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# Stakeholder views on the implementation of supply chain management systems in the fish sector

Gudrun Olafsdottir, Tomas Haflidason,
Einir Gudlaugsson, Sigurdur Bogason,
*Applied Supply Chain System Research Group, Engineering and Natural Sciences, UoI*

Gunnar Th. Johannesson, Ingibjörg I. Ómarsdóttir
*Social Science Research Institute, UoI*

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## Content

- Chill-on - EC funded Intergrated Project
  - FP6 2006-2010
    "Developing and integrating novel technologies to improve safety, transparency and quality assurance of the chilled/frozen food supply chain – test case fish and poultry"
- Challenges when implementing new technologies in industry
- Focus groups and surveys among stakeholders on implementation of technologies



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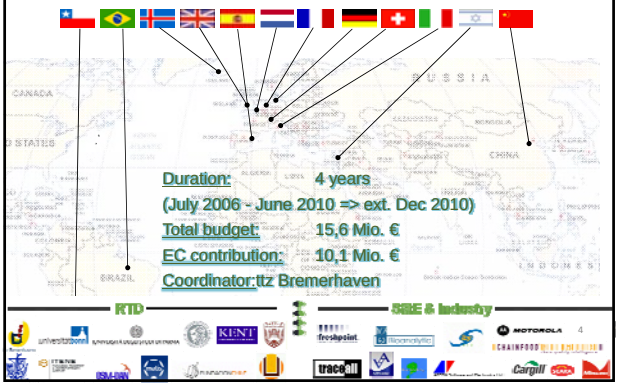
## CHILL-ON Consortium
24 partners from 12 countries

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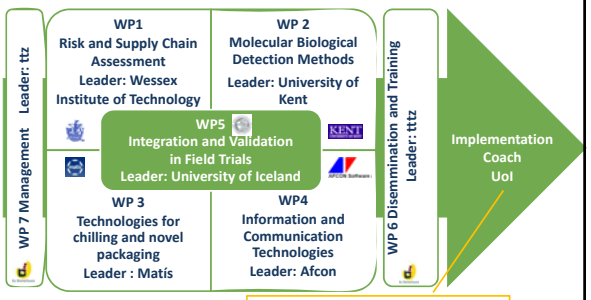
## Chill-on workpackages




intermediary between the research developments of Chill-On and the practical needs of industry.



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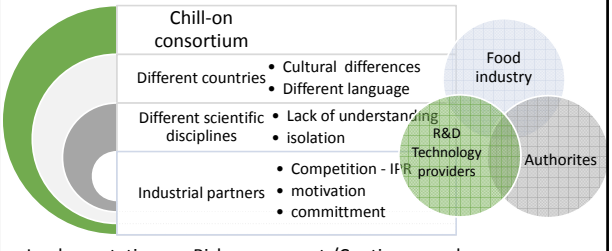
## Implementation - Challenges




- Implementation => Risk assessment /Contingency plans
- Integration of disciplines => Communication
- Validation of technologies in field trials => Follow up
- Complementary motives and mutual benefits => Business value



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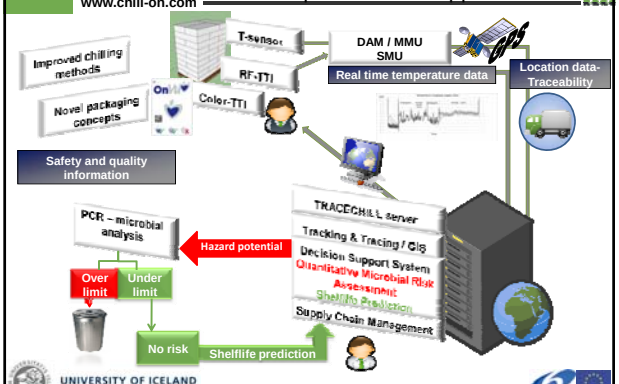
## CHILL-ON technologies conceptual holistic approach



## Validation in field trials

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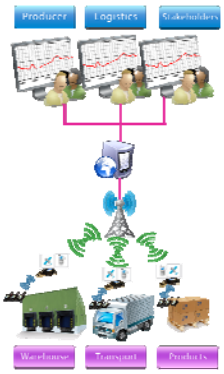
Landing / weighing / market IS
Transport to factory
Storage in factory
Processing and packaging
Storage before shipment
Transport to shipper IS
Storage at shipper IS
Shipping to DK
Transport to BsM FR
Arrival at BsM FR

Real time monitoring of location and temperature

Cod
Salmon
Poultry

IS-FR
NO-FR
Germany

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## What do the stakeholders need ?

