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BSI Standards Publication

Traceability of finfish products — Specification on the information to be recorded in farmed finfish distribution chains

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National foreword

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**Traceability of finfish products —
Specification on the information to be
recorded in farmed finfish distribution
chains**

*Traçabilité des produits de la pêche — Spécifications relatives aux
informations à enregistrer dans les chaînes de distribution des poissons
d'élevage*





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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 12877 was prepared by Technical Committee ISO/TC 234, *Fisheries and aquaculture*.

Introduction

There are increasing demands for detailed information on the nature and origin of food products. Traceability is becoming a legal and commercial necessity.

The ISO definition of traceability concerns the ability to trace the history, application and location of that which is under consideration, and for products this can include the origin of materials and parts, the processing history and the distribution and location of the product after delivery. Traceability includes not only the principal requirement to be able to physically trace products through the distribution chain, from origin to destination and vice versa, but also to be able to provide information on what they are made of and what has happened to them. These further aspects of traceability are important in relation to food safety, quality and labelling.

The scheme specified in this International Standard does not demand perfect traceability, i.e. that a particular retail product should be traceable back to a single farm and batch of origin, or vice versa from origin to destination. Pragmatically, it is recognized that mixing of units is likely to occur at a number of stages in the distribution chains, e.g. in grading at auction markets prior to sale and in the processing of raw materials into products. Where such mixing occurs, the food business is transforming the trade units. The requirement for traceability is that the business records the IDs of the received trade units that may be input to each created trade unit, and vice versa. The particular product is then traceable back to a finite number of farms and batches of origin, and vice versa.

Given the enormous variety of fish products and of their distribution chains that operate within and between different countries, and varying legal requirements, the information specifications cannot itemize all the information that may possibly be required in every situation. This International Standard provides a generic basis for traceability. Flexibility is allowed for businesses to record further information, in their own non-standardized files, but keyed to the same unit IDs.

The information remains in the ownership of the food business that generated it, but is available when required by law for the purposes of traceability (in the event of a food safety problem) or by commercial agreement between businesses. The structure, names and content of the information is standardized so that it can be readily communicated from business to business through the distribution chains, ensuring common understanding of terms and meanings.

Commercial arrangements for businesses to communicate information through the distribution chains are to be encouraged, particularly for the information desired by the trade to be visible at the various transaction points in the chains, but that is not the subject of this International Standard.

This International Standard is designed with electronic representation and communication of data in mind, but this is not a requirement when using this International Standard. The specifications can be met by paper systems, although the obvious benefits of business efficiency, including rapid communication, will be lost.

Traceability of finfish products — Specification on the information to be recorded in farmed finfish distribution chains

1 Scope

This International Standard specifies the information to be recorded in farmed finfish supply chains in order to establish the traceability of products originating from farmed finfish. It specifies how traded fishery products are to be identified, and the information to be generated and held on those products by each of the food businesses that physically trade them through the distribution chains. It is specific to the distribution for human consumption of farmed finfish and their products, from finfish meal, breeding and finfish farming through to retailers or caterers.

NOTE Together with ISO 12875 for captured finfish, this International Standard provides a basis for implementing chain traceability of finfish.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 8601, *Data elements and interchange formats — Information interchange — Representation of dates and times*

ISO 3166-1, *Codes for the representation of names of countries and their subdivisions — Part 1: Country codes*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

traceability

ability to trace the history, application or location of that which is under consideration

NOTE 1 When considering a product, traceability can relate to

- the origin of materials and parts,
- the processing history, and
- the distribution and location of the product after delivery.

NOTE 2 Adapted from ISO 9000:2005, definition 3.5.4.

3.2
Unique Logistic Unit Identifier
ULUI
any composition established for transport and/or storage that needs to be identified and managed through the supply chain

3.3
Unique Trade Unit Identifier
UTUI
smallest unit which is guaranteed to retain its integrity as it moves from one link of the chain to the next

NOTE UTUI is the smallest unit that is kept whole and undivided with no change in content or label/identification.

4 Abbreviations

In this document, the following abbreviations apply.

EFSIS	European Food Safety Inspection Service
ACC	Aquaculture Certification Council
EPC	Electronic Product Code, a unique number provided by GS1 used to identify instances of trade items (individual trade units) particularly suited for representation in an RFID chip
FAO	Food and Agriculture Organization of the United Nations
FBO	Food Business Operator, generic term for someone in the supply chain who processes, sends or receives relevant trade units or logistic units
GLN	Global Location Number, a 13 digit globally unique number provided by GS1 used to identify parties and physical locations
GMO	Genetically Modified Organism
GMP	Good Manufacturing Practice
GS1	Global non-profit organization dedicated to the design and implementation of global standards and solutions to improve the efficiency and visibility of supply and demand chains globally and across sectors. Previously EAN/UCC
GTIN	Global Trade Item Number, a 8-14 digit globally unique number provided by GS1 used to identify types of trade items (product types)
HACCP	Hazard Analysis Critical Control Points
HS	Harmonized Commodity Description and Coding System
ID	Identifier
LU	Logistic Unit
RFID	Radio-Frequency Identification, the use of an object (typically referred to as an RFID tag) applied to or incorporated into a product for the purpose of identification and tracking using radio waves
RFMO	Regional Fisheries Management Organization
SGTIN	Serialized Global Trade Item Number, a unique number provided by GS1 used to identify instances of trade items (individual trade units) by extending the GTIN

SSCC	Serial Shipping Container Code, an 18 digit globally unique number provided by GS1 used to identify logistics units
TU	Trade Unit

5 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. If the scope (the company, the chain, the sector, the country, the product type, or similar) is assigned a globally unique number, the combination of the globally unique scope number and the locally unique TU number shall constitute a globally unique identifier for the TU.

NOTE 1 The UTUI term is introduced to indicate a TU identifier which is, or can be made, globally unique.

TUs may be grouped together to make Logistic Units (LUs) or LUs may be grouped together to make higher level LUs. A fundamental principle of chain traceability is that logistic units shall be identified by a unique code. This code may be globally unique in itself (for instance the GS1 SSCC code) or it could be unique in that particular scope only, which means that there should be no other LUs in that part of the chain that may have the same number. If the scope (the company, the chain, the sector, the country, the product type, or similar) is assigned a globally unique number, the combination of the globally unique scope number and the locally unique LU number shall constitute a globally unique identifier for the LU.

NOTE 2 The ULUI term is introduced to indicate a LU identifier which is, or can be made, globally unique.

The key to the operation of this traceability scheme is the labelling of each unit of goods traded, whether of raw materials or finished products, with a unique ID. This shall be done by the food business that creates each unit. Businesses that transform units, such as processors who convert the units of raw materials received into the products dispatched, shall create new units and shall give them new IDs.

As indicated above, the simplest way of implementing UTUIs and ULUIs is to use the GS1 SGTIN/EPC and SSCC codes. This practice is recommended, but is not mandatory. The central principle behind this International Standard is that businesses which create TUs or LUs should assign unique numbers to them.

Each of the food businesses that create or physically trade in those units, throughout the distribution chains from catcher through to retailer or caterer, shall generate and hold the information necessary for traceability. The information is to be held on paper or electronically, keyed to the unit IDs.

The types of businesses identified in this International Standard for farmed finfish distribution chains are as follows:

- fish feed production, see 6.3;
- breeders, see 6.4;
- hatcheries, see 6.5;
- fish farms, see 6.6;
- live fish transporters, see 6.7;
- processors, see 6.8;
- transporters and storers, see 6.9;
- traders and wholesalers, see 6.10;

— retailers and caterers, see 6.11.

Any given farmed finfish distribution chain may be made up of some or all of these components but not necessarily in the sequence listed.

6 Requirements

6.1 Identification of the units traded

Businesses that bring in supplies of fishery products from outside of the domain of the specifications and trade them onwards shall identify each unit traded and record associated information elements as indicated in Table 3 to Table 12.

6.2 Recording of information

To distinguish between the different categories of information, all information elements are classified as either “shall”, “should” or “may”; for definitions, see Table 1.

Table 1 — Classification of informative elements

	Definition	Explanation
“shall”	This category contains recordings related to identifiers and transformations that are 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.	“Shall” elements are data elements that it is deemed necessary to record to ensure that traceability is possible. 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.
“should”	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 practises 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. If certification according to this International Standard is to happen in the future, the “should” parameters are to be considered.
“may”	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, but that may still be useful or relevant to record. It also contains parameters that may be 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 this International Standard. If certification according to this International Standard is to happen in the future, the recording of “may” parameters are not to be considered when evaluating adherence. The list of “may” elements is not definitive or exclusive, it is by design extendible, and the threshold for including new elements in this category is low.

Businesses that physically trade in fishery products shall generate and hold the required information, appropriate to the type of business, for each of the units traded.

The detailed information requirements are tabulated in Table 2.

