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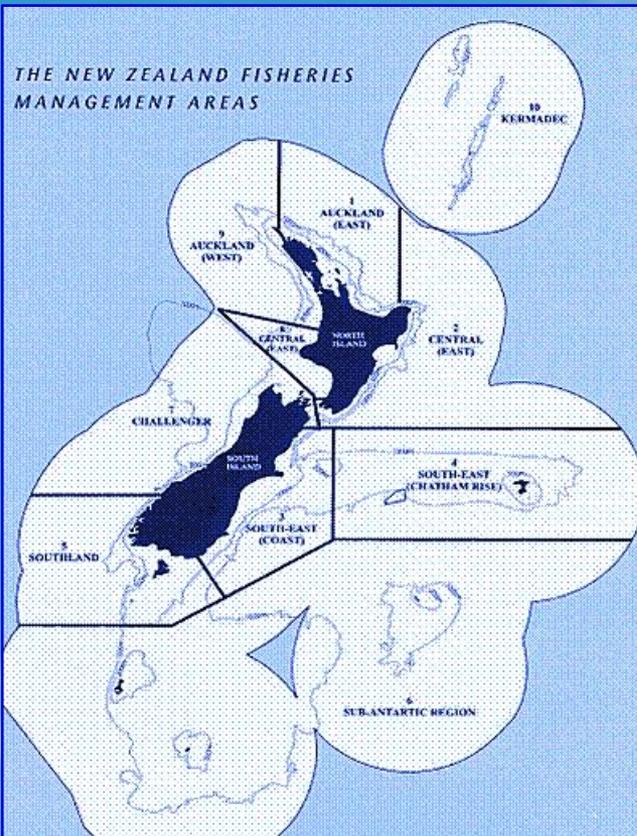
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Re-thinking the Aotearoa Fisheries Value Chain: Implications for Kaitiakitanga

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Professor Hugh Whittaker and
Associate Professor Manuka Henare

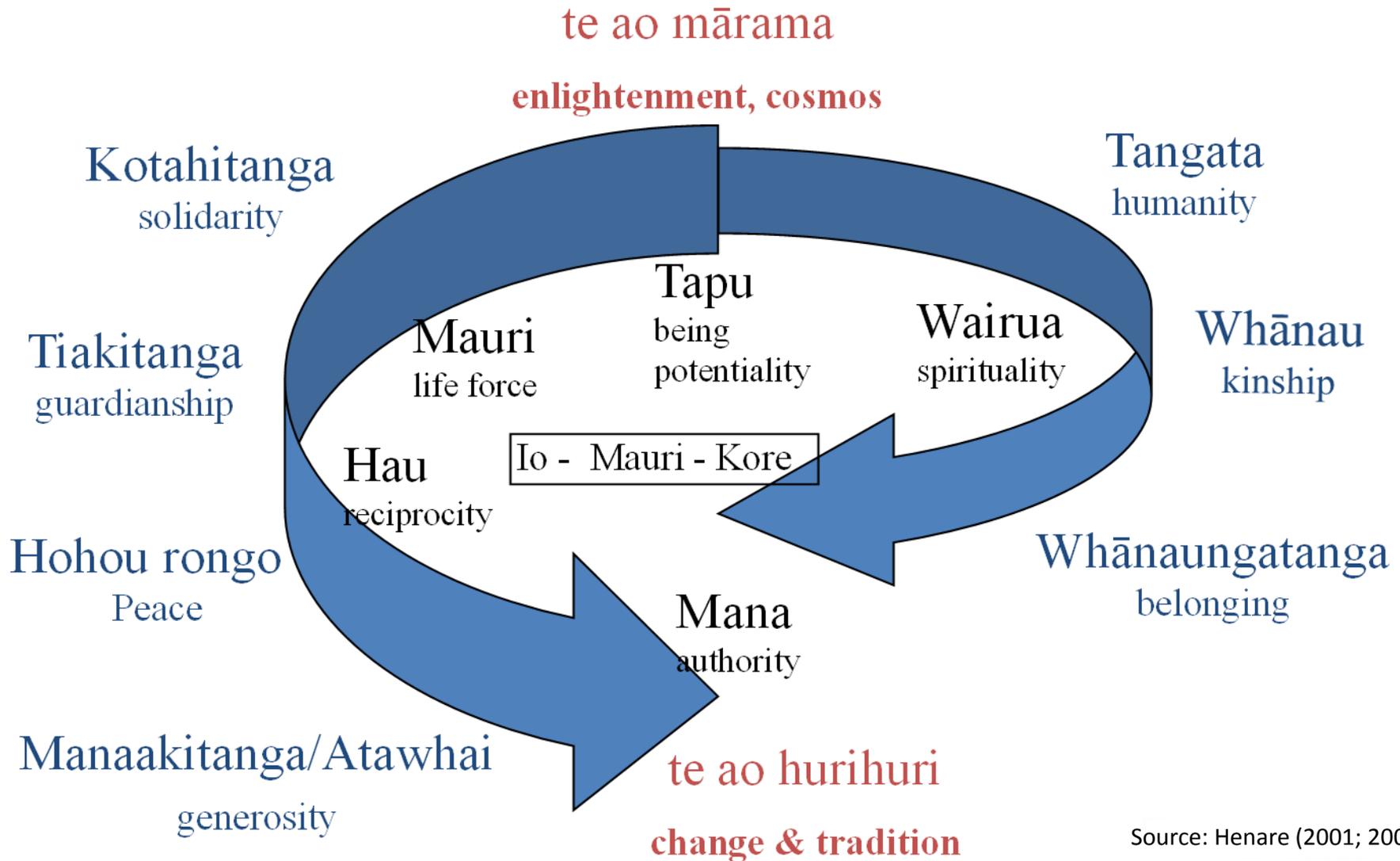
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Development
The University of Auckland Business School

