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 Vessel Implementation Document v2.7.1

1. INTRODUCTION

This document describes the implementation of the UN/CEFACT[1] FLUX standard for the electronic data exchanges of vessel data.

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

2. GLOSSARY

BR	Business rule
BRS	Business Requirement Specifications
CFP	Common Fisheries Policy
COM	European Commission (DG MARE)
EC	European Commission
EU	European Union
EUFR	EU Fleet Register
FIR	Fleet Implementing Regulation
FLAP	Fishing Licence Authorisation And Permits
FLUX	Fisheries Language for Universal eXchange
GP	General Principles
MDR	Master Data Register
MS	Member State
SMEFF	Regulation on sustainable management of external fishing fleet
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business
VCD	Vessel Core Data
VED	Vessel Extended Data
VR	Vessel Register: the central database of COM for VCD and VED
XML	eXtensible Markup Language
XSD	XML Schema Definition

3. LEGAL BASIS

The exchanges of vessel data are governed by two sets of legal basis: one dedicated to the EU Fishing Fleet Register and the other one for Fishing Authorisation management:

First set of legal basis – for the EU Fleet Register:

- REGULATION (EU) No 1380/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the Common Fisheries Policy, in particular article 24 about fishing fleet registers;
- COMMISSION IMPLEMENTING REGULATION (EU) No 2017/218 on the EU Fishing Fleet Register: called "**FIR**" (Fleet Implementing Regulation) in this document;

Second set of legal basis – for Fishing Authorisations management:

- Regulation (EU) 2017/2403 of the European Parliament and of the Council of 12 December 2017 on the sustainable management of external fishing fleets, and repealing Council Regulation (EC) No 1006/2008; called "**SMEFF**" (sustainable

[1] http://www.unece.org/info/media/presscurrent-press-h/trade/2016/uncefact-adopts-the-flux-standard-for-sustainable-fisheries-management/doc.html

management of external fishing fleet) in this document, and it implementing Regulation[2];

- Bilateral agreements concluded between the European Union and third countries (includes Northern agreements and Sustainable Fisheries partnership agreements);
- Conventions and relevant resolutions, recommendations, etc, of the Regional Fisheries Management Organisations to which the EU is the contracting or cooperating Party;

4. REFERENCES

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

Standard	Version
FLUX BRS: P1000 – 1: General principles	2.1
FLUX BRS: P1000 – 2: Vessel domain	3.2
FLUX TL: Transportation Layer	

Vesse UN/CEFACT XSD
FLUXReportVesselInformation_5p1.xsd
FLUXVesselQueryMessage_5p1.xsd
FLUXVesselResponseMessage_5p1.xsd

The documents are available on the Master Data Register page of the European Commission Fisheries website[3].

5. SCOPE, STAKEHOLDERS AND TERMINOLOGY

5.1. Scope

The scope of this document is limited to the exchange of vessel messages between a flag state and the Commission for the reporting of vessel data and between an

[2] COMMISSION IMPLEMENTING REGULATION (EU) 2020/38 of 16 January 2020 establishing technical operational requirements for the recording, formatting and transmission of information pursuant to Regulation (EU) 2017/2403 of the European Parliament and of the Council on the sustainable management of external fishing fleets, OJ L13 17.1.2020 p.15.

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

external stakeholder (flag state, coastal state, international organisation) and the Commission for querying data.

A vessel message may contain data about[4]:

- EU fishing vessels;
- Other vessels:
    - EU other vessels including recreational vessels;
    - non-EU vessels (fishing or other vessels) operating in EU waters;

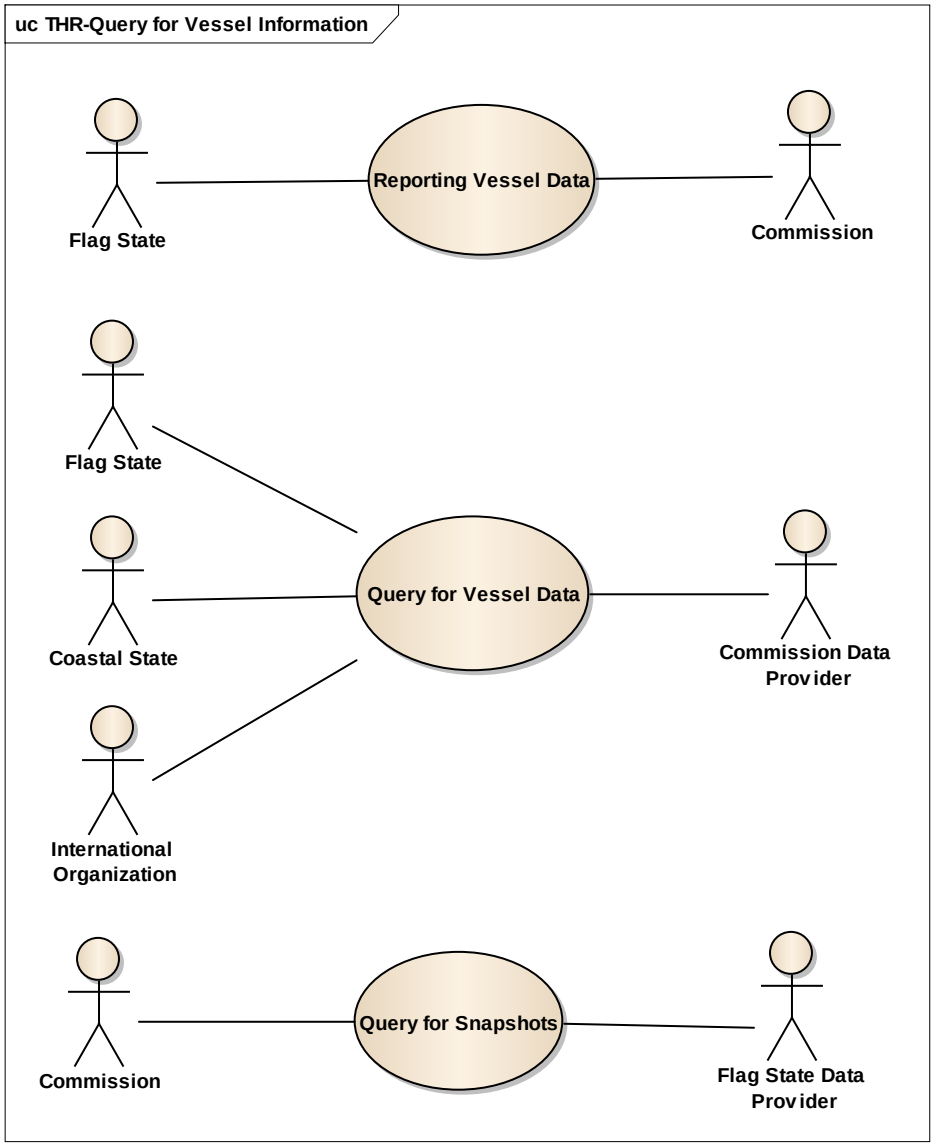
The technical infrastructure needed for data exchanges is not within the scope of this document.

5.2. Stakeholders

The following stakeholders take part in data flows:

Flag State	The administration of the Flag State of the vessel
Coastal State	The State in the waters under the sovereignty or jurisdiction or in the ports of which an activity takes place
International organisation	A party like EFCA, FAO, RFMOs…
Commission	The European Commission (DG MARE)

[4] Cfr point 5.3 about definitions



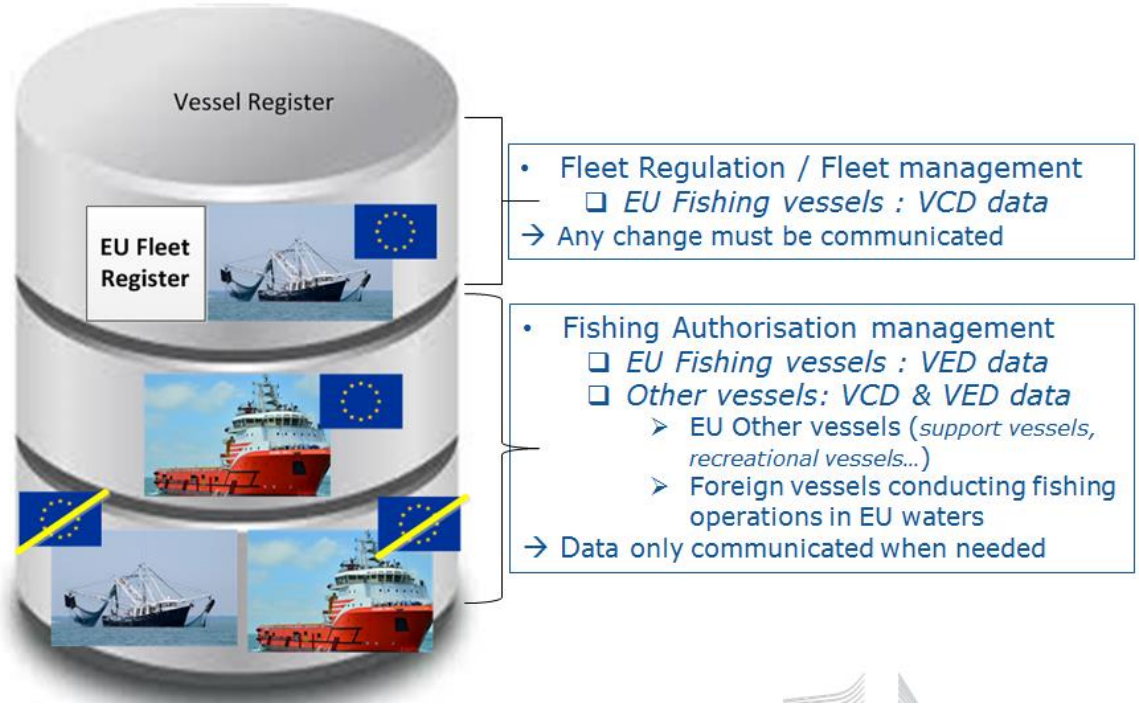
Main Use Cases

5.3. Terminology

- **Fishing activities**: definition of article 4(28) of R.(EU) n°1380/2013.
- **EU fishing vessel**: (Union fishing vessel) definition of FIR and falling under that scope.
- **Recreational vessel**: vessels involved in recreational fisheries as defined in article 4(28) of R.(EC) n°1224/2009.
- **EU other vessel**: in the context of this document, vessels conducting fishing activities excluding EU fishing vessels but including recreational vessels.
- **Vessel Register** (VR): a central database of the Commission storing any data of vessels under the scope of this document.
- **Vessel Data**:

- **VCD**: Vessel Core Data: set of information about the main characteristics of a vessel, like the identifications, the length, the tonnages, the gears, etc. According to FIR, a history of VCD data is kept in the Vessel Register. The list of data elements provided in Annex I is from the annex I of FIR.

- **VED**: Vessel Extended Data: set of information requested in the context of the requirements of the SMEFF regulation, RFMOs, SFPA and bilateral agreements, as well as international organisations, like the FAO. They are defined in the relevant third parties' documents. The history of the submissions of VED data events is kept in the Vessel Register. The last reported value of VED overwrites the previously reported VED value, even if the reported value is null. The full list is provided in Annex I. **All VED data are optional.**



Overview of the content of the Vessel Register

- **Message types**:

There are three types of messages:

(1) FLUX Report Vessel Information

This message is used:

- by a party to report vessel data to the Commission;
- by the Commission to send vessel data resulting from a query to a party;

This type of message is called a **submission** in this document.

(2) FLUX Vessel Query

This message is a request to get vessel data.

It can be sent by COM to request data from the MS or by a MS to COM to request information from the Vessel Register.

(3) FLUX Vessel Response

This message contains a general status (OK/NOK) for the reception of a submission or query and the list of errors and warnings detected in those messages.

The following table summarizes the different terminologies used for message types:

BRS Message Type name	FLEET Message Type name	Comment
FLUX Report Vessel Information	Submission	In the context of FIR, the snapshot is a type of submission
FLUX Vessel Query	Query	
FLUX Vessel Response	Response	

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[5].

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.

The system of each party is adapted:

- to store and manage all data requested by COM;
- to send automatically submissions to COM;
- to reply automatically at any time to queries sent by COM requesting a snapshot (cfr FIR);
- to prepare and send vessel messages compliant to the UN/CEFACT vessel domain;
- to query the Vessel Register;

6.2. General principles

There are two ways of exchanging information:

- Submission of vessel data by the flag state to populate the Vessel Register of DG MARE;
- Querying of vessel data.

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

6.3. The SUBMISSION procedure

The goal
The procedure is used to report to the Commission any changes that must be registered in the central Vessel Register.

The audience
Member States or Third countries.

The method
The procedure is **initiated by the party**.

The frequency

- For EU fishing vessels, according to FIR, any submission must be sent to COM in real time or no later than at the end of the day when the change has been fully[6] applied in the national register.

- For EU non-fishing vessels or for VED data for EU fishing vessels[7], the time of submission is decided by the party based on business needs[8].

The content
There are different types of submissions depending on the content:

- SUB-VCD: message with all available VCD only. This message is used for reporting data on **EU fishing vessels** in the context of FIR (EU Fleet Register);

- SUB: message with all available VCD & VED. This message is used to report in one-go data for **vessels** in the context of SMEFF. This type of message is used for reporting of data for **EU non-fishing vessels**;

- SUB-VED: message with all available VED only, supplemented by a few VCD required to identify the vessel. This message is used to report data for **any vessel**. The vessel identification should be:

    - CFR for a EU fishing vessel;

    - UVI (the preferred identifier) or IRCS for a EU other vessel but not recreational vessel;

    - National registration number for a recreational vessel[9];

---

[6] A new change entered in a national register could be subject to an administrative process before to be declared as valid for production. The change should be submitted to COM only when this final status is reached.

[7] Data is not present in the annex I of FIR.

[8] For example, in the context of a fishing authorisation.

- UVI (the preferred identifier) or IRCS for a non-EU vessel;

The following table summarizes the characteristics of these messages:

Type of message	Can contain historical data in the message	Vessel data in the context of FIR or SMEFF
SUB	N	SMEFF
SUB-VED	N	SMEFF
SUB-VCD	Y	FIR

Any submission type of message contains data for:

- **one vessel only**.
- EU fishing vessels (according to FIR):
  - the last event of the vessel with all mandatory data[10] if the update changes the most recent data of the vessel[11];
  - the full history of the vessel if the change is about data in the past;
- other vessels, all the available data to register.

The work flow

Sending: A FLUX Report Vessel Information message is sent by the MS to COM using the Transportation Layer.

Reception: When received by COM, it is delivered to the Fleet business system.

Validation: The content of the message is validated according to the business rules[12].

The submission is refused by the validation process, if at least one rejection[13] (error type = "R") is found in the message content. If so, the Vessel Register is not updated. If there is no rejection, the content of the message replaces or complements the information of the Vessel Register.

---

[9] Only in the context of ICCAT

[10] Cfr business rules

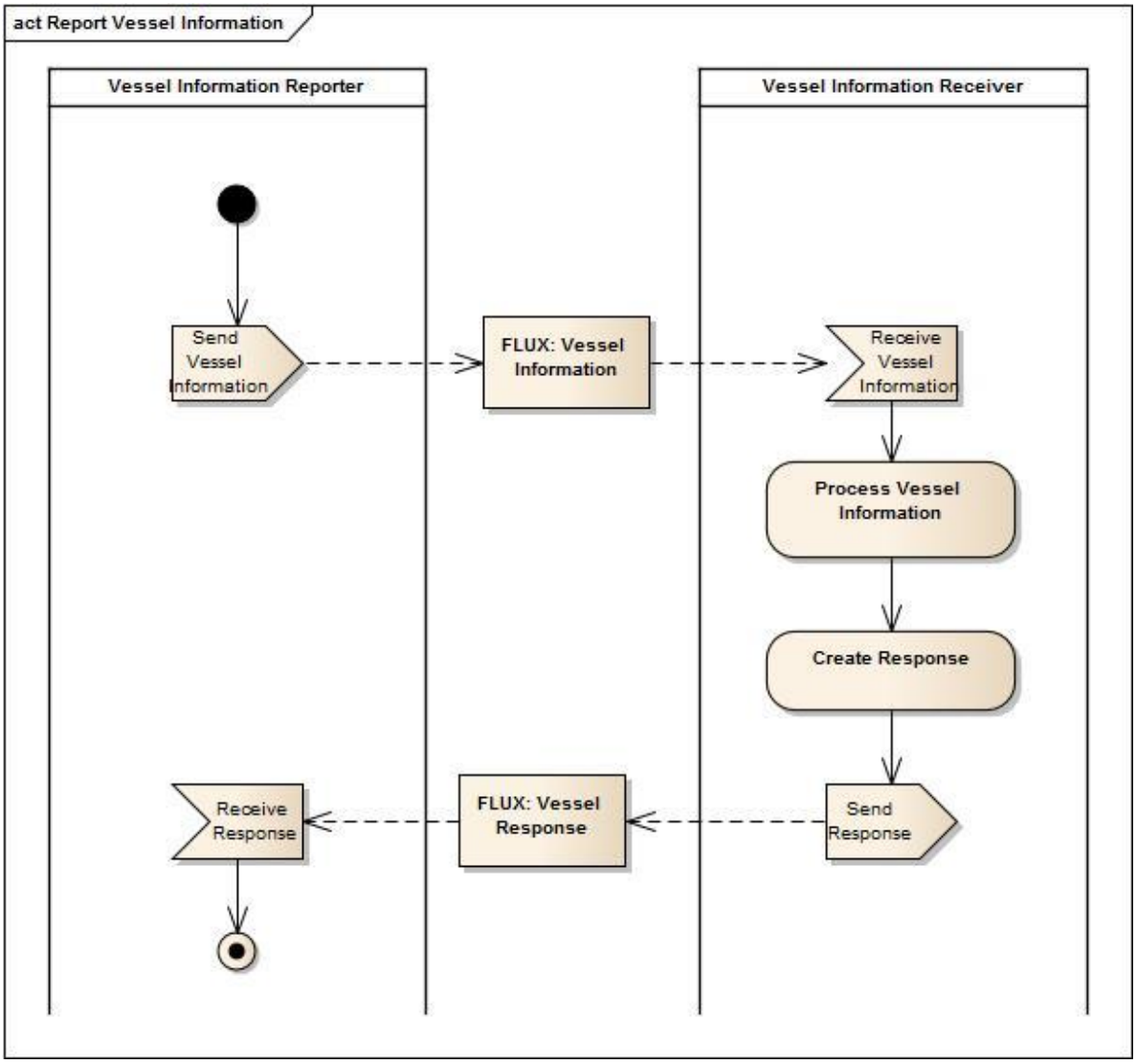
[11] If the last event in the history of the vessel sent by the MS has been already registered in the EU Vessel Register (based on the flag, the CFR and the event start date), data is updated if the event code from the event in the file is the same as the one already registered, otherwise the file is rejected. To "update" an event code, the full history of the vessel must be sent.

[12] cfr the list in this document

[13] Cfr business rules

Reply: A response message is prepared by the system. It contains the status of the operation (success or failure) and the possible warnings, errors or rejections identified by the validation process. This message is forwarded to the sender.

If the submission is rejected by COM, the sender shall make the necessary changes in the national fleet register not later than the three national working days following the date of notification by the Commission. According to this procedure, the corrections will be also submitted automatically to COM in one or a multiple new submission(s).

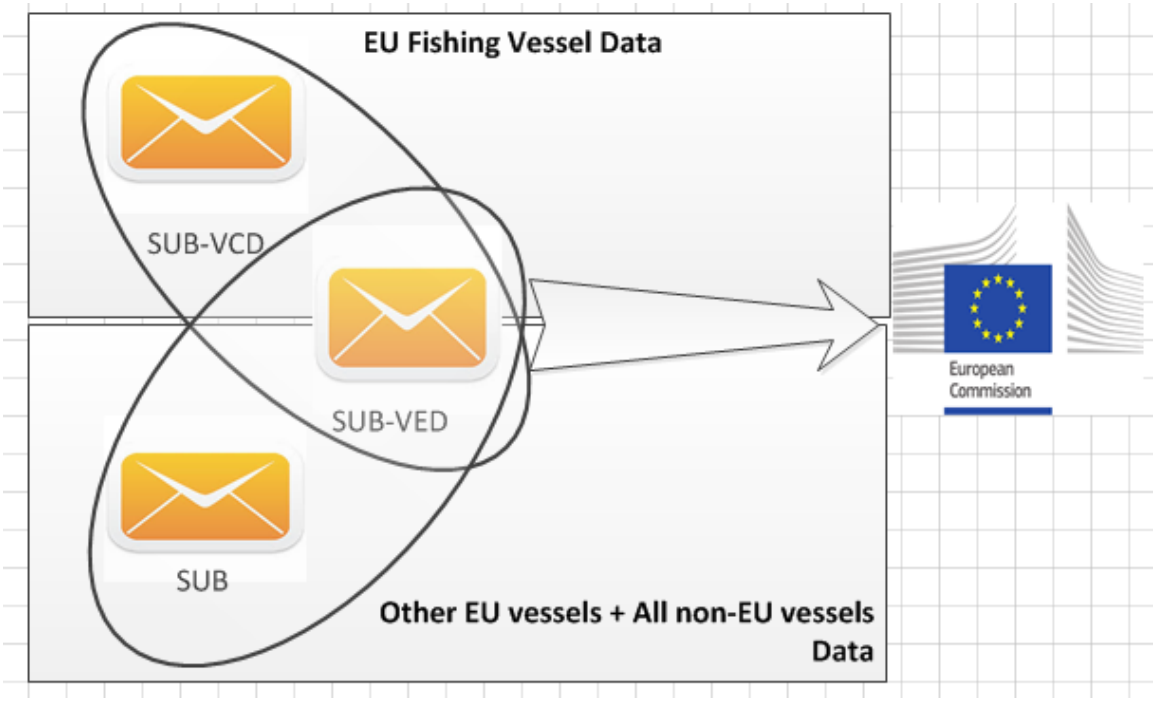


Activity diagram for the submission procedure

Data availability
The information is available in the Vessel Register at the end of the validation process, if no rejection has been found.

For VCD, the system adds a timestamp (reception date) to each vessel event (set of data) that has been communicated and integrated in the Vessel Register. This timestamp is also disseminated with the vessel data.
For VED, the system adds a timestamp (reception date) to each vessel event (set of data), separately from VCD, that has been communicated and integrated in the Vessel Register. This timestamp is also disseminated with the vessel data.

Possible errors and warnings detected during the validation process **are registered** in the Vessel Register and they are disseminated with business vessel data. The sender is notified of these errors but because they are not critical (rejections), he is not bound to respect strict deadlines to correct them.



Type of messages involved in the submission procedure

6.4. The QUERY procedure

6.4.1. Normal query – Q-NR received by COM

The goal
Query sent by Member states to get information from the Vessel Register of the Commission based on search criteria.

The audience
Any party.

The method

The procedure is **initiated by any party** (Member States, Third countries, international organizations …).

The frequency

At any moment.

The content

The query contains information to specify the search and it is based on at least one of the following criteria. If more than one, a 'and' condition is applied:

- Country: none or only one country;
- Vessel identifier: one value amongst CFR, UVI, external marking, IRCS or MMSI;
- Vessel name;
- Vessel type;
- Other conditions are listed in paragraph 7.2.4.

For external marking and vessel name, a wildcard can be also used;

The work flow
Sending: A FLUX query message is sent by a MS to COM using the Transportation Layer.

