



# Redskapspolitikk og beslutnings problemer for fiskeindustrien i Island

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Value chain and processing

Matis ohf, Iceland

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**The Icelandic situation**

**Fishing gear**

**Other gear**

**The keywords**

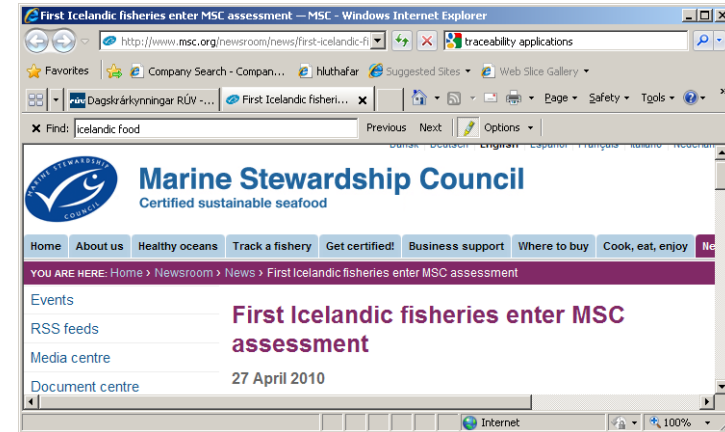


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# What's on in Iceland?

- Economic crisis
- Contribution margin high
- Cost of financing higher
- Fisheries management debate
- Environmental labelling
- Counting on the seafood industry for value creation



# The management system

## **Ministry of fisheries and agriculture**

- Marine research institute**
- Directorate of fisheries**
- The food agency**

## **Ministry of transportation**

- Harbours**

## **Ministry of justice**

- The coast guard**

# Political situation: Free choice of gear – within reason



## Reglugerðir og friðunarsvæði við Ísland

Birt með fyrirvara: Ef frávik eru frá birtingu reglugerðar gilda stjórnartíðindi.

Á milli lina nr. 205 og 206  
Skiptunest við lina nr. 209 þv.  
Skilunest gegnað 14. apríl frá  
1980. Lína eru skilubarna  
keðna með skilubarna.  
rgl.: 710/2007

Blá rúndott svæði með löðretum  
linum . Skiljussvæði fyrir togveiðar.  
Rgl.: 749/2006

Þessi svæði eru með línunum  
frá línunúmer 40 til 49 þv.  
Rgl.: 310/2007

Þessi svæði eru með línunum  
frá línunúmer 50 til 59 þv.  
Rgl.: 48/2008

Bann við rækjuveiðum  
rgl.: 766/2004

Kolmunnalína  
rgl.: 1271/2007

Togveiðibann þó  
opíð fyrir togveiðum  
frá kl. 20:00 - 08:00  
rgl.: 875/2005

Kolmunnalína  
rgl.: 1271/2007

Blá rúndott svæði með löðretum  
linum. Skiljussvæði fyrir togveiðar.  
rgl.: 752/2006; 751/2006

Bann við veiðum með  
fiskskólum öpu. rgl.:  
162/2002

Bann við  
handfæraveiðum  
rgl.: 693/2007

Bann við  
Láuvæðum  
rgl.: 183/2007

Bann við línu og  
handfæraveiðum  
rgl.: 742/2009

Smáfiskaskiljussvæði Síldveiðar  
með flotvörpu leyfðar  
770/2006 , 747/2006

Togveiðibann þó  
opíð fyrir togveiðum frá  
kl. 20:00 - 08:00 frá og  
með  
1. okt til og með 1. apríl  
rgl.: 310/2007

Bann við Láuvæðum,  
rgl.: 810/2009

Bann við Láuvæðum,  
rgl.: 311/2003 ; 230/2003

Smáfiskaskiljussvæði  
rgl.: 748/2006

Dökk ská-rúndott svæði  
eru friðunarsvæði fyrir  
togveiðum.rgl.: 310/2007

Bann við  
dragnótaveiðum  
rgl.: 094/2010

Bann við  
kolmunnaveiðum  
án meðflaskilju  
rgl.: 696/2005

Opíð fyrir togveiðum á  
Mehlsack frá og með  
1. feb. til og með 15. apr.  
rgl.: 310/2007

Bann við togveiðum  
rgl.: 861/2006,100/2008

Friðunarsvæði  
Surtsey  
rgl.: 50/2006

Koralsvæði  
rgl.: 1140/2005

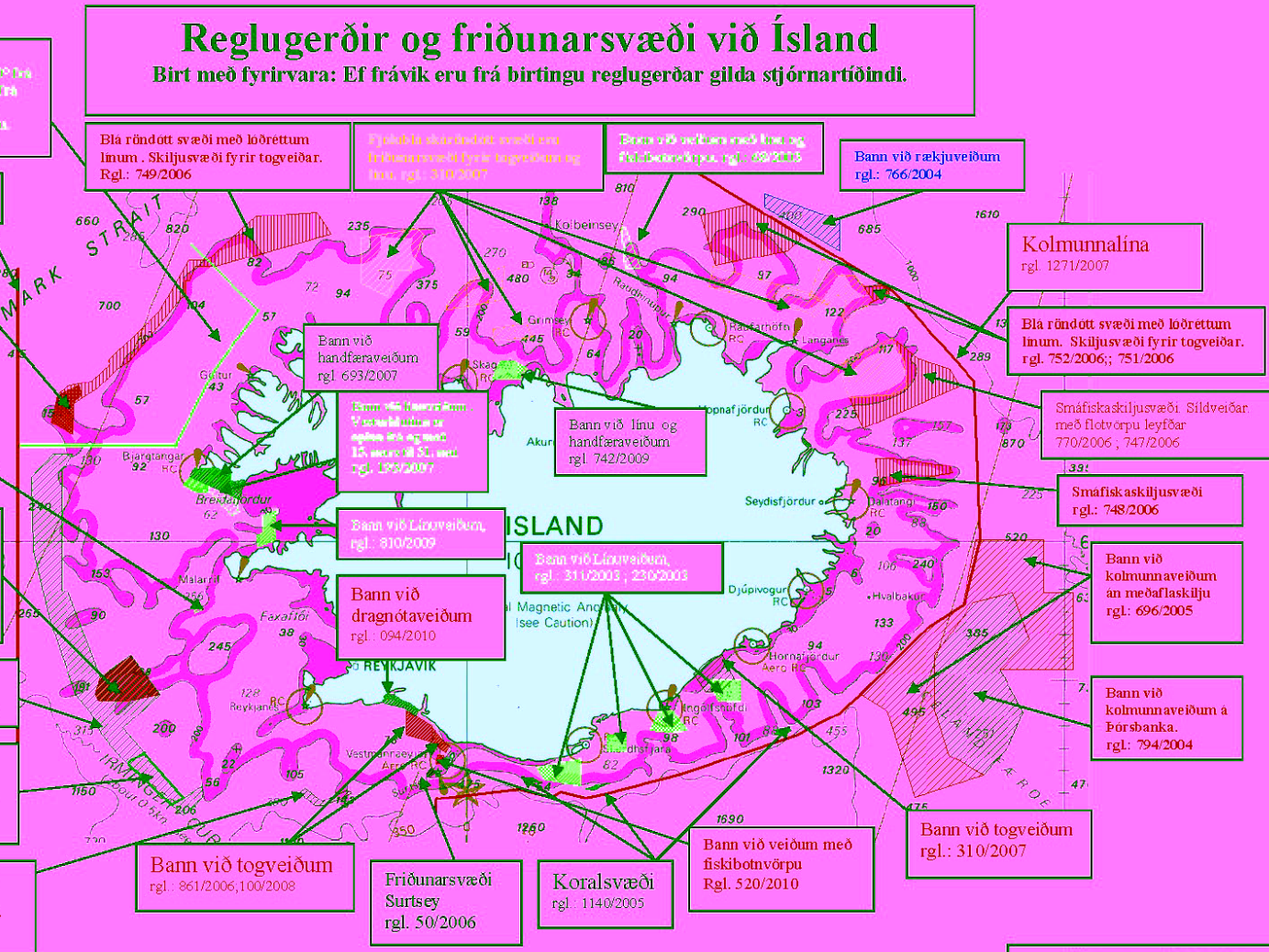
Bann við veiðum með  
fiskskólavörpu  
Rgl.: 520/2010