Presentation to
Ngā Whetū Hei Whai Conference
27 August 2012

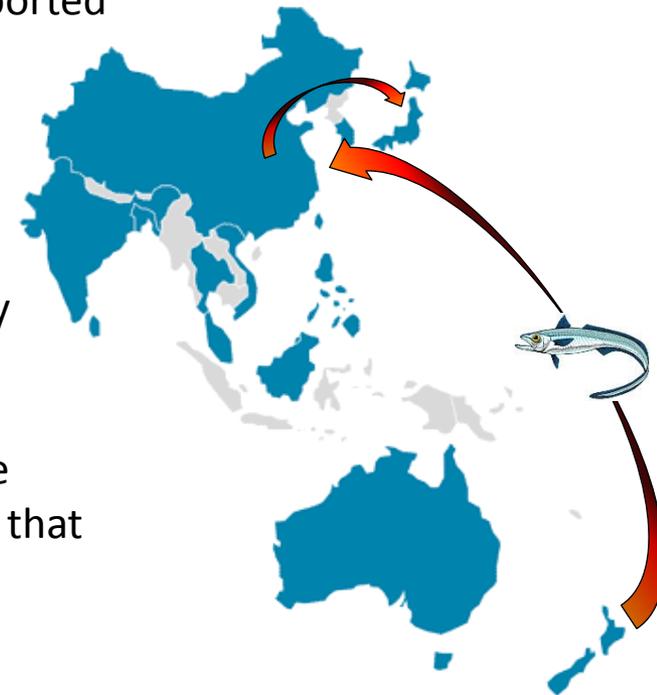


He Korunga o Ngā Tikanga

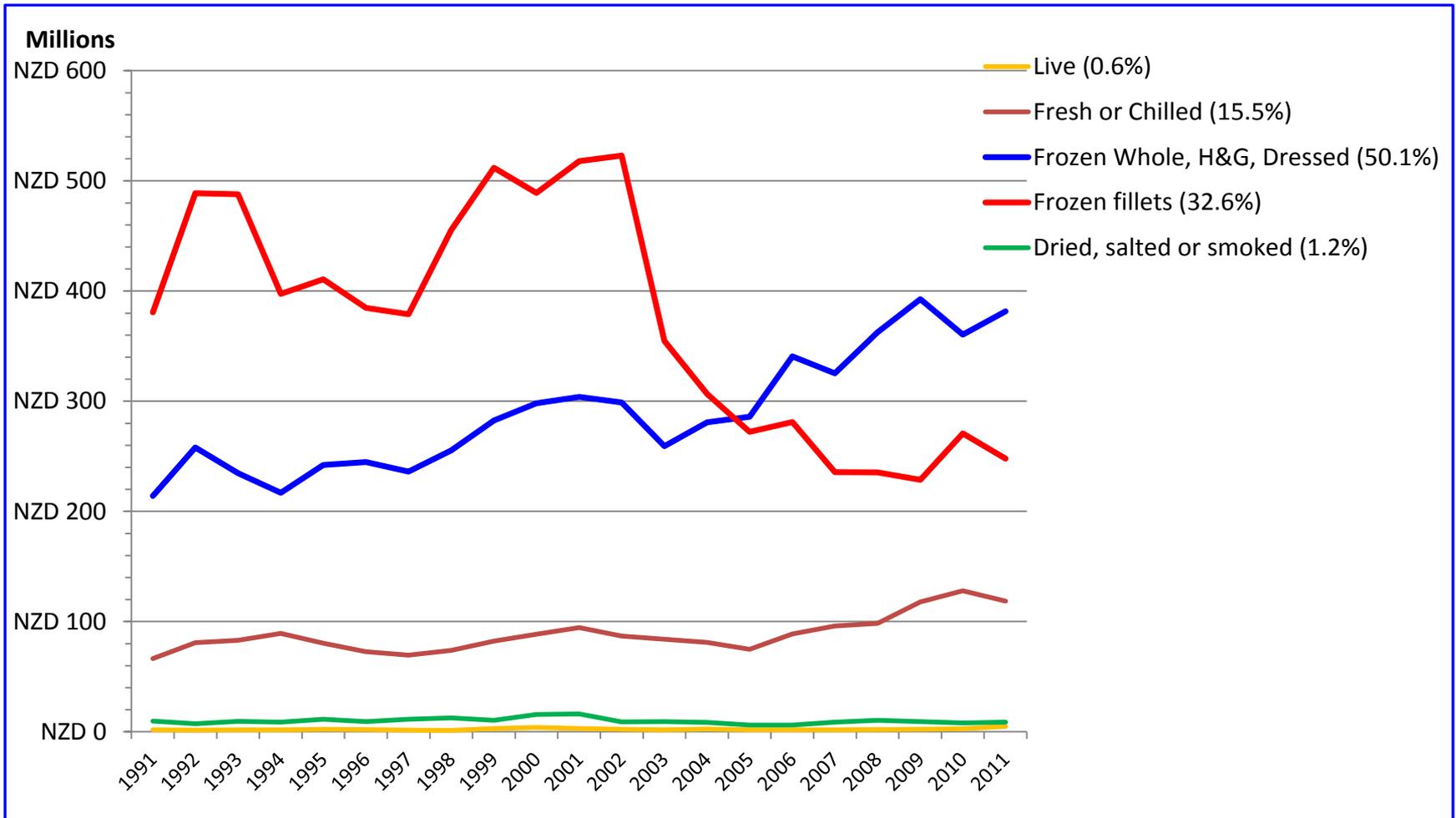
Spiral/Matrix of Ethics – The Good Life



- During the last 17 years outsourcing of fish processing has gained unprecedented momentum – mainly head & gutted fish exported to China for further processing.
- China has a competitive advantage in recovery and throughput rates.
- Processed value added products are then re-exported to key markets e.g. E.U., Japan, USA.
- “Outsourcing can be destructive to an economy because the collective R&D, engineering, and manufacturing capabilities that sustain innovation are lost” (Pisano and Shih, 2009, p. 116).