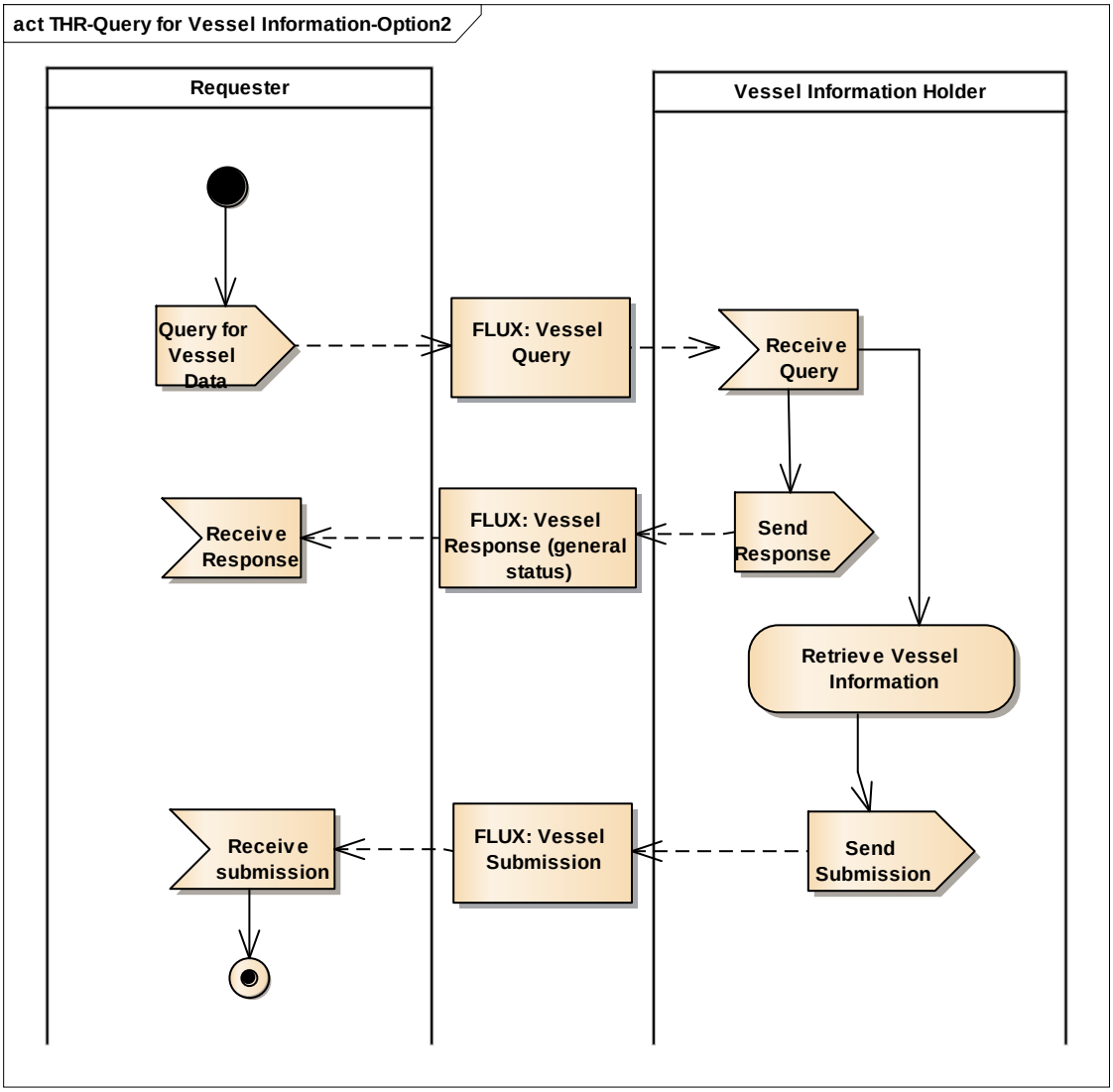
Reception: When received by COM, it is delivered to the system.

Validation: The content of the query message is validated according to the business rules.

Reply: A response message is prepared by the system. It contains the status of the operation (success or failure).

If successful, the search is performed on the Vessel Register data. Annex II explains how the selection of vessel events is performed.

COM prepares a submission of type SUB-Q (submission from a query) with vessel data corresponding to the query. Possible warnings and/or errors attached to each vessel data and registered in the Vessel Register are also provided. The submission contains a reference to the query. There is no such submission if the status of the response message is not successful (for instance due to validation issues with the request, if there is no data to retrieve, if the number of rows resulting from the query exceeds a certain threshold…).



Activity diagram

6.4.2. Normal query – Q-NR sent by COM

The goal
Query sent by COM to get information from the national fleet register of a Member state about core data of one fishing vessel.

The audience
Any party.

The method

The procedure is **initiated by COM**.

The frequency

At any moment.

The content

The query contains information to specify the search and it is based on the following mandatory criteria:

- Country: one country;
- Vessel identifier: one value amongst CFR, UVI, IRCS, MMSI;

The party receiving the query should deliver from the national register the **full history** of the vessel corresponding to the search criteria.

The work flow

Sending: A FLUX query message is sent by COM to a party (Member state) using the Transportation Layer.

Reception: When received by the party, it is delivered to the system.

Validation: The content of the query message is validated according to the business rules.

Reply: A response message is prepared by the system of the party. It contains the status of the operation (success or failure).

If successful, the search is performed on the national fleet register data of the party.

The party prepares a submission of type SUB-Q (submission from a query) with vessel data corresponding to the query. The submission contains a reference to the query. There is no such submission if the status of the response message is not successful (for instance due to validation issues with the request, if there is no data to retrieve …).

If processed successfully by the FLEET system, a FLEET manager by COM is able to see the content of the message with the validation results and to decide to use it as information only or to integrate it in the Vessel Register. In the latter, the events in the SUB_Q file replace the national history of the vessel already registered in the EU Vessel Register.

The activity diagram is the same as in the previous paragraph.

6.4.3. Specific query – Q-NEWS

The goal
Query sent by a Member states to get from the EU Vessel Register vessel the list of vessel events filtered mainly on the event start date and other search criteria.

The audience
Any party.

The method

The procedure is **initiated by any party** (Member States, Third countries, international organizations …).

The frequency

At any moment.

The content

The query may contain information to specify the search (see normal query above).

The work flow
It is the same workflow as the normal query (see above). Annex II explains how the selection of vessel events is performed.

6.5. The SNAPSHOT procedure

The goal
The procedure is used to resynchronize the content of the EU fleet register with the national fleet register of a MS.

Discrepancies between both registers could exist when updates accepted in the national system are sent to COM and refused by the validation process but not corrected in due time by the MS[14] in the Vessel Register.

The snapshot procedure is a query procedure but always initiated by COM.

The audience
All MS.

The method

The procedure is **initiated by COM**.

The frequency

At any moment, COM could send a query to request a snapshot to any of the MS.

It is also the intention of COM to request regularly a (limited) snapshot to all MS. The frequency has not yet been decided but it could be once a week or a month by a batch process (same day/same hour).

The content

As today with the FRONT system, a snapshot could include ALL events for ALL fishing vessels (in or out of the fleet) registered in the national fleet since the census date of the MS. It contains only VCD data.

To limit the size of the message but also because of business interest, COM is not always interested by a full snapshot. Therefore the system could ask for a limited snapshot containing a partial data set based on the two following options:

- A date from which the vessel events should be delivered (a default value could be one year in the past from the date of the request instead of the census date);
  OR
- Information on active vessels only (still in the fleet at the time of the request), with or without historical data;

[14] It was a major issue in the EU fleet register system before 2004. The current system called FRONT based on the snapshot principle was introduced as a solution to tackle that issue.

The snapshot, resulting from a query, is a special submission because it can contain multiple vessels. Such messages are identified by a report type:

- SNAP-F: full snapshot;
- SNAP-L: limited snapshot;

Annex II explains how the selection of vessel events is performed for a limited snapshot.

The work flow

Sending: A FLUX query message is sent by COM to a MS using the Transportation Layer.

Reception & Reply: When received by the MS, a response is sent back to COM to notify that the request has been accepted or not (if it contains a critical error…).

Submission: The MS prepares a submission with vessel data corresponding to the query. The vessel message makes reference to the query. It is delivered to COM not later than three hours after the reception of the request.

Validation: The content of the message is validated according to the business rules[15].

The snapshot is refused by the validation process if at least one rejection[16] (error type = "R") is found in the content. If so, the Vessel Register is not modified. If there is no rejection, the content of the report replaces or complements the information of the EUFR.

Reply: A response message is prepared by the system. It contains the status of the operation (success or failure) and the possible warnings, errors and rejections identified by the validation process. This message is forwarded to the MS. It contains a reference to the previous submission containing the snapshot data.

If the snapshot is refused by COM, the sender shall make the necessary changes in the national fleet register not later than the five national working days following the date of notification by the Commission.

The data availability

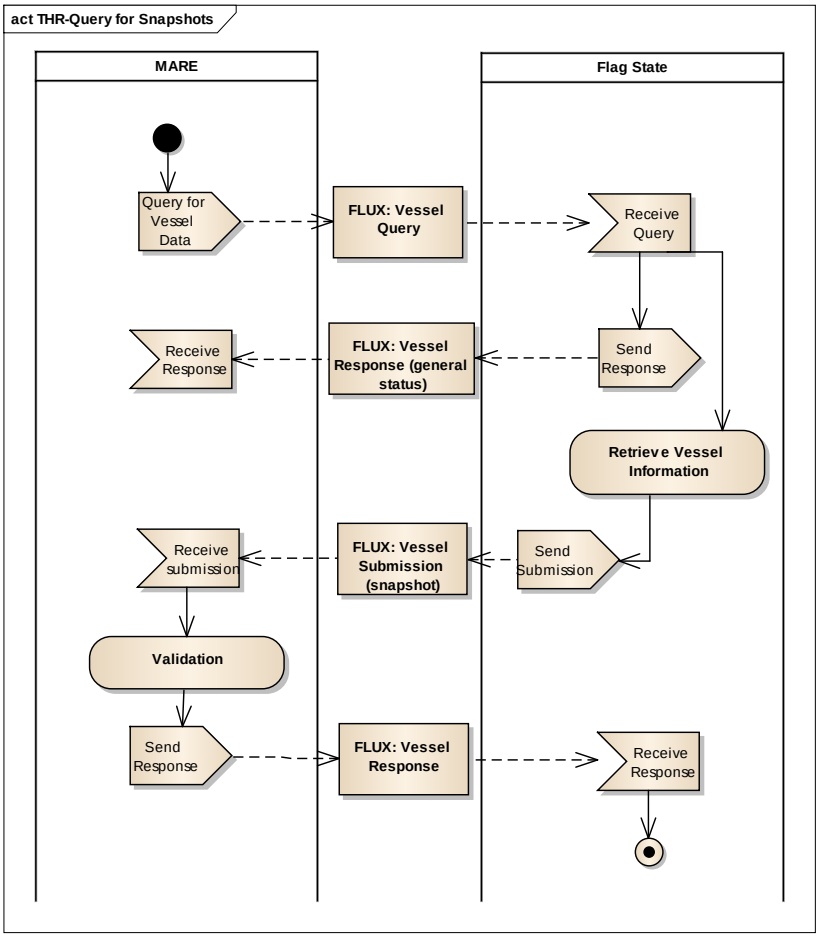
- If no rejection is found in the snapshot by the validation process, the information from the snapshot is available in the Vessel Register at the end of the process;
- If rejections are found in the snapshot by the validation process, fleet data registered in the Vessel Register before the reception of the snapshot are not replaced. The validation results are communicated to the MS. Bilateral contacts can be issued between COM and the national administration to solve the problems. A specific snapshot request could be

[15] cfr Annex I

[16] Cfr business rules

sent by COM to the MS after the notification by the MS that issues have been solved in the national register;

A timestamp indicator (date of the reception by the EUFR) is added by the FLEET system to each vessel event and a scoreboard is available to all MS to show the dates of all snapshot and update requests and their status.
This timestamp is also disseminated with the business vessel data.
Possible errors and warnings detected during the validation process are registered in the Vessel register and disseminated with data. The sender has been notified of these errors but because they are not critical (rejections), he is not bound to respect strict deadlines to correct them.



Activity diagram for snapshots

6.6. Business continuity plan

The document "FLUX Business Continuity Plan.docx" for the Vessel domain is available 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:Vessel: Error Message XYZ" and for the unique identifier, "20150216-01 BEL:PROD:Vessel: Error Message XYZ".

7. DATA MODEL (XSD) IMPLEMENTATION

The implementation of the Vessel Data Model[17] 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;

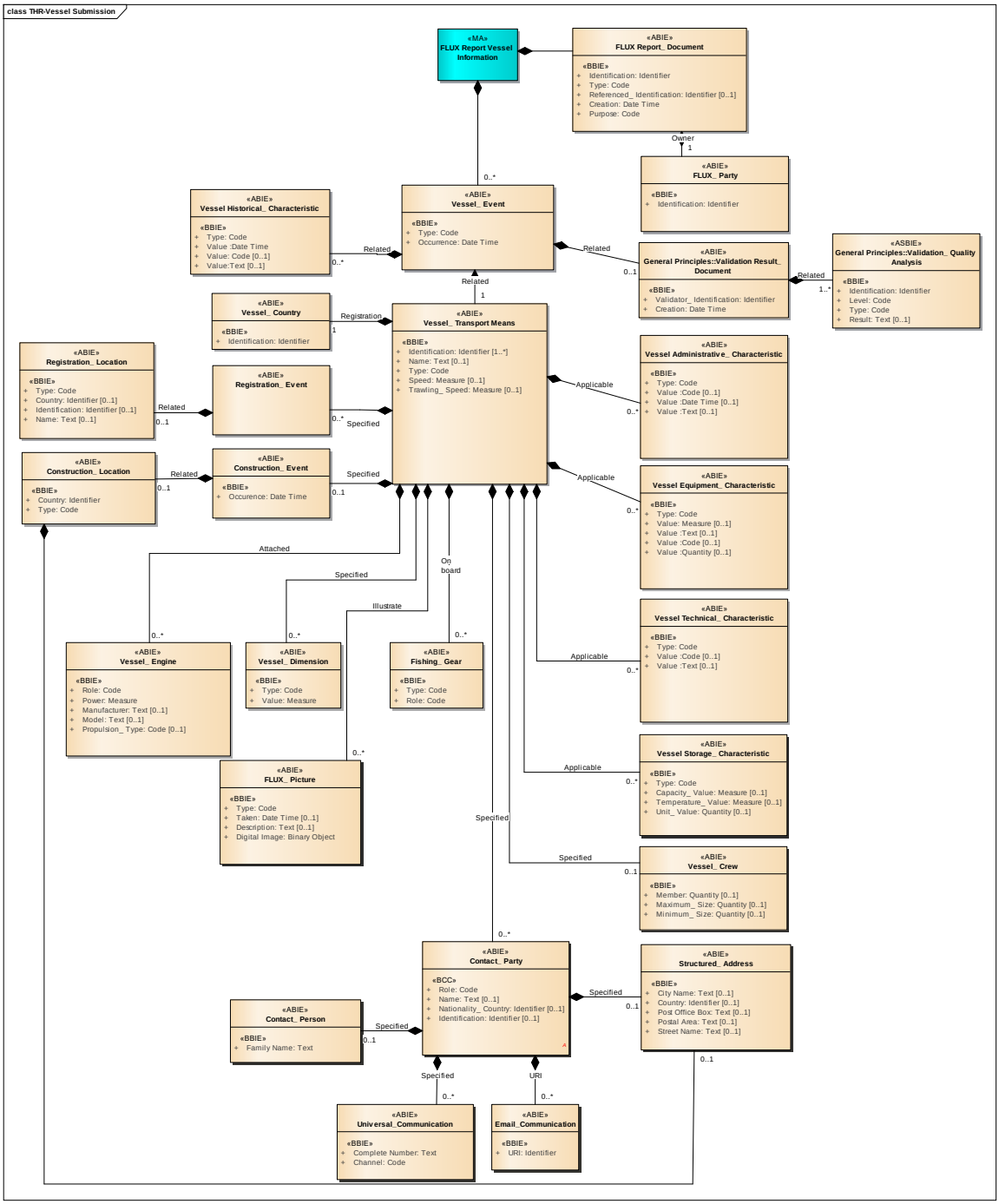
(2) For DateTime DataType: only xs:datetime choice is used and 'Z' character defining UTC time zone must be set;

(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.

[17] 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. Submission



Class Diagram for a Submission message

7.1.1. FLUX Report_Document

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

Cardinality	BRS Business term	Business term	Type	Description
1	Identification		Identifier	SchemeID=**UUID** + Value (a UUID as defined in the RFC 4122)
1	Type		Code	Report type. ListID= **FLUX_VESSEL_REPORT_TYPE** + Value From a party to COM: **SUB**: submission of vessel data for VCD & VED for vessels except EU fishing vessels **SUB-VCD**: submission of vessel core data for EU fishing vessels only **SUB-VED**: submission of vessel extended data for any vessels (with the vessel identification) **SNAP-F**: full snapshot data **SNAP-L**: limited snapshot data **SUB-Q**: submission resulting from a query sent by COM From COM to a party: **SUB-Q**: submission of vessel data from the Vessel Register resulting from a query
0..1	Referenced Identification		Identifier	For snapshot report types (SNAP-F, SNAP-L) and report from a query (SUB-Q) , used to put the reference of the query message. SchemeID = **UUID** + Value (a GUID as defined in the RFC 4122)
1	Creation		Datetime	Date/time that this report has been created. A UTC date time according to ISO 8601 format. The usage of 'Z' character defining UTC time zone is strongly recommended.
1	Purpose		Code	Indication of a new report being produced ListID= **FLUX_GP_PURPOSE** + Value 9: original report
1	FLUX_Party		Ass	Party sending the report
0..n	Vessel_Event		Ass	Vessel event data

7.1.2. FLUX_Party

Description: Identification of the party sending the report.

Cardinality	BRS Business term	Business term	Type	Description
1	Identification	Reporting country	Identifier	SchemeID= **FLUX_GP_PARTY** + Value

7.1.3. Vessel_ Event Entity

Description: Entity containing information about a vessel event type.

Cardinality	BRS Business term	Business term	Type	Description

1	Type	Event	Code	**VCD** & **VED**[18] data ListID= **VESSEL_EVENT** + Value Ex: CST, MOD, …
1	Occurrence	Date of event	Datetime	**VCD** & **VED** data
1	Vessel Transport Means		Ass	Information about the vessel
0..n	Vessel Historical Characteristics		Ass	Historical information related to a particular vessel
0.1	Validation Result Document		Ass	Validation document disseminated with data resulting from a query

7.1.4. Vessel_ Transport Means Entity

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

Cardinality	BRS Business term	Business term	Type	Description
1..n	Identification		Identifier	Identification of the vessel SchemeID from the code list: **FLUX_VESSEL_ID_TYPE** Multiple identifiers are possible and it can be:
0..1		CFR		**VCD** data SchemeID = **CFR** + Value
0..1		UVI		**VCD** data SchemeID = **UVI** + Value
0..1		Registration number		**VCD** data SchemeID = **REG_NBR** + Value
0..1		External marking		**VCD** data SchemeID = **EXT_MARK** + Value
0..1		IRCS		**VCD** data SchemeID = **IRCS** + Value
0..1		MMSI		**VCD** data SchemeID = **MMSI** + Value
0..1		Hask Key[19]		**VCD** data SchemeID = **HASH_KEY** + value
0..1		FFA Vessel Id		**VED** data SchemeID = **FFA** + Value
0..n		Third Party Vessel Identification		**VED** data SchemeID = code from the **RFMO** list on MDR + Value
0..1	Name	Name of vessel	Text	**VCD** data Name of the vessel as in the national register
1	Type	Vessel Type	Code	**VCD & VED** data Type of vessel ListID= **VESSEL_TYPE** + Value

[18] For VED data, the event code is always "MOD"

[19] Technical data **only delivered by the EU Vessel Register** in the report resulting from a query. This identifier identifies uniquely a vessel event based on the following business data of a vessel: flag, event date and the first value available between CFR/UVI/IRCS

0..1	Speed	Vessel Speed	Measure	**VED data** UnitCode= code from the **FLUX_UNIT** list + Value
0..1	Trawling_Speed_	Trawling_Speed	Measure	**VED data** UnitCode= code from the **FLUX_UNIT** list + Value
1	Vessel_Country		Ass	Flag of the vessel
0..n	Registration Event		Ass	Technical entity providing a link to the physical location of the vessel
0..1	Construction event		Ass	Information on the construction
0..n	Vessel Engine		Ass	Information on engines
0..n	Vessel Dimension		Ass	Information on dimensions
0..n	Fishing Gear		Ass	Information on gears
0..n	Vessel Equipment Characteristic		Ass	Vessel equipment information
0..n	Vessel Administrative Characteristic		Ass	Vessel administrative information
0..n	Vessel Technical Characteristic		Ass	Vessel technical information
0..n	Vessel Storage Characteristic		Ass	Vessel storage information
0..n	FLUX Picture		Ass	Picture of the vessel
0..1	Vessel Crew		Ass	Information on the crew
0..n	Contact party		Ass	Fleet contacts

7.1.5. Vessel_Country Entity

Description: Entity used to provide information on the flag of the vessel.

Cardinality	BRS Business term	Business Term	Type	Description
1	Identification	Country of registration / flag state	Identifier	**VCD data** The identifier of a country. SchemeID= **TERRITORY** + value Ex: FRA, DNK…

7.1.6. Registration_ Event

Description: Entity used to provide information on a physical location or place of registration.

In this context it is a technical entity used to have a link to the location.

Cardinality	BRS Business term	Business Term	Type	Description
0..1	Registration Location		Ass	Information on the location of the vessel

7.1.7. Registration_ Location Entity

Description: Entity used to provide information on a physical location or place of registration.

Cardinality	BRS Business term	Business Term	Type	Description
1	Type		Code	The code specifying the type of registration location. ListID=**FLUX_VESSEL_REGSTR_TYPE** + Value
0..1	Country	Country of importation/ exportation	Identifier	**VCD data** The identifier of a country. SchemeID= **TERRITORY** + value Ex: FRA, DNK… The Type must be **MOVE**
0..1	Identification	Place of registration	Identifier	**VCD data** SchemeID=**VESSEL_PORT +** Value The Type must be **PORT**
0..1	Name	Place of registration[20]	Text	**VED data** The Type must be **PLACE**

7.1.8. Vessel Historical_Characteritic Entity

Description: A prominent attribute or aspect of the history related to a particular vessel.

Information useful in the context of licences[21] when the 3rd party granting the licence requires historical data of a vessel.

Cardinality	BRS Business term	Business Term	Type	Description
1	Type		Code	ListID=**FLUX_VESSEL_HIST_CHAR** + Value
0..1	Value	Date of historical data	Date	**VED data** Date when the provided information was valid Identified by the Type (=**DATE**)
0..1	Value	Previous flag state	Code	**VED data** Identified by the Type (=**FLAG**) ListID=**TERRITORY +** Value
0..1	Value	Previous IRCS	Text	**VED data** Identified by the Type (=**IRCS**)
0..1	Value	Previous Vessel Name	Text	**VED data** Identified by the Type (=**VESSEL_NAME**)
0..1	Value	Previous owner name	Text	**VED data** Identified by the Type (=**OWNER_NAME**)
0..1	Value	Previous owner address	Text	**VED data** Identified by the Type (=**OWNER_ADDRESS**)

[20] Not used in the context of authorisations.

[21] Depending on the 3rd party requirements

7.1.9. Construction_ Event Entity

Description: Entity used to provide information on a vessel construction.

Cardinality	BRS Business term	Business Term	Type	Description
1	Occurrence	Date of construction	Date	**VCD data** Date[22] when the construction as started
0..1	Construction Location		Ass	Location of the construction

7.1.10. Construction_ Location Entity

Description: Entity used to provide information on a vessel construction.

Cardinality	BRS Business term	Business term	Type	Description
1	Type		Code	The code specifying the type of registration location. ListID= **FLUX_VESSEL_CONSTR_TYPE** + Value
1	Country	Country of construction	Identifier	**VED** data The identifier of a country. SchemeID= **TERRITORY** + value Ex: FRA, DNK… The Type must be **PLACE**
0..1	Structured Address		Ass	Construction address

7.1.11. Vessel_ Engine Entity

Description: Entity used to provide information of an engine.