Bann við togveiðum  
rgl.: 310/2007

Bann við  
kolmunnaveiðum á  
Þorsbanka.  
rgl.: 794/2004

Á Tanni er lokað fyrir  
togveiðum frá og með  
1. júní til og með 31. okt.  
rgl.: 310/2007

FISKISTOFA  
G.A. 23. júní 2010





# Area closures due to spawning + closures due to size restrictions

Norður og Austursvæði  
15. apríl til kl. 10:00 30. apríl  
3. gr. A, B og C  
(380/2008)

5. gr.  
 Undanþágur

Skarkolasvæði  
1. til 30. apríl  
4. gr A, B og C

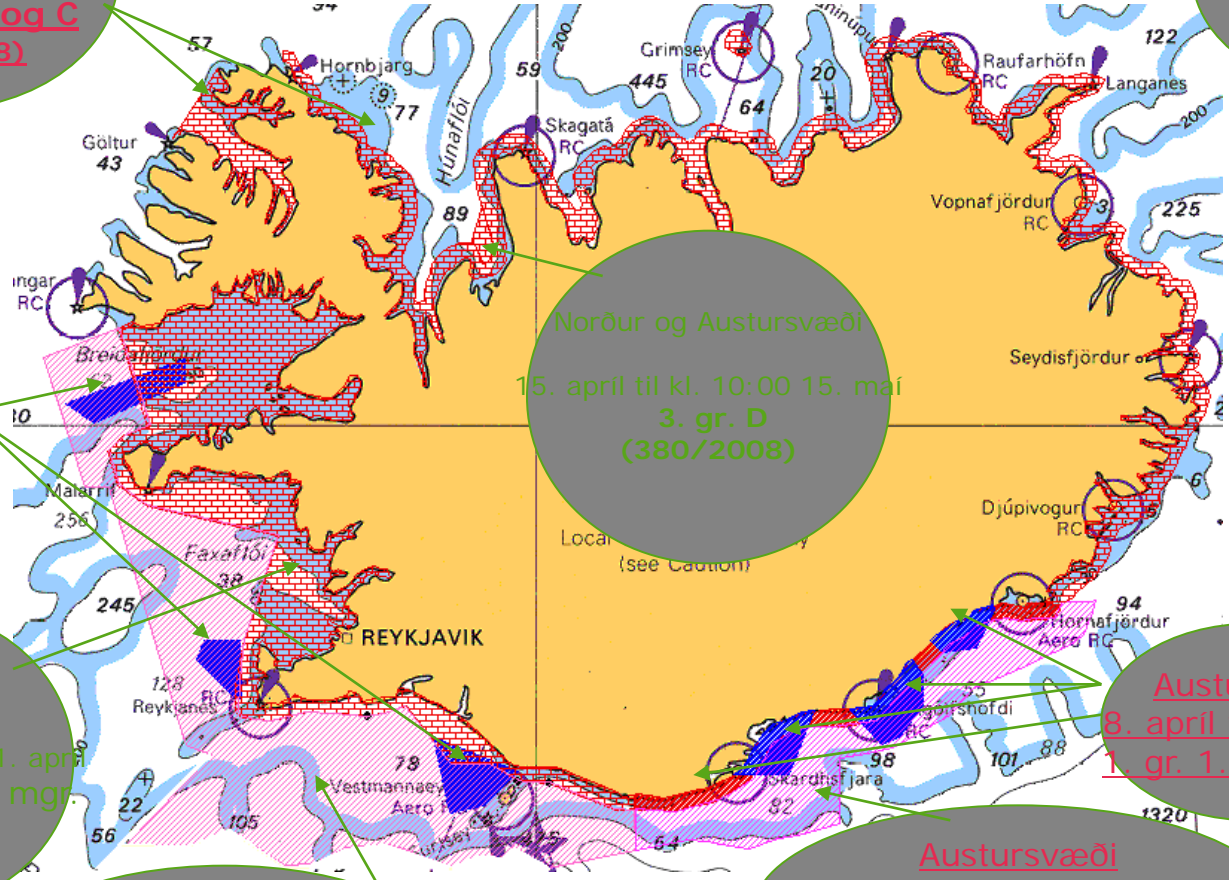
Norður og Austursvæði  
 15. apríl til kl. 10:00 15. maí  
 3. gr. D  
 (380/2008)

Vestursvæði  
1. apríl til og með 11. apríl  
2. gr. 1., 2. og 3. mgr.

Austursvæði  
8. apríl til 16. apríl  
1. gr. 1., og 2. mgr.

Vestursvæði  
12. apríl til kl. 10:00 21. apríl  
2. gr. 4. mgr.  
(225/2007)

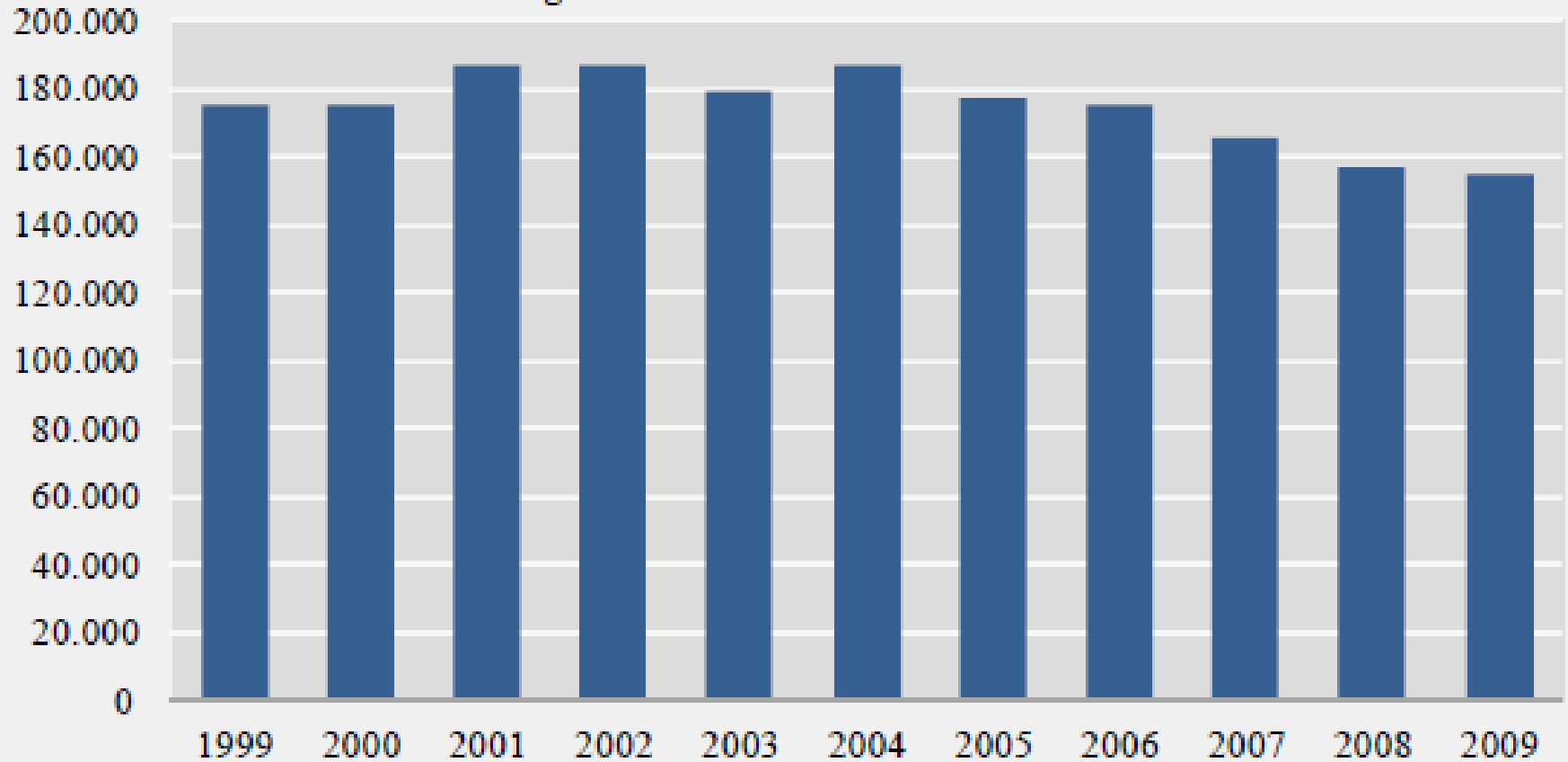
Austursvæði  
17. apríl til kl. 10:00 28. apríl  
1. gr. 3. mgr.  
(225/2007)



