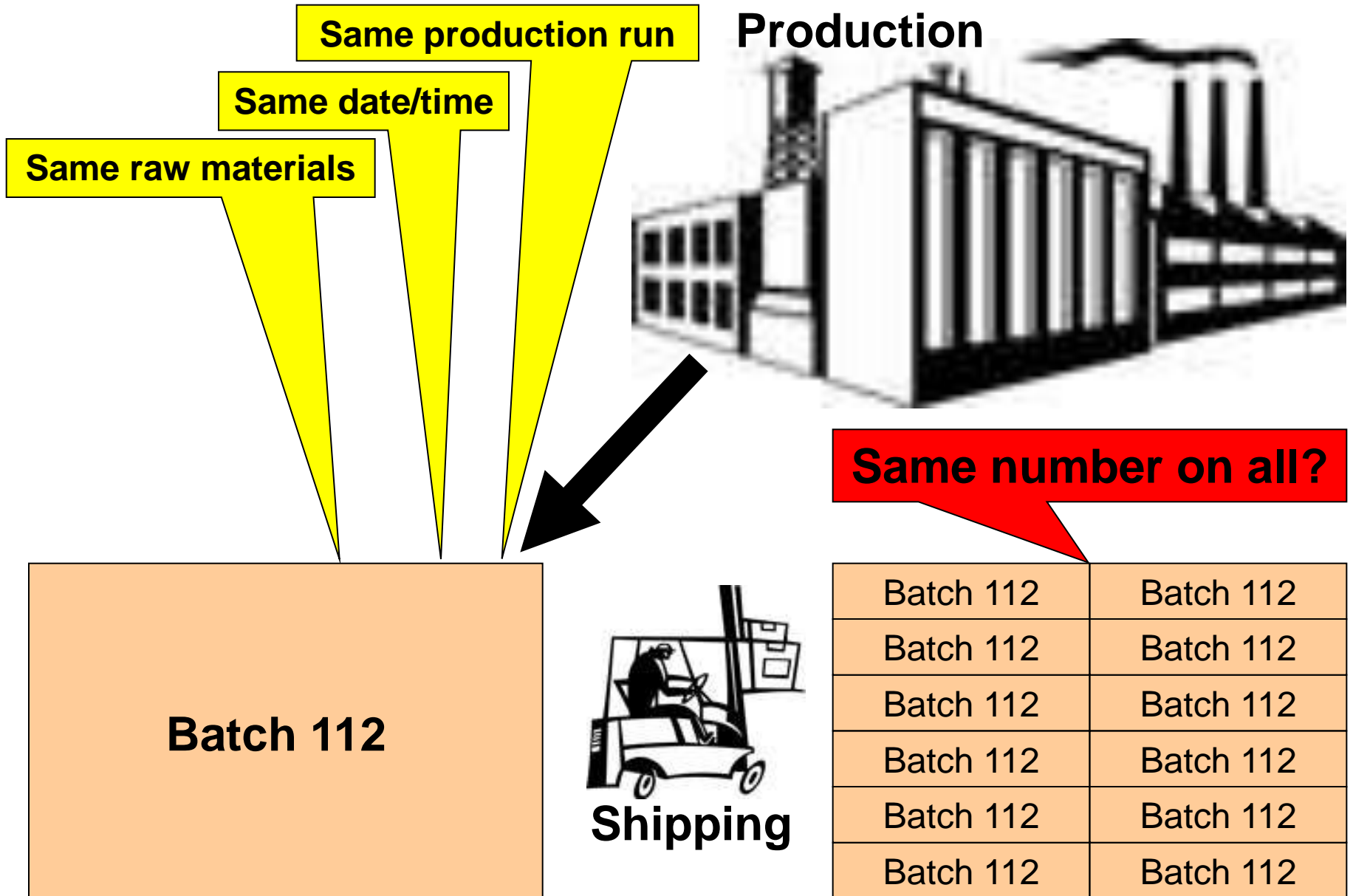


# **ISO/DIS 12877 (TraceFish) as a potential model for PLF standardization