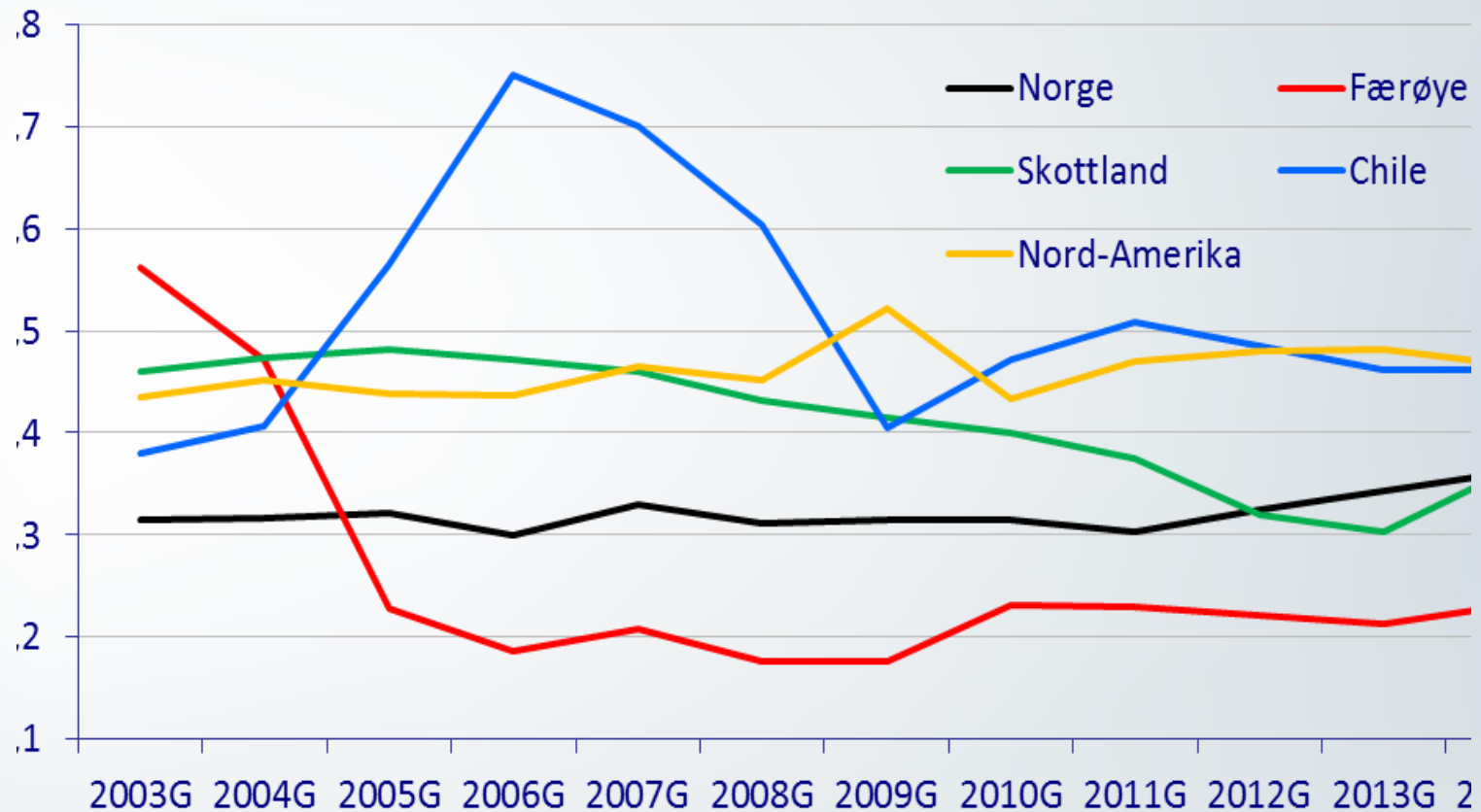
- Cost decrease till 2009, after ISA-crisis in 2003
- Steady growth since 2009
- Concentration and large-scale operations
- Strong health regulations
- Numbers are «best in class», both biologically and economically
- Lice is a challenge



