



The Background

- Codland: a small company with a strong foundation
- Owned by seasoned companies Þorbjörn and Vísir
- Founded Haustak together in 1999
 - Drying heads, bones, etc.
 - Beginning of the utilization

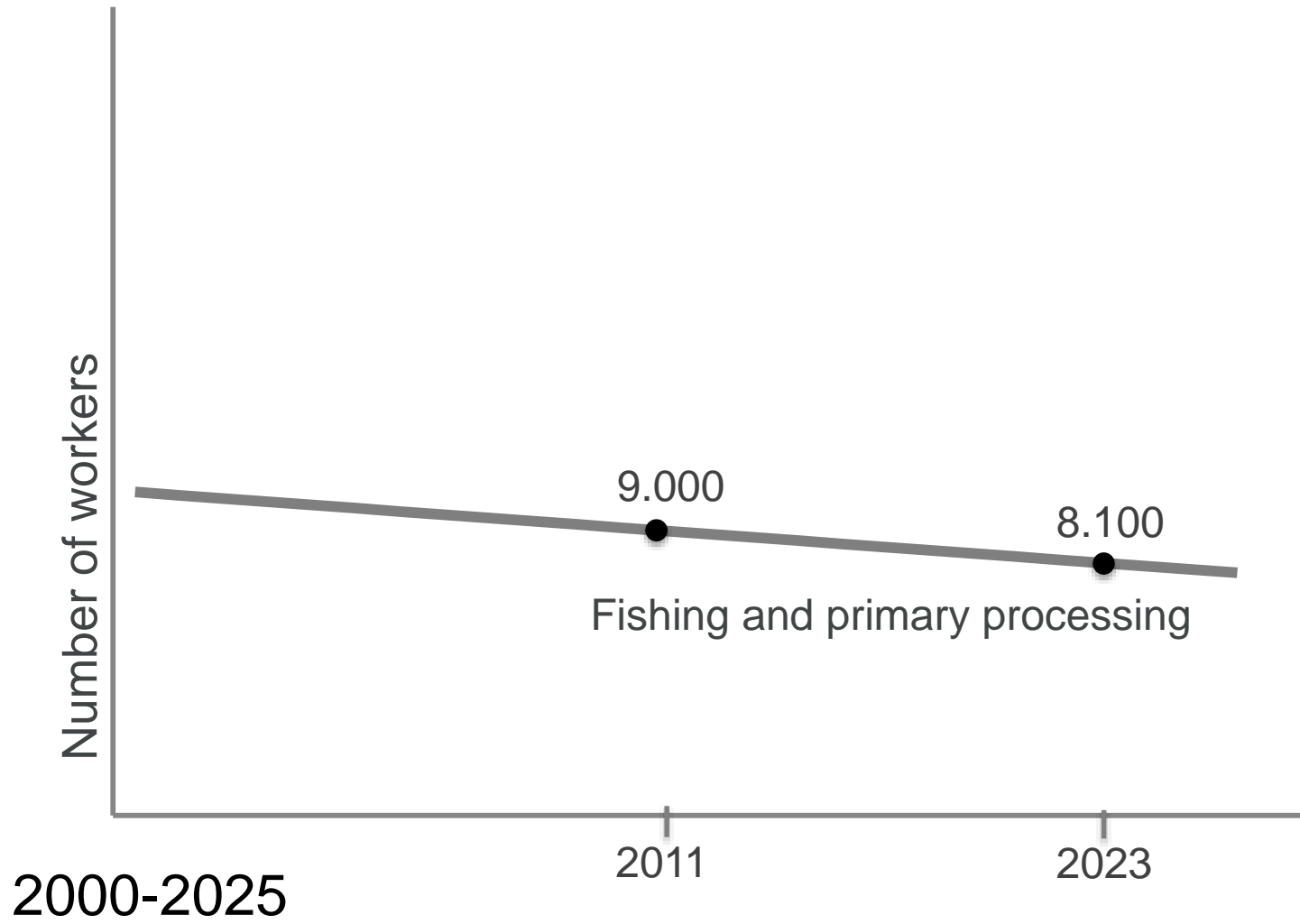