Cardinality	BRS Business term	Business term	Type	Description
1	Role		Code	The code specifying the role of this vessel engine, such as main or secondary. ListID= **FLUX_VESSEL_ENGINE_ROLE** + Value
1	Power		Measure	A measure of the power produced by this vessel engine, expressed in a unit. The power can be:
0..1		Total power of main engines		**VCD** data Identified by the Role (=**MAIN**) UnitCode= code from the **FLUX_UNIT** list + Value
0..1		Total power of auxiliary		**VCD** data Identified by the Role (=**AUX**) UnitCode= code from the **FLUX_UNIT** list + Value

[22] If the national register contains only a year, the first of January can be used by the sender as a default value to communicate the date

		engines		
0..1	Manufacturer	Engine mark	Text	**VED** data Engine mark
0..1	Model	Engine model	Text	**VED** data Model of the engine
0..1	Propulsion_Type	Propeller type	Code	**VED** data Propeller type ListID= **PROPELLER_TYPE** + Value

7.1.12. Vessel_ Dimension Entity

Description: A measure of lengths & tonnages.

Cardinality	BRS Business term	Business term	Type	Description
1	Type		Code	The code specifying a type of dimension of this vessel. ListID= **FLUX_VESSEL_DIM_TYPE**
1	Value		Measure	The measure of the value for this vessel dimension The value can be:
0..1		LOA		**VCD data** Identified by the Type (=**LOA**) UnitCode=code from the **FLUX_UNIT** list + Value
0..1		LBP		**VCD data** Identified by the Type (=**LBP**) UnitCode=code from the **FLUX_UNIT** list + Value
0..1		LRE		**VCD data**[23] Identified by the Type (=**LRE**) UnitCode=code from the **FLUX_UNIT** list + Value
0..1		Other length		**VCD data**[24] Identified by the Type (=**LOTH**) UnitCode=code from the **FLUX_UNIT** list + Value
0..1		Tonnage GT		**VCD data** Identified by the Type (=**GT**) UnitCode=code from the **FLUX_UNIT** list + Value
0..1		Other Tonnage		**VCD data** Identified by the Type (=**TOTH**) UnitCode=code from the **FLUX_UNIT** list + Value
0..1		GTs		**VCD data** Identified by the Type (=**GTS**) UnitCode=code from the **FLUX_UNIT** list + Value
0..1		NT		**VCD data** Identified by the Type (=**NT**) UnitCode=code from the **FLUX_UNIT** list + Value
0..1		NRT		**VCD data** Identified by the Type (=**NRT**) UnitCode=code from the **FLUX_UNIT** list + Value
0..1		Carrying capacity		**VCD data**[25] Identified by the Type (=**CART**) UnitCode=code from the **FLUX_UNIT** list + Value
0..1		Depth		**VED data** Identified by the Type (=**DEPTH**) UnitCode=code from the **FLUX_UNIT** list + Value
0..1		Moulded Depth		**VED data** Identified by the Type (=**MDEPTH**)

[23] For non-fishing vessel

[24] For non-fishing vessel

[25] For non-fishing vessel

				UnitCode=code from the **FLUX_UNIT** list + Value
0..1		Draught		**VED data** Identified by the Type (=**DRAUGHT**) UnitCode=code from the **FLUX_UNIT** list + Value
0..1		Breadth		**VED data** Identified by the Type (=**BREADTH**) UnitCode=code from the **FLUX_UNIT** list + Value
0..1		Deadweight		**VED data** Identified by the Type (=**DEADW**) UnitCode=code from the **FLUX_UNIT** list + Value

7.1.13. Fishing_ Gear Entity

Description: Entity used to provide information on a prominent attribute or aspect related to a gear. Only one main gear but up to 5 auxiliary gears can be registered.

Cardinality	BRS Business term	Business term	Type	Description
1	Type	Gear Type	Code	The code specifying the type of fishing gear. ListID= **GEAR_TYPE** + Value
1	Role		Code	The code specifying the role of this fishing gear, such as main gear, subsidiary gear. ListID= **FLUX_VESSEL_GEAR_ROLE** The role can be:
0..1		Main fishing gear		**VCD data** Identified by the Role (=**MAIN**) + Type
0..1		Subsidiary fishing gear		**VCD data** Identified by the Role (=**AUX**) + Type
0..n	Gear Characteristic		Ass	Gear characteristic info

7.1.14. Vessel Equipment Characteristic Entity

Description: A prominent attribute or aspect of equipment related to a particular vessel.

Cardinality	BRS Business term	Business term	Type	Description
1	Type		Code	The code specifying a type of vessel equipment. ListID= **FLUX_VESSEL_EQUIP_TYPE** + Value
0.1	Value		Code	A code specifying a value of this vessel equipment characteristic. The value can be for:
		IRCS indicator		**VCD** data Identified by the Type (=**IRCS_IND**) ListID= **BOOLEAN_TYPE** + Value
		VMS indicator		**VCD** data Identified by the Type (=**VMS_IND**) ListID= **BOOLEAN_TYPE** + Value
		ERS indicator		**VCD** data Identified by the Type (=**ERS_IND**) ListID= **BOOLEAN_TYPE** + Value
		ERS exemption indicator[26]		**VCD** data Identified by the Type (=**ERS_EXEMPT_IND**) ListID= **BOOLEAN_TYPE** + Value

[26] It indicates whether a vessel is exempted ('Y') or is not exempted ('N') from requirement to have an electronic logbook onboard.

		AIS indicator		**VCD** data Identified by the Type (=**AIS_IND**) ListID= **BOOLEAN_TYPE** + Value
		Navigation equipment details (code)		**VED** data Identified by the Type (=**NAVIG_EQ**) ListID= **NAVIG_EQUIP_TYPE** + Value
		Communication equipment details (code)		**VED** data Identified by the Type (=**COMM_EQ**) ListID= **COMM_EQUIP_TYPE** + Value
		Fish finder equipment details (code)		**VED** data Identified by the Type (=**FISHFINDER_EQ**) ListID= **FISHFINDER_EQUIP_TYPE** + Value
		Deck machinery details		**VED** data Identified by the Type (=**DECK_MACHINERY**) ListID= **DECK_MACHINERY_TYPE** + Value
		VMS satellite operator code		**VED** data Identified by the Type (=**VMS_SAT_OPER_C**) ListID=**VMS_SATELLITE_OPERATOR** + Value
0..1	Value		Text	The value can be for:
		Fish processing equipment details		**VED** data Identified by the Type (=**PROCESS_EQ**) + Text
		Fish processing line type		**VED** data Identified by the Type (=**PROCESS_TYPE)** + Text
		Refrigeration equipment details		**VED** data Identified by the Type (=**REFRIG_EQ**) + Text
		Safety equipment details		**VED** data Identified by the Type (=**SAFETY_EQ**) + Text
		Helicopter registration number		**VED** data Identified by the Type (=**HELICO_REG**) + Text
		Aircraft registration number		**VED** data Identified by the Type (=**AIRC_REG**) + Text
		VMS manufacturer name		**VED** data Identified by the Type (=**VMS_MAN**) + Text
		VMS model name		**VED** data Identified by the Type (=**VMS_MODEL**) + Text
		VMS satellite operator name		**VED** data Identified by the Type (=**VMS_SAT_OPER_T**) + Text
		VMS serial number		**VED** data Identified by the Type (=**VMS_SERIAL_NBR**) + Text
		VMS software version		**VED** data Identified by the Type (=**VMS_SOFT_VER**) + Text
		VMS features		**VED** data Identified by the Type (=**VMS_FEATURE**) + Text
		Navigation equipment details (text)		**VED** data Identified by the Type (=**NAVIG_EQ_T**) + Text
		Fish finder equipment details (text)		**VED** data Identified by the Type (=**FISHFINDER_EQ_T**) + Text
		Communication equipment details (text)		**VED** data Identified by the Type (=**COMM_EQ_T**) + Text
0..1	Value		Measure	The value can be for:
		Support vessel skiff length		**VED** data Identified by the Type (=**SKIFF_LGTH**) UnitCode= code from the **FLUX_UNIT** list + Value
		Support vessel skiff engine power		**VED** data Identified by the Type (=**SKIFF_PWR**) + UnitCode= code from the **FLUX_UNIT** list + Value
		Speed boat length		**VED** data Identified by the Type (=**BOAT_LGTH**) + UnitCode= code from the **FLUX_UNIT** list + Value
		Speed boat engine power		**VED** data Identified by the Type (=**BOAT_PWR**) + UnitCode= code from the **FLUX_UNIT** list + Value
		Fuel tank		**VED** data

		capacity		Identified by the Type (=**FUEL_CAP)** + UnitCode= code from the **FLUX_UNIT** list + Value
0..1	Value		Quantity	The value can be for:
		Number of fishing lights		**VED** data Identified by the Type (=**LIGHTS_NBR**) + ListId= code from the **FLUX_UNIT** list + Value

7.1.15. Vessel Administrative Characteristic Entity

Description: A prominent attribute or aspect of an administrative decision related to a vessel.

Cardinality	BRS Business term	EU Business term	Type	Description
1	Type		Code	The code specifying a type of administrative characteristic. ListID= **FLUX_ VESSEL_ADMIN_ TYPE +** Value
0..1	Value		Code	A code specifying a value of this vessel administrative characteristic. The value can be for:
		Licence indicator		**VCD** data Identified by the Type (=**LICENCE**) ListID=**BOOLEAN_TYPE** + Value
		Segment		**VCD** data Identified by the Type (=**SEG**) ListID=**VESSEL_SEGMENT** + Value
		Type of export		**VCD** data Identified by the Type (=**EXPORT**) ListID=**VESSEL_EXPORT_TYPE** + Value
		Code for public aid		**VCD** data Identified by the Type (=**AID** ListID=**VESSEL_PUBLIC_AID_TYPE** + Value
0..1	Value		Date	A date specifying a value of this vessel administrative characteristic The value can be for:
		Date of entry into service		**VCD** data Identified by the Type (=**EIS**) + Value
		Vessel purchase year		**VED** data Identified by the Type (=**PURCHASE_YEAR**) + Value
0..1	Value	National authorisation name	Text	**VED** data Identified by the Type (=**AUTH_NAME**) + Value

7.1.16. Vessel Technical Characteristic Entity

Description: Entity used to provide technical information on an aspect related to a particular vessel.

Cardinality	BRS Business term	EU Business term	Type	Description
1	Type		Code	The code specifying a type of technical characteristic. ListID= **FLUX_VESSEL_TECH_ TYPE+** Value
0..1	Value	Hull material	Code	A code specifying a value of this vessel technical characteristic. **VCD data** Identified by the Type (=**HULL**) ListID=**VESSEL_HULL_TYPE** + Value

0..1	Value	Processing Class	Text	**VED data** Identified by the Type (=**PROCESS_CLASS**) + Value

7.1.17. Vessel Storage Characteristic Entity

Description: Entity used to provide information on a prominent attribute or aspect related to the storage of a particular vessel.

A same storage type can be declared twice but with different units (UnitCode).

Cardinality	BRS Business term	EU Business term	Type	Description
1	Type	Storage method	Code	**VED data** ListID= **STORAGE_TYPE** + value
0..1	Capacity_value	Storage capacity	Measure	**VED data** UnitCode= code from the **FLUX_UNIT** list + Value Possible data elements: a. Fish hold capacity (TypeCode = FISH_HOLD) in cubic metres (unit=MTQ) or tons (unit=TNE), b. Freezing capacity (TypeCode = FREEZ) in cubic metres (unit=MTQ) or tons/day (unit=L71), c. General storage capacity (TypeCode = STR_GEN).
0..1	Temperature_Value	Storage temperature	Measure	**VED data** UnitCode= code from the **FLUX_UNIT** list + Value Possible data elements: a. Fish hold temperature (TypeCode = FISH_HOLD), b. Freezing temperature (TypeCode = FREEZ), c. General storage temperature (TypeCode = STR_GEN).
0..1	Unit_Value	Number of Storage units	Quantity	**VED data** UnitCode= code from the **FLUX_UNIT** list + Value Possible data elements: a. number of Fish hold units (TypeCode = FISH_HOLD), b. number of Freezing units (TypeCode = FREEZ), c. number of General storage units (TypeCode = STR_GEN).

7.1.18. FLUX Picture Entity

Description: Entity used to provide information about a picture, such as a digital photograph.

Cardinality	BRS Business term	EU Business term	Type	Description
1	Type	Vessel photo type	Code	**VED data** Type of picture ListID=**VESSEL_PHOTO_TYPE** + Value
0..1	Taken	Date of the vessel photo	Datetime	**VED data**
0..1	Description	Description of the vessel photo	Text	**VED data** Free text to describe the picture or the file name of the picture
1	Digital Image	Vessel photo	Binary Object	**VED data**

7.1.19. Vessel Crew

Description: Entity used to provide information on a group of people who work on and operate a vessel.

Cardinality	BRS Business term	EU Business term	Type	Description
0..1	Member	Crew size	Quantity	**VED** data ListId= code from the **FLUX_UNIT** list + Value
0..1	Maximum_Size	Crew size: max	Quantity	**VED** data ListId= code from the **FLUX_UNIT** list + Value
0..1	Minimum_Size	Crew size: min	Quantity	**VED** data ListId= code from the **FLUX_UNIT** list + Value

7.1.20. Contact_ Party Entity

Description: An individual, a group, or a body having a role as a contact. Up to five owners and operators can be registered.

Cardinality	BRS Business term	EU Business term	Type	Description
1	Role		Code	A code specifying the role of this contact party. ListID= **FLUX_CONTACT_ROLE**[27]
0..1	Name		Text	The name, expressed as text, for this contact party if **it is not a natural person** (it must be a company) For a natural person, the Contact_Person entity must be used. If a name is provided for both company and a person, the company name takes precedence The name can be :
		Owner name		**VCD** data Identified by the Role (=**OWNER**) + Name
		Operator name		**VCD** data Identified by the Role (=**OPERATOR**) + Name
		Master name		**VED** data Identified by the Role (=**MASTER**) + Name
		Agent name		**VED** data Identified by the Role (=**AGENT**) + Name
		Construction company name		**VED** data Identified by the Role (=**CONSTRUCT**) + Name
		Registration authority name		**VED** data Identified by the Role (=**REG_AUTH**) + Name
		Beneficial Owner[28] name		**VED** data Identified by the Role (=**BENEFICIAL_OWNER**) + Name
0..1	Nationality Country		Identifier	The nationality can be:

[27] There is one role for the vessel itself (VESSEL). There is no name attached to it but only info on communication channels available on board

[28] Definition based on *Directive (EU) 2015/849 Art.3(6)*

		Owner nationality		**VCD** data Identified by the Role (=**OWNER**) SchemeID=**TERRITORY** + Value
		Operator nationality		**VCD** data Identified by the Role (=**OPERATOR**) SchemeID=**TERRITORY** + Value
		Master nationality		**VED** data Identified by the Role (=**MASTER**) SchemeID=**TERRITORY** + Value
		Agent nationality		**VED** data Identified by the Role (=**AGENT**) SchemeID=**TERRITORY** + Value
		Beneficial owner nationality		**VED** data Identified by the Role (=**BENEFICIAL_OWNER**) SchemeID=**TERRITORY** + Value
0..1	Identification	IMO Company Number	Identifier	The Company IMO number can be:
		Owner company IMO number		**VCD** data Identified by the Role (=**OWNER**) SchemeID=**IMO** + Value
		Operator company IMO number		**VCD** data Identified by the Role (=**OPERATOR**) SchemeID=**IMO** + Value
		Master company IMO number		**VED** data Identified by the Role (=**MASTER**) SchemeID=**IMO** + Value
		Agent company IMO number		**VED** data Identified by the Role (=**AGENT**) SchemeID=**IMO** + Value
		Construction company IMO number		**VED** data Identified by the Role (=**CONSTRUCT**) SchemeID=**IMO** + Value
		Registration authority IMO number		**VED** data Identified by the Role (=**REG_AUTH**) SchemeID=**IMO** + Value
		Beneficial owner company IMO number		**VED** data Identified by the Role (=**BENEFICIAL_OWNER**) SchemeID=**IMO** + Value
0..1	Identification	Company National Registration Number	Identifier	The Company national registration number can be:
		Owner company national registration number		**VCD** data Identified by the Role (=**OWNER**) SchemeID=**OTH** + Value
		Operator company national registration number		**VCD** data Identified by the Role (=**OPERATOR**) SchemeID= **OTH** + Value
		Master company national registration number		**VED** data Identified by the Role (=**MASTER**) SchemeID= **OTH** + Value
		Agent company national registration number		**VED** data Identified by the Role (=**AGENT**) SchemeID= **OTH** + Value

		Construction company national registration number		**VED** data Identified by the Role (=**CONSTRUCT**) SchemeID= **OTH** + Value
		Registration authority national registration number		**VED** data Identified by the Role (=**REG_AUTH**) SchemeID= **OTH** + Value
		Beneficial owner national registration number		**VED** data Identified by the Role (=**BENEFICIAL_OWNER**) SchemeID= **OTH** + Value
0..1	Contact Person	Name of a person	Text	Name of a person
0..1	Structured Address		Ass	Address of the contact
0..n	Email Communication		Ass	Email info
0..n	Universal Communication		Ass	Phone, fax… info

7.1.21. Contact_Person

Description: Name of a person.

The entity is only used if the party is a natural person, not a company. Only one contact person can be communicated per contact party. Contact_Person information will be ignored if the company name is provided in the Contact_Party entity.

Cardinality	**BRS Business term**	**EU Business term**	**Type**	**Description**
1	Family Name	Name	Text	**VCD data & VED data** The family name of a person
		Owner family name		**VCD** data Identified by the Contact Party Role Code (=**OWNER**) + Family Name
		Operator family name		**VCD** data Identified by the Contact Party Role Code (=**OPERATOR**) + Family Name
		Master family name		**VED** data Identified the Contact Party Role Code (=**MASTER**) + Family Name
		Agent family name		**VED** data Identified by the Contact Party Role Code (=**AGENT**) + Family Name
		Beneficial owner family name		**VED** data Identified by the Contact Party Role Code (=**BENEFICIAL_OWNER**) + Family Name
0..1	Given Name	First name	Text	**VCD data & VED data** The first name of a person
		Owner first name		**VCD** data Identified by the Contact Party Role Code (=**OWNER**) + Given Name
		Operator first name		**VCD** data Identified by the Contact Party Role Code (=**OPERATOR**) + Given Name

		Master first name		**VED** data Identified the Contact Party Role Code (=**MASTER**) + Given Name
		Agent first name		**VED** data Identified by the Contact Party Role Code (=**AGENT**) + Given Name
		Beneficial owner first name		**VED** data Identified by the Contact Party Role Code (=**BENEFICIAL_OWNER**) + Given Name

7.1.22. Structured_Address Entity

Description: an address of a contact.

Each data element described below can be communicated with the following Contact Party roles: OWNER (VCD data), OPERATOR (VCD data), MASTER (VED data), AGENT (VED data), CONSTRUCT (VED data), REG_AUTH (VED data), BENEFICIAL_OWNER (VED data).

Cardinality	BRS Business term	EU Business term	Type	Description
0..1	City name	City of the contact	Text	**VCD & VED data** The name, expressed as text, of the city, town or village in the structured address.
0..1	Country	Country of the contact	Identifier	**VCD & VED data** SchemeID=**TERRITORY** The unique identifier of a country in the structured address (Reference ISO 3166 and UN/ECE Rec 3).
0..1	Post office Box	Post office box of the contact	Text	**VCD & VED data** 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.
0..1	Postal Area	Postcode of the contact	Text	**VCD & VED data** The postcode in the structured address.
0..1	Street Name	Street of the contact	Text	**VCD & VED data** The name, expressed as text, of a street or thoroughfare in the structured address. The street number is included in.

7.1.23. Email_Communication Entity

Description: an email address of a contact.

Cardinality	BRS Business term	EU Business term	Type	Description
1	URI	Email address of the contact	Identifier	**VCD & VED data** The Uniform Resource Identifier (URI) for this email communication. SchemeID=**URI** + Value Can be communicated for all Contact Party roles except the VESSEL role (see footnote on Contact-Party)

7.1.24. Universal_Communication Entity

Description: fax, phone and other numbers of a contact.

Cardinality	BRS Business term	EU Business term	Type	Description

1	Complete Number		Text	**VCD & VED data** The text string of characters that make up the complete number for this communication.
1	Channel		Code	**VCD & VED data** There is no ListID but the channel code specifying the use of this communication comes from the **FLUX_TELECOM_USE** list It can be:
0..1		Phone number of the contact		Identified by the code (=**TE**) + Complete Number Can be communicated for all Contact Party roles except the VESSEL role (see footnote on Contact-Party)
0..1		Fax number of the contact		Identified by the code (=**FX**) + Complete Number Can be communicated for all Contact Party roles except the VESSEL role (see footnote on Contact-Party)
0..1		Telex number		Identified by the code (=**TL**) + Complete Number For the VESSEL role only (see footnote on Contact-Party)
0..1		Radio frequency		Identified by the code (=**AP**) + Complete Number For the VESSEL role only (see footnote on Contact-Party)
0..1		Satellite phone number		Identified by the code (=**AV**) + Complete Number For the VESSEL role only (see footnote on Contact-Party)

7.1.25. Validation Result_Document Entity

Description: Entity containing information about the validation process. It is only used in submissions sent by COM (SUB-Q report type) .

Cardinality	BRS Business term	Business term	Type	Description
1	Validator_Identification		Identifier	The identifier who performed the validation. SchemeID = **FLUX_GP_PARTY** + Value
1	Creation		Datetime	Date/time that the validation process has been done. A UTC date time according to ISO 8601 format. The usage of 'Z' character defining UTC time zone is strongly recommended.
1..n	Validation_Quality Analysis		Ass.	Details of the validation report

7.1.26. Validation_ Quality Analysis Entity

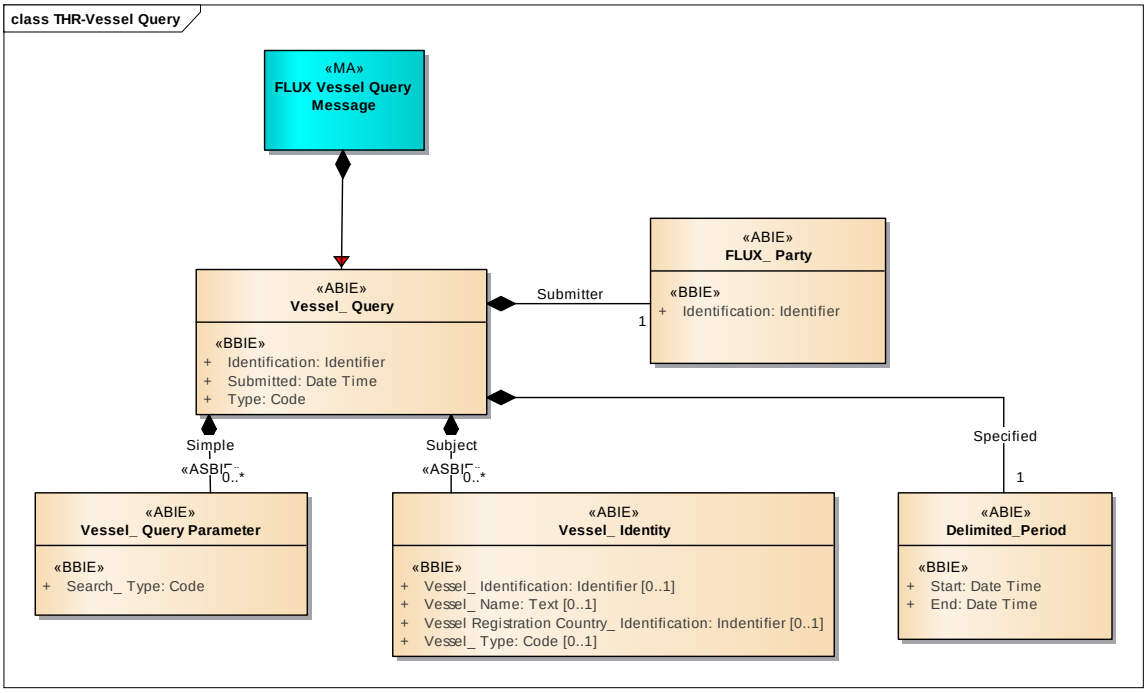
Description: Entity containing the errors and/or warnings for data queried from the Vessel Register. It is only used in submissions sent by COM (SUB-Q report type) .

