EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR MARITIME AFFAIRS AND FISHERIES

FISHERIES POLICY ATLANTIC, NORTH SEA, BALTIC AND OUTERMOST REGIONS
Data Management

THE INTEGRATED FISHERIES DATA MANAGEMENT PROGRAMME

Subject: **FLUX Sales Implementation Document in the EU – v2.9.0**

1. INTRODUCTION

This document describes the implementation of the UN/CEFACT standard of the exchange of data **within the EU context** for activities about fisheries products taking place after the landing of fisheries products until the first sale.

The domain is called the "sales" domain. It covers the following activities about fisheries products:

- First Sale: exchanges of sales notes;

- Storage: exchanges of take-over documents;

The targeted audience of this document is business and technical staff responsible for system implementation of the sales domain.

2. GLOSSARY

CR	the Control Regulation EC No 1224/
EC	European Commission
EFCA	European Fisheries Control Agency
ERS	Electronic Reporting System
EU	European Union
FLUX	Fisheries Language for Universal eXchange
FMC	Fisheries Monitoring Centre
GP	General Principles
MDR	Master Data Register
MS	Member State
RFMO	Regional Fisheries Management Organization
SN	Sales note
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business
TOD	Take-over document
XML	eXtensible Markup Language
XSD	XML Schema Definition

3. LEGAL BASIS

The implementation of the standard within EU-context applies within the scope of the Control Regulation, as defined in art. 2 and 3 of EC No 1224/2009 (CR). Therefore only electronic message exchanges (called ERS messages) between countries are covered by the present guide but for sake of clarity the document mentions sometimes the exchanges between actors inside a country.

For each activity, the business rules and definition of mandatory and optional data attributes and data elements are based on requirements defined in the following regulation:

- Control Regulation EC No 1224/2009 (**CR**) as amended by the Common Fisheries Policy R. (EU) No. 1380/2013 and by the "Omnibus" Regulation (EU) 2015/812;

- Multiannual recovery plan for Bluefin tuna in the eastern Atlantic and Mediterranean EU No 302/2009 (MRP BFT);

- Commission Implementing Regulation (EU) 404/2011 amended by the Commission Implementing Regulation (EU) 2015/1962;

4. REFERENCES

The following documents and data structures are directly linked and should be read in connection to this Implementing Guide:

Standard	Version
FLUX BRS: P1000 – 1; General principles	2.1
FLUX BRS: P1000 – 2; Fishing Vessel domain	3.2
FLUX BRS: P1000 – 3; Fishing Activity domain	1.1
FLUX BRS: P1000 – 5: Sales domain	1.1

Sales UN/CEFACT XSD
FLUXSalesReportMessage_3p1.xsd
FLUXSalesQueryMessage_3p0.xsd
FLUXResponseMessage_6p0.xsd

The documents are available on the Master Data Register page of the European Commission Fisheries website[1].

5. SCOPE, STAKEHOLDERS AND TERMINOLOGY

5.1. Scope

This document covers the exchange of information between different stakeholders in the EU about fisheries products after the landing operation of these products until the first sales but excluding information about transport documents[2].

A sales note shall be issued and transmitted when fish is sold at first sales. A take-over document shall be generated when the fisheries products are temporarily stored.

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[1] http://ec.europa.eu/fisheries/cfp/control/codes/index_en.htm

[2] Transport documents are covered by another implementation document:
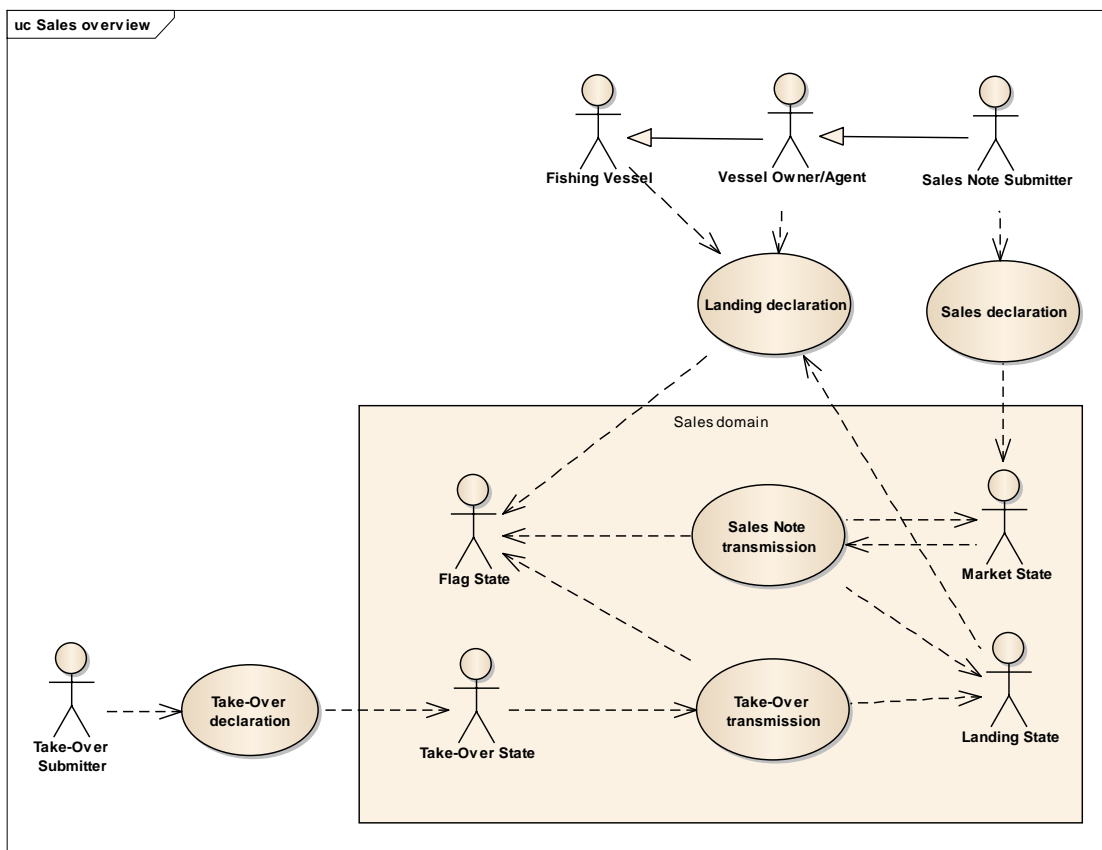
Sales domain: Sales overview diagram.

5.2. Stakeholders

The following stakeholders take part in the sales note data flows:

Flag State	The administration of the Flag State of the fishing vessel
Landing State	The administration controlling the landings of the products
Market State	The administration of the State in whose territory the first sale of fisheries products takes place
Sales Note Submitter	Registered buyers, registered auctions or other bodies or persons authorised by MS which are responsible of the first marketing of fisheries products
Fishing Vessel Responsible	The master of the fishing vessel or his representative
International Organization	A party (the European Commission (DG MARE), EFCA…) that could receive and/or request sales note information

The following stakeholders take part in the take-over data flows:

Take-Over State	The administration of the MS where the take-over took place
Take-Over Submitter	Registered buyers, registered auctions or other bodies or persons authorised by MS which are responsible of the first marketing of fisheries products generating the take-over document
Flag State	The administration of the Flag State of the fishing vessel
Landing State	The administration of the Coastal State responsible for controlling the landings of the products concerned by a first marketing
International Organization	A party (the European Commission (DG MARE), EFCA…) that could receive and/or request take-over document

5.3. Terminology

As regards the EU implementation of sales notes (**SN**), an ERS electronic sales note (e-SN) exchanged between MS is a document about fisheries products coming from **one landing and one fishing vessel only** and sold at first sale to **one buyer**.

As regards the EU implementation of take-over documents (**TOD**), an ERS electronic take-over document (e-TOD) exchanged between MS is a document about fisheries products stored at **one location** and coming from **one landing and one fishing vessel only**.

6. PROCEDURES

6.1. Assumptions

The exchange of the business messages described in this document will be done through the FLUX Transportation Layer for which technical and functional documentations have been already published on the Master Data Register (MDR) page of the European Commission Fisheries website[3].

Furthermore, it is assumed that data exchanges are fully automated and immediate. No human approval or intervention should be needed for data exchanges of well-formed messages for which the business rules are defined in this document.

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[3] http://ec.europa.eu/fisheries/cfp/control/codes/index_en.htm

6.2. General principles

There are two ways of exchanging Sales reports:

• Reporting of sales reports by the Market state or the Take-Over state;
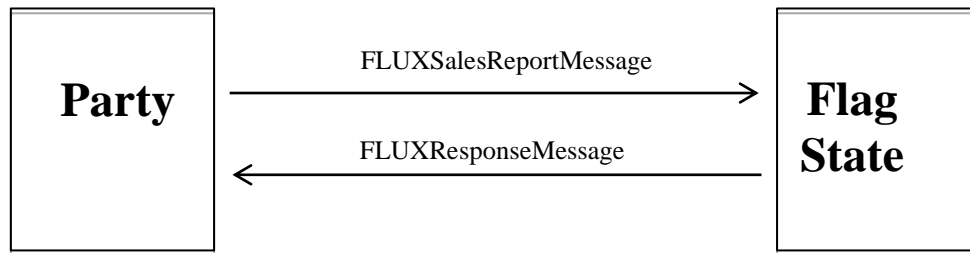
• Query for sales reports by the Flag state, Landing state or International organizations;
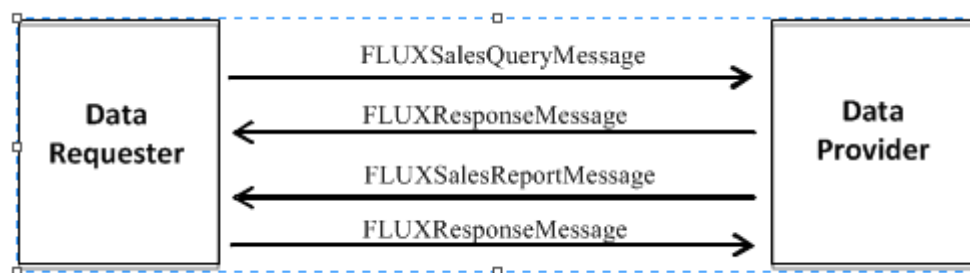
The following picture describes the normal procedure for sending Sales report messages. This procedure respects the FLUX General Principles transmission procedure.

act Report Message Transmission

Report Msg Submitter	Report Msg Receiver

Message Creation

Message Validation

Msg Valid?

No

Yes

Send Report Msg

FLUX Report Msg

Receive Report Msg

Message Validation

Receive Response

FLUX Response Msg

Send Response

Out of Scope

Msg Valid?

No

Yes

Report Verification
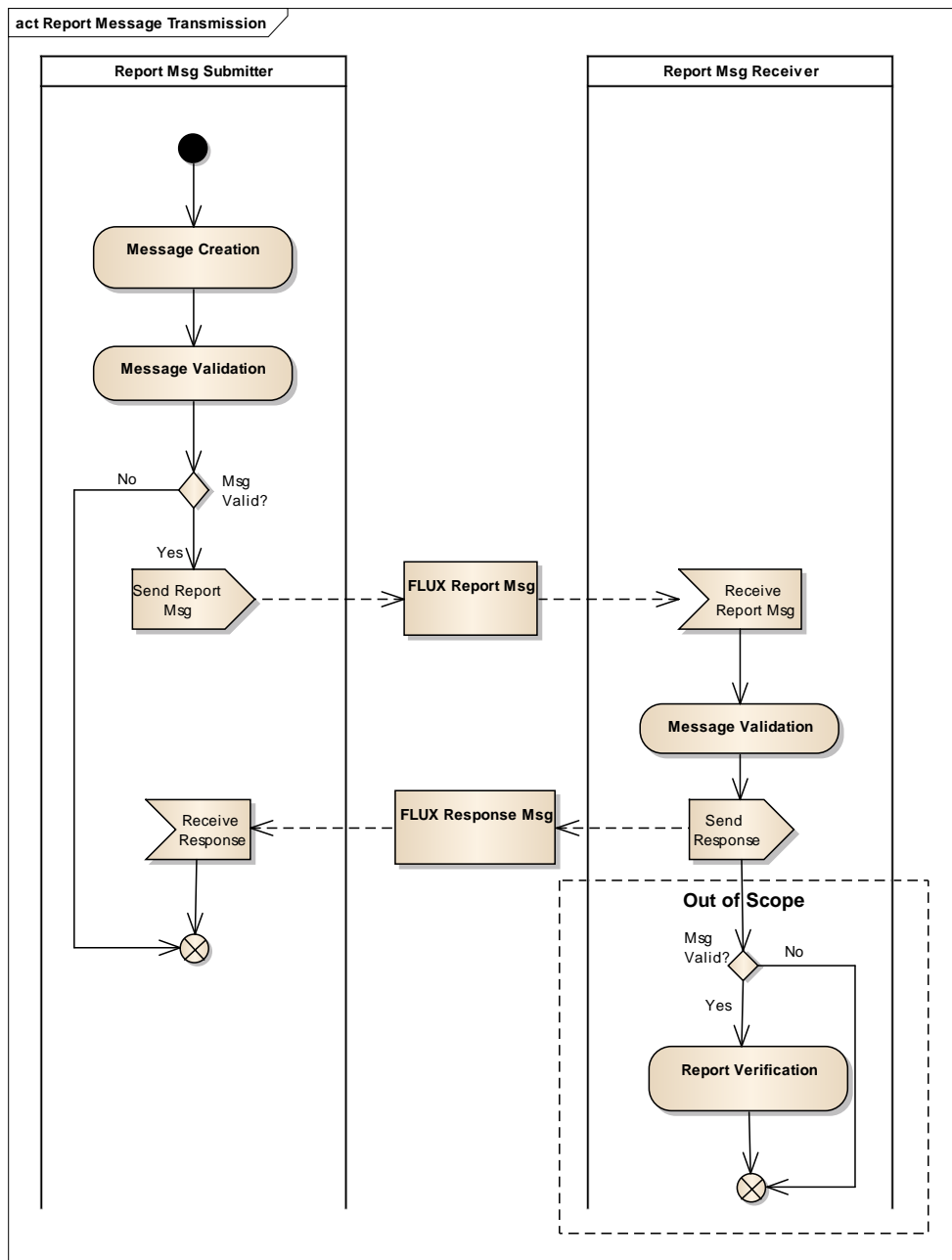
Message Transmission activity diagram

Business rules

Messages must be validated by the sender before transmitting and by the receiver upon receipt of a message.

The validation process validates on two levels:

(1) <u>XML Validation level</u>: Based on the definition in the XSD[4], the parser validates the structure and cardinality as well as compliance for mandatory elements of the XML provided[5].

(2) <u>Business Rules Validation level</u>: a process validates the content of XML according to, firstly, the General Principles Business Rules definition and, secondly, to all other specific business rules defined in the domain.
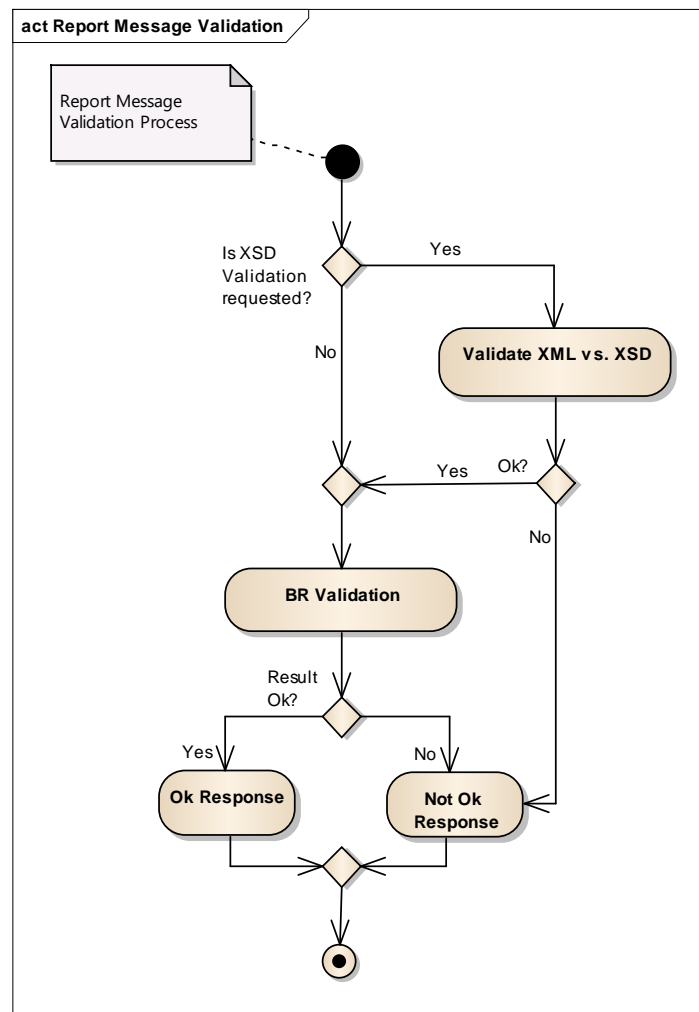
FLUX Sales Report Message validation

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[4] The XSD considered for the validation process is the standard UN/CEFACT XSD for the Sales domain, defined in standard P1000-5.