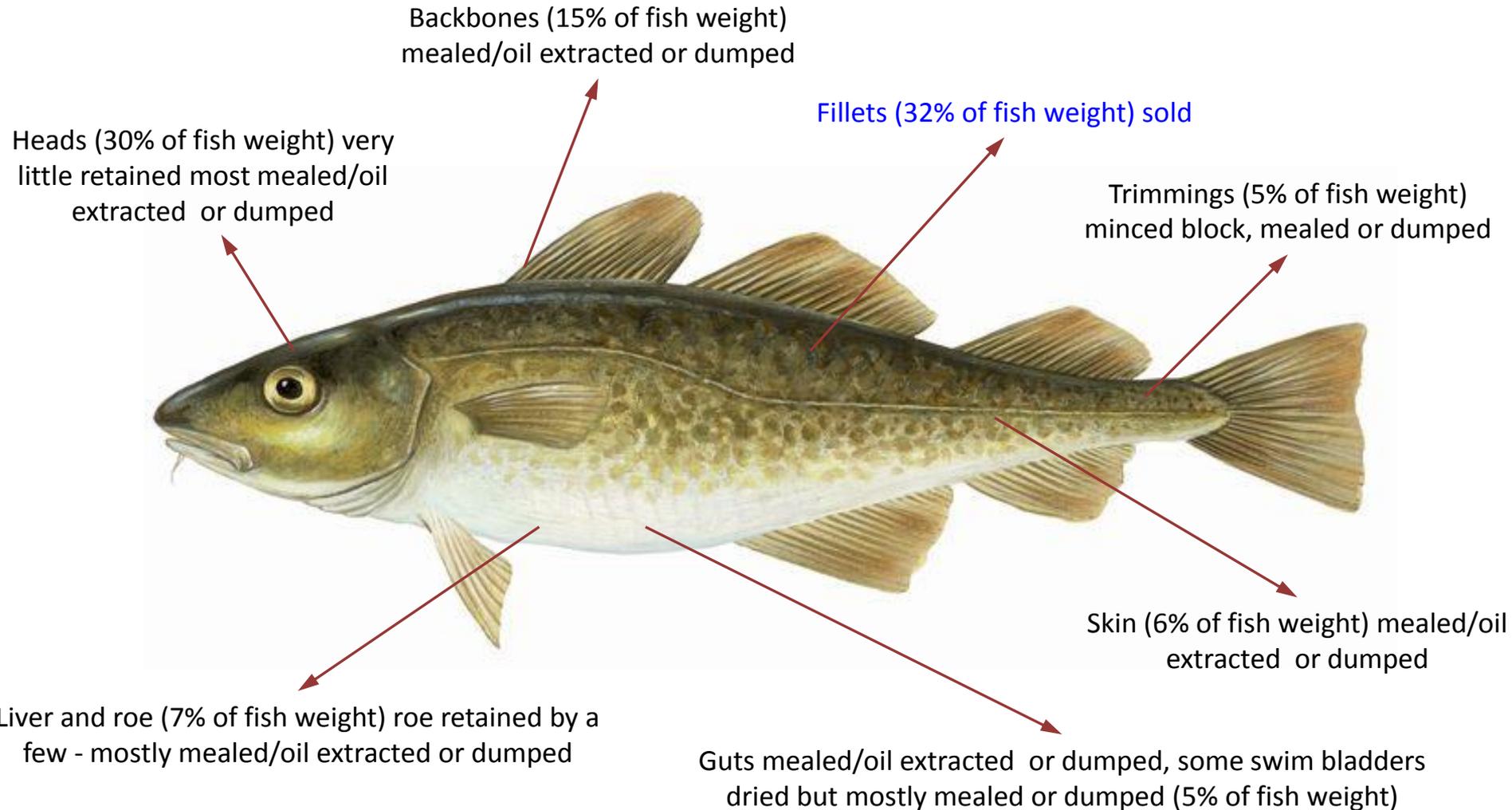


Where is the 'value add' in exports?