Cardinality	BRS Business term	Business term	Type	Description
1	Identification	Business rule identifier	Identifier	SchemeID=**VESSEL_BR_DEF** Value= Business rule identification
1	Level		Code	ListID= **FLUX_GP_VALIDATION_LEVEL** + Value The code specifying the validation level of the business rule
1	Type		Code	ListID= **FLUX_GP_VALIDATION_TYPE** + Value The code specifying the result of the business rule (mainly error, warning)
0..1	Result	Business rule message	Text	A text explaining the business rule violation

7.2. Query

Description: queries are used by the MS to extract vessel data from the vessel register of DG MARE. They are also used by the Commission to request a snapshot to MS as foreseen by the FIR.

For third parties distinct from The Commission and Member States, only core data (VCD) of EU fishing vessels but without personal data (no contact information) would be available for queries.



The delivery of the data set resulting from the query is depending on the technical requirements and limitations of the Transport Layer, in particular the maximum size of the message that can be transmitted by the system.

7.2.1. Vessel_ Query Entity

Description: Entity containing a formally raised question or request for information for vessels.

Cardinality	BRS Business term	EU Business term	Type	Description
1	Identification		Identifier	The identifier for this vessel query. SchemeID = **UUID** + Value
1	Submitted		Datetime	The date & time when this vessel query was submitted.
1	Type		Code	The code specifying the type of vessel query. Code from the **FLUX_VESSEL_QUERY_TYPE** list From a party to COM: **Q-NR**: normal query **Q-NEWS**: query sent by MS to get data registered from a specific event start date in the Vessel Register From COM to a party: **Q-NR**: normal query **Q-SNAP-F**: query for a full snapshot sent by COM

				Q-SNAP-L: query for a limited snapshot sent by COM
1	FLUX Party		Ass.	Identification of the requester
0..n	Vessel Identity		Ass.	Vessel identification
0..n	Vessel Query Parameter		Ass.	Additional parameters of the query
1	Delimited Period		Ass	Time period for selecting data

7.2.2. FLUX_Party Entity

Description: Entity containing the identification of the requester.

Cardinality	BRS Business term	EU Business term	Type	Description
1	Identification		Identifier	The identifier for this vessel query. SchemeID = **FLUX_GP_PARTY** + Value XEU when sent by COM

7.2.3. Vessel_ Identity Entity

Description: Entity containing information used to select vessels. If the country is specified, the search will be done on the fleet of that country only.

If more than one criteria is given, a "AND" operation is done.

Cardinality	BRS Business term	EU Business term	Type	Description
0..1	Vessel_ Identification		Identifier	A vessel identifier for this vessel identity: SchemeID = CFR + Value SchemeID = UVI + Value SchemeID = EXT_MARK + Value SchemeID = IRCS + Value SchemeID= MMSI + Value
0..1	Vessel_ Name		Text	A vessel name, expressed as a text, for this vessel query identity.
0..1	Vessel Registration Country_ Identification		Identifier	It should be the ISO-3 code of the **TERRITORY** list
0..1	Vessel_ Type		Code	ListID= **VESSEL_CATEGORY** The code specifying the type of vessel for this vessel identity.

7.2.4. Vessel_ Query Parameter Entity

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

One parameter should be used for requesting a type of historical data, another for specifying the type of data needed.

Cardinality	BRS Business	EU Business	Type	Description

	term	term		
1	Search_ Type		Code	The code specifying the type of search parameter for this vessel query from the **FLUX_VESSEL_QUERY_PARAM** list: Parameters valid for all query types except Q-NEWS: • Historical data HIST_YES: all events corresponding to the history of the vessel in the Delimited_Period HIST_NO: last event in the history of the vessel up to the Delimited_Period/End date. • Vessel: VESSEL_ACTIVE: vessel active in the Delimited_Period. VESSEL_ALL: any vessel in the Delimited_Period. • Data: DATA_VCD: vessel core data only for the vessel. DATA_ALL : all data (VCD/VED) for the vessel

7.2.5. Delimited_Period Entity

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

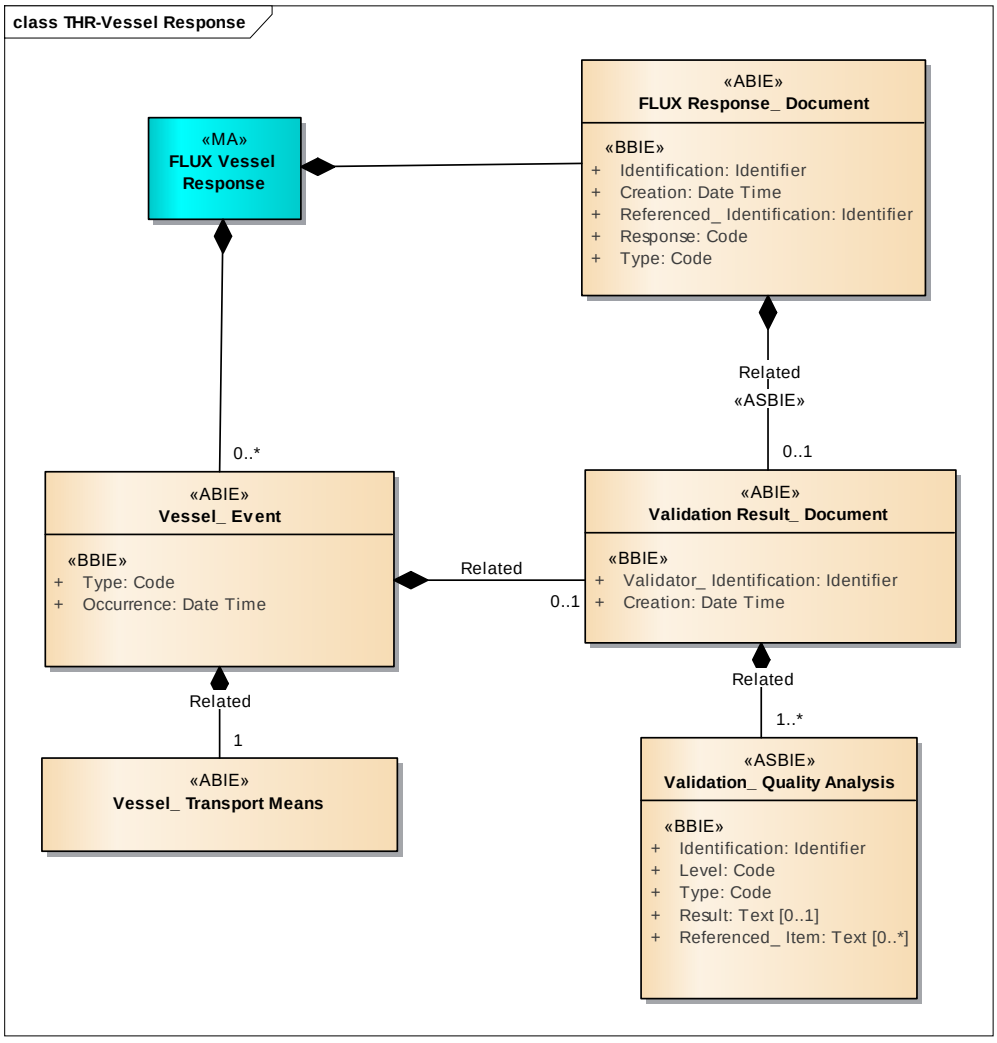
Cardinality	BRS Business term	EU Business term	Type	Description
1	Start		Date	Date from which vessel data should be delivered
1	End		Date	Date until which vessel data should be delivered

7.3. Response

Description: The type of message which is used for responding to the validation of a Query or a Submission.

A response message could contain:

- For a submission, the list of vessel event and vessel identification (minimum information) where issues have been detected;
- A validation report at the level of the message with the list of business rules that have detected general issues for the message;
- A validation report at the level of a vessel event with the list of business rules that have detected issues for that particular event;



Class Diagram for a Vessel Response

7.3.1. FLUX Response_Document Entity

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

Cardinality	BRS Business term	Business term	Type	Description
1	Identification		Identifier	SchemeID = **UUID** + Value (a GUID as defined in the RFC 4122)
1	Creation		Datetime	Date/time that this report has been created. A UTC date time according to ISO 8601 format. The usage of 'Z' character defining UTC time zone is strongly recommended.
1	Referenced_identification		Identifier	Used for referencing the query or the submission that has been validated. The schemeID values must be on the code list FLUX_GP_MSG_ID: SchemeID = **UUID** + Value (a GUID as defined in the RFC 4122) 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.
1	Response		Code	ListID= **FLUX_GP_RESPONSE** + Value Status code : OK, NOK, WOK **(**OK with warnings only**)**
1	Type		Code	Report type : **R**
0..1	Validation Result Document		Ass.	General validation report

7.3.2. Validation Result_Document Entity

Description: Entity containing information about the validation process.

Cardinality	BRS Business term	Business term	Type	Description
1	Validator_Identification		Identifier	The identifier who performed the validation. SchemeID = **FLUX_GP_PARTY** + Value
1	Creation		Datetime	Date/time that the validation process has been done. A UTC date time according to ISO 8601 format. The usage of 'Z' character defining UTC time zone is strongly recommended.
1..n	Validation_Quality Analysis		Ass.	Details of the validation report

7.3.3. Validation_ Quality Analysis Entity

Description: Entity containing the results of the validation process.

Cardinality	BRS Business term	Business term	Type	Description
1	Identification	Business rule identifier	Identifier	SchemeID=**VESSEL_BR_DEF** Value= Business rule identification
1	Level		Code	ListID= **FLUX_GP_VALIDATION_LEVEL** + Value The code specifying the validation level of the business rule
1	Type		Code	ListID= **FLUX_GP_VALIDATION_TYPE** + Value The code specifying the result of the business rule (mainly error, warning)

0..1	Result	Business rule message	Text	A text explaining the business rule violation
0..n	Referenced_item		Text	An information to locate in the XML the data causing the problem.

7.3.4. Vessel_Event Entity

Cfr 7.1.3

7.3.5. Vessel_Transport Means Entity

Cfr 7.1.4

8. VESSEL BUSINESS RULES

This chapter describes the validation principles and the business rules (BRs) of the system for all vessels. Nevertheless a distinction is done between EU fishing vessels for which more controls are performed and the other vessels (EU non fishing vessels and non EU vessels).

The aim is of the business rules is to eliminate errors and to minimize and anticipate warnings as much as possible, in order to provide users with reliable fleet data.

8.1. Definition

For a better understanding of the business rules for EU fishing vessels the following terminology has been introduced.

- **Declaration (called also event)**: for a specific event code, set of data defined in Annex I of the FIR;
- **End Date of a declaration**: for a vessel, the validity end date of a declaration is:
    1. the event date of the declaration when it is an exit from the fleet, except for a RET if followed by a DES or EXP. In such case, point 2 is applicable (cfr Event Type Transition Diagram);
    2. the event date minus one day of the next declaration (if any) considering all the declarations sorted by ascending event date;
    3. a default value '2100/12/31' if none of the above. Declarations (or events) with that end date is called an active event because data is valid at present time.
- **Event period of a declaration**: the period of time covered between the event start date and end date;
- **Consolidated history**: the consolidated history of a vessel is the set of all events coming from all national fleet registers where the vessel has been (is) registered, sorted by event date in ascending order;
- **Transmission date**: date when the transmission coming from the MS is received and registered by DG MARE processes;
- **The current/active EU fleet**: The list of all vessels registered in all national registers and present (no exit events) in the national fleets at current date;
- **The address of a party**: set of data made of the street, city, post code, country, phone, fax and email;
- and the definitions provided in the FIR;

8.2. Validation Principle

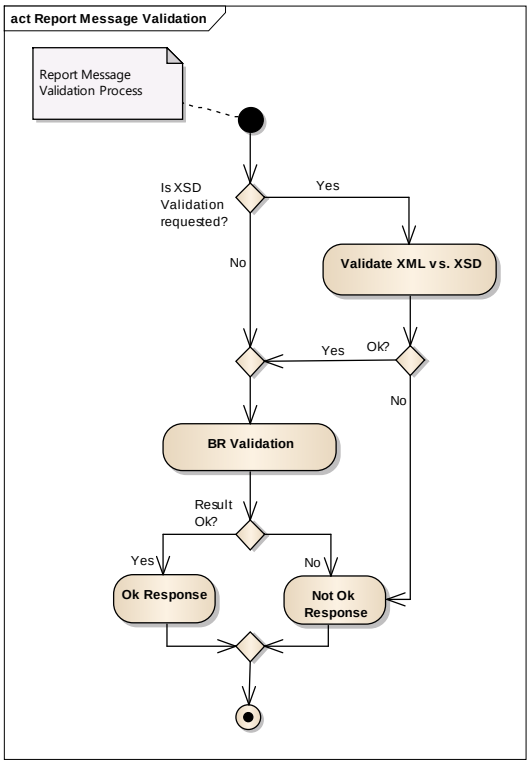
8.2.1. Validation Levels

Messages are validated by the receiver upon receipt of a message.

The validation process validates on two levels:

(1) XML Validation level: Based on the definition in the XSD[29], the parser validates the structure and cardinality as well as compliance for mandatory elements of the XML provided[30].

(2) Business Rules Validation level: 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 Vessel Message validation

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.

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

[29] The XSD considered for the validation process is the standard UN/CEFACT XSD for the Vessel domain.

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

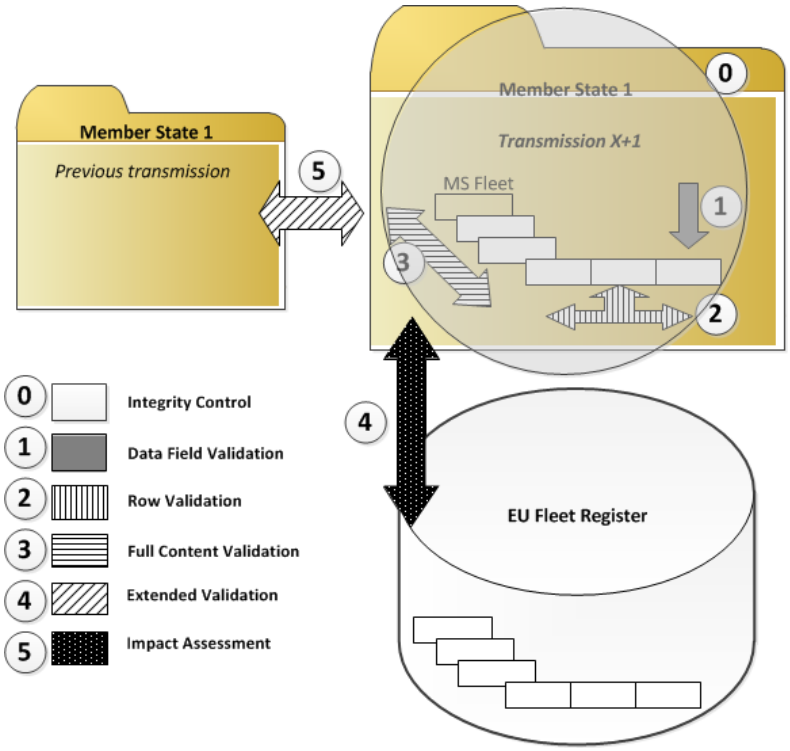
In case of errors or warnings, the list of the validation results will be returned, including the business rule numbers for which a rule was violated, an indication if this is an error or a warning, and a reference to the entity on which the business rule failed. Details on how to implement this are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

Business rules that fail with a critical error (type 'rejection') 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 of that type causes the whole message to be rejected.

Business rules that fail with a warning or error are not to be considered blocking issues. The information is registered together with the data in the Vessel Register.

The business rules are classified in six different levels:

- Level 0: Integrity Control: structure of the message, data types…;
- Level 1: Data Field Validation :,formats, mandatory/optional data, codes …;
- Level 2: Row Validation or control of the coherence between fields ;
- Level 3: Full Content Validation: control of the coherence of a national fleet;
- Level 4: Extended Validation: control of coherence with the EU Fleet & other systems;
- Level 5: Impact Assessment or control of the coherence when replacing existing data with more updated ones;



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 website.

Messages received must be validated according to the applicable business rules (BR). BR with the activation indicator set to 'Yes' in the Vessel BR list are selected. In order to know the severity code (warning, error, rejection) of the BR to be triggered for a specific vessel event, the FLEET computes the event end date based on the event date present in the message and the history of the vessel. To respect the validation period principle (see 8.2.2.1 paragraph), the severity codes of the BRs for which that event end date fits in the BR validity period (start/end dates in the list) are used.

A business rule must be applied if the data used by the business rule is available in the message.

In order to give a feedback as much as complete to the sender, a maximum of business rules are applied on the data. **It means that after the successful completion of level 0, the business rules from the other levels are applied**. The message and/or associated information put in the response message should be precise enough to locate the source of the problem in the submitted data.

An overloaded data element is defined as a data element communicated repetitively (based on the cardinality of the element defined in the data model) but exceeding the limit imposed by the implementation document. In this version of the document, there are no business rules[31] defined to detect overloaded data elements and therefore to report such issue to the sender. Such data 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 …)

Each business rule is identified by a reference assigned to the BR according to the following methodology: VESSEL-Lxx-BB-CCCC

- VESSEL: Referring to the Vessel domain
- Lxx: The level of the business rule
  - 00: Integrity control
  - 01: Data field validation (one attribute)
  - 02: Row validation (one report)
  - 03: Content validation (coherence between reports)
- BB: optional sub-level. This part of the numbering is used to identify the sub-levels, if FLUX domain requires the split of the business rules levels. If the domain does not require sub-level, '00' must be used.

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

- CCCC: This part of BR identification represents the sequence number of the business rule in the level and/or sub-level group so it can be uniquely identified.

Example: *VESSEL-L02-01-0033: FLEET BR n°33 in level 2, sub-level 1*

8.2.2. Flexibility

8.2.2.1. Validation Periods

For EU fishing vessels, BR cannot be applied with the same strength throughout the whole vessel history. Due to the evolution of fleet register systems and administrative procedures, data was accepted in the past less stringently than it is today. Therefore the new system that should be designed must be flexible enough to cope with this situation.

To do so, the register history has been divided into three periods called P1 to P3 regardless whether it is for an old vessel or a recent one in activity:

P1 - Declarations ending in MAGP[32] II or III

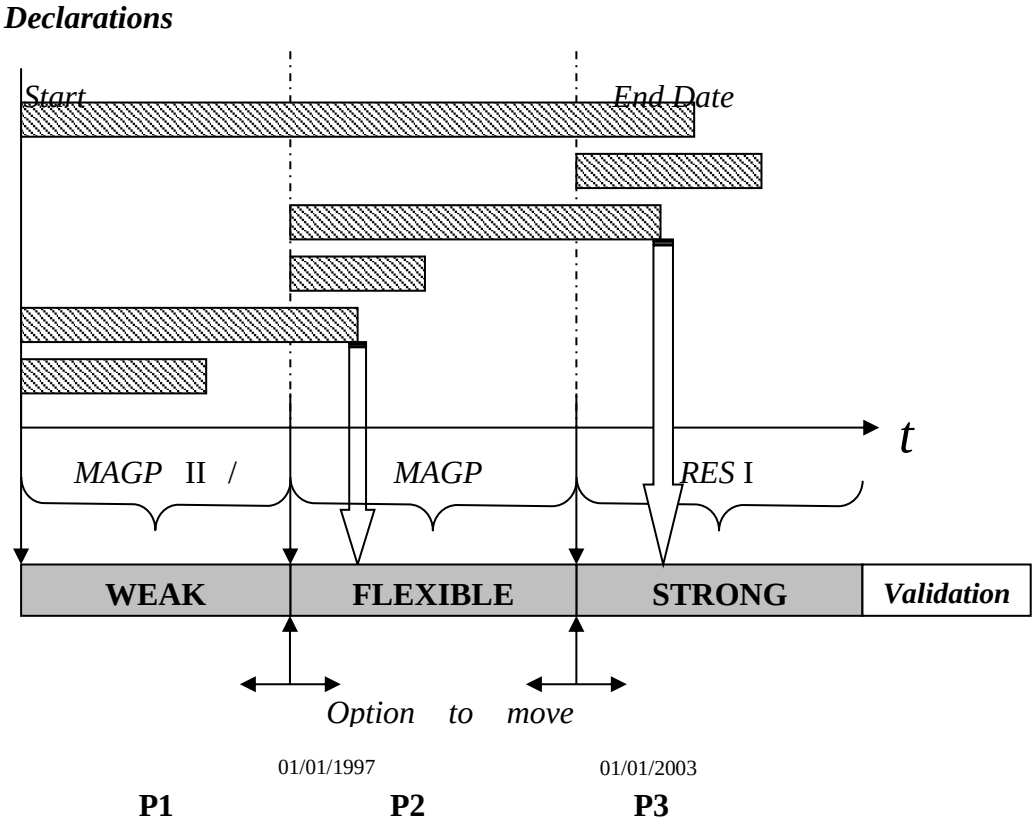
P2 - Declarations ending in MAGPIV

P3 - Declarations ending or with an event date after 01/01/2003 (Entry/Exit regime - RES)

For each declaration, the **End Date** defines the validation period in which the declaration will be validated. The system will be flexible enough to move the applicable limits of those periods if needed.

[32] MULTIANNUAL GUIDANCE PROGRAMMES

Validation Flexibility - three validation periods



8.2.2.2. Validation Results

For all vessels, the result of the execution of each BR is defined for each of these periods.

The validation result could be the following:

1. - : No validation, no result;

2. **R**: **Rejection**: A major problem has been detected. The declaration is not accepted into the EU Fleet Register and the complete transmission is refused. When notified, the MS responsible of the declaration should correct it as soon as possible in his national register and notify the Commission;

3. **M**: Major error. The data needs to be corrected as soon as possible because it can influence the compliance with the fleet policy (fleet capacity) and / or provoke an issue in case of controls. The declaration is integrated into the EU Fleet Register but there is a message attached and disseminated with the data specifying the problem. When notified, the MS responsible of the declaration should correct it as soon as possible in his national register. It is also a way to identify important errors amongst the others that can be detected (see next point);

4. **E**: Error: The data needs to be corrected. The declaration is integrated into the EU Fleet Register but there is a message attached and disseminated with the data

specifying the problem. When notified, the MS responsible of the declaration should correct it in his national register;

5. **W**: Warning: The declaration is integrated into the EU Fleet Register but there is a message attached and disseminated with the data specifying the reason of the warning;

8.3. Acronyms

1. The following table shows the acronyms used in the definition of BRs.

Code	***Description***	
CFR	Community Fleet Register number	
LOA	Length OverAll	
LBP	Length Between Perpendiculars	
LRE	Registered Length	
NT	Net Tonnage	
NRT	Net Registered Tonnage	
YoC	Date of Construction	
EiS	Entry into Service date	
CEN	Census	Entry into fleet
CST	Construction	Entry into fleet
CHA	Change of activity	Entry into fleet
IMP	Importation, transfer	Entry into fleet
MOD	Modification	
DES	Destruction, Break-up or shipwreck	Exit from fleet
RET	Change of activity, withdrawal from the fleet	Exit from fleet
EXP	Exportation, transfer	Exit from fleet

2. Parameters are sometimes used in the definition of BRs. They are marked as such: ***bold***. The value of each parameter is defined at run time. They have been introduced to facilitate the maintenance of the BRs by avoiding the need of any IT interventions if the value of the parameter is modified for business reasons.

