Fisheries & Aquaculture Master Data Attribute Implementation Guide

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Draft 0.1	2 October 2013	Tom Heist	Edited comments, changed producer to producer/processor and highlighted to aid review (no track changes at this time)
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1 Introduction

1.1 General Guidance

Companies whose item master lists or databases (commonly referred to in the industry as an "item master") use "free form" product descriptions are encouraged to replace those descriptions with standardized product descriptions based on established fish attribute definitions. This will make it easier to maintain an item master list.

There are hundreds of attributes defined by GS1 today. In the guide we have outlined attributes specific for the Fisheries & Aquaculture sector. This guide is designed to provide guidance for implementing New Item Listing of your product(s) and exchanging Master Data Attributes between trading partners.

1.2 Purpose and Scope of this Document

The purpose of the Fisheries & Aquaculture Master Data Attribute Implementation Guide is to provide best practice guidelines for industry-wide adoption for New Item Listing.

This guide provides support to companies seeking to electronically exchanged fish and aquaculture product information in accordance with GS1 Standards. The guidance applies to the full range of fish trade items. The guide outlines which attributes should be used for fish items and recommends best practices for the use of these standards to exchange static fish data between suppliers and retailers. Today, different platforms as well as different means to item identification exist when it comes to data sharing. The use of GS1 Standards, specifically for Identification, Traceability, Track and Trace, Barcode labels and EDI transactions, provides a common platform to help supply chain partners share and understand the same information about products and locations.

Attributes are used as a means to describing specific information about an item when transacting business. They reflect a certain characteristic about the item such as identifiers, weights, dimensions, and supplier information.

The guide outlines Industry Core Specific, Industry Commodity Required and Attributes not used in all Markets attributes to be used by the Fish industry. This guide is platform neutral and can be used with or without third party service providers. Adoption of the guidance offered in this document is voluntary and will be determined by the trading partner relationship.

Note: The trading of fish and aquaculture trade items are subject to regulation in some target markets. Examples in this guideline are intended to communicate best practices for the exchange of master product data and may not include other information required by local regulation or by trading partners. The term "Fish" used in this guideline represents fish and aquaculture trade items.

2 Overview

2.1 The GTIN – Basis for effective trade processes

The GTIN (Global Trade Identification Number) is part of the global GS1 system and helps to uniquely identify products, selling units, trading units and services. The GTIN enables companies to capture product data automatically for example by barcode scan – from catch to point-of-sale. GTIN is also a key Attribute for Master Data Exchange.

Furthermore it provides the basis for electronic data interchange (EDI) between suppliers and retailers. From product ordering by electronic systems, to reliable identification in warehouse and availability at retail: trading partners can optimize their bilateral trading processes regardless of restrictions of sector or country. In electronic messages such as order, despatch advice and invoice the GTIN identifies consumer units as well as sales units / trade units.

The GTIN identifies loose or pre-packed trade items at any stage of the supply chain up to the end consumer. In order to ensure the use of the GTIN along the entire supply chain, the GTIN should be allocated as early as possible. In the fish sector the GTIN is be assigned by the party which brings the product into the market; this can be the producer/processor or wholesaler.

The Brand Owner of private label products (aka the Private Label Brand Owner, or PLBO) is responsible for assigning GTINs for those products, not the producer/processor or wholesaler serving that PLBO.

One specific case is retailer brands: To enable labelling of the retailers own brand of a product, suppliers receive all needed information and item numbers from the retailer. It is also important to note that a trading partner who assigns GTINs for consumer goods will be held responsible for the GTIN administration of these trading units.

If a basic characteristic or a packaging characteristic is different from the original product, a new GTIN always needs to be allocated.

The question for the Fish sector now is the following: When does a producer/processor, distributor, wholesaler or retailer have to allocate a new GTIN for a product? *For further information on creating a GTIN (Global Trade Item Number) please contact your local GS1 Member Organisation*

Note: For more information on GTIN Allocation Rules, please refer to the GS1 General Specifications.