[5] In general, only XSD elements are defined as mandatory. Element ListIDs and facets remain optional.

For the validation, business rules are classified in two data sets:

Validation data set: rules are applied immediately when a party receives a message and the message is not forwarded until detected errors are corrected by the sender. The following types of rules fall under this category:

- Structural validations: the message must be valid according to the standard UN/CEFACT XSD for the Sales domain;

- Mandatory fields: they must be present in the message; There is no need for the recipient of the message to validate entities or attributes that are not defined in this implementation document.

- Business validations: described in the chapter 9;

Verification data set: rules that could be applied on data after forwarding the message. This is out of scope in this implementation document but some rules are given as examples in chapter 9.

When the exchange in an automatic and immediate way is not possible or when exchanged messages cannot be understood by the receiver, the manual fall back procedure must be engaged.

Information on the errors or warnings in the Response message

The response message returned to the sender of the message will contain information on the acceptance or refusal of that message.

In case of errors or warnings, the list of the validation results will be returned, including the business rule numbers for which a rule was violated, an indication if this is an error or a warning, and a reference to the entity on which the business rule failed. Details on how to implement this are provided in chapter 9.

Business rules that fail with an error must be considered as blocking issues that need to be corrected before the report can be (re-)transmitted by the sending party or accepted by the receiving party. One error causes the whole message to be rejected.

Business rules that fail with a warning are not to be considered blocking issues and hence reports generating warnings cannot be rejected on that basis.

Business identifiers

A sales document shall be referenced/linked to another document (for instance a sales note to a landing).

Any electronic message corresponding to a particular event has always a unique technical identifier in UN/CEFACT called the UUID. When there is only a paper transmission or if the electronic message for a particular document is not available, the UUID cannot be used. The only way to make this reference is to use a set of business data identifying the previous document (for a landing it could be the vessel identifier, the date and the landing place) or/and a human readable business identifier.

The human readable unique business identifier that would be contained in the Identification data field of the XSD is formatted according to this rule:

Starting with the ISO-3 code of the country defining and delivering the identifier, followed by a hyphen, followed be a code (used to identify a SN: sales note, TOD: Take-over document, TRD: transport document), followed by a hyphen, followed by <u>*country specific*</u> *unique ID of at most* **20** *alphanumeric characters.*

The string can be formatted according to the following pattern [A-Za-Z0-9][-/].

The human readable unique business identifier must be unique in the country delivering it.

It can be defined by the submitter of the information or by the administration receiving the information for the first time.

Example: FRA-SN-14-1435-0456: the string in grey is formatted and less than 20 characters and the content is country specific but the complete number must be unique in France for a sales note.

The actors defining the business ID are:

SalesNoteID	The SN submitter or the Market state
Take-OverDocumentID	The TOD Submitter or the Take-over state

6.3. FLUX Sales Report Message

Validated Sales reports are sent by the Market (sales note) or Take-Over state (take-over document), according to the following principles.

From landing to sales notes

The following general activity diagram is an overview of all possible transitions between activities on the ground to better understand the links with activities covered by the sales domain i.e first sale and storage of products:

① Private consumption (terminal status)

② Multiple transports possible

③ Take-over: final event in some cases

④ Products withdrawn temporarly from the market
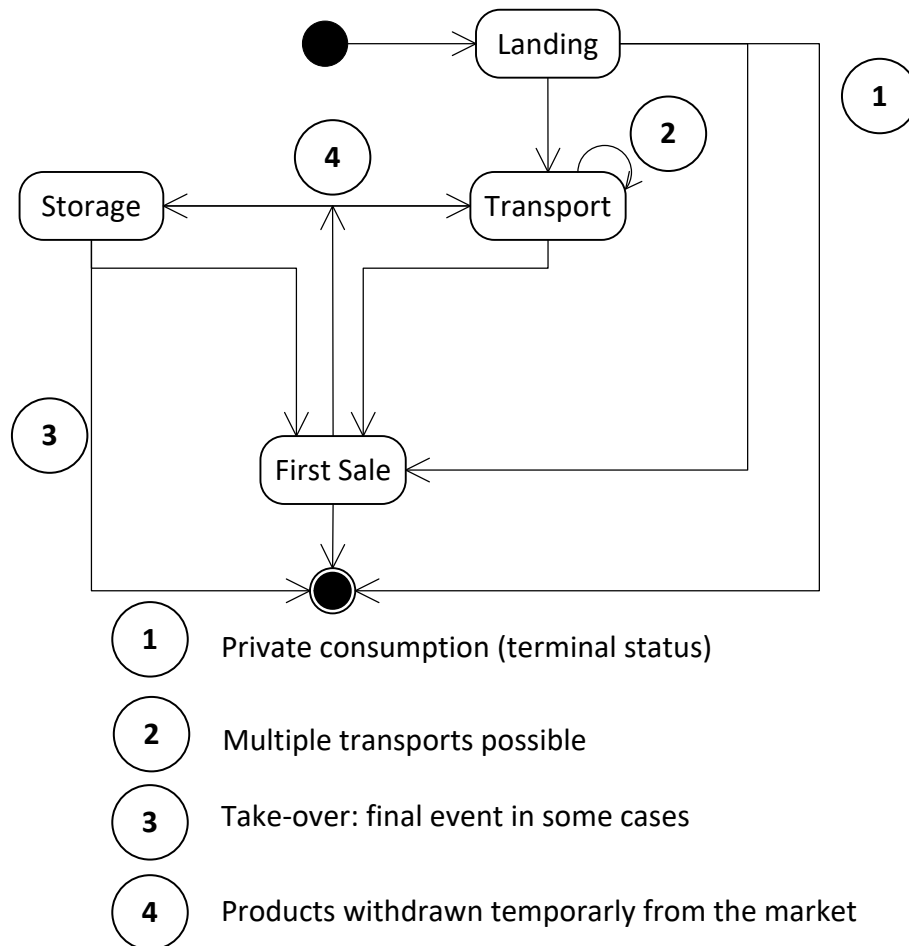
Sales note

Each sales note must be uniquely identified (Sales document). The Sales Report document identifier is assigned once. Subsequent transmissions of the same sales activity information must re-use the same report identifier.

The transmission of a sales note shall be compliant with article 62 and 63 of the CR.

The following diagrams indicate the conditions to produce an electronic SN, the possible exemptions and the submitters of a sales note and the recipients:
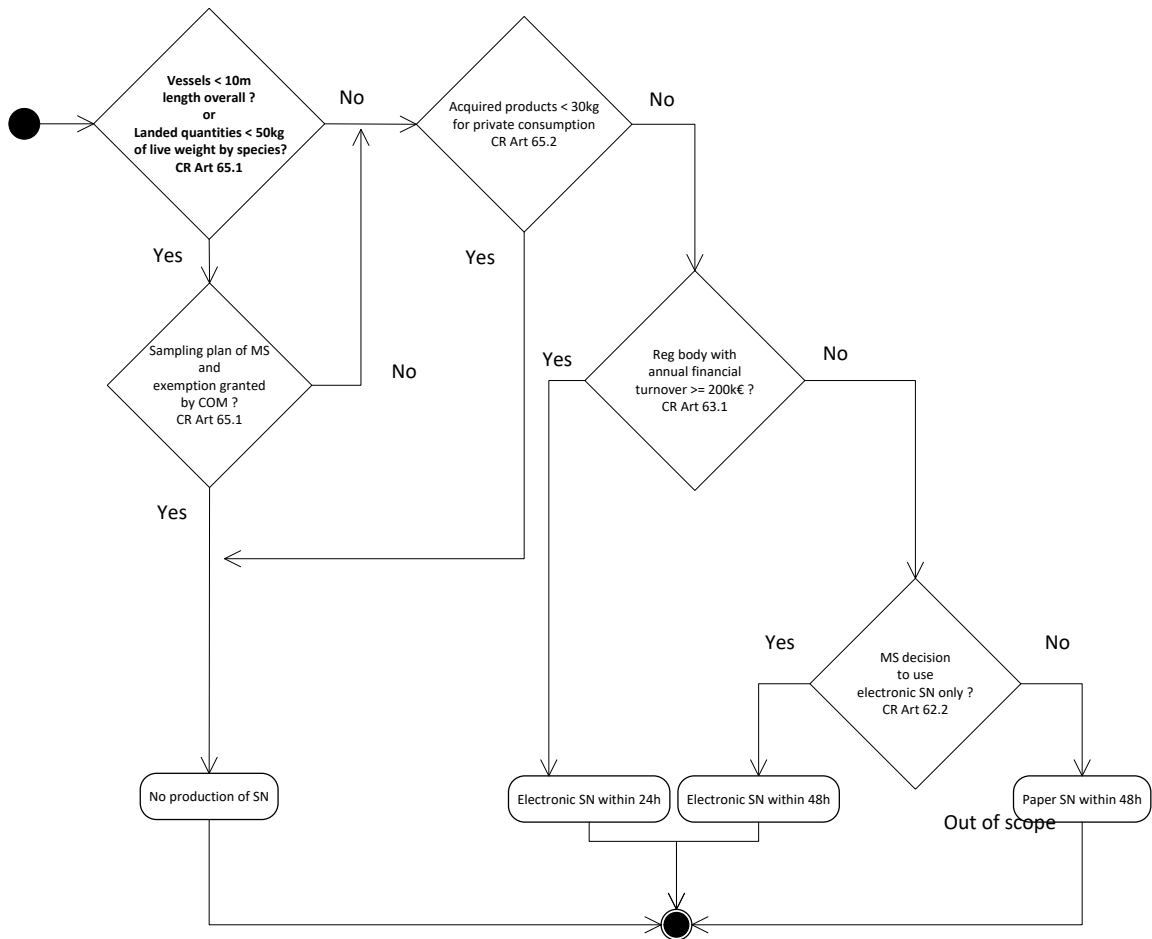
Conditions to produce or not a sales note
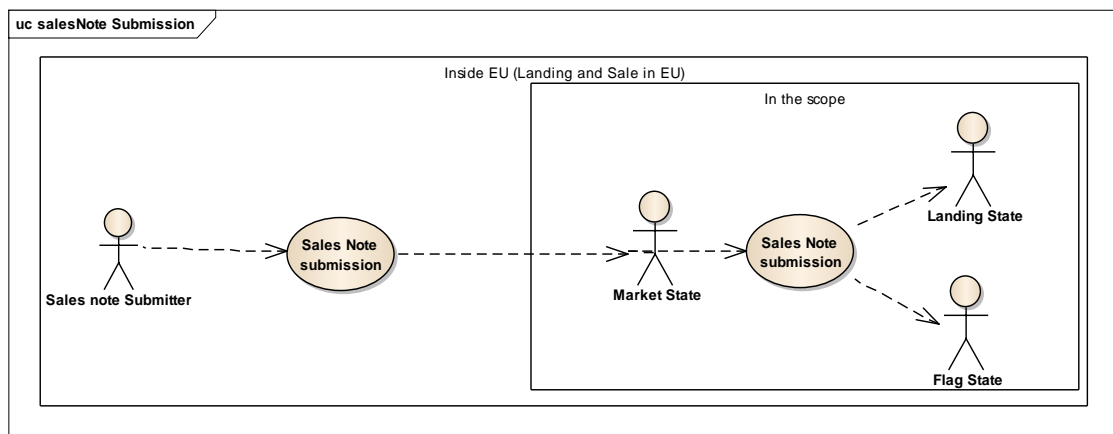
Use Case Submission diagram
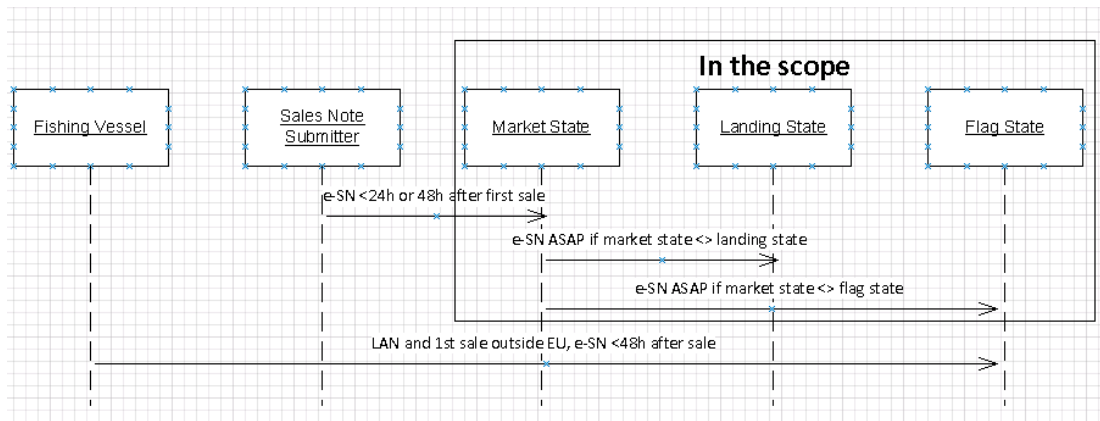
Use Case Sequence diagram with conditions to send and forward SN info

The Market State receiving the sales note data must apply the validation rules. In case of errors detected by the validation process, it is the responsibility of the Market State to contact the SN submitter (if necessary) to solve the potential issues.

The SN information may be only forwarded by the Market State to other parties (Flag State, Landing State) after the successful completion of the validation process.

The set of validation and verification rules can also be applied by any parties receiving the message. If the Flag State or the Landing State detects errors, it is the responsibility of the Market State to contact the SN submitter to solve the potential issues and to forward again a message to all parties with a full content including the corrected data.
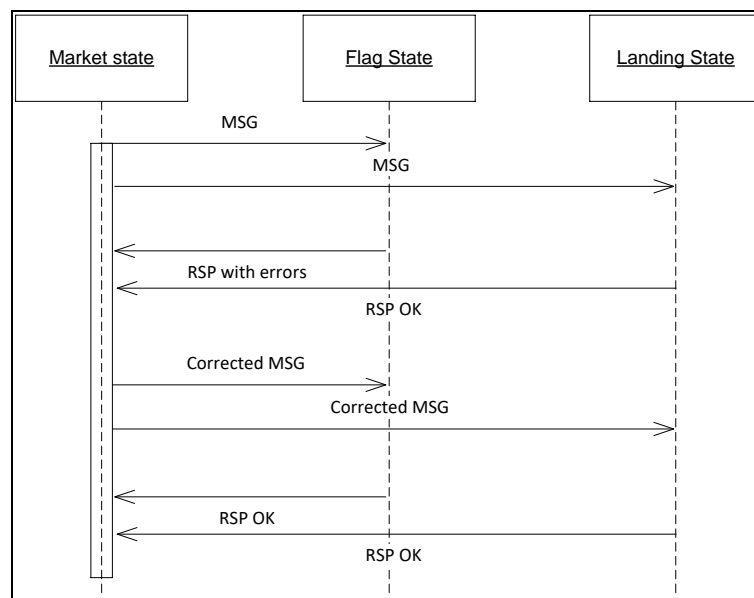
Validation principle – Scenario: sequence diagram for errors detected by the Flag State only

Correction of a sales note

- A correction to a sales report done by the relevant authorities of the Market State is a sales report, marked as correcting another report.

- It contains a reference to the report being corrected with the complete set of sales note information. The correction replaces the referenced sales report completely.

- A correction must be sent to the same recipients having received the report before being corrected.

- The same exchange rules for corrections apply to deletions.

Submission of a Take-over document

The transmission of a take-over document shall be compliant with article 66 and 67 of the CR.