8.4. Validation Levels for Submissions

For sake of clarity, the structure of this chapter is based on the two sets of legal basis mentioned in chapter 3: for the EU Fleet Register and for Fishing Authorisations management.

8.4.1. For the EU Fleet Register

The message types used for such submissions are the **SUB-VCD, SNAP-F** or **SNAP-L**.

8.4.1.1. LEVEL 00 – Integrity Control

The goal of this level is mainly to verify the structure of the XML message and data types.

If the IT processes implementing the generation of such messages have been extensively tested before to be used in a production environment, the huge majority of the rejection cases should not be detected in operational exchanges.

The entire data message is rejected if the structure of the XML message is not compliant with the UN/FLUX Vessel XSD or if the content is not in line with the definition of the message.

The validation structure is mainly performed by a XML parser. In case of non compliance with the XML schema, a generic message[33] must be sent back to the sender. The incoming message is not registered.

In addition to the parser verifications, and if the structure is valid, the controls are further done by the business rules. The field names are the BRS Business terms.

The full list of BR in this level is processed **if data is provided.** At the end of the validation, if at least one BR has failed, the other validation levels are not processed.

[33] It must be a message common to all FLUX system, so not included in this document.

BR Reference	*Field*	*BR validation description*	*Error level*	*Error message*
VESSEL-L00-00-0000	FLUXVesselMessage	Verifies whether or not the message is a valid XML	R	An invalid XML message has been received.
VESSEL-L00-00-9996	FLUXReportVesselMessage	Verifies if code lists can be retrieved from the MDR at the given reference date	R	No referential code lists can be retrieved from the MDR
VESSEL-L00-00-9999	FLUXReportVesselMessage	Verifies if the message contains valid UTF-8 characters	R	The message contains illegal UTF-8 characters
VESSEL-L00-00-0001	FLUX_Report Document/Identification	Mandatory	R	The report identification is not provided
VESSEL-L00-00-0002	FLUX_Report Document/Identification	The identifier must be a valid UUID format	R	The report identification has not a valid format
VESSEL-L00-00-0003	FLUX_Report Document/Identification	The UUID is unique (he does not reference a report already received)	R	The report identification is not unique
VESSEL-L00-00-0009	FLUX_Report Document/Type	Mandatory	R	The type of report is not provided
VESSEL-L00-00-0045	FLUX_Report Document/Type	ListId=FLUX_VESSEL_REPORT_TYPE	R	The list referenced in the Report Type is not a valid
VESSEL-L00-00-0008	FLUX_Report Document/Type	Code from the specified list	R	The Report Type is not a valid code
VESSEL-L00-00-0006	FLUX_Report Document/Creation	Mandatory	R	The date of the report is not provided
VESSEL-L00-00-0007	FLUX_Report Document/Creation	Datetime format	R	The report date has not a valid format
VESSEL-L00-00-0093	FLUX_Report Document/Creation	Creation date not in the future	R	The creation date of the report should not be in the future
VESSEL-L00-00-0011	FLUX_Report Document/Purpose	Mandatory	R	The purpose code is not provided
VESSEL-L00-00-0046	FLUX_Report Document/Purpose	ListId= FLUX_GP_PURPOSE	R	The list referenced in Purpose is not valid
VESSEL-L00-00-0010	FLUX_Report Document/Purpose	Value=9	R	The purpose code is not valid
VESSEL-L00-00-0013	FLUX_Party/Identification	Mandatory	R	The sender identification of the report is not provided
VESSEL-L00-00-0047	FLUX_Party/Identification	SchemeId= FLUX_GP_PARTY	R	The list referenced for the Party identifier is not valid
VESSEL-L00-00-0012	FLUX_Party/Identification	Code from the specified list	R	The sender identification is not a valid code
VESSEL-L00-00-0014	FLUX_Party/Identification & the sender (MS) from the Transportation Layer	The party sending the message must be the same as the one from the FR value of the FLUX TL envelope. Only the part before the first colon is to be	R	The sender identification in the report is not the flag state sending the message

BR Reference	Field	BR validation description	Error level	Error message
		considered: Eg. ABC:something => only ABC refer to the party for the purpose of this rule.		
VESSEL-L00-00-0154	FLUX_Report Document/Type, Referenced Identification & FLUX_Party/Identification	For **snapshots** (full or limited), the referenced identification must be the one of the last query sent to the flag state and the types of message (SNAP-F/Q-SNAP-F or SNAP-L/Q-SNAP-L) must match	R	The snapshot report does not reference a valid query message and/or the type of message does not match with the query.
VESSEL-L00-00-0016	FLUX_Party/Identification & FLUX_Report Document/Type	For a **snapshot** (any types): the blocking indicator for the flag state in the fleet system is set to 'Y'	R	No snapshot is accepted by the system. Please contact the Commission.
VESSEL-L00-00-0017	FLUX_Report Document/Type & Vessel_Event/ Occurrence & Vessel_Event/ Type	For a **limited snapshot**, the first event in the message of any vessel should have a vessel end date equal or after the start date of the snapshot request	R	The content of the limited snapshot is not consistent with the query period.
VESSEL-L00-00-0018	FLUX_Report Document/Type &Vessel_ Transport_ Means / Type	A **snapshot** (any types) and a SUB-VCD must contain only fishing vessels	R	This type of file should not contained non fishing vessels.
VESSEL-L00-00-0019	FLUX_Report Document/Type	A **snapshot** (any types) should not contain any extended data	R	A snapshot cannot contain vessel extended data.
VESSEL-L00-00-0147	FLUX_Report Document/Type & FLUX Transport information	A **snapshot** (Full or Limited) must be received by COM in less than ***3*** hours after the sending of the query	W	The snapshot has been received late.
VESSEL-L00-00-0158	FLUX_Report Document/Type & Vessel_ Transport_ Means / Identification	A **limited snapshot** (SNAP-L) **for active vessels** should not contain any events of vessels registered as non-active in the database at the time when SNAP-L query was sent	R	A snapshot cannot contain non active vessels.
VESSEL-L00-00-0020	FLUX_Party/Identification & FLUX_Report Document/Type	For a **submission** (any types): the blocking indicator for the flag state in the fleet system is set to 'Y'	R	No submission is accepted by the system. Please contact the Commission.
VESSEL-L00-00-0021	FLUX_Report Document/Type & Vessel_ Transport_ Means /	For a **submission** (any types), only	R	The submission should not contain more than one vessel

BR Reference	*Field*	*BR validation description*	*Error level*	*Error message*
	Identification	one vessel must be present		
VESSEL-L00-00-0023	FLUX_Report Document/Type	For a **submission** of type SUB-VCD, no extended data allowed	R	This type of submission may not contain vessel extended data
VESSEL-L00-00-0024	FLUX_Report Document/Type & Vessel_ Transport_ Means / Identification & Vessel_Event/ Occurence	For a **submission**, if it contains only one event, the new event date should be equal or later than the last recorded event for that vessel in the Vessel Register	R	The submission contains only one event but it is not the latest characteristics of the vessel
VESSEL-L00-00-0048	Vessel_Event/Type	ListId=VESSEL_EVENT	R	The list referenced for the vessel Event is not valid
VESSEL-L00-00-0156	Vessel_Event/Occurrence	Mandatory value	R	The Date of Event is not provided
VESSEL-L00-00-0068	Vessel_Event/Occurrence	Datetime format	R	The Date of Event is not in a valid format
VESSEL-L00-00-0157	Vessel_ Transport_ Means / Identification	Mandatory	R	Vessel identification is not provided
VESSEL-L00-00-0027	Vessel_ Transport_ Means / Identification	SchemeId=Code from the FLUX_VESSEL_ID_TYPE list	R	The Transport Means Identification is not a valid code.
VESSEL-L00-00-0146	Vessel_ Transport_ Means / Type	Mandatory value	R	The Transport Means Type is not provided.
VESSEL-L00-00-0050	Vessel_ Transport_ Means / Type	ListId= VESSEL_TYPE	R	The list referenced for the vessel type is not valid
VESSEL-L00-00-0025	Vessel_ Transport_ Means / Type	Code from the specified list[34]	R	The Transport Means Type is not a valid code.
VESSEL-L00-00-0069	Vessel_Transport_Means/Identification & SchemeID=UVI	Numerical value	R	The UVI number is not numerical
VESSEL-L00-00-0070	Vessel_Transport_Means/Identification & SchemeID=MMSI	Numerical value	R	The MMSI number is not numerical
VESSEL-L00-00-0145	Vessel_Country/Identification	SchemeId=TERRITORY	R	The list referenced for the flag state is not valid

[34] Important to control in this validation level to know which business rules to apply in the next levels.

BR Reference	*Field*	*BR validation description*	*Error level*	*Error message*
VESSEL-L00-00-0051	Registration_ Location /Type	ListId= FLUX_VESSEL_REGSTR_TYPE	R	The list referenced for the registration location type is not valid
VESSEL-L00-00-0026	Registration_ Location /Type	Code from the specified list	R	The Registration Type is not a valid code.
VESSEL-L00-00-0053	Registration_Location/Identification	SchemeId= VESSEL_PORT	R	The list referenced for the place of registration of the vessel is not valid
VESSEL-L00-00-0052	Registration_Location/Country	ListId= TERRITORY	R	The list referenced for the Country of Location is not valid
VESSEL-L00-00-0074	Construction_Event/Occurrence	Date type	R	The date of construction has not a valid format
VESSEL-L00-00-0056	Vessel_ Engine /Role	ListId= FLUX_VESSEL_ENGINE_ROLE	R	The list referenced for Engine Role is not valid
VESSEL-L00-00-0033	Vessel_ Engine /Role	Code from the specified list	R	The Engine Role is not a valid code.
VESSEL-L00-00-0041	Vessel_ Engine /Power	The unit must be **KWT**	R	The Unit code is wrong for powers
VESSEL-L00-00-0075	Vessel_Engine /Power	Numerical value	R	The power is not numerical
VESSEL-L00-00-0057	Vessel_ Dimension /Type	ListId= FLUX_VESSEL_DIM_TYPE	R	The list referenced for the Dimension Type is not valid
VESSEL-L00-00-0032	Vessel_ Dimension /Type	Code from the specified list	R	The Dimension Type is not a valid code.
VESSEL-L00-00-0039	Vessel_ Dimension /Type & Vessel_ Dimension /Value	For Type, the unit must be the default value from the FLUX_VESSEL_DIM_TYPE	R	The Unit code is wrong for the vessel dimension
VESSEL-L00-00-0076	Vessel_Dimension/Value	Numerical value	R	The dimension of the vessel is not numerical
VESSEL-L00-00-0058	Fishing_ Gear /Type	ListId= GEAR_TYPE	R	The list referenced for the Gear Type is not valid
VESSEL-L00-00-0059	Fishing_ Gear /Role	ListId= FLUX_VESSEL_GEAR_ROLE	R	The list referenced for the Gear Role is not valid
VESSEL-L00-00-0031	Fishing_ Gear /Role	Code from the specified list	R	The Gear Role is not a valid code.
VESSEL-L00-00-0038	Vessel_Event & Fishing_Gear/Role & Type	For a specific Vessel Event, only one occurrence of a code in allowed for subsidiary gear type	W	A subsidiary gear code is used more than once.
VESSEL-L00-00-0061	Vessel_ Administrative_Characteristic/Type	ListId= FLUX_VESSEL_ADMIN_TYPE	R	The list referenced for the Administrative Characteristic Type is not valid
VESSEL-L00-00-0029	Vessel_ Administrative_Characteristic/Type	Code from the specified list	R	The Administrative Characteristic Type is not a valid code.

BR Reference	*Field*	*BR validation description*	*Error level*	*Error message*
VESSEL-L00-00-0130	Vessel_ Administrative_Characteristic/Value & Type=LICENCE	ListId= BOOLEAN_TYPE	R	The list referenced for the license indicator is not valid
VESSEL-L00-00-0131	Vessel_ Administrative_Characteristic/Value & Type=SEG	ListId= VESSEL_SEGMENT	R	The list referenced for the segment is not valid
VESSEL-L00-00-0132	Vessel_ Administrative_Characteristic/Value & Type=EXPORT	ListId= VESSEL_EXPORT_TYPE	R	The list referenced for the type of export is not valid
VESSEL-L00-00-0133	Vessel_ Administrative_Characteristic/Value & Type=AID	ListId= VESSEL_PUBLIC_AID_TYPE	R	The list referenced for the public aid is not valid
VESSEL-L00-00-0082	Vessel_Admin_Characteristic/Value & Type = 'EIS'	Date type	R	The Entry into Service date is not a date
VESSEL-L00-00-0062	Vessel_ Technical_Characteristic/Type	ListId= FLUX_VESSEL_TECH_TYPE	R	The list referenced for the Technical Characteristic Type is not valid
VESSEL-L00-00-0030	Vessel_ Technical_Characteristic/Type	Code from the specified list	R	The Technical Characteristic Type is not a valid code.
VESSEL-L00-00-0134	Vessel_ Technical_Characteristic/value & Type=HULL	ListId= VESSEL_HULL_TYPE	R	The list referenced for the hull is not valid
VESSEL-L00-00-0063	Contact_ Party /Role	ListId= FLUX_CONTACT_ROLE	R	The list referenced for the Party Role is not valid
VESSEL-L00-00-0035	Contact_ Party /Role	Code from the specified list	R	The Party Role is not a valid code.
VESSEL-L00-00-0064	Contact_ Party /Nationality Country	ListId= TERRITORY	R	The list referenced for the nationality of the party is not valid
VESSEL-L00-00-0144	Vessel_Event & Contact-Party/Identification	Numerical value	R	The IMO company number is not numerical
VESSEL-L00-00-0036	Contact_ Party /Universal_ Communication /Channel	Code from the specified list	R	The Communication Use code is not a valid code.
VESSEL-L00-00-0067	Structured_Address/Country	ListId= TERRITORY	R	The list referenced for the country in the address is not valid

8.4.1.2. LEVEL 01 – Data Field Validation

Set of validation rules applied on each data of a declaration **when the data is provided**. The field names are the EU Business terms mentioned in the previous tables.

Business information that must be communicated (mandatory) are identified in this level (ex: BR Reference n°0001, 0005,..).

BR Reference	*Field*	*BR validation description*	*P1*[35]	*P2*	*P3*[36]	*Error message*
VESSEL-L01-01-0001	Country of Registration	Mandatory value	R	R	R	The country of registration is mandatory
VESSEL-L01-01-0002	Country of Registration	Code from the "MEMBER_STATE" code list	R	R	R	The Country of Registration is not a valid ISO-3 code
VESSEL-L01-01-0003	Country of Registration	Should be the same as the country sending the message	R	R	R	The Country of Registration is different from the country sending the message
VESSEL-L01-01-0004	CFR	Length = 12 characters	R	R	R	The CFR must have 12 characters
VESSEL-L01-01-0005	CFR	Mandatory value	R	R	R	The CFR is mandatory
VESSEL-L01-01-0006	CFR	The 3 first characters should be an ISO-3 code of a declaring country, excepted for Romania where the code in CFR is "ROM" and not "ROU". Code from a list of reference: "MEMBER_STATE" code list	R	R	R	The three first character of the CFR is not an ISO-3 code of a MS
VESSEL-L01-01-0007	CFR	Should contain only A-Z and 0-9 characters	R	R	R	Only A-Z and 0-9 characters are allowed in the CFR
VESSEL-L01-01-0008	Event	Mandatory value	R	R	R	The Event Code is mandatory
VESSEL-L01-01-0009	Event	Code from the specified list	R	R	R	The Event Code is not a valid code
VESSEL-L01-01-0011	Event Date	Mandatory value	R	R	R	The Event Date is mandatory
VESSEL-L01-01-0012	License Indicator	Length = 1 character	R	R	R	The License Indicator must have only one character
VESSEL-L01-01-0013	License Indicator	Code from a list of reference: "BOOLEAN_TYPE" code list	E	E	E	The License Indicator is not a valid code

[35] Periods are only valid for messages containing historical data

[36] Value in bold for an existing FRONT BR means a change compared to the current BR

BR Reference	Field	BR validation description	P1[35]	P2	P3[36]	Error message
VESSEL-L01-01-0014	Registration Number	Length <=14 characters max	R	R	R	The Registration Number must have a maximum of 14 characters
VESSEL-L01-01-0015	Registration Number	Should be provided	-	-	W	The Registration Number should be provided
VESSEL-L01-01-0016	External Marking	Length <= 14 characters max	R	R	R	The External Marking must have a maximum of 14 characters
VESSEL-L01-01-0017	External Marking	Should be provided	-	-	W	The External Marking should be provided
VESSEL-L01-01-0018	Vessel Name	Length <= 40 characters max	R	R	R	The Vessel Name must have a maximum of 40 characters
VESSEL-L01-01-0019	Vessel Name	Should be provided	-	-	W	The Vessel Name should be provided
VESSEL-L01-01-0021	Place of Registration	Should be provided	-	W	E	The Place of Registration should be provided
VESSEL-L01-01-0022	IRCS Indicator	Length = 1 character	R	R	R	The IRCS Indicator must have only one character
VESSEL-L01-01-0111	IRCS Indicator	Mandatory value	E	E	E	The IRCS indicator is mandatory
VESSEL-L01-01-0023	IRCS Indicator	Code from a list of reference: "BOOLEAN_TYPE" code list	E	E	E	The IRCS Indicator is not a valid code
VESSEL-L01-01-0112	IRCS	Check format corresponding to the entry in the FLUX_VESSEL_ID_TYPE code list	-	-	R	The IRCS has a wrong format
VESSEL-L01-01-0025	VMS Indicator	Length = 1 character	R	R	R	The VMS Indicator must have only one character
VESSEL-L01-01-0026	VMS Indicator	Code from a list of reference: "BOOLEAN_TYPE" code list	E	E	E	The VMS Indicator is not a valid code
VESSEL-L01-01-0027	Main Fishing Gear	Length = 2 or 3 characters	R	R	R	The Main Fishing Gear must have 2 or 3 characters
VESSEL-L01-01-0028	Main Fishing Gear	Mandatory value	E	E	E	The Main Fishing Gear is mandatory
VESSEL-L01-01-0029	Main Fishing Gear	Code from the specified list	E	E	E	The Main Fishing Gear is not a valid code
VESSEL-L01-01-0030	Main Fishing Gear	"No gear" code not allowed	E	E	E	The vessel must have a main fishing gear
VESSEL-L01-01-0031	Subsidiary Fishing Gears	Length = 2 or 3 characters	R	R	R	The Subsidiary Fishing Gear must have 2 or 3 characters
VESSEL-L01-01-0032	Subsidiary Fishing Gears	Mandatory value (at least one)	E	E	E	The Subsidiary Fishing Gear is mandatory
VESSEL-L01-01-0033	Subsidiary Fishing Gears	Code from the specified list	E	E	E	The Subsidiary Fishing Gear is not a valid code

BR Reference	*Field*	*BR validation description*	*P1*[35]	*P2*	*P3*[36]	*Error message*
VESSEL-L01-01-0035	LOA	Format: XXXX.YY with 2 optional decimals	R	R	R	The LOA should have a maximum of 4 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-01-0036	LOA	>= lower limit : ***1*** & <= upper limit : ***200*** (Parameters LEN_LOW and LEN_UP from the VESSEL_BR_PARAMETER code list)	E	E	**M**	The LOA value is out of range [**X**, **Y**]
VESSEL-L01-01-0038	LBP	Format: XXX.YY with 2 optional decimals	R	R	R	The LBP should have a maximum of 3 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-01-0039	LBP	>= lower limit : ***1*** & <= upper limit : ***200*** (Parameters LEN_LOW and LEN_UP from the VESSEL_BR_PARAMETER code list)	E	E	E	The LBP value is out of range [**X**, **Y**]
VESSEL-L01-01-0041	GT Tonnage	Format: XXXXX.YY with 2 optional decimals	R	R	R	The GT Tonnage should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-01-0042	GT Tonnage	>= lower limit : ***0*** & <= upper limit : ***20000*** (Parameters TON_LOW and TON_UP from the VESSEL_BR_PARAMETER code list)	E	E	**M**	The GT Tonnage is out of range [**X**, **Y**]
VESSEL-L01-01-0044	Other Tonnage	Format: XXXXX.YY with 2 optional decimals	R	R	R	The Other Tonnage should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-01-0045	Other Tonnage	>= lower limit : ***0*** & <= upper limit : ***20000*** (Parameters TON_LOW and TON_UP from the VESSEL_BR_PARAMETER code list)	E	E	E	The Other Tonnage value is out of range [**X**, **Y**]
VESSEL-L01-01-0047	GTs	Format: XXXXX.YY with 2 optional decimals	R	R	R	The GTs should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-01-0048	GTs	>= lower limit : ***0*** & <= upper limit : ***20000*** (Parameters TON_LOW and TON_UP from the VESSEL_BR_PARAMETER code list)	E	E	E	The GTs value is out of range [**X**, **Y**]
VESSEL-L01-01-0114	NT	Format: XXXXX.YY with 2 optional decimals	R	R	R	The Net Tonnage should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-01-0115	NT	>= lower limit : ***0*** & <= upper limit : ***20000*** (Parameters TON_LOW and TON_UP from the VESSEL_BR_PARAMETER code list)	R	R	R	The Net Tonnage value is out of range [**X**, **Y**]

BR Reference	Field	BR validation description	P1[35]	P2	P3[36]	Error message
VESSEL-L01-01-0116	NRT	Format: XXXXX.YY with 2 optional decimals	R	R	R	The Net Registered Tonnage should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-01-0117	NRT	>= lower limit : ***0*** & <= upper limit : ***20000*** (Parameters TON_LOW and TON_UP from the VESSEL_BR_PARAMETER code list)	R	R	R	The Net Registered Tonnage value is out of range [**X**, **Y**]
VESSEL-L01-01-0050	Main Power	Format: XXXXX.YY with 2 optional decimals	R	R	R	The Main Power should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-01-0051	Main Power	Should be provided	-	W	E	The Main Power should be provided
VESSEL-L01-01-0052	Main Power	>= lower limit : ***0*** &<= upper limit : ***20000*** (Parameters PWR_LOW and PWR_UP from the VESSEL_BR_PARAMETER code list)	E	E	**M**	The Main Power value is out of range [**X**, **Y**]
VESSEL-L01-01-0054	Auxiliary Power	Format: XXXXX.YY with 2 optional decimals	R	R	R	The Auxiliary Power should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-01-0055	Auxiliary Power	Should be provided	-	W	E	The Auxiliary Power should be provided
VESSEL-L01-01-0056	Auxiliary Power	>= lower limit : ***0*** & <= upper limit : ***20000*** (Parameters PWR_LOW and PWR_UP from the VESSEL_BR_PARAMETER code list)	E	E	E	The Auxiliary Power is out of range [**X**, **Y**]
VESSEL-L01-01-0057	Hull Material	Code from a list of reference: "VESSEL_HULL_TYPE" code list	E	E	E	The Hull Material is not a valid code
VESSEL-L01-01-0059	EiS Year	>= lower limit : ***1850*** (Parameter YEAR_LOW from the VESSEL_BR_PARAMETER code list)	E	E	E	The year of Entry into Service should be after **X**
VESSEL-L01-01-0060	Segment	Length = 3 characters	-	-	R	The Segment must have 3 characters
VESSEL-L01-01-0061	Segment	Should be provided	-	E	**M**	The fleet segment should be provided
VESSEL-L01-01-0062	Imp/Exp Country	Code from the specified list	E	E	E	The country of export/import is not a valid code
VESSEL-L01-01-0063	Exportation Type	Code from a list of reference: " VESSEL_EXPORT_TYPE" code list	E	E	E	The type of exportation is not a valid code
VESSEL-L01-01-0064	Public Aid Code	Code from a list of reference: " VESSEL_PUBLIC_AID_TYPE" code list	E	E	E	The Public Aid Code is not valid
VESSEL-L01-01-0066	YoC	>= lower limit : ***1850*** (Parameter YEAR_LOW from the VESSEL_BR_PARAMETER code list)	E	E	E	The Year of Construction must be after **X**