Source: Fisheries directorate

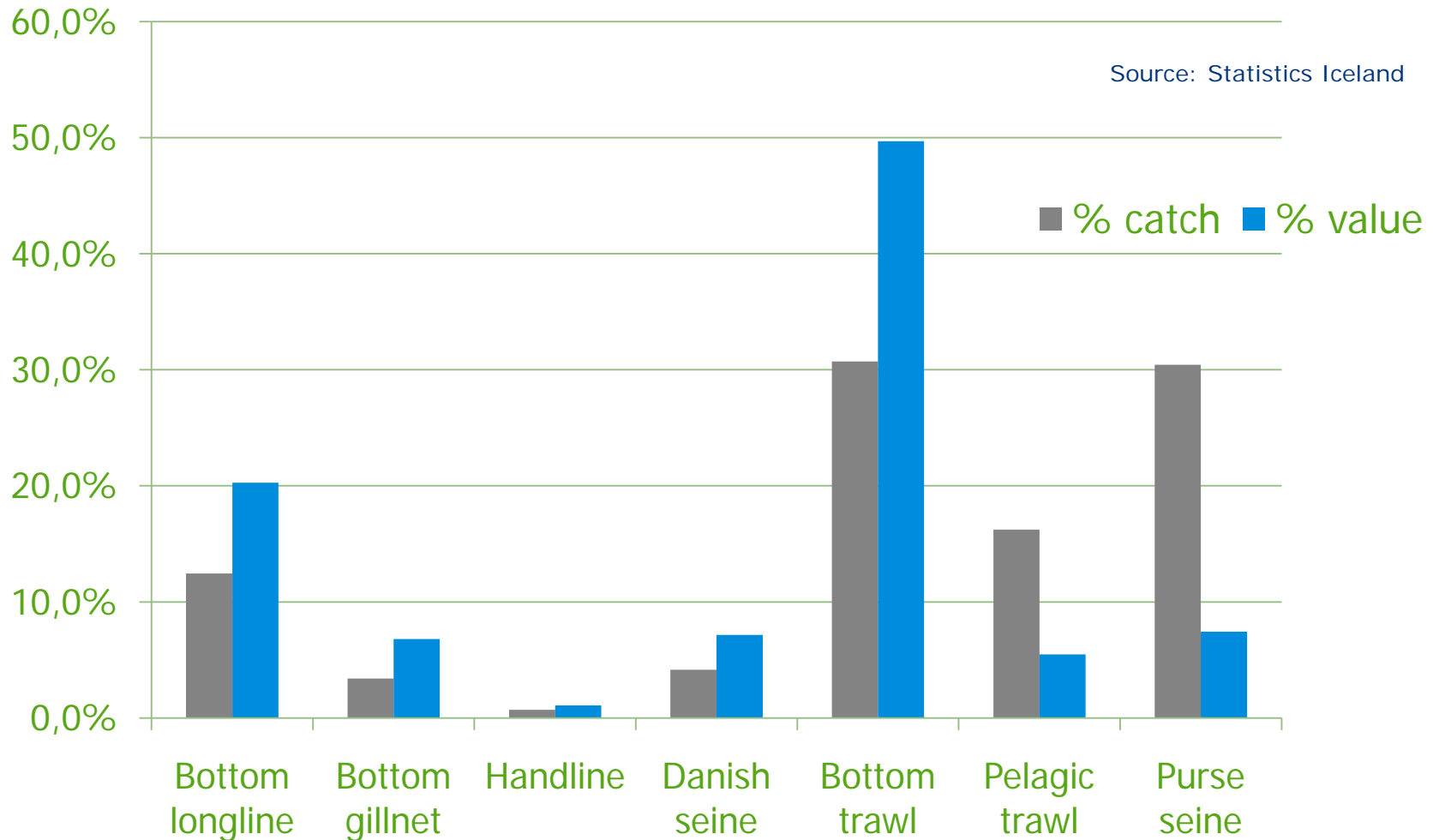
*Decked vessels and trawlers 1999–2009. Size in GT*

Brúttótonn *Gross tonnage*





# Free choice of gear – resulting figures 2008

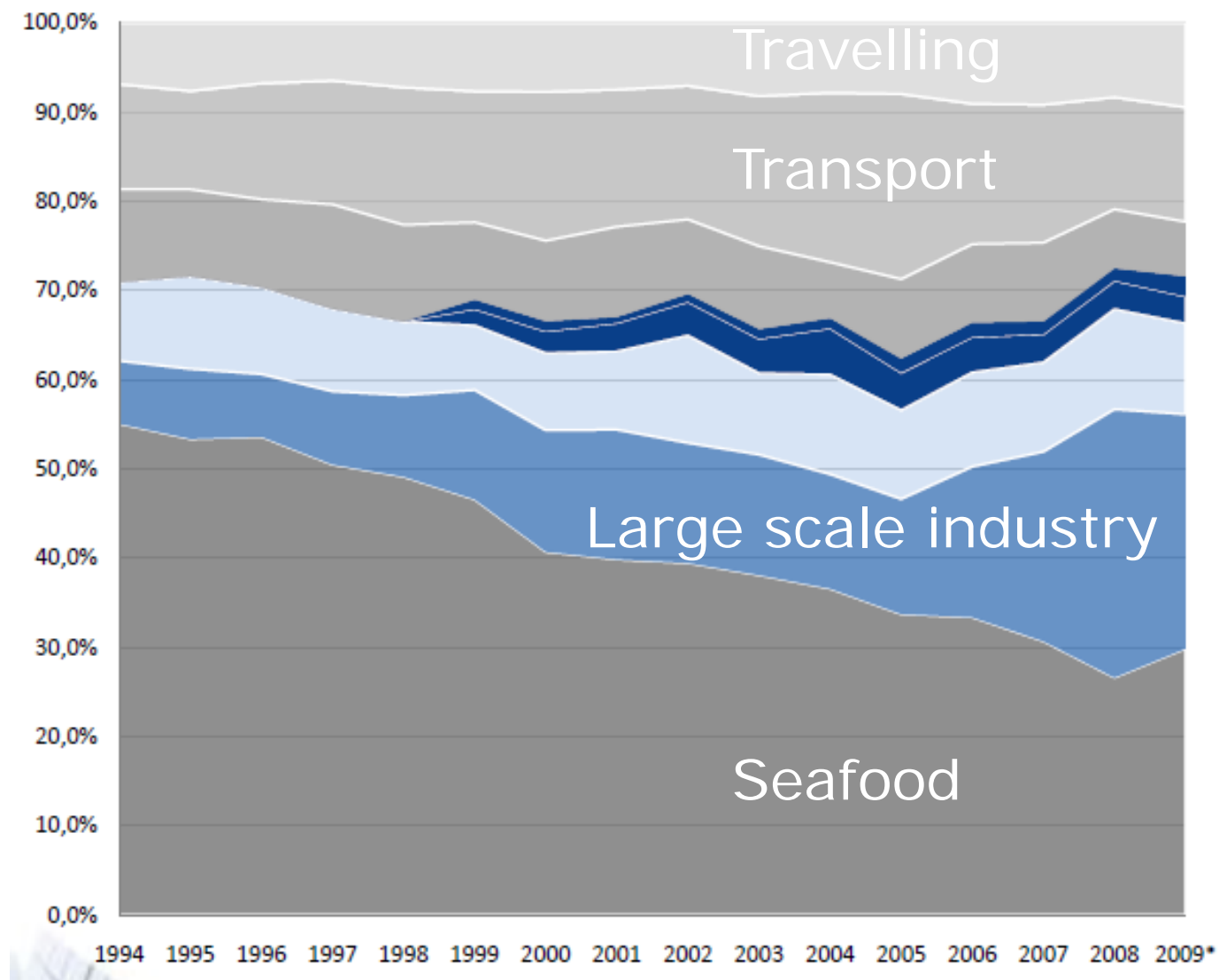


# Discarding – a problem?

Year	Cod	Haddock
2001	1.80%	3.00%
2002	1.00%	4.90%
2003	0.40%	5.80%
2004	0.60%	3.10%
2005	1.27%	5.24%
2006	1.45%	2.60%
2007	1.51%	2.04%
2008	0.79%	1.93%
2009	0.49%	0.69%