The following diagrams indicate the conditions to produce an electronic TOD, the submitters of a sales note and the recipients. There is no exemption for producing the TOD:
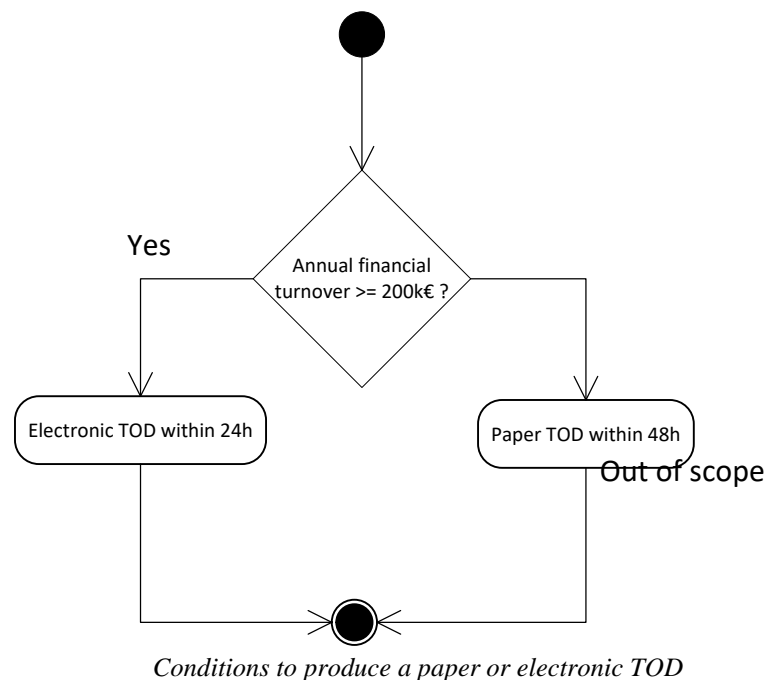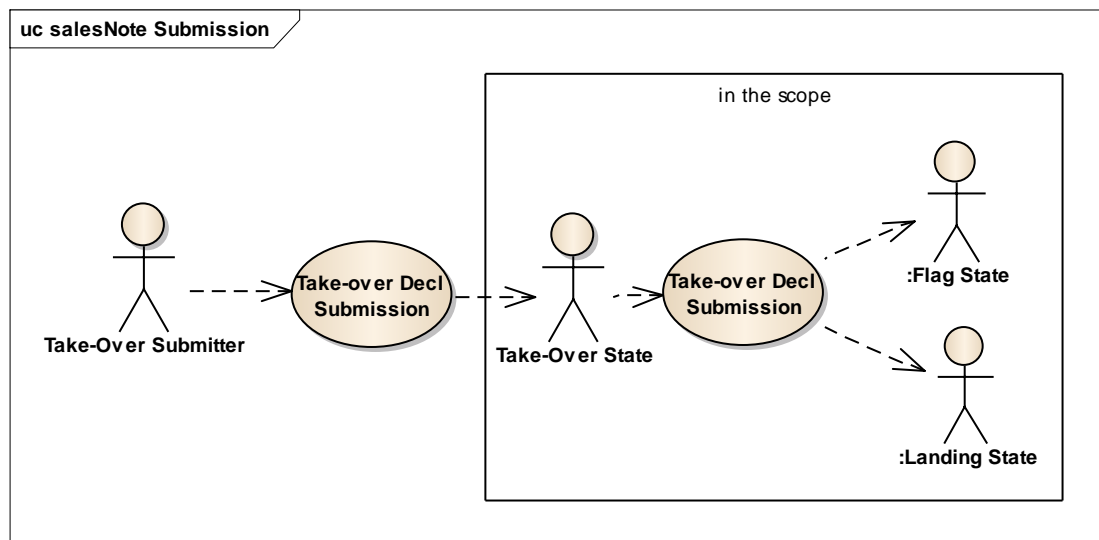
Conditions to produce a paper or electronic TOD

Use Case Submission diagram
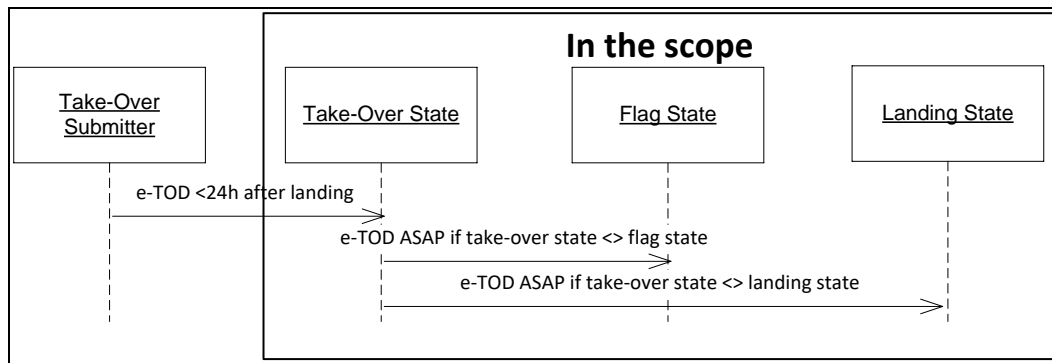
Use Case Sequence diagram with conditions to send and forward TOD info

The Take-Over State receiving the take-over document must first apply the validation rules. In case of errors detected by the validation process, it is the responsibility of the Take-Over State to contact the TOD submitter (if necessary) to solve the potential issues.

The TOD information may be only forwarded by the Take-Over State to other parties (Flag State, Landing State) after the successful completion of the validation process.

The set of validation and verification rules can be also applied by any parties receiving the message. If the Flag State or the Landing State detects errors, it is the responsibility of the Take-Over State to contact the TOD submitter to solve the potential issues and to forward again a message to all parties with a full content including the corrected data.
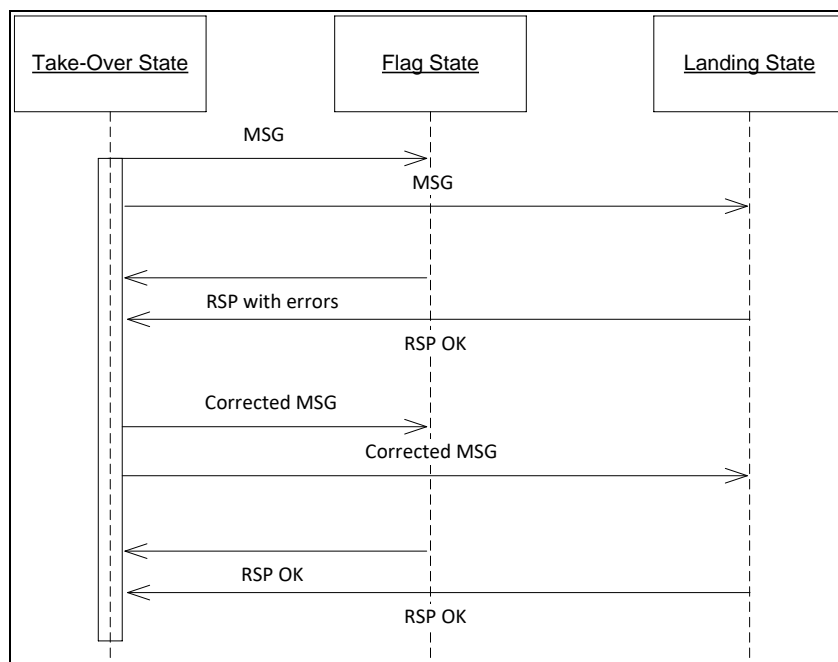
Validation principle – scenario: sequence diagram for errors detected by the Flag State only

Correction of a take-over document

- A correction to a sales report done by the relevant authorities of the Take-Over State is a sales report, marked as correcting another report.

- It contains a reference to the report being corrected with the complete set of take-over information. The correction replaces the referenced sales report completely.

- A correction must be sent to the same recipients having received the report before being corrected.

- The same exchange rules for corrections apply to deletions.

6.4. FLUX Sales Query Message

The following rules apply:

- A Flag state, a Landing state or an international organization may request to a Market state or take-Over state the list of sales notes about fisheries products originated from his fishing vessels or landed on its territory or take-over documents when fisheries products are intended for sale at a later stage.

- Each sales query (Sales Query message) will have exactly one response (FLUX Response message). In case sales reports exist that match the query parameters and the access criteria, the Sales Report (FLUX Sales Report message) will contain those sales reports (Sales Report document). Sales documents (Sales_Document) attached to those sales reports are uniquely identified with their sales report identifier, which has been originally associated and which is independent of their transmission.
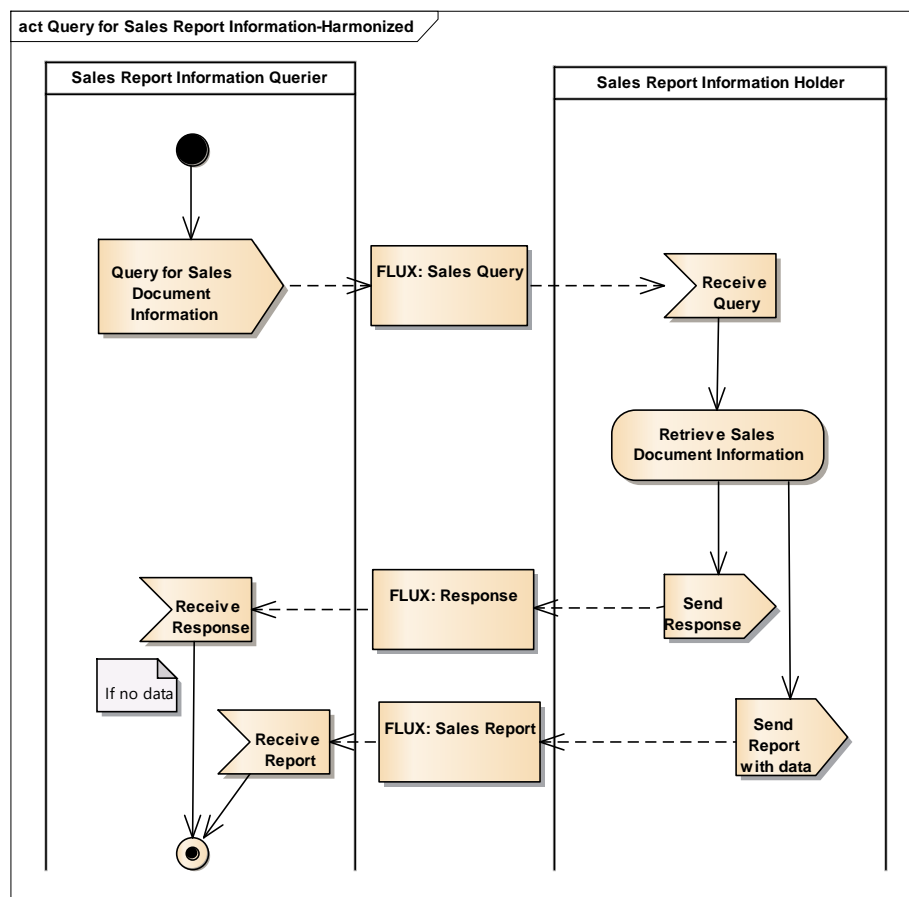
- The available request parameters are described in chapter 7.2.

- Sales reports can be queried up to 36 months after the date of the creation of the FLUX Report_Document.

- When the Sales Query generates an error in the receiving system, e.g. due to an unexpected data format or contents and as a consequence cannot be

understood at all by the receiving party, the established fall back procedure must be engaged.

- A FLUX Sales Query message cannot be corrected, deleted nor cancelled.

- When received, the query message is also validated according to the general principle as described in this chapter.

- When received, the report message can be validated by the query sender according to the general principle as described in this chapter.

Request for Sales notes

For control purposes, the Flag State or the Landing State may request to the Market State the list of sales notes (SN) about fisheries products originated from his fishing vessels or landed on its territory. An International Organization may request the same from fishing vessels under a certain flag or for market places in the Union.

The Sales Report contains all the SNs produced (based on the sale date) in a time frame defined by the requester and at the specified market location(s) for fisheries products from all or a specific fishing vessel under a certain flag or landed in the country of the requester.
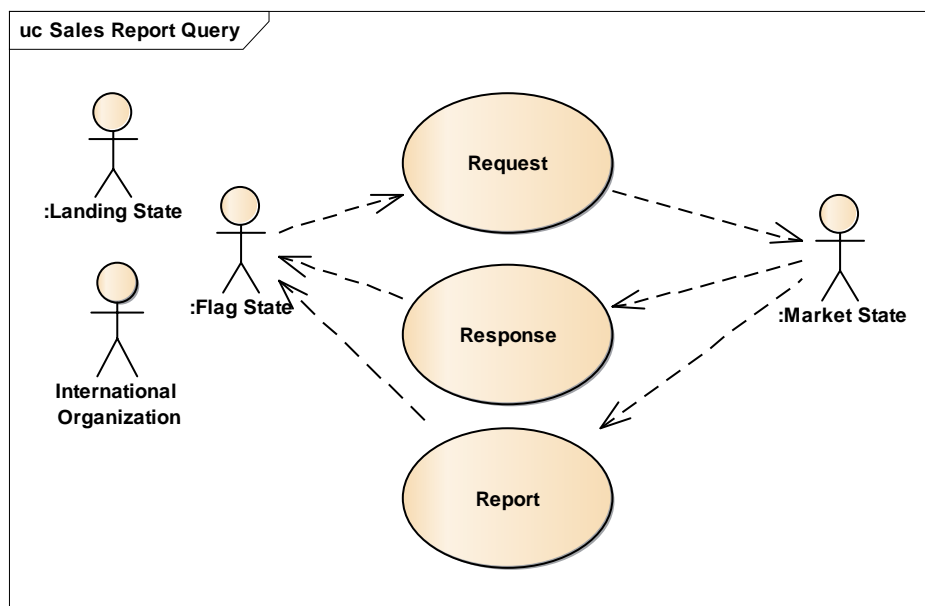
Use Case SN Request

Request for Take-over documents

For control purposes, the Flag State or the Landing State or an International Organization may request to the Take-Over State the list of TODs about fisheries products originated from his fishing vessels or landed on its territory. An International Organization may request the same from fishing vessels under a certain flag or storage places in the Union.

The structure and purpose of the request are similar to the one presented for the sales notes but the market place is here the storage place.
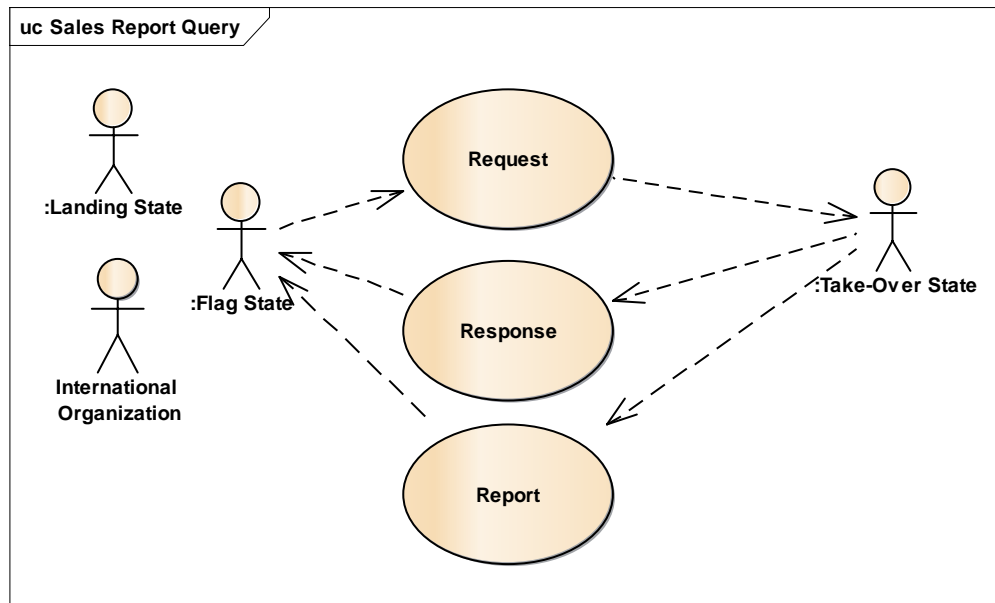
Use Case TOD Request

6.5. FLUX Response Message

In response to a sales report (FLUX Sales Report message) or sales query (Sales Query message), exactly one response (FLUX Response message) must be returned. It must be generated automatically and immediately, without human intervention. The recommended maximum delay for responding is 5 minutes.

The following rules apply:

- The response (FLUX Response message) shall contain a reference to the unique identifier of the sales report (FLUX Sales Report message) or sales query (Sales Query message).

- For messages received via the report mechanism (FLUX Sales Report message) or for queries (FLUX Sales query message) that pass the well-formedness and (optional) XSD checks, the response will contain an acknowledgement of receipt. This reference shall be the UUID of the original message.

- In cases when the UUID of the original message is not available (eg. not present or XSD failure of that message), erroneous (eg. invalid UUID format) or not correctly used in the original message (eg. wrong or no schemeID), the FLUX Transportation Layer operation number (SchemeID=FLUXTL_ON) shall be used to reference the original message.

- In case any of the business validation rules fail with an error or warning, the validation results must be included in the response message.

- The party receiving the validation results must take action to correct any issue and retransmit a corrected version of the message, where transmission of the data is required.

- There is no response on a response. When the sales response generates an error in the receiving system, e.g. due to an unexpected data format or contents and as a consequence cannot be understood at all by the receiving party, the established fall back procedure must be engaged.

- A Response message cannot be corrected, deleted nor cancelled.

6.6. Business Continuity Plan

The document "FLUX Business Continuity Plan.docx" for the Sales domain is available on the on the Master Data Register page of the European Commission Fisheries website.

In that document, in the paragraph related to the communication with the DG MARE FIDES helpdesk, the examples given for the title for an issue should be read "BEL:PROD:Sale: Error Message XYZ" and for the unique identifier, ""20150216-01 BEL:PROD:Sale: Error Message XYZ".