Table 2 — Information requirements to be recorded by the different businesses

Food Business Operator (FBO) type	Table	Data prefix ^a	Receive	Transform	Create/Produce	Dispatch
Fish feed producers	3	FFE	TU/LU	Yes	TU/LU	TU/LU
Breeders	4	FBR			TU/LU	TU/LU
Hatcheries	5	FHA	TU/LU	Yes	TU/LU	TU/LU
Fish farms	6	FFF	TU/LU	Yes	TU/LU	TU/LU
Live fish transporters	7	FTR	TU/LU	No	LU	TU/LU
Processors	8	FPR	TU/LU	Yes	TU/LU	TU/LU
Transporters and storers	9	FTS	TU/LU	No	LU	TU/LU
Traders and wholesalers	10	FTW	TU/LU	No	TU/LU	TU/LU
Retailers and caterers	11	FRC	TU/LU			
Bringing in materials from outside the domain	12	FOT	TU/LU			

^a For the purposes of unique identification to establish an extendable framework for data element identification, each table has been identified with a three letter alphanumeric code. This code plus three digits is used to give a unique number to each data element.

The information specifications separately tabulate the information to be recorded by each of these types of business. Some businesses may carry out the functions of more than one of the types listed, for example distribution businesses may act as wholesalers and as transporters, in which case those businesses shall record the relevant information requirements for each of the functions carried out.

NOTE 1 This International Standard is limited in scope to the distribution for human consumption of farmed finfish and their products. The captured and farmed finfish information specifications are substantially the same from processing onward.

Pragmatically, it is recognized that some supplies of fish products and supplies of ingredients, etc., will come from outside of the domain and may lack the required IDs and information records. To accommodate this, a business that brings in fish and materials from outside of the domain is required to generate and hold the key information necessary for the traceability of the units brought in, and if they are to be traded on, to label those units with the required IDs.

NOTE 2 These specifications are designed with electronic representation and communication of data in mind, but this is not a requirement when using this International Standard. The specifications can be met by paper systems, although the obvious benefits of business efficiency, including rapid communication, will be lost.

Note that the specification is for data to be generated, recorded and stored at the respective link. For all links except “Breeders”, relevant data shall be generated in a previous link in the supply chain and passed along with the trade unit/logistic unit.

NOTE 3 In these tabulations, there is no repetition of the information originally recorded to describe the units created and their history, although businesses receiving those units later in the distribution chain will often need some of that information. The information is keyed to the unit IDs and can be supplied by commercial agreement between the businesses without having to re-input the data.

Codes (country prefix) for the names of countries, dependent territories and special areas of geographical interest shall be given in accordance with ISO 3166-1.

Date and time should be given in the formats specified in ISO 8601.

6.3 Fish feed production

For the purposes of this International Standard, *fish feed producers* are considered to be businesses that produce fish feed based on an indefinite range of ingredients. They may be considered as an equivalent to the *processors* but will be presented as a separate link in this International Standard. Fish feed producers create new trade units that can range from one feed bag to bulk units of several hundreds of tons passed into the hands of the next food business.

Table 3 — Detailed information for fish feed production

Data element		Description	Examples	Categorization		
				Shall	Should	May
FISH FEED						
FFE101	Food business ID	Country prefix plus unique national identification number for the organization, as well as the name and address of the food business that operates the feed company	NO - 123467890 Uni Fishfeed 1234 Narvik Norway		x	
FFE102	Feed producer establishment ID	Country prefix plus unique national identification number for the organization, as well as the name and address or GLN of the feed plant establishment	NO - 123467890 Uni Fishfeed dep. 02 1234 Narvik Norway NO02F1234B		x	
FFE103	Feed producer GMP certification	Names of certification schemes	SGS			x
FFE150-	(unassigned)	Further information elements that describe the organization, linked to feed producer establishment ID				x
FOR EACH UNIT RECEIVED						
Identities						
FFE201	Unit ID	ULUI (if received as a logistic unit) or UTUI (if received as a separate trade unit)	(00) 100653005555555558 978817525.0766.000010272	x		
FFE202	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		
Source						
FFE203	Previous Food Business ID	Country prefix plus unique national identification number for the organization, as well as the name and address or GLN of food business that operates fish meal/oil etc., producer establishment	NO - 123467890 Fishmeal A/S, Florø NO SF 123 Norway		x	
FFE204	Date and time of reception	ISO 8601 format	2010-06-20T14:15		x	

Table 3 (continued)

Data element	Description	Examples	Categorization			
			Shall	Should	May	
Control checks (either on logistic or separate trade units)						
FFE205	Quality control checks	Type of checks and measured results (organoleptic, physical, chemical and microbiological, etc.) or indication if records are available in electronic form, on paper or are not available	Yes, electronic form			x
Production history						
FFE206	Temperature record	Temperature/time log of the product holding area for the period between reception and processing	Series of temperature (°C)/date and time points in ISO 8601 format		x	
Transformation information						
FFE207	Related created trade unit IDs	List of IDs of created trade units that may incorporate part of this received trade unit	978817525.0766.000010123 978817525.0766.000010131 978817525.0766.000010272	x		
FFE208	Fractions	Fraction (% , kilos) of the received trade unit that goes into each created unit	UTUI-1 33 %, 7 250 kg UTUI-2 33 %, 7 250 kg UTUI-3 33 %, 7 250 kg		x	
Additional data						
FFE250-	(unassigned)	Further information elements that describe the received trade/logistic unit, linked to UTUI/ULUI				x
FOR EACH NEW TRADE UNIT CREATED						
Identity						
FFE301	Unit ID	UTUI	978817525.0766.000010123	x		
Description						
FFE302	Net weight	Net weight of created trade unit (kg)	10 kg		x	
FFE303	Type of unit	Bags, bulk, etc.	Bulk			x
FFE304	Name/type of product	Smolt feed (commercial name)	Dynamic blue			x
FFE305	Production date	Time of packing/labelling at end of line, ISO 8601 format	2010-06-15		x	
FFE306	Product form	Meal, pellets, pellets size, etc.	Pellets, 2,5 – 7,0 mm		x	
FFE307	Composition	List of ingredient names and % by weight	Fat 37 % Protein 55 %		x	
FFE308	GMO	Any use of GMO or products from GMO in product or raw material; Yes or No	No		x	

Table 3 (continued)

Data element		Description	Examples	Categorization		
				Shall	Should	May
FFE309	Date of durability	Best before or sell by date, as appropriate, ISO 8601 format	Best before 2010-06-30		x	
FFE310	Product specification	Records of further details of product specification are available in electronic form, on paper or are not available	Paper			x
FFE311	Marine species that went into fish meal	SCI - followed by scientific name, or FAO - followed by FAO 3alpha code, or TSN - followed by Taxonomic Serial Number (may be repeated if several species)	SCI - <i>Mallotus villosus</i> FAO - CAP TSN - 162035		x	
FFE312	Area/country of origin	FAO area/RFMO area for captured marine fish, or country of origin for captured fish from inland waters and for farmed fish, or more specific location (may be several areas)	Spain		x	
Production history						
FFE313	Process specification	Records of process specification are available in electronic form, on paper or are not available	Paper			x
FFE314	Production lines IDs	The business's own IDs of the particular production lines used	A3, B4			x
FFE315	HACCP	Records of HACCP analysis and critical control point checks are available in electronic form, on paper or are not available	Paper			x
FFE316	Hygiene checks	Type of checks and measured results (swab tests, etc.) or indication if records are available in electronic form, on paper or are not available	Paper			x
FFE317	Temperature records	Temperature/time record or indication if records are available in electronic form, on paper or are not available	Electronic			x
FFE318	Product quality control checks	Type of checks and measured results (organoleptic, physical, chemical and microbiological, etc.) or indication if records are available in electronic form, on paper or are not available	Total bacterial count, 106/g			x

Table 3 (continued)

Data element		Description	Examples	Categorization		
				Shall	Should	May
Transformation information						
FFE319	Related received trade unit IDs	List of IDs of received trade units that make up this created trade unit	978817525.0766.000010123 978817525.0766.000010131 978817525.0766.000010272	x		
FFE320	Fractions	Fraction (% , kilos) of the created unit that was made up by each received trade unit	UTUI-1 Fraction (25 % 50 kg) UTUI-2 Fraction (25 % 50 kg) UTUI-3 Fraction (25 % 50 kg) UTUI-4 Fraction (25 % 50 kg)		x	
Additional data						
FFE350-	(unassigned)	Further information elements that describe the created trade unit, linked to UTUI				x
FOR EACH LOGISTIC UNIT CREATED						
Identities						
FFE401	Unit ID	UTUI	(00) 235467985462312345	x		
FFE402	Trade unit IDs	The IDs of the trade units within the logistic unit	978817525.0766.000010123 978817525.0766.000010131 978817525.0766.000010272	x		
Additional data						
FFE450-	(unassigned)	Further information elements that describe the created logistic unit, linked to ULUI				x
FOR EACH UNIT DISPATCHED (either as a logistic unit or a separate trade unit)						
Identity						
FFE501	Unit ID	ULUI (if dispatched as a logistic unit) or UTUI (if dispatched as a separate trade unit)	(00) 100653005555555558 978817525.0766.000010272	x		
Production history						
FFE502	Temperature record	Temperature/time log of the product holding area for the period between processing and dispatch	Series of temperature (°C)/date and time points in ISO 8601 format		x	
Destination						
FFE503	Next Food Business ID	Country prefix plus unique national identification number for the organization, as well as the name and address of the food business to whom the unit is dispatched (transporter hatchery or fish farm, etc.)	NO - 123467890 Hill Fishfarm 1234 Hitra Norway		x	
FFE504	Date and time of dispatch	Date and time of transfer to next food business, ISO 8601 format	2010-06-20T14:15		x	

Table 3 (continued)

Data element	Description	Examples	Categorization		
			Shall	Should	May
Additional data					
FFE550-	(unassigned)	Further information elements that describe the dispatched trade/logistic unit, linked to UTUI/ULUI			x

6.4 Breeders

For the purposes of this International Standard, *breeders* are considered to be establishments that produce fish roe/eggs from broodstocks, often based on selection for special characteristics. They may carry out basic operations on the roe/eggs and broodstock such as temperature and light manipulation, and chemical treatments.

