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Title: **New work item proposal: Traceability of fishery products
- Specification on the information to be recorded in
captured fish distribution chains**

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| NEW WORK ITEM PROPOSAL | |
|------------------------------------|--|
| Date of presentation 2008-06-09 | Reference number (to be given by the Secretariat) |
| Proposer Norway | ISO/TC 234 / SC N 026 |
| Secretariat Standards Norway | |

A proposal for a new work item within the scope of an existing committee shall be submitted to the secretariat of that committee with a copy to the Central Secretariat and, in the case of a subcommittee, a copy to the secretariat of the parent technical committee. Proposals not within the scope of an existing committee shall be submitted to the secretariat of the ISO Technical Management Board.

The proposer of a new work item may be a member body of ISO, the secretariat itself, another technical committee or subcommittee, or organization in liaison, the Technical Management Board or one of the advisory groups, or the Secretary-General.

The proposal will be circulated to the P-members of the technical committee or subcommittee for voting, and to the O-members for information.

See overleaf for guidance on when to use this form.

IMPORTANT NOTE: Proposals without adequate justification risk rejection or referral to originator.

Guidelines for proposing and justifying a new work item are given overleaf.

Proposal (to be completed by the proposer)

| | |
|--|--|
| <p>Title of proposal (in the case of an amendment, revision or a new part of an existing document, show the reference number and current title)</p> <p>English title Traceability of fishery products - Specification on the information to be recorded in captured fish distribution chains</p> <p>French title (if available)</p> | |
| <p>Scope of proposed project</p> <p>To develop a standard that specify the information to be recorded in distribution chains in order to establish the traceability of fishery products.</p> <p>It should specify how fishery products traded 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.</p> <p>It should be applicable to the distribution for human consumption of captured finfish and their products, from fishing vessels through to retailers or caterers.</p> | |
| <p>Concerns known patented items (see ISO/IEC Directives Part 1 for important guidance)</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes", provide full information as annex</p> | |
| <p>Envisaged publication type (indicate one of the following, if possible)</p> <p><input checked="" type="checkbox"/> International Standard <input type="checkbox"/> Technical Specification <input type="checkbox"/> Publicly Available Specification <input type="checkbox"/> Technical Report</p> | |
| <p>Purpose and justification (attach a separate page as annex, if necessary)</p> <p>The proposed project shall specify the information to be recorded in distribution chains for captured fish and fish products from wild captured fish in order to establish traceability of seafood products. It is expected to be relevant and beneficial with respect to:</p> <ul style="list-style-type: none"> -improved food safety. Traceability is a key component in a food safety system, through documentation of product properties -improved documentation and transparency for legislative requirements -improved opportunities for commercial use -labour/cost reduction by reduced administration -improved information exchange in order optimise production processes. -reduced possibilities for trade conflicts or legal conflicts <p>The ISO standard 22005 gives general principles and basic requirements for system design and implementation. It is generic and gives no specific requirements for identification of units and how to handle splitting and merging of product units. The proposed standard should give such requirements.</p> <p>To facilitate chain traceability and transparency, a standard which specifies how to name 'objects' (companies, places, food items) and 'attributes' (product and process properties) is needed. The aim of the proposal is to develop a standard for the fish and seafood industry. It would be difficult to envisage such a standard being developed for food products in general; the parameter lists alone would be massive. Therefore the development of the proposed standard should be convened by ISO/TC 234 Fisheries and Aquaculture and not ISO/TC 34 - Food products.</p> | |
| <p>Target date for availability (date by which publication is considered to be necessary) 2011.12.01</p> | |

New work item proposal

| | | |
|---|---|--|
| Proposed development track <input type="checkbox"/> 1 (24 months) <input checked="" type="checkbox"/> 2 (36 months - default) <input type="checkbox"/> 3 (48 months) | | |
| Relevant documents to be considered CWA 14659 Traceability of fishery products — Specification on the information to be recorded in farmed fish distribution chains CWA 14660 Traceability of fishery products — Specification of the information to be recorded in captured fish distribution chains ISO 22005 Traceability in the feed and food chain -- General principles and basic requirements for system design and implementation | | |
| Relationship of project to activities of other international bodies | | |
| Liaison organizations | Need for coordination with: <input type="checkbox"/> IEC <input type="checkbox"/> CEN <input type="checkbox"/> Other (please specify) | |
| Preparatory work (at a minimum an outline should be included with the proposal) <input checked="" type="checkbox"/> A draft is attached <input type="checkbox"/> An outline is attached. It is possible to supply a draft by The proposer or the proposer's organization is prepared to undertake the preparatory work required <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | |
| Proposed Project Leader (name and address) Petter Olsen Norwegian Institute of Fisheries and Aquaculture | Name and signature of the Proposer (include contact information) Rolf Duus Standards Norway E-mail: rdu@standard.no | |
| Comments of the TC or SC Secretariat Supplementary information relating to the proposal <input checked="" type="checkbox"/> This proposal relates to a new ISO document; <input type="checkbox"/> This proposal relates to the amendment/revision of an existing ISO document; <input type="checkbox"/> This proposal relates to the adoption as an active project of an item currently registered as a Preliminary Work Item; <input type="checkbox"/> This proposal relates to the re-establishment of a cancelled project as an active project. Other: | | |
| Voting information The ballot associated with this proposal comprises a vote on: <input checked="" type="checkbox"/> Adoption of the proposal as a new project <input type="checkbox"/> Adoption of the associated draft as a committee draft (CD) <input type="checkbox"/> Adoption of the associated draft for submission for the enquiry vote (DIS or equivalent) Other: | | |
| Annex(es) are included with this proposal (give details) <input checked="" type="checkbox"/> Draft proposal - Traceability of fishery products - Specification on the information to be recorded in captured fish distribution chains | | |
| Date of circulation 2008-06-09 | Closing date for voting 2008-09-09 | Signature of the TC or SC Secretary Rolf Duus |

Use this form to propose:

- a) a new ISO document (including a new part to an existing document), or the amendment/revision of an existing ISO document;
- b) the establishment as an active project of a preliminary work item, or the re-establishment of a cancelled project;
- c) the change in the type of an existing document, e.g. conversion of a Technical Specification into an International Standard.

This form is not intended for use to propose an action following a systematic review - use ISO Form 21 for that purpose.

Proposals for correction (i.e. proposals for a Technical Corrigendum) should be submitted in writing directly to the secretariat concerned.

Guidelines on the completion of a proposal for a new work item

(see also the ISO/IEC Directives Part 1)

a) Title: Indicate the subject of the proposed new work item.

b) Scope: Give a clear indication of the coverage of the proposed new work item. Indicate, for example, if this is a proposal for a new document, or a proposed change (amendment/revision). It is often helpful to indicate what is not covered (exclusions).

c) Envisaged publication type: Details of the types of ISO deliverable available are given in the ISO/IEC Directives, Part 1 and/or the associated ISO Supplement.

d) Purpose and justification: Give details based on a critical study of the following elements wherever practicable. *Wherever possible reference should be made to information contained in the related TC Business Plan.*

1) The specific aims and reason for the standardization activity, with particular emphasis on the aspects of standardization to be covered, the problems it is expected to solve or the difficulties it is intended to overcome.

2) The main interests that might benefit from or be affected by the activity, such as industry, consumers, trade, governments, distributors.

3) Feasibility of the activity: Are there factors that could hinder the successful establishment or global application of the standard?

4) Timeliness of the standard to be produced: Is the technology reasonably stabilized? If not, how much time is likely to be available before advances in technology may render the proposed standard outdated? Is the proposed standard required as a basis for the future development of the technology in question?

5) Urgency of the activity, considering the needs of other fields or organizations. Indicate target date and, when a series of standards is proposed, suggest priorities.

6) The benefits to be gained by the implementation of the proposed standard; alternatively, the loss or disadvantage(s) if no standard is established within a reasonable time. Data such as product volume or value of trade should be included and quantified.

7) If the standardization activity is, or is likely to be, the subject of regulations or to require the harmonization of existing regulations, this should be indicated.

If a series of new work items is proposed having a common purpose and justification, a common proposal may be drafted including all elements to be clarified and enumerating the titles and scopes of each individual item.

e) Relevant documents and their effects on global relevancy: List any known relevant documents (such as standards and regulations), regardless of their source. When the proposer considers that an existing well-established document may be acceptable as a standard (with or without amendment), indicate this with appropriate justification and attach a copy to the proposal.

f) Cooperation and liaison: List relevant organizations or bodies with which cooperation and liaison should exist.

Draft standard _ Traceability of fishery products - Specification on the information to be recorded in captured fish distribution chains

Introduction

There are increasing demands for detailed information on the nature and origin of food products. Traceability is becoming a legal and commercial necessity. Transmission of all the required information physically with the products would, in many instances, be impracticable and so the use of information technology is preferable.

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 and processing history. 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 key to the operation of the traceability scheme is the labelling of each unit of goods traded, whether of raw materials or finished products, with a unique ID. This is to 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, create new units and must give them new IDs.

Each of the food businesses that create or physically trade in those units, throughout the distribution chains from catcher or farmer through to retailer or caterer, are to generate and hold the information necessary for traceability. The information is to be held on computer databases, keyed to the 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 means of communicating the information is standardised so that it can be readily accessed from business to business through the distribution chains, when required.

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 document.