7. DATA MODEL (XSD) IMPLEMENTATION

The implementation of the Sales Data Model[6] should follow the following general constraints at the level of XSD Element attributes:

      (1)   For Code & Identifier DataType: *listID* or *schemeID* attribute must be provided respectively if it is not specifically defined in the definition of the element;

      (2)   For DateTime DataType: only xs:datetime choice is used and 'Z' character defining UTC time zone must be set;

      (3)   Measure DataType: the unitCode attribute shall be provided when not explained in the definition.

Only the entities and/or attributes listed in the Implementation Document must be considered by the receiving party.

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[6] The data model presented in the document is a sub-set of the complete UN/CEFACT data model, which is relevant to the Sales Activities domain

7.1. FLUX Sales Report Message

The type of message is used when reporting:

1) new sales notes or take-over document information. A sales report message contains none or one and only one sales note or take-over document. .

2) sales notes or/and take-over document data resulting from a query. A sales report message contains none or multiple sales note or/and take-over document.
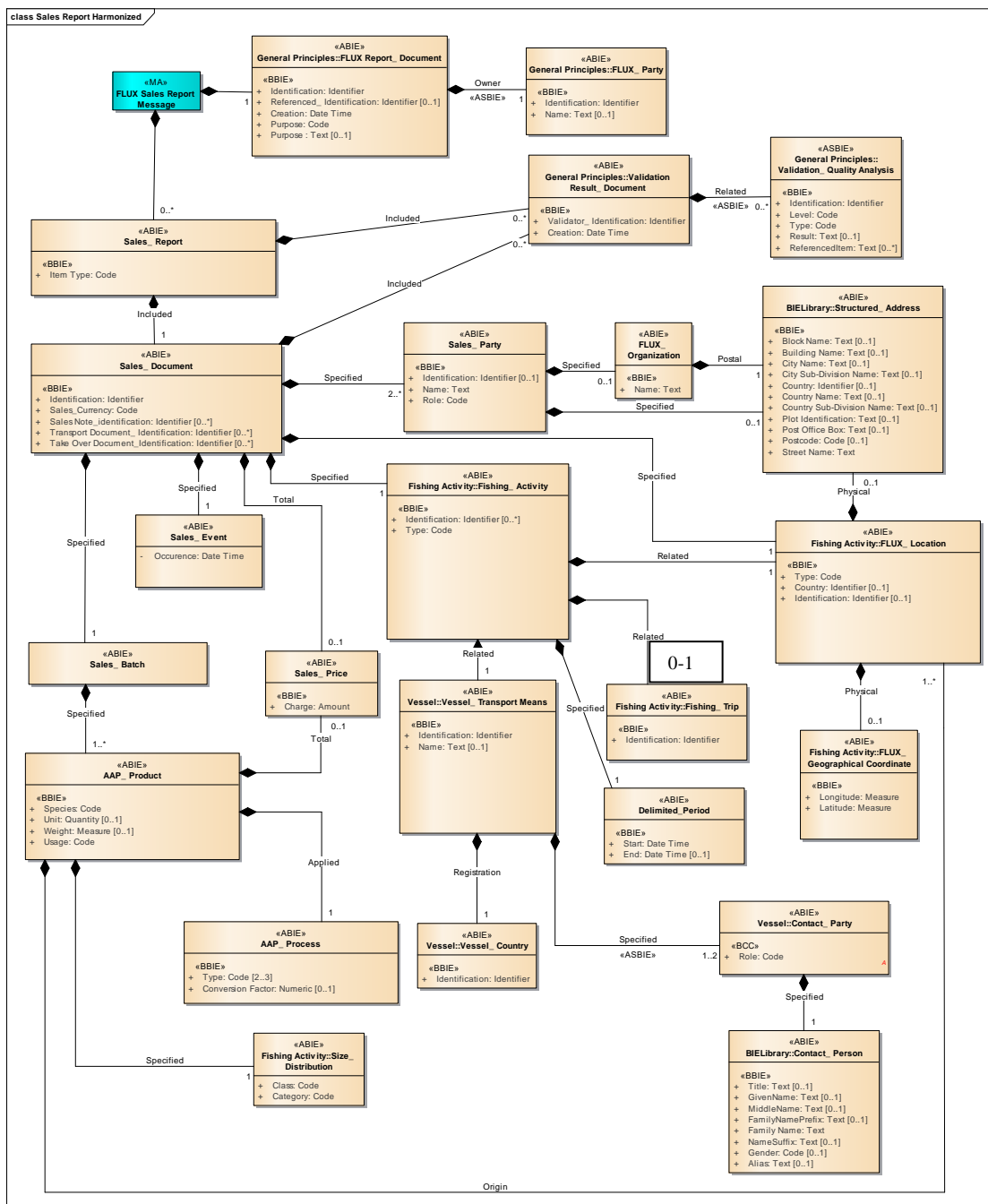
Class diagram Sales Report Message

Tables below describes for each fields defined in the Data Model (XSD) the values that can be used.

FLUX Sales Report Message entity

Description: A message providing sales note or take-over document information. There is only one Sales Report Document in one FLUX Sales Report message when the report is not resulting from a query (cfr Flux Sales Query Message).

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
FLUX Report Document	Assoc.	1	1	The document details for this FLUX sales report message.	
Sales_Report	Assoc.	0	*	The sales report	No sales report for a deletion. Multiple sales report possible when resulting from a query.

FLUX Report_Document

Description: The type of message which is used when reporting for sales information.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The Unique Identifier of the FLUX Sales Report message. A UUID as defined in the RFC 4122.	*schemeID*= **UUID** + Value Cf. http://www.guidgenerator.com to generate example of a valid identifier. Once the message is created, the data contained in the message remains associated with this identifier.
Referenced Identification	Identifier	0	1	For a correction of a sales report declaration message: used to put the reference of the message to correct. For a report resulting from a query: used to put the reference of the query message. A UUID as defined in the RFC 4122.	*schemeID* = **UUID** + Value
Creation	DateTime	1	1	The date time UTC value, according to ISO 8601 format, of the creation of this Report Document. A UTC date time according to ISO 8601 format	e.g. 2008-10-31T15:07:38Z (milliseconds can be provided optionally).
PurposeCode	Code	1	1	The code specifying the purpose of this Report Document.	*listID*= **FLUX_GP_PURPOSE** + Value 9: original report 5: replacement (correction) 3: delete[7]

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[7] When a sales report is deleted, the sales identifier (see Sales_Document entity) cannot be reused in an original report

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Purpose	Text	0	1	The purpose, expressed as text, of this Report Document.	Optional free text that can be used for communicating the reason why the report is sent.
FLUX Party	Assoc.	1	1	The party owning this FLUX Report Document.	Creator of the message.

FLUX_Party

Description: Identification of the party (country) sending the report.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The identifier of the FLUX party, creating and sending the message.	*schemeID*= **FLUX_GP_PARTY** + Value
Name	Text	0	1	The name of the FLUX party creating the message	Free text giving more details on the Party. e.g. Market State reporting the data (i.e. name of the country or other party).

Sales_ Report Entity

Description: Entity used to provide a compilation of information which is linked to a sales note report or a take-over note report.

In the EU context, there is maximum one sales report by Sales Report message.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Item Type	Code	1	1	The code specifying the type of the item in this sales report	*listID*= **FLUX_SALES_TYPE** + Value: (SN, TOD)
Sales Document	Assoc.	1	1	Sales document	Only one document associated to a Sales document
Validation Result Document	Assoc	0	*	Validation report(s) specific to that sales report	Can be provided on data resulting from a query to give information about the validator and the validation results.

Sales_ Document Entity

Description: Entity used as a document that provides information for a sales note.

In the EU context, there is only one sales document by Sales Report message.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The business human readable identifier of this sales document.	*schemeID*= **EU_SALES_ID** + Value[8]
Currency	Code	1	1	The code specifying the sales currency for these sales.	*listID*= **TERRITORY_CURR** + Value
Sales Note_ Identification	Identifier	0	*	A sales note identifier for this sales document.	Could be provided if the storage is about products withdrawn from the market
Transport Document_ Identification	Identifier	0	*	A transport document identifier of this sales document.	Could be provided if a sale or a storage is due to a transport of fish. If there is a change during the transport (merge/split), the new transport document makes a reference to one or multiple previous transport documents.
Take Over Document_ Identification	Identifier	0	*	A take-over document identifier of this sales document.	Could be provided if a sale is about fish previously stored.
Sales Event	Assoc.	1	1	Events (sale, storage operations)	
Sales_Price	Assoc.	0	1	Total price of the document	
Sales_Party	Assoc.	2	*	Party involved in the document and the operations (sender, provider…)	The submitter and the provider for a sales note or the recipient for a take-over document must be always present.
Fishing_Activity	Assoc.	1	1	Reference to the Landing	
Flux_Location	Assoc.	1	1	Location of the market, storage	
Sales_Batch	Assoc.	1	1	(not used for business, only for IT needs)	
Validation Result Document	Assoc	0	*	Validation report(s) specific to that sales document	Can be provided on data resulting from a query to give information about the validator and the validation results.

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[8] This identifier cannot be reused in another original report (purposeCode = 9).

Sales_ Party Entity

Description: Entity used to provide information of an individual, a group, or a body having a role in sales business function. Party has a legal connotation in a business transaction:

- the sender of the document must be always mentioned for any types of document (sales note, take-over): the identification and the role (SENDER) are mandatory;

- the buyer must be always mentioned for a sales note: the identification, the name & role (BUYER) are mandatory when products are bought.

- the fish provider must be always mentioned for a sales note only: the name & role (PROVIDER) are mandatory;

- the recipient of the fish must be always mentioned for a take-over document: the role (RECIPIENT) and the organisation are mandatory;

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	0	1	The identifier of this sales party.	One of the following: *schemeID* = **MS** + value= other national reference *schemeID* = **VAT** + value = vat number *schemeID* = **TAX** + value = tax identification number The schemeID codes are from the **FLUX_SALES_PARTY_ID_TYPE** list
Name	Text	1	1	The name, expressed as text, of this party.	
Role	Code	1	1	A code specifying the role of this sales party.	*listID*= **FLUX_SALES_PARTY_ROLE** SENDER: sender of the sales note, take-over doc RECIPIENT: receiver of fish for take-over doc only
FLUX_Organisation	Assoc.	0	1	Organization in charge of the storage	
Structured Address	Assoc.	0	1	Postal address	

Sales_ Event Entity

Description: Entity providing information of a significant occurrence or happening related to a sales activity or storage.

In the EU context, for a sales note and a take-over document, only one event will be registered (date & time of the sales operation or the storage).

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Occurrence	Date Time	1	1	A date time value of an occurrence of this operation.	

Sales_ Batch

Description: Entity used only to be compliant with the international data model from the BRS document.

In the EU Context, no specific batch information will be delivered.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
AAP_Product	Assoc.	1	*	Reference to a fishery product	

AAP_ Product Entity

Description: Entity used to provide information on fish sold or stored.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Species	Code	1	1	The species code.	*listID*=**FAO_SPECIES**
Unit	Quantity	0	1	Number of individual units (if any)	
Weight	Measure	0	1	The measure of the weight of this AAP sales product in kg	*UnitCode*= **KGM** + value The quantity value must contain no more than 2 decimals (0.00).
Usage	Code	1	1	For sales notes, the code specifying a usage/destination for this AAP sales product.	*listID*= **PROD_USAGE** For BMS species, the destination cannot be for direct human consumption.
AAP_Process	Assoc.	1	1	Process producing the product	
Size_Distribution	Assoc.	1	1	Size distribution	

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Sales_Price	Assoc.	0	1	Price of the product	
FLUX_Location	Assoc.	1	*	Location where the fish has been caught (FAO area…)	

AAP_ Process Entity

Description: Entity providing information of designed sequence of operations applied on fish.

It must be noted that one entry in that entity corresponds to one global process leading to the final status of the fish. Therefore the "Type" data field is used with multiple codes for defining the freshness, presentation & preservation states.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	2	3	A code specifying the type of this AAP process, such as presentation type, preservation types.	*listID* = **FISH_FRESHNESS** + Value *listID* = **FISH_PRESENTATION** + Value *listID* = **FISH_PRESERVATION** + Value ListID code from the **FLUX_ PROCESS_TYPE** list
Conversion Factor	Numeric	0	1	Numerical factor that is applied for converting fish processed weight into fish live weight, depending on the processing.	Mandatory in case the conversion factor cannot be deduced from the information provided in the report. e.g. conversion factor depends on presentation and preservation, but only presentation is provided. e.g. conversion factor depends on presentation, preservation and area

Size_Distribution Entity

Description: Size distribution of the AAP_Product.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Class	Code	1	1	The code specifying a class for this size distribution	*listID*= **FISH_SIZE_CLASS** Use value "LSC" for legally sized fish. Use value "BMS" for fish below minimum conservation reference size.
Category	Code	1	1	A code specifying the size distribution of the AAP product	*listID*= **FISH_SIZE_CATEGORY** For BMS species, the category code must be 'N/A'.

Sales_ Price Entity

Description: Entity providing information of a sum of money for which something is or may be sold.

A value must be provided for each of the processed products of a sales note and a total value can be provided for the sales note.

When products are withdrawn for the market, the total price of the sales note must be present and equals to zero.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Charge	Amount	1	1	Total price of one AAP_Product	A monetary value of this sales price charged with maximum 2 decimals. Only for sales notes.

FLUX_ Organization Entity

Description: Entity used to provide information of an organization, such as a business or government body.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Name	Text	1	1	The name, expressed as text, of this organization.	Used only for take-over documents: organization in charge of the storage
Structured Address	Assoc.	1	1	Postal address of the organisation	

Fishing_Activity Entity

Description: landing operation.

In the EU-Context, a sale document is related to one landing operation of one fishing vessel.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	0	*	A technical identifier of the fishing activity operation	
Type	Code	1	1	The code specifying a type of fishing activity, such as depart from port, return to port, fishing operation.	**LAN (landing)**
Delimited_Period	Assoc.	1	1	Reference to the period of the landing	
Vessel_Transport Means	Assoc.	1	1	Reference to the fishing vessel	
Fishing_Trip	Assoc.	0	1	Reference to the fishing voyage	
FLUX_Location	Assoc.	1	1	Location of the landing	

Delimited_Period

Description: Entity containing a delimited period of time

Period of time corresponding to the landing.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Start	Date Time	1	1	Date and time of the start of the landing operation	
End	Date Time	0	1	Date and time of the end of the landing operation	

Vessel_Transport Means Entity

Description: Entity containing the identification and characteristic information of a fishing vessel.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	An identifier for this vessel	*For EU vessels* *schemeID* = **CFR** & Value= CFR For non-EU vessels *schemeID* = **IRCS** & Value
Name	Text	0	1	A name, expressed as text, of the vessel	
Vessel_Country	Assoc.	1	1	Identification of the flag state	
Contact_Party	Assoc.	1	2	Vessel contact reference	

Vessel_Country entity

Description: Entity used to know the flag of the vessel.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	Flag of the vessel	*schemeID*=**TERRITORY** + value

Contact_Party

Description: Vessel contact

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Role	Code	1	1	A code specifying the role of this contact party	*listID* = **FLUX_CONTACT_ ROLE** + Value (MASTER, OPERATOR)
Contact_Person	Assoc.	1	1	A specified person for this contact party.	

Contact_Person

Description: Vessel contact name

Description: The details of a contact person.

Either the GivenName and FamilyName must be provided or an Alias.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Title	Text	0	1		
GivenName	Text	0	1		Required when specifying FamilyName and if Alias is not specified.
MiddleName	Text	0	1		
FamilyName Prefix	Text	0	1		
FamilyName	Text	0	1		Required when specifying GivenName and if Alias is not specified.
NameSuffix	Text	0	1		
Gender	Code	0	1		*listID* = **GENDER**
Alias	Text	0	1		If GivenName and FamilyName are not provided

Fishing_Trip Entity

Description: Identification of a fishing voyage.

In the EU Context, only one fishing voyage is associated with a landing operation.

Entity/Field Name	DataType	Cardinality		Description	Remarks
Identification	Identifier	1	1	The unique identifier of the fishing trip	At least the trip ID as defined or approved by the flag state of the

Entity/Field Name	DataType	Cardinality		Description	Remarks
					vessel.
					schemeID= **EU_TRIP_ID** + Value

FLUX_Location Entity

Description: Entity providing information of a physical location or place such as a port or a region at sea.

The location is used for:

- the landing operation (link with the Fishing_Activity) ;

- the market or storage place (link with the Sales_Document);

- the geographical area where the fish has been caught (link with the AAP_Product). For such location, multiple entries are possible by using different identifications;

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The code specifying the type of FLUX location.	*listID*= **FLUX_LOCATION_TYPE** + Value Use LOCATION if the place can be identified in the LOCATION list
Country	Identifier	0	1	The identifier of a country for this FLUX location.	*schemeID*=**TERRITORY** + Value
Identification	Identifier	0	1	The identifier for this FLUX location.	For AREA use: *schemeID*=**FAO_AREA** up to the most detailed level available *schemeID*=**TERRITORY** for third countries EEZ For landing, market or storage places: *schemeID*=**LOCATION** + Value
Physical_FLUX_ Geographical Coordinate	Assoc.	0	1	Geographical coordinate information for this FLUX location.	Mandatory when FLUX_LOCATION_TYPE = POSITION
Physical Structured_ Address	Assoc.	0	1	Structured postal address information for this FLUX location.	Mandatory when FLUX_LOCATION_TYPE= ADDRESS

FLUX_ Geographical Coordinate Entity

Description: Entity providing information of the latitude and longitude of a specified place, by which a location relative situation on the globe is known.