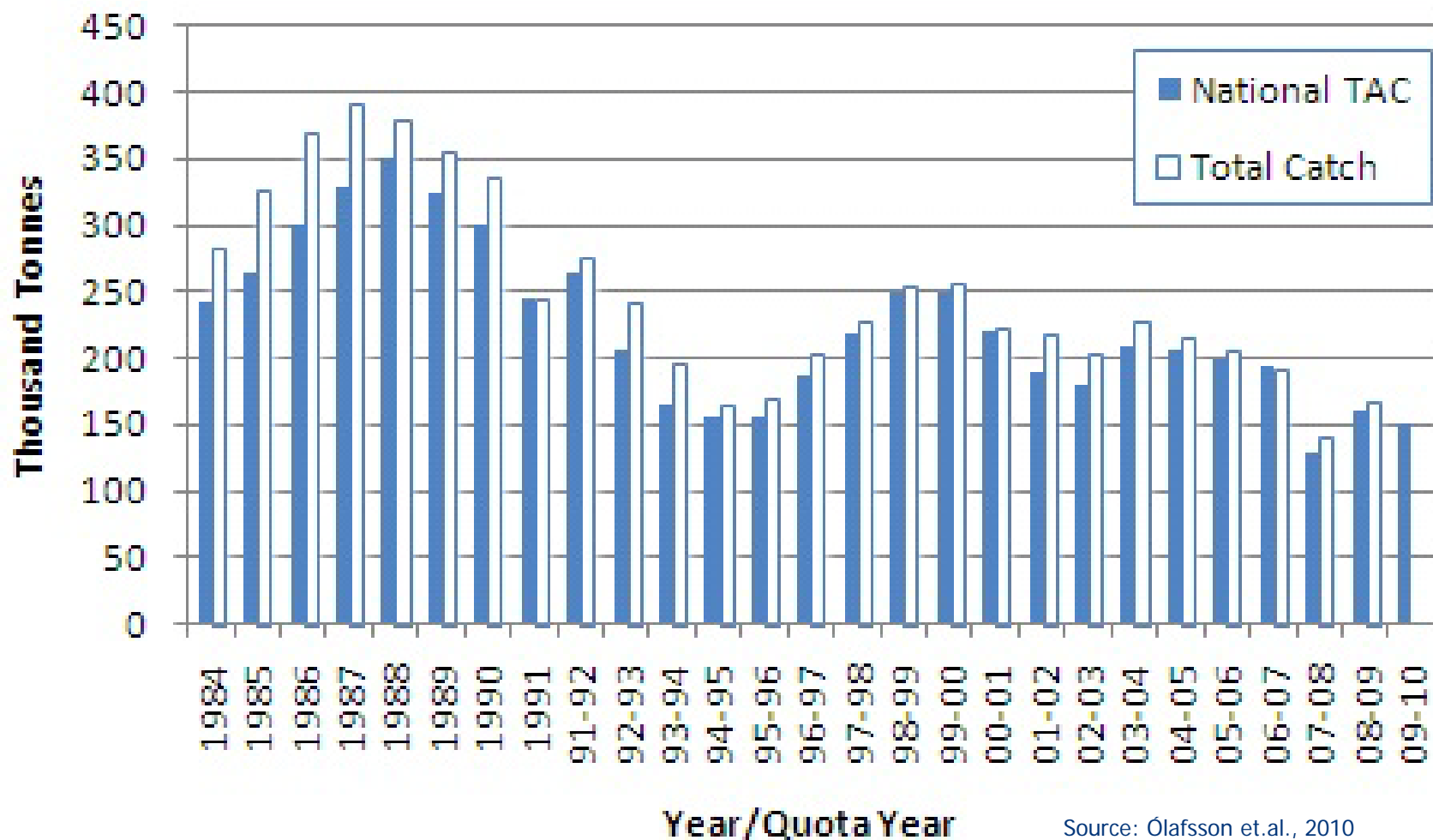
Source: The marine Research  
Institute: Pálsson et. al 2002-2010.

# Export value distribution 1994-2009



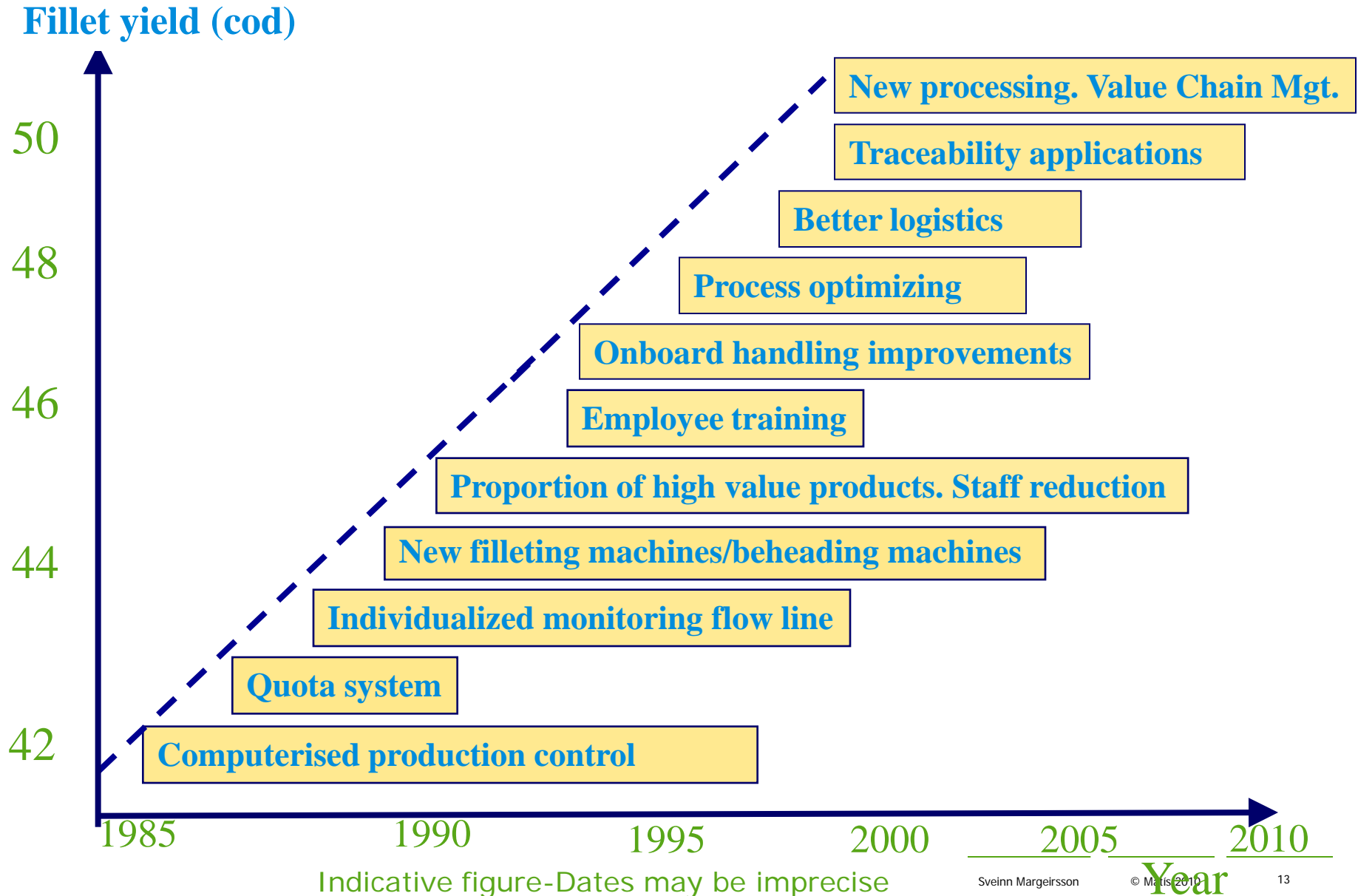
Ref: Statistics Iceland and Federation of Icelandic industries