Prior to dispatch breeders may carry out their own operations, including quality grading and packing.

The trade units created by breeders can range from a few thousand to several millions of eggs passed into the hands of the next food business.

Table 4 — Detailed information requirements for breeders

Data element	Description	Examples	Categorization		
			Shall	Should	May
BREEDERS					
FBR101	Food business ID	Country prefix plus unique national identification number for the organization, as well as the name and address of the food business that operates the breeding establishment		x	
FBR102	Breeding establishment ID	Country prefix plus unique national identification number for the organization, as well as the name and address of the breeding establishment		x	
FBR103	Breeder GMP certification	Names of fish quality or food safety GMP schemes by which breeder is certified			x
FBR150-	(unassigned)	Further information elements that describe the breeder, linked to breeder establishment ID			x

Table 4 (continued)

Data element		Description	Examples	Categorization		
				Shall	Should	May
FOR EACH TRADE UNIT CREATED						
Identity						
FBR201	Unit ID	UTUI	978817525.0766.000010123	x		
Description						
FBR202	Species	SCI - followed by scientific name, or FAO - followed by FAO 3alpha code, or TSN - followed by Taxonomic Serial Number (may be repeated if several species)	SCI - <i>Salmo salar</i> FAO - SAS TSN - 161996		x	
FBR203	Day degrees	Sum of average temperature per day in degrees Celsius (°C)	490		x	
FBR204	Viability	Percentage of eggs, from original batch, that survives until dispatched	98 %			x
FBR205	Spawning date	Date of fertilization, ISO 8601 format	2010-09-25		x	
FBR206	Genetic characteristics	Description of batch. All females, mixed sex, triploids, etc.	Triploids			x
FBR207	Genetic ID	Stock name and year class	MOWI 2000			x
FBR208	GMO	Use of GMO in production or in feeding of broodstock Yes/No	No			x
Production history						
FBR209	Farm unit ID	Internal number of rearing unit (tank)	15		x	
FBR210	Temperature record	Temperature/time log of the product holding area for the period between reception and dispatch	(°C)/date and time points in ISO 8601 format		x	
FBR211	Salinity record	‰	0 ‰			x
FBR212	Water flow record	Average use – litres/minute	10 l/min			x
FBR213	Disease record	Records of names and period of diseases or indication if records are available in electronic form, on paper or are not available	Fungus infection 2009-03-02/2010-04-02		x	
FBR214	Weight of parental fish	Weight of parental fish of created trade unit (kg)	16, 15, 18, 14, 16 (kg)			x
FBR215	Age of parental fish	Age of parental fish of created trade unit (years and months)	3,12 – 3,05 – 3,05 – 3,05 (years)			x
FBR216	Treatment record	Product name and batch number of medicine or vaccine and period of use	Pyceze, B321123, 2010-10-01/2010-10-01			x
FBR217	Feeding record	Product name and batch number of fish feed and (calculated) amount of feed that went into this trade unit (kg)	SupraFeed, B543345, 50 kg			x

Table 4 (continued)

Data element	Description	Examples	Categorization		
			Shall	Should	May
Additional data					
FBR250-	(unassigned)	Further information elements that describe the created trade unit, linked to UTUI			x
FOR EACH LOGISTIC UNIT CREATED					
Identities					
FBR301	Unit ID	ULUI	(00) 100653005555555558	x	
FBR302	Trade unit IDs	The IDs of the trade units within the logistic unit	978817525.0766.000010123 978817525.0766.000010131 978817525.0766.000010272	x	
Additional data					
FBR350-	(unassigned)	Further information elements that describe the created logistic unit, linked to ULUI			x
FOR EACH UNIT DISPATCHED (either as a logistic unit or a separate trade unit)					
Identity					
FBR401	Unit ID	ULUI (if dispatched as a logistic unit) or UTUI (if dispatched as a separate trade unit)	(00) 100653005555555558 978817525.0766.000010272	x	
Destination					
FBR402	Next Food Business ID	Country prefix plus unique national identification number for the organization, as well as the name and address of the food business to whom the unit is dispatched (transporter or hatchery, etc.)	NO - 123467890 Fjord Harvest South Smolt 3456 Bergen Norway		x
FBR403	Date and time of dispatch	Date and time of transfer to next food business, ISO 8601 format	2010-09-25T12:15		x
Additional data					
FBR450-	(unassigned)	Further information elements that describe the dispatched trade/logistic unit, linked to UTUI/ULUI			x

6.5 Hatcheries

For the purposes of this International Standard, *hatcheries* are considered to be businesses that receive roe/eggs and keep it/them during the hatching stage and start of the feeding stage, and dispatch fish to the fish farms.

The hatcheries may change the nature of fishery products, by carrying out operations such as feeding, grading, treatments, etc.

Hatcheries create new trade units that can range from a few thousand to several hundred thousand fishes passed into the hands of the next food business.

Table 5 — Detailed information requirements for hatcheries

Data element		Description	Examples	Categorization		
				Shall	Should	May
HATCHERY						
FHA101	Food business ID	Country prefix plus unique national identification number for the organization, as well as the name and address of the food business that operates hatchery establishment	NO - 123467890 Fjord Harvest Ltd. 1234 Trondheim Norway		x	
FHA102	Hatchery establishment ID	Country prefix plus unique national identification number for the organization, as well as the name and address or GLN of hatchery establishment	NO - 123467890 Fjord Harvest South Smolt, 3456 Bergen Norway NTFS0002 NO		x	
FHA103	Hatchery GMP certification	Names of fish quality or food safety GMP schemes by which hatchery is certified	Debio			x
FHA150-	(unassigned)	Further information elements that describe the organization, linked to hatchery establishment ID				x
FOR EACH UNIT RECEIVED						
Identities						
FHA201	Unit ID	ULUI (if received as a logistic unit) or UTUI (if received as a separate trade unit)	(00) 100653005555555558 978817525.0766.000010272	x		
FHA202	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		
Source						
HA203	Previous Food Business ID	Country prefix plus unique national identification number for the organization, as well as the name and address of the food business that operates breeding company or transporter	NO - 123467890 Salmogen Breeding station 1 1234 Trondheim Norway		x	
FHA204	Date and time of reception	ISO 8601 format	2010-09-25T06:20		x	
Control checks (either on logistic or separate trade units)						
FHA205	Temperature check	Temperature (°C), i.e. in received unit	4,0 °C		x	
FHA206	Temperature record	If recording device is affixed to batch, temperature/time record product holding area	(°C)/date and time points in ISO 8601 format			x
FHA207	Quality control checks	Type of checks and measured results, or indication if records are available in electronic form, on paper or are not available	Paper			x

Table 5 (continued)

Data element		Description	Examples	Categorization		
				Shall	Should	May
Transformation information						
FHA208	Related created trade unit IDs	List of IDs of created trade units that may incorporate part of this received trade unit	978817525.0766.000010123 978817525.0766.000010131 978817525.0766.000010272	x		
FHA209	Fractions	Fraction (percentages, kilos) of the received trade unit that go into each created unit	UTUI-1 Fraction (33 %, 150 kg) UTUI-2 (Fraction (33 %, 150 kg) UTUI-3 Fraction (33 %, 150 kg)		x	
Additional data						
FHA250-	(unassigned)	Further information elements that describe the received trade/logistic unit, linked to UTUI/ULUI				x
FOR EACH NEW TRADE UNIT CREATED						
Identity						
FHA301	Unit ID	ULUI (if dispatched as a logistic unit) or UTUI (if dispatched as a separate trade unit)	(00) 100653005555555558 978817525.0766.000010272	x		
Description						
FHA302	Average weight/size	Average weight/size of created unit	75 g, 2.5 cm		x	
FHA303	Day degrees	Sum of average temperature per day in degrees Celsius (°C)	2984			x
FHA304	Hatching date	Date of hatching, ISO 8601 format	2010-11-01			x
FHA305	Smoltification status	Figures for Plasma CI or ATPase. Mean and standard deviation, previous to dispatch (salmon)	144 ± 6			x
FHA306	Malformation	Records of malformation types and percentage of total in original batch, or indication if records are available in electronic form, on paper or are not available	Not available			x
Production history						
FHA307	Farm unit ID	Internal number of rearing unit (tank)	15		x	
FHA308	Disease record	Records of names and period of diseases, or indication if records are available in electronic form, on paper or are not available	Paper		x	
FHA309	Starving period	Number of days with no feeding prior to transport	3 days		x	
FHA310	Temperature record	Temperature/time log of the product holding area for the period between reception and dispatch	(°C)/date and time points in ISO 8601 format		x	