Source: Statistics New Zealand

Up to 70% of the fish is turned into low value fishmeal, some oil or wasted

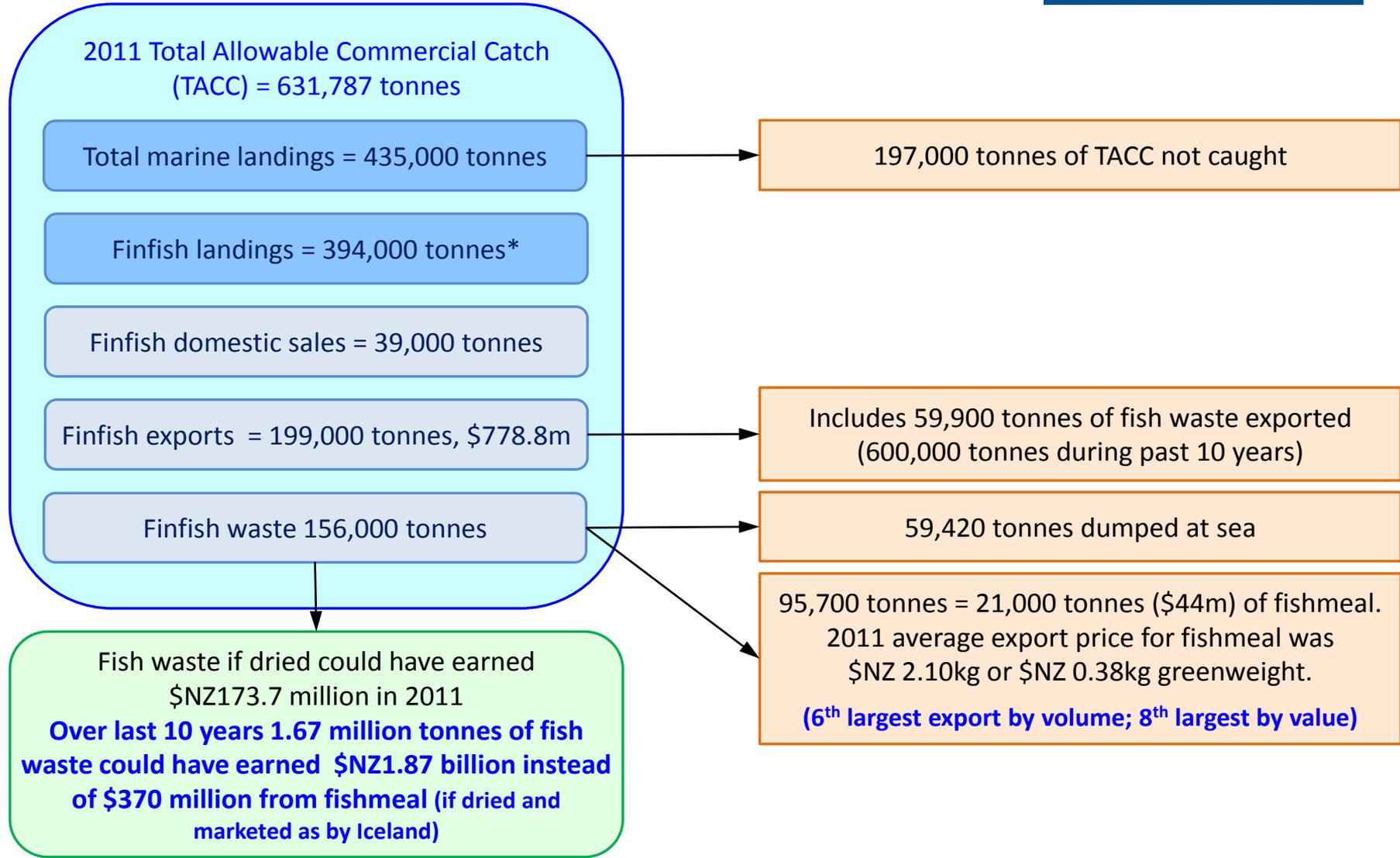


“There is industry awareness of the potential to use the whole fish, some boutique players playing with some byproducts, but no proper commercialisation of the opportunities” (pers. comm. 2012).