# Quantity vs value - Less is more? The case of cod



Source: Ólafsson et.al., 2010

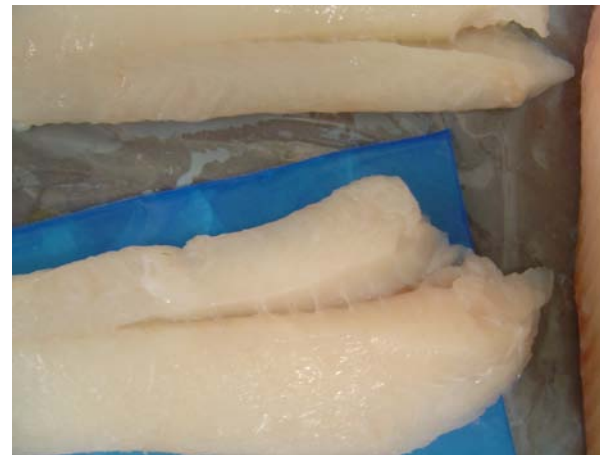
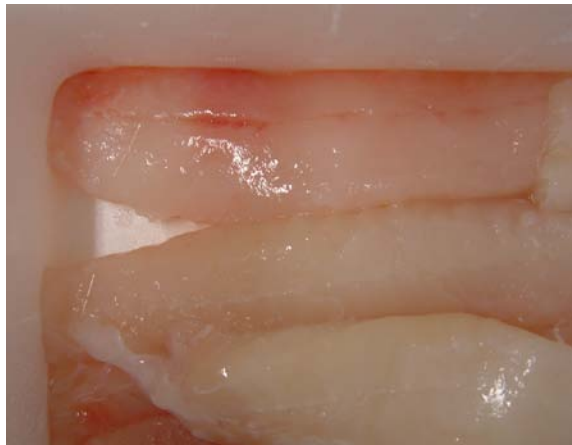
# Is gear only “fishing gear”?



# The value chain

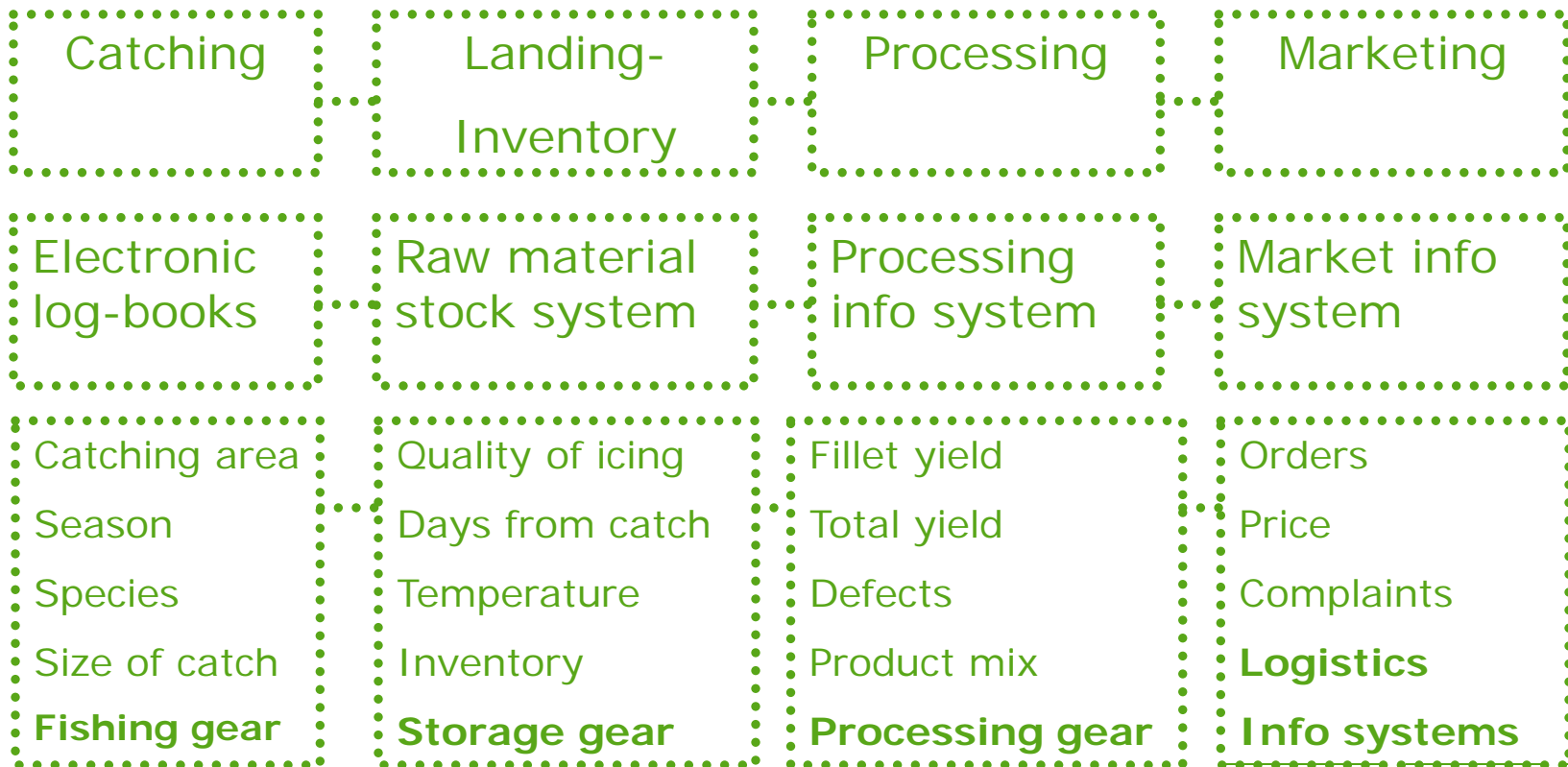


**No chain is stronger than the weakest link**





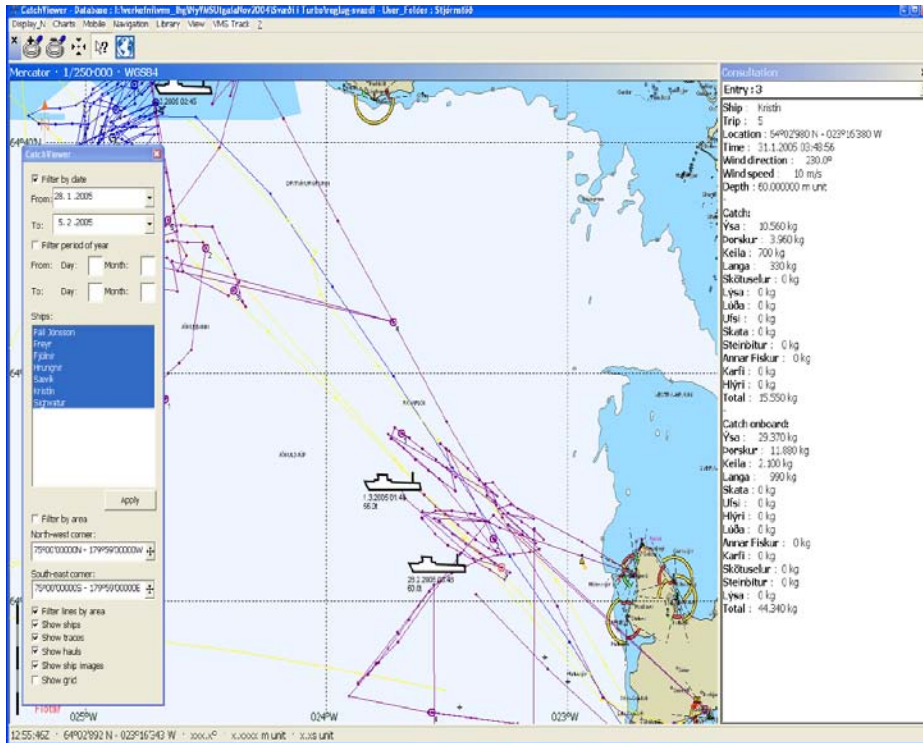
# Value chain gear – what fits best?