Table 5 (continued)

Data element		Description	Examples	Categorization		
				Shall	Should	May
FHA311	Oxygen record	Records of oxygen saturation in fish rearing tank, or indication if records are available in electronic form, on paper or are not available	List of O ₂ data		x	
FHA312	Fish density record	Records of fish density in fish rearing tank, or indication if records are available in electronic form, on paper or are not available	Electronic			x
FHA313	Treatment record	Medicine, vaccine or chemical names and period of use, or indication if records are available in electronic form, on paper or are not available	Pyceze, 2010-10-01 – 2010-10-01			x
FHA314	Feeding record	Product name and batch number of fish feed and (calculated) amount of feed that went into this trade unit (kg)	SupraFeed, B543345, 50 kg			x
FHA315	Aquaculture certification scheme	Name of scheme by which hatchery is certified	ACC, GlobalGAP, Friend of the Sea, etc.			x
FHA316	Certification scheme identifier	Identifier within the scheme that refers to this trade unit (chain of custody identifier for this trade unit)	1122334455			x
Transformation information						
FHA317	Related received trade unit IDs	List of IDs of received trade units that make up this created trade unit	978817525.0766.000010123 978817525.0766.000010131 978817525.0766.000010272	x		
FHA318	Fractions	Fraction (percentages, kilos) of the created unit that was made up by each received trade unit	UTUI-1 Fraction (50 % 5 000 kg) UTUI-2 Fraction (50 % 5 000 kg)		x	
Additional data						
FHA350-	(unassigned)	Further information elements that describe the created trade unit, linked to UTUI				x
FOR EACH LOGISTIC UNIT CREATED						
Identities						
FHA401	Unit ID	ULUI	(00) 10065300555555558	x		
FHA402	Trade unit IDs	The IDs of the trade units within the logistic unit	978817525.0766.000010123 978817525.0766.000010131 978817525.0766.000010272	x		

Table 5 (continued)

Data element	Description	Examples	Categorization		
			Shall	Should	May
Additional data					
FHA450-	(unassigned)	Further information elements that describe the created logistic unit, linked to ULUI			x
FOR EACH UNIT DISPATCHED					
Identity					
FHA501	Unit ID	UTUI	978817525.0766.000010123	x	
Destination					
FHA502	Next Food Business ID	Country prefix plus unique national identification number for the organization, as well as the name and address of the food business to where the unit is dispatched (transporter or fish farm, etc.)	NO - 123467890 Cargonor 7890 Florø Norway SF 123		x
FHA503	Date and time of dispatch	Date and time of transfer to next food business, ISO 8601 format	2010-09-25T10:30		x
Additional data					
FHA550-	(unassigned)	Further information elements that describe the dispatched trade/logistic unit, linked to UTUI/ULUI			x

6.6 Fish farms

For the purposes of this International Standard, *fish farms* are considered to be businesses that receive fish and keep them during the on-growing stage and dispatch fish to the slaughtering/processing link.

The fish farms may change the nature of fishery products, by carrying out operations such as feeding, grading, treatments, etc.

Fish farms create new trade units that can range from a few thousand to several hundred thousand fishes passed into the hands of the next food business.

Table 6 — Detailed information requirements for fish farms

Data element	Description	Examples	Categorization			
			Shall	Should	May	
FISH FARMS						
FFF101	Food business ID	Country prefix plus unique national identification number for the organization, as well as the name and address of the food business that operates fish farm establishment	NO - 123467890 Fjord Harvest Ltd 67345 Bergen Norway		x	
FFF102	Fish farm establishment ID	Country prefix plus unique national identification number for the organization, as well as the name and address or GLN of fish farm establishment	NO - 123467890 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	Debio			x
FFF150-	(unassigned)	Further information elements that describe the organization, linked to fish farm establishment ID				x
FOR EACH UNIT RECEIVED						
Identities						
FFF201	Unit ID	ULUI (if received as a logistic unit) or UTUI (if received as a separate trade unit)	(00) 100653005555555558 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		
Source						
FFF203	Previous Food Business ID	Country prefix plus unique national identification number for the organization, as well as the name and address or GLN of previous food business from whom the unit was received (hatchery or transporter, etc.)	NO - 123467890 Salmogen Breeding station 1 1234 Trondheim Norway		x	
FFF204	Date and time of reception	ISO 8601 format	2010-09-28T12:00		x	
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	Degrees Celsius/date and time points in ISO 8601 format			x
FFF207	Quality control checks	Type of checks and measured results, or indication if records are available in electronic form, on paper or are not available	Paper			x

Table 6 (continued)

Data element	Description	Examples	Categorization		
			Shall	Should	May
Transformation information					
FFF208	Related created trade unit IDs	List of IDs 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 (percentages, kilos) of the received trade unit that go into each created unit UTUI-1 Fraction (50 %, 1 000 kg) UTUI-2 Fraction (50 %, 1 000 kg)		x	
Additional data					
FFF250-	(unassigned)	Further information elements that describe the received trade/logistic unit, linked to UTUI/ULUI			x
FOR EACH NEW TRADE UNIT CREATED BY FISH FARM					
Identity					
FFF301	Unit ID	UTUI	978817525.0766.000010123	x	
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 kg - 2 kg 200 kg 2 kg - 3 kg 500 kg 3 kg - 4 kg 250 kg		x	
FFF304	Condition factor	Mathematic formula: $100 \times [\text{weight (g)}/\text{length}^3 \text{ (cm)}]$	1,2		x
FFF305	Fat content	Measure of fat content in flesh	14 %		x
FFF306	Colour	Estimate or count of pigmentation of flesh according to the Roche scale	16		x
FFF307	Texture	Flesh texture (measured in newtons)			x
FFF308	Net weight	Net weight of created unit (kg)	7 000 kg		x
FFF309	Average weight/size	Average weight/size of fish in created trade unit	4,5 kg, 40 cm		x
FFF310	Total weight per quality grade		1 000 kg Superior 30 kg Ordinary 5 kg Production		x
Production history					
FFF311	Farm unit ID	Internal number of rearing unit (cage)	15		x
FFF312	Starving period	Number of days with no feeding before transport	10 days		x

Table 6 (continued)

Data element		Description	Examples	Categorization		
				Shall	Should	May
FFF313	Temperature record	Temperature/time log of the product holding area (cage) for the period between reception and dispatch	(°C)/date and time points in ISO 8601 format		x	
FFF314	Fish density record	Fish density in created trade unit (kg/m ³)	24 kg/m ³			x
FFF315	Disease record	Records of names and period of diseases, or indication if records are available in electronic form, on paper or are not available	Paper		x	
FFF316	Treatment record	Medicine, vaccine or chemical names and period of use, or indication if records are available in electronic form, on paper or not available	Slice, 2010-10-01 – 2010-10-01			x
FFF317	Feeding record	Product name and batch number of fish feed and (calculated) amount of feed that went into this trade unit (kg)	SupraFeed, B543345, 50 kg			x
FFF318	Aquaculture certification scheme	Name of scheme by which fish farm is certified	ACC, GlobalGAP, Friend of the Sea, etc.			x
FFF319	Certification scheme identifier	Identifier within the scheme that refers to this trade unit (chain of custody identifier for this trade unit)	1122334455			x
Transformation information						
FFF320	Related received trade unit IDs	List of IDs of received trade units that make up this created trade unit	978817525.0766.000010123 978817525.0766.000010131 978817525.0766.000010272	x		
FFF321	Fractions	Fraction (percentages, kilos) of the created unit that was made up by each received trade unit	UTUI-1 Fraction (50 % 5 000 kg) UTUI-2 Fraction (50 % 5 000 kg)		x	
Additional data						
FFF350-	(unassigned)	Further information elements that describe the created trade unit, linked to UTUI				x
FOR EACH LOGISTIC UNIT CREATED						
Identities						
FFF401	Unit ID	UTUI	(00) 235467985462312345	x		
FFF402	Trade unit IDs	The IDs of the trade units within the logistic unit	978817525.0766.000010123 978817525.0766.000010131 978817525.0766.000010272	x		

Table 6 (continued)

Data element	Description	Examples	Categorization		
			Shall	Should	May
Additional data					
FFF450-	(unassigned)	Further information elements that describe the created logistic unit, linked to ULUI			x
FOR EACH UNIT DISPATCHED (either as a logistic unit or a separate trade unit)					
Identity					
FFF501	Unit ID	ULUI (if dispatched as a logistic unit) or UTUI (if dispatched as a separate trade unit)	(00) 10065300555555558 978817525.0766.000010272	x	
Destination					
FFF502	Next Food Business ID	Country prefix plus unique national identification number for the organization, as well as the name and address of the food business to whom the unit is dispatched (transporter or processor, etc.)	NO - 123467890 Cargonor 7890 Florø Norway SF 123		x
FFF503	Date and time of dispatch	Date and time of transfer to next food business, ISO 8601 format	2010-09-25T10:30		x
Additional data					
FFF550-	(unassigned)	Further information elements that describe the dispatched trade/logistic unit, linked to UTUI/ULUI			x

6.7 Live fish transporters

For the purposes of this International Standard, *live fish transporters* are considered to be businesses that provide the service of transporting live fish. They may operate at three stages in the distribution chain; transport between hatcheries and fish farms, between fish farms and processors, and between processors to retailer/food service establishments. Transport may be by land, sea or air.