The method of identifying the units of goods traded is based on the EAN.UCC system that is already in use throughout the world. The information is keyed to unique IDs given to the individual trade units (e.g. boxes of fish or cases of products) but the scheme also accommodates trade in logistic units made up of numbers of trade units (e.g. pallets of boxes or cases). Businesses that create logistic units have to label them with a logistic unit ID and also record the IDs of the component trade units.

The Tracefish scheme does not demand perfect traceability, i.e. that a particular retail product should be traceable back to a single vessel or farm and batch of origin, or vice versa from origin to destination. Pragmatically it is recognised 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 vessels or farms and batches of origin, and vice versa.

The information itemised in the specifications for recording by the food businesses includes:

- the fundamental information necessary to identify and physically trace the products, that shall be recorded;

- specific information that is required by law in relation to food safety, quality and labelling, together with important elements of commercially desirable information related to those matters, that should be recorded;
- and further specific and commercial information considered to be of sufficient relevance to be included in the specifications, that may be recorded.

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

Although virtually every distribution chain is different, they all appear to be made up of a number of characteristic components or *building blocks*. The types of business identified in this document for captured fish distribution chains are:

- fishing vessels;
- vessel landing businesses and auction markets;
- processors;
- transporters and storers;
- traders and wholesalers;
- and retailers and caterers.

Any given captured fish distribution chain may be made up of some or all of these components but not necessarily in the sequence listed. Further types of primary production business are identified in the farmed fish document.

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 must record the relevant information requirements for each of the functions carried out.

There are limitations to this approach, for example it does not fit to the specialised requirements of live bivalve mollusc distribution chains, and so this initial information specification is limited in scope to the distribution for human consumption of captured finfish and their products. The captured and farmed fish information specifications are substantially the same from processing onward.

Pragmatically it is recognised that some supplies of fish products and supplies of ingredients, etc, will come from outside of the Tracefish 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 Tracefish 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.

This specification will provide a basis for IT service providers to develop business solutions (applications) for the trade. The information specifications do not preclude the use of paper systems, although the obvious benefits of business efficiency, including rapid communication, will be lost.

Further information on the background to the development of the Tracefish scheme and on its philosophy is given in informative annexes A and B.

1 Scope

This document specifies the information to be recorded in distribution chains in order to establish the traceability of fishery products.

It specifies how fishery products traded 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 applicable to the distribution for human consumption of captured finfish and their products, from fishing vessels through to retailers or caterers.

2 Normative references

3 Terms and definitions

For the purposes of this standard, the following terms and definitions apply:

3.1

traceability

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

NOTE when considering products traceability can relate to

- the origin of materials and parts;
- the processing history.

(ISO 9000:2000)

3.2

trade unit

any item (product or service) upon which there is a need to retrieve pre-defined information and that may be priced, or ordered, or invoiced at any point in any supply chain. This definition covers services and products, all of which may have pre-defined characteristics (2002 General EAN.UCC Specifications Section 2.1.1.1)

3.3

logistic unit

an item of any composition established for transport and/or storage that needs to be managed through the supply chain (2002 General EAN.UCC Specifications Section 2.2.1)

4 Symbols and abbreviations

AI – EAN.UCC system Application Identifier

EAN – EAN International

EAN.UCC system – Unique global identification system

EFSIS –European Food Safety Inspection Service

FAO – Food and Agricultural Organization of United Nations

GLN– EAN.UCC system Global Location Number

GMP – Good Manufacturing Practice.

GTIN – EAN.UCC system Global Trade Item Number.

GTIN+ – GTIN plus a further number to uniquely identify each particular trade unit (e.g. the production batch and serial number or the date and time of production).

HACCP – Hazard Analysis Critical Control Points.

ID – Identification.

MSC – Marine Stewardship Council

n2 or n14, etc – EAN.UCC identifier numbers consisting of 2 or 14, etc digits

SSCC – EAN.UCC system Serial Shipping Container Code

UCC – Uniform Code Council

5 Requirements

5.1 The Identification of the units traded

Fishery products shall be traded as uniquely identified and labelled units.

Businesses that create trade units shall identify and label each of them with a GTIN+.

Businesses that create logistic units, made up of numbers of separately identified trade units, shall identify and label each logistic unit with a SSCC.

Businesses that bring in supplies of fishery products from outside of the domain of the Tracefish specifications and trade them onwards, shall identify and label each unit traded onward with the business's own EAN.UCC identifiers as above.

5.2 The recording of information

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 below as follows:

- for fishing vessels in 5.3;
- for vessel landing businesses and auctions in 5.4;
- for processors in 5.5;
- for transporters and storers in 5.6;
- for traders and wholesalers in 5.7;
- for retailers and caterers in 5.8;
- and additional requirements for businesses that bring in fish and materials from outside of the Tracefish domain, in 5.9.

Businesses that carry out the functions of more than one of the categories listed above shall record the information relevant to each of the functions carried out.

The data elements tabulated in table 1 to table 7 categorised as *shall* are considered to be fundamental information necessary to identify and physically trace the products. These elements must be recorded.

The data elements tabulated in table 1 to table 7 categorised as *should* are specific information required by law in relation to food safety, quality and labelling together with important elements of commercially desirable information related to those matters. It is recommended that these elements are recorded.

The data elements tabulated in table 1 to table 7 categorised as *may* are further specific information required by law and commercially desirable information, considered to be of sufficient relevance to be included in the document. Businesses may choose to record these elements.

NOTE 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.

5.3 Fishing vessels

For the purposes of this document, *fishing vessels* are considered to be vessels that catch fish, that may carry out basic operations on the fish such as bleeding, gutting, heading, washing, grading and weighing, and then stow the fish and transport it to the point of discharge. Fish may also be frozen on fishing vessels. Fishing vessels may carry out their own discharging operations that may include grading, weighing and boxing the fish on discharge, prior to dispatch of their products into the hands of the next food business. Alternatively, the next food business may discharge the fishing vessel.

The trade units created by fishing vessels can range from single large fish or boxes of graded fish that have been individually labelled by the vessel, to the entire hold of mixed fish passed into the hands of the next food business.

Fishing vessels such as factory vessels, that carry out further processing operations such as filleting, are considered to be both *fishing vessels* and *processors*.

Table 1 — Detailed information requirements for fishing vessels

| Data element | | Description | Examples | Categorisation | | |
|------------------------------------|----------------------------|--|---|----------------|--------|-----|
| | | | | Shall | Should | May |
| VESSEL | | | | | | |
| CFV01 | Food business ID | Name and address or GLN of food business that operates vessel | Humber Trawlers, Albert Dock, Hull, HU1 7AR, England (n3+n13) | x | | |
| CFV02 | Vessel ID | Nationality, name and registration number or GLN of vessel | UK, 'Phoenix', H123 or n3+n13 | x | | |
| CFV03 | GMP certification | Names of fish quality or food safety GMP schemes by which vessel is certified | EFSIS | | | x |
| FOR EACH TRADE UNIT CREATED | | | | | | |
| Identity | | | | | | |
| CFV04 | Trade unit ID | GTIN+ (n2+n14+AI's) | (01) 07012345000001 (10) 0000000125 | x | | |
| Description | | | | | | |
| CFV05 | Type of unit | Description of physical type of unit (single fish, box, tank, hold, block or package of fish, etc) | Box | x | | |
| CFV06 | Net weight | Recorded as a weighed or estimated quantity of fish (kg) | Estimated, 45 kg | x | | |
| CFV07 | Species | Latin names or FAO 3alpha codes (may be several species) | Gadus morrhua or COD | x | | |
| CFV08 | Area/country of origin | FAO area for marine fish or country of origin for fish from inland waters, or more specific location | 27 | x | | |
| CFV09 | Product form | Whole, gutted or headed, etc. | Gutted | x | | |
| CFV10 | Size grade | Nominal weight (kg) or length (cm) range, or ungraded | 3-4 kg | | x | |
| CFV11 | Product condition | Live, ambient, chilled or frozen | Chilled | x | | |
| Production history | | | | | | |
| CFV12 | Date of capture or sailing | Preferably recorded as date when fish brought on board but otherwise recorded as date when vessel left port | Captured 2002-06-23 or sailed 2002-06-21 | x | | |
| CFV13 | Fishing method | Trawl, long line or gill net, etc (FAO alpha code) | OTB | | x | |
| CFV14 | Trawl or soak time | Time (hrs) between setting fishing gear and bringing it back aboard | 4 hrs | | | x |
| CFV15 | Ethical aspects of fishery | Names of sustainable fishing schemes by which fishery is certified, and specific environmental benefits of fishing gear (dolphin friendly, etc). | MSC | | | x |
| CFV16 | Size grading method | Manual or mechanical, done at sea or on landing (only applicable if graded) | Manual, on landing | | | x |

| Data element | | Description | Examples | Categorisation | | |
|--|------------------------------------|---|--|----------------|--------|-----|
| | | | | Shall | Should | May |
| CFV17 | Weighing method | Done at sea or on landing (only applicable if weighed) | On landing | | | x |
| CFV18 | Stowage method | Boxed, bulked, seawater tanks, brine tanks or cold storage, etc. | Boxed | | x | |
| CFV19 | Storage temperature control method | None, iced, iced and refrigerated or refrigerated | Iced and refrigerated | | x | |
| CFV20 | Storage temperature record | Temperature/time log of the stowage area (fish room, tank or cold store, etc) | Series of temperature (°C)/date and time points | | x | |
| FOR EACH LOGISTIC UNIT CREATED | | | | | | |
| Identities | | | | | | |
| CFV21 | Logistic unit ID | SSCC | n2+n18 | x | | |
| CFV22 | Trade unit IDs | List of GTIN+s of the trade units that make up the logistic unit | List of n2+n14+AIs | x | | |
| FOR EACH UNIT DISPATCHED (either as a logistic unit or a separate trade unit) | | | | | | |
| Identity | | | | | | |
| CFV23 | Unit ID | SSCC if dispatched as a logistic unit or GTIN+ if dispatched as a trade unit | n2+n18 or n2+n14+AIs | x | | |
| Destination | | | | | | |
| CFV24 | Next food business ID | Name and address or GLN of the food business to whom the unit is dispatched (landing business, transporter, auction or processor, etc.) | The Fish Auction Company, 12 George Street, London, NW3 4TU, England or n3+n13 | x | | |
| CFV25 | Date and time of dispatch | Date and time of transfer to next food business | 2002-06-28T04:00 | x | | |
| CFV26 | Place of dispatch | Name and address of place of landing or GLN or international ID code of the port, or approximate latitude and longitude if transferred at sea | Humber Fish Auction, Albert Dock, Hull, HU4 1AR, England or n3+n13 | x | | |