work**

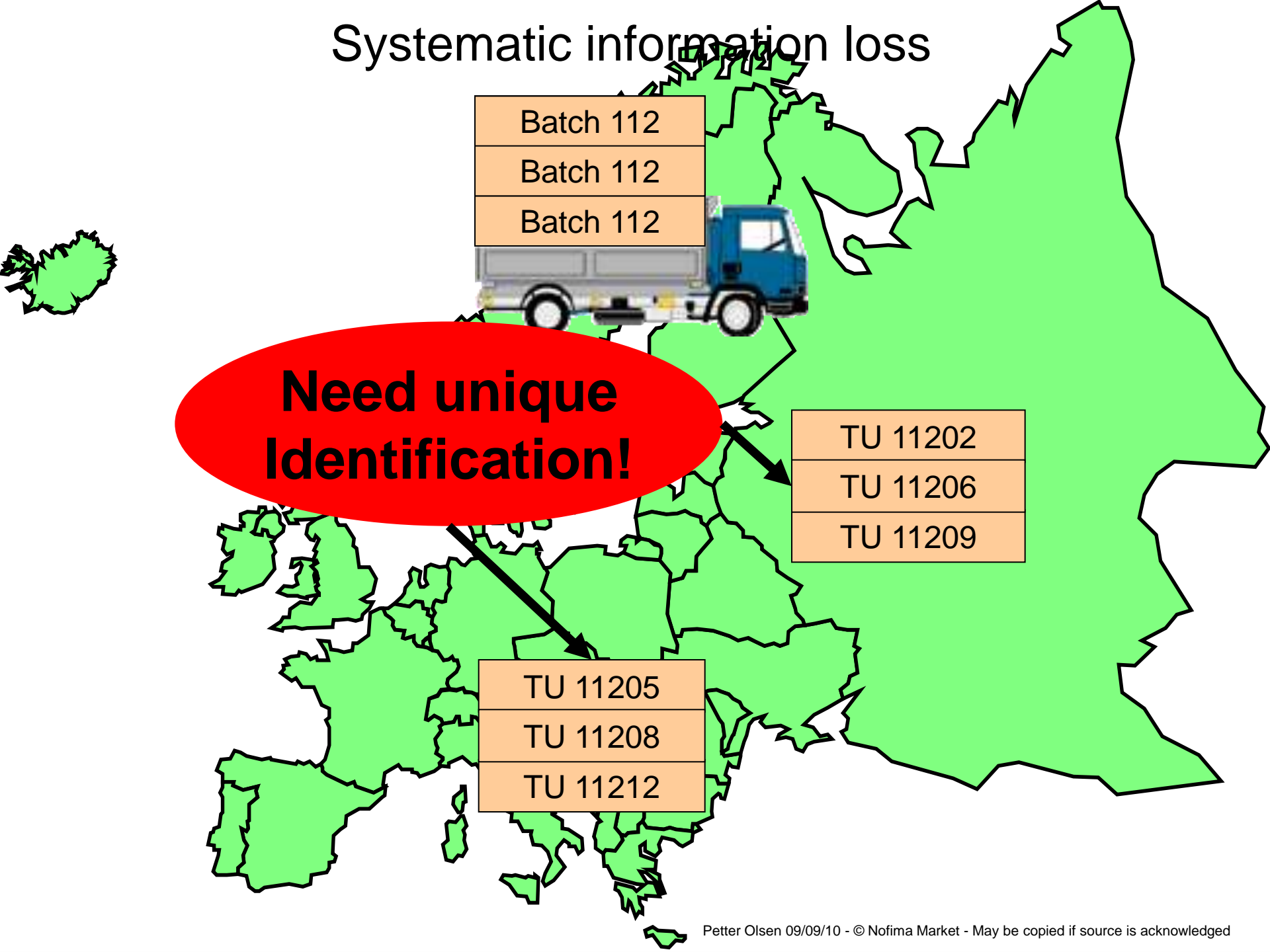
**Senior scientist Petter Olsen  
Nofima Market, Norway**

