

Siderávarer som grunnlag for høyverdi-produkt.

Sigurjón Arason, Chief Engineer, Matís ohf.,
Professor, University of Iceland.

Workshop: Økt verdi og økt utnyttelse av restråstoff.
Myre, februar 2018.

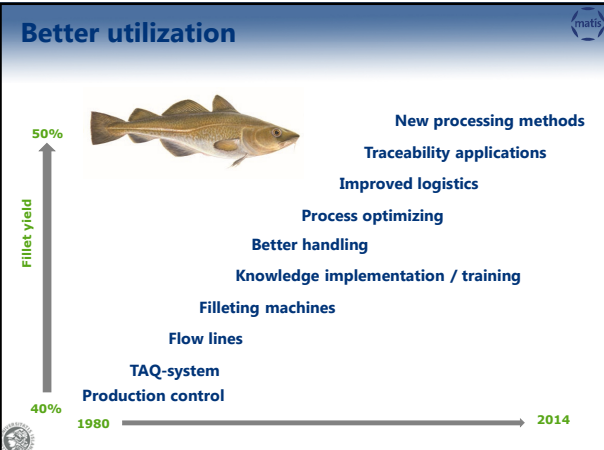
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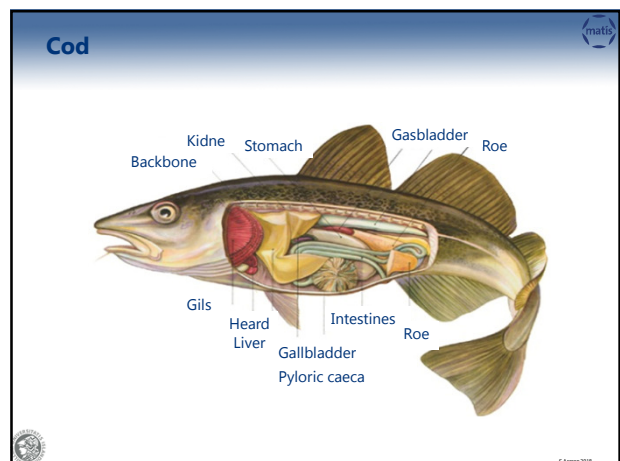
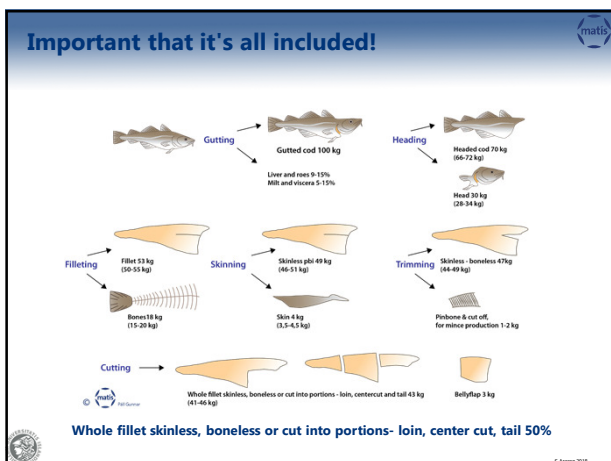
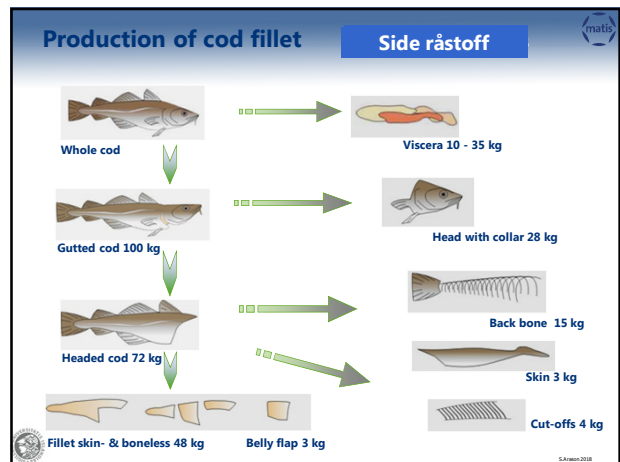
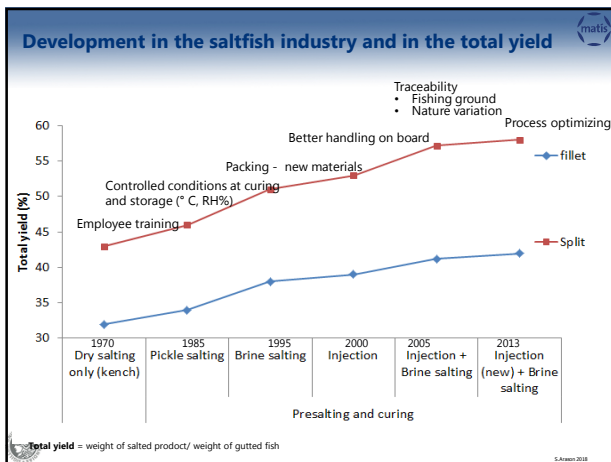
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Better utilization