BR Reference	Field	BR validation description	P1[35]	P2	P3[36]	Error message
VESSEL-L01-01-0067	Owner Name[37]	Length <= 100 characters	R	R	R	The Owner Name must have a maximum of 100 characters
VESSEL-L01-01-0070	Street	Length <= 256 characters	R	R	R	The Street of the owner must have a maximum of 256 characters
VESSEL-L01-01-0071	Post office box	Length <= 25 characters	R	R	R	The Post Office Box of the owner must have a maximum of 25 characters
VESSEL-L01-01-0072	City	Length <= 100 characters	R	R	R	The City of the owner must have a maximum of 100 characters
VESSEL-L01-01-0073	Post code	Length <= 25 characters	R	R	R	The Post code of the owner must have a maximum of 25 characters
VESSEL-L01-01-0074	Country of the owner	Code from the specified list	R	R	R	The Country of the owner is not a valid ISO-3 code of a country
VESSEL-L01-01-0075	Phone number	Length <= 30characters	R	R	R	The Owner Phone number must have a maximum of 30 characters
VESSEL-L01-01-0076	Fax number	Length <= 30 characters	R	R	R	The Owner Fax number must have a maximum of 30 characters
VESSEL-L01-01-0077	Email	Length <= 50 characters	R	R	R	The Owner Email must have a maximum of 30 characters
VESSEL-L01-01-0078	Owner Nationality	Code from the specified list	E	E	E	The nationality of the owner is not a valid code
VESSEL-L01-01-0079	IMO company number of the owner	Length = 7 characters	R	R	R	The IMO company number of the owner must have 7 characters
VESSEL-L01-01-0080	Operator Name[38]	Length <= 100 characters	R	R	R	The Operator Name must have a maximum of 100 characters
VESSEL-L01-01-0083	Street	Length <= 256 characters	R	R	R	The Street of the Operator must have a maximum of 256 characters
VESSEL-L01-01-0084	Post Office box	Length <= 25 characters	R	R	R	The Post Office Box of the Operator must have a maximum of 25 characters
VESSEL-L01-01-0085	City	Length <= 100 characters	R	R	R	The City of the Operator must have a maximum of

[37] Company or family name

[38] Company or family name

BR Reference	Field	BR validation description	P1[35]	P2	P3[36]	Error message
						100 characters
VESSEL-L01-01-0086	Post code	Length <= 25 characters	R	R	R	The Post code of the Operator must have a maximum of 25 characters
VESSEL-L01-01-0087	Country of the operator	Code from the specified list	R	R	R	The Operator Country is not a valid ISO-3 code of a country
VESSEL-L01-01-0088	Phone number	Length <= 30characters	R	R	R	The Operator Phone number must have a maximum of 30 characters
VESSEL-L01-01-0089	Fax number	Length <= 30 characters	R	R	R	The Operator Fax number must have a maximum of 30 characters
VESSEL-L01-01-0100	Email	Length <= 50 characters	R	R	R	The Operator Email must have a maximum of 30 characters
VESSEL-L01-01-0101	Operator Nationality	Code from the specified list	E	E	E	The nationality of the operator is not a valid code
VESSEL-L01-01-0102	IMO company number of the operator	Length = 7 characters	R	R	R	The IMO company number of the operator must have 7 characters
VESSEL-L01-01-0103	ERS Indicator	Length = 1 character	R	R	R	The ERS Indicator must have only one character
VESSEL-L01-01-0104	ERS Indicator	Code from the specified list	E	E	E	The ERS Indicator is not a valid code
VESSEL-L01-01-0118	ERS Exemption Indicator	Length = 1 character	R	R	R	The ERS Exemption Indicator must have only one character
VESSEL-L01-01-0119	ERS Exemption Indicator	Code from the specified list	E	E	E	The ERS Exemption Indicator is not a valid code
VESSEL-L01-01-0105	AIS Indicator	Length = 1 character	R	R	R	The AIS Indicator must have only one character
VESSEL-L01-01-0106	AIS Indicator	Code from the specified list	E	E	E	The AIS Indicator is not a valid code

BR Reference	Field	BR validation description	P1[35]	P2	P3[36]	Error message
VESSEL-L01-01-0113	UVI	Check format[39]	R	R	R	The format of the UVI number is wrong
VESSEL-L01-01-0110	MMSI	Length = 9 digits	R	R	R	The MMSI must have 9 characters

8.4.1.3. LEVEL 02 – Row Validation

Set of validation rules to verify the relations between data in a declaration and with past or existing EU regulations.

BR Reference	Field	BR validation description	P1	P2	P3[40]	Error message
VESSEL-L02-01-0001	CFR & Country of Registration & Exp/Imp Country & Event Code	For an import (**IMP**) from a MS, the ISO-3 country code of the CFR (first 3 characters of CFR) should be different from the ISO-3 country code of the declaring MS	W	W	W[41]	For an imported vessel, the ISO country code in the CFR should not be the same as the one of the MS declaring the import
VESSEL-L02-01-0002	Event Date & Country of Registration & Event Code = CEN &	If a census is declared, the event date should be set to the official census date of the MS except for France and for the segment of Mayotte	R	R	R	The date of the census event is not the official date

[39] Digits 1-6 are successively (individually) multiplied by 7,6,5,4,3,2. The products of these six calculations are then totalled, and the RIGHTMOST digit of this total is the check digit.

IMO	IMO No digits	Multiply by	Product	Check digit =	Complete IMO No. =
222222	2	7	14	4	2222224
	2	6	12		
	2	5	10		
	2	4	8		
	2	3	6		
	2	2	4		
		SUM	54		
		Check digit =Rightmost	4		

[40] Value in bold means a change compared to the BRs in FRONT

[41] Just a warning because a vessel could be exported and imported back to the MS in which it has been registered first.

BR Reference	*Field*	*BR validation description*	*P1*	*P2*	*P3*[40]	*Error message*
	segment					
VESSEL-L02-01-0066	Event Date & Country of Registration = FRA & Event Code = CEN & segment from Mayotte	If a census is declared for a vessel in a segment of Mayotte, the event date should be equal or after the census date of Mayotte	R	R	R	The date of the census for the vessel from Mayotte is not correct
VESSEL-L02-01-0073	Event Date & Country of Registration (GBR)	The event date should be equal or after 01/01/2021 (for GBR)	R	R	R	Events earlier than 01/01/2021 are not allowed
VESSEL-L02-01-0003	Event Date & Country of registration & segment	The event date should be equal to or greater than the census date of the declaring MS for that segment	R	R	R	The Event Date should be equal to or greater than the census date of the declaring MS for that segment
VESSEL-L02-01-0004	Place of Registration & Country of registration & Event End Date	The place code should be in a list of places provided by the flag state. Code from a list of reference: "**Vessel Port**" code list	E	E	R	The Place of Registration is not a valid code
VESSEL-L02-01-0006	License Indicator & Event Date	Mandatory for an event period including **01/01/2003** or beyond	-	-	E	The License Indicator is mandatory from 01/01/2003
VESSEL-L02-01-0067	License Indicator & Event	The license indicator must be 'N' for an exit from the fleet	-	-	W	The fishing license must be withdrawn for an exit from the fleet. (License indicator = 'N')
VESSEL-L02-01-0007	IRCS Indicator & IRCS	If indicator is '**N**', no value in IRCS	W	W	W	A radio call sign is given in contradiction with the IRCS Indicator
VESSEL-L02-01-0008	IRCS Indicator & IRCS	If indicator is '**Y**', value in IRCS	W	W	W	The radio call sign is missing
VESSEL-L02-01-0010	IRCS & LOA	Mandatory for vessels >= **24**m LOA	-	-	E	The radio call sign is mandatory for vessels equal to or above 24m LOA
VESSEL-L02-01-0011	VMS Indicator & Event Date	VMS indicator mandatory for an event period including **01/01/2003** or beyond	-	-	E	The VMS Indicator is mandatory from date 01/01/2003
VESSEL-L02-01-0012	Main Gear Code & Event Date	No '"Unknown" gear for an event period including **01/01/2003** or beyond	-	-	E	The Main Gear cannot be unknown from 01/01/2003
VESSEL-L02-01-0013	LOA & Event Date	LOA mandatory for an event period including **01/01/2003** or beyond	-	-	**M**	The LOA is mandatory from 01/01/2003
VESSEL-L02-01-0014	LOA & LBP & Event Date	One length must be given if the event date < **01/01/2003**	W	E	E	One length is mandatory before 01/01/2003
VESSEL-L02-01-0015	LOA & LBP	LBP <= LOA	W	W	W	The LBP should be equal or lower than LOA

BR Reference	*Field*	*BR validation description*	*P1*	*P2*	*P3*[40]	*Error message*
VESSEL-L02-01-0016	GT Tonnage & Other Tonnage & Event Date	One tonnage should be given for an even date < **01/01/2004**	**M**	**M**	**M**	The GT Tonnage or other tonnages must be given before 01/01/2004
VESSEL-L02-01-0017	GT Tonnage & Event Date	GT Tonnage mandatory for an event period including **01/01/2004** or beyond	-	-	**M**	The GT Tonnage is mandatory from 01/01/2004 onwards
VESSEL-L02-01-0018	GT Tonnage & Other Tonnage & LOA	For LOA >= **15**m, GT > Other Tonnage	W	W	W	For vessels with LOA equal or greater than 15m, the GT Tonnage should be greater than the Other tonnage
VESSEL-L02-01-0019	GTs & GT Tonnage	GTs < GT Tonnage	E	E	E	The safety tonnage should be lower than the GT tonnage
VESSEL-L02-01-0020	GTs & GT Tonnage	GTs <= ***30 %*** GT Tonnage (Parameter SAF_PCT from the VESSEL_BR_PARAMETER code list)	-	-	W	The safety tonnage should be **X**% lower than the GT Tonnage
VESSEL-L02-01-0021[42]	GTs & LOA	If GTs, LOA >= **15**m			E	The safety tonnage is only relevant for vessels with LOA >= 15m
VESSEL-L02-01-0068[43]	GTs & LOA	If GTs, LOA < **24**m			E	The safety tonnage is only relevant for vessels with LOA < 24m
VESSEL-L02-01-0023	Lengths (LOA/LBP) & Tonnages (GT, Other)	Each length (if available) is compared with each tonnage (if available). Check Other Tonnage only if > 0. *See table below*	W	W	W	Ratio between lengths and tonnages are not respected
VESSEL-L02-01-0024	Lengths (LOA/LBP) & Main Power	Each length (if available) is compared with the main power (if available). *See table below*	W	W	W	Ratio between lengths and the Main Power are not respected
VESSEL-L02-01-0025	Main Power & Auxiliary Power	Auxiliary power < Main power if main power ≠ 0	W	W	W	The Auxiliary Power should be less than the Main power
VESSEL-L02-01-0026	Hull Material & Event Date	No 'Unknown' code for an event period including **01/01/2003** or beyond	-	-	E	An unknown Hull Material is not allowed after the 01/01/2003
VESSEL-L02-01-0027	EiS & Event Date	EiS <= Event Date	W	W	E	The date of Entry into Service should be before or equal to the Event Date
VESSEL-L02-01-0028	YoC & Event Date	YoC <= Event Date	W	E	E	The Year of Construction should be before or equal to the Event Date
VESSEL-L02-01-0029	YoC & EiS	YoC <= EiS year	W	E	E	The Year of Construction should be before or equal to the Entry into Service
VESSEL-L02-01-0030	Event Date & YoC &	YoC or EiS should be given for events <	W	W	E	For an event date prior to 01/01/2003, the date of

[42] Only relevant from 01/1997

[43] Only relevant from 07/2021 to 12/2027

BR Reference	*Field*	*BR validation description*	*P1*	*P2*	*P3*[40]	*Error message*
	EiS	**01/01/2003**				Entry into Service or the Year of Construction should be given
VESSEL-L02-01-0031	Event Date & EiS	EiS mandatory for an event period including **01/01/2003** or beyond	-	-	E	The Entry into Service date is mandatory from the 01/01/2003 onwards
VESSEL-L02-01-0032	YoC & Event Date & Event Code	For a **CST**, the YoC should be limited to ***3 years*** before the year of the event date (Parameter YEAR_NBR_CST from the VESSEL_BR_PARAMETER code list)	W	W	W	For a construction the Year of Construction should be limited to **X** years before the year of the declaration (event date)
VESSEL-L02-01-0033	Segment Code & Event Date & MS	Segment code should be coherent with MAGP periods or RES regime in function of the event date and the MS & Code from a list of reference: "VESSEL_SEGMENT" code list.	W	W	E	The segment Code is not valid considering the MS, the Event Date and the MAGP/RES regimes
VESSEL-L02-01-0034	Segment Code & Place Code	For RUP segment, the place code should identify a port in RUP regions	-	-	E	The Place Code is not a valid place in an outermost region (RUP)
VESSEL-L02-01-0035	Public Aid Code & Event Code & Imp/Exp Country	For transfer within EU (**IMP/EXP**), no aid allowed : aid code should be set to No Aid (**PA**)	-	-	E	No aid should be allowed for a transfer into EU
VESSEL-L02-01-0036	Public Aid Code & GT Tonnage & Event Code & Event date	If tonnage >= **400**GT and Event Code=**CST** and event date ≥ **31/12/2004**, aid code should be set to No Aid (**PA**)	-	-	W	The Public Aid Code should be "No Aid"
VESSEL-L02-01-0037	Public Aid Code & Event Code & GTs	If aid code is set (not null and different from **PA**, **EI** and **EG**) and event code ='**MOD**', the GTs should have a value	-	-	W	The Safety Tonnage should have a value
VESSEL-L02-01-0038	Imp/Exp Country & Event Code	For import/export (**IMP, EXP**), a country (ISO-3) should be mentioned	W	W	**M**	The Import/Export Country is missing
VESSEL-L02-01-0039	Imp/Exp Country & Event Code	For import/export (**IMP, EXP**), the country should not be in the black list	-	-	W	The country of import/export is black listed
VESSEL-L02-01-0040	Imp/Exp Country & Event Code	Imp/Exp country should be empty if it is not an importation/exportation (**IMP/EXP**)	E	E	E	The Import/Export Country should be empty
VESSEL-L02-01-0041	Imp/Exp Country & Country of registration	Should be different	E	E	**M**	The Import/Export Country should not be the Country of Registration
VESSEL-L02-01-0042	Exportation Type & Event Type	Exportation Type should be empty if it is not an export	E	E	E	The Exportation Type should be empty
VESSEL-L02-01-0043	Exportation Type & Event Type	Exportation Type should be provided for an export (**EXP**)	-	W	E	The Exportation Type should be provided for an export

BR Reference	*Field*	*BR validation description*	*P1*	*P2*	*P3*[40]	*Error message*
VESSEL-L02-01-0044	Operator Name & Event Date & LOA & LBP	For an event period including **01/01/2003** or beyond **,** an Operator Name is mandatory for vessels above or equal to **15**m LOA or **12**m LBP	-	-	E	An Operator Name is mandatory for vessels above or equal to 15m LOA or 12m LBP from 01/01/2003 onwards
VESSEL-L02-01-0045	Operator Name & Event Date	For an event period including **01/01/2004** or beyond an Operator Name is mandatory	-	-	E	An Operator Name is mandatory from 01/01/2004 onwards
VESSEL-L02-01-0046	Operator Street & Event Date	For an event period including **01/01/2004** or beyond an Operator Street is mandatory	-	-	E	The Street of an Operator is mandatory from 01/01/2004 onwards
VESSEL-L02-01-0070	Operator Street, City, Country & Event Date	For an active event, information of the operator address must be split in the street, city and country fields	-	-	E	For an active event, the street, city and country of the operator address must be filled in
VESSEL-L02-01-0047	Owner Name & Event Date & LOA/LBP	For an event period including **01/01/2003** or beyond the Owner Name is mandatory for vessels of **27**m LOA or **24**m LBP	-	-	W	The Owner Name is mandatory for vessels for vessels above or equal to 27m LOA or 24m LBP from 01/01/2003 onwards
VESSEL-L02-01-0048	Owner Name & Event Date	For an event period including **01/01/2004** or beyond the Owner Name is mandatory	-	-	E	The Owner Name is mandatory from 01/01/2004 onwards
VESSEL-L02-01-0049	Owner Street & Event Date	For an event period including **01/01/2004** or beyond the Owner Street is mandatory	-	-	E	The Street of the Owner is mandatory from 01/01/2004 onwards
VESSEL-L02-01-0069	Owner Street, City, Country & Event Date	For an active event, information of the owner address must be split in the street, city and country fields	-	-	E	For an active event, the street, city and country of the owner address must be filled in
VESSEL-L02-01-0052	CFR & Event Code & Country of registration	For a construction (**CST**) the Country code in CFR should be the country of registration	E	E	**M**	For a construction, the country code into the CFR is not the country of registration
VESSEL-L02-01-0053	Event Date & Event End Date & Segment Code	Segment Code should not cover different MAGP's regimes	W	W	W	Segment Code should not cover different MAGP's regimes
VESSEL-L02-01-0054	VMS Indicator & Event Date & LOA & Segment Code & Licence Indicator	VMS indicator = **Y** for an event Period including **01/01/2004** or beyond, for vessel > **18** m LOA and Licence Indicator = **Y** and Segment Code <> **AQU**	-	-	W	VMS should be present for vessels (not for aquaculture) above 18m from 01/01/2004 onwards
VESSEL-L02-01-0055	VMS Indicator & Event Date & LOA & Segment Code & Licence Indicator	VMS Indicator = **Y** for an event period including **01/01/2005** or beyond, for vessel > **15** m LOA and Licence Indicator = **Y** and segment code <> **AQU**	-	-	W	VMS should be present for vessels above 15m from 01/01/2005 onwards
VESSEL-L02-01-0056	Event Code & Public Aid Code	If Event Code = **DES**, **EXP** or **RET** then Public Aid Code should be filled in	W	E	E	The Public Aid Code should be filled in for any exit from the fleet
VESSEL-L02-01-0057	Event Date &	Event Date should be less than the transmission	-	-	R	No future events are allowed. Event Date should be

BR Reference	*Field*	*BR validation description*	*P1*	*P2*	*P3*[40]	*Error message*
	Transmission Date	date + ***3 Months*** (Parameter EVENT_NBR_MONTH from the VESSEL_BR_PARAMETER code list)				earlier than the date of transmission + **X** months
VESSEL-L02-01-0058	GT Tonnage & Event End Date	GT Tonnage mandatory for vessels in the current EU fleet	-	-	E	GT Tonnage is mandatory for vessels in the current fleet
VESSEL-L02-01-0059	LOA & Auxiliary Power	If LOA > ***30m*** then Auxiliary Power should be greater than **0** (Parameter LEN_PWR from the VESSEL_BR_PARAMETER code list)	W	W	W	Auxiliary Power should be greater than zero for a vessel length (LOA) above **X** m
VESSEL-L02-01-0060	Public Aid Code & Event Code & Event Date & Age & LOA & Main Gear code	If Event Code = **MOD** AND (Public Aid Code = **EI** or **EG**) then : Event Date >= **01/01/2007** & Age >= **5** years & - (LOA >= **12**m or LOA < **12**m AND Main Gear is a towed gear)	-	-	E	Invalid use of the public aid "EI" or "EG"
VESSEL-L02-01-0061	UVI & Event Date & Tonnage (GT, Other tonnage)	UVI is mandatory from and for an event period including **01/01/2016** or beyond and for vessels with a tonnage above or equal to **100GT**	-	-	**M**	UVI is mandatory from 01/01/2016 onwards and for vessels above or equal to 100GT
VESSEL-L02-01-0062	ERS Indicator & Event Date	ERS Indicator is mandatory from and for an event period including **01/02/2018**[44] or beyond	-	-	E	ERS Indicator is mandatory from 01/02/2018 onwards
VESSEL-L02-01-0071	ERS Exemption Indicator & Event Date	ERS Exemption Indicator is mandatory from and for an event period including **15/01/2023**[45] or beyond	-	-	E	ERS Exemption Indicator is mandatory from 15/01/2023 onwards
VESSEL-L02-01-0072	ERS Exemption Indicator & LOA	ERS Exemption indicator should be 'Y' for vessels less than 12m LOA, or 'N' for vessels larger than 15m.[46]			E	ERS Exemption Indicator is incorrect for the vessel due to its overall length.
VESSEL-L02-01-0063	AIS Indicator & Event Date	AIS indicator is mandatory from and for an event period including **01/02/2018**[47] or beyond	-	-	E	AIS Indicator is mandatory from 01/02/2018 onwards

[44] The application date from FIR

[45] The application date from IFDM Recommendation 139.

[46] For vessels in between 12m and 15m LOA, see Article 15(4) of Control Regulation No 1224/2009.

[47] The application date from FIR

BR Reference	*Field*	*BR validation description*	*P1*	*P2*	*P3*[40]	*Error message*
VESSEL-L02-01-0064	AIS Indicator & MMSI	If the AIS Indicator is set to '**Y**', the MMSI should be provided	-	-	W	MMSI is not available
VESSEL-L02-01-0065	AIS Indicator & MMSI	If the AIS Indicator is set to '**N**', the MMSI should not be provided	-	-	W	MMSI is available while the AIS indicator is set to 'N'

Lower and upper limits in length/tonnage/power comparisons

LOA or LBP (m)	[1,10[	[10,15[	[15,24[	[24,36[	[36,60[	[60,100[	[100,200]
Minimum value for Tonnage or Power	Ton :***0,01*** kW: ***0***	Ton: 1 kW : 0	4	9	90	360	720
Maximum value for Tonnage or Power	500	1000	2500	5000	10000	15000	20000

Information from that table is stored in the Vessel_BR_Limit code list.

Summary of some conditions reported in the table:

1. **Tonnages**

   Before 01/01/2004, one of the two tonnages should be given;

   Since 01/01/2004, GT Tonnage is mandatory;

2. **Lengths**

   Before 01/01/2004, one of the two lengths should be given;

   Since 01/01/2004, LOA is mandatory;

3. **Operator & Owner Info**

Since 01/01/2003, data mandatory for vessels > 15 /12m (LOA/LBP);

Since 01/01/2004, data mandatory for all vessels;

5. **EiS and YoC**

Before 01/01/2004, one of them should be given;

Since 01/01/2004, EiS is mandatory;

6. **UVI**

Since 01/01/2016, the UVI is mandatory for vessels >= 100GT in the fleet;

7. **ERS/AIS**

Since 01/02/2018, the indicators are mandatory for vessels in the fleet;

8.4.1.4. LEVEL 03 – Full Content Validation

Set of validation rules to control the data coherence through all events of a vessel of a MS.