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- Does the fish supply chain need the Chill-on technologies?
- **Whole concept** or **individual technologies ?**

➢ Surveys on the **business value,** drivers and barriers for implementation in food supply chains
  - » Focus groups in Westman Isles (IS) Nov 2009
  - » Focus groups (IS) April 2010
  - » Interviews - Questionnaire survey (Brussel Seafood Exposition April 2010)

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## Focus groups in Iceland April 2010

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- Aim
  - to gain insight into the experiences of supply chain actors in Iceland on information flows and traceability in fish supply chains
  - their views on the potentials of the CHILL-ON technologies in particular real time temperature information.
- Participants
  - supply chain actors related to all major handover points in a typical value chain of fish
- Social Science Research Institute, UoI conducted the focus group interviews

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## Focus groups in Iceland April 2010

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- **Potentialities and barriers for implementing electronic traceability /information and temp. monitoring system**

| Potentialities | Barriers |
|---|---|
| Secure transport **/verification** | Could slow down delivery |
| Enhanced **quality control** | Practical/**technical** issues |
| Enhanced supply chain management | Lack of **trust** between actors |
| Could simplify record keeping | Weak use value for the business |
| Assist insurance companies | Increased **costs** |
| | Not much value for consumers |

- **Definition of "the problem" (is the "problem" a problem?)**
- **"We don't need to fix what is in order"**

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## Focus groups in Iceland April 2010

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- **Monitoring of temperature**
  - participants said that this was actually already in place, although not in real time
  - representatives of producers did not think that monitoring real time temperature would add much to the current procedure
    - *Value for audits and verification*
- A participant from the insurance sector highlighted that:

  *"access to real time temperature information would make it a lot easier to solve disputes and thus save a lot of time and money"*

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## ?

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- On the basis of the focus group discussion a questionnaire was designed that was used to collect data on the view of key actors in the supply chain at the Brussels Seafood Exposition
- .....and identify added value of information and supply chain management systems

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## Survey at Seafood Exposition in Brussels, 27-29 April 2010

- *Aim:* to explore the attitudes and value positions of supply chain actors regarding what factors are most important when implementing electronic information and traceability system
- *Questions on the following:*
  - trust in the value chain and how real time temperature sharing would affect trust between actors,
  - information sharing and the use of electronic information systems
  - prioritizing drivers and barriers



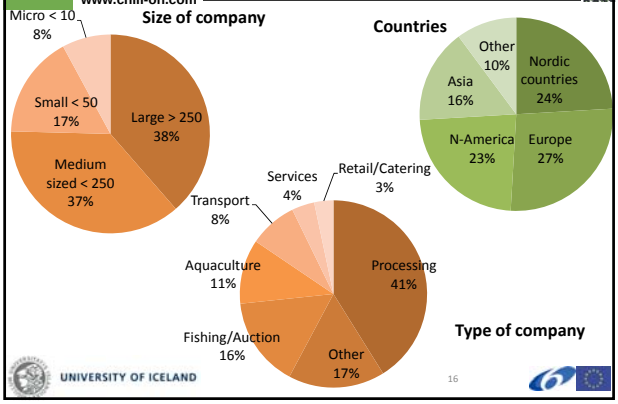
## Survey at Seafood Exposition in Brussels, 27-29 April 2010

- good opportunity to access a substantial part of the relevant actors
- a mixture of a purposive and convenience sample (n=115)
- respondents from 34 countries
- most of the respondents from sales & marketing departments (72%)

- Four researchers from ASCS-UoI conducted the interviews

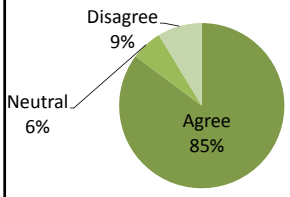


## Demographics

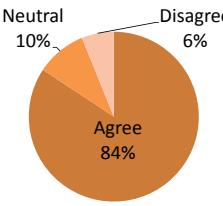





## Trust in the supply chain




**"Trust exists regarding information sharing between actors in the fish supply chain"**

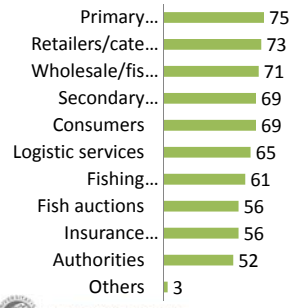



**"Sharing real time temperature information between actors could enhance trust and commitment in the fish supply chain"**