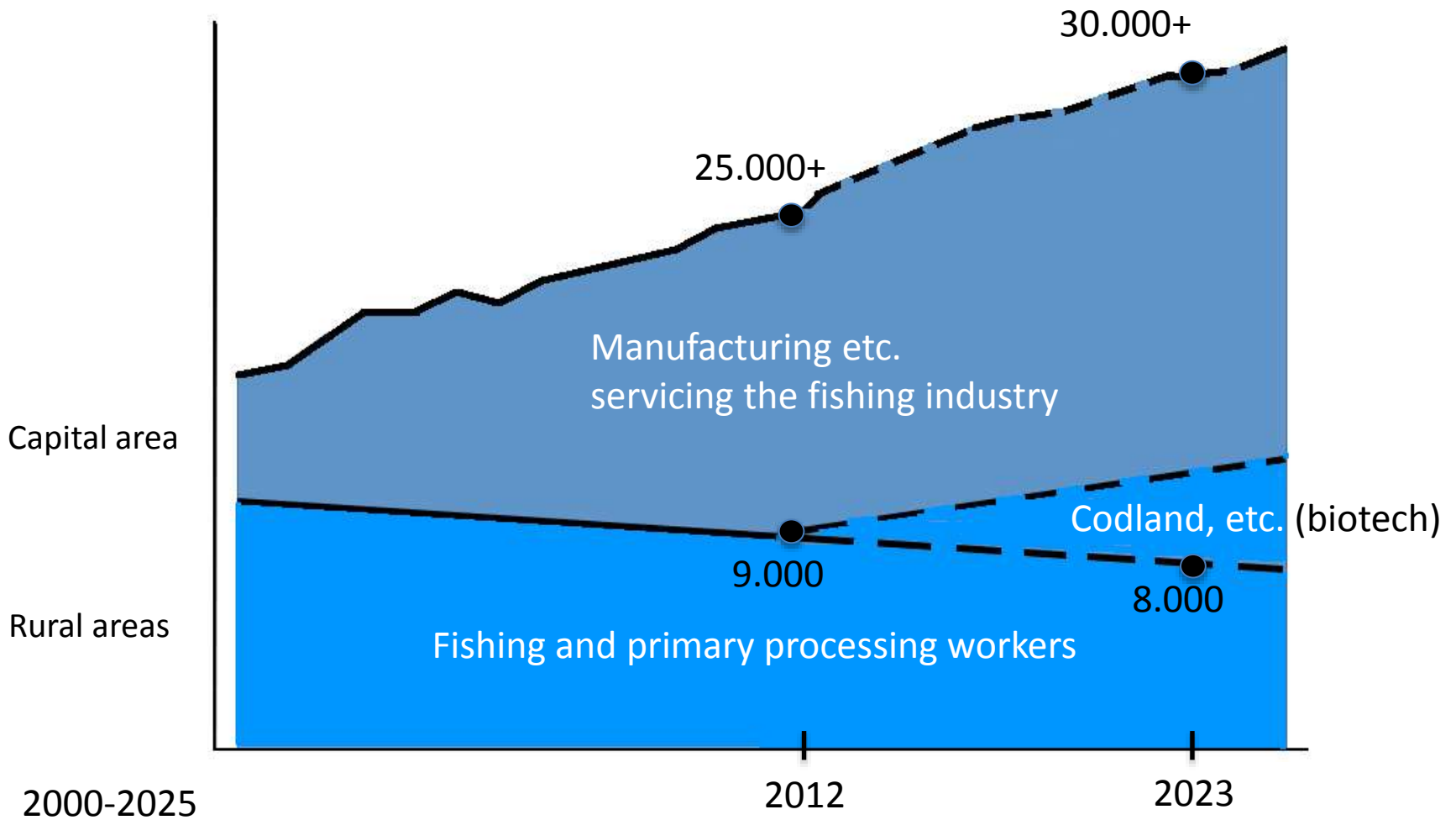
Haustak

- Founded in 1999
 - Economies of scale
 - No loans from banks
- Today produce from 15.000 tonnes of wet raw material
 - Heads, bones, stockfish, slices
 - Going very well
- Robots from Icelandic company Samey