New processing methods
Traceability applications
Improved logistics
Process optimizing
Better handling
Knowledge implementation / training
Filleting machines
Flow lines
TAQ-system
Production control

40% 1980 → 50% 2014

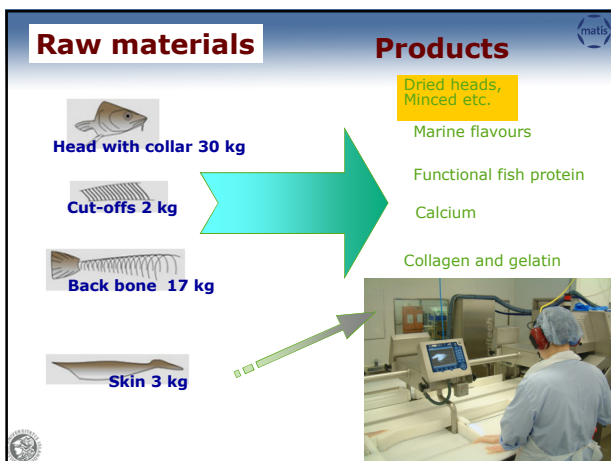
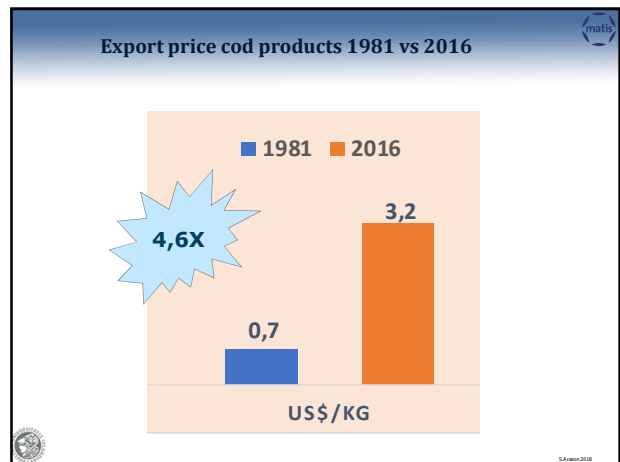
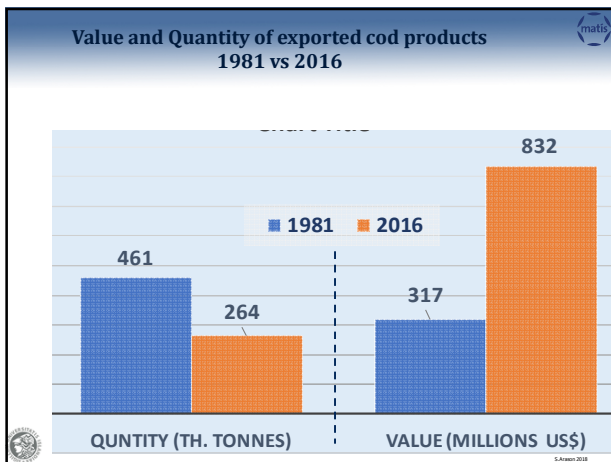
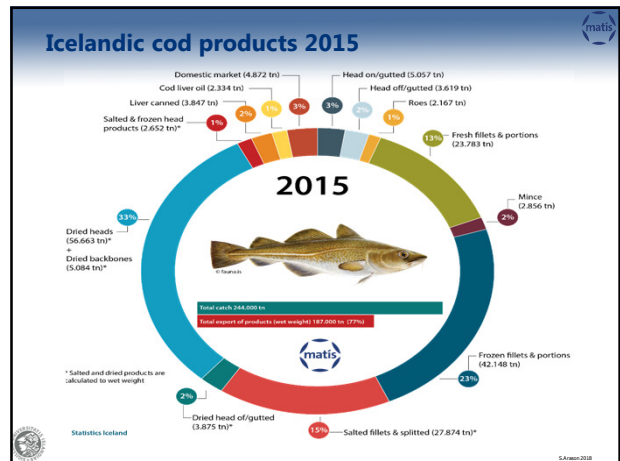
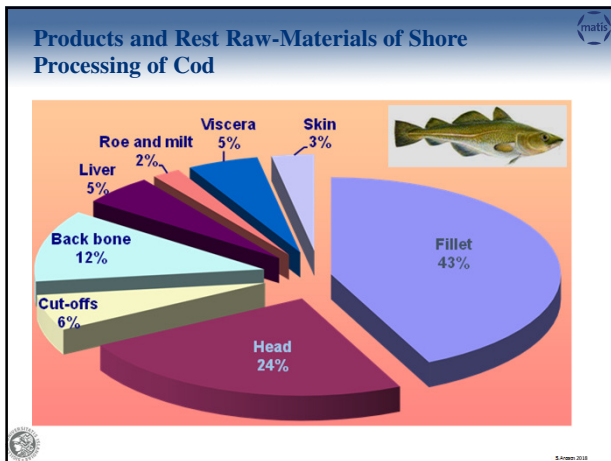