Transporters of live fish do not break down or create trade units but may break down or create logistic units.

Table 7 — Detailed information requirements for live fish transporters

Data element	Description	Examples	Categorization		
			Shall	Should	May
LIVE FISH TRANSPORTER					
FTR101	Food business ID	Country prefix plus unique national identification number for the organization, as well as the the name and address of the food business that operates transport vehicle or vessel establishment		x	
FTR102	Transport vehicle or vessel establishment ID	Name (if a vessel) and registration number of vehicle or vessel, or country prefix plus unique national identification number for the organization, as well as the name and address of establishment, or GLN number		x	
FTR103	Transporter GMP certification	Names of fish quality or food safety GMP schemes by which transporter is certified			x
FTR150-	(unassigned)	Further information elements that describe the organization, linked to transport vehicle ID or vessel establishment ID			x
FOR EACH UNIT RECEIVED					
Identities					
FTR201	Unit ID	ULUI (if received as a logistic unit) or UTUI (if received as a separate trade unit)		x	
FTR202	Trade unit IDs	If received as a logistic unit, the IDs of the trade units within the logistic unit		x	
Source					
FTR203	Previous Food Business ID	Country prefix plus unique national identification number for the organization, as well as the name and address of the food business that operates hatchery or fish farm establishment			x
FTR204	Date and time of reception	ISO 8601 format		x	
Control checks (either on logistic or separate trade units)					
FTR205	Temperature check	Temperature in unit when received		x	
FTR206	Temperature record	If recording device is affixed to batch, temperature/time record from creation of unit onward			x

Table 7 (continued)

Data element	Description	Examples	Categorization		
			Shall	Should	May
Additional data					
FTR250	(unassigned)	Further information elements that describe the received trade/logistic unit, linked to UTUI/ULUI			x
FOR EACH NEW LOGISTIC UNIT CREATED BY TRANSPORTER					
Identities					
FTR301	Unit ID	ULUI	(00) 100653005555555558	x	
FTR302	Trade unit IDs	The IDs of the trade units within the logistic unit	978817525.0766.000010123 978817525.0766.000010131 978817525.0766.000010272	x	
Additional data					
FTR350-	(unassigned)	Further information elements that describe the created logistic unit, linked to ULUI			x
FOR EACH UNIT DISPATCHED (either as a logistic unit or a separate trade unit)					
Identity					
FTR401	Unit ID	ULUI (if dispatched as a logistic unit) or UTUI (if dispatched as a separate trade unit)	(00) 100653005555555558 978817525.0766.000010272	x	
Production history					
FTR402	Temperature control method	None, iced, iced and refrigerated or refrigerated	Iced and refrigerated		x
FTR403	Temperature record	Temperature/time log of the product holding area for the period between reception and dispatch	Series of temperature (°C)/date and time points in ISO 8601 format		x
FTR404	Disinfecting date	Date of last disinfecting and data of the boat/truck, or indication if records are available in electronic form, on paper or are not available, ISO 8601 format	2010-01-20		x
FTR405	Water parameter record	Water parameter record (names and values) in fish carrier tank water during transport, or indication if records are available in electronic form, on paper or are not available	List of parameter data		x
FTR406	Loading/unloading technology	Type of technology for moving the fish from the fish farm into the live fish carrier and from the live fish carrier and into the harvesting unit	Vacuums pump, gravity		x

Table 7 (continued)

Data element		Description	Examples	Categorization		
				Shall	Should	May
FTR407	Fish density	Fish density in transport tank, kg fish per cubic metre of water	54 kg/m ³			x
Destination						
FTR408	Chemical treatment record	Product name and batch number of chemical used, period of use, and dosage	Calmfish, B66554433, 2010-10-01/2010-10-01, 600 kg			x
FTR409	Next Food Business ID	Country prefix plus unique national identification number for the organization, as well as the name and address of the food business to whom the unit is dispatched (transporter or fish farm, etc.)	NO - 123467890 Cargonor Ltd. 12234 Trondheim Norway		x	
FTR410	Place of delivery	If not at receiver's address	NO - 123467890 Fjord Harvest Ocean site 2, 67345 Bergen Norway NTFS0003 NO		x	
FTR411	Date and time of dispatch	ISO 8601 format	2010-09-25T20:00		x	
Additional data						
FTR450-	(unassigned)	Further information elements that describe the dispatched trade/logistic unit, linked to UTUI/ULUI				x

6.8 Processors

For the purposes of this International Standard, *processors* are considered to be businesses that distribute or change the nature of fishery products, by carrying out operations such as cutting or by treatments such as salting or cooking. This includes both primary and secondary processors.

Processors create new trade units. Those units may incorporate ingredients other than fishery products.

Table 8 — Detailed information requirements for processors

Data element	Description	Examples	Categorization		
			Shall	Should	May
PROCESSORS					
FPR101	Food business ID	Country prefix plus unique national identification number for the organization, as well as the name and address of the food business that operates processing establishment NO - 123467890 Fjord Harvest Ltd. 6534 Bergen Norway		x	
FPR102	Processor establishment ID	Country prefix plus unique national identification number for the organization, as well as the name and address or GLN of processing plant NO - 123467890 Fjord Harvest Processing plant 1, 9876 Brønnøysund Norway NO F 39		x	
FPR103	Processor GMP certification	Names of fish quality or food safety GMP schemes by which processor is certified DnV			x
FPR150-	(unassigned)	Further information elements that describe the organization, linked to processing establishment ID			x
FOR EACH UNIT RECEIVED					
Identities					
FPR201	Unit ID	ULUI (if received as a logistic unit) or UTUI (if received as a separate trade unit) (00) 10065300555555558 978817525.0766.000010272	x		
FPR202	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		
Source					
FPR203	Previous Food Business ID	Name (if applicable) and registration number of vehicle or country prefix plus unique national identification number for the organization, as well as the name and address, or GLN NVF 24578		x	
FPR204	Date and time of reception	ISO 8601 format 2010-09-25T06:20		x	
Control checks (either on logistic or separate trade units)					
FPR205	Temperature check	Temperature (°C), i.e. in received unit 4,0 °C		x	
FPR206	Temperature record	If recording device is affixed to batch, temperature/time record from creation of unit onward Series of temperature (°C)/date and time points in ISO 8601 format		x	

Table 8 (continued)

Data element		Description	Examples	Categorization		
				Shall	Should	May
FPR207	Quality control checks	Type of checks and measured results (organoleptic, physical, chemical and microbiological, etc.) or indication if records are available in electronic form, on paper or are not available	Total bacterial count, 106/g			x
Production history (for the period between reception and processing)						
FPR208	Temperature control method	None, iced, iced and refrigerated or refrigerated	Iced and refrigerated		x	
FPR209	Temperature record	Temperature/time log of the product holding area for the period between reception and processing	Series of temperature (°C)/date and time points in ISO 8601 format		x	
Transformation information (for each trade unit)						
FPR210	Related created trade unit IDs	List of IDs of created trade units that may incorporate part of this received trade unit	978817525.0766.000010123 978817525.0766.000010131 978817525.0766.000010272	x		
FPR211	Fractions	Fraction (percentages, kilos) of the received trade unit that goes into each created unit	UTUI-1 Fraction (33 %, 7 250 kg) UTUI-2 Fraction (33 %, 7 250 kg) UTUI-3 Fraction (33 %, 7 250 kg)			x
Additional data						
FPR250-	(unassigned)	Further information elements that describe the received trade/logistic unit, linked to UTUI/ULUI				x
FOR EACH NEW TRADE UNIT CREATED BY PROCESSOR						
Identity						
FPR301	Unit ID	UTUI	978817525.0766.000010123	x		
Description						
FPR302	Type of unit	Box or case of 10 retail packs, etc.	Box		x	
FPR303	Net weight	Net weight of created trade unit (kg)	10 kg		x	
FPR304	Name/type of product	Generic product type, often including species	Turbot fillets Smoked whole trout Salmon steak		x	
FPR305	Product customs code	HS code for product type	0305410000			x
FPR306	Product specification	Records of further details of product specification (quality and size grades, etc.) are available in electronic form, on paper or are not available	Paper			x