This is what dumping looks like



Putting a figure on missed opportunity



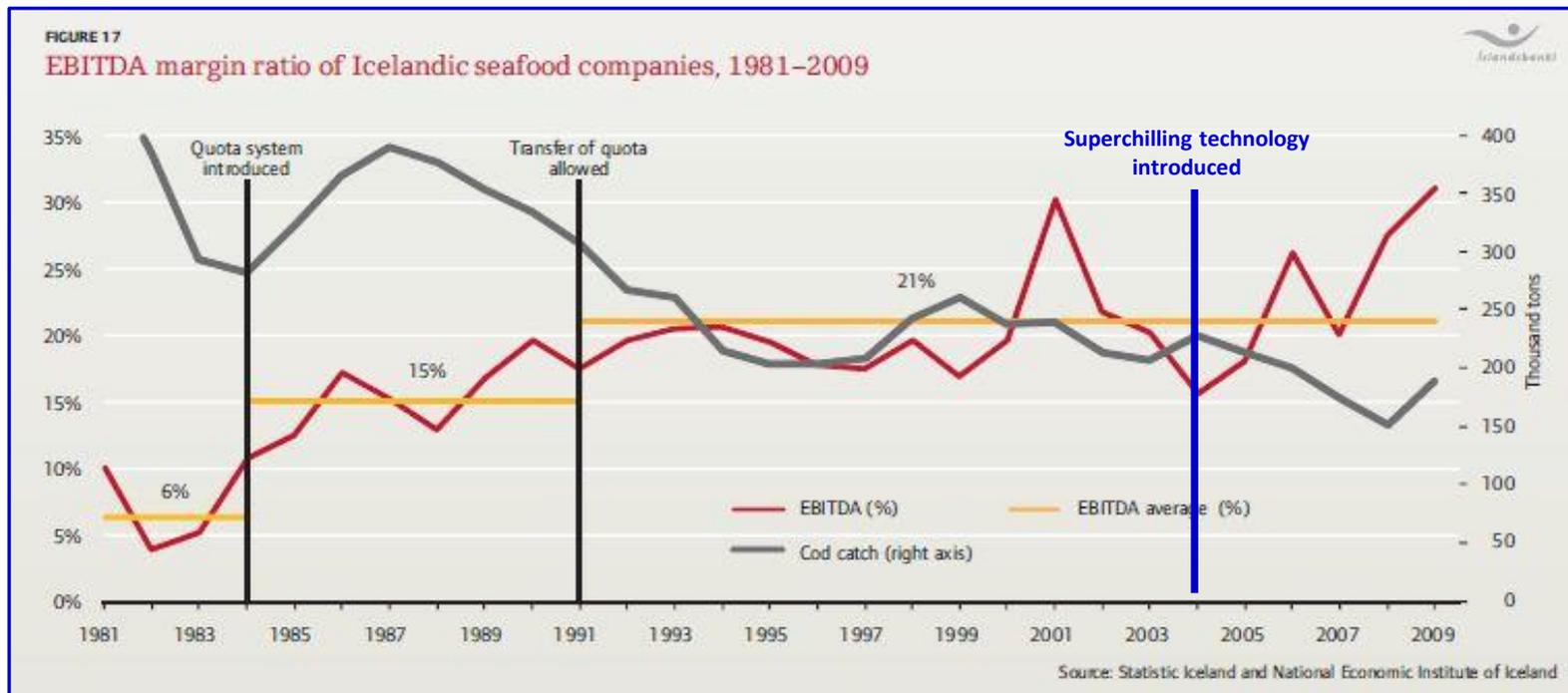
Sources: Compiled and calculated from Ministry for Primary Industries and Statistics New Zealand data

*Does not include illegally dumped fish, estimated at between 79,000 and 197,000 tonnes

New Zealand industry average EBITDA **less than 10%** whereas the Icelandic Industry average EBITDA is **more than 30%**.

Iceland has been able to achieve a high average EBITDA through, for example:

- Complete transparency
- Independent auction system
- A collective commitment to market led innovation