3   Industry Roles

IMPORTS

FISH FARMING

FISHING VESSEL

FISH MARKET

PRODUCER/ FISHMONGER & AUCTION

FACTORY/ PROCESSOR

WHOLESALER/ DISTRIBUTION CENTER

RETAILER

FISH SHOP

SALE

EXPORTS

CONSUMPTION

Note: Note: For clarity of the diagram TRANSPORT CARRIER, is not shown
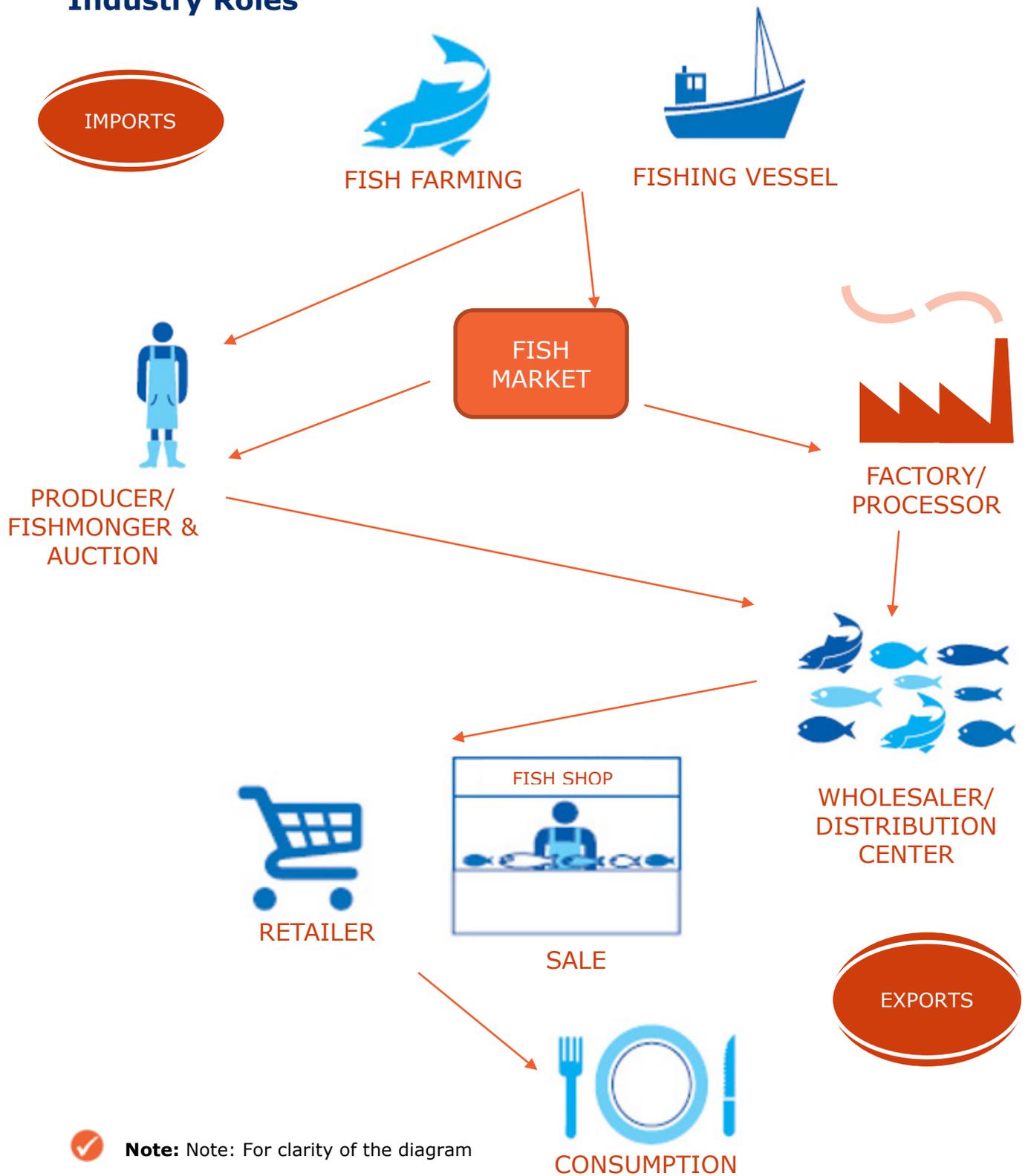
Party	Description
Fishing Crew	Catches fish and delivers it in bulk to the Producer/Processor
Factory Fishing Vessel	A vessel equipped to catch fish, to perform some basic initial processing and to segregate and sometime grade the various species
Fish Processing Vessel	A vessel with extensive on-board facilities for processing and freezing fish. They catch fish, process and grade fish, pack fish in retail ready packaging and freeze them
Fish Farmer	Feeds, grows and harvests fish for distribution to a Processor
Auction	Receives fish and confirms compliance with sanitary laws, prior to processing and entry into the commercial supply chain.
Transport Carrier	Transports caught and harvested fish between any trading partners, physically handles trade items (cases or pallets), maintains sanitary and temperature controls, and maintains accountability information (temperature, traceability, etc.)
Producer/Processor	Receives fish in bulk from Fishing Crew a Factory Fishing Vessel or Auction, then cleans and fillets the fish, packs into boxes and ships to a Distribution Centre
Distribution Centre	Receives fish from Producer/Processor, a Fish Processing Vessel or fishing crew, then ships to other parties.
Wholesaler	Receives product from Distribution Centre and ships to Restaurant to order. These organizations are also referred to as "Foodservice Distributors" in the US market.
Restaurant	Receives product from Wholesaler and consumes it to make prepared food eaten on premises. (Includes food prepared in schools, hospitals, etc.)
Retailer	Receives fish from upstream supplier and sells the product to consumers.