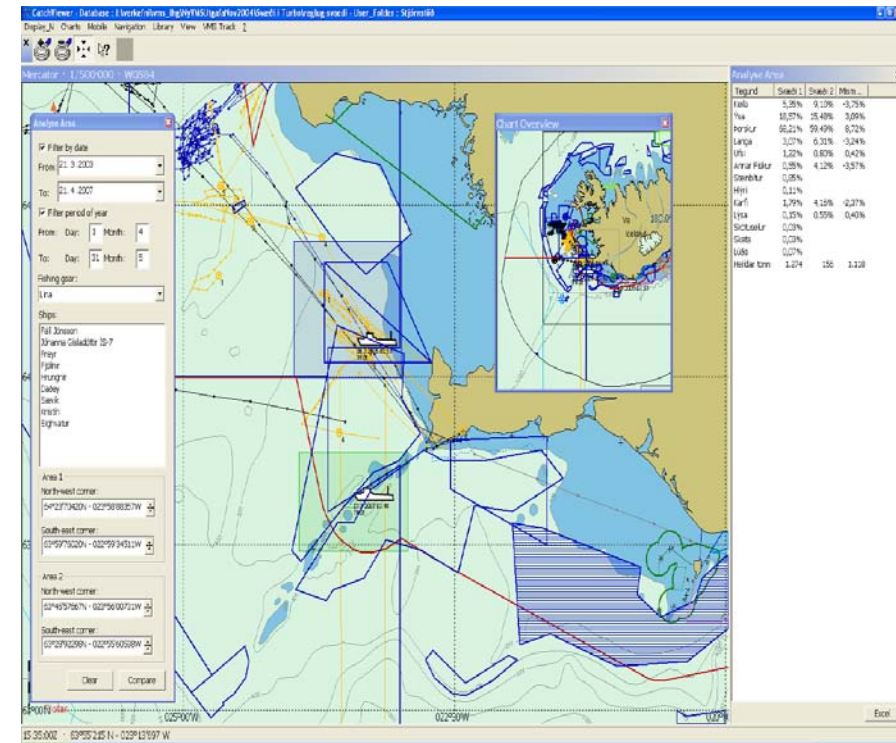


- **Hundreds of vessels already reporting electronically**
- **The captain enters the catch, by hauls or days depending on type of fisheries.**
- **Fishing gear data included**
- **Catch reports and detailed log of positions received by the Directorate of Fisheries and the Marine Research Institute**
- **Data compared to landing data by the Directorate of Fisheries**
- **Catch- and activity data made available to vessel owners**