For the validation, when a transmission does not contain the full national history of a vessel, the previous declarations of the MS making the history of that vessel are taken from the EU Fleet Register:

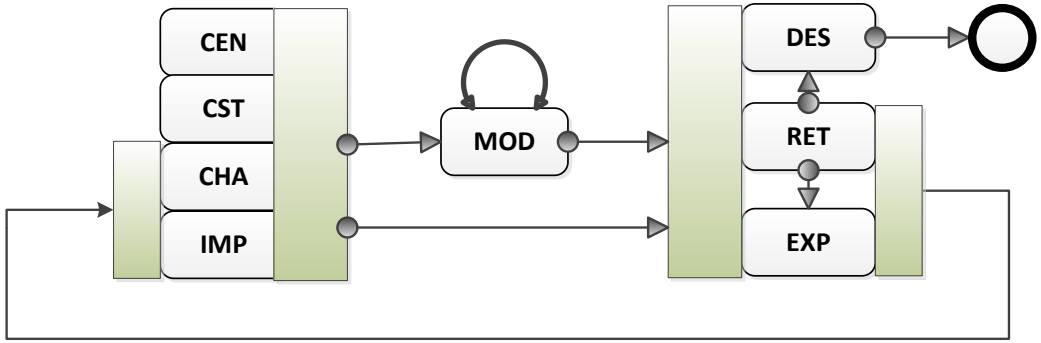
BR Reference	*Field / Data*	*Error validation description*	*P1*	*P2*	*P3*[48]	*Error message*
VESSEL-L03-01-0001	CFR	If a full history of a vessel is provided in the message, the history should start with an entry into the fleet	R	R	R	The vessel history has no event for an entry into the fleet
VESSEL-L03-01-0002	CFR & Event Type & Event Start/End Dates	The sequence of events in the national history of the vessel should be compliant with the event type transition diagram	**M**	**M**	**M**	The sequence of events for that vessel does not respect the transition rules. The message can be ignored if this event has replaced a previous event registered at the same date.
VESSEL-L03-01-0003	CFR & Event Start Date	If multiple successive events of the same event type exist at the same date (time ignored), only the last one (time included) is registered	W	W	W	This event has replaced a previous event registered at the same date
VESSEL-L03-01-0018	CFR, Event Start Date,	Multiple events the same date (time ignored) but with different event types are not allowed	R	R	R	Two events but of different types exist at the same date
VESSEL-L03-01-0005	CFR & Event Date & Tonnages (all types included GTs)	Values for tonnages cannot decrease in comparison with data from the previous event	-	-	**M**	At least one tonnage has decreased compared to the previous event
VESSEL-L03-01-0006	CFR & Event Date & Powers (Main/Aux) & Event type & Public Aid Code	Values for powers cannot decrease in comparison with data from the previous event, except if "MOD" declaration with Public Aid Code "**EI**" and "**EG**".	-	-	**M**	The main or auxiliary power has decreased compared to the previous event
VESSEL-L03-01-0007	CFR & Event Date & Lengths (LOA/LBP)	Values for lengths cannot decrease in comparison with data from the previous event	-	-	**M**	The vessel length (LOA/LBP) has decreased compared to the previous event

[48] Value in bold means a change compared to the BRs in FRONT

BR Reference	*Field / Data*	*Error validation description*	*P1*	*P2*	*P3*[48]	*Error message*
VESSEL-L03-01-0008	CFR & Event Date & Tonnages (GT/Other)	Values for tonnages (GTs excluded) should not increase more than a threshold (>= ***10%***) in comparison with data from the previous event (Parameter _TON_PCT from the VESSEL_BR_PARAMETER code list)	W	W	W	At least one tonnage has increased more than **X** % compared to the previous event
VESSEL-L03-01-0009	CFR & Event Date & GTs	Values for GTs should not increase in comparison with data from the previous event	W	W	W	The safety tonnage should not increase compared to the previous event
VESSEL-L03-01-0010	CFR & Event Date & Powers (Main/Aux)	Values for powers should not increase more than a threshold (>= ***10%***) in comparison with data from the previous event (Parameter _PWR_PCT from the VESSEL_BR_PARAMETER code list)	W	W	W	The main or auxiliary power has been increased more than **X**% compared to the previous event
VESSEL-L03-01-0011	CFR & Event Date & Lengths (LOA/LBP)	Values for lengths should not increase more than a threshold (>= ***10%***) in comparison with data from the previous event (Parameter _LEN_PCT from the VESSEL_BR_PARAMETER code list)	W	W	W	The vessel length (LOA/LBP) has been increased more than **X** % compared to the previous event
VESSEL-L03-01-0012	Event Date & Event Code	In case of a change in activity (**CHA**), the date of the previous withdrawal (**RET**) should be ***at least 6 months old.*** (Parameter _CHA_NBR_MONTH from the VESSEL_BR_PARAMETER code list)	W	W	W	The change of activity of the vessel is too recent
VESSEL-L03-01-0013	CFR & Event Code & Power of Main engine & Public Aid Code	Engine power reduction for an Event " MOD" with Public Aid Code = "**EI**" should be at least ***20%*** of the previous value (Parameter _PWR_AID_PCT from the VESSEL_BR_PARAMETER code list)	-	-	E	The main power should have been reduced by **X %** due to public aid since the last event
VESSEL-L03-01-0014	CFR & Event Code & Event Date & Public Aid Code	Aid for engine replacement ("**MOD**" event with Public Aid Code = "**EI**" or "**EG**") shouldn't be granted more than once	-	-	W	Aid for engine replacement has been granted more than once

BR Reference	*Field / Data*	*Error validation description*	*P1*	*P2*	*P3*[48]	*Error message*
VESSEL-L03-01-0015	CFR & Event Code & Event Date & Public Aid Code & Power of Main Engine	Main engine power should not increase after an Individual Aid (**EI**) for engine replacement	-	-	W	The main power has been increased after having received aid for the engine replacement
VESSEL-L03-01-0016	UVI & Event Date	May not be changed in the national history of the vessel	R	R	R	The UVI has changed in the national history of the vessel
VESSEL-L03-01-0017	UVI & Event Date	The same UVI may not be given for vessels with different CFR in the national fleet	R	R	R	The UVI has been given for different vessels in the national fleet

Event Type Transition Diagram



8.4.1.5. LEVEL 04 – Extended Validation

Set of validation rules to control the data coherence through all events of a vessel (declared by one or many MS).

This set of validation rules is applied at the level of the Commission only.

The goal is to verify the coherence between MS fleet data. It can be applied:

- From time to time on the EU Fleet Register;
- Each time on a snapshot sent by a MS. The EU Fleet Register is used to consolidate the history of each vessel. It is advised to solve the issues in bilateral with the MS involved rather than refusing the snapshot.

BR Reference	*Field*	*Error validation description*	*P1*	*P2*	*P3*	*Error message*
VESSEL-L04-01-0001	Event Type & Event Date & CFR	The sequence of events of the consolidated history of the vessel through all MS should be compliant with the event type transition diagram	**M**	**M**	**M**	The sequence of events for that vessel does not respect the transition rules. The message can be ignored if this event has replaced a previous event registered at the same date.
VESSEL-L04-01-0002	Event Type & Event Date & CFR & IMP/EXP Country	When an import (**IMP**) from a MS is declared, an export (**EXP**) or a withdrawal (**RET)** should exist for the same CFR and for a date prior or equal to the date of the IMP event.	W	W	**M**	For an import inside EU, there is no export or withdrawal previously declared
VESSEL-L04-01-0003	Event Type & CFR & IMP/EXP & Country & Tonnages (GT, Other) & Powers (main, aux) & Lengths (LOA/LBP) & Hull Material & YoC	For an import (**IMP**) from a MS, values for lengths, tonnages, powers, hull, YoC should be equal to values from the previous declaration of the vessel consolidated history . For tonnages, engine powers and lengths: warning will be issued only if values changed by more than ***10%*****.** (Parameter _DIFF_PCT from the VESSEL_BR_PARAMETER code list)	-	-	**M**	Values for tonnages/lengths/powers, hull or year of construction have changed compared to the previous event
VESSEL-L04-01-0004	Event Type & Event Date & Exportation Type & CFR	A vessel previously exported for a joint enterprise (**SM**) should not come back into the EU fleet (CFR is definitively lost)	-	-	E	The vessel has been exported for a joint enterprise and cannot be later on active in the EU fleet
VESSEL-L04-01-0005	CFR	Should be unique for vessels in the EU fleet at the date of the validation process	-	-	**M**	The CFR is not unique in the current EU fleet
VESSEL-L04-01-0006	IRCS	Should be unique for vessels in the fleet at the date of the validation process	-	-	**M**	The radio call sign is not unique for vessels in the current EU fleet

VESSEL-L04-01-0016	Country & External marking	Should be unique for vessels in the national fleet at the date of the validation process	-	-	**M**	The external marking is not unique for vessels present in the national fleet
VESSEL-L04-01-0007	Event Type & CFR & IMP/EXP Country & Tonnages (GT, Other) & Powers (main, aux) & Lengths (LOA/LBP) & Hull Material & YoC	For an export (**EXP**) to a MS, values for lengths, tonnages, powers, hull, YoC should be equal to values of the next declaration in the vessel consolidated history. For Tonnages, Engine powers and Lengths: warning will be issued only if values changed by more than ***10%*** (Parameter _DIFF_PCT from the VESSEL_BR_PARAMETER code list)	-	-	**M**	Values for tonnages/lengths/powers, hull or year of construction have changed compared to the next event
VESSEL-L04-01-0008	Event Type & IMP/EXP Country & Event Date & CFR	For an export (**EXP**) to a MS, an import (**IMP)** or a change in activity (**CHA)** should exist for the same CFR and for a date later or equal to the date of the EXP event.	W	W	**M**	For an export, there is no import or change of activity previously declared
VESSEL-L04-01-0009	UVI	Should be unique for vessels in the fleet history	-	-	**R**	The UVI is not unique in the EU fleet
VESSEL-L04-01-0010	UVI	May not be changed in the consolidated history of the vessel	-	-	**R**	The UVI has changed in the history of the vessel
VESSEL-L04-01-0011	MMSI	Should be unique for vessels in the fleet at the date of the validation process	-	-	W	The MMSI is not unique for vessels in the current EU fleet
VESSEL-L04-01-0012	Event Type & Event Date & Country & CFR	After a destruction, the CFR cannot be reuse.	-	-	**M**	The CFR has been reused for another vessel
VESSEL-L04-01-0013	Event Type & Event Date & Country & CFR & YoC & Reference Tonnage & Main Power & LOA	When a vessel has left the fleet, if it reappears in another MS, the CFR cannot be changed. The matching for comparison is done on the YoC, and the rounded main power, reference tonnage and LOA.	-	-	**W**	A new CFR has been perhaps given for an existing vessel entering again in the EU fleet
VESSEL-L04-01-0014	CFR	All CFR referenced by an active FLAP[49] must exist in the EU Fleet Register	-	-	**M**	The vessel (CFR) is missing in the EU Fleet Register
VESSEL-L04-01-0015	Event Date & CFR	The vessel event is replaced or updated but it is associated to an active FLAP	-	-	W	The characteristics of the vessel (CFR) having an active authorisation have been modified

[49] Fishing Licence, Authorisation & Permit

8.4.1.6. LEVEL 05 – Impact Assessment

Data is the last transmission is compared with the content of the EU Fleet Register or the previous transmission to identify the impacts of integrating the new fleet data set.

- Some statistics are computed for information only:

For a snapshot:

For statistics based on the current and previous snapshots[50]:

- number of declarations & evolution (%), number of rejected declarations, number of declarations with major errors, errors & warnings & evolution (%);
- number of vessels & evolution (%), number of vessels with major errors, errors & warnings & evolution (%);

For statistics based on the current received snapshot and the EU Fleet register[51]:

- number of vessels & evolution(%) in the period covered by the snapshot;
- number and list of missing, new, active vessels;
- number of rejected active vessels and active vessels with errors (major or not)
- for full snapshots, compare global values (Nr. Of vessels, total capacity in GT and kW) at **1-5-2004** and at **system date** and evolution;

For a submission:

- For SUB-VCD only:
  - number of declarations, number of rejected declarations, number of declarations with major errors, errors & warnings;
  - statistics based on the submission and the EU Fleet register: capacity in GT and kW at system date in both data sources based on the last event.

[50] The evolution is only computed for full snapshots

[51] Statistics could be different from the previous ones due to submissions accepted after the previous snapshot integrated in the register

8.4.2. For Fishing Authorisations management

The message types used for such submissions are **SUB** or **SUB-VED**.

8.4.2.1. LEVEL 00 – Integrity Control

The goal of this level is mainly to verify the structure of the XML message and data types.

If the IT processes implementing the generation of such messages have been extensively tested before to be used in a production environment, the huge majority of the rejection cases should not be detected in operational exchanges.

The entire data in the message is rejected if the structure of the XML message is not compliant with the UN/FLUX Vessel XSD or if the content is not in line with the definition of the message.

The validation structure is mainly performed by a XML parser. In case of non compliance with the XML schema, a generic message[52] must be sent back to the sender. The message cannot be registered by the business system.

In addition to the parser verifications, and if the structure is valid, the controls are further done by business rules. The field names are the BRS Business terms.

The full list of BR in this level is processed **if data is provided** but at the end of the validation, if at least one BR has failed, the other validation levels are not processed.

BR Reference	***Field***	***Validation***		***Message***
VESSEL-L00-00-0000	FLUXVesselMessage	Verifies whether or not the message is a valid XML	R	An invalid XML message has been received.
VESSEL-L00-00-0001	FLUX_Report Document/Identification	Mandatory	R	The report identification is not provided
VESSEL-L00-00-0002	FLUX_Report Document/Identification	The identifier must be a valid UUID format	R	The report identification has not a valid format
VESSEL-L00-00-0003	FLUX_Report	The UUID is unique (he does not	R	The report identification is not unique

[52] It must be a message common to all FLUX system, so not included in this document.

BR Reference	*Field*	*Validation*		*Message*
	Document/Identification	reference a report already received)		
VESSEL-L00-00-0009	FLUX_Report Document/Type	Mandatory	R	The type of report is not provided
VESSEL-L00-00-0045	FLUX_Report Document/Type	ListId=FLUX_VESSEL_REPORT_TYPE	R	The list referenced in the Report Type is not a valid
VESSEL-L00-00-0008	FLUX_Report Document/Type	Code from the specified list	R	The Report Type is not a valid code
VESSEL-L00-00-0006	FLUX_Report Document/Creation	Mandatory	R	The date of the report is not provided
VESSEL-L00-00-0007	FLUX_Report Document/Creation	Datetime format	R	The report date has not a valid format
VESSEL-L00-00-0093	FLUX_Report Document/Creation	Creation date not in the future	R	The creation date of the report should not be in the future
VESSEL-L00-00-0011	FLUX_Report Document/Purpose	Mandatory	R	The purpose code is not provided
VESSEL-L00-00-0046	FLUX_Report Document/Purpose	ListId= FLUX_GP_PURPOSE	R	The list referenced in Purpose is not valid
VESSEL-L00-00-0010	FLUX_Report Document/Purpose	Value=9	R	The purpose code is not valid
VESSEL-L00-00-0013	FLUX_Party/Identification	Mandatory	R	The sender identification of the report is not provided
VESSEL-L00-00-0047	FLUX_Party/Identification	SchemeId= FLUX_GP_PARTY	R	The list referenced for the Party identifier is not valid
VESSEL-L00-00-0012	FLUX_Party/Identification	Code from the specified list	R	The sender identification is not a valid code
VESSEL-L00-00-0014	FLUX_Party/Identification & the sender (MS) from the Transportation Layer	The party sending the message must be the same as the one from the FR value of the FLUX TL envelope. Only the part before the first colon is to be considered: Eg. ABC:something => only ABC refrsr to the party for the purpose of this rule.	R	The sender identification in the report is not the flag state sending the message
VESSEL-L00-00-0020	FLUX_Party/Identification & FLUX_Report Document/Type	For a **submission** (any types): the blocking indicator for the flag state in the fleet system is set to 'Y'	R	No submission is accepted by the system. Please contact the Commission.
VESSEL-L00-00-0021	FLUX_Report Document/Type & Vessel_ Transport_ Means / Identification	For a **submission** (any types), only one vessel must be present	R	The submission should not contain more than one vessel
VESSEL-L00-00-0022	FLUX_Report Document/Type & Vessel_Event/Occurence	For a **submission** of type SUB and SUB-VED, only one event must be	R	This type of submission may not contain historical data.

BR Reference	*Field*	*Validation*		*Message*
		present		
VESSEL-L00-00-0148	FLUX_Report Document/Type, Vessel_ Transport_ Means / Identification, Vessel_Country/Identification	For a **submission** of type SUB-VED, the vessel referenced in the message must exist in the Vessel Register and the flag and vessel identification must correspond to the last vessel event in the Vessel Register	R	The submission references a vessel that does not exist in the Vessel Register or it has changed flag.
VESSEL-L00-00-0149	FLUX_Report Document/Type & Vessel_ Transport_ Means / Type & Vessel_Country/Identification	A **submission** of type SUB must not contain data about an EU Fishing vessel (based on vessel type and CFR value)	R	This type of submission may not contain data about an EU fishing vessel
VESSEL-L00-00-0048	Vessel_Event/Type	ListId=VESSEL_EVENT	R	The list referenced for the Vessel event is not valid
VESSEL-L00-00-0150	Vessel_Event/Type	Type code = MOD[53]	R	The Event Type must be MOD or RET for such submission
VESSEL-L00-00-0156	Vessel_Event/Occurrence	Mandatory value	R	The Date of Event is not provided
VESSEL-L00-00-0068	Vessel_Event/Occurrence	Datetime type	R	The Date of Event is not in a valid format
VESSEL-L00-00-0157	Vessel_ Transport_ Means / Identification	Mandatory	R	Vessel identification is not provided
VESSEL-L00-00-0027	Vessel_ Transport_ Means / Identification	SchemeId=Code from the FLUX_VESSEL_ID_TYPE list	R	The Transport Means Identification is not a valid code.
VESSEL-L00-00-0146	Vessel_ Transport_ Means / Type	Mandatory value	R	The Transport Means Type is not provided.
VESSEL-L00-00-0050	Vessel_ Transport_ Means / Type	ListId= VESSEL_TYPE	R	The list referenced for the event type is not valid
VESSEL-L00-00-0025	Vessel_ Transport_ Means / Type	Code from the specified list[54]	R	The Transport Means Type is not a valid code.
VESSEL-L00-00-0069	Vessel_Transport_Means/Identification & SchemeID=UVI	Numerical value	R	The UVI number is not numerical
VESSEL-L00-00-0070	Vessel_Transport_Means/Identifi	Numerical value	R	The MMSI number is not numerical

[53] There is no history kept in the Vessel Register for data transmitted in the context of Fishing Authorisation management. Therefore the event type is always a modification.

[54] Important to control in this validation level to know which business rules to apply in the next levels

BR Reference	*Field*	*Validation*		*Message*
	cation & SchemeID=MMSI			
VESSEL-L00-00-0071	Vessel_Transport_Means/Speed	Numerical value	R	The vessel speed is not numerical
VESSEL-L00-00-0072	Vessel_Transport_Means/Trawling speed	Numerical value	R	The trawling speed is not numerical
VESSEL-L00-00-0094	Vessel_Transport_Means/Speed	For speed, the default unit must be **KNT**	R	The Unit code is wrong for speed
VESSEL-L00-00-0095	Vessel_Transport_Means/Trawling speed	For speed, the default unit must be **KNT**	R	The Unit code is wrong for speed
VESSEL-L00-00-0145	Vessel_Country/Identification	SchemeId=TERRITORY	R	The list referenced for the flag state is not valid
VESSEL-L00-00-0051	Registration_ Location /Type	ListId= FLUX_VESSEL_REGSTR_TYPE	R	The list referenced for the registration location type is not valid
VESSEL-L00-00-0026	Registration_ Location /Type	Code from the specified list	R	The Registration Type is not a valid code.
VESSEL-L00-00-0053	Registration_Location/Identification	SchemeId= VESSEL_PORT	R	The list referenced for the place of registration of the vessel is not valid
VESSEL-L00-00-0052	Registration_Location/Country	ListId= TERRITORY	R	The list referenced for the Country of Location is not valid
VESSEL-L00-00-0096	Vessel Historical_Characteristic/ Type	ListId=FLUX_VESSEL_HIST_CHAR	R	The list referenced for the type of historical characteristic is not valid
VESSEL-L00-00-0073	Vessel_Historical_ Characteristic /Value & Type = "DATE"	Date type	R	The previous flag state acquisition has not a valid format
VESSEL-L00-00-0097	Vessel_Historical_ Characteristic /Value & Type = "FLAG"	ListId=TERRITORY	R	The list referenced for the previous flag state is not valid
VESSEL-L00-00-0074	Construction_Event/Occurrence	Date type	R	The date of construction has not a valid format
VESSEL-L00-00-0054	Construction_ Location /Type	ListId= FLUX_VESSEL_CONSTR_TYPE	R	The list referenced for the Construction Type is not valid
VESSEL-L00-00-0034	Construction_ Location /Type	Code from the specified list	R	The Construction Type is not a valid code.
VESSEL-L00-00-0055	Construction_Location/Country	ListId= TERRITORY	R	The list referenced for the country of construction is not valid
VESSEL-L00-00-0056	Vessel_ Engine /Role	ListId= FLUX_VESSEL_ENGINE_ROLE	R	The list referenced for Engine Role is not valid
VESSEL-L00-00-0033	Vessel_ Engine /Role	Code from the specified list	R	The Engine Role is not a valid code.
VESSEL-L00-00-0041	Vessel_ Engine /Power	The unit must be **KWT**	R	The Unit code is wrong for powers

BR Reference	*Field*	*Validation*		*Message*
VESSEL-L00-00-0075	Vessel_Engine /Power	Numerical value	R	The power is not numerical
VESSEL-L00-00-0098	Vessel_ Engine /Propulsion_type	ListId=PROPELLER_TYPE	R	The list referenced for Propulsion Type is not valid
VESSEL-L00-00-0057	Vessel_ Dimension /Type	ListId= FLUX_VESSEL_DIM_TYPE	R	The list referenced for the Dimension Type is not valid
VESSEL-L00-00-0032	Vessel_ Dimension /Type	Code from the specified list	R	The Dimension Type is not a valid code.
VESSEL-L00-00-0039	Vessel_ Dimension /Type & Vessel_ Dimension /Value	For Type, the unit must be the default value from the FLUX_VESSEL_DIM_TYPE	R	The Unit code is wrong for the vessel dimension
VESSEL-L00-00-0076	Vessel_Dimension/Value	Numerical value	R	The dimension of the vessel is not numerical
VESSEL-L00-00-0058	Fishing_ Gear /Type	ListId= GEAR_TYPE	R	The list referenced for the Gear Type is not valid
VESSEL-L00-00-0059	Fishing_ Gear /Role	ListId= FLUX_VESSEL_GEAR_ROLE	R	The list referenced for the Gear Role is not valid
VESSEL-L00-00-0031	Fishing_ Gear /Role	Code from the specified list	R	The Gear Role is not a valid code.
VESSEL-L00-00-0038	Vessel_Event & Fishing_Gear/Role & Type	For a specific Vessel Event, only one occurrence of a code in allowed for subsidiary gear type	W	A subsidiary gear code is used more than once and will be ignored.
VESSEL-L00-00-0060	Vessel_ Equipment_Characteristic/Type	ListId= FLUX_VESSEL_EQUIP_ TYPE	R	The list referenced for the vessel equipment characteristic type is not valid
VESSEL-L00-00-0028	Vessel_ Equipment_Characteristic/Type	Code from the specified list	R	The Equipment Characteristic Type is not a valid code.
VESSEL-L00-00-0113	Vessel_ Equipment_Characteristic/ Type & Value	ListId=BOOLEAN_TYPE for Type like '%_IND'	R	The list referenced for the indicators in the vessel equipment characteristic is not valid
VESSEL-L00-00-0114	Vessel Equipment Characteristic/ Type & Value	ListId=NAVIG_EQUIP_TYPE For type = NAVIG_EQ	R	The list referenced for the navigation equipment in the vessel equipment characteristic is not valid
VESSEL-L00-00-0115	Vessel Equipment Characteristic/ Type & Value	ListId= COMM_EQUIP_TYPE For type = COMM_EQ	R	The list referenced for the communication equipment is not valid
VESSEL-L00-00-0116	Vessel Equipment Characteristic/ Type & Value	ListId= FISHFINDER_EQUIP_TYPE For type = FISHFINDER_EQ	R	The list referenced for the fish finder is not valid
VESSEL-L00-00-0117	Vessel Equipment Characteristic/ Type & Value	ListId= DECK_MACHINERY_TYPE For type = DECK_MACHINERY	R	The list referenced for the deck machinery is not valid
VESSEL-L00-00-0118	Vessel Equipment Characteristic/ Type & Value &	ListId= VMS_SATELLITE_OPERATOR For type = VMS_SAT_OPER_C	R	The list referenced for the satellite operator is not valid
VESSEL-L00-00-0119	Vessel_Equipment/Value & Type	Numerical value	R	The skiff length is not numerical