An Icelandic approach to fish waste

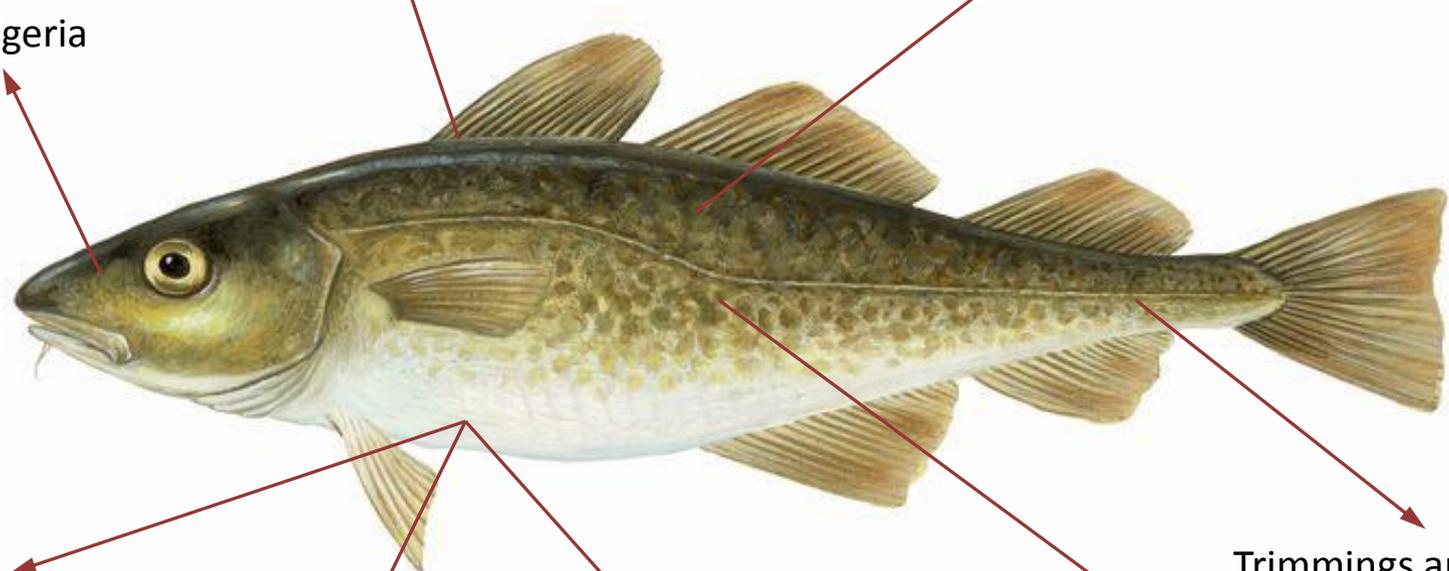


Iceland utilises 96% of the fish

Backbones dried and sold to Nigeria

Development of own technology (superchilling) increased fillet yields by 10-15%

Heads dried and sold to Nigeria



100% utilisation of liver and roe

Guts dumped (4%)

Swim bladder dried

Trimmings are minced into fish Nuggets

Gelatin extracted from skin and swim bladder for use in a wide range of food products

Nigeria buys dried heads for FOB US \$5.50/kg and frames/bones for US \$2.50/kg.