**BrightAnimal workshop**  
Johannesburg, South Africa, 8-9 September 2010

# Batch traceability - Limitation



# Systematic information loss



Batch 112
Batch 112
Batch 112

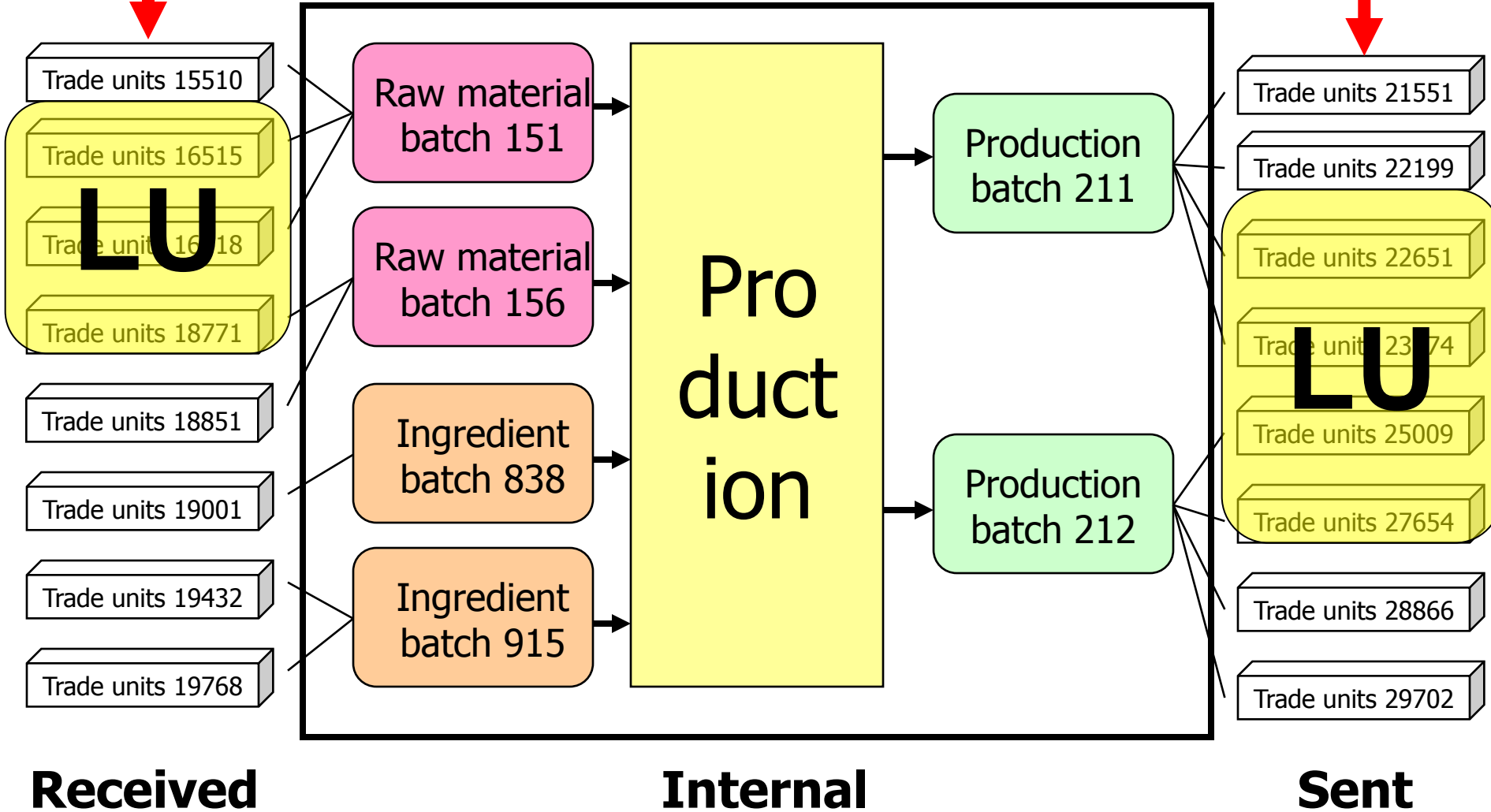
**Need unique Identification!**

TU 11202
TU 11206
TU 11209

TU 11205
TU 11208
TU 11212

# Internal and chain traceability

These are the units that we need to trace!