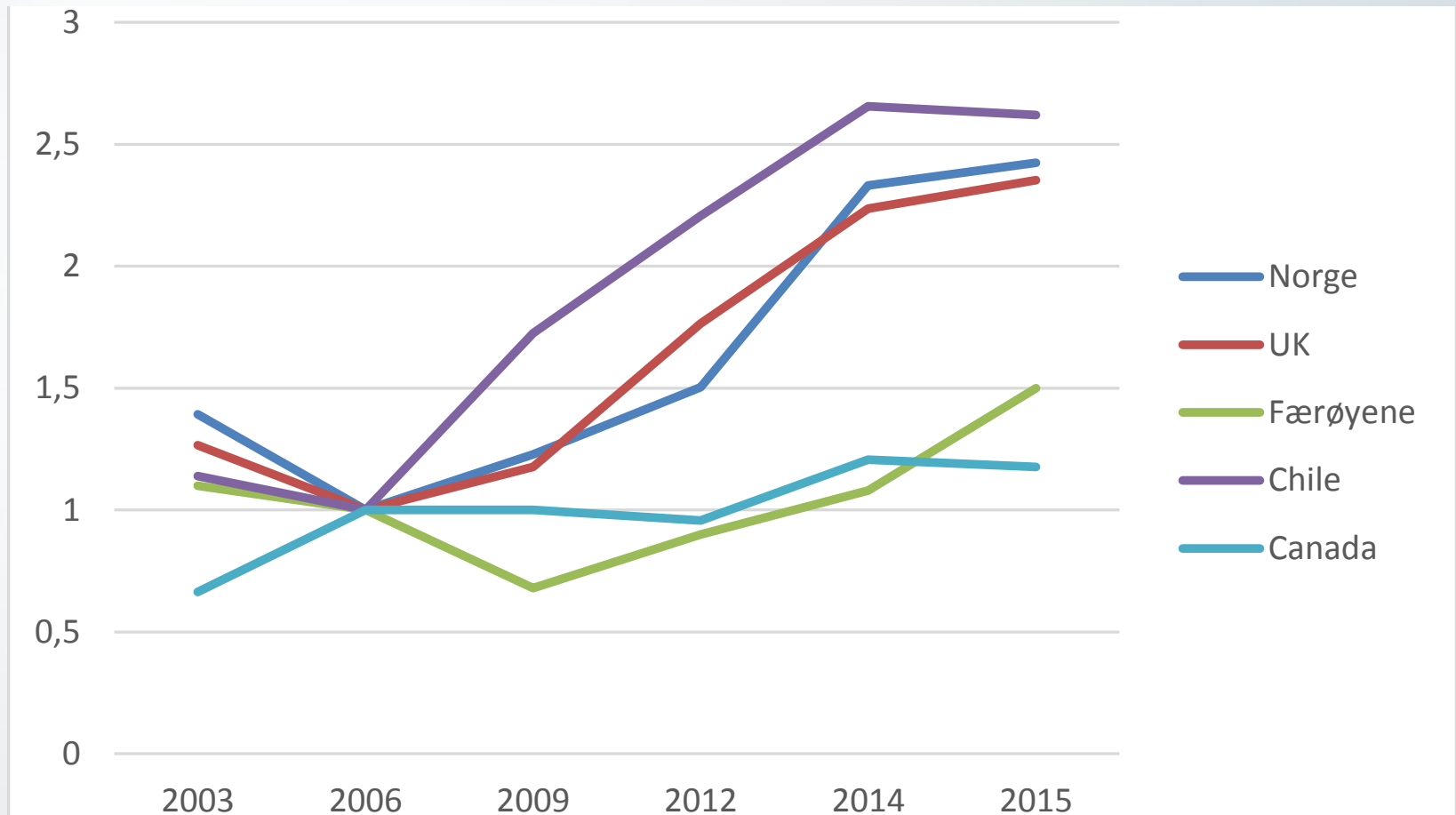
**Let us look at some
of the explaining
factors**