3.1   Roles

When defining roles in the supply chain, you may find the same person/company to play different roles; for instance, a Distribution Centre may also be a private label packer.

Note: Food Processor and Fish Markets are out of scope for this document.

The chart below outlines Supply Chain Roles, Responsibilities and trade Activities.

Role	B2B Trade Activities				
	Stock		Trade	Transport	Customs
	Owner	On Behalf Of	Buy/Sell		
Supply					
Fishing Crew			S	X	
Factory Fishing Vessel			S	X	
Factory Processing Vessel	X		S		
Fish Farmer	X		S		
Auction			S		
Producer/Processor			B/S		
Distribution Centre			S		
Wholesale:					
Wholesaler			B/S		
Transportation/Logistic					
Transport Carrier				X	
Distribution Centre				X	
Wholesaler (Carrier on land)				X	
Retail					
Retailer	X		B/S		
Restaurant	X		B/S		

We distinguish nine (9) key roles of responsibility in the Fish Supply Chain:

- Fishing Crew

- Factory Fishing Vessel

- Fish Processing Vessel

- Auction

- Transport Carrier

- Producer/Processor

- Distribution Centre

- Wholesaler

- Retailer/Restaurant

My Role is	What is expected from me?
Fishing Crew	Catch fish and deliver to a producer/processor.

My Role is	What is expected from me?
Factory Fishing Vessel	Catch fish and perform some basic initial processing.

My Role is	What is expected from me?
Fish Processing Vessel	Catch, process and grade fish.
	Pack fish in retail ready packaging.
	Freeze and deliver to a distribution centre.
	Label product at both the retail packaging level and outer case level.

My Role is	What is expected from me?
Fish Farmer	Feeds, Grows and Harvest fish
	Sell to processors

My Role is	What is expected from me?
Auction	Receive caught fish for inspection and compliance with sanitary laws
	Sell compliant fish for entry into the supply chain

My Role is	What is expected from me?
Transport Carrier	Transports caught and harvested fish between any trading partners
	Physically handle trade items (cases or pallets)
	Maintain sanitary and temperature controls
	Maintain accountability information (temperature, traceability, etc.)

My Role is	What is expected from me?
Producer/Processor	Receives fish in bulk
	Process and grade fish
	Pack fish in retail ready packaging
	Freeze and deliver to a distribution centre
	Label product at both the retail packaging level and outer case level
	Deliver to a warehouse
	Deliver fresh fish to a restaurant or fish market

My Role is	What is expected from me?
Distribution Centre	Receives fish in retail ready packaging
	Label product (if necessary) at both the retail packaging level and outer case level
	Deliver fish to a restaurant or fish market
	Transport trade units between commercial partners

My Role is	What is expected from me?
Wholesaler	Buys trade units or organizes trade
	Sells trade units (not to the end consumers) or organizes trade
	Stores trade units (optionally)
	Imports or exports trade units (optionally)
	Physically handles the product
	Transport trade units between commercial partners
	Record traceability information

My Role is	What is expected from me?
Retailer / Restaurant	A retailer/restaurant buys goods or product in large quantities from Producer/Processors or Distribution Centres, either directly or through a Wholesaler, and then sells individual items or small quantities to the general public or end user customers, usually in a shop, also called store. Retailers are at the end of the supply chain.
	Restaurants may prepare and serve fish for consumption. The role of Restaurant includes food service preparation entities e.g. schools, hospitals, etc.
	Buys trade units
	Records traceability information
	Sells to the end consumer

3.2   What Functions Do I perform in the Supply Chain?

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Fishing Crew	Catch and deliver fish			Supplier