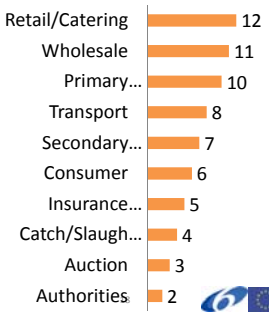


## Who would benefit from using a real-time temperature monitoring system?

**= > All actors**



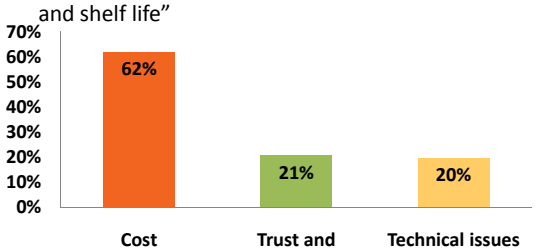

**= > Retailer / wholesaler would gain most**



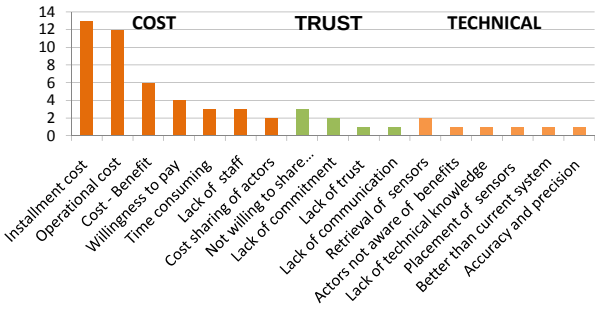



## Barriers

"Prioritize possible barriers when implementing electronically based system for sharing real time information on traceability, GPS location, temperature and shelf life"



## Attributes of barriers






## Barriers
### Comments from respondents

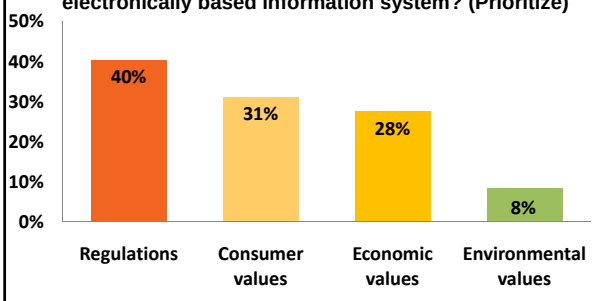
- "No need for an electronic traceability/information system"
  - **All traceability information is already in place as required by regulations.**
    - Would only implement the system, if enforced by i.e. regulations or their customers
    - Systems or demands enforced by regulations are not desirable
    - Fish industry is already a highly regulated industry,
    - No need for additional complications in the trade of fish.
    - Not sure that such systems would guarantee improved quality
  - **Installment cost and operational costs too high**
  - **Did not see added value** in the system
  - **Not willing to share information** with their customers

  => **Lack of TRUST**



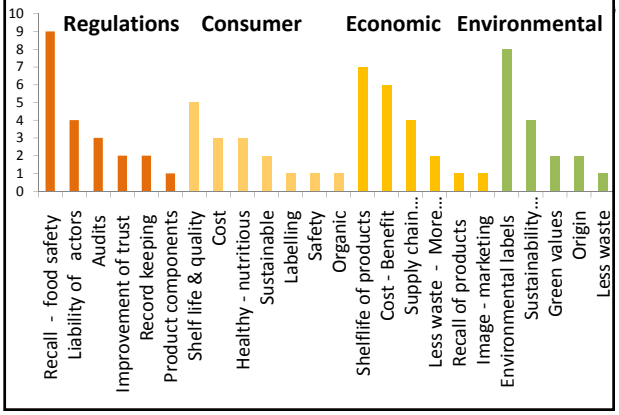
## Key drivers

**Which of the choices is the key driver for implementing electronically based information system? (Prioritize)**






## Attributes of key drivers




## Conclusions

- **Trust - mistrust / Temperature sharing** could enhance **transparency**
- Main barrier => **Cost - installment/operation**
- Consumer and economic drivers =>**Shelf life, quality and cost**.
- **Regulations** were seen as the main driver for implementing systems for traceability and safety
  - food supply chains are already regulated on traceability.
  - If electronic transfer of data will be required then the industry would implement systems
  - top- down initiatives (from authorities and research) were not seen as assets for the business
  - New technologies should be implemented in small steps – otherwise it would become a burden for the supply chain



## Current trend

- **Environmental values were** not considered important drivers to implement new technologies for traceability, quality and safety, however **environmental labels** were identified as the main marketing tool
- A strong marketing trend and push of retailers for environmental labels like MSC label and various brand labels with eco values
- **=> important to develop and evaluate environmental indicators for various food categories to substantiate the environmental labels**

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# Thank you

Guðrún Ólafsdóttir,
CHILL-ON Implementation Coach
Laboratory of Applied Supply Chain Systems
School of Engineering and Natural Sciences
University of Iceland www.hi.is
e-mail: go@hi.is

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