5.4 Vessel landing businesses and auction markets

For the purposes of this document, *vessel landing businesses* are considered to be businesses that discharge vessels and/or carry out basic fish handling operations such as sorting, grading and weighing fish on landing. They may combine the catches of several vessels.

Auction markets are considered to be businesses that hold fish for sale by competitive bidding. They may also discharge vessels and sort, grade and weigh fish prior to sale.

Vessel landing businesses and auction markets may land or auction intact trade units or even intact logistic units but commonly create new trade units.

Table 2 — Detailed information requirements for vessel landing business and auction markets

| Data element | | Description | Examples | Categorisation | | |
|--|-------------------------------------|---|--|----------------|--------|-----|
| | | | | Shall | Should | May |
| LANDING BUSINESS OR AUCTION | | | | | | |
| CLA01 | Food business ID | Name and address or GLN of food business that operates landing business or auction market | The Fish Auction Company, 12 George Street, London, NW3 4TU, England or n3+n13 | x | | |
| CLA02 | Landing or auction establishment ID | Name, address and registration number or GLN of landing or auction establishment | Humber Fish Auction, Albert Dock, Hull, HU4 1AR, England.HU456 UK or n3+n13 | x | | |
| CLA03 | GMP certification | Names of fish quality or food safety GMP schemes by which landing or auction is certified | EFSIS | | | x |
| FOR EACH UNIT RECEIVED | | | | | | |
| Identities | | | | | | |
| CLA04 | Unit ID | SSCC if received as a logistic unit or GTIN+ if received as a separate trade unit | n2+n18 or n2+n14+AI's | x | | |
| CLA05 | Trade units IDs in logistic unit | List of GTIN+s of the trade units that make up the logistic unit (required only if received as a logistic unit and it is to be broken down or transformed by the landing business or auction) | List of n2+n14+AIs | x | | |
| Source | | | | | | |
| CLA06 | Previous food business ID | Name and address or GLN of food business from whom the unit was received (vessel or transporter, etc.) | Humber Trawlers, Albert Dock, Hull, HU1 7AR, England or n3+n13 | x | | |
| CLA07 | Date and time of reception | Date and time of transfer from previous food business | 2002-06-28T04:00 | x | | |
| Control checks (related to the logistic or separate trade units, as appropriate) | | | | | | |
| CLA08 | Temperature check | Temperature of unit °C when received | +1.0 °C | | x | |
| CLA09 | Temperature record | Temperature/time log (if there is a recording device affixed to the unit) | Series of temperature (°C)/date and time points | | x | |
| Transformation Information (for each trade unit that is transformed by landing business or auction) | | | | | | |
| CLA10 | Related created trade unit IDs | List of the GTIN+s of the created trade units that may incorporate part of the received trade unit | List of n2+n14+AIs | x | | |

| Data element | Description | Examples | Categorisation | | | |
|---|---------------------------------|---|--|--------|-----|---|
| | | | Shall | Should | May | |
| FOR EACH NEW TRADE UNIT CREATED BY LANDING BUSINESS OR AUCTION | | | | | | |
| Identity | | | | | | |
| CLA11 | Trade unit ID | GTIN+ (n2+n14+AI's) | (01) 07012345000001 (10) 0000000125 | x | | |
| Description | | | | | | |
| CLA12 | Type of unit | Description of physical type of unit (single fish or box, etc) | Box | x | | |
| CLA13 | Net weight | Recorded as either a weighed or estimated weight of fish (kg) | Weighed, 45 Kg | x | | |
| CLA14 | Species | Latin names or FAO 3alpha codes (may be several species) | Gadus morrhua or COD | x | | |
| CLA15 | Primary production method | Captured or farmed | Captured | | x | |
| CLA16 | Area/country of origin | FAO area for captured marine fish, or country of origin for captured fish from inland waters and for farmed fish, or more specific location | 27 | | x | |
| CLA17 | Product form | Whole, gutted or headed, etc. | Gutted | x | | |
| CLA18 | Size grade | Nominal weight (kg) or length (cm) range, or ungraded | 3-4 kg | | x | |
| CLA19 | Product condition | Live, ambient, chilled or frozen | Chilled | x | | |
| Production history (related to the logistic or separate trade units, as appropriate) | | | | | | |
| CLA20 | Size grading method | Manual or mechanical (applicable only if graded by the landing business or auction) | Mechanical | | | x |
| Transformation information | | | | | | |
| CLA21 | Related received trade unit IDs | List of the GTIN+s of the received trade units that may be input to the created trade unit | List of n2+n14+AIs | x | | |
| FOR EACH UNIT AUCTIONED | | | | | | |
| Identity | | | | | | |
| CLA22 | Unit ID | SSCC if auctioned as a logistic unit or GTIN+ if auctioned as a separate trade unit | n2+n18 or n2+n14+AI's | x | | |
| Description | | | | | | |
| CLA23 | Freshness grade | EU or QIM freshness grade, or ungraded | EU grade A | | x | |

| Data element | Description | Examples | Categorisation | | | |
|--|---|--|--|--------|-----|--|
| | | | Shall | Should | May | |
| FOR EACH LOGISTIC UNIT CREATED BY LANDING BUSINESS OR AUCTION | | | | | | |
| Identities | | | | | | |
| CLA24 | Logistic unit ID | SSCC | n2+n18 | x | | |
| CLA25 | Trade unit IDs in logistic unit | List of GTIN+s of the trade units that make up the logistic unit | List of n2+n14+AIs | x | | |
| FOR EACH UNIT DISPATCHED (either as a logistic unit or a separate trade unit) | | | | | | |
| Identity | | | | | | |
| CLA26 | Unit ID | SSCC if dispatched as a logistic unit or GTIN+ if dispatched as a trade unit | n2+n18 or n2+n14+AIs | x | | |
| Production history | | | | | | |
| CLA27 | Landing or auction temperature control method | None, iced, iced and refrigerated or refrigerated | Iced and refrigerated | | x | |
| CLA28 | Landing or auction temperature record | Temperature/time log of fish holding area for period between reception and dispatch | Series of temperature (°C)/date and time points | | x | |
| Destination | | | | | | |
| CLA29 | Next food business ID | Name and address or GLN of the food business to whom the unit is dispatched (transporter or processor, etc.) | The Trucking Co, Goods Yard, Leeds, LS8 9FH, England or n3+n13 | x | | |
| CLA30 | Date and time of dispatch | Date and time of transfer to next food business | 2002 06 28, 07:30 | x | | |

5.5 Processors

For the purposes of this document, *processors* are considered to be businesses that 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.

However, *fishing vessels* that carry out basic operations on the fish (as described in 5.3) and *retailers and caterers* who prepare fishery products for the consumer (as described in 5.8) are not considered to be *processors*.

Processors create new trade units. Those units may incorporate ingredients other than fishery products and they may be cases holding a number of separately wrapped retail items.