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Factory Fishing Vessel	Catch fish, perform some basic initial processing and segregate and sometimes grade the various species			Supplier
		Catch and store fish without initial processing, segregating and grading for delivery to a processor.		Supplier

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Fish Processing Vessel	Catch, process, package, label and freeze retail ready fish.			Supplier and Processor
		Participate in fishing co-operative and label fish under different brands.		Supplier and Processor

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Fish Farmer	Feed, Grow and Harvest fish.			Supplier

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Auction	Sell sanitary compliant fish			Processor

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Transport Carrier	Transporting fish between trading partners			Carrier

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Producer/Processor	Preparation and packaging of fish for distribution			Processor

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Distribution Centre	Receipt and distribution of packaged fish to retail			Distributor

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Wholesaler	Buy and sell or organize trade (not to the end consumers)		Sell packed & labelled trade units with/without pre-packaged consumer units	Wholesaler
		Sell by Private Label Brand name (assign GTIN)	Sell packed & labelled trade units with/without pre-packaged consumer units with private label.	Wholesaler
		Transport trade units to commercial partners		Carrier

Who am I?	What is my main activity?	What might I do optionally?	What is my Sales activity?	My Role is
Retailer / Restaurant	Sell to the end consumers		Sell loose or pre-packaged consumer units	Retailer
	Sell ready to eat fish to consumers			Restaurant
		Sell by own Private Label Brand name (assign GTIN)	Sell packed & labelled trade units with/without pre-packaged consumer units with private label	Retailer

4   Master Data Attributes & Definitions

There are hundreds of attributes to describe a product but this guide points out attributes necessary for identifying fish products. We have broken these attributes into 3 sections:

- **Industry Core Attributes** – these attributes apply to all Fish commodities.

- **Industry Commodity Required Attributes –** attributes specific to a certain products

- **Attributes not used in all Markets** – attributes which apply to certain local / regional requirement or regulations only

✓ **Note:** As a guide when filling out a New Item Listing form, fill in the Industry Core Specific attributes first. Second, fill in the Industry Commodity Required attributes and third the Target Market attributes.

The list of attributes and definitions in the following tables are taken from the GS1 Global Data Dictionary, with some additional guidance provided for implementation.

4.1 Industry Core Attributes

Industry Core Attribute	GDD Attribute	GDD Definition
Global Trade Item Number	globalTradeItemNumber	A particular Global trade item Number, a numerical value used to uniquely identify a trade item. A trade item is any trade item (trade item or service) upon which there is a need to retrieve pre-defined information and that may be planned, priced, ordered, delivered and or invoiced at any point in any supply chain. GTIN is one of the keys of the GS1 System
Brand Name	brandName	The recognisable name used by a brand owner to uniquely identify a line of trade item or services. This is recognizable by the consumer.
Trade Item Country Of Origin	tradeItemCountryOfOrigin	The country code (codes) in which the goods have been produced or manufactured, according to criteria established for the purposes of application of the value may or may not be presented on the trade item label.
		Implementation Notes: The Country of Origin is the list of all potential countries the item could be grown in. It is the actual Country of Origin for each transaction to be exchanged via transactional data. This entry should represent the actual country of origin where the item is grown. If a consumer unit contains a mix of produce from different countries, then all countries need to be listed.
Packaging Type Code	packagingTypeCode	Identifying the type of package used as a container of the trade item.
Quantity Of Next Lower Level Trade Item	quantityOfNextLowerLevelTradeItem	The number of one child trade item contained by the parent trade item. The number of next lower level trade item that this trade item contains. This applies to a specific child GTIN and denotes how many of that child there are
Net Content & UoM (Unit of Measure)	netContent	The amount of the trade item contained by a package, usually as claimed on the label.
		Implementation Notes The total declared weight, volume or content on the package. This field can be repeated to accommodate several values as necessary. The net content is required when the GTIN is marked as being a consumer unit. It is the sellable unit to the consumer.
Height & UoM	height	This is the height of both the unit load (content) and the platform upon which the goods are carried, if there is one. Height is the vertical dimension from the lowest extremity to the highest extremity.
		Implementation Notes The measurement of the height of the trade item. The vertical dimension from the lowest extremity to the highest extremity, including packaging. At a pallet level the trade item height will include the height of the pallet itself. Measurements are relative to how the customer normally views the trade item. Needs to be associated with a valid UoM.