This entity can be used if the location of the activity cannot be specified using the "Identification" code in the Location entity: a landing on the coast but not in a port…

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Longitude	Measure	1	1	The measure of the longitude as an angular distance east or west from the Greenwich meridian to the meridian of a specific place for this FLUX location geographical coordinate	Coordinate expressed in WGS84, decimal degree notation, using a precision of at least 3 decimal positions. Positive coordinate refers to East of Greenwich meridian. Negative coordinate refers to West.
Latitude	Measure	1	1	The measure of the latitude as an angular distance east or west from the Greenwich meridian to the meridian of a specific place for this FLUX location geographical coordinate.	Coordinate expressed in WGS84, decimal degree notation, using a precision of at least 3 decimal positions. Positive coordinate refers to North of equator. Negative coordinate refers to South.

Structured_ Address Entity

Description: Entity providing information of the location, using a structured address format, at which a particular organization or person may be found or reached.

This entity can be used for the market place or the storage place of a take-over document when there is no location code available.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Block Name	Text	0	1	The block name, expressed as text, for an area surrounded by streets for this structured address.	
Building Name	Text	0	1	The name, expressed as text, of a building, a house or other structure on a street in the structured address.	
City Name	Text	0	1	The name, expressed as text, of the city, town or village in the structured address.	
City Sub-Division Name	Text	0	1	The name, expressed as text, of a sub-division of a city, town or village in the structured address.	
Country	Identifier	0	1	The unique identifier of a country in the structured address (Reference ISO	*schemeID*= **TERRITORY** + Value

Entity/Field Name	DataType	Cardinality min	Cardinality max	Description	Remarks
				3166 and UN/ECE Rec 3).	
Country Name	Text	0	1	The name, expressed as text, of the country in the structured address.	
Country Sub-Division Name	Text	0	1	The name, expressed as text, of the sub-division of a country in the structured address.	
Plot Identification	Text	0	1	The identification, expressed as text, of the plot for this structured address.	This is the house number
Post Office Box	Text	0	1	The unique identifier, expressed as text, of a container commonly referred to as a box, in a post office or other postal service location, where postal items may be kept for this structured address.	
Postal Area	Text	0	1	The text specifying the postcode in the structured address.

Optional for addresses in Ireland. | |
| Street Name | Text | 1 | 1 | The name, expressed as text, of a street or thoroughfare in the structured address. | |

Validation Result_Document

Description: Entity containing information about the validation process.

Entity/Field Name	DataType	Cardinality min	Cardinality max	Description	Remarks
Validator Identification	Identifier	1	1	The identifier the validating party.	*schemeID*=**FLUX_GP_PARTY**
Creation DateTime	DateTime	1	1	The date/time of the creation of this validation report.	Date/time UTC value, according to ISO 8601 format

e.g. 2008-10-31T15:07:38.6875000Z. |
| Validation_Quality Analysis | Assoc. | 0 | * | Details of the validation report | |

Validation_ Quality Analysis Entity

Description: Entity containing the results of the validation process.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	Business rule identification.	*schemeID*= **SALE_BR** e.g.: SALE-L00-00-0000
Level	Code	1	1	The code specifying the validation level of the business rule.	*listID*= **FLUX_GP_VALIDATION_LEVEL** e.g.: L00
Type	Code	1	1	The code specifying the type of error found.	*listID*= **FLUX_GP_VALIDATION_TYPE** e.g. Error, warning, etc.
Result	Text	0	1	Text explaining the business rule violation.	Standardized error/warning message in English. *Message* description on MDR in *listID*=SALE_BR_DEF
Referenced Item	Text	0	*	An information to locate in the XML the data causing the problem.	Only used in a response message. The information can only be provided for data present in an in-coming message and for which there is a validation issue. It is not used to report a validation problem for a data that has been accepted and reported back in the context of a query.

7.2. FLUX Sales Query Message

Description: The type of message which is used for querying for sales information, such as sales note, take-over or transport documents.
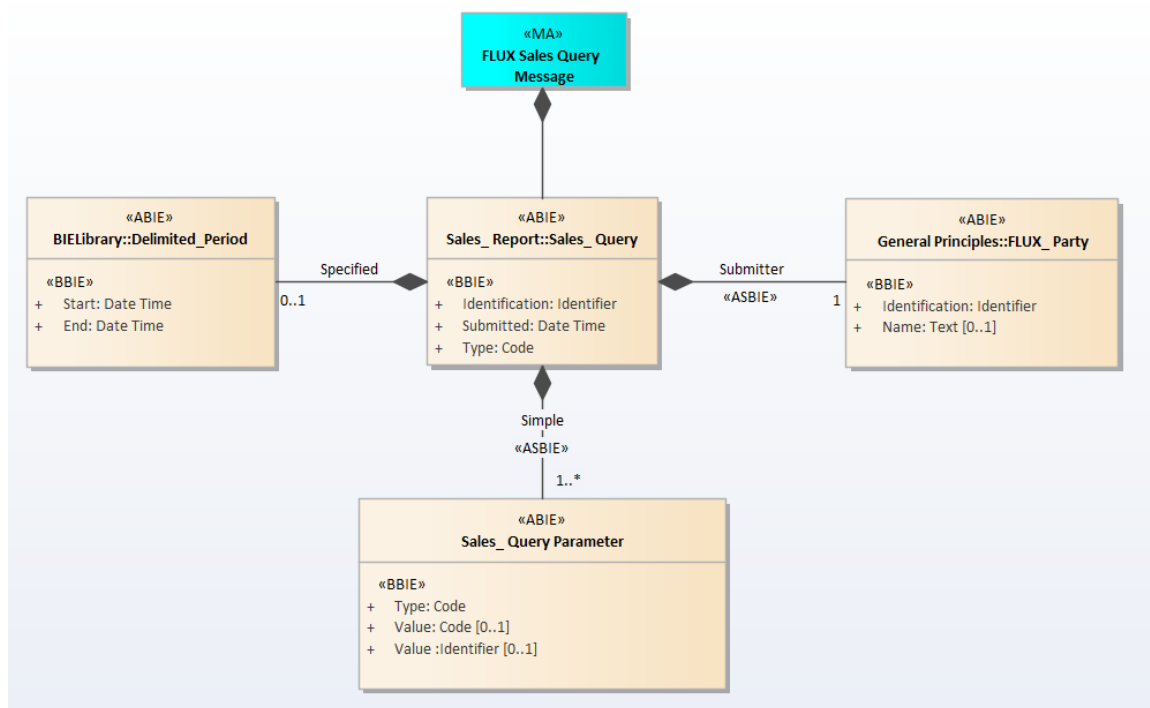
Class Diagram for Sales Query message.

Table below describes for each fields defined in the Data Model (XSD) the values that can be used.

The values mentioned in the table for the *listID* refer to a specific code from a list in the index of the MDR.

Sales_ Query Entity

Description: Entity containing a formally raised question or request for information for sales note, take-over or transport document.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The identifier for this sales query.	*schemeID*=**UUID** + Value A UUID as defined in the RFC 4122
Submitted	DateTime	1	1	Date and time when this query was submitted	The date/time according to ISO 8601 format in UTC
Type	Code	1	1	A code specifying the type of sales query.	*listID*= **FLUX_SALES_ TYPE** + Value
SubmitterFLUX_Party	Assoc.	1	1	The FLUX party that submits this query.	
Specified Delimited_Period	Assoc.	0	1	The period delimiting the time frame for retrieving data	Start and end date/time included in the period.
SimpleSales_Query Parameter	Assoc.	1	*	A set of query parameters for this query.	

FLUX_Party

Description: Identification of the party sending the query.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The party sending the query	*schemeID*= **FLUX_GP_PARTY** + Value
Name	Text	0	1	The name of the FLUX party creating the message	Free text giving more details on the Party.

Delimted_Period Entity

Description: Entity containing information that limits or restricts the scope of a sale query: sales documents are selected based on the date of the sales event that must be in that delimited time period.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Start	DateTime	1	1	The start date/time of the period delimiting the time frame of the query	The start date/time according to ISO 8601 format in UTC. If the time part of the date/time is omitted, 00:00 is assumed.
End	DateTime	1	1	The end date/time of the period delimiting the time frame of the query	The end date/time according to ISO 8601 format in UTC If the time part of the date/time is omitted, 24:00 is assumed.

Sales_ Query Parameter Entity

Description: Entity containing information that limits or restricts the scope of a sale query.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Type	Code	1	1	The code specifying the type of parameter for this sales query.	*listID*= **FLUX_SALES_QUERY_PARAM** + value Control types: ROLE[9]: role of the requester FLAG[10]: specific flag of the fishing vessels Data search types: VESSEL: specific fishing vessel PLACE : specific market/storage place or landing port SALES_ID: human readable sales document identifier TRIP_ID: human readable trip identifier
Value	Code	0	1	The value, expressed as a code, for this sales query parameter.	*listID*= For Type=ROLE: the value is a code from **FLUX_SALES_QUERY_PARAM_ROLE** code list • FLAG or LAND for a MS

[9] A MS can be a flag and a landing state. This parameter is used to precise the goal of the request. A 'flag' role means that sales documents will be selected for products based on the flag of the vessel while 'land' would be for products landed in the country of the requester whatever the flag of the vessel might be. A special role is dedicated to the Commission which is neither a flag nor a landing state.

[10] For an international organization only

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
					• INT for an international organization allowed to pull data For Type=PLACE: the value is a code from the MDR **LOCATION** code list For Type=FLAG: the value is a code from the MDR **TERRITORY** code list
Value	Identifier	0	1	The value, expressed as an identifier, for this sales query parameter.	The value, expressed as an identifier, for this sales query parameter For Type=SALES_ID*:* *schemeID*= **EU_SALES_ID** +value For Type=TRIP_ID*:* *schemeID*= **EU_TRIP_ID** +value For Type=VESSEL *For EU vessels:* *schemeID*= **CFR** +value *For non-EU vessels* *schemeID*= **IRCS** +value

When multiple search types are provided in the query like VESSEL and PLACE, the query must use the combination of both (AND clause).

As a flag state, when a requester specifies in his request a list of vessels or identifiers about sales documents or fishing trips but for vessels not in his fleet, the market state sends a single answer rejecting the request based on business rule SALE-L00-00-9999 (no permission to access data).

As a landing state, when a requester specifies in his request a list of vessels or identifiers about sales documents or fishing trips but for vessels that have not landed fish in his country, the market state sends a single answer rejecting the request based on business rule SALE-L00-00-9999 (no permission to access data).

When receiving a query with only the PLACE (Location) parameter, the market state must filter and provide data based on the role and the country of the requester. This process is done to avoid triggering the business rule SALE-L00-00-9999 (no permission to access data) because the requester cannot access the sales documents produced at the market location and issued for the vessels of the market state itself. The following table precises how to interpret this parameter when present in queries depending on the role of the requester and the query type.

Role	Query Type	PLACE (Location)
FLAG	SN	the flag state wants to get sales notes from the market location where products from his vessel(s) have been sold
	TOD	the flag state wants to get take-over documents from the storage location where products from his vessel(s) have been stored

INT	SN	the international organization (MARE) wants to get sales notes from the market location where products (from vessel(s)) have been sold or for vessels from a certain flag.
	TOD	the international organization (MARE) wants to get take-over documents from the storage location where products (from vessel(s)) have been stored or for vessels from a certain flag.
LAND	SN	the landing state wants to get sales notes of products landed on his location port.
	TOD	the landing state wants to get take-over documents of products landed on his location port.

7.3. FLUX Response Message

Description: The type of message which is used for responding to FLUX Sales Report Messages or FLUX Sales Query Messages.
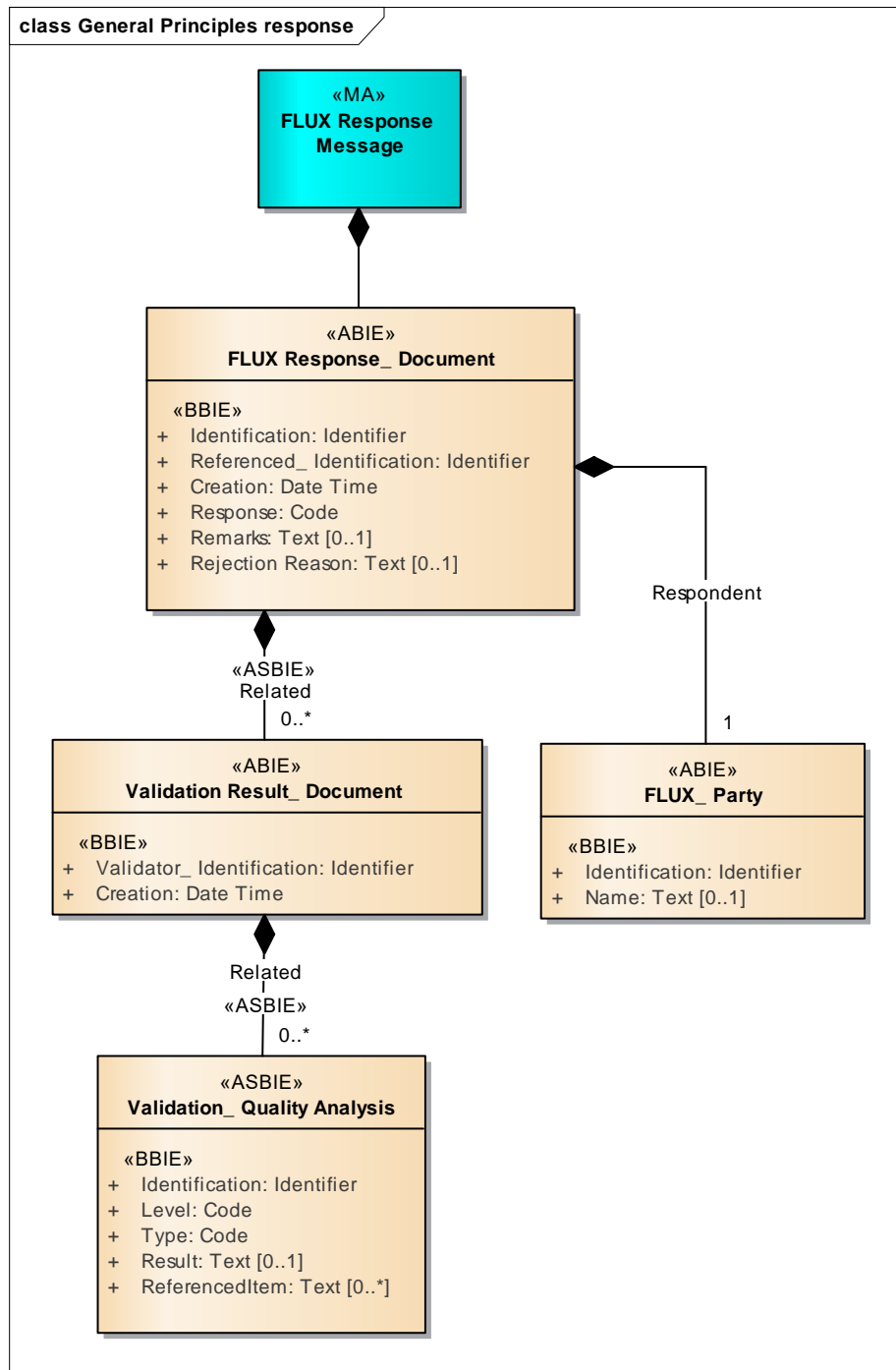
Class diagram Response Message

Tables below describes for each fields defined in the Data Model (XSD) the values that can be used.

FLUX Response_Document

Description: The type of message which is used when replying to a sales message or query.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The Global Unique Identifier of the FLUX Response Message.	*schemeID*=**UUID**. UUID as defined in the RFC 4122.
Referenced_ identification	Identifier	1	1	The identifier of a referenced FLUX Sales Report Message or FLUX Sales Query Message to which this FLUX Response Document refers.	Used for referencing the query message or the sales report message that has been validated. *schemeID*=**UUID** UUID as defined in the RFC 4122. *schemeID*=**FLUXTL_ON** the reference taken from the message envelope in case of a parsing problem with the message resulting on a non-availability of the UUID schemeID values come from the FLUX_GP_MSG_ID code list
Creation	DateTime	1	1	The date time UTC value of the creation of this FLUX Response Message.	A UTC date/time according to ISO 8601 format; e.g. 2008-10-31T15:07:38.6875000Z.
Response	Code	1	1	The code specifying the general status of the validation process, which has been applied on the referenced FLUX Sales Report Message.	*listID*=**FLUX_GP_RESPONSE**
Remarks	Text	0	1	A general textual remark related to the Response code.	
Rejection Reason	Text	0	1	A textual description of the main reason for rejection.	
Related Validation Result_ Document	Assoc.	0	*	The validation result document related to this FLUX response.	For a response to a Report Message: to be provided only in case at least one BR fails (ResponseCode <> OK).
Respondent FLUXParty	Assoc.	1	1	The party owning this FLUX Report Document.	