Table 8 (continued)

Data element		Description	Examples	Categorization		
				Shall	Should	May
FPR307	Species	SCI - followed by scientific name, or FAO - followed by FAO 3alpha code, or TSN - followed by Taxonomic Serial Number (may be repeated if several species)	SCI - <i>Salmo salar</i> FAO - SAS TSN - 161996		x	
FPR308	Primary production method	Captured or farmed (may be both)	Farmed		x	
FPR309	Area/country of origin	FAO area/RFMO area for captured marine fish, or country of origin for captured fish from inland waters and for farmed fish, or more specific location (may be several areas)	Spain		x	
FPR310	Composition	List of names and percentages by weight, including fish	<i>Salmo salar</i> 100 %		x	
FPR311	Product condition	Ambient, chilled or frozen	Chilled		x	
FPR312	Date of durability	Best before or sell by date, as appropriate, ISO 8601 format	Best before 2010-10-25		x	
Further description for farmed primary products						
FPR313	Product form	Round fish, head off, etc.	Head off		x	
FPR314	Quality grade	Superior, ordinary, production, etc.	Superior			x
FPR315	Size grade	1-2, 2-3, 3-4, 4-5, etc. (kg)	2 kg - 3 kg			x
FPR316	Killing method	Stunning, CO ₂	CO ₂			x
FPR317	GMO	Any use of GMO or products from GMO in product or raw material, Yes or No	No			x
Production history						
FPR318	Process specification	Records of process specification are available in electronic form, on paper or are not available	Paper			x
FPR319	IDs of production lines	The business's own IDs of the particular production lines used	A3, B4			x
FPR320	Date and time of production	Time of packing/labelling at the end of line, ISO 8601 format	2010-10-01T12:30		x	
FPR321	HACCP	Records of HACCP analysis and critical control point checks are available in electronic form, on paper or are not available	Paper			x

Table 8 (continued)

Data element		Description	Examples	Categorization		
				Shall	Should	May
FPR322	Hygiene checks	Type of checks and measured results (swab tests, etc.) or indication if records are available in electronic form, on paper or are not available	Paper			x
FPR323	Temperature record	Temperature/time record or indication if records are available in electronic form, on paper or are not available	Electronic			x
FPR324	Product quality control checks	Type of checks and measured results (organoleptic, physical, chemical and microbiological, etc.) or indication if records are available in electronic form, on paper or are not available	Listeria 0			x
Transformation information						
FPR325	Related received trade unit IDs	List of IDs of received trade units that make up this created trade unit	978817525.0766.000010123 978817525.0766.000010131 978817525.0766.000010272	x		
FPR326	Fractions	Fraction (percentages and kilos) of the created unit that was made up by each received trade unit	UTUI-1 Fraction (25 % 50 kg) UTUI-2 Fraction (25 % 50 kg) UTUI-3 Fraction (25 % 50 kg) UTUI-4 Fraction (25 % 50 kg)		x	
Additional data						
FPR350-	(unassigned)	Further information elements that describe the created trade unit, linked to UTUI				x
FOR EACH LOGISTIC UNIT CREATED						
Identities						
FPR401	Unit ID	ULUI	(00) 235467985462312345	x		
FPR402	Trade unit IDs	The IDs of the trade units within the logistic unit	978817525.0766.000010123 978817525.0766.000010131 978817525.0766.000010272	x		
Additional data						
FPR450-	(unassigned)	Further information elements that describe the created logistic unit, linked to ULUI				x
FOR EACH UNIT DISPATCHED (either as a logistic unit or a separate trade unit)						
Identity						
FPR501	Unit ID	ULUI (if dispatched as a logistic unit) or UTUI (if dispatched as a separate trade unit)	(00) 10065300555555558 978817525.0766.000010272	x		

Table 8 (continued)

Data element	Description	Examples	Categorization		
			Shall	Should	May
Production history (related to the logistic or separate trade units, as appropriate)					
FPR502	Temperature control method	None, iced, iced and refrigerated or refrigerated		x	
FPR503	Temperature record	Temperature/time log of the product holding area for the period between reception and dispatch		x	
Destination					
FPR504	Next Food Business ID	Country prefix plus unique national identification number for the organization, as well as the name and address of the food business to whom the unit is dispatched (transporter or storers, etc.)		x	
FPR505	Date and time of dispatch	Date and time of transfer to next food business, ISO 8601 format		x	
Additional data					
FPR550-	(unassigned)	Further information elements that describe the dispatched trade/logistic unit, linked to UTUI/ULUI			x

6.9 Transporters and storers

For the purposes of this International Standard, *transporters and storers* are considered to be businesses that provide the service of transporting or storing goods. They may operate at various stages in distribution chains, transporting or storing raw materials or products. Transport may be by land, sea or air.

Transporters and storers do not break down or create trade units, but may break down or create logistic units.

Table 9 — Detailed information requirements for transporters and storers

Data element	Description	Examples	Categorization		
			Shall	Should	May
TRANSPORTERS OR STORERS					
FTS101	Food business ID	Country prefix plus unique national identification number for the organization, as well as the name and address of the food business that operates transport vehicle or storage establishment		x	
FTS102	Transport vehicle or storage establishment ID	Country prefix plus unique national identification number for the organization, as well as the name and address or GLN of establishment		x	
FTS103	Transporter or storer GMP certification	Names of fish quality or food safety GMP schemes by which transporter or storer is certified			x
FTS150-	(unassigned)	Further information elements that describe the organization, linked to transport vehicle ID or storage establishment ID			x
FOR EACH UNIT RECEIVED					
Identities					
FTS201	Unit ID	ULUI (if received as a logistic unit) or UTUI (if received as a separate trade unit)	(00) 10065300555555558 978817525.0766.000010272	x	
FTS202	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	
Source					
FTS203	Previous Food Business ID	Country prefix plus unique national identification number for the organization, as well as the name and address or GLN of previous food business	NO - 123467890 Fjord Harvest Processing plant 1, 9876 Brønnøysund Norway		x
FTS204	Date and time of reception	ISO 8601 format	2010-06-20T14:12		x
FTS205	Place of collection	Name and address or GLN (required only for transporters)	Grimsby Seafood, Fish Dock Road, Grimsby, GY1 9SE, UK		x
Control checks (related to the logistic or separate trade unit, as appropriate)					
FTS206	Temperature check	Temperature of unit when received °C	2,0 °C		x

Table 9 (continued)

Data element		Description	Examples	Categorization		
				Shall	Should	May
Additional data						
FTS250-	(unassigned)	Further information elements that describe the received trade/logistic unit, linked to UTUI/ULUI				x
FOR EACH NEW LOGISTIC UNIT CREATED BY TRANSPORTER OR STORER						
Identities						
FTS301	Unit ID	UTUI	(00) 235467985462312345	x		
FTS302	Trade unit IDs	The IDs of the trade units within the logistic unit	978817525.0766.000010123 978817525.0766.000010131 978817525.0766.000010272	x		
Additional data						
FTS350-	(unassigned)	Further information elements that describe the created logistic unit, linked to ULUI				x
FOR EACH UNIT DISPATCHED (either as a logistic unit or a separate trade unit)						
Identity						
FTS401	Unit ID	ULUI (if dispatched as a logistic unit) or UTUI (if dispatched as a separate trade unit)	(00) 100653005555555558 978817525.0766.000010272	x		
Production history (related to the logistic or separate trade units, as appropriate)						
FTS402	Temperature control method	None, iced, iced and refrigerated or refrigerated	Iced and refrigerated		x	
FTS403	Temperature record	Temperature/time log of the product holding area for the period between reception and dispatch	Series of temperature (°C)/date and time points in ISO 8601 format		x	
Destination						
FTS404	Next Food Business ID	ID of next food business to whom unit is dispatched (transporter or retailer, etc.), country prefix plus unique national identification number for the organization, as well as the name and address of the food business	NO - 123467890 Cargonor Ltd. 12234 Trondheim Norway			x
FTS405	Date and time of dispatch	ISO 8601 format	2010-09-25T20:00		x	
FTS406	Place of delivery	If not at receiver's address	Cargonor Ltd Terminal 4 0213 Oslo Norway			x

Table 9 (continued)

Data element	Description	Examples	Categorization		
			Shall	Should	May
Additional data					
FTS450-	(unassigned)	Further information elements that describe the dispatched trade/logistic unit, linked to UTUI/ULUI			x

6.10 Traders and wholesalers

For the purposes of this International Standard, *traders and wholesalers* are considered to be merchants who buy, sell and physically trade fishery products to other businesses. They may operate at various stages in distribution chains, trading raw materials or products. They include cash-and-carry type businesses supplying retailers and caterers.