**FULL
UTILIZATION**



**NETWORK OF
FIRMS**



**HEALTH
PRODUCTS**

INNOVATION



**RESEARCH &
DEVELOPMENT**



Codland

Fillets &
Split Fish

Dried
Products

Fish Oil &
Fish Meal

Collagen

Mineral
Supplements



FISHING + PRIMARY PROCESSING: FILLETS AND SPLIT FISH



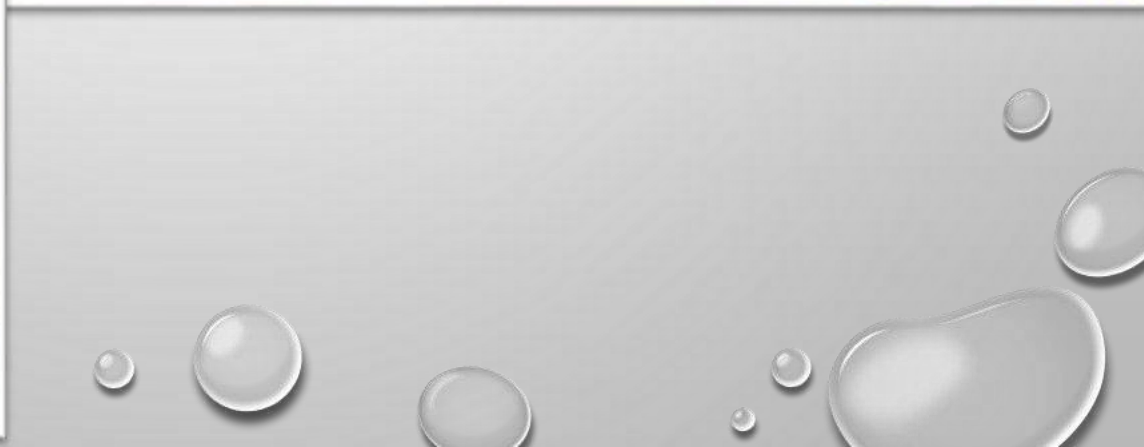
TRADITIONAL BYPRODUCTS: DRIED PRODUCTS



HEALTH PRODUCT PRODUCTION

Rest Raw Material → Fish Oil & Fish Meal





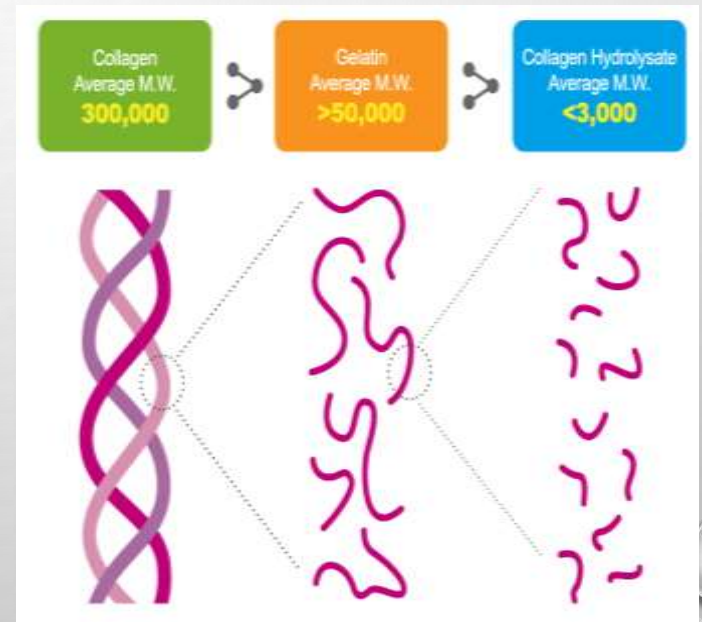
FOOD SUPPLEMENT PRODUCTION

Icelandic Fish Skin → Collagen



WHAT IS COLLAGEN?

- Most powerful structural protein of the body
 - 75% of the skin
 - 30% of bones
- Required to maintain soft and stretchable skin, hair, nails, joints, cartilages and tendons



PHASE ONE

- Collaboration with Juncà Gelatines
- Production began in Spain in February 2014
- Preparing to build a collagen production facility in Iceland



MINERAL SUPPLEMENTS

- Bones are byproduct from fish oil/fish meal production
- Developing mineral supplements
- Grants from two Icelandic research funds, AVS and Vaxtarsamningur Suðurnesja



AVS rannsóknasjóður
í sjávarútvegi


VAXTARSAMNINGUR
SUÐURNESJA

CODLAND'S GOALS

- Full utilization – Research – Collaboration
- Build knowledge & increase value
 - Raw material, products, markets
 - Specialists from various fields of study
 - Universities and research institutions
- Together we can go further
 - Collaboration within the fishing industry on byproducts

THE 100% COD AT CODLAND

Dried Heads, Bones, Roe, etc.