Response FLUX_Party

Description: Identification of the party (country) sending the response.

Entity/Field Name	DataType	Cardinality		Description	Remarks
		min	max		
Identification	Identifier	1	1	The identifier of the FLUX party, creating and sending the message.	*schemeID*= **FLUX_GP_PARTY** + Value
Name	Text	0	1	The name of the FLUX party creating the message	Free text giving more details on the Party. e.g. Market State reporting the data (i.e. name of the country or other party).

Validation Result_Document

Cfr description in the FLUX Sales Report Message.

Validation_ Quality Analysis Entity

Cfr description in the FLUX Sales Report Message.

8. BUSINESS RULES[11]

The list of business rules below is used to verify that the data quality of Sales messages transmitted over the FLUX system is sufficiently high to ensure their relevance.

In an exchange of data between two systems without any human intervention, the principle is to give back to the sending system as much as possible feedback about the received message. Therefore it is advised to execute as many business rules as possible at the moment of reception of the message and to reply to the sender by putting in the response all the possible errors (or warnings) detected, not stopping the validation process at the first error.

If a validation is performed by a component of a web application based on data entered by a user in a web form, the business rules could be applied on a case-by-case basis.

A business rule is applicable during a certain time period including the start and end dates of the specified period. The period during which the business rule is applicable is available on the Master Data Register page of the European Commission Fisheries website1.

The FLUX Report_Document should be validated according to the applicable business rules at the time of the FLUX_Report_Document.CreationDateTime while the sales report in the message and related information must be validated according to the applicable business rules at the time of the sales operation (Sales_Event.Occurence),. If not available, the creation of the Sales Report document (FLUX_Report_Document.CreationDateTime) or Sales Query message (Sales_Query.SubimttedDateTime) is used. A business rule must be applied if the data used by the business rule is available in the message.

Mandatory and conditionally mandatory fields are identified in chapter 6.

Rules related to data elements are only applicable if the data element is present, except for the rules which explicitly check the presence of a data element. Rules related to data elements of a particular entity, including the rules checking the presence of data elements, are only applicable if those entities are present. Rules checking presence of entities are applicable only if the parent entity is present.

An overloaded data element is defined as a data element communicated repetitively (based on the cardinality of the element defined in the data model) and exceeding the limit imposed by the implementation document or that is not mentioned in the implementation document but still is compliant to the UN/FLUX standard.

. In this version of the document, there are no business rules[12] defined to detect overloaded data elements and therefore to report such issue to the sender. Such data

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[11] Each business rule will be later identified by a unique identifier not yet provided in the version of this document

elements are ignored by the validation process. (ex: multiple CFR identifiers for a vessel in the XML: allowed by the standard but limited to one in the implementation document …)

If the parsing of the in-coming message fails because the XML does not comply to the XSD schema, the BR SALE-L00-0000 is communicated in the validation report of the response. The reference of the message in the response will be the FLUXTL_ON reference of the message envelope if the UUID cannot be identified due to the parsing problem.

The tables presented in the sections below must be read as follows:

- BR-ID: Business rule ID. Identifier assigned to the BR according to the the following methodology:

    o   SL: Referring to the sales domain in which the rule is relevant

    o   Lxx: The level of the business rule

    o   yy: optional sub-level.

    o   zzzz: A number that allows, in combination with the other parts of the code, to uniquely identify the business rule.

- Entity: the entity in the sales data model

- Attribute: the attribute(s) name(s) of the entity used by the BR

- BR: description of the rule

- ERR/WAR: error or warning

- Note: Any relevant information to clarify the BR

8.1. General business rules

The following BRs are applied to any messages:

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
SALE-L00-00-0000	Any FLUX Sales Message	Verifies whether or not the message is a valid	ERR	An invalid XML message has been received. *In the response, schemeID=*FLUXTL_ON (reference from the envelope) may be used only in case of a parsing

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[12] Additional business rules can be defined in a future version

BR-ID	Entity/Attribute	BR	ERR/WAR	Note
				problem with the message or a non availability of or incorrect UUID.
SALE-L00-00-9998	FLUXSalesQueryMessage	Verifies that the query will return results	ERR	No data corresponding to the query.
SALE-L00-00-9999	FLUXSalesQueryMessage	Verifies that the requester has the permission to query the information	ERR	PERMISSION: The querier is not allowed access to the requested data. No FLUXSalesReport Message containing the response will be sent.

8.2. Sales Declaration BRs

Business rules (BRs) are based on data and not on systems. The list of business rules here under is used to verify the data quality of sales messages when received by a party. It covers also national exchanges when the submitter sends data to the administration using a national system or the FLUX system.

Each business rule must be applied if the data is available in the message.

This list must be also complemented with the set of VALID business rules used for cross-domains verifications, mainly with the landing declarations.

Rules for FLUX_Sales_Report_Message entity

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
SALE-L00-00-0001	FLUX_ ReportDocument	Must be present	ERR	
SALE-L02-00-0001	FLUX_ ReportDocument	Only one report document	ERR	
SALE-L02-00-0003	FLUX_ ReportDocument/Purpose FLUX_ReportDocument/Referenced Identification	One and only one occurrence of a sales report if purpose code is not for a 'delete' and if the report is not resulting from a query	ERR	

Rules for FLUX_Report_Document entity

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
SALE-L00-00-0010	FLUX_ ReportDocument/Identification	Must be present.	ERR	*In the response, schemeID*=FLUXTL _ON (reference from the envelope) may be used only in case of a parsing problem with the message or a non availability of or incorrect UUID.
SALE-L01-00-0010	FLUX_ ReportDocument/Identification	Check attribute schemeID. Must be UUID.	ERR	*In the response, schemeID*=FLUXTL _ON (reference from the envelope) may be used only in case of a parsing problem with the message or a non availability of or incorrect UUID.
SALE-L01-00-0011	FLUX_ ReportDocument/Identification	Check Format. Must be according to the specified schemeID.	ERR	Must be according to RFC4122 format for UUID. *In the response, schemeID*=FLUXTL _ON (reference from the envelope) may be used only in case of a parsing problem with the message or a non availability of or incorrect UUID.
SALE-L03-00-0010	FLUX_ ReportDocument/Identification	The identification must be unique and not already exist	WAR	If it exists already, the contents are considered identical and the message may

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
				be ignored by the receiving party. It is expected to return the same validation results. *In the response, schemeID*=FLUXTL _ON
SALE-L00-00-0011	FLUX_ ReportDocument/Creation	Must be present.	ERR	
SALE-L01-00-0012	FLUX_ ReportDocument/Creation	Check Format. Must be date in UTC according to ISO8601	ERR	
SALE-L01-00-0013	FLUX_ ReportDocument/Creation	Date must be in the past.	ERR	
SALE-L00-00-0012	FLUX_ ReportDocument/Purpose	The code must be present.	ERR	
SALE-L01-00-0014	FLUX_ ReportDocument/Purpose	Check attribute listID. Must be FLUX_GP_PURPOSE	ERR	If listID provided.
SALE-L01-00-0015	FLUX_ ReportDocument/Purpose	Check code from the list *listID*.	ERR	
SALE-L01-00-0016	FLUX_ ReportDocument/Purpose	Purpose code should not be 1 (cancellation)	ERR	
SALE-L02-00-0010	FLUX_ ReportDocument/Purpose, FLUX_ReportDocument/Referen ced Identification	If correction or deletion, the referenced identification must be provided and it must be the one of a an existing Sales Report message.	ERR	
SALE-L01-00-0008	FLUX_ ReportDocument/ Referenced Identification	Check attribute schemeID. Must be UUID.	ERR	
SALE-L01-00-0009	FLUX_ ReportDocument/ Referenced Identification	Check Format. Must be according to the specified schemeID.	ERR	Must be according to RFC4122 format.
SALE-L02-00-0011	FLUX_ ReportDocument/Purpose, FLUX_ ReportDocument/Referenced Identification	If it is a new message (creation), the referenced identification, if provided, must be the one of a Query message	ERR	
SALE-L00-00-0013	FLUXParty	Must be present	ERR	
SALE-L00-00-0014	FLUXParty	Only one party	ERR	

Rules for FLUX_Party entity

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
SALE-L00-00-0020	FLUX_party/Identification	Must be present	ERR	
SALE-L01-00-0017	FLUX_party/Identification	Check attribute schemeID. Must be FLUX_GP_PARTY	ERR	
SALE-L01-00-0020	FLUX_party/Identification	Check code from the list *schemeD*	ERR	
SALE-L03-00-0012	FLUX_party/Identification	Check if OwnerFLUXParty.ID is consistent with FLUX TL values.	WAR	The identification of the party sending the message and identified at the level of the FLUX-TL must be the same in the FLUX_Party entity (no delegation for sending data on behalf of another flag state). Only the part before the first colon is to be considered: Eg. ABC:something => only ABC refers

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
				to the party for the purpose of this rule.

Rules for Sales_Report entity

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
SALE-L00-00-0021	Sales Report/Item Type	Must be present	ERR	
SALE-L01-00-0021	Sales Report/Item Type	Check code from the list	ERR	
SALE-L01-00-0022	Sales Report/Item Type	Only SN and TOD allowed	ERR	
SALE-L03-00-0020	Sales Report/Item Type, FLUX Report Document/Purpose, FLUX Report Document/Referenced Identification	In case of a correction, the item type must be the same as the item type of the referenced report	ERR	
SALE-L00-00-0022	Sales Report/Sales Document	Must be present	ERR	
SALE-L02-00-0020	Sales Report/Sales Document	Only one sales document	ERR	

Rules for Sales_Document entity

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
SALE-L00-00-0030	Sales Document/Identification	Must be present	ERR	
SALE-L01-00-0031	Sales Document/Identification	Check format of the part corresponding to the national number	ERR	country specific. For the sender, this BR can be used to control the national format. For the recipient, it can verify the specific format of the sender if he knows it, , otherwise it is to verify if that part has maximum 20 chars
SALE-L01-00-0032	Sales Document/Identification	Check format of the common part	ERR	ISO-3 code from the TERRITORY list + '-' + type of report
SALE-L03-00-0030	Sales Document/Identification FLUX Report_Document/PurposeCode FLUX Report_Document//Referenced Identification	The reference must be unique for an original document (not resulting from a query)	ERR	PurposeCode = '9'
SALE-L00-00-0031	Sales Document/Sales Currency	Must be present	ERR	
SALE-L01-00-0033	Sales Document/Sales Currency	Check Code from the list *listID*	ERR	
SALE-L03-00-0031	Sales Document/Sales Currency, Sales Event/Occurrence, FLUX Location/Country	It must be an official currency of the country at that date	WAR	
SALE-L01-00-0034	Sales Document/Transport Document Identification	Check format	ERR	
SALE-L03-00-0032	Sales Document/Transport Document Identification	The reference must exist	WAR	If a reference of a document is mentioned, that document must

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
				exist (meaning the reference must be known - already registered - in the system).But because some documents are still processed on paper and transmitted with delays, it can be known by the Administration after the reception and validation of the sales information. That is why the validation result is a warning (not a blocking issue)
SALE-L01-00-0035	Sales Document/Take Over Document Identification	Check Format	ERR	
SALE-L03-00-0033	Sales Document/Take Over Document Identification	The reference must exist	WAR	Cfr note of SALE-L03-00-0032
SALE-L01-00-0036	Sales Document/Sales Note identification	Check Format	ERR	
SALE-L03-00-0034	Sales Document/Sales Note identification	The reference must exist	WAR	Cfr note of SALE-L03-00-0032
SALE-L00-00-0032	Sales Event	Must exist	ERR	
SALE-L02-00-0030	Sales Event	Only one sales event	ERR	
SALE-L00-00-0033	Sales Party	Must exist	ERR	
SALE-L02-00-0031	Sales Party	At least two occurrences	ERR	
SALE-L00-00-0034	Fishing Activity	Must exist	ERR	
SALE-L02-00-0032	Fishing Activity	Only one occurrence	ERR	
SALE-L00-00-0035	Flux Location	Must exist	ERR	
SALE-L02-00-0033	Flux Location	Only one occurrence	ERR	It is a market place or a storage location
SALE-L00-00-0036	Sales Batch	Must exist	ERR	
SALE-L02-00-0034	Sales Batch	Only one occurrence	ERR	

Rules for Sales_Party entity

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
SALE-L01-00-0040	Sales Party/Identification	Check code from the list *schemeID*	ERR	
SALE-L02-00-0040	Sales Party/Identification, Sales Party/Role	Identification mandatory when role=SENDER	ERR	
SALE-L02-00-0046	Sales Party/Identification, Sales Party/Role	Identification mandatory when role=BUYER	ERR	
SALE-L00-00-0040	Sales Party/Role	Must be present	ERR	

BR-ID	Entity/Attribute	BR	ERR/WAR	Note
SALE-L01-00-0041	Sales Party/Role	Check code from the list *listID*	ERR	
SALE-L01-00-0042	Sales Party/Role	SENDER role must exist	ERR	
SALE-L02-00-0041	Sales Party/Role	PROVIDER role must exist for a sales note (SN)	ERR	
SALE-L02-00-0042	Sales Party/Role	BUYER roles must exist for a sales note (SN)	ERR	
SALE-L02-00-0043	Sales Party/Role	RECIPIENT role must exist for a Take-over doc	ERR	A take-over document is identified by the TypeCode of the Sales_Report (TOD)
SALE-L02-00-0044	Sales Party/Role	No duplication of role allowed	ERR	
SALE-L01-00-0043	Sales Party/Role	No code for CARRIER allowed	ERR	
SALE-L03-00-0042	Sales Party/Identification, Sales Party/Role	If SENDER or BUYER role, the ID must exist in a list of registered bodies of the country	ERR	BR to be applied by the sender of the report (Market state)
SALE-L03-00-0043	Sales Party/Identification, Sales Party/Role	If SENDER or BUYER role, the ID must exist in a list of registered bodies of the country	WAR	BR to be applied by the receiver of the report (Flag state or Coastal state)
SALE-L03-00-0041	Sales Party/Identification, Sales Party/Role	If SENDER role, it should be a MS Identification (SchemeID=MS)	ERR	
SALE-L00-00-0041	Sales Party/Name	Must be present	ERR	
SALE-L02-00-0045	Sales Party/Role FLUX Organisation/Name	Name of organisation must be present for TOD if the role is RECIPIENT	ERR	

Rules for Sales_Event entity

BR-ID	Entity/Attribute	BR	ERR/WAR	Note
SALE-L01-00-0050	Sales Event/Occurrence	Check format	ERR	
SALE-L03-00-0050	Sales Event/Occurrence, FLUX Report Document/Creation, FLUX Report Document/Referenced Identification	If the report is not resulting from a query, the reception date (Creation) (by Market state) should not be later than 24h after the sale date/take-over date (Occurrence)	WAR	That's the maximum delay. Another rule should check if received under 24h under some conditions (financial turnover).
SALE-L02-00-0050	Sales Event/Occurrence, Delimited_Period/Start	Sales Event date >= Start date (landing)	ERR	

Rules for Sales_Batch entity

BR-ID	Entity/Attribute	BR	ERR/WAR	Note
SALE-L02-00-0055	AAP_Product	At least one must exist	ERR	

Rules for AAP_Product entity

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
SALE-L00-00-0060	AAP Product/Species	Must be present	ERR	
SALE-L01-00-0060	AAP Product/Species	Check code from the list *listID*	ERR	
SALE-L01-00-0061	AAP Product/Unit	Positive number	ERR	
SALE-L01-00-0062	AAP Product/Weight	Check unit code: must be KGM	ERR	
SALE-L01-00-0063	AAP Product/Weight	Not a negative number	ERR	
SALE-L01-00-0064	AAP Product/Weight	Weight = 0	WAR	
SALE-L01-00-0065	AAP Product/Weight	No more than 2 decimals	WAR	
SALE-L02-00-0060	AAP Product/Unit, AAP Product/Weight	One of the two must be available	ERR	
SALE-L00-00-0061	AAP Product/Usage	Must be present	ERR	
SALE-L01-00-0067	AAP Product/Usage	Check code from the list *listID*	ERR	
SALE-L00-00-0062	AAP_Process	Must be present	ERR	
SALE-L00-00-0063	Size_Distribution	Must be present	ERR	
SALE-L00-00-0065	FLUX_location	Must be present	ERR	Location(s) of the catch

Rules for AAP_Process entity

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
SALE-L01-00-0070	AAP Process/Type	Check code from the list *listID*	ERR	
SALE-L02-00-0070	AAP Process/Type	No duplicated type codes	ERR	
SALE-L00-00-0070	AAP Process/Type	Freshness must be present	ERR	For SN
SALE-L02-00-0071	AAP Process/Type	Presentation & preservation must be present	ERR	
SALE-L01-00-0071	AAP Process/Conversion factor	Positive number	ERR	