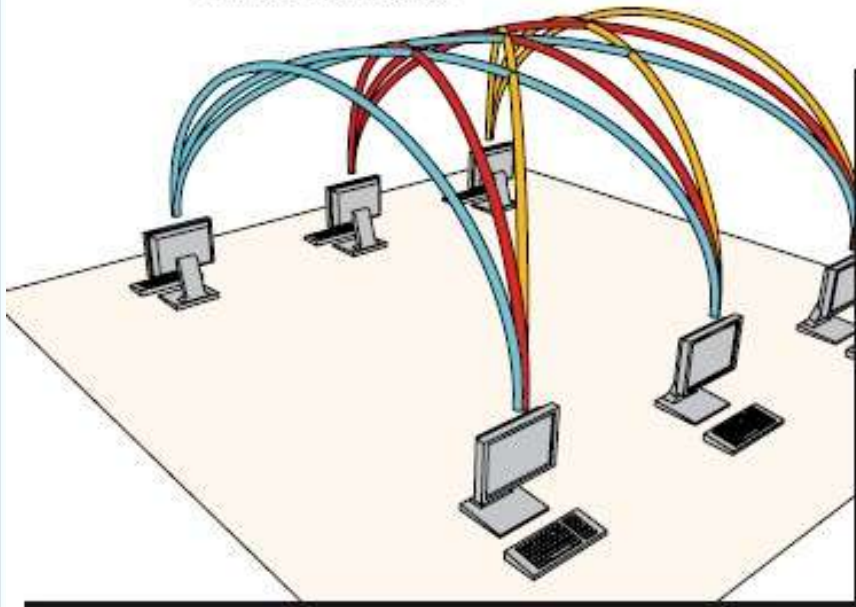


# Why chain traceability standards?

- **Reduce workload for food business operators (FBOs); avoid large sets of conflicting documentation requirements.**
- **Increase transparency and re-use of data; data delivered by different FBOs will have standard meaning and measurement**
- **Enable benchmarking between same type FBOs**
- **Enable common understanding and automatic translation of product and process parameters**
- **Establish "*unique identification on lowest level*" and "*documentation of transformations*" principle to enable tracking and tracing without systematic information loss; this to establish virtual infrastructure to enable all the previously mentioned drivers (food safety, legislation, labour/cost reduction, etc.)**