Table 3 — Detailed information requirements for processors

| Data element | Description | Examples | Categorisation | | | |
|---|---------------------------------|--|--|--------|-----|---|
| | | | Shall | Should | May | |
| PROCESSOR | | | | | | |
| CPR01 | Food business ID | Name and address or GLN of food business that operates processing establishment | The Seafood Co, 22 Prince Street, London, SE5 7TK, England or n3+n13 | x | | |
| CPR02 | Processing establishment ID | Name, address and registration number or GLN of processing establishment | Grimsby Seafood, Fish Dock Road, Grimsby, GY1 9SE, England. GY789 UK or n3+n13 | x | | |
| CPR03 | GMP certification | Names of fish quality or food safety GMP schemes by which processor is certified | EFSIS | | | x |
| FOR EACH UNIT RECEIVED | | | | | | |
| Identities | | | | | | |
| CPR04 | Unit ID | SSCC if received as a logistic unit or GTIN+ if received as a separate trade unit | n2+n18 or n2+n14+AI's | x | | |
| CPR05 | Trade unit IDs in logistic unit | List of GTIN+s of the trade units that make up the logistic unit (if received as a logistic unit) | List of n2+n14+AIs | x | | |
| Source | | | | | | |
| CPR06 | Previous food business ID | Name and address or GLN of food business from whom the unit was received(vessel, auction or transporter, etc.) | The Trucking Co, Goods Yard, Leeds, LS8 9FH, England or n3+n13 | x | | |
| CPR07 | Date and time of reception | Date and time of transfer from previous food business | 2002-06-28T08:30 | x | | |
| Control checks (related to the logistic or separate trade units, as appropriate) | | | | | | |
| CPR08 | Temperature check | Temperature of unit °C when received | +2.0 °C | | x | |
| CPR09 | Temperature record | Temperature/time log (if there is a recording device affixed to the unit) | Series of temperature (°C)/date and time points | | x | |
| CPR10 | Further quality control checks | Records of further quality control checks (organoleptic, physical, chemical or microbiological), each in the form of description of measurement and value, are available in electronic form, on paper or not available | Paper | | | x |
| Production history (for each trade unit between reception and processing) | | | | | | |

| Data element | | Description | Examples | Categorisation | | |
|---|------------------------------------|--|---|----------------|--------|-----|
| | | | | Shall | Should | May |
| CPR11 | Storage temperature control method | None, iced, iced and refrigerated or refrigerated | Iced and refrigerated | | x | |
| CPR12 | Temperature record | Temperature/time log of storage area for period between reception and processing | Series of temperature (°C)/date and time points | | x | |
| Transformation information (for each trade unit) | | | | | | |
| CPR13 | Related created trade unit IDs | List of the GTIN+s of the created trade units that may incorporate part of the received trade unit | List of n2+n14+Ais | x | | |
| FOR EACH TRADE UNIT CREATED | | | | | | |
| Identity | | | | | | |
| CPR14 | Trade unit ID | GTIN+ (n2+n14+AI's) | (01) 07012345000001 (10) 0000000125 | x | | |
| Description | | | | | | |
| CPR15 | Type of unit | Description of physical type of unit (box or case of 10 retail packs, etc) | Box | x | | |
| CPR16 | Net weight | Weight of product (kg) | 10 Kg | x | | |
| CPR17 | Name/type of product | Descriptive name of product (cod fillets, smoked herring fillets, 'ocean pie', sardines in oil, etc) | Cod fillets, skin on | x | | |
| CPR18 | Product specification | Records of further details of product specification (quality and size grades, etc) are available in electronic form, on paper or not available | Paper | | | x |
| CPR19 | Species | Latin names or FAO 3alpha codes (may be several species) | Gadus morrhua or COD | | x | |
| CPR20 | Primary production method | Captured or farmed (may be both) | Captured | | x | |
| CPR21 | Area/country of origin | FAO 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) | 27 | | x | |
| CPR22 | Composition | List of names of ingredients and %'s by weight, including fish | Gadus morrhua 100 % | x | | |
| CPR23 | Product condition | Ambient, chilled or frozen | Chilled | x | | |
| CPR24 | Date of durability | Best before or sell by date, as appropriate | Sell by 2002-06-30 | | x | |
| Production history | | | | | | |
| CPR25 | Process specification | Records of process specification are available in electronic form, on paper or not available | Paper | | | x |
| CPR26 | Production line IDs | The business's own IDs of the particular production lines used | F3, P4 | | | x |

| Data element | | Description | Examples | Categorisation | | |
|---|--|--|--|----------------|--------|-----|
| | | | | Shall | Should | May |
| CPR27 | Date and time of production | Time of packing/labelling at end of line | 2002-06-28T11:30:46 | | x | |
| CPR28 | HACCP | Records of HACCP analysis and critical control point checks are available in electronic form, on paper or not available | Paper | | | x |
| CPR29 | Hygiene checks | Records of hygiene checks (swab tests, etc) are available in electronic form, on paper or not available | Paper | | | x |
| CPR30 | Process temperature records | Records of temperatures (processes and process area) are available in electronic form, on paper or not available | Paper | | | x |
| CPR31 | Product quality control checks | Records of product quality control checks (organoleptic, physical, chemical or microbiological), each in the form of description of measurement and value, are available in electronic form, on paper or not available | Paper | | | x |
| Transformation information | | | | | | |
| CPR32 | Related received trade unit IDs | List of the GTIN+s of the received trade units that may be input to the created trade unit | List of n2+n14+AIs | x | | |
| FOR EACH LOGISTIC UNIT CREATED | | | | | | |
| Identities | | | | | | |
| CPR33 | Logistic unit ID | SSCC | n2+n18 | x | | |
| CPR34 | Trade unit IDs in logistic unit | List of GTIN+s of the trade units that make up the logistic unit | List of n2+n14+AIs | x | | |
| FOR EACH UNIT DISPATCHED (either as a logistic unit or a separate trade unit) | | | | | | |
| Identity | | | | | | |
| CPR35 | Unit ID | SSCC if dispatched as a logistic unit or GTIN+ if dispatched as a trade unit | n2+n18 or n2+n14+AIs | x | | |
| Production history (related to the logistic or separate trade units, as appropriate) | | | | | | |
| CPR36 | Product storage temperature control method | None, iced, iced and refrigerated or refrigerated | Iced and refrigerated | | x | |
| CPR37 | Temperature record | Temperature/time log of product holding area for period between processing and dispatch | Series of temperature (°C)/date and time points | | x | |
| Destination | | | | | | |
| CPR38 | Next food business ID | Name and address or GLN of the food business to whom the unit is dispatched (transporter or wholesaler, etc.) | The Trucking Co, Goods Yard, Leeds, LS8 9FH, England or n3+n13 | x | | |

| Data element | | Description | Examples | Categorisation | | |
|--------------|---------------------------|---|------------------|----------------|--------|-----|
| | | | | Shall | Should | May |
| CPR39 | Date and time of dispatch | Date and time of transfer to next food business | 2002-06-29T16:00 | x | | |

5.6 Transporters and storers

For the purposes of this document, *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 4 — Detailed information requirements for transporters and storers

| Data element | | Description | Examples | Categorisation | | |
|-------------------------------|---|---|--|----------------|--------|-----|
| | | | | Shall | Should | May |
| TRANSPORTER OR STORER | | | | | | |
| CTS01 | Food business ID | Name and address or GLN of food business that operates transport vehicle or storage establishment | The Trucking Co, Goods Yard, Leeds, LS8 9FH, England or n3+n13 | x | | |
| CTS02 | Transport vehicle or storage establishment ID | Nationality, name (if applicable) and registration number of vehicle or name, address and registration number of establishment, or GLN | UK S609LEC or n3+n13 | x | | |
| CTS03 | GMP certification | Names of fish quality or food safety GMP schemes by which transporter or storer is certified | EFSIS | | | x |
| FOR EACH UNIT RECEIVED | | | | | | |
| Identities | | | | | | |
| CTS04 | Unit ID | SSCC if collected or received as a logistic unit or EAN GTIN+ if received as a separate trade unit | n2+n18 or n2+n14+A1's | x | | |
| CTS05 | Trade unit IDs in logistic unit | List of GTIN+s of the trade units that make up the logistic unit (required only if received as a logistic unit and it is to be broken down or transformed by the transporter or storer) | List of n2+n14+A1s | x | | |
| Source | | | | | | |
| CTS06 | Previous food business ID | Name and address or GLN of food business from whom the unit was received (vessel, auction or processor, etc.) | The Seafood Co, 22 Prince Street, London, SE5 7TK, England or n3+n13 | x | | |
| CTS07 | Date and time of reception | Date and time of transfer from previous food business | 2002-07-29T16:00 | x | | |
| CTS08 | Place of collection | Name and address or GLN or approximate latitude and longitude if transferred at sea (this is required only for transporters) | Grimsby Seafood, Fish Dock Road, Grimsby, GY1 9SE, England or n3+n13 | x | | |

| Data element | Description | Examples | Categorisation | | | |
|---|---------------------------------|--|--|--------|-----|--|
| | | | Shall | Should | May | |
| Control checks (related to the logistic or separate trade units, as appropriate) | | | | | | |
| CTS09 | Temperature check | Temperature of unit °C when received | +2.0 °C | | x | |
| FOR EACH NEW LOGISTIC UNIT PRODUCED BY TRANSPORTER OR STORER | | | | | | |
| Identities | | | | | | |
| CTS10 | Logistic unit ID | SSCC | n2+n18 | x | | |
| CTS11 | Trade unit IDs in logistic unit | List of GTIN+s of the trade units that make up the logistic unit | List of n2+n14+Als | x | | |
| FOR EACH UNIT DISPATCHED (either as a logistic unit or a separate trade unit) | | | | | | |
| Identity | | | | | | |
| CTS12 | Unit ID | SSCC if dispatched as a logistic unit or GTIN+ if dispatched as a trade unit | n2+n18 or n2+n14+Al's | x | | |
| Production history (related to the logistic or separate trade units, as appropriate) | | | | | | |
| CTS13 | Temperature control method | None, iced, iced and refrigerated or refrigerated | Iced and refrigerated | | x | |
| CTS14 | Temperature record | Temperature/time log of the fish holding area for the period between reception and dispatch | Series of temperature (°C)/date and time points | | x | |
| Destination | | | | | | |
| CTS15 | Next food business ID | Name and address or GLN of the food business to whom the unit is dispatched (transporter or processor, etc.) | The Fish Supply Co, 13 Fish Street, Manchester, MA14 2LP, England or n3+n13 | x | | |
| CTS16 | Date and time of dispatch | Date and time of transfer to next food business | 2002-07-29T20:00 | x | | |
| CTS17 | Place of delivery | Name and address or GLN or approximate latitude and longitude if transferred at sea (this is required only for transporters) | Sheffield Fish Supplies, 48 Smith Street, Sheffield, SH31 3TU, England or n3+n13 | x | | |

5.7 Traders and wholesalers

For the purposes of this document, *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.