Rules for Size_Distribution entity

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
SALE-L00-00-0080	Size Distribution/Class	Must be present	ERR	
SALE-L01-00-0080	Size Distribution/Class	Check code from the list *listID*	ERR	
SALE-L00-00-0081	Size Distribution/Category	Must be present	ERR	
SALE-L01-00-0082	Size Distribution/Category	Check code from the list *listID*	ERR	
SALE-L02-00-0080	AAP_Product/Usage, Size Distribution/Class	Usage must be for non direct human consumption if BMS species	WAR	It is a verification rule

BR-ID	Entity/Attribute	BR	ERR/WAR	Note
SALE-L02-00-0081	Size Distribution/Class, Size Distribution/Category	If BMS species, the category should be N/A	ERR	No marketing size for BMS

Rules for Sales_Price entity

BR-ID	Entity/Attribute	BR	ERR/WAR	Note
SALE-L01-00-0090	Sales Price/Charge	Not a negative value	ERR	
SALE-L02-00-0090	Sales_Report/ItemType Sales Price/Charge	Mandatory for products of sales notes	ERR	
SALE-L01-00-0091	Sales Price/Charge	Charge = 0	WAR	
SALE-L02-00-0092	Sales Price/Charge	Total price, if present, must be the total of the product prices	ERR	
SALE-L01-00-0092	Sales Price/Charge	No more than 2 decimals	WAR	

Rules for FLUX_Organization entity

BR-ID	Entity/Attribute	BR	ERR/WAR	Note
SALE-L00-00-0095	FLUX Organization/Name	Must be present	ERR	

Rules for Fishing_Activity entity

BR-ID	Entity/Attribute	BR	ERR/WAR	Note
SALE-L00-00-0100	Fishing Activity/Type	Must be present	ERR	
SALE-L01-00-0101	Fishing Activity/Type	Check code: LAN	ERR	There is no *listID*, just a code
SALE-L00-00-0101	Delimited_Period	Must be present	ERR	
SALE-L02-00-0100	Delimited_Period	Only one occurrence	ERR	
SALE-L00-00-0102	Vessel_Tranport_Means	Must be present	ERR	
SALE-L02-00-0101	Vessel_Tranport_Means	Only one occurrence	ERR	
SALE-L03-00-0100	Fishing_Trip, LOA of fishing vessel	Trip-id must be present for fishing vessels >= 12m LOA but without exemption about electronic logbook on board	WAR	
SALE-L02-00-0102	Fishing_Trip	Only one occurrence if trip_id present	ERR	
SALE-L00-00-0104	FLUX_Location	Must be present	ERR	Location of the landing

Rules for Delimited_Period entity

BR-ID	Entity/Attribute	BR	ERR/WAR	Note
SALE-L00-00-0110	Delimited Period/Start	Must be present	WAR	

BR-ID	Entity/Attribute	BR	ERR/WAR	Note
SALE-L01-00-0110	Delimited Period/Start	Check format	ERR	
SALE-L01-00-0111	Delimited Period/End	Check format	ERR	
SALE-L03-00-0110	FLUX Report Document/Creation, FLUX Report Document/Referenced Identification, FishingActivity/SpecifiedDelimitedPeriod	If the report is not resulting from a query, the reception date (by the Take-Over state) should not be later than 24h after the landing declaration date	WAR	For take-over document (TOD) That's the maximum delay. Another rule should check if received under 24h under some conditions (financial turnover).

Rules for Vessel_Transport_Means entity

BR-ID	Entity/Attribute	BR	ERR/WAR	Note
SALE-L00-00-0120	Vessel Transport Means/Identification	Must be present	ERR	
SALE-L01-00-0120	Vessel Transport Means/Identification	For schemeID=CFR, check format of the CFR	ERR	
SALE-L00-00-0122	Contact Party	Must be present	ERR	
SALE-L02-00-0121	Contact Party	At least one occurrence and maximum two	ERR	
SALE-L00-00-0123	Vessel Country	Must be present	ERR	

Rules for Vessel_Country entity

BR-ID	Entity/Attribute	BR	ERR/WAR	Note
SALE-L00-00-0130	Vessel Country/Identification	Must be present	ERR	
SALE-L01-00-0130	Vessel Country/Identification	Check code	ERR	
SALE-L03-00-0130	Vessel Transport Means/ Identification, Vessel Country/Identification, Delimited/Period/Start	If CFR, the vessel should be in the EU fleet under the flag state at landing date	ERR	

Rules for Contact_Party entity

BR-ID	Entity/Attribute	BR	ERR/WAR	Note
SALE-L01-00-0150	Contact Party/Role	Check code from the list *listID*	ERR	
SALE-L00-00-0150	Contact Party/Role	Master or operator role must be present	ERR	
SALE-L02-00-0150	Contact Party/Role	No duplicated role	ERR	
SALE-L02-00-0151	Contact Party/Role	Codes other than master/operator are not allowed	ERR	
SALE-L02-00-0152	Contact Person	Must be present for each party	ERR	

Rules for Contact_Person entity

BR-ID	Entity/Attribute	BR	ERR/WAR	Note
SALE-L02-00-0160	Specified Contact_Person/GivenNameText, Specified Contact_Person/AliasText	Check presence of GivenName. Must be present if AliasText is not present.	ERR	
SALE-L01-00-0160	Specified Contact_Person/GivenNameText, Specified Contact_Person/AliasText	Non-empty GivenName	ERR	If present
SALE-L02-00-0161	Specified Contact_Person/FamilyNameText, Specified Contact_Person/AliasText	Check presence of FamilyName. Must be present if AliasText is not present	ERR	
SALE-L01-00-0161	Specified Contact_Person/FamilyNameText, Specified Contact_Person/AliasText	Non-empty FamilyName	ERR	If present
SALE-L02-00-0162	Specified Contact_Person/AliasText	Check presence. Must be present if GivenNameText or FamilyNameText is not present.	ERR	
SALE-L01-00-0162	Specified Contact_Person/AliasText	Non-empty	ERR	If present

Rules for Fishing_Trip entity

BR-ID	Entity/Attribute	BR	ERR/WAR	Note
SALE-L00-00-0170	FishingTrip/ID	Check presence.Must be present.	WAR	At least one occurrence.
SALE-L01-00-0170	FishingTrip/ID	Check attribute schemeID. Must be EU_TRIP_ID	ERR	
SALE-L01-00-0171	FishingTrip/ID	Check format. Must be according to schemeID rules	ERR	

Rules for FLUX_Location entity

BR-ID	Entity/Attribute	BR	ERR/WAR	Note
SALE-L00-00-0180	FLUX_ Location/TypeCode	Check presence. Must be present.	ERR	
SALE-L01-00-0180	FLUX_ Location/TypeCode	Check attribute listID. Must be FLUX_LOCATION_TYPE	ERR	
SALE-L01-00-0181	FLUX_ Location/TypeCode	Check code. Must be existing in the list specified in attribute listID	ERR	
SALE-L02-00-0180	FLUX_ Location, AAP_product	It must not be a LOCATION code for AAP products	ERR	
SALE-L02-00-0181	FLUX_ Location, Fishing_Activity	It must be a LOCATION code for the landing	ERR	
SALE-L02-00-0182	FLUX_ Location/Country, FLUX_ Location/TypeCode	Check presence of the country. Must be present if Type is LOCATION or ADDRESS.	ERR	
SALE-L01-00-0182	FLUX_ Location/Country	Check attribute schemeID. Must be TERRITORY	ERR	
SALE-L01-00-0183	FLUX_ Location/Country	Check code. Must be existing in the list specified in attribute schemeID	ERR	
SALE-L02-00-0183	FLUX_ Location/Identification, FLUX_ Location/TypeCode	Check presence. Must be present, unless type is "POSITION" or "ADDRESS"	ERR	Optional for geographical location

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
SALE-L01-00-0184	FLUX_ Location/Identification	Check attribute schemeID. In case Type= "AREA": must be FAO_ AREA, , TERRITORY. In case Type= "LOCATION": must be LOCATION, FARM	ERR	
SALE-L01-00-0185	FLUX_ Location/Identification	If FAO_ AREA code, the more precise area must be mentioned	WAR	In the FAO_AREA list, the terminal indicator is set to 'Y' for such areas.
SALE-L01-00-0186	FLUX_ Location/Identification	Check code. Must be existing in the list specified in attribute schemeID	ERR	
SALE-L01-00-0187	AAP_Product and FLUX_ Location/Identification	FAO_AREA code is mandatory	ERR	
SALE-L02-00-0188	AAP_Product and FLUX_ Location/Identification	Only one FAO_AREA code per product	ERR	
SALE-L02-00-0184	FLUX_ Location/Identification, FLUX_ Location/Country	If LOCATION code, the place must be in the country	ERR	In the LOCATION list, the country code is associated with the location code.
SALE-L02-00-0185	FLUX_ Location/TypeCode, FLUX, Geographical Coordinate	Check presence of the FLUX Geographical Coordinate. Must be present if TypeCode in Flux Location = POSITION.	ERR	
SALE-L02-00-0186	FLUX Geographical Coordinate/Latitude, FLUX Geographical, Coordinate/Longitude, FLUX_ Location /Identification	Latitude & longitude must be provided if there is no identification and no address	ERR	
SALE-L02-00-0187	Physical StructuredAddress, FLUX_ Location/TypeCode	Check presence. Must be present if location Type is ADDRESS.	ERR	Must be present if location type is ADDRESS.

Rules for FLUX_Geographical_Coordinate entity

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
SALE-L00-00-0190	FLUX Geographical Coordinate/LatitudeMeasure	Check presence. Must be present	ERR	
SALE-L01-00-0190	FLUX Geographical Coordinate/LatitudeMeasure	Check format. Must be number.	ERR	
SALE-L01-00-0191	FLUX Geographical Coordinate/LatitudeMeasure	Check range. Must be between -90 and 90	ERR	Boundaries follow the EPSG definition.
SALE-L00-00-0191	FLUX Geographical Coordinate/LongitudeMeasure	Check presence. Must be present.	ERR	
SALE-L01-00-0192	FLUX Geographical Coordinate/LongitudeMeasure	Check format. Must be number.	ERR	
SALE-L01-00-0193	FLUX Geographical Coordinate/LongitudeMeasure	Check range. Must be between -180 and 180	ERR	Boundaries follow the EPSG definition.

Rules for Structured_Address entity

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
SALE-L00-00-0200	Structured Address/City Name	Must be present	ERR	
SALE-L00-00-0201	Structured Address/Country	Must be present	WAR	
SALE-L01-00-0200	Structured Address/Country	Check code from the list *schemeID*	ERR	
SALE-L00-00-0202	Structured Address/Street Name	Must be present	WAR	
SALE-L02-00-0200	FLUX Location/Country, Structured Address/Country	Should be the same value	WAR	

Rules for Validation Result_Document entity

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
SALE-L00-00-0470	Validation Result Document/Identification	Must be present	ERR	
SALE-L01-00-0470	Validation Result Document/Identification	Check code from the list *schemeID*	ERR	
SALE-L00-00-0471	Validation Result Document/Creation	Must be present	ERR	
SALE-L01-00-0471	Validation Result Document/Creation	Check Format	ERR	
SALE-L02-00-0470	Validation Result Document/Creation, FLUX Response Document/Creation	The Creation must be <= to the Creation of the report	WAR	
SALE-L00-00-0472	Validation Quality Analysis	Must be present if validation document	ERR	

Rules for Validation_Quality Analysis entity

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
SALE-L00-00-0480	Validation QualityAnalysis/Identification	Must be present.	ERR	
SALE-L01-00-0480	Validation QualityAnalysis/Identification	Check value. Code must be value of the specified code list in schemeID.	ERR	
SALE-L00-00-0481	Validation QualityAnalysis/Level	Must be present	ERR	
SALE-L01-00-0481	Validation QualityAnalysis/Level	Check Code. Must be in the list specified in listID.	ERR	
SALE-L00-00-0482	Validation QualityAnalysis/Type	Must be present	ERR	
SALE-L01-00-0482	Validation QualityAnalysis/Type	Check Code. Must be in the list specified in listID.	ERR	
SALE-L02-00-0480	Validation QualityAnalysis/Referenced_ItemText	At least one occurrence if the Quality Analysis is in a Response message	WAR	

Examples of verification rules

BR-ID	Entity Attribute	BR	ERR/ WAR	Note
	Sales Document/Take Over DocumentID	Check validity of the reference: • the reference must exist • it should be a take-over decl. • data must be validated and without error	WAR	For SN
	Sales Document/Take Over DocumentID	Check content of the take-over declaration (TOD) compared to the sales document: • TOD date <= sales date • same vessel • same landing • sales species in the set of TOD species • TOD quantity >= quantity by species	WAR	For SN
	Sales Document/Transport DocumentID	Check validity of the reference: • the reference must exist • it should be a transport decl. • data must be validated and without error	WAR	For SN, TOD
	Sales Document/Transport DocumentID	Check content of the transport declaration (TRD) compared to the sales document: • TRD date <= sales date • same vessel • same landing • sales species in the set of TRD species • TRD quantity >= quantity by species	WAR	For SN, TOD

8.3. Sales Query BRs

List of business rules that must be applied to control the validity of any sales request when received.

Rules for Sales_Query entity

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
SALE-L00-00-0400	Sales Query/Identification	Must be present	ERR	
SALE-L01-00-0400	Sales Query/Identification	Check Format : UUID	ERR	
SALE-L03-00-0400	Sales Query/Identification	The reference must be unique	ERR	
SALE-L00-00-0401	Sales Query/Submitted	Must be present	ERR	
SALE-L01-00-0401	Sales Query/Submitted	Check format	ERR	
SALE-L00-00-0402	Sales Query/Type	Must be present	ERR	
SALE-L01-00-0403	Sales Query/Type	The listID must be FLUX_SALES_ TYPE	ERR	
SALE-L01-00-0402	Sales Query/Type	Check code from the list *listID*	ERR	
SALE-L02-00-0401	Flux_Party	Must be present	ERR	
SALE-L02-00-0402	Flux_Party	Only one occurrence	ERR	
SALE-L02-00-0403	Delimired_Period	Only one occurrence	ERR	
SALE-L00-00-0404	Sales_Query parameter	Must be present	ERR	
SALE-L02-00-0405	Delimited Period, Sales_Query parameter/TypeCode	Delimited Period data must be present if the Sales_Query parameter/TypeCode about data search is PLACE or VESSEL	ERR	The rule does not apply to control types ROLE and FLAG

Rules for FLUX_Party entity

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
SALE-L00-00-0410	FLUX_Party/Identification	Must be present	ERR	
SALE-L01-00-0411	FLUX_party/Identification	Check attribute schemeID. Must be FLUX_GP_PARTY	ERR	
SALE-L01-00-0410	FLUX_Party/Identification	Check Code from the list *schemeID*	ERR	
SALE-L03-00-0410	FLUX_party/Identification	Check if FLUXParty.ID is consistent with FLUX TL values.	WAR	The identification of the party sending the message and identified at the level of the FLUX-TL must be the same in the FLUX_Party entity (no delegation for sending data on behalf of another

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
				flag state). Only the part before the first colon is to be considered: Eg. ABC:something => only ABC refers to the party for the purpose of this rule.