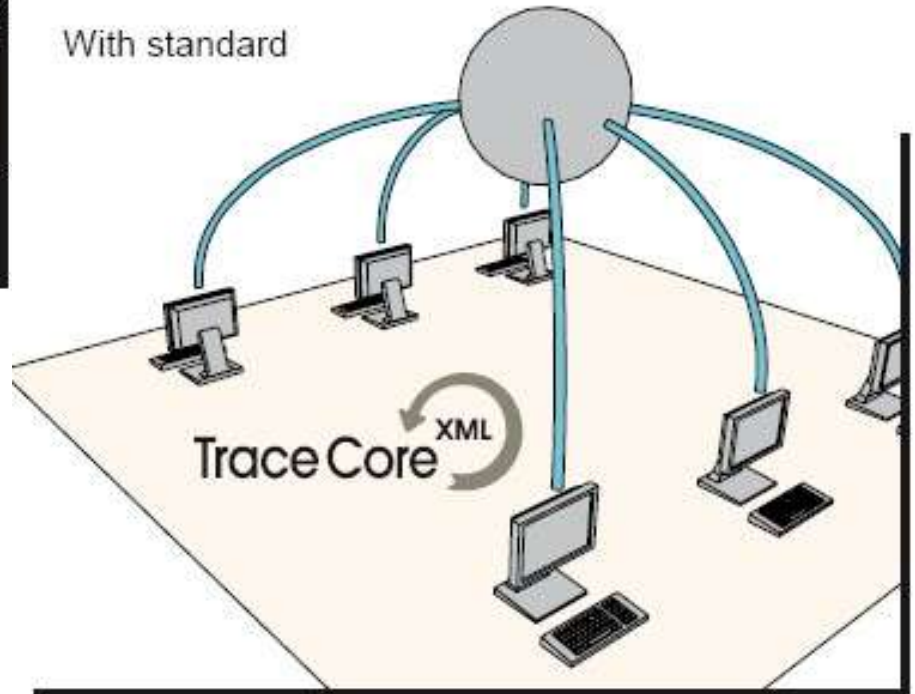
# Enable Electronic Data Interchange

Without standard

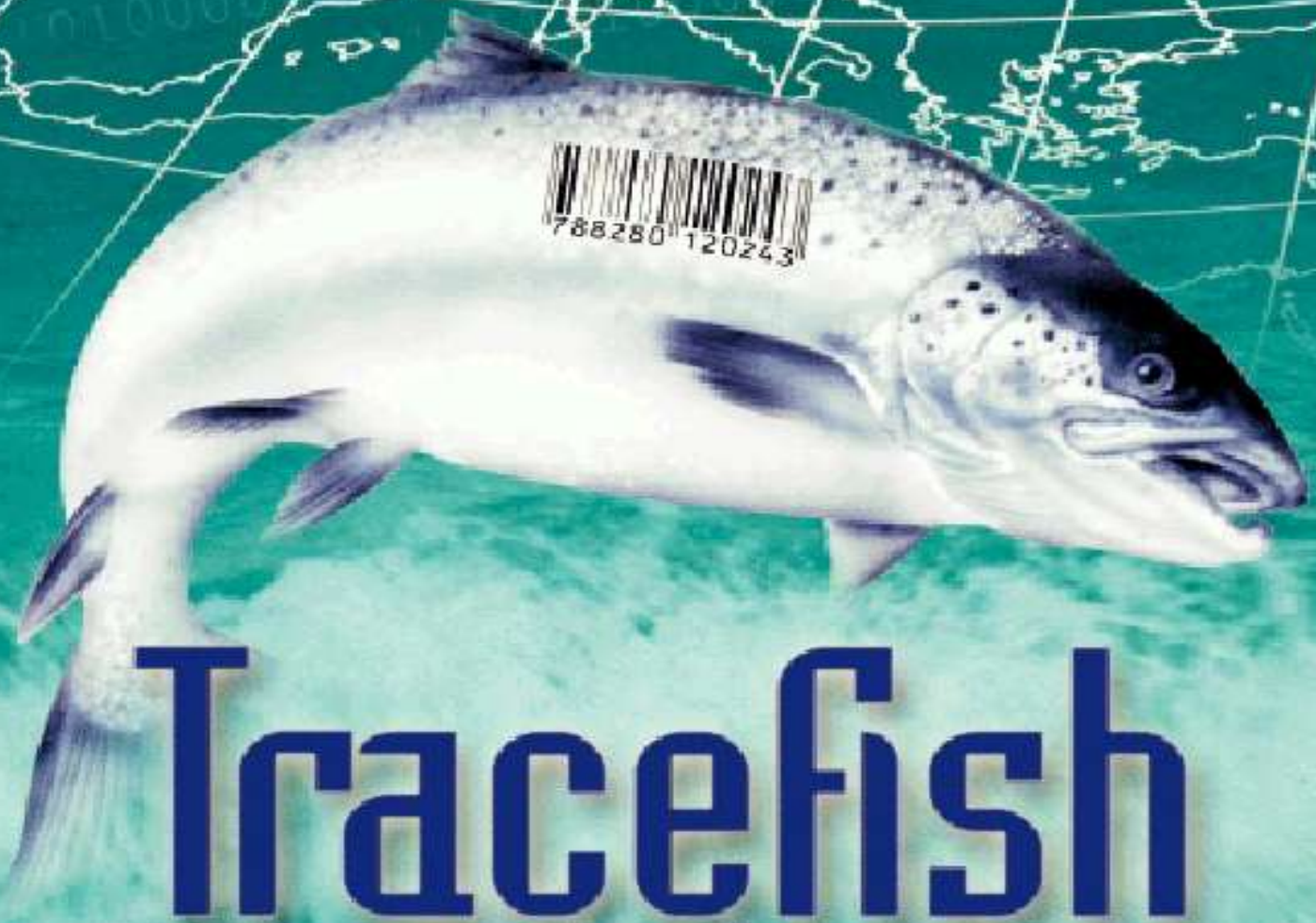


**Standardization essential  
to enable chain  
communication by  
electronic means**

With standard



- **Standardize practice**
- **Standardize EDI / XML**
- **Standardize meaning of words (ontology)**



# Tracefish

Traceability of Fish Products

# Background - TraceFish standards

- **CEN Workshop Agreement - CWA 14659 (2003)  
Traceability of fishery products — Specification  
of the information to be recorded in farmed fish  
distribution chains**
- **CEN Workshop Agreement - CWA 14660 (2003)  
Traceability of fishery products — Specification  
of the information to be recorded in captured fish  
distribution chains**
- **Developed in EU-project "TraceFish" 2000-2003**
- **Involvement and feedback from more than 100  
stakeholders**
- **Translated into JA, NO, SP, VI**
- **Became CWA for 3 years, renewed as CWA for  
another 3 years (2007-2010)**

# ISO seafood traceability standards

- **ISO/DIS 12875 “Traceability of finfish products — Specification on the information to be recorded in captured finfish distribution chains”**
- **ISO/DIS 12877 “Traceability of finfish products — Specification on the information to be recorded in farmed finfish distribution chains”**
- **3 year development track, Nov. 2008 – Nov 2011**
- **1<sup>st</sup> meeting, Madrid Nov. 2008, standards established**
- **2<sup>nd</sup> meeting, Nanaimo Oct. 2009, standards refined**
- **3<sup>rd</sup> meeting, Thailand Nov. 2010, final version**
- **Formal hearing, voting and acceptance by Nov. 2011**

## **ISO/DIS 12877 applies to:**

- **fish feed production**
- **breeders**
- **hatcheries**
- **fish farms**
- **live fish transporters**
- **processors**
- **transporters and storers**
- **traders and wholesalers**
- **retailers**

## Unique identification principle

**The fundamental principle of chain traceability is that trade units (TU) shall be identified by unique codes (UI). This code may be globally unique in itself (for instance the GS1 SGTIN or EPC numbers) or it could be unique in that particular scope only, which means that there should be no other TUs in that part of the chain that may have the same number.**

## The "Shall" category

**This category contains recordings related to identifiers and transformations that is necessary in order to trace the history, application or location of an entity. This means the unique identity of trade and logistic units, as well as the dependencies between the identifiers of inputs and outputs in a process.**

**Data elements relating to product properties are not in this category, even if these properties are essential for other purposes like product documentation or food safety.**

## The "Should" category

**This category contains parameters that describe and provide supporting information on the units being traced. Common parameters required by law, commercial requirements or good manufacturing practices are recorded, but only where an established international format or data list for the value exists.**