Industry Core Attribute	GDD Attribute	GDD Definition
Width & UoM	Width	The measurement of the extent of something from side to side. Width is the measurement from left to right.
		Implementation Notes: The measurement from left to right of the trade item. Measurements are relative to how the customer normally views the trade item. Needs to be associated with a valid UoM.
Depth & UoM	Depth	The measurement from front to back of the trade item. Measurements are relative to how the customer normally views the trade item. Needs to be associated with a valid UoM.
Gross Weight & UoM	grossWeight	The weight of both the unit load (content) and the plat-form upon which the goods are carried, if there is one.
		Implementation Notes: This would be the sum of the net weight of the product plus the tare weight of the packaging. Refer to the examples under the PMA Value List column for gross weight.
Trade Item Description	tradeItemDescription	An understandable and useable description of a trade item using brand and other descriptors.
Trade Item Unit Descriptor	tradeItemUnitDescriptor	Describes the hierarchical level of the trade item. If have more than one level of packaging hierarchy, would have a separate entry/record for each level of packaging hierarchy. The hierarchical level can be a bin, a case, or a consumer unit, etc.
Net Weight & UoM	netWeight	Used to identify the net weight of the trade item. Net weight applies to all levels but consumer unit level. Net Weight excludes all packaging material, including the packaging material of all lower-level GTINs.
		Implementation Notes Does not include tare weight. In the case of a variable weight product, this would be the average weight. It is recommended that this be populated at all levels of the published hierarchy
Quantity Of Layers Per Pallet	quantityOfLayersPerPallet	This would be the number of layers for a full pallet; for example the produce industry predominately uses the GMA 48x 40 pallets for one product. The attribute would be the total number of layers for a pallet or the "HI". These are populated on the highest non-Pallet GTIN in the hierarchy.
Quantity Of Trade Items Per Pallet Layer	quantityOfTradeItemsPerPalletLayer	The number of trade items contained on a single layer of a pallet. Only used if the pallet has no GTIN. It indicates the number of trade items placed on a pallet layer according to supplier or retailer preferences.
Effective Date	effectiveDate	This field is the date the data becomes effective.
Brand Owner (GLN)	brandOwner	Unique location number (Global Location Number or GLN) identifying the brand owner. May or may not be the same entity as the information provider.

Industry Core Attribute	GDD Attribute	GDD Definition
Name Of Brand Owner	nameOfBrandOwner	Name of the party who owns the brand of the trade item. This is the name of the company that owns the brand. For example, D'Arrigo Bros. owns Andy Boy brand so the value entered for Brand Owner is D'Arrigo Bros. where Andy Boy is the Brand name
Information Provider Of Trade Item (GLN)	informationProviderOfTradeItem (GLN)	The GLN and additional identification(s) that identify the party providing the information about the trade item. This GLN may not be the same as the brand owner, specifically in the case of private label brands. It is the GLN for the provider of the product information which may or may not be the GTIN owner.
Name Of Information provider	nameOfInformationprovider	Name of the party who owns the data. Name of the information provider on the trade item.
Name of Manufacturer	nameOfManufacturer	Descriptive name of the manufacturer of the trade item. This is the name(s) of the company which is responsible for the manufacturing process. This field can be repeated as necessary in conjunction with the Manufacturer GLN.
Manufacturer of Trade Item (GLN)	ManufacturerOfTradeItem (GLN)	The identification of the manufacturer of the trade item. Unique location number (Global Location Number or GLN) identifying the manufacturer.
Is Trade Item An Orderable Unit	IsTradeItemAnOrderableUnit	An indicator identifying that the information provider considers this trade item to be at a hierarchy level where they will accept orders from customers. This may be different from what the information provider identifies as a despatch unit. This may be a relationship dependent based on channel of trade or other point to point agreement. **Implementation Notes** Is this packaging level the orderable level? Normally, this is YES if the level is the case.
Is Trade Item A Variable Unit	IsTradeItemAVariableUnit	Indicates that an article is not a fixed quantity, but that the quantity is variable. Can be weight, length, volume. Trade item is used or traded in continuous rather than discrete quantities.
Is Trade Item A Base Unit	IsTradeItemABaseUnit	An indicator identifying the trade item as the base unit level of the trade item hierarchy. This is y/n (Boolean) where y indicates the trade item is a base unit.
Is Trade Item A Consumer Unit	IsTradeItemAConsumerUnit	Identifies whether the current hierarchy level of a trade item is intended for an ultimate consumption. For retail, this trade item will be scanned at point of sale. At retail, this data is commonly used to select which GTINs should be used for shelf planning and for front end POS databases. This indicator is populated when this GTIN level is marked so as to be processed across a point of sale system for sale to an end user.
Is Trade Item A Despatch Unit	IsTradeItemADespatchUnit	An indicator identifying that the information provider considers the trade item as a despatch (shipping) unit.