Some traders and wholesalers may create new trade units, by breaking down trade units they have received into smaller units or by picking and mixing individual fishery products from a number of trade units they have received, in order to meet the needs of particular customers. However, traders and wholesalers do not change the nature of the fishery products they trade, or they would be considered also to be *processors*.

Traders and wholesalers may also break down or create logistic units.

Table 10 — Detailed information for traders and wholesalers

Data element	Description	Examples	Categorization		
			Shall	Should	May
TRADERS OR WHOLESALERS					
FTW101	Food business ID	Country prefix plus unique national identification number for the organization, as well as the name and address of the food business that operates trading or wholesaling establishment GB - 123467890 The Fish Supply Co, 13 Fish Street, Manchester, MA14 2LP, UK		x	
FTW102	Trader or wholesaler establishment ID	Country prefix plus unique national identification number for the organization, as well as the name and address or GLN of trading or wholesaling establishment GB - 123467890 Sheffield Fish Supplies, 48 Smith Street, Sheffield, SH31 3TU, UK. SH678 UK		x	
FTW103	GMP certification	Names of fish quality or food safety GMP schemes by which trader or wholesaler is certified SGS			x
FTW150-	(unassigned)	Further information elements that describe the organization, linked to trading or wholesaling establishment ID			x

Table 10 (continued)

Data element		Description	Examples	Categorization		
				Shall	Should	May
FOR EACH UNIT RECEIVED						
Identities						
FTW201	Unit ID	ULUI (if received as a logistic unit) or UTUI (if received as a separate trade unit)	(00) 10065300555555558 978817525.0766.000010272	x		
FTW202	Trade unit IDs	List of UTUI of the trade units that make up the logistic unit (required only if received as a logistic unit that is to be broken down by the trader or wholesaler)	978817525.0766.000010123 978817525.0766.000010131 978817525.0766.000010272	x		
Source						
FTW203	Previous Food Business ID	Country prefix plus unique national identification number for the organization, as well as the name and address of the food business from whom the unit was received (auction, processor or transporter, etc.)	GB - 123467890 The Trucking Co, Goods Yard, Leeds, LS8 9FH, UK		x	
FTW204	Date and time of reception	Date and time of transfer from previous food business, ISO 8601 format	2010-06-29T20:00		x	
Control checks (related to the logistic or separate trade units, as appropriate)						
FTW205	Temperature check	Temperature of unit °C	2,0 °C		x	
FTW206	Temperature record	Temperature/time log (if there is a recording device affixed to the unit)	Series of temperature (°C)/date and time points in ISO 8601 format		x	
Additional data						
FTW250-	(unassigned)	Further information elements that describe the received trade/logistic unit, linked to UTUI/ULUI				x
FOR EACH NEW TRADE UNIT PRODUCED BY TRADER OR WHOLESALER						
Identity						
FTW301	Trade unit ID	UTUI	978817525.0766.000010272	x		
Description						
FTW302	Type of unit	Description of physical type of unit (box or case of 10 retail packs, etc.)	Box		x	
FTW303	Product condition	Ambient, chilled or frozen	Chilled		x	

Table 10 (continued)

Data element		Description	Examples	Categorization		
				Shall	Should	May
For each different component part of trade unit						
FTW304	Type of fishery product	Identifying description or name of fishery product	Sheffield Fish cod fillets		x	
FTW305	Net weight	Weight of fishery product (kg)	10 kg		x	
FTW306	Received trade unit ID	The UTUI of the received trade unit from which the component was taken	978817525.0766.000010123 978817525.0766.000010131 978817525.0766.000010272	x		
Additional data						
FTW350-	(unassigned)	Further information elements that describe the produced trade unit, linked to UTUI				x
FOR EACH NEW LOGISTIC UNIT PRODUCED BY TRADER OR WHOLESALER						
Identities						
FTW401	Unit ID	ULUI	(00) 235467985462312345	x		
FTW402	Trade unit IDs	List of UTUI of the trade units that make up the logistic unit	978817525.0766.000010123 978817525.0766.000010131 978817525.0766.000010272	x		
Additional data						
FTW450-	(unassigned)	Further information elements that describe the produced logistic unit, linked to ULUI				x
FOR EACH UNIT DISPATCHED (either as a logistic unit or a separate trade unit)						
Identity						
FTW501	Unit ID	ULUI (if dispatched as a logistic unit) or UTUI (if dispatched as a trade unit)	(00) 100653005555555558 978817525.0766.000010272	x		
Production history (related to the logistic or separate trade units, as appropriate)						
FTW502	Trader or wholesaler temperature control method	None, iced, iced and refrigerated or refrigerated	Iced and refrigerated		x	
FTW503	Trader or wholesaler temperature record	Temperature/time log of product holding area for period between reception and dispatch	Series of temperature (°C)/date and time points in ISO 8601 format		x	

Table 10 (continued)

Data element	Description	Examples	Categorization		
			Shall	Should	May
Destination					
FTW504	Next food business ID	Country prefix plus unique national identification number for the organization, as well as the name and address of the food business to whom the unit is dispatched (transporter, processor or retailer, etc.)		x	
FTW505	Date and time of dispatch	Date and time of transfer to next food business, ISO 8601 format		x	
Additional data					
FTW550-	(unassigned)	Further information elements that describe the dispatched trade/logistic unit, linked to UTUI/ULUI			x

6.11 Retailers and caterers

For the purposes of this International Standard, *retailers and caterers* are considered to be suppliers to the public, not to other businesses. They are likely to break down trade units received and may change the nature of fishery products by preparing them for their customers. Some may package and label the items sold. Retailers and caterers are encouraged to record information on their sales but the scope of this International Standard does not extend to sale to the public.

Table 11 — Detailed information for retailers and caterers

Data element	Description	Examples	Categorization		
			Shall	Should	May
RETAILER OR CATERER					
FRC101	Food business ID	Country prefix plus unique national identification number for the organization, as well as the name and address of the food business that operates retail or catering establishment		x	
FRC102	Retail or caterer establishment ID	Country prefix plus unique national identification number for the organization, as well as the name and address or GLN of retail/catering establishment		x	
FRC103	Processor GMP certification	Names of fish quality or food safety GMP schemes by which retailer or caterer is certified			x
FRC150-	(unassigned)	Further information elements that describe the organization, linked to retail or catering establishment ID			x

Table 11 (continued)

Data element	Description	Examples	Categorization			
			Shall	Should	May	
FOR EACH UNIT RECEIVED						
Identities						
FRC201	Unit ID	ULUI (if received as a logistic unit) or UTUI (if received as a separate trade unit)	(00) 10065300555555558 978817525.0766.000010272	x		
FRC202	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		
Source						
FRC203	Previous Food Business ID	Country prefix plus unique national identification number for the organization, as well as the name and address or GLN of previous food business from whom the unit was received (processor, wholesaler or transporter, etc.)	NO - 123467890 Cargonor Florø Norway		x	
FRC204	Date and time of reception	ISO 8601 format	2010-06-20T10:34		x	
Control checks (either on logistic or separate trade units)						
FRC205	Temperature check	Temperature of unit °C at reception	4,0 °C		x	
FRC206	Temperature record	If recording device is affixed to batch, temperature/time record from creation of unit onward	Series of temperature (°C)/date and time points in ISO 8601 format			x
Additional data						
FRC250-	(unassigned)	Further information elements that describe the received trade/logistic unit, linked to UTUI/ULUI				x
FOR EACH TRADE UNIT HELD FOR SALE						
Identity						
FRC301	Unit ID	UTUI	978817525.0766.000010272	x		
Production history (related to the logistic or separate trade units, as appropriate)						
FRC302	Temperature control method	None, iced, refrigerated, iced and refrigerated, etc.	Iced and refrigerated		x	
FRC303	Temperature record	Temperature/time log of product storage area for period between reception and sale	Series of temperature (°C)/date and time points in ISO 8601 format		x	

Table 11 (continued)

Data element	Description	Examples	Categorization		
			Shall	Should	May
Additional data					
FRC350-	(unassigned)	Further information elements that describe the trade unit held for sale, linked to UTUI			x

6.12 Bringing in supplies from outside the domain

The following information requirements apply to fish and materials received from businesses that are not operating to these specifications. This includes the supply of non-fish ingredients to breeders, hatcheries, fish farms, processors and fish feed producers. These requirements replace those under the heading *for each unit received*, sub-heading *identities*, in each of the respective tables above, and are additional to the other requirements tabulated. They both identify and provide a description of the received units.