BR Reference	*Field*	*Validation*		*Message*
	= SKIFF_LGTH			
VESSEL-L00-00-0120	Vessel_Equipment/Value & Type = SKIFF_LGTH	The unit must be **MTR**	R	The Unit code is wrong for lengths
VESSEL-L00-00-0121	Vessel_Equipment/Value & Type = SKIFF_PWR	Numerical value	R	The skiff power is not numerical
VESSEL-L00-00-0122	Vessel_Equipment/Value & Type = SKIFF_PWR	The unit must be **KWT**	R	The Unit code is wrong for powers
VESSEL-L00-00-0123	Vessel_Equipment/Value & Type = BOAT_LGTH	Numerical value	R	The speed boat length is not numerical
VESSEL-L00-00-0124	Vessel_Equipment/Value & Type = BOAT_LGTH	The unit must be **MTR**	R	The Unit code is wrong for lengths
VESSEL-L00-00-0125	Vessel_Equipment/Value & Type = BOAT_PWR	Numerical value	R	The speed boat power is not numerical
VESSEL-L00-00-0126	Vessel_Equipment/Value & Type = BOAT_PWR	The unit must be **KWT**	R	The Unit code is wrong for powers
VESSEL-L00-00-0081	Vessel_Equipment/Value & Type = FUEL_CAP	Numerical value	R	The capacity of the full tank is not numerical
VESSEL-L00-00-0127	Vessel_Equipment/Value & Type = FUEL_CAP	The unit must be **LTR**	R	The Unit code is wrong for capacity
VESSEL-L00-00-0080	Vessel_Equipment/Value & Type = LIGHTS_NBR	Numerical value	R	The number of fishing lights is not numerical
VESSEL-L00-00-0129	Vessel_Equipment/Value & Type = LIGHTS_NBR	The unit must be **C62**	R	The Unit code is wrong for individual unit
VESSEL-L00-00-0061	Vessel_ Administrative_Characteristic/Type	ListId= FLUX_VESSEL_ADMIN_TYPE	R	The list referenced for the Administrative Characteristic Type is not valid
VESSEL-L00-00-0029	Vessel_ Administrative_Characteristic/Type	Code from the specified list	R	The Administrative Characteristic Type is not a valid code.
VESSEL-L00-00-0130	Vessel_ Administrative_Characteristic/Value & Type=LICENCE	ListId= BOOLEAN_TYPE	R	The list referenced for the license indicator is not valid
VESSEL-L00-00-0131	Vessel_ Administrative_Characteristic/Value & Type=SEG	ListId= VESSEL_SEGMENT	R	The list referenced for the segment is not valid
VESSEL-L00-00-0132	Vessel_	ListId= VESSEL_EXPORT_TYPE	R	The list referenced for the type of export is not valid

BR Reference	*Field*	*Validation*		*Message*
	Administrative_Characteristic/Value & Type=EXPORT			
VESSEL-L00-00-0133	Vessel_ Administrative_Characteristic/Value & Type=AID	ListId= VESSEL_PUBLIC_AID_TYPE	R	The list referenced for the public aid is not valid
VESSEL-L00-00-0082	Vessel_Admin_Characteristic/Value & Type = 'EIS'	Date type	R	The Entry into Service date is not a date
VESSEL-L00-00-0083	Vessel_Admin_Characteristic/Value & Type = 'PURCHASE_YEAR'	Date type	R	The year of purchase is not a date
VESSEL-L00-00-0062	Vessel_ Technical_Characteristic/Type	ListId= FLUX_VESSEL_TECH_TYPE	R	The list referenced for the Technical Characteristic Type is not valid
VESSEL-L00-00-0030	Vessel_ Technical_Characteristic/Type	Code from the specified list	R	The Technical Characteristic Type is not a valid code.
VESSEL-L00-00-0134	Vessel_ Technical_Characteristic/value & Type=HULL	ListId= VESSEL_HULL_TYPE	R	The list referenced for the hull is not valid
VESSEL-L00-00-0135	Vessel_Storage_Char/Type	ListId=STORAGE_TYPE	R	The list referenced for the Storage Type is not valid
VESSEL-L00-00-0155	Vessel_Storage_Char/ Capacity_value UnitCode	Code from the list	R	The Unit code is wrong for the capacity value
VESSEL-L00-00-0084	Vessel_Storage_Char/Capacity_value	Numerical value	R	The storage capacity is not numerical
VESSEL-L00-00-0136	Vessel_Storage_Char/Capacity_value & Type=STR_GEN	The unit must be **MTQ** (Cubic meter)	R	The Unit code is wrong for volume
VESSEL-L00-00-0152	Vessel_Storage_Char/Capacity_value & Type=FISH_HOLD	The unit must be **MTQ** (Cubic meter) or **TNE** (Metric Ton)	R	The Unit code is wrong for volume
VESSEL-L00-00-0153	Vessel_Storage_Char/Capacity_value & Type=FREEZ	The unit must be **MTQ** (Cubic meter) **or L71** (ton/day)	R	The Unit code is wrong for volume
VESSEL-L00-00-0085	Vessel_Storage_Char/Temperature_value	Numerical value	R	The value of the temperature is not numerical
VESSEL-L00-00-0138	Vessel_Storage_Char/Temperature_value	The unit must be **CEL**	R	The Unit code is wrong for temperature
VESSEL-L00-00-0086	Vessel_Storage_Char/Unit_value	Numerical value	R	The storage unit is not numerical
VESSEL-L00-00-0139	Vessel_Storage_Char/Unit_value	The unit must be **C62** (number)	R	The Unit code is wrong for number of storage unit

BR Reference	*Field*	*Validation*		*Message*
VESSEL-L00-00-0140	FLUX Picture/Type	ListId=VESSEL_PHOTO_TYPE	R	The list referenced for the picture type is not valid
VESSEL-L00-00-0087	Vessel_Crew/Size	Numerical value	R	The information on the crew is not numerical
VESSEL-L00-00-0141	Vessel_Crew/Size	The unit must be **C62** (number)	R	The Unit code is wrong for the size of the crew
VESSEL-L00-00-0088	Vessel_Crew/Maximum_size	Numerical value	R	The information on the crew is not numerical
VESSEL-L00-00-0142	Vessel_Crew/Maximum_size	The unit must be **C62** (number)	R	The Unit code is wrong for the maximum size of the crew
VESSEL-L00-00-0089	Vessel_Crew/Minimum_size	Numerical value	R	The information on the crew is not numerical
VESSEL-L00-00-0143	Vessel_Crew/Minimum_size	The unit must be **C62** (number)	R	The Unit code is wrong for the minimum size of the crew
VESSEL-L00-00-0063	Contact_ Party /Role	ListId= FLUX_CONTACT_ROLE	R	The list referenced for the Party Role is not valid
VESSEL-L00-00-0035	Contact_ Party /Role	Code from the specified list	R	The Party Role is not a valid code.
VESSEL-L00-00-0064	Contact_ Party /Nationality Country	ListId= TERRITORY	R	The list referenced for the nationality of the party is not valid
VESSEL-L00-00-0144	Vessel_Event & Contact-Party/Identification	Numerical value	R	The IMO company number is not numerical
VESSEL-L00-00-0036	Contact_ Party /Universal_ Communication /Channel	Code from the specified list	R	The Communication Use code is not a valid code.
VESSEL-L00-00-0067	Structured_Address/Country	ListId= TERRITORY	R	The list referenced for the country in the address is not valid

8.4.2.2. LEVEL 01 – Data Field Validation

Set of validation rules applied on each data of a declaration **when the data is provided**. The field names are the EU Business terms mentioned in the previous tables.

Business information that must be communicated (mandatory) are identified in this level (ex: BR Reference n°0001, ...).

Core data[55][56]

BR Reference	*Field*	*Validation*	*Result*	*Message*
VESSEL-L01-02-0001	Country of Registration	Mandatory value	R	The country of registration is mandatory
VESSEL-L01-02-0002	Country of Registration	Code from the TERRITORY code list	R	The Country of Registration is not a valid ISO-3 code of a third country
VESSEL-L01-02-0003	Country of Registration	Should be the same as the country sending the message	R	The Country of Registration is different from the country sending the message
VESSEL-L01-02-0041	Event	Mandatory value	R	The Event Code is mandatory
VESSEL-L01-02-0043	Event Date	Mandatory value	R	The Event Date is mandatory
VESSEL-L01-02-0044	Event Date	Not in the future	R	The Event Date cannot be in the future
VESSEL-L01-02-0045	UVI	Check format	R	The format of the UVI number is wrong
VESSEL-L01-02-0046	IRCS	Check format corresponding to the entry in the FLUX_VESSEL_ID_TYPE code list	**R**	The format of the previous IRCS is wrong
VESSEL-L01-02-0007	UVI & IRCS & registration number	One of these identifiers is mandatory	R	The UVI, IRCS or registration number is mandatory for non fishing vessels

[55] Any violation of a BR on core data of a non-EU fishing vessel must be a rejection

[56] The BR reference about NT, NRT, CART, LRE and LOTH data must be adapted due to a move from the extended data part to this one.

VESSEL-L01-02-0008	IRCS & Country of Registration	Mandatory for non-EU (foreign) fishing vessel	R	The Radio Call Sign is mandatory for non-EU fishing vessel
VESSEL-L01-02-0009	External Marking	Length <= 14 characters max	R	The External Marking must have a maximum of 14 characters
VESSEL-L01-02-0010	External Marking & Country of Registration	Mandatory for non-EU (foreign) fishing vessel	R	The external marking is mandatory for non-EU fishing vessel
VESSEL-L01-02-0011	Vessel Name	Length <= 40 characters max	R	The Vessel Name must have a maximum of 40 characters
VESSEL-L01-02-0012	Vessel Name & Country of Registration	Mandatory for non-EU (foreign) fishing vessel	R	The vessel name is mandatory for non-EU fishing vessel
VESSEL-L01-02-0014	LOA	Format: XXXX.YY with 2 optional decimals	R	The LOA should have a maximum of 4 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-02-0015	LOA	>= lower limit : ***1*** & <= upper limit : ***200*** (Parameters LEN_LOW and LEN_UP from the VESSEL_BR_PARAMETER code list)	E	The LOA value is out of range [**X**, **Y**]
VESSEL-L01-02-0016	LOA	Mandatory for non-EU (foreign) fishing vessel	E	The LOA is mandatory for non EU fishing vessels
VESSEL-L01-02-0018	LBP	Format: XXX.YY with 2 optional decimals	R	The LBP should have a maximum of 3 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-02-0019	LBP	>= lower limit : ***1*** & <= upper limit : ***200*** (Parameters LEN_LOW and LEN_UP from the VESSEL_BR_PARAMETER code list)	E	The LBP value is out of range [**X**, **Y**]
VESSEL-L01-02-0025	GT Tonnage	Format: XXXXX.YY with 2 optional decimals	R	The GT Tonnage should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-02-0026	GT Tonnage	>= lower limit : ***0*** & <= upper limit : ***20000*** (Parameters TON_LOW and TON_UP from the VESSEL_BR_PARAMETER code list)	E	The GT Tonnage is out of range [**X**, **Y**]
VESSEL-L01-02-0028	Other Tonnage	Format: XXXXX.YY with 2 optional decimals	R	The Other Tonnage should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-02-0029	Other Tonnage	>= lower limit : ***0*** & <= upper limit :	E	The Other Tonnage value is out of range [**X**, **Y**]

		20000 (Parameters TON_LOW and TON_UP from the VESSEL_BR_PARAMETER code list)		
VESSEL-L01-02-0039	Main Power	Format: XXXXX.YY with 2 optional decimals	R	The Main Power should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-02-0040	Main Power	>= lower limit : ***0*** & <= upper limit : ***20000*** (Parameters PWR_LOW and PWR_UP from the VESSEL_BR_PARAMETER code list)	E	The Main Power value is out of range [**X**, **Y**]
VESSEL-L01-00-0691	LRE	Format: XXX.YY with 2 optional decimals	R	The registered length should have a maximum of 3 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-00-0692	LRE	>= lower limit : ***1*** & <= upper limit : ***200*** (Parameters LEN_LOW and LEN_UP from the VESSEL_BR_PARAMETER code list)	R	The registered length value is out of range [**X**, **Y**]
VESSEL-L01-00-0693	LRE	Only for non-fishing vessels	R	The registered length is only for non-fishing vessels
VESSEL-L01-00-0694	Other length	Format: XXX.YY with 2 optional decimals	R	The other length should have a maximum of 3 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-00-0695	Other length	>= lower limit : ***1*** & <= upper limit : ***200*** (Parameters LEN_LOW and LEN_UP from the VESSEL_BR_PARAMETER code list)	R	The other length value is out of range [**X**, **Y**]
VESSEL-L01-00-0696	Other length	Only for non-fishing vessels	R	The other length is only for non-fishing vessels
VESSEL-L01-00-0697	NT	Format: XXXXX.YY with 2 optional decimals	R	The Net Tonnage should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-00-0698	NT	>= lower limit : ***0*** & <= upper limit : ***20000*** (Parameters TON_LOW and TON_UP from the VESSEL_BR_PARAMETER code list)	R	The Net Tonnage value is out of range [**X**, **Y**]

VESSEL-L01-00-0700	NRT	Format: XXXXX.YY with 2 optional decimals	R	The Net Registered Tonnage should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-00-0701	NRT	>= lower limit : ***0*** & <= upper limit : ***20000*** (Parameters TON_LOW and TON_UP from the VESSEL_BR_PARAMETER code list)	R	The Net Registered Tonnage value is out of range [**X**, **Y**]
VESSEL-L01-00-0703	Carrying capacity	Format: XXXXX.YY with 2 optional decimals	R	The Carrying capacity should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-00-0704	Carrying capacity	>= lower limit : ***0*** & <= upper limit : ***20000*** (Parameters TON_LOW and TON_UP from the VESSEL_BR_PARAMETER code list)	R	The Carrying capacity value is out of range [**X**, **Y**]
VESSEL-L01-00-0705	Carrying capacity	Only for non-fishing vessels	R	The Carrying capacity is only for non-fishing vessels

Vessel Extended data[57]

BR Reference	*Validation Field*	*Business Rule*	*Res.*	*Message*
VESSEL-L01-00-0507	FFA vessel ID	Length <= 12 characters max	R	The FFA id must have a maximum of 12 characters
VESSEL-L01-00-0706	Third Party Vessel identification	Code from the specified list	R	The RFMO code of the Third Party Vessel Id is wrong
VESSEL-L01-00-0635	Third Party Vessel identification	Length <= 13 characters max	R	The Third Party Vessel id must have a maximum of 13 characters
VESSEL-L01-00-0502	Vessel speed	no negative value	R	The vessel speed must be a positive number
VESSEL-L01-00-0636	Vessel speed	Format: XXXXX.YY with 2 optional decimals	R	The vessel speed should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-00-0505	Trawling speed	no negative value	R	The trawling speed must be a positive number
VESSEL-L01-00-0637	Trawling speed	Format: XXXXX.YY with 2 optional decimals	R	The vessel speed should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-00-0638	Place of registration	Length <= 80 characters max	R	The Place of Registration must have a maximum of 80 characters
VESSEL-L01-00-0639	Previous Flag State	Code from the specified list	R	The previous Flag State is not a valid code
VESSEL-L01-00-0707	Previous IRCS	Check format corresponding to the entry in the	**R**	The format of the previous IRCS is wrong

[57] Any violation of a BR on VED must be a rejection

BR Reference	*Validation Field*	*Business Rule*	*Res.*	*Message*
		FLUX_VESSEL_ID_TYPE code list		
VESSEL-L01-00-0641	Previous Vessel Name	Length <= 40 characters max	R	The previous Vessel Name must have a maximum of 40 characters
VESSEL-L01-00-0642	Previous Owner Name	Length <= 100 characters max	R	The previous Owner Name must have a maximum of 100 characters
VESSEL-L01-00-0643	Previous Owner Address	Length <= 256 characters max	R	The previous Owner Address must have a maximum of 256 characters
VESSEL-L01-00-0644	Place of construction	Code from the specified list	R	The Place of Construction is not a valid code
VESSEL-L01-00-0520	Engine Mark	Length <= 50 characters max	R	The engine mark must have a maximum of 50 characters
VESSEL-L01-00-0521	Engine Model	Length <= 50 characters max	R	The engine model must have a maximum of 50 characters
VESSEL-L01-00-0522	Propeller Type	Code from the specified list	R	The Propeller type is not a valid code
VESSEL-L01-00-0524	Depth	no negative value	R	The depth must be a positive number
VESSEL-L01-00-0645	Depth	Format: XXX.YY with 2 optional decimals	R	The depth should have a maximum of 3 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-00-0527	Moulded depth	no negative value	R	The Moulded depth must be a positive number
VESSEL-L01-00-0646	Moulded depth	Format: XXX.YY with 2 optional decimals	R	The Moulded depth should have a maximum of 3 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-00-0530	Draught	no negative	R	The Draught must be a positive number

BR Reference	*Validation Field*	*Business Rule*	*Res.*	*Message*
VESSEL-L01-00-0647	Draught	Format: XXX.YY with 2 optional decimals	R	The Draught should have a maximum of 3 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-00-0533	Breadth	no negative value	R	The Breadth must be a positive number
VESSEL-L01-00-0648	Breadth	Format: XXX.YY with 2 optional decimals	R	The Breadth should have a maximum of 3 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-00-0649	Deadweight	no negative value	R	The Deadweight must be a positive number
VESSEL-L01-00-0650	Deadweight	Format: XXX.YY with 2 optional decimals	R	The Deadweight should have a maximum of 3 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-00-0547	Navigation equipment details (code)	Code from the specified list	R	The Navigation equipment is not a valid code
VESSEL-L01-00-0708	Navigation equipment details (text)	Length <= 300 characters max	R	The Navigation equipment details must have a maximum of 300 characters
VESSEL-L01-00-0548	Communication equipment details (code)	Code from the specified list	R	The Communication equipment is not a valid code
VESSEL-L01-00-0709	Communication equipment details (text)	Length <= 300 characters max	R	The Communication equipment details must have a maximum of 300 characters
VESSEL-L01-00-0663	Fish finder equipment details (code)	Code from the specified list	R	The Fish finder equipment is not a valid code
VESSEL-L01-00-0710	Fish finder equipment details (text)	Length <= 300 characters max	R	The Fish finder equipment details must have a maximum of 300 characters
VESSEL-L01-00-0549	Deck machinery details	Code from the specified list	R	The Deck machinery is not a valid code
VESSEL-L01-00-0664	VMS satellite operator (code)	Code from the specified list	R	The VMS satellite operator is not a valid code

BR Reference	*Validation Field*	*Business Rule*	*Res.*	*Message*
VESSEL-L01-00-0665	Fish processing equipment details	Length <= 300 characters max	R	The Fish processing equipment details must have a maximum of 300 characters
VESSEL-L01-00-0555	Fish processing line type	Length <= 100 characters max	R	The Fish processing line type must have a maximum of 100 characters
VESSEL-L01-00-0666	Refrigeration equipment details	Length <= 300 characters max	R	The Refrigeration equipment details must have a maximum of 300 characters
VESSEL-L01-00-0667	Safety equipment details	Length <= 300 characters max	R	The Safety equipment details must have a maximum of 300 characters
VESSEL-L01-00-0559	Helicopter registration number	Length <= 50 characters max	R	The Helicopter registration number must have a maximum of 50 characters
VESSEL-L01-00-0546	Aircraft registration number	Length <= 50 characters max	R	The Aircraft registration number must have a maximum of 50 characters
VESSEL-L01-00-0571	VMS manufacturer name	Length <= 50 characters max	R	The VMS manufacturer name must have a maximum of 50 characters
VESSEL-L01-00-0572	VMS model name	Length <= 50 characters max	R	The VMS model name must have a maximum of 50 characters
VESSEL-L01-00-0573	VMS satellite operator (name)	Length <= 50 characters max	R	The VMS satellite operator must have a maximum of 50 characters
VESSEL-L01-00-0574	VMS serial number	Length <= 50 characters max	R	The VMS serial number must have a maximum of 50 characters
VESSEL-L01-00-0575	VMS software version	Length <= 50 characters max	R	The VMS software version must have a maximum of 50 characters
VESSEL-L01-00-0576	VMS features	Length <= 300 characters max	R	The VMS features must have a maximum of 300 characters
VESSEL-L01-00-0569	Support vessel skiff length	no negative value	R	The Support vessel skiff length must be a positive number.
VESSEL-L01-00-0668	Support vessel skiff length	Format: XXXXX.YY with 2 optional decimals	R	The Support vessel skiff length should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2

BR Reference	*Validation Field*	*Business Rule*	*Res.*	*Message*
				decimals
VESSEL-L01-00-0669	Support vessel skiff engine power	no negative value	R	The Support vessel skiff engine power must be a positive number.
VESSEL-L01-00-0670	Support vessel skiff engine power	Format: XXXXX.YY with 2 optional decimals	R	The Support vessel skiff engine power should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-00-0566	Speed boat length	no negative value	R	The Speed boat length must be a positive number.
VESSEL-L01-00-0671	Speed boat length	Format: XXXXX.YY with 2 optional decimals	R	The Speed boat length should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-00-0563	Speed boat engine power	no negative value	R	The Speed boat engine power must be a positive number.
VESSEL-L01-00-0672	Speed boat engine power	Format: XXXXX.YY with 2 optional decimals	R	The Speed boat engine power should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-00-0557	Fuel tank capacity	no negative value	R	The Fuel tank capacity must be a positive number.
VESSEL-L01-00-0673	Fuel tank capacity	Format: XXXXXX.YY with 2 optional decimals	R	The Fuel tank capacity should have a maximum of 6 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-00-0561	Number of fishing lights	no negative value	R	The Number of fishing lights must be a positive number.
VESSEL-L01-00-0675	Number of fishing lights	Format: XXXXX without decimals	R	The Number of fishing lights should have a maximum of 5 digits without decimals
VESSEL-L01-00-0578	Vessel purchase year	Not in future.	R	The Vessel purchase year cannot be in the future.
VESSEL-L01-00-0580	National authorisation name	Length <= 300 characters max	R	The National authorisation name must have a maximum of 300 characters

BR Reference	*Validation Field*	*Business Rule*	*Res.*	*Message*
VESSEL-L01-00-0690	Processing class	Length <= 300 characters max	R	The Processing class must have a maximum of 300 characters
VESSEL-L01-00-0512	Storage Method	Code from the specified list	R	The Storage Method is not a valid code
VESSEL-L01-00-0510	Storage Capacity	no negative value	R	The Storage Capacity must be a positive number.
VESSEL-L01-00-0676	Storage Capacity	Format: XXXXX.YY with 2 optional decimals	R	The Storage Capacity should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-00-0677	Fish Hold capacity	no negative value	R	The Fish Hold capacity must be a positive number.
VESSEL-L01-00-0678	Fish Hold capacity	Format: XXXXX.YY with 2 optional decimals	R	The Fish Hold capacity should have a maximum of 5 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-00-0679	Storage Temperature	Format: XXX.YY with 2 optional decimals	R	The Storage Temperature should have a maximum of 3 digits followed