Advanced derivatives: aim to use 100% of the fish



Canned cod liver products



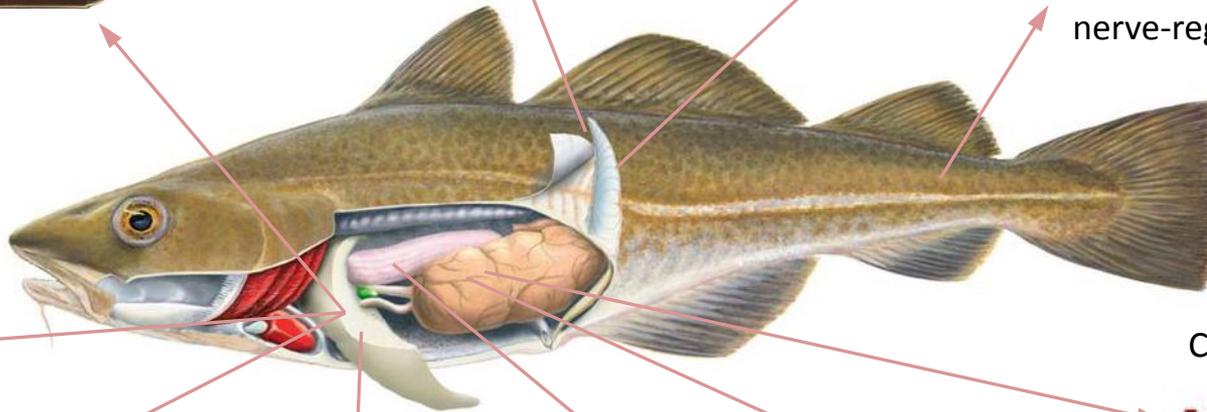
Gelatin pharmaceutical capsules



Fish leather used by shoe & fashion industry



Pharmaceutical tissue and nerve-regeneration products



Enzymes used for natural fish flavourings



Caviar and spreads



Enzymes from the gut used for cosmetics, hygiene and pharmaceutical products



Cod liver oil

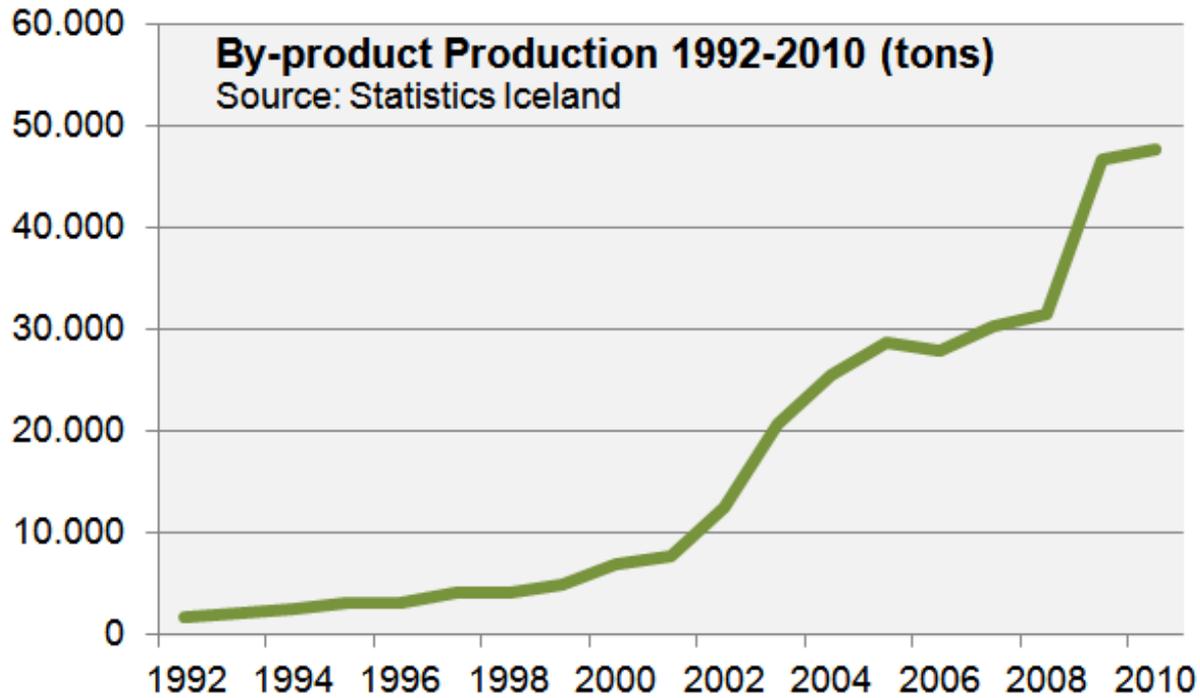


Beauty collagens (anti-aging products)



Hand & foot creams for preventing and treating diabetic ulcers

Creating new industries from marine by-products



By-products in 1992 were 1,667 tonnes, increasing to 47,782 tons in 2010

Increase real value from your fishing rights by 20% per annum without increasing volume.

“The real value of a limited resource is not intrinsic to the product itself, nor is it the current price. It is the latent demand of narrow segments populated by rare products” (Prof. Ken Simmonds, 2006).

The University of Auckland Business School, the New Zealand Asia Institute and the Mira Szászy Research Centre for Māori and Pacific Island Development are committed to ongoing research and collaboration aimed at transforming our seafood industry along a 'high road' innovative and sustainable trajectory.

Thank you!