# Fisheries Control – Catch and Effort Reporting System



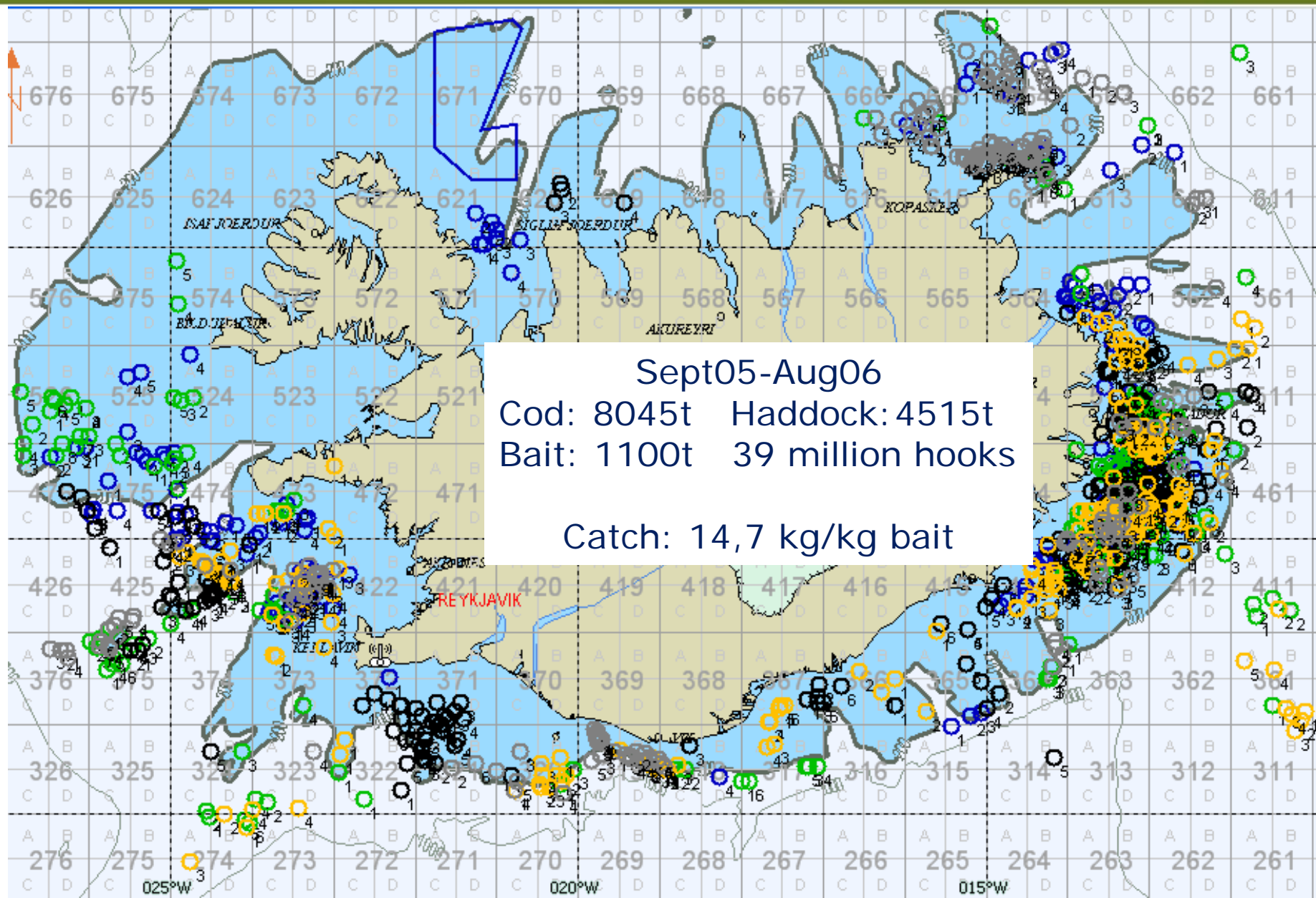
Analysis of trails and catch



Comparison of fishing areas



# Visir hf: Catching ground and season comparison



# Landing – Inventory – 'Traceability gear'

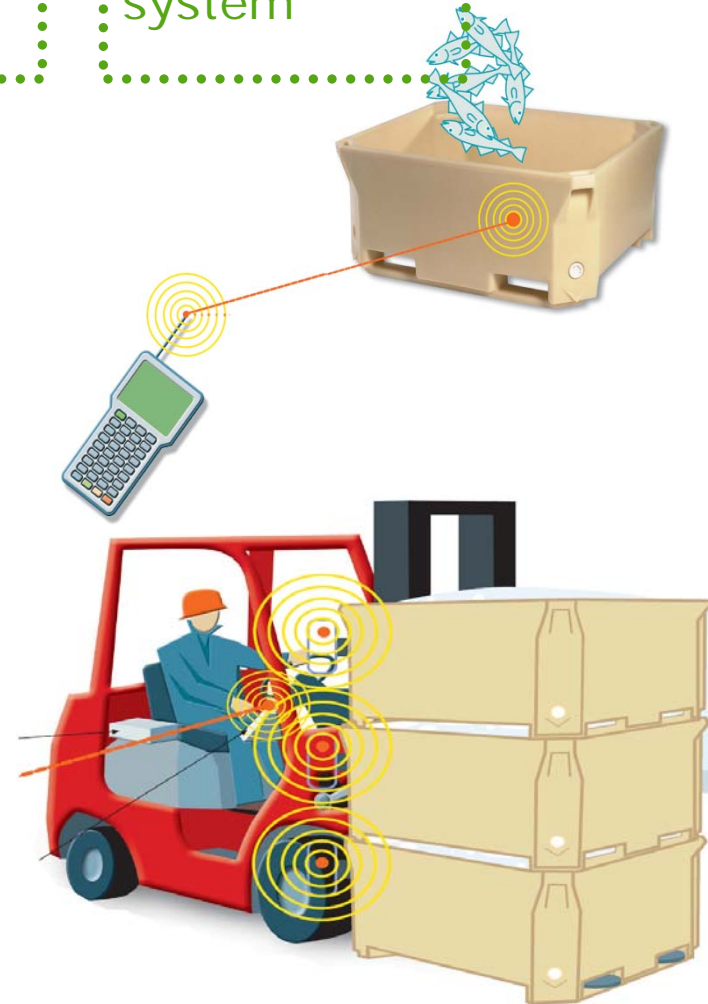


Electronic log-books

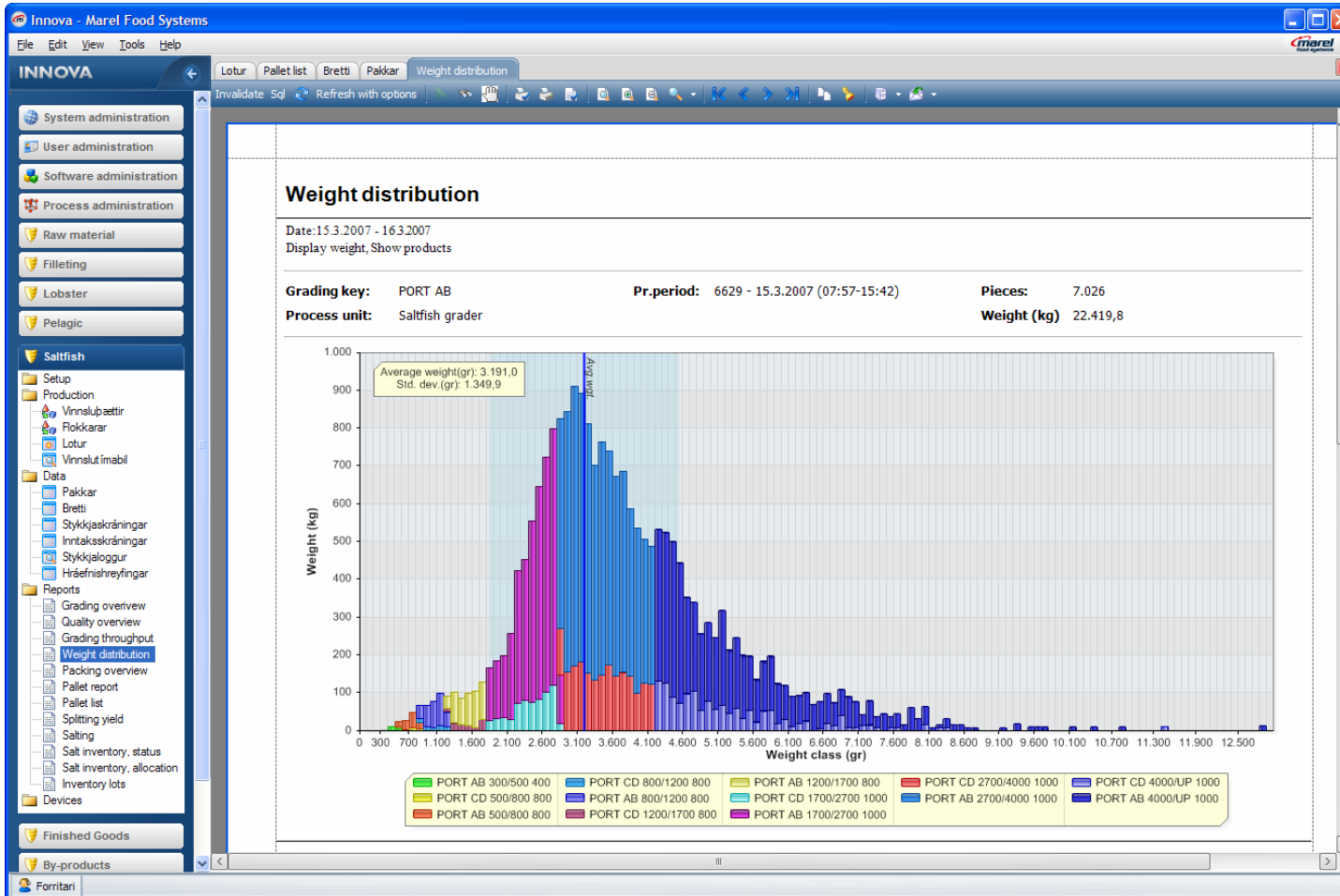
Raw material stock system

Processing info system

Market info system

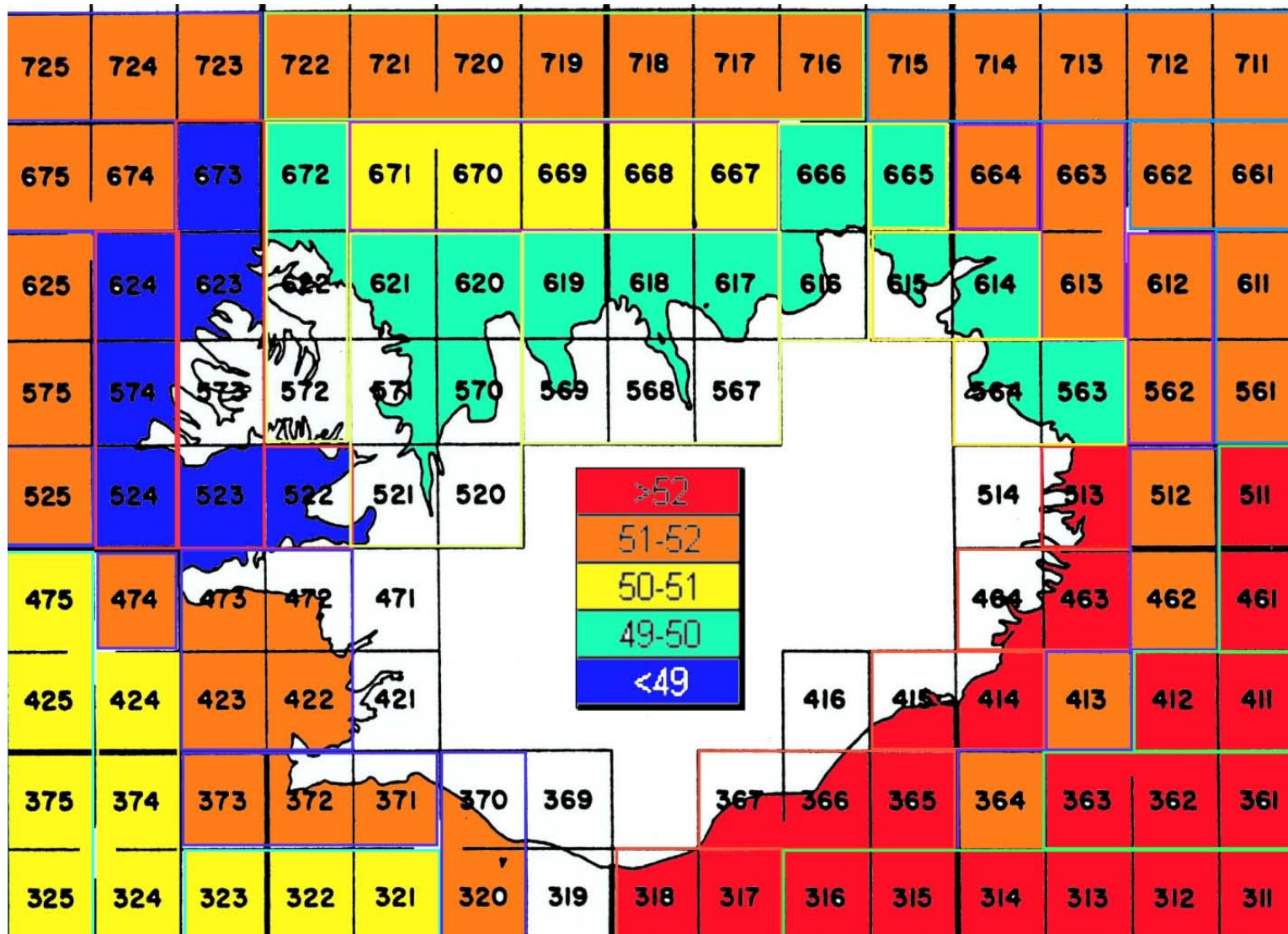


# Processing: such vast amount of information





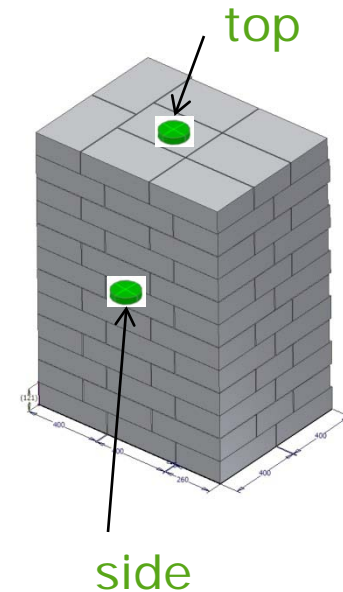
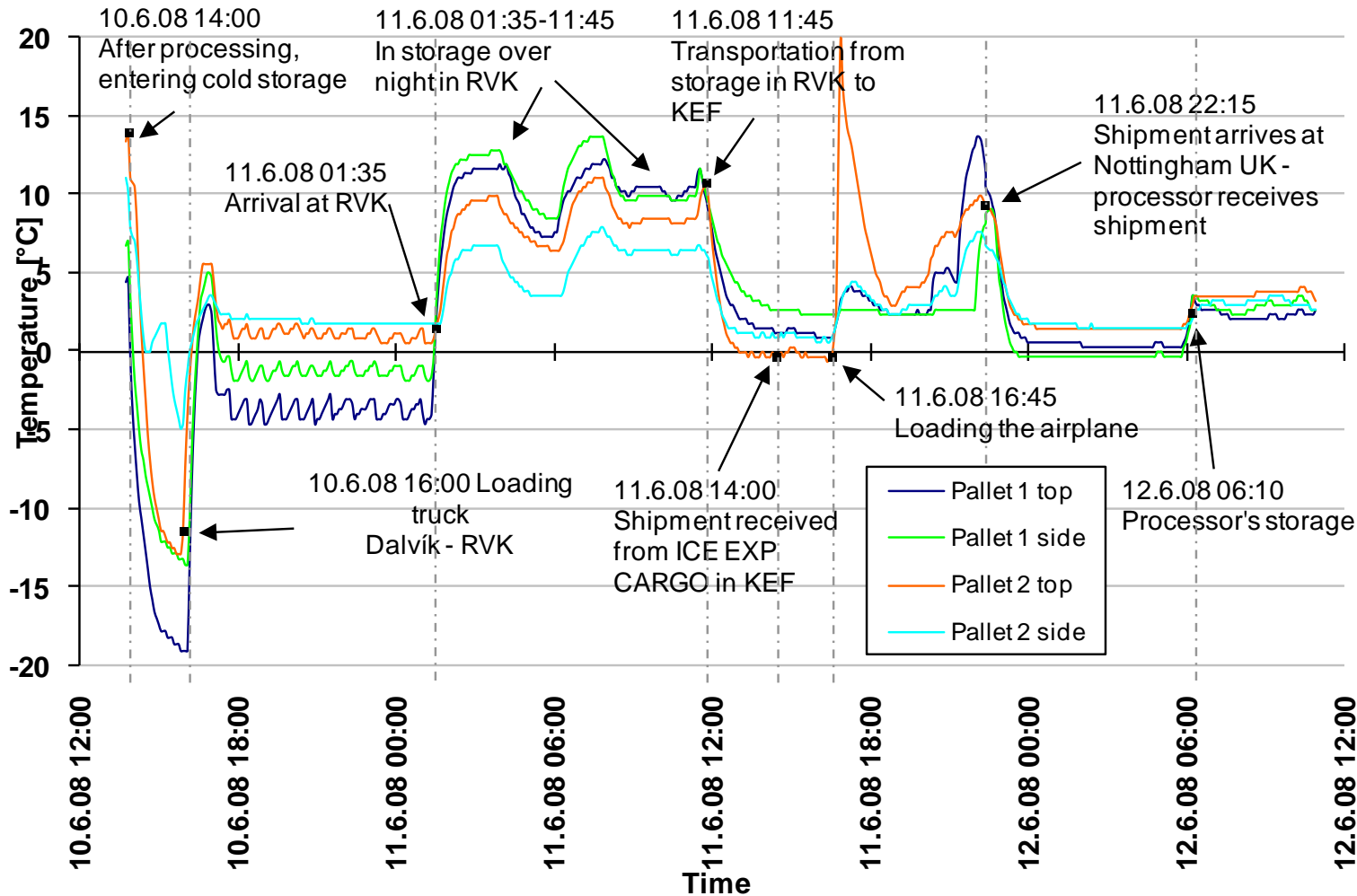
# Application of traceability – analysis of fillet yield



# Value chain and cooling management

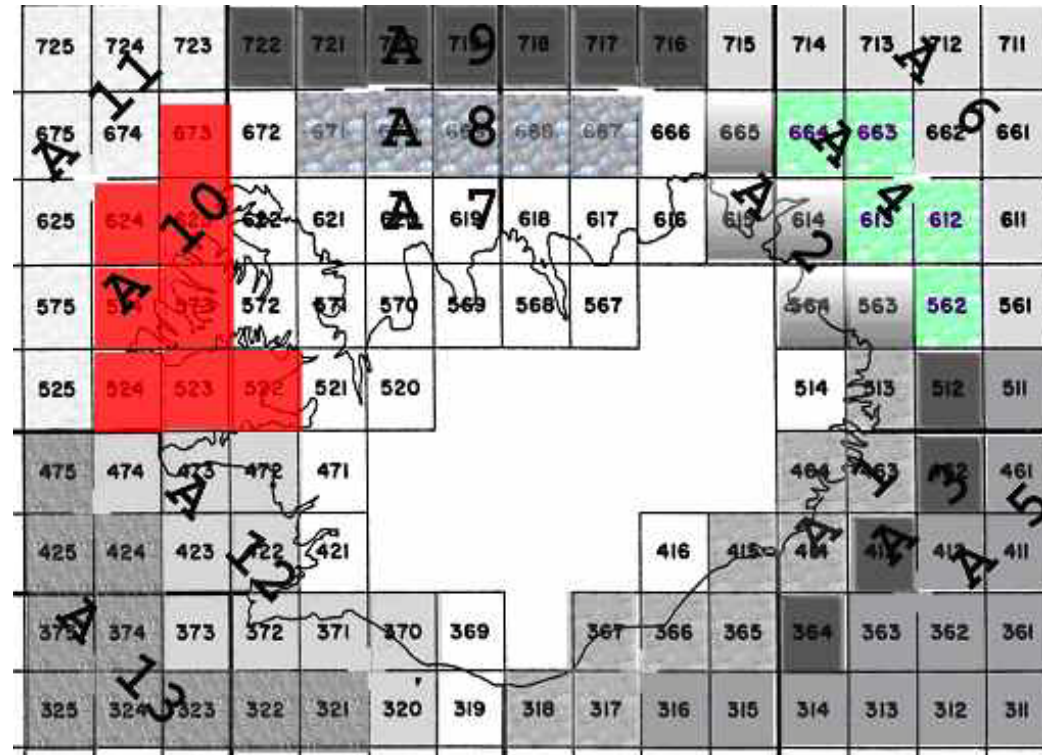