Fillets & Split Fish



**Collagen
from Fish Skin**

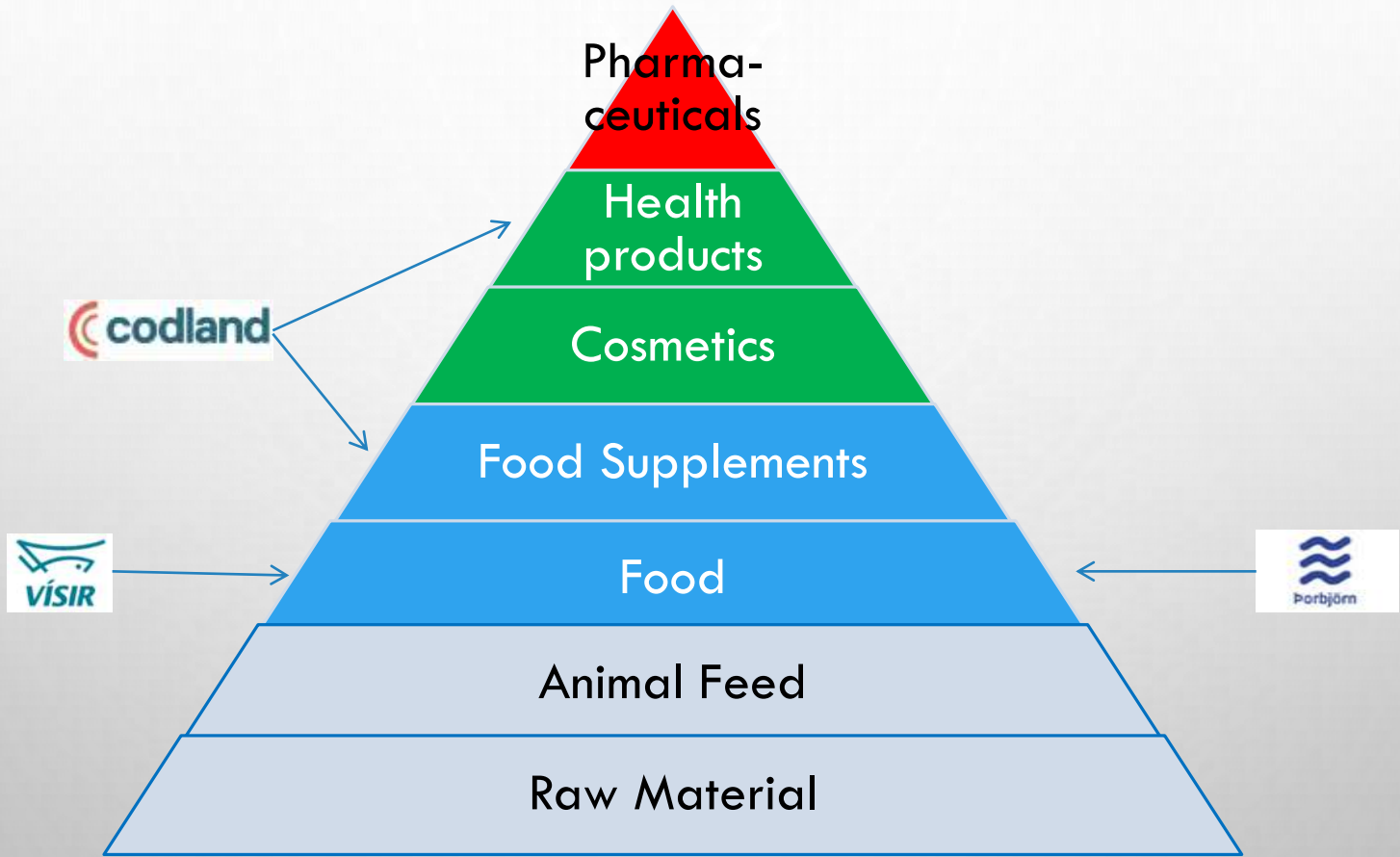


**Fish Oil & Protein
from Rest Raw Material**

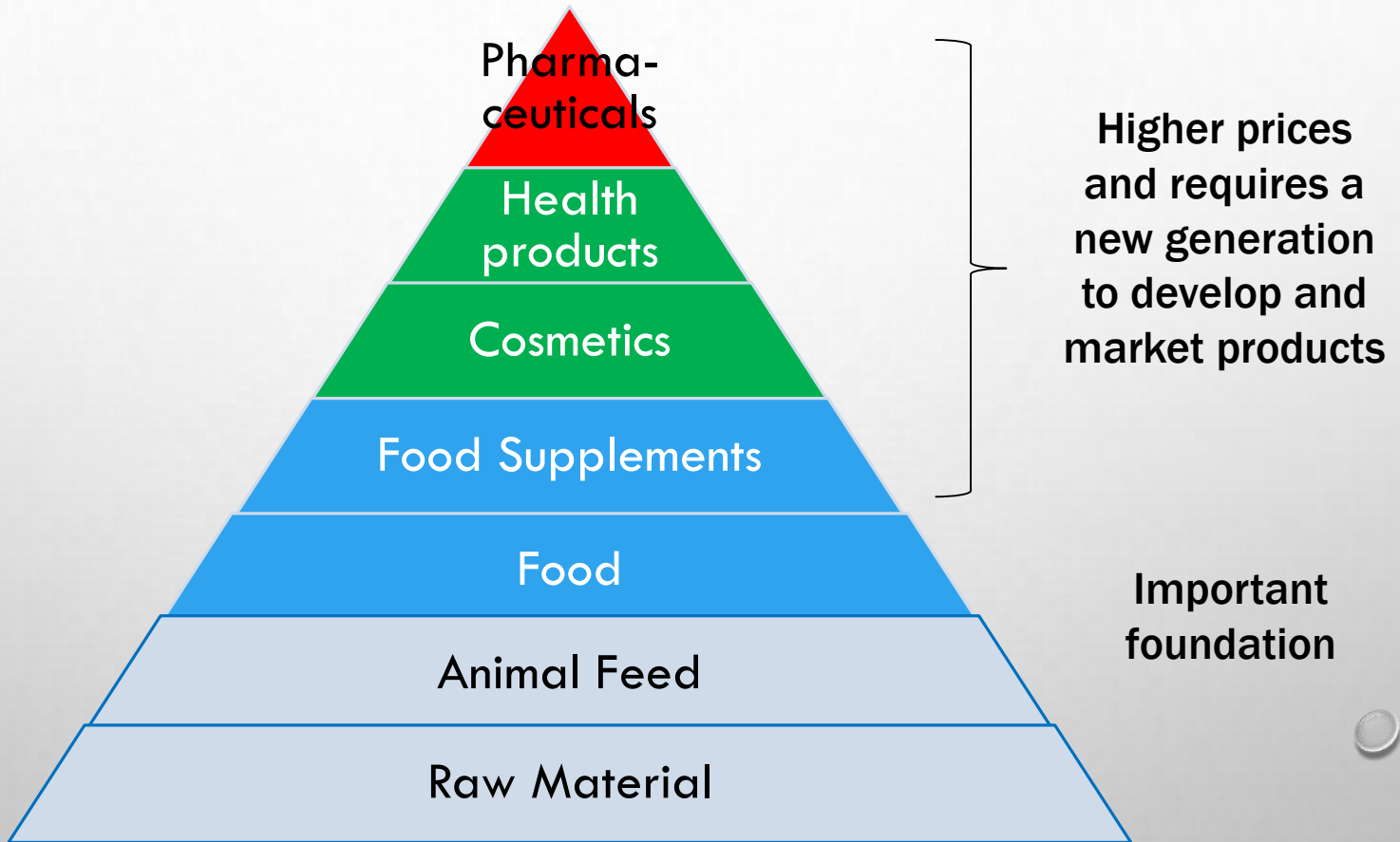


**Mineral Supplements
from Fish Bones**

Value



Quantity



COLLABORATION

- A culture of collaboration
 - Starts with communication
 - Find win-win projects
- Ocean Excellence a perfect example
 - Samey (technology), Mannvit (consulting/engineering), Haustak & The Icelandic Ocean Cluster
- Collaboration of different sectors in the industry
 - greater opportunities



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