Table 12 — Bringing in supplies from outside the domain

Data element	Description	Examples	Categorization		
			Shall	Should	May
FOR EACH UNIT RECEIVED FROM OUTSIDE THE DOMAIN					
Identities					
FOT101	Unit ID	ULUI (if received as a logistic unit) or UTUI (if received as a separate trade unit)	(00) 100653005555555558 978817525.0766.000010272	x	
FOT102	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	
FOT150-	(unassigned)	Further information elements that describe the received trade/logistic unit, linked to UTUI/ULUI			x
FOR EACH TRADE UNIT RECEIVED FROM OUTSIDE THE DOMAIN					
General description					
FOT201	Creator of unit	Name, address and registration number or EAN code of establishment	The Mei Ling Fishery Co, Wharf 9, East harbour, Hong Kong, HK 26980		x
FOT202	Creator's GMP certification	Names of certification schemes	EFSIS		x
FOT203	Type of unit	Individual large fish, box of fish, package or case of ingredients or products, etc.	Box		x
FOT204	Net weight	Net weight of received trade unit (kg)	45 kg		x
FOT205	Product condition	Live, ambient, chilled or frozen	Chilled		x

Table 12 (continued)

Data element		Description	Examples	Categorization		
				Shall	Should	May
FOT250-	(unassigned)	Further information elements that describe each trade unit, linked to UTUI			x	
Further description of each trade unit for all fishery products						
FOT301	Species	SCI - followed by scientific name, or FAO - followed by FAO 3alpha code, or TSN - followed by Taxonomic Serial Number (may be repeated if several species)	SCI - <i>Salmo salar</i> FAO - SAS TSN - 161996		x	
FOT302	Primary production method	Captured or farmed (may be both)	Farmed		x	
FOT303	Area/country of origin	FAO area/RFMO area for captured marine fish, or country of origin for captured fish from inland waters and for farmed fish, or more specific location (may be several areas)	Chile		x	
FOT350-	(unassigned)	Further information elements that describe each fishery product trade unit, linked to UTUI				x
Further description for each trade unit of farmed fish prior to processing						
FOT401	Farm unit ID	Internal number of rearing unit (tank, cage)	15		x	
FOT402	GMO	Any use of GMO in product or raw material	No			x
FOT403	Hatching date	Date of hatching for the batch, ISO 8601 format	2010-11-01			x
FOT404	Day degrees	Sum of average temperature per day in degrees Celsius (°C)	490		x	
FOT405	Location of fish farm	Longitude and latitude or other appropriate specification			x	
FOT406	Treatment record	Medicine, vaccine or chemical names and period of use or indication if records are available in electronic form, on paper or are not available	Pyceze, 2010-10-01 – 2010-10-01			x
FOT407	Feeding record	Product name and batch number of fish feed and (calculated) amount of feed that went into this trade unit (kg)	SupraFeed, B543345, 50 kg			x
FOT450-	(unassigned)	Further information elements that describe each fishery product trade unit (pre-process), linked to UTUI				x

Table 12 (continued)

Data element	Description	Examples	Categorization			
			Shall	Should	May	
Further description of each trade unit for processed fishery products						
FOT501	Name/type of product	Commercial product name	Vacuum packed smoked salmon		x	
FOT502	Product customs code	HS code for product type	0305410000			x
FOT503	Composition	List of scientific names, including fish species, and percentages by weight	<i>Salmo salar</i> 100 %		x	
FOT504	Date of durability	Best before or sell by date, as appropriate, ISO 8601 format	2010-06-30		x	
FOT505	Date and time of production	Date of packing/labelling at end of line, ISO 8601 format	2010-06-23T12:50		x	
FOT506	GMO	Any use of GMO in product or raw material	No			x
FOT550-	(unassigned)	Further information elements that describe each processed fishery product trade unit, linked to UTUI				x
Further description of each trade unit for ingredients to be incorporated in processed fishery products						
FOT601	Name/type of ingredient	Descriptive name of ingredient (salt, olive oil, breadcrumbs or potato flakes, etc.)	Salt		x	
FOT602	Composition	List of scientific names and percentages by weight	NaCl 100 %		x	
FOT603	Date of durability	Best before or sell by date, as appropriate, ISO 8601 format	Best before 2010-09-25		x	
FOT650-	(unassigned)	Further information elements that describe each ingredient, linked to UTUI				x
Further description of each trade unit for fish feed						
FOT701	Name/type of product	Commercial product name	Smolt Feed 4		x	
FOT702	Date of durability	Best before or sell by date, as appropriate, ISO 8601 format	Best before 2010-09-25		x	
FOT703	Production date	Time of packing/labelling at end of line, ISO 8601 format	2010-07-02T11:50		x	
FOT704	Composition	List of names and percentages by weight	Fat 37 % Protein 55 %		x	
FOT705	GMO	Any use of GMO in raw material	No			x
FOT706	Marine species that went into fish meal	LAT - followed by scientific name, or FAO - followed by FAO 3alpha code, or TSN - followed by Taxonomic Serial Number (may be repeated if several species)	SCI - <i>Mallotus villosus</i> FAO - CAP TSN - 162035			x

Table 12 (continued)

Data element		Description	Examples	Categorization		
				Shall	Should	May
FOT707	Area/country of origin	FAO catch area of fish used in meal and oil production	5A			x
FOT708	Supplier of raw material	Country prefix plus unique national identification number for the organization, as well as the name and address of producer			x	
FOT750-	(unassigned)	Further information elements that describe feed used, linked to UTUI				x
Further description for medicine, vaccine, chemical treatment						
FOT801	Name/type of product	Commercial product name	Mulivac 5000		x	
FOT802	Date of durability	Best before or sell by date, as appropriate, ISO 8601 format	Best before 2010-09-25		x	
FOT803	Production date	Time of packing/labelling at end of line, ISO 8601 format	02-07-2002		x	
FOT804	Composition	List of scientific names and percentages by weight			x	
FOT850-	(unassigned)	Further information elements that describe each ingredient, linked to UTUI				x

Bibliography

- [1] ISO 9000:2005, *Quality management systems — Fundamentals and vocabulary*
- [2] ISO 12875, *Traceability of finfish products — Specification on the information to be recorded in captured finfish distribution chains*
- [3] ISO 22005:2007, *Traceability in the feed and food chain — General principles and basic requirements for system design and implementation*
- [4] CWA 14659 (2003), *Traceability of fishery products — Specification of the information to be recorded in farmed fish distribution chains*
- [5] Canadian Food Traceability Data Standard, Agriculture and agri-food Canada
- [6] Codex Alimentarius, CAC/GL 60-2006, Principles for Traceability/Product Tracing as a Tool Within a Food Inspection and Certification System
- [7] Codex Alimentarius, CCFICS 2003, Discussion paper on traceability/product tracing in the context of food import and export inspection and certification systems
- [8] Council Conclusions on safety of imported agricultural and agri-food products and compliance with Community rules, Council of the European Union
- [9] Council Regulation (EC) No 104/2000 of 17 December 1999 on the common organisation of the markets in fishery and aquaculture products
- [10] Council Regulation (EC) No 1005/2008 of 29 September 2008 establishing a Community system to prevent, deter and eliminate illegal, unreported and unregulated fishing, amending Regulations (EEC) No 2847/93, (EC) No 1936/2001 and (EC) No 601/2004 and repealing Regulations (EC) No 1093/94 and (EC) No 1447/1999
- [11] Fishery Check list, Friend of the Sea (see <http://www.friendofthesea.org>)
- [12] GlobalGAP standard see (<http://www.globalgap.org/>)
- [13] GS1 Traceability Standard, GS1, Issue 1, Feb. 2009 (see http://www.gs1.org/docs/gsmpt/traceability/GS1_Global_Traceability_Standard_i1.pdf)
- [14] Implementing Traceability in the Food Supply Chain, CIES — The Food Business Forum, January 2005 (see <http://www.ciesnet.com/pfiles/programmes/foodsafety/impl-traceab-doc.pdf>)
- [15] International Food Standard (IFS)
- [16] *Magnuson-Stevens Fishery Conservation and Management Act*, US (see http://www.st.nmfs.noaa.gov/st1/fus/fus08/11_general2008.pdf)
- [17] MSC Chain of Custody Certification Methodology, Marine Stewardship Council, Aug. 2005 (see http://www.msc.org/documents/scheme-documents/methodologies/Chain_Of_Custody_Certification_Methodology.pdf)
- [18] Publicly Available Specification, PAS 72 “*Responsible fishing — Specification of good practice for fishing vessels*” British Standards (Seafish Industry Authority)
- [19] *Using Traceability in the Supply Chain to meet Consumer Safety Expectations*, Efficient Consumer Response – ECR Blue Book (see http://www.liaa.gov.lv/uploaded_files/Attachment%207.3.5%20-%20ECR%20Blue%20Book.pdf)

- [20] Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety, Official Journal of the European Union L 39 of 30 April 2004
- [21] *Technical Standard for Companies Supplying Retailer Branded Food Products*, British Retail Consortium — BRC (see <http://www.brc.org.uk/Downloads/Requirement%20Document.pdf>)

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