## Ambient air temperature.



## Main Variables

- **Catching**  
Amount of fish caught at fishing ground  $i$  at season  $j$ .
- **Distribution of caught fish.**  
Fish Processing  
Domestic market  
Export market
- **Fish processing**  
Product planning



# 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





## Environmental Decision Support

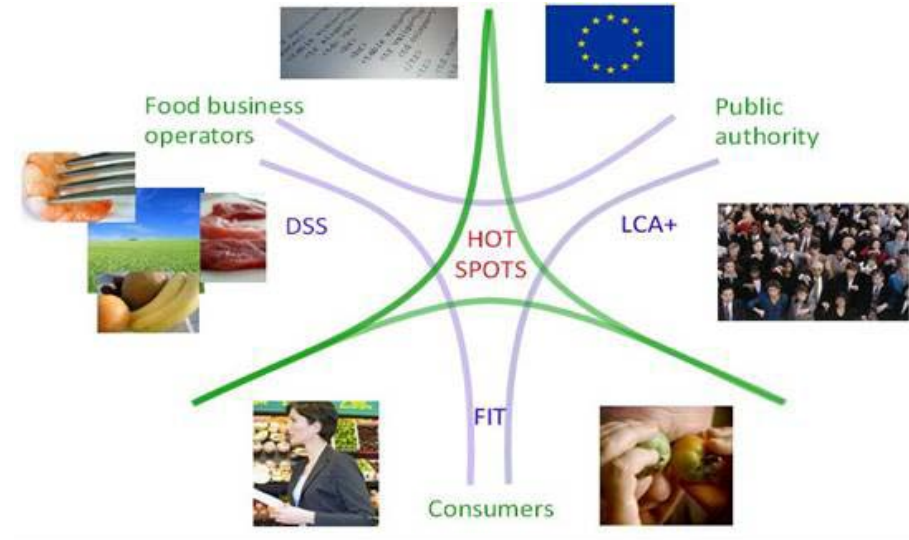
Further automatisation of data collection.

Increase the traceability granularity for further use of data

Respond to demands from the seafood industry and markets

Use data from the industry for more efficient fisheries management

Cut cost of surveillance with more focused inspections



# Thank you!

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