Economic Feed Conversion Ratio



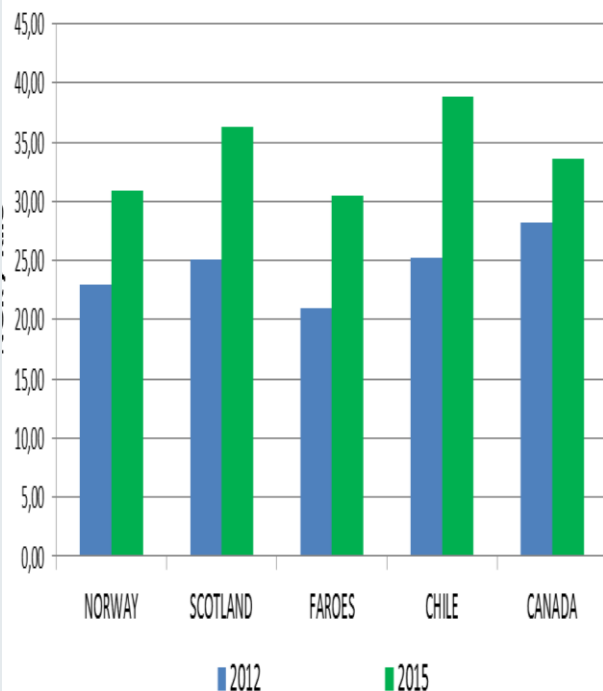
Other operating costs



Currency is important

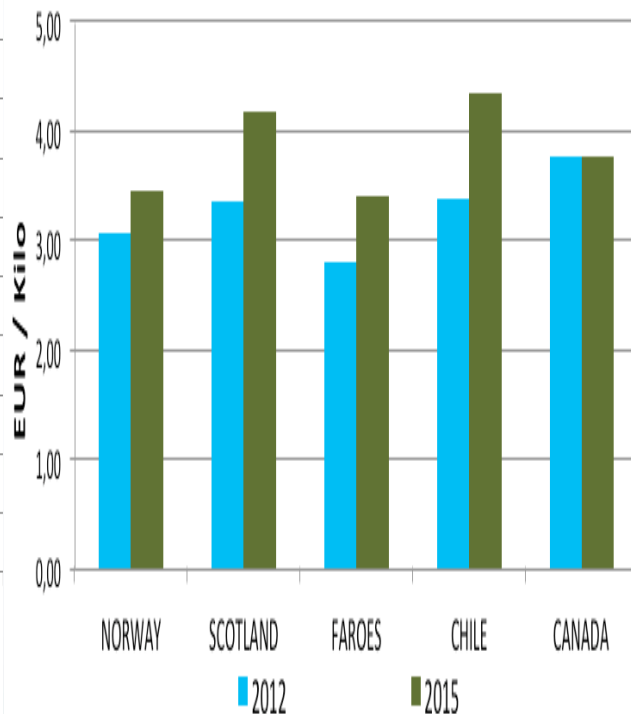
NOK

Kostnadsutvikling 2012 - 2015; Sløyd, laks m/hode
Levert, iset & pakket ex. Slakteri - Ex. renter - NOK/kg



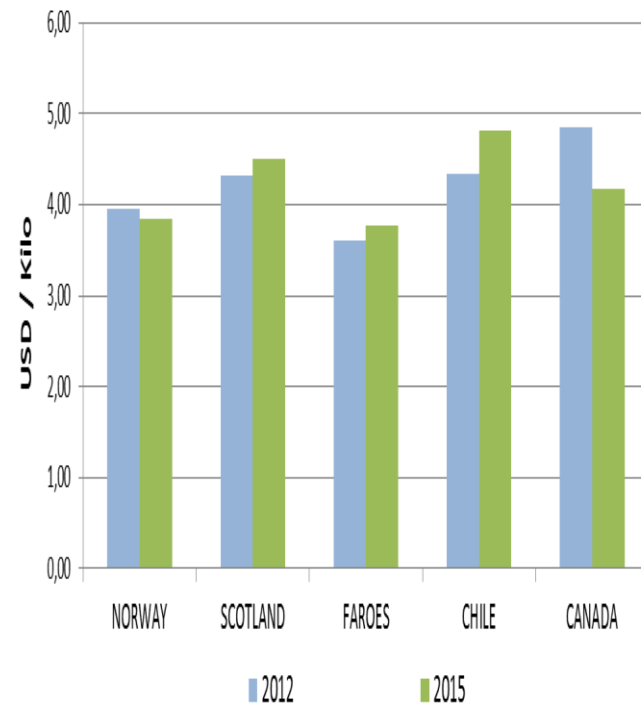
EURO

Kostnadsutvikling 2012 - 2015; Sløyd, laks m/hode
Levert, iset & pakket ex. Slakteri - Ex. renter - EUR/kg



USD

Kostnadsutvikling 2012 - 2015; Sløyd, laks m/hode
Levert, iset & pakket ex. Slakteri - Ex. renter - USD/kg



- Samme rekkefølge begge årene som målt i NOK
- Men endringen fra 2012 til 2015 er annerledes