Rules for Delimited_Period entity

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
SALE-L00-00-0420	Delimited Period/Start	Must be present	ERR	
SALE-L01-00-0420	Delimited Period/Start	Check format	ERR	
SALE-L03-00-0420	Delimited Period/Start	StartDate >= SystemDate – **3 years**	ERR	Past data limited to three years from the current date
SALE-L03-00-0422	Delimited Period/Start/End and Sales Query Parameter/Type	If the parameter type = PLACE, StartDate >= EndDate – **6 months**	ERR	Past data limited to a period of six months for queries about a place
SALE-L00-00-0421	Delimited Period/End	Must be present	ERR	
SALE-L01-00-0421	Delimited Period/End	Check format	ERR	
SALE-L02-00-0420	Delimited Period/Start, Delimited Period/End	Start <= End	ERR	

Rules for Sales_Query Parameter entity

BR-ID	Entity/Attribute	BR	ERR/WAR	Note
SALE-L00-00-0430	Sales Query Parameter/Type	Must be present	ERR	
SALE-L01-00-0430	Sales Query Parameter/Type	Check code from the list *listID*	ERR	
SALE-L00-00-0432	Sales Query Parameter/Type	If Type = ROLE, only one occurrence in the query	ERR	
SALE-L01-00-0435	Sales Query Parameter/Type	The listID must be FLUX_SALES_QUERY_PARAM	ERR	
SALE-L01-00-0436	Sales Query Parameter/Type, Sales Query Parameter/Value	If Type = ROLE, the listID of the Value must be FLUX_SALES_QUERY_PARAM_ROLE	ERR	
SALE-L00-00-0433	Sales Query Parameter/Type	At least one data search type (VESSEL/PLACE/SALES_ID/TRIP_ID) must be present	ERR	
SALE-L01-00-	Sales Query Parameter/Type, Sales Query Parameter/Value	If Type = PLACE, the listID of the Value must be	ERR	

BR-ID	Entity/Attribute	BR	ERR/WAR	Note
0437		LOCATION		
SALE-L01-00-0438	Sales Query Parameter/Type, Sales Query Parameter/Value	If Type = FLAG, the listID of the Value must be TERRITORY	ERR	
SALE-L01-00-0439	Sales Query Parameter/Type, Sales Query Parameter/Value	If Type = SALES_ID, the schemeID of the Value must be EU_SALES_ID	ERR	
SALE-L01-00-0440	Sales Query Parameter/Type, Sales Query Parameter/Value	If Type = TRIP_ID, the schemeID of the Value must be EU_TRIP_ID	ERR	
SALE-L01-00-0442	Sales Query Parameter/Type, Sales Query Parameter/Value	If Type = VESSEL, the schemeID of the Value must be CFR or IRCS	ERR	
SALE-L00-00-0431	Sales Query Parameter/Type, Sales Query Parameter/Value	A role must exist	ERR	
SALE-L01-00-0431	Sales Query Parameter/Type, Sales Query Parameter/Value	If Type = FLAG/ROLE/PLACE, check code of the value	ERR	
SALE-L01-00-0432	Sales Query Parameter/Type, Sales Query Parameter/Value	If Type=VESSEL and schemeID=CFR, check format of CFR	ERR	If the type is present but there is no value for CFR, the query is for all fishing vessels
SALE-L02-00-0430	Sales Query Parameter/Type, FLUX_Party	Type=FLAG only for international organization	ERR	If the type is present but there is no value, the query is for all flag states
SALE-L02-00-0431	Sales Query Parameter/Type, Sales Query Parameter/Values, FLUX_Party/Identification	Type=ROLE, the values FLAG or LAND only for MS. INT for international organization	ERR	International organizations are identified by an iso-3 code starting with 'X'
SALE-L01-00-0433	Sales Query Parameter/Type, Sales Query Parameter/Values, FLUX_Party/Identification	If Type = SALES_ID or TRIP_ID, check format of the part corresponding to the national number	ERR	country specific. The requester knows his national format(s). As the sender must send validated data, this BR can be used to control the national formats if he knows it otherwise it is to verify if that part has max 20 chars.
SALE-L01-00-0434	Sales Query Parameter/Type, Sales Query Parameter/Values	If Type = SALES_ID or TRIP_ID, check format of the common part	ERR	ISO-3 code from the TERRITORY list + '-' + type of report
SALE-L03-00-0430	Sales Query Parameter/Type, Sales Query Parameter/Value, FLUX Party/Identification, Delimited Period/Start	If TYPE=VESSEL and schemeID=CFR, if vessel identifiers are given, the flag of each vessel must be the country of the requester at start date	ERR	

8.4. Rules for Response entity

List of business rules that must be applied to control the validity of any response when received.

Rules for FLUX Response_Document entity

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
SALE-L00-00-0450	FLUX_Response_Document/Identification	Must be present	ERR	
SALE-L01-00-0450	FLUX_Response_Document/Identification	Check attribute schemeID. Must be UUID.	ERR	
SALE-L01-00-0451	FLUX_Response_Document/Identification	Check Format. Must be according to the specified schemeID.	ERR	Must be according to RFC4122 format for UUID.
SALE-L03-00-0450	FLUX_Response_Document/Identification	The identification must be unique and not already exist	ERR	
SALE-L00-00-0451	FLUX_Response_Document/Referenced Identification	Must be present	ERR	
SALE-L01-00-0452	FLUX_Response_Document/Referenced Identification	Check attribute schemeID. Must be in the FLUX_GP_MSG_ID list	ERR	
SALE-L01-00-0453	FLUX_Response_Document/Referenced Identification	Check Format. Must be according to the specified schemeID.	ERR	Must be according to RFC4122 format for UUID.
SALE-L03-00-0452	FLUX_Response_Document/Referenced Identification	Must be a reference of a query or sales declaration	ERR	
SALE-L00-00-0452	FLUX_Response_Document/ResponseCode	Must be present.	ERR	
SALE-L01-00-0454	FLUX_Response_Document/ResponseCode	Check attribute listID. Must be FLUX_GP_RESPONSE	ERR	
SALE-L01-00-0455	FLUX_Response_Document/ResponseCode	Check value. Code must be value of the specified code list in listID.	ERR	
SALE-L00-00-0453	FLUX_Response_Document/CreationDateTime	Check presence. Must be present.	ERR	
SALE-L01-00-0456	FLUX_Response_Document/CreationDateTime	Check Format. Must be date in UTC according to ISO8601	ERR	e.g. 2008-10-31T15:07:38.6875000Z.
SALE-L03-00-0453	FLUX_Response_Document/CreationDateTime	Date must be in the past.	ERR	
SALE-L02-00-0450	Validation Result Document	Must be present if ResponseCode <> OK	ERR	
SALE-L00-00-0454	FLUX_Party	Must be present	ERR	
SALE-L00-00-0455	FLUX_Party	Only one occurence	ERR	

Rules for FLUX_Party entity

BR-ID	Entity/Attribute	BR	ERR/ WAR	Note
SALE-L00-00-0460	FLUXParty/Identification	Must be present	ERR	
SALE-L01-00-0460	FLUXParty/Identification	Check attribute listID. Must be FLUX_GP_PARTY	ERR	
SALE-L03-00-0460	FLUXParty/Identification	Check if RespondentFLUXParty.ID is consistent with FLUX TL values.	WAR	The party sending must be allowed to send the message

Rules for Validation Result_Document entity

Cfr 8.2.24

Rules for Validation_Quality Analysis entity

Cfr 8.2.24

9. XML EXAMPLES

XML examples will be provided on the Master Data Register page of the European Commission Fisheries website[1].

10. CODE LISTS

All XSDs and code lists are listed in the Master Data Register of DG MARE of European Commission[1].

The values mentioned in above tables for the listID attribute refer to a code list alias in the table below. This table maps the code list alias to the code list name in MDR. The latter value can be used to retrieve the code values using the FLUX Master Data Management specifications[13].

Code list alias (ListID in the XSD)
FAO_AREA
FAO_SPECIES
FISH_FRESHNESS
FISH_PRESENTATION
FISH_PRESERVATION
FISH_SIZE_CATEGORY
FISH_SIZE_CLASS
FLUX_CONTACT_ROLE
FLUX_GP_MSG_ID
FLUX_GP_PARTY
FLUX_GP_PURPOSE
FLUX_GP_RESPONSE
FLUX_GP_VALIDATION_LEVEL
FLUX_GP_VALIDATION_TYPE
FLUX_ PROCESS_TYPE
FLUX_LOCATION_TYPE
FLUX_SALES_PARTY_ID_TYPE
FLUX_SALES_PARTY_ROLE
FLUX_SALES_QUERY_PARAM

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[13] FLUX BRS: P1000 – 10; MDM domain

FLUX_SALES_QUERY_PARAM_ROLE	
FLUX_SALES_TYPE	
FLUX_VESSEL_ID_TYPE	
GENDER	
LOCATION	
PROD_USAGE	
SALE_BR	
TERRITORY	
TERRITORY_CURR	

11.   FLUX TL ENVELOPE PARAMETERS

The following FLUX TL parameters must be used.

Common name	FLUX TL Envelope Tag name	Value	Remark
Dataflow name	DF	urn:un:unece:un cefact:fisheries: FLUX:SALES: EU:2	According to format: urn:un:unece:uncefact:fisheries:FLUX:[domain]:[context]:[version]
Timeout DateTime	TODT	Current DateTime (in UTC) + 20 minutes	Value expressed as XSD DateTime in UTC
Acknowledge of Receipt	AR	True	This parameter indicates that FLUX TL will always return an acknowledgement of receipt when the message has been received by the FLUX TL destination node. Note: a non-delivery message is always sent when the recipient cannot be reached, or timeout (TODT) time has been expired.

12. VERSIONING

Version	Author	Date
1.0.0		31/05/2016
2.0.0	Data model updates + BR for vessel_country	06/10/2016
2.0.1	Chapter 11 added. FLUX_Location and corresponding BRs amended	27/10/2016
2.1.0	SN identifier added in Sales_Document and corresponding Business Rules (BR) BRs added for the usage code in AAP_Product	01/03/2017
2.2.0	-) BRs reviewed based on feedback of the Flux Test Framework working group: description/note/severity updated or changed. Some BRs have been removed. -) General BR rule added (L00-00-0000) in chapter 8.1 -) Additional info added for the application of BRs in chapter 8 -) Other BRs reviewed by MARE: L02-00-0045 modified, L03-00-0001 suppressed -) The terminology and role SELLER modified into PROVIDER in text and BRs -) In 7.1.6: The condition that the buyer can be optional for products withdrawn from the market has been suppressed. The BR L02-00-0042 has been adapted -) Feedback of MS added to clarify some BRs after the agreement of MS at DMG meeting in September	01/08/2017 27/09/2017
2.3.0	Including changes approved by the ERS and Data Management Group on 25/01/2018. Changes to resolve blocking issues: 1) SALE-L03-00-0030 has been updated. Changes to resolve non-blocking issues: 1) Structured Address: optional data element Identification has been removed 2) ListID attribute with reference to GENDER code list has been added for ContactPerson/Gender data element 3) Correction of a wrong association name as regards the data model in paragraph 7.1.16 4) Sales prices only present for sales notes and not for take-over documents: The cardinality of the association between the AAP-Product and Sale-Price has been modified to allow a product without price for Take-over documents. The comment in paragraph 7.1.12 of Sales_Price entity has been modified. Definition and description of SALE-L02-00-0090 has been adapted to integrate the condition that was present only in the note. SALE-L00-00-0064 and SALE-L02-00-0091 have been deleted. 5) In the Structured_address entity, the city and country become optional. The severity of SALE-L00-00-0200, SALE-L00-00-0201 and SALE-L02-00-0200 has been changed from error to warning. 6) The severity of the SALE-L00-00-0110 about the start date of the landing has been changed from error to warning to be in line with BRs of the landing declaration (cfr Fishing Activity Impl. Doc.).	26/01/2018
2.5.0	Changes in BRs: Upd: SALE-L02-00-0010, SALE-L02-00-0011, SALE-L03-00-0031, SALE-L02-00-0183, SALE-L03-00-0050 & L03-00-0110 New: SALE-L01-00-0008 & 0009, SALE-L01-00-0187 & SALE-L02-00-0188 Additional Updates: -) Ch 7.2.2: Name in the FLUX Party of the query was missing. -) Association missing in the description of the Sales_Party entity with the address entity (7.1.6)	29/05/2018
2.6.0	Changes due to the harmonisation of the query-response procedure: -) Chapter 6.2 about the General Principle has been updated -) Chapter 6.4 about Query message: description and diagrams updated -) Chapter 7.1 about Report message: description and data model updated. Changes in entity: 7.1.1 - The cardinality of the association between the Sales Report and the Report message has been updated to allow the report message to contain more than one sales report for queries, 7.2.1 – The referenced identification, 7.1.4 and 7.1.5 – new association to the Validation Result Document, 7.1.24 & 7.1.25 – info from the old Sales Response message transferred in that section -) Chapter 7.3: Sales Response message adapted to the standard FLUX Response message (cfr data model) -) Changes in BRs: Upd: SALE-L02-00-0003, SALE-L02-00-0011, SALE-L03-00-0030, SALE-	29/05/2018

	L03-00-0050, SALE-L03-00-0110 Additional Updates: -) Ch 8: Validation date used in the validation process (important) -) Rule L00-00-0095: comment suppressed		
2.6.1	Corrections: 1) The description of the 7.1.1 Flux Sales Report to allow multiple sales when the report results from a query 2) The cardinality of the FamilyName which is only mandatory under conditions (cfr description) 3) In the FLUX Response document entity, the association between the Response Document and the Validation Quality Analysis entity has been suppressed because wrong. The Validation Analysis is linked already to the Validation Result Document. 4) L01-00-0020: listID replaced by schemeID 5) L00-00-0430: Missing Type attribute added Changes: 1) L03-00-0050: also applicable for take-over documents 2) Urgent amendments (Weekly email from February 2019) to change the severity from ERR to WAR of two BRs have been included: L00-00-0103 and L00-00-0170 3) Severity of rule L00-00-0200 and L00-00-202 have bas been modified (switched) because the city information is more important than the street 4) Procedure about the FLUX Sales Query (6.4): the report containing the requested data can be validated by the query sender. 5) Note of the L03-00-0012 modified 6) Rule L03-00-0430: severity changed from WAR to ERR 7) New rule L01-00-0092 to control decimals of sale prices 8) New rule L00-00-0123 to control that the flag of the vessel is present Addition: 1) L00-00-0432: in queries, only one role parameter is possible	19/09/2019	

2.6.2	Changes:
	1) Chapter 8: a change of the reference date for the validation of elements attached to the message.
	2) New BRs to improve the validation of queries:
	    • SALE-L01-00-0403
	    • SALE-L01-00-0411
	    • SALE-L03-00-0410
	    • SALE-L01-00-0435
	    • SALE-L01-00-0436
	    • SALE-L01-00-0437
	    • SALE-L01-00-0438
	    • SALE-L01-00-0439
	    • SALE-L01-00-0440
	    • SALE-L01-00-0441
	
	3) New BR to inform the requester that he has no access to data:
	    • SALE-L00-00-9999
	4) In the Sales_Query parameter entity, the PLACE parameter can be also used for a landing port;
	5) The Delimited_Period (start/end date) used to limit the search on data can be optional if the query is based on a trip-id or sales-id (query parameter SALES_ID or TRIP_ID). The data model has been updated: the cardinality between the Delimited_Period and Sales_Query entities has been modified. The business rule SALE-L00_00_0403 has been replaced by SALE_L02_00_0404.
		19/05/2020	

2.6.3	Corrections: 1) Sales Query Parameter entity: in the Value element as identifier, missing underscores in codes used for identifying types: SALES_ID and TRIP_ID 2) Wrong SchemeID changed into ListID for L01-00-0436 to 0441 3) Wrong type value CFR in the L01-00-0441 Changes: 1) SALE-L02-00-0404 is decommissioned because the rule is not correct in some cases 2) New BR SALE-L02-00-405 is a revision of the SALE-L02-00-0404 3) Comments have been added in the Sales Query Parameter Entity to better distinguish the query types used in the new BR		
2.7.0	Changes: 1) New BR L02-00-0046 to verify the presence of the buyer identifier 2) New BR L03-00-0042 and L03-00-0043 to verify sender and buyer identifiers with a registered bodies list, replacing L03-00-0040	16/02/2022 MTU: 15/01/2023	

	3) The BR L00-00-0103 about fishing trip is removed and replaced by the new L03-00-0100. 4) New BR L00-00-0433 to verify that at least one data search type is present in the query. 5) Two new BRs L03-00-0421 and L03-00-0422 limiting the search of information to three years for vessels and six months for a place (landing or market place) in order to limit the size of the sales report.	
2.8.0	Changes: 1) Footnotes added in the Flux_Report_Document and Sales_Document entities: sales_id cannot be reused in an original report 2) BR: +)L03-00-0100: Severity code changed from ERR to WAR +)L03-00-0421: deleted because it is a duplicate of L03-00-420 and it was a new business rule of v2.7.0 not yet implemented and used in systems. Corrections in BRs: 1)L01-00-0439, L01-00-0440, L01-00-0441 : in the BR description, ListID changed into schemeID 2)L01-00-0012 and L01-00-0013: field description adapted	25/11/2022 MTU: 15/01/2023
2.8.1	Changes: 1) Forgotten adaptations due to version 2.8.0: +) Fishing_Activity entity: cardinality of the association with Fishing_trip entity changed to '0 to 1' +) Data model adapted to that change of cardinality +) Business rule L02-00-0102: description adapted 2) Chapter 6.4 about Request for sales notes: text adapted. 3) Sales Query Parametrer Entity: more information is given on how to use parameters 4) Business rules +) L01-00-0032, L01-00-0434: the note has been modified +) L01-00-0090: description changed to be more understandable +) L03-00-0130: severity changed from WAR to ERR	25/06/2023 MTU: immediately when adopted
2.9.0	Changes: 1) Vessel Transport Means Entity and Sales Query Parameter Entity Put identification (IRCS) for non-EU vessels 2) FLUX Response Message (Ch. 6.5): more information given on the reference to use for the original message 3) Business rules +) More info on overloaded elements in ch. 8 +) L00-00-0000, L00-00-0010, L01-00-0010, L01-00-0011, L03-00-0010: ON number of the message must be returned in the response instead of the UUID that cannot be used. +) L01-00-0120: the description has been modified +) L01-00-0432, L03-00-430: description has been modified to take into account only CFR numbers +) L01-00-0441 has been replaced by L01-00-0442	29/08/2023

13. CONTACT

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