NOTE The particular transformations of trade units carried out by traders and wholesalers are simple operations that involve only the transfer of fishery products from unit to unit. This is commonly carried out when supplying small retail or catering businesses and often with each transformation being unique to the daily needs of each customer. However, the information requirements that would be associated with the trader or wholesaler recording a full description of the contents of each such trade unit created, particularly for picked-and-mixed units, would be extensive, complex and onerous. In these circumstances, where the nature of the fishery products transferred is unchanged, it is more practical for the trader or wholesaler to simply record the identities and weights of the different component parts of each trade unit they create (which is usually done anyway for invoicing purposes). The creators of the trade units received by the trader or wholesaler will already have recorded full descriptions of the nature of each of those component parts.

Table 5 — Detailed information requirements for traders and wholesalers

| Data element | | Description | Examples | Categorisation | | |
|---|---------------------------------------|---|--|----------------|--------|-----|
| | | | | Shall | Should | May |
| TRADER OR WHOLESALER | | | | | | |
| CTW01 | Food business ID | Name and address or GLN of food business that operates trading or wholesaling establishment | The Fish Supply Co, 13 Fish Street, Manchester, MA14 2LP, England or n3+n13 | x | | |
| CTW02 | Trader or wholesaler establishment ID | Name, address and registration number or GLN of trading or wholesaling establishment | Sheffield Fish Supplies, 48 Smith Street, Sheffield, SH31 3TU, England. SH678 UK or n3+n13 | x | | |
| CTW03 | GMP certification | Names of fish quality or food safety GMP schemes by which trader or wholesaler is certified | EFSIS | | | x |
| FOR EACH UNIT RECEIVED | | | | | | |
| Identities | | | | | | |
| CTW04 | Unit ID | SSCC if received as a logistic unit or GTIN+ if received as a separate trade unit | n2+n18 or n2+n14+AI's | x | | |
| CTW05 | Trade unit IDs in logistic unit | List of GTIN+s 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) | List of n2+n14+AIs | x | | |
| Source | | | | | | |
| CTW06 | Previous food business ID | Name and address or GLN of food business from whom the unit was received (auction, processor or transporter, etc.) | The Trucking Co, Goods Yard, Leeds, LS8 9FH, England or n3+n13 | x | | |
| CTW07 | Date and time of reception | Date and time of transfer from previous food business | 2002-06-29T20:00 | x | | |
| Control checks (related to the logistic or separate trade units, as appropriate) | | | | | | |
| CTW08 | Temperature check | Temperature of unit °C when received | +2.0 °C | | x | |
| CTW09 | Temperature record | Temperature/time log (if there is a recording device affixed to the unit) | Series of temperature (°C)/date and time points | | x | |

| Data element | Description | Examples | Categorisation | | | |
|---|---------------------------------|--|--|--------|-----|--|
| | | | Shall | Should | May | |
| FOR EACH NEW TRADE UNIT PRODUCED BY TRADER OR WHOLESALER | | | | | | |
| Identity | | | | | | |
| CTW10 | Trade unit ID | GTIN+ (n2+n14+AI's) | (01) 07012345000001 (10) 0000000125 | x | | |
| Type of unit | | | | | | |
| CTW11 | Type of unit | Description of physical type of unit (box or case of 10 retail packs, etc) | Box | x | | |
| CTW12 | Product condition | Ambient, chilled or frozen | Chilled | x | | |
| For each different component part of trade unit | | | | | | |
| CTW13 | Type of fishery product | Identifying description or name of fishery product | Sheffield Fish cod fillets | x | | |
| CTW14 | Net weight | Weight of fishery product (kg) | 10 Kg | x | | |
| CTW15 | Received trade unit ID | The GTIN+ of the received trade unit from which the component was taken | | x | | |
| FOR EACH NEW LOGISTIC UNIT PRODUCED BY TRADER OR WHOLESALER | | | | | | |
| Identities | | | | | | |
| CTW16 | Logistic unit ID | SSCC | n2+n18 | x | | |
| CTW17 | Trade unit IDs in logistic unit | List of GTIN+s of the trade units that make up the logistic unit | List of n2+n14+AIs | x | | |
| FOR EACH UNIT DISPATCHED (either as a logistic unit or a separate trade unit) | | | | | | |
| Identity | | | | | | |
| CTW18 | Unit ID | SSCC if dispatched as a logistic unit or GTIN+ if dispatched as a trade unit | n2+n18 or n2+n14+AI's | x | | |
| Production history (related to the logistic or separate trade units, as appropriate) | | | | | | |
| CTW19 | Temperature control method | None, iced, iced and refrigerated or refrigerated | Iced and refrigerated | | x | |
| CTW20 | Temperature record | Temperature/time log of fish holding area for period between reception and dispatch | Series of temperature (°C)/date and time points | | x | |
| Destination | | | | | | |
| CTW21 | Next food business ID | Name and address or GLN of the food business to whom the unit is dispatched (transporter, processor or retailer, etc.) | F. Monger and Sons Ltd, High Street, Sheffield, SH1 5GF, England or n3+n13 | x | | |
| CTS22 | Date and time of dispatch | Date and time of transfer to next food business | 2002-07-30T07:00 | x | | |

5.8 Retailers and caterers

For the purposes of this document, *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 document does not extend to sale to the public.

Table 6 — Detailed information requirements for retailers and caterers

| Data element | | Description | Examples | Categorisation | | |
|--|------------------------------------|---|--|----------------|--------|-----|
| | | | | Shall | Should | May |
| RETAILER OR CATERER | | | | | | |
| CRC01 | Food business ID | Name and address or GLN of food business that operates retail or catering establishment | F. Monger and Sons Ltd, High Street, Sheffield, SH1 5GF, England or n3+n13 | x | | |
| CRC02 | Retail or caterer establishment ID | Name, address and registration number or GLN of retail or catering establishment | F. Monger and Sons Ltd, High Street, Sheffield, SH1 5GF, England. SH629 UK or n3+n13 | x | | |
| CRC03 | GMP certification | Names of fish quality or food safety GMP schemes by which retailer or caterer is certified | EFSIS | | | x |
| FOR EACH UNIT RECEIVED | | | | | | |
| Identities | | | | | | |
| CRC04 | Unit ID | SSCC if received as a logistic unit or GTIN+ if received as a separate trade unit | n2+n18 or n2+n14+AI's | x | | |
| CRC05 | Trade unit IDs in logistic unit | List of GTIN+s of the trade units that make up the logistic unit | List of n2+n14+AIs | x | | |
| Source | | | | | | |
| CRC06 | Previous food business ID | Name and address or GLN of food business from whom the unit was received (processor, wholesaler or transporter, etc.) | The Fish Supply Co, 13 Fish Street, Manchester, MA14 2LP, England or n3+n13 | x | | |
| CRC07 | Date and time of reception | Date and time of transfer from previous food business | 2002-07-30T07:00 | x | | |
| Control checks (either on the logistic or separate trade units) | | | | | | |
| CRC08 | Temperature check | Temperature of unit °C when received | +2.0 °C | | x | |
| CRC09 | Temperature record | Temperature/time log (if there is a recording device affixed to the unit) | Series of temperature (°C)/date and time points | | x | |

| Data element | Description | Examples | Categorisation | | | |
|--|----------------------------|--|---|--------|-----|--|
| | | | Shall | Should | May | |
| FOR EACH TRADE UNIT HELD FOR SALE | | | | | | |
| Production history | | | | | | |
| CRC10 | Temperature control method | None, iced, refrigerated, iced and refrigerated, etc | Iced & refrigerated | | x | |
| CRC11 | Temperature record | Temperature/time log of storage area and or display, as appropriate, for period between reception and sale or date of minimum durability | Series of temperature (°C)/date and time points | | x | |

5.9 Bringing in fish and materials from outside of the Tracefish domain

The following information requirements apply to fish and materials received from businesses that are not operating to the Tracefish specifications. This includes the supply of non-fish ingredients to processors. These requirements replace those under the heading *for each unit received*, sub-heading *identities*, in each of the tables in 5.3 to 5.8 above, and are additional to the other requirements tabulated. They both identify and provide a description of the received units.