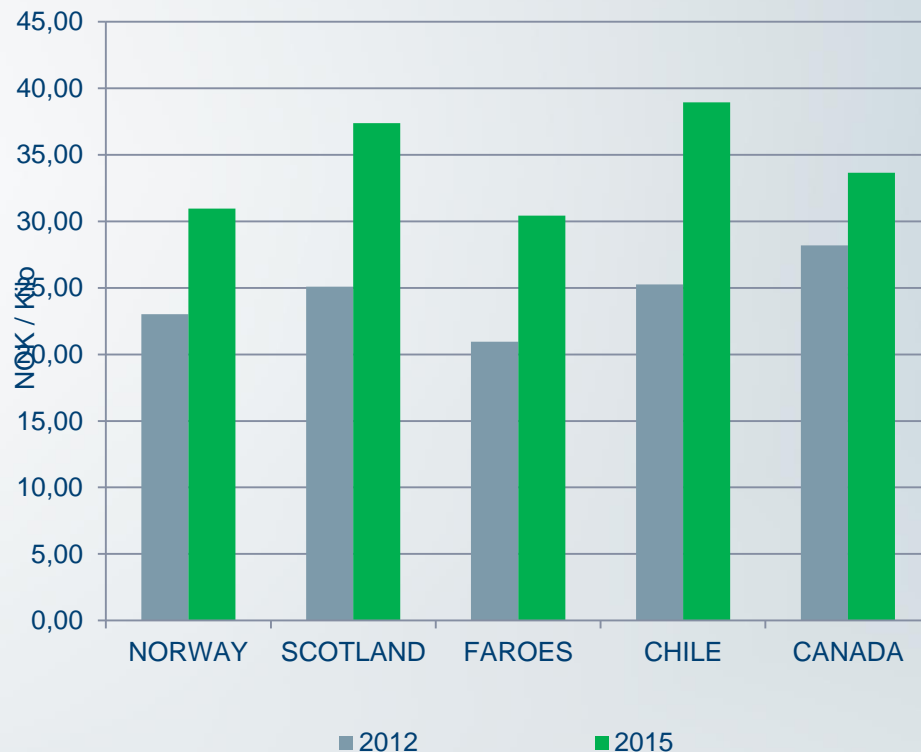
Canada vs Norway: Cost gap is narrowing

Norway vs Canada:

2012: + 22,5 %

2015: + 8,6 %

Kostnadsutvikling 2012 - 2015; Sløyd, laks m/hode
Levert, iset & pakket ex. Slakteri - Ex. renter - NOK/kg

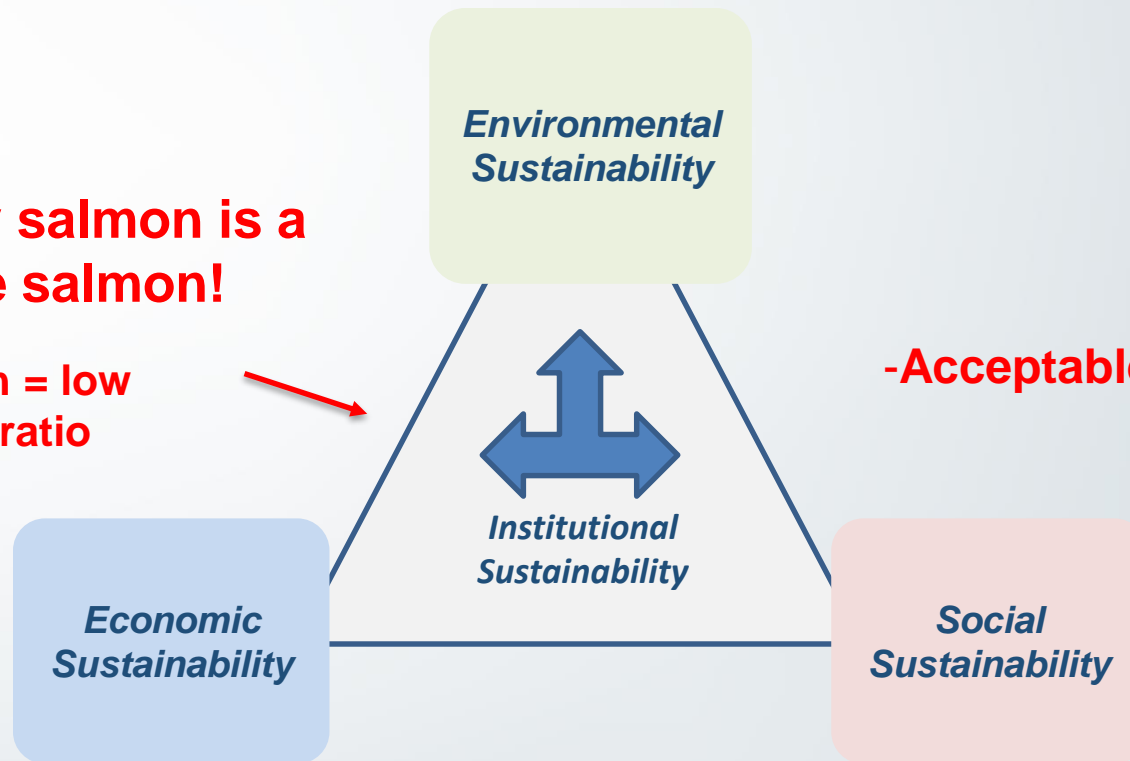


Sustainability and competitiveness – no conflict!

-One possible exception to this rule: external effects

A healthy salmon is a profitable salmon!

-Good fish health = low feed conversion ratio



-Acceptable footprint?

**Thank you for
your attention!**