**This includes parameters like "species", "ID of food business", "production date", etc. Part of certification.**

## The "May" category

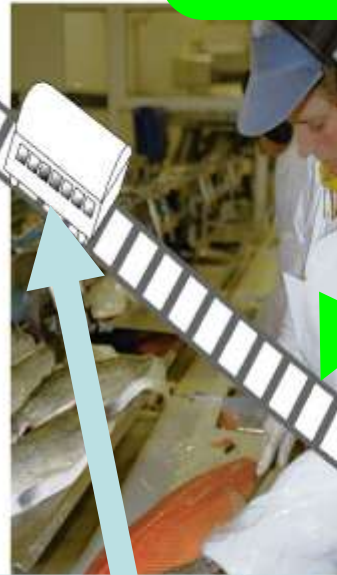
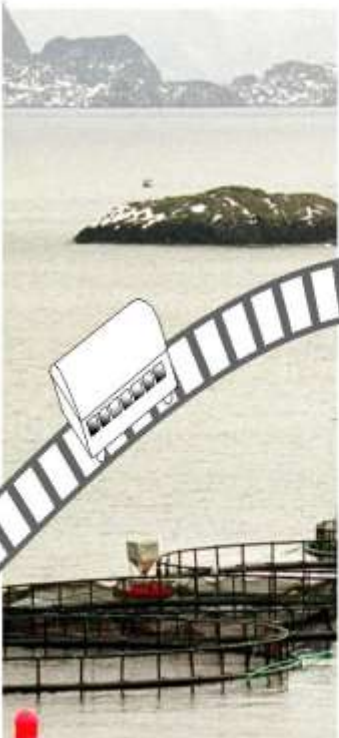
**This category contains parameters that describe and provide supporting information on the units being traced. It contains parameters that are not part of the "should" category, that may still be useful or relevant to record. It also contains parameters that are deemed important, but where no established international format or data list exists.**

**The "may" category is informative only, and it is included to enable use and uptake of the standard. Not part of certification.**

# Chain traceability standard:

**The “Shall”  
category**

**“Should” and “May”  
categories**



# ISO TC234 participants

- **Belgium**
- **Canada**
- **Denmark**
- **Fiji**
- **Finland**
- **France**
- **Iceland**
- **India**
- **Malaysia**
- **New Zealand**
- **Norway**
- **South Africa**
- **Spain**
- **Thailand**
- **UK**
- **USA**
- **Vietnam**

# ISO TC234 vote on 1<sup>st</sup> draft

- Belgium, **YES**
- Canada, **NO**
- Denmark, **NO**
- Fiji
- Finland, **YES**
- France, **NO**
- Iceland, **YES**
- India, **YES**
- Malaysia
- New Zealand
- Norway, **YES**
- South Africa, **YES**
- Spain, **YES**
- Thailand, **YES**
- UK
- USA
- Vietnam

## ISO TC234 vote on 2<sup>nd</sup> draft

- Belgium
- Canada, **YES**
- Denmark, **YES**
- Fiji
- Finland, **YES**
- France
- Iceland, **NO**
- India, **YES**
- Italy, **YES**
- Malaysia, **YES**
- Korea, **YES**
- Mauritius, **YES**
- New Zealand
- Norway, **YES**
- South Africa, **YES**
- Spain
- Thailand, **YES**
- UK
- USA
- Vietnam, **YES**

## What has been decided already?

- **Standards like the ones proposed are needed**
- **Should be based on unique identification on lowest level, i.e. the smallest unit that will not be split up, for example a package, a box etc.**
- **Standards will enable electronic recording and communication, but not require it**
- **The standards should not have GS1 codes or any other proprietary codes as a prerequisite**
- **The scope is only finfish, not molluscs, prawn, crawfish, etc.**
- **Parameters are categorized into 'shall', 'should' and 'may'; the last only informative**