Table 7 — Detailed information requirements for business that bring supplies from outside of the Tracefish domain

| Data element | Description | Examples | Categorisation | | | |
|--|---------------------------------|---|--|--------|-----|---|
| | | | Shall | Should | May | |
| COT01 | Unit ID | SSCC if received as a logistic unit or GTIN+ if received as a separate trade unit, or other means of identification | n2+n18 or n2+n14+AI's | x | | |
| COT02 | Trade unit IDs in logistic unit | List of GTIN+s of the trade units that make up the logistic unit, or other means of identification | List of n2+n14+AIs | x | | |
| General description of each trade unit | | | | | | |
| COT03 | Creator of unit | Name, address and registration number or GLN of the food business establishment that created the unit | The Mei Ling Fishery Co, Wharf 9, East harbour, Hong Kong. HK 26980 or n3+n13 | x | | |
| COT04 | Creator's GMP certification | Names of fish quality or food safety GMP schemes by which creator of unit is certified | EFSIS | | | x |
| COT05 | Type of unit | Single fish, box or case of 10 retail packs, etc | Single fish | x | | |
| COT06 | Net weight | Weight of product (kg) | 45 Kg | x | | |
| COT07 | Product condition | Live, ambient, chilled or frozen | Frozen | x | | |
| Further description of each trade unit for all fishery products | | | | | | |
| COT08 | Species | Latin names or FAO 3alpha codes (may be several species) | Thunnus alalunga or ALB | | x | |

| Data element | | Description | Examples | Categorisation | | |
|--|-----------------------------|--|---------------------------------|----------------|--------|-----|
| | | | | Shall | Should | May |
| COT09 | Primary production method | Captured or farmed (may be both) | Captured | | x | |
| COT10 | Area/country of origin | FAO 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) | 61 | | x | |
| Further description of each trade unit for fish prior to processing | | | | | | |
| COT11 | Product form | Whole, gutted or headed, etc. | Gutted | x | | |
| COT12 | Size grade | Nominal weight (kg) or length (cm) range, or ungraded | Ungraded | | x | |
| COT13 | Date of capture or sailing | Preferably recorded as date when fish brought on board but otherwise recorded as date when vessel left port | Captured 2002-01-23 | x | | |
| COT14 | Fishing method | Trawl, long line or gill net, etc (as FAO alpha code) | LL | | x | |
| COT15 | Ethical aspects of fishery | Names of sustainable fishing schemes by which fishery is certified, and specific environmental benefits of fishing gear (dolphin friendly, etc). | MSC | | | x |
| Further description of each trade unit for processed fishery products | | | | | | |
| COT16 | Name/type of product | Descriptive name of product (cod fillets, smoked herring fillets, 'ocean pie', sardines in oil, etc) | Smoked tuna steaks | x | | |
| COT17 | Composition | List of names of ingredients and %'s by weight, including fish | Thunnus alalunga 95% Salt 5% | x | | |
| COT18 | Date of durability | Best before or sell by date, as appropriate | Best before 2003-01-00 | | x | |
| COT19 | Date and time of production | Time of packing/labelling at end of line | 2002-01-28T11:30 | | x | |
| Further description of each trade unit for ingredients to be incorporated in processed fishery products | | | | | | |
| COT20 | Name/type of ingredient | Descriptive name of ingredient (salt, olive oil, breadcrumbs or potato flakes, etc). | Salt | x | | |
| COT21 | Composition | List of names and %'s by weight | Salt 100 % | x | | |
| COT22 | Date of durability | Best before or sell by date, as appropriate | Best before 2003-08-00 | | x | |

Annex A (informative)

The background to the development of the Tracefish scheme

A.1 The need for traceability and the difficulty of achieving it in the fish industry

There are increasing demands for traceability throughout the food chain. The root causes of many of the recent food safety problems have been found in the primary production sector, although the problems are manifested at the other end of the food chain in the products sold to consumers. Hence there are needs to trace back through the chain to determine the causes of the problems and then, in taking remedial action, to trace forward from those causes to withdraw or recall all the unsafe products produced. With chain traceability in place, these tasks can be done efficiently and with the minimum of commercial disturbance. Without chain traceability, whole sectors of the food industry may have to be closed down on a precautionary basis and the costs can be ruinous.

Legislators are now acting on traceability in order to protect the public. Food businesses, particularly the large retailers and those producing branded goods, are increasingly demanding traceability to assure their standards and to protect their businesses.

Chain traceability is not yet generally in place in the captured fish industry. The difficulties of establishing it are largely in the industry's diversity and complexity of trade.

A.2 The diversity and complexity of the captured fish industry

This is an industry that trades globally in a vast range of finfish and shellfish species and their products, and which is hugely diverse in comparison to other protein sources.

There are hundreds of different species of fish captured around the world, often with specialised fisheries, fish handling and food safety requirements. This fish is pursued and captured in the wild by independent fisherman. This encompasses enormous variability in comparison to the controlled farming, often monoculture, of other protein sources. A similarly wide range of live, chilled, frozen, processed and added-value fishery products are then produced and traded within the various distribution chains, again often with specialised food handling and food safety requirements. There is a huge and complex international trade in the raw materials, primary and secondary processed products.

The diversity of the distribution chains was highlighted in a multinational survey carried out by the EU Concerted Action on Fish Quality Labelling and Monitoring (FQLM) (FAIR PL98-4174), in which the participating European and Nordic countries identified their trading patterns and described their distribution chains.

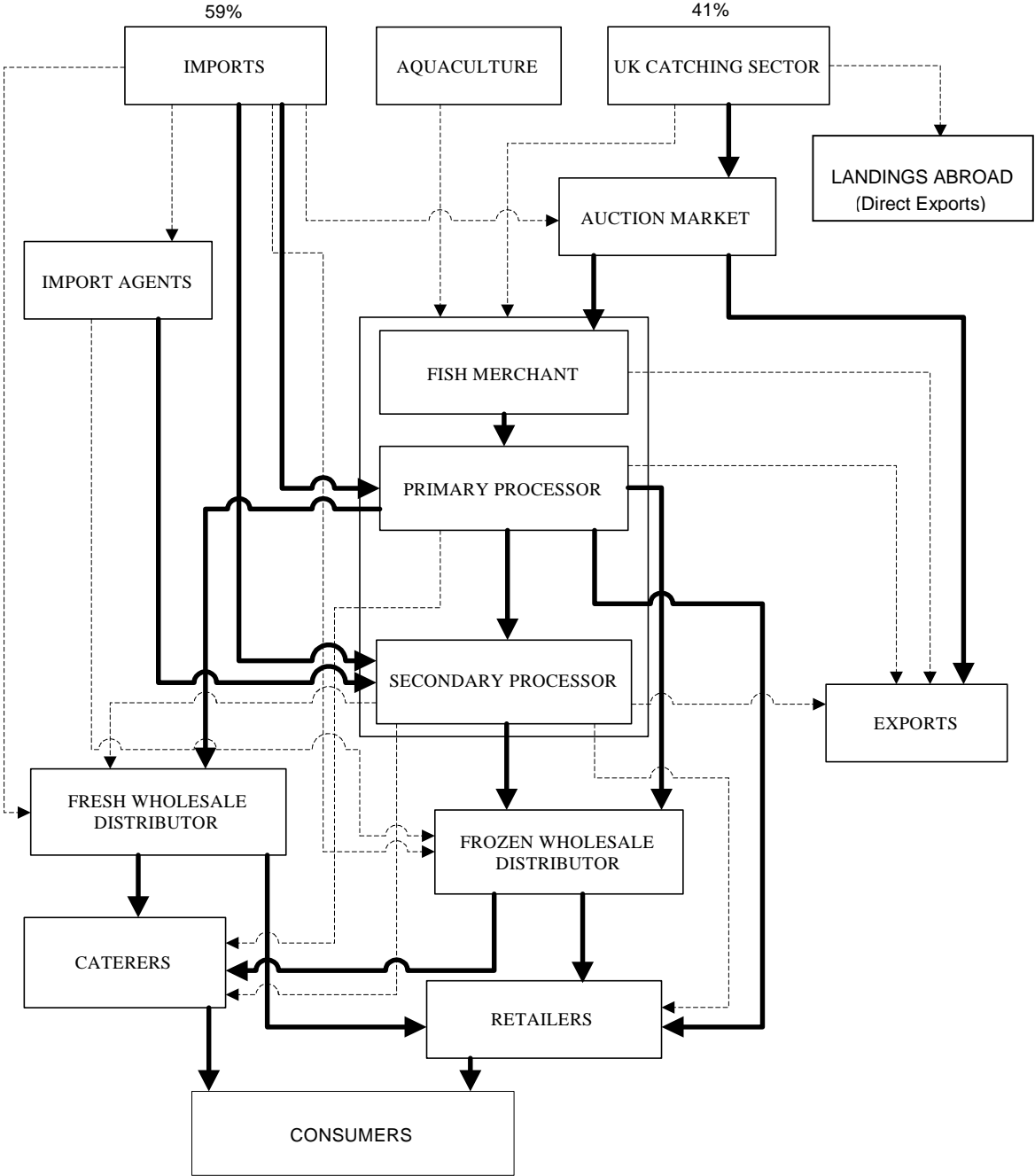
The results are published on the FQLM website www.fqlm.nl. They show considerable differences between the countries in their production and consumption patterns. The heaviest consumption per capita and the widest range of taste for fish species, are in the countries in the South of Europe. The Nordic countries are characterised largely as producers and exporters of a more limited range of cold water species. Consumers in the South buy largely intact or primary processed chilled fish, whilst those in the densely populated mid-latitudes buy largely processed products, mainly frozen.

The distribution chains serving these needs range from short and direct chains supplying fresh fish to local communities, to long and complex chains sourcing raw materials and supplying processed products worldwide.