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SKINN FISKUR ehf

Our fresh high quality raw materials are mainly derived from white fish such as cod, haddock, red fish, flat fish and cat fish along with the much sought after salmon and arctic char.

- Sablefish, Marlinus, Redfish
- Gadus Morhua Cod, Melanogrammus Aeglefinus Haddock
- Fish skin
- Pollachius Virens Pollack, Anarhichas Catfish

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Products from liver

Products from liver

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Fish oil

Fish oil

Hermetisert fiskelever

Hermetisert fiskelever

Head splitter

Cheeks and tongue

Splitted head and tongue

A delicacy

Head splitter

Cheeks and tongue

Splitted head and tongue

A delicacy

The world produces 4 billion tonnes of food annually – which of 30% are wasted

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The value-pyramid for by-products

The value-pyramid for by-products

Value ↑

Pharmaceutical

Nutraceutical

Healthy food

Nutrition/Food

Feed

Raw material

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\$0.65-1.10/Kg Crude Oil
\$10-70/Kg Omega 3 oils
Fishmeal
Valytron®
Amino®
\$ 1.2/kg protein
\$1372/Kg protein
\$1185/Kg protein

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IceProtein - Protis
Helps with weight control and has beneficial effects on energy, metabolism and muscle protein synthesis
amino 100%
amino JOINTS
amino TRIM
Pris 150-250 dkk per krukke (60 gr)

Fish enzyme cosmeceuticals
PENZIM
ZYMETECH
FOR MAINTAINING HEALTHY SKIN, JOINTS AND MUSCLES
FOR MAINTAINING HEALTHY SKIN, JOINTS AND MUSCLES
(H. Kristjánsson, 2015)

Medical products from fish skin
KERACIS Iceland
Currently marketed porcine ECM
KERACIS fish-derived ECM
Tissue regeneration
Keracis™

codland
Thorfish
VISIR
fiskebryg er tilsat kollagen
faste og smukkere hud
fiskebryg er et samarbeide
Indeholder 2 gr kollagen pr. flaske
Ingredienser: Vand, bygme, bær, kollagen, pors, Tilsat antioxidant (E300)
33. CL. Alk 5,8 %
Flaskens indhold svarer til 1,3 genstand
WWW.THISTED-BRYGHUS.DK

SlimPro®
ON BOARD
TOOL FISHING
PROCESSING OF SKIN
NO PRODUCTION
Gold storage at 27°C
CONTRACT MANUFACTURER ON-SHORE
Blue Whiting Pulp
Parameters Adjustment (T, Slime)
Adding the enzyme
Thermal inactivation of the enzyme
Food grade enzyme
Centrifugation
Filtration
Ammonium
70% Slime®
15% arabic gum
10% hydroxyethylcellulose

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NOVEL FOOD INGREDIENTS

Use of fish proteins as functional ingredients

Fish protein

- Gelation
- Water binding
- Solubility
- Emulsification
- Foaming

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Fish Skin - Leathers

The quality of raw materials will effect on the quality of products.

The best raw materials Give the best products

Liver and products

Head and products

Roe and product

A delicacy

Bleeding will affect the quality and color of products

Color of cod mince

4 hours waiting time before bleeding

30 min. waiting for bleeding

Fact of Global food system

The value Chain

Consumer

Retail

Trade

Producer

Present

- market pull
- long term
- chain oriented

Keyword: Collaboration!

- Collaboration between research institutes, seafood industry, service industry and universities
- Multidisciplinary projects
- Tradition for M.Sc. Projects Ph.D projects becoming common
- The industry sees benefits in collaborative research

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Matís

- Matís is a research and science community based on strong research infrastructure and collaboration, to maximize impact of investment in research and innovation
- We provide our partners with support for increased value creation, food safety and public health.
- We play a leading role in holistic approach to sustainable use of the bioeconomy, specifically the blue-bioeconomy and have participated in policy making for the Icelandic government and foreign constituents.



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Tak for
Takk fyrir