**Table 4 — Detailed information requirements for fish farms**

Data element		Description	Examples	Categorisation		
				Shall	Should	May
<b>FISH FARMS</b>						
FFF101	Food business ID	Unique national identification number for the organization plus country prefix as well as name and address of the food business that operates fish farm establishment	Fjord Harvest Ltd 67345 Bergen Norway		X	
FFF102	Fish farm establishment ID	Unique national identification number for the organization plus country prefix as well as name and address or <u>GLN</u> of fish farm establishment	Fjord Harvest Ocean site 2 67345 Bergen Norway NTFS0003 NO		X	
FFF103	Fish farm GMP certification	Names of fish quality or food safety GMP schemes by which fish farm is certified	<u>Debio</u>			X
FFF150-	(unassigned)	Further information elements that describe the organization, linked to fish farm establishment ID				X
<b>FOR EACH UNIT RECEIVED</b>						
<b>Identities</b>						
FFF201	Unit ID	ULUI (if received as a logistic unit) or UTUI (if received as a separate trade unit)	(00) 10065300555555558 978817525.0766.000010272	X		
FFF202	Trade unit IDs	If received as a logistic unit, the IDs of the trade units within the logistic unit.	978817525.0766.000010123 978817525.0766.000010131 978817525.0766.000010272	X		

**FOR EACH UNIT RECEIVED****Control checks** (either on logistic or separate trade units)

FFF205	Temperature check	Temperature °C i.e. in received unit	4,0 °C		x	
FFF206	Temperature record	If recording device is affixed to batch, temperature/time record from creation of unit onward.	(°C) / date and time points in ISO8601 format			x
FFF207	Quality control checks	Type of checks + measured results or indication if records are available in electronic form, on paper or not available	Paper			x

**Transformation Information**

FFF208	Related created trade unit IDs	List of ID's of created trade units that may incorporate part of this received trade unit.	978817525.0766.000010123 978817525.0766.000010131 978817525.0766.000010272	x		
FFF209	Fractions	Fraction (%)s, kilos) of the received trade unit that go into each created unit	UTUI-1 50%, 1000 kg UTUI-2 50%, 1000 kg		x	

**Additional data**

FFF250-	(unassigned)	Further information elements that describe the received trade / logistic unit, linked to UTUI / ULUI				x
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**FOR EACH NEW TRADE UNIT CREATED BY FISH FARM**

## Identity

FFF301	Unit ID	UTUI	978817525.0766.000010123	x		
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**Description**

FFF302	Location of fish farm	Longitude + latitude or other appropriate specification.			x	
FFF303	Size (grade) distribution	Weight per size grade (1-2, 2-3, 3-4, etc) in kg	1-2 kg 200 kg 2-3 kg 500 kg 3-4 kg 250 kg		x	
FFF304	Condition factor	Mathematic formula: $100 * (\text{weight (g)} / \text{length}^3 \text{ (cm)})$ .	1,2			x

## **If the drafts become ISO standards**

- **Note that ISO standards are not legal requirements (unless a country decides this)**
- **ISO standards are voluntary industry standards**
- **Buyers of fish products may give preference to suppliers who implement the standards**
- **Certification may happen on these standards**
- **Buyers of fish products may require their suppliers to be certified according to these standards**

## Reference documents

- **Codex Alimentarius**, CAC/GL 60-2006, "*Principles for Traceability / Product Tracing as a Tool Within a Food Inspection and Certification System*"
- **Codex Alimentarius**, CCFICS 2003, "*Discussion paper on traceability/product tracing in the context of food import and export inspection and certification systems.*"
- **ISO**, ISO/DIS 22005, "*Traceability in feed and food chain — General principles and basic requirements for system design and implementation*"
- **EU Common Food Law**, 178/2002
- **EU Feed Hygiene Regulation**, 1831/2003
- **EU Feed Additive Regulation**, 1831/2003
- **Can-Trace**, Can-Trace reference document
- **CIES**, "*Implementing Traceability in the Food Supply Chain*"
- **EurepGAP**, "*EurepGAP General Regulations*", "*EurepGAP Control Points and Compliance Criteria*", "*EurepGAP Checklist*"
- **ECR**, ECR Blue Book, "*Using Traceability in the Supply Chain to meet Consumer Safety Expectations*"
- **BRC**, "*Technical Standard for Companies Supplying Retailer Branded Food Products*" (incorporating the old EFSIS standard)
- **IFS**, "*International Food Standard*"
- **GS1**, "*The GS1 Traceability Standard*"
- ... and many others

# Thank you for your attention

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