Characteristically in the Southern countries, there are many inshore vessels that may sell directly to consumers on the quayside or to local retailers via small port auction markets. In the mid-latitudes, there are complex chains involving imports and national landings, port auction markets, fish merchants, primary

processors, secondary processors, transport and storage, inland markets, wholesalers, retailers and caterers. Fish change ownership many times and are handled by many different food businesses whilst passing through such complex chains. An example of this complexity, the distribution chain for demersal fish in the UK, is shown below. In the Nordic countries the distribution chains are usually simpler, often with large vessels landing directly to processors who export the products. The processors often own those vessels.

*The Structure of the Demersal Fish Distribution Chain in the UK (from FQLM Survey).
The most common links are shown in bold.*



Even within each geographic region there are major structural differences between the distribution chains for the different types of fishery products: for demersal fish, pelagic fish and live shellfish, and for chilled, frozen and the various types of processed products. The detail of operation of these distribution chains is also

diverse, reflecting the differing histories, cultures and physical environments from the Mediterranean to the Arctic.

Countries in the mid-latitudes, such as Germany and the UK, import the great majority of fish consumed by their population but also have a large processing capacity and considerable export trade in added-value products. This import/export trade is complex. For example, the UK imports large quantities of codstuffs for processing but directly exports most of its pelagic catch by landing it in Denmark or Norway. It exports much of its shellfish catch to France and Spain, but after landing it in the UK and processing a large proportion of it. UK businesses also financially trade in large quantities of shrimp from around the world, that may not even physically pass through the UK.

Much of the fish industry, particularly in the catching sector, remains in the hands of small businesses. However, the corporate food industry in the form of the branded-product producers, the multiple retailers and the large catering chains, is increasingly occupying the mass consumer markets for fish. These businesses are now the driving force throughout much of the industry, particularly that serving the densely populated mid-latitudes with a taste for added value and convenience foods. The corporate food industry has difficulty in dealing with the complexity and variability of the traditional fish supply industry. It seeks to simplify and establish assured standards in its supply chains, including traceability.

A.3 The status of the fish industry in respect of information and traceability

This was investigated by the Captured Fish Workgroup of the Tracefish Concerted Action. Representatives of the participating European and Nordic countries were nominated and tasked with drafting simple models of their distribution chains. This was to identify:

- batches within the chains;
- attributes of such batches;
- information requirements;
- methods of communicating this information;
- and problems of transformation of the batches in the fish chains.

The reports are published on the Tracefish website www.tracefish.org. They focus on particular distribution chains but still reflect the overall diversity of those chains. They also show a degree of commonality in the issues raised.

They show that a large amount of information is generated and used in the distribution chains, for both legal and commercial reasons, but that much if not most of that information is effectively lost in respect of chain traceability. It is generated for particular reasons, such as fisheries management or accounting purposes, usually in a specific form for its particular purpose, and is not made available for other purposes. In addition, this information is often not tied to the physical units of fish it describes and so is useless for the purpose of traceability. Even if initially tied, those units may later be transformed, for example in the sorting of fish at an auction market, and so the linkage to the particular fish may be lost. However, there are some chains, such as those in vertically integrated catching and processing businesses and those using the recently developed weighing and labelling at sea and forward information systems, in which the information is not lost. The large branded-product producers achieve a high level of chain traceability, based largely on contracting freezer vessels for their raw material supplies.

The reports show a considerable degree of commonality between the EU and Nordic States in the requirements for information. There is similarity in their food law requirements and, in any case, the Nordic exporters of products to the EU have to comply with EU food law. Crucial for traceability are the food law requirements for the identification of processing establishments and the lot-marking of their products, although the EU food rules concerning the identification of sources and batches do not yet fully apply to the raw materials supplied by the vessels.

There is also similarity in the requirements for detailed information on the catches of fish to be supplied to the fisheries management authorities, indeed those requirements may be more extensive in the Nordic States. This includes information on what, when and how catches are made. However, this information is not usually tied to the physical units of fish concerned or passed on through the distribution chain at landing. Some tied information, including date of capture, does have to be passed on at landing in some Nordic States.

There is of course some commonality in the commercial needs for information at each of the stages in the distribution chains, although the availability of this information and its transfer differ according to the nature of the particular chain concerned and the position within it. Detailed information on origin and temperature control is available in some pelagic and frozen fish supply chains. Auction markets where fish are physically sorted and graded are seen to present particular problems for the loss of information and traceability. Processors tend to operate broadly similar production control and quality assurance systems in which batches are identified and recorded, often by product specification and processing date/time code, with the quality assurance records tied to that ID. The information on batch sources, product specifications and quality assurance records is normally held by the processors, rather than passed on, but major customers such as the multiple retailers are likely to insist that this information is made available when required.

This variety of information is also held and communicated in a wide variety of forms. Fisheries management information is required to be in specific paper or electronic logbook formats. The commercial information is still largely paper-based but with inroads being made by electronic systems for sales and production control/quality assurance records. Information is still commonly communicated on paper or by telephone or fax. The 'EAN.UCC bar code based global identification system is commonly used by the corporate food industry for retail package, case and pallet identification.

The FQLM Concerted Action concluded that each of the various distribution chains can be characterised as a series of transaction points at which the traders need information on fish quality. The FQLM multinational survey asked the traders at these transaction points about what types of information on fish quality they really wanted, rather than what they were currently getting.

The results show that the commercial operators want a whole range of information on the fish, from its capture onwards, to be available right through the distribution chains to retail level. Notably, information is wanted not only on origin but also on environmental aspects of the fisheries, on temperature control throughout the chain and on the GMP status of the food businesses involved. Undoubtedly, much of this need for information stems from the demands of the multiple retailers who are exerting pressure back through the chains.

Annex B (informative)

The philosophy of the Tracefish scheme

B.1 The concept of traceability

ISO defines traceability as *the ability to trace the history, application or location of that which is under consideration*, and notes that *when considering products this can relate to the origin of materials and parts and the processing history*.

This is a more extensive definition than that in the EU Regulation on Food Law, with implications beyond that law's fundamental requirement to be able to trace the food through the various food businesses that handle it in the distribution chain. The information required may therefore include what the food is and what has happened to it, as well as where it has come from and who was responsible for it. These further aspects of traceability are important in relation to food safety, quality and labelling.

Traceability concerns only the *ability* to trace things, which means that the necessary information must be available when required. It does not mean that the information must at all times be *visible* by being labelled on the food or being with it.

B.2 Dealing with the diversity and complexity of the captured fish distribution chains

To achieve a commercially significant level of participation, the Tracefish scheme must be inclusive rather than directed at a particular distribution chain, yet be as simple and understandable as possible.

The philosophy adopted is that although virtually every distribution chain is different, they all appear to be made up of an arrangement of a number of characteristic components or *building blocks* and the generic information requirements associated with each of those building blocks can be standardised.

The characteristic components identified are:

- fishing vessels;
- vessel landing businesses and auction markets;
- processors;
- transporters and storers;
- traders and wholesalers;
- and retailers and caterers.

Any given distribution chain may be made up of some or all of these components but not necessarily in the sequence listed. Transport and storage can occur at various stages in the chain, although the information requirements for transporters and storers should in principle remain similar. Processing may be split into primary and secondary (added value) processing and it may even be done at sea, but again the information requirements for processors should in principle remain similar. Trading and wholesaling may be dealing in the raw materials, semi-processed or fully processed products, but again the requirements for traders and wholesalers should remain similar.

Some businesses may carry out the functions of more than one of these building blocks, for example distribution businesses may act as wholesalers and as transporters, in which case those businesses must take up the relevant information requirements for each of the functions carried out.

It is recognised that there is difficulty in fitting this standardised building block approach to some specialised distribution chains. The chains handling live bivalve molluscs are an obvious case as they involve specialised operations such as live holding, relaying and purification and substantially different food safety and animal health requirements. The chains for fishmeal and oil production, which include industrial fishing and the collection of processing waste, are similarly specialised.

To ease the task of developing the Tracefish scheme, this initial captured fish information specification is geared to the production and distribution for human consumption of wild-caught finfish and their products. Some shellfish, such as shrimp and nephrops, may fit naturally into this mould. Information specifications for other, more specialised distribution chains will have to be considered after this initial project. Essential information on the supply of other food materials into the finfish distribution chains, such as the ingredients incorporated into added value products, is included in the specification but the production chains for those materials are not covered.

Adopting this building block approach enables the information documents for captured and farmed distribution chains to be substantially harmonised. In principle they need differ only in the information requirements for primary production.

B.3 The types of information required and their prioritisation

The types of information that may be required can be broadly categorised into:

- fundamental traceability information;
- specifically required information;
- and commercially desirable information.

Fundamental traceability information is that required to identify the food and trace its physical movement through the distribution chains. Essential parts of this information concerning the suppliers and destinations of food will, under the EU Regulation on Food Law, have to be held by each food business and be made available to the competent authorities and to other food business operators for the purpose of product withdrawal or recall. For each food business, the fundamental information includes:

- their own ID and location;
- the quantities, nature and unit IDs of the food (including materials to be incorporated in food) received by the business;
- the ID's of the previous food businesses (from whom those units were received);
- the dates/times and places of reception;
- the quantities, nature and unit IDs of the food dispatched by the business;
- the ID's of the next food businesses (to whom those units are dispatched);
- the dates/times and places of dispatch;
- and the 'mapping' relationships between the units received and dispatched (when units are transformed by the business).

Note that when units are transformed by a business, the mapping relationship between the units received and the units dispatched need not be simple and direct. For example, a fish processor may use many units of raw material, perhaps from different sources, whilst producing units of product. Each unit of product may possibly

be associated with a number of units of raw material, and vice versa. Traceability requires that the mapping relationship is known, not that it should be a simple 1:1 relationship.

Specifically required information is particular information on the nature of the food and on the circumstances of its production that is required by law for particular purposes, and which must be made available to the appropriate authorities or persons for those purposes. These requirements vary with national legislation and the type of food and food business.

Examples of specifically required information include:

- fishing logs recording vessel ID, master, fishing method, fishing areas and times, catch species and quantities, landing place and time, etc, that must be supplied by the master to the fisheries authority;
- records of the first sale of fish including vessel ID, master, species, size and quality grades, date and place of sale, ID's of buyer and seller, quantities and prices, etc, that must be supplied by the seller to the fisheries authority;
- the species, method of production and area of origin that for many products is required by EU law to be labelled at retail sale, and hence which must be passed through the distribution chains from capture onward;
- the results of chemical and bacterial analyses and temperature control logs, etc, that are specifically required under food safety legislation or under the general obligation for the monitoring of critical control points, which must be held by the food businesses and be accessible by the food authority (and be directly supplied to the food authority in some instances);
- animal health, particularly disease control, and welfare information concerning the origins, movement and condition of some species and products, particularly live shellfish, which must be supplied or be available to the authorities and/or be passed through the distribution chains to other food businesses;
- and customs and excise and trading (financial) information that must be held by businesses and be supplied to the appropriate authorities for purposes such as taxation, etc.

Commercially desirable information, on the nature of the food and on the circumstances of its production, is sought by food businesses for a variety of reasons. These include maximising the efficiency of their own operations, limiting their own liabilities under product liability and safety legislation, assuring the safety and quality of their products, enabling accurate labelling and substantiating their marketing claims, etc. The requirements for this information do, of course, vary from business to business.

Examples of commercially desirable information include much of that already listed above and:

- details of raw materials, products, processes and controls that are required for reasons of business efficiency, product labelling and to ensure product safety and quality;
- ethical information on the nature of the fisheries, on their sustainability and on their environmental impact that is required to satisfy the concerns of consumers;
- the date of capture of the fish and data on temperature control through the chain that are required to assure product safety and quality;
- and information on the GMP status of the food businesses involved in the chain that is required to ensure product safety and quality, etc.

Clearly there is a huge range of information of potential interest. Given this and the enormous variety of fishery products and distribution chains, and differences between countries in their specific legal requirements, the information specifications cannot itemise all the information that may possibly be required in every situation. Hence there is a need for prioritisation, with the aim of providing a generic basis for traceability. For this purpose, the information itemised in the documents is categorised as:

- the fundamental information necessary to identify and physically trace the products, that shall be recorded;

- specific information that is required by law in relation to food safety, quality and labelling, together with important elements of commercially desirable information related to those matters, that should be recorded;
- and further specific and commercial information considered to be of sufficient relevance to be included in the documents, that may be recorded.

Some areas of relevant information, such as the HACCP analyses and checks carried out by a processor, are complex data sets that are individual to each product, process and business and so are difficult to standardise. To account for this, some flexibility is allowed in the specifications for businesses to record further information in their own non-standardised files but keyed to the units of food produced.

B.4 The units to be identified and traced

The physical units traded are those to be identified and traced. These may range from individual large fish, boxes of fish or even the entire catch landed by the vessel, through to packages of products dispatched by the processor.

An ID system that applies to the trade in goods of all types is already in operation throughout the world, under the auspices of EAN International and the Uniform Code Council. This system is widely used in the food industry, including current trade in processed fishery products.

The EAN.UCC system defines a *trade unit* as *any item (product or service) upon which there is a need to retrieve pre-defined information and that may be priced or ordered or invoiced at any point in the supply chain, and adds this definition covers raw materials through to the end-user products and also includes services, all of them having pre-defined characteristics.*

Trade units are marked with a *Global Trade Identification Number* (GTIN) which incorporates a code allocated by EAN.UCC to uniquely identify the company and another code allocated by the company to denote the item (usually indicating product type). Further data can be attributed to the item using *Application Identifiers* (AI's), commonly used to further describe the product (e.g. weight and date of minimum durability) and to uniquely identify each particular trade unit. The production batch and item serial numbers, or simply the date and time of production, are often used to uniquely identify each trade unit. A further EAN code, the *Global Location Number* (GLN), can be allocated by the company to identify particular locations (e.g. vessels or premises).

However, goods are also transported or stored as *logistic units*, such as pallets, which contain a number of separately identified trade units. The trade units within a logistic unit may all be similar in type or they may be different, for example in a pallet of mixed products assembled by wholesaler to send to a retailer. Each logistic unit is marked with a *Serial Shipping Container Code* (SSCC), which uniquely identifies the company and the particular logistic unit.

These various EAN.UCC identifiers are usually expressed as standardised bar code labels on the units.

To achieve chain traceability, the business that creates each trade unit, whatever its form, must uniquely identify it with a GTIN plus a particular unit code (i.e. a GTIN+ in the terminology of this document). Businesses that transform trade units, such as processors who convert the units of raw materials received into the products dispatched, create new units and must give them new IDs. The relevant information for the traceability of the units is recorded by their creator and by the businesses that subsequently trade them physically through the distribution chain.

Similarly, businesses that assemble logistic units must identify each logistic unit with a SSCC and record the IDs of the trade units that make up each logistic unit. Businesses that transport, store or trade intact logistic units merely have to record the limited information related to those logistic units rather than their component trade units. However, distributors often transform logistic units or break them down to the separate trade units prior to dispatch. These businesses must also record the relationships mapping the trade units between the logistic units received and the units dispatched.

B.5 Dealing with missing information

Given the complexity of many fish distribution chains and that there may be many small food businesses involved, and that the Tracefish scheme is voluntary, the reality that the full information will not be available from all sources will have to be accounted for. Businesses may be dependant on suppliers who have not generated and held the required information.

This is likely to apply in particular to imports from third countries, upon which Europe is now very much dependant. The full history of these imported supplies may be complex and uncertain and may involve many remote food businesses. Even within Europe, fish may not pass along pre-ordained routes and may change hands many times. For example, it is quite common for the ownership of fish bought on an auction market to change after the auction and before the fish has left the market. It may be tipped into different boxes and be mixed in that process. During distribution, fishery products may be transferred between food business operators at the roadside. If some of the food business operators involved do not participate in the Tracefish scheme or do not record the proper information, then full chain traceability may be lost.

However, it is also likely that the major businesses in the distribution chains will, for their own commercial reasons, require chain traceability and hence insist that all the food business operators in their supply and dispatch chains sign up to this. Therefore, in time, commercial pressure is expected to reduce this problem.

Supplies from outside of the Tracefish domain may be raw materials or products and may be brought in by businesses trading at various stages in the distribution chains. Raw materials from outside of the Tracefish domain will include ingredients to be incorporated into added value fishery products, such as spices and other types of foods, whose production and distribution chains are not covered by the Tracefish scheme.

To deal with this it is required that:

- a business that brings in fish and materials from outside of the Tracefish domain is responsible for generating and holding the information required on the units brought in (and if those units are traded onward, for labelling them with the required IDs);
- and that the information required on the units brought in consists of the essential attributes of those units that would normally have been generated and held for that type of unit by that stage in the distribution chain.

B.6 Dealing with the security, rights of access and supply of information

Clearly the food businesses will not wish to make all this traceability information publicly available, particularly not to their competitors or even in many instances to their own suppliers and outlets. Even the fundamental traceability information has considerable commercial value, as open access to it would reveal a business's suppliers, markets and trading patterns. Therefore, there is a need to consider the rights to information and the control of access to it.

The rights of the various authorities to the fundamental traceability and specifically required information are prescribed in law. Food business operators have a right to some of the specifically required information that the law requires to be passed on. They will also have a legal right to relevant fundamental traceability information when engaged in withdrawal or recall procedures, but not otherwise. There are no rights to the commercially desirable information other than those agreed or contracted between trading partners.

However, in practice there is considerable and increasing commercial pressure to provide information. Trade with much of the corporate food industry is now subject to suppliers and distributors agreeing to quality assurance standards and traceability requirements, including the holding or the supply of the associated information. Multiple retailers even share relevant on-line sales information with major suppliers to facilitate just-in-time stock replenishment.

To achieve commercial acceptance, the Tracefish information specifications are for the generation and holding of information, not for the dissemination of that information. The food businesses remain, in effect, the owners of their information. The passing on of information, other than that prescribed by law, remains a matter

of commercial policy or commercial agreement between businesses. The establishment of the information specifications will, of course, ensure that the necessary information is available, and the technical specification will facilitate the communication of the information when required.

The business solutions built on the specifications will require secure business to business handshaking protocols to ensure that only those with a legitimate reason can gain access, and then only to the particular information on the particular units to which they have a right.

A consequence of this is that the information desired by the trade to be visible at the various transaction points in the distribution chains will not necessarily be available, unless there are commercial arrangements for that information to be passed on through the chains from the businesses that generated it. It is strongly recommended that such arrangements are made, but that is not part of the Tracefish scheme.

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