Industry Core Attribute	GDD Attribute	GDD Definition
Is Trade Item An Invoice Unit	IsTradeItemAnInvoiceUnit	An indicator identifying that the information provider will include this trade item on their billing or invoice. This may be relationship dependent based on channel of trade or other point to point agreement.
Is Packaging Marked Returnable	IsPackagingMarked Returnable	Trade item has returnable packaging. **Implementation Notes:** This refers to the packaging for this GTIN level, and not the product itself. This is the empty shipping container, primarily.
Is Non Sold Trade Item Returnable	IsNonSoldTradeItem Returnable	Indicates that the buyer can return the articles that are not sold. This is an indicator that any product which is not sold can be returned.
Is Trade Item Marked As Recyclable	IsTradeItemMarkedAs Recyclable	Trade item has a recyclable indication marked on it. This may be a symbol from one of many regional agencies.
Quantity Of Complete Layers Contained In Trade Item	quantityOfCompleteLayers ContainedInTradeItem	The number of layers of the base trade item found in a trade item. Does not apply to the base trade item unit. **Implementation Notes:** Do not use this attribute unless you have assigned a GTIN to the pallet level of the hierarchy and the pallet is an orderable and invoice unit of measure. This is only populated on the Pallet GTIN.
Quantity Of Trade Items Contained In A Complete Layer	quantityOfTradeItems ContainedInA CompleteLayer	The number of trade items contained in a complete layer of a higher packaging configuration. Used in hierarchical packaging structure of a trade item. Cannot be used for trade item base unit. **Implementation Notes:** Do not use this attribute unless you have assigned a GTIN to the pallet level of the hierarchy and the pallet is an orderable and invoice unit of measure. This is only populated on the Pallet GTIN.
Quantity Of Trade Items Per Pallet	quantityOfTradeItemsPerPallet	The number of trade items contained in a pallet. This is total number of units on a pallet (should be TI x HI)
Start Availability Date Time	startAvailabilityDateTime	The date from which the trade item becomes available from the manufacturer, including seasonal or temporary trade item and services. This is the date when orders can first be placed.
Last Change Date Time	lastChangeDateTime	Indicates the point in time where the last modification on a Trade Item was made.
Description Short	descriptionShort	A free form short length description of the trade item that can be used to identify the trade item at point of sale. The schema uses common library component as shown in the GDD Max Size field. For the business requirements for item, please use the specific definition of this data type and field.

Industry Core Attribute	GDD Attribute	GDD Definition
Additional Trade Item Description	additionalTradeItem Description	Additional variants necessary to communicate to the industry to help define the product. Multiple variants can be established for each GTIN. This is a repeatable field, e.g., Style, Color, and Fragrance. The schema uses common library component as shown in the GDD (Global Data Dictionary) Max Size field. For the business requirements for item, please use the specific definition of this data type and field, 1-350.
Classification Category Code	classificationCategoryCode	The classification category associated with a specific condition. **Implementation Notes:** This is the GPC Brick Code. It classifies the type of produce, the category of produce and the commodity itself.
Ingredient Sequence	IngredientSequence	This is an Integer (1; 2; 3…) indicating the ingredient order by content percentage of the product. (major ingredient = 1; second ingredient = 2) etc.
Ingredient Name	IngredientName	Text field indicating one ingredient or ingredient group (according to regulations of the target market). Ingredients include any additives (colorings; preservatives; e-numbers; etc.) that are encompassed.
Ingredient Statement	IngredientStatement	Information on the constituent ingredient makeup of the product specified as one string. Can only occur one time per GTIN.
Packaging Material Code	packagingMaterialCode	The code identifying the type of package used as a container of the trade item.
Display Type Code	displayTypeCode	A code determining the type of display a trade item is for example Shelf Display Ready Packaging.
Organic Claim Agency	organicClaimAgency	A governing body that creates and maintains standards related to organic products.
Organic Trade Item Code	organicTradeItemCode	Used to indicate the organic status of a trade item or of one or more of its components.
Target Market Country Code	targetMarketCountryCode	The name for the specific target market identified with the Target Market Country Code. The description will be generated from the ISO 3166-1 code list. The target market is at country level or higher geographical definition and is where a trade-item is intended to be sold.

4.2 Industry Commodity Required Attributes

Industry Commodity Required Attribute	GDD Attribute	GDD Definition
Catch Area For Fish And Seafood	catchArea (Fast Track)	1. FAO Major Fishing Areas For statistical purposes, 27 major fishing areas have been internationally established to date. These comprise

		- eight major inland fishing areas covering the inland waters of the continents, - Nineteen major marine fishing areas covering the waters of the Atlantic, Indian, Pacific and Southern Oceans, with their adjacent seas. The major fishing areas, inland and marine, are identified by their names and by two-digit codes.
Catch Method For Fish And Seafood	catchMethod (Fast Track)	Catch method for fish and seafood is specified by FAO, Fisheries and Aquaculture Department of the Food and Agriculture Organization of the United Nations. This required attribute will help the global retail industry to fulfil the EU requirements for a common fisheries policy.
Production Method For Fish And Seafood Code	productionMethodForFishAndSeafoodCode (Fast Track)	Required attribute of production method for fish and seafood is specified by FAO, Fisheries and Aquaculture Department of the Food and Agriculture Organization of the United Nations. This required attribute will help the global retail industry to fulfil the EU requirements for a common fisheries policy.
List Of Species For Fishery Statistics Purposes	speciesForFisheryStatisticsPurposes (Fast Track)	1) Species For Fishery Statistics Purposes Code (FAO 3 alpha code). 2) Species For Fishery Statistics Purposes Name (FAO scientific name).
StorageStateCode	StorageStateCode (Fast Track)	Specify and describe that the referred product was previously frozen or not. In case of fish and seafood or meats like Chicken and Beef
Item Code	tradeItemIdentification	GTIN or other identifier of the product

4.3   Attributes not used in all Markets

Attributes not used in all Markets	GDD Attribute	GDD Definition
Size Grade	descriptiveSize	Portion size or weight of seafood e.g. jumbo shrimp 31/35
EU Quality	gradeCode	This is the official grading regulations. The various species are graded by freshness or quality as being either Grade E, A or B (from 'E' for 'Extra Fresh' to 'B' for least fresh, 'V' for live, and 'SO' for not applicable)
EU Size	sizeCode	This refers to a standardised EU sizing regulation based on each broad species. The sizes can be designated using alphanumeric codes (such as 1, 2, 3, 4a, 4b, etc.)
EU Presentation Codes	May not be a master data attribute. It could pass how the fish could be displayed but not how it is presented for sale. No existing attribute.	Again, this is based on a standardised table describing how the product is presented for sale, where each presentation type is represented by a 3 character alphanumeric code (e.g. WHL for whole)

5   New Item Listing

Master Data Attributes – The base for long term success in your business

Using the Global Trade Item Number (GTIN) is the key to a successful business. As a supplier of fish, you need the GTIN to uniquely identify your product. The GTIN is the key to modern electronic business processes. Single components of the GS1 System fit to each other as tools in a tool box. They can be variously combined. Producers/Processors and suppliers are able to optimize their business processes step-by-step using this GS1 tool box.

The GTIN is linked to Attributes which provide specific details of the product. Synchronising complete and accurate data attributes at the beginning of the New Item Listing process will save time and money in the long run. From there, everything else falls into place such as transmitting orders, despatch advices/ASNs (Advance Shipping Notice) and electronic invoices. Mistakes can be avoided and communication to customers accelerated. All partners in the supply chain gain benefits.

This guide outlines the Attributes specific to Fisheries & Aquaculture.

Business Scenario Example

The Business Scenario example below is meant to provide guidance when completing the attribute sheet. Not all attributes need to be filled in for each trade item. Organisations need to determine which best fits their product(s).

Note: The business scenario describes and explains the use of GS1 Keys and associated attributes.

5.1   Business Scenario:

Business Scenario Overview

This business scenario involves the processing of ocean-caught fish that is processed into fillets for shipment to restaurants.

Fishing takes place at sea where the caught fish is placed into reusable containers identified by GRAI. The individual fish that fill the containers do not themselves carry any identification, so the container acts as a proxy for the fish itself. At the time of loading, critical tracking information about

the fish is associated with the GRAI of the container including the location in the form of geocoordinates (sea areas do not have GLNs), how the fish was caught, crew ID and cold chain data.

The fishing crew ships the container to the harbour where a producer/processor unloads and receives the raw fish for further processing where their GRAIs are read and the fish are then poured onto a production line to be cleaned and filleted. Upon reaching the end of the production line, the filets are packed into cardboard boxes, each identified by a SGTIN. Once the boxes are loaded with fillets, workers use a reader to read the boxes' IDs and transmit that information to an internal database. The software then links all of the ID numbers (the GRAIs of the reusable container in which the fish arrived, as well as those on the cardboard boxes containing the fillets) and stores the fish location and status data so it can be accessed via the Internet. The fish from one reusable container filled three cardboard boxes, and the reusable and cardboard containers are linked based on the sequence in which the container and then the cardboard boxes are read. When one reusable container ID is read, the first three cardboard boxes to be loaded and read are linked to that particular container. The boxes are loaded on pallets for the transport to the distribution centre where the boxes are reallocated for different whole sale stores. The wholesaler receives the fish from the distribution centre and unpacks the product for sale of individual units of fish as groceries to consumers or e.g. for restaurants

Business Scenario Detail

The following describes a typical process flow for this business scenario.

1. (Fishing Crew) Fish are caught somewhere in the northern sea and put in reusable containers that are tagged with GRAIs. The data about the fish (amount, name of fisher, type of capture, type of fish, where in longitude and latitude) is stored and may also be registered in a government database. This information is linked to the GRAI. The exact number of fish is not counted nor recorded.

2. (Fishing Crew) Container is shipped to the processing plant at the harbour and GRAI tag is read.

3. (Producer/Processor) The fish is then poured onto a production line to be cleaned and filleted and put into cardboard boxes that are tagged with SGTINs. The tags are read and are linked to the container GRAI.

4. (Producer/Processor) The boxes are then loaded onto pallets

5. (Producer/Processor) The pallets are loaded onto a truck and transported to a Distribution Centre.

6. (Distribution Centre) The pallets are unloaded from the truck

7. (Distribution Centre) Pallets are subsequently shipped to the Wholesaler; a handheld reader reads the tags.

8. (Wholesaler) Pallets are received by wholesaler.

9. (Wholesaler) Product is picked to order.

10. (Wholesaler) Product is shipped to Retailer.

11. (Restaurant) At the Restaurant, the store's employees read the tags once more, indicating the fillets had arrived. A staff member prints a report with a map and a graph listing the time and location where the fish was caught, as well as its movement to the store.

6   Glossary

Listed below are terms used by the fishing industry and their cross-references with the GS1 Glossary of Terms.

Sector Term	GS1 Glossary Term	Definition
▪ Each ▪ Base Unit ▪ Saleable Unit	Trade Item	Any item (product or service) upon which there is a need to retrieve pre-defined information and that may be priced, ordered, or invoiced at any point in any supply chain.

Sector Term	GS1 Glossary Term	Definition
▪ Case ▪ Traded Unit ▪ Bin ▪ Tote ▪ Pallet ▪ RPC ▪ Tray ▪ Crate	Standard Trade Item Grouping	A standard composition of trade item(s) that are not intended for point-of-sale scanning. The PTI has chosen to use the GTIN-14 for case level traceability.
▪ Pallet ▪ Non-Standard Mixed Case	Logistics Unit	An item of any composition established for transport and/or storage that needs to be managed through the supply chain.
Pallet	Unit Load	One or more transport packages or other items contained on a platform making them suitable for transport, stacking, and storage as a unit.
	Global Trade Item Number (GTIN)	The globally-unique GS1 System identification number for products and services. A GTIN may be 8, 12, 13, or 14 digits in length. The GTIN-14 has been selected for use in the PTI.
	Indicator Digit	The leftmost digit of a GTIN in a GTIN-14. The digit '0' indicates a base unit Global Trade Item Number, digits 1 to 8 are used to define a packaging hierarchy of a product with the same Item Reference, and digit 9 indicates a variable measure trade item.
	GS1 Company Prefix	A globally-unique number assigned to companies by GS1 Member Organizations to create the identification numbers of the GS1 System.
	Check Digit	A digit calculated from the other digits of an element string, used to check that the data has been correctly composed or correctly keypunched.
	Item Reference Number	The part of the GTIN allocated by the user to identify a trade item for a given GS1 Company Prefix.
	Application Identifier (AI)	The field of two or more digits at the beginning of an element string that uniquely identifies its format and meaning within the GS1 System.

Listed below are business terms used by the fishing industry

Term	Description
FAO Fishing Area Code	A two-digit code established by the Food and Agriculture Organization (FAO) of the United Nations to identify major inland and ocean water fishing areas.
FAO 3Alpha Code	A three-letter code assigned by the FAO to identify fish and ocean species.