

# Standardized labelling of distribution and transport units for fishery product

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The purpose of this document is to map out the interest of uniform labeling and identification of distribution and transport units for fishery products outside the Norwegian market.

The question is: To which degree will the EU importers, the supply chain, the customers and the end users profit from standardized labeling?

Our opinion is that an early dialogue will be beneficial for the project.

January the 1<sup>st</sup> 2010 the Norwegian Ministry of Fisheries and Coastal Affairs introduced the requirement for labelling with catch and harvest date on fresh seafood. It then became clear that it was necessary to ensure that the label on fish distribution units were uniform and easy to understand for distributors and retailers. Consistent and good labelling is important to meet government and market requirements for quality, tracking and documentation, says Minister of Fisheries and Coastal Affairs Lisbeth Berg-Hansen.

At spring 2010 a pilot project "Labeling of fish boxes" was launched at the initiative of the transportation company Schenker AS in cooperation with Innovation Norway –

Innovation Norway has funded the pilot project. The pilot project was led by Standard Norway, organizing the participation of various stakeholders covering the value chain from the production unit to the retailers in the project.

This pilot project suggests three main activity areas:

1. Value Chain tests of labelled distribution units
2. The development of the standardization document
3. Pilot project on implementation of the new labelling standard in the fish industry

The activities in the main project are aiming at:

- Introducing common labelling of distribution and transport units for fishery products
- Information on the label to be understood by all players in the value chain from the sea to the point of sale – nationally as well as internationally
- information complying with regulatory requirements as well as national and international standards
- machine readable core data for electronic transmission to value chain participants' business systems (EPR etc.). E.g. bar coding.

The participants in the project are expecting improved profit and increased value creation by

- increased value chain efficiency
- improved tracking through the complete value chain
- efficiency through automatic data capture - (bar coded data)
- quality control improvement - less failures and errors (example- control of Best Before Date)
- improved information flow between the manufacturers and all players in the value chain to the end user.

**Main activities defined in the pilot project**





**1. Value Chain tests of labelled distribution units**

This activity is led by Schenker Consulting AS. The purpose of this activity is to test the proposed recommendation from the pilot project adapting to the requirements in the different parts of the value chain. Test labels are designed and are being tested on distribution and transport units throughout the value chain nationally and internationally.

Detailed information on the proposed content in the test label for farmed salmon in question is described in the table below.

<u>Farmed Fish</u>			
	Information element	Text	Barcode/GS1 Application identifier
1	GTIN (Global Trade Item Number)	X	01
2	Product	X	
3	Net weight	x	3102
4	Efta no	X	
5	Supplier Name	X	
6	Location number	x	
7	Batch or Lot Number	X	10
8	Serial Number	X	21
9	Harvest Date	X	
10	Production Date	X	11
11	Best Before/ Use by Date	X	
12	Production Method	x	90
13	Size	x	
14	Treatment	x	
15	Quality	x	
16	Preservation	x	
17	SSCC-code (Serial Shipping Container Code)		00
18	Storage temp	x	

This table contains 17 text elements and 7 barcoded information. As will be seen from the pilot label on the next page, there are three barcodes of the first one contains concatenated - (linked together)- data of GTIN (01), Net Weight (3202) and Production Method (90). The second barcode contains concatenated - (linked together)- data Production date (11), Batch Number (10) and Serial Number (21). The third barcode contains the unique identifier of the distribution unit, utilising the SSCC-code (Serial Shipping Container Code) (00).

GTIN 97033352002374	Exp. Hallvard Lerøy AS 5020 Bergen, NORWAY Farmer: 972325198-12891	
Product name / Produit / Produktnavn <b>Atlantic Salmon</b> SALMO SALAR	Batch no/Order no: 12345678/87654321	
Production method: <b>Farmed in Norway</b>		
Size: <b>3-4</b>		Keep cool, storage temp -1 - +4 °C
Treatment: <b>Gutted</b>		
Quality: <b>SUP</b>		
Preservation: <b>Fresh</b>	(01) 9 7033352 00237 4 (3102) 002150 (90) 02N0	
Harvest date: <b>2010.01.22</b>		
Prod date: <b>2010.01.24</b>		
Use by date: <b>2010.01.28</b>		
	(11) 100124 (10) 12345678 (21) 87654321	
<i>Frifelt</i>		
<i>Frifelt</i>		
<i>Frifelt</i>		
Net weight:	(00) 3 7055720 001122254 6	
<b>21,50 kg</b>	Box No: <b>16</b>	Pall No: <b>1234</b>

## 2. The development of a new standard

Standard Norway is in the process of developing a new standard that will define the minimum size of the label and prescribe information to be printed, of which a set of core data will be in machine readable form, e.g. barcoded. The standard will be independent for use of data capture technologies. Two dimensional bar codes or RFID technologies can be used as soon as the supply chain can utilize these technologies.

Standard Norway held the Secretary for the development of the two ISO Traceability standards 12875 and 12877. Those are referenced in the new standard and the same person is in charge as secretary for the development of the new standard.

The draft issue is going to be distributed for comments mid-march 2012 and is planned for approval by June 30<sup>th</sup>. 2012.

## 3. Pilot project on implementation of the new labelling standard in the fish industry

This activity is led by the Norwegian Seafood Federation (FHL) in cooperation with The Norwegian Seafood Association (NSL). In order to map out the prerequisites for the implementation, there were made thorough research among elected seafood companies, which had a range in size from approx. 13 million NOK. to nearly 8 billion in revenue. Among the companies 30% were slaughterhouses, 55% white fish and shellfish manufacturers and the rest were traders for the export of fish. The companies were located from the North-west Norway and the entire coastline up to Finnmark.

An important finding from the research was incorrect data content in the vast majority of bar codes. Only 17 % of the tested codes was correct. Almost the half of the codes failed due to improper use of GS1 Application Identifiers (GS1 General Specifications) and the selection of code sets in the bar code Code 128 according to the Standard ISO/IEC 15417.

The use of the new NS 9405 standards requires membership in the GS1 article numbering system. 54 % of the companies have to apply for such membership

All codes made available for the project were analyzed with the bar code verifier equipment from AXICON Ltd. ([www.axicon.com](http://www.axicon.com)).

The pilot project for implementation suggests the following activities for manufacturers who print labels. They must have:

1. software that safely and properly store and / or generates data to be printed on the label
2. software to generate bar codes complying with ISO / IEC 15417:2007, NSEN ISO / IEC 15419:2010 and ISO / IEC 15418, as well as GS1 "General Specifications, Version 11".

The providers of software and printers are responsible for correcting failures before the standard can be implemented.

Furthermore, companies printing labels should have:

3. profound knowledge of the GS1 system in order to assess whether the final result is correct or not
4. developed an article numbering systems complying with the GS1 specifications.

It is imperative that both the suppliers of software and printers as well as the manufacturers ensures that barcodes are checked with regard to the proper use of GS1 Application Identifiers and the quality of the printed symbol in accordance with the new standard.

The investigation revealed additionally potential sources of error due to manual transfer of data between different data systems within the company. A review of the enterprise business system in combination with implementing the new standard for labeling, could contribute to positive cost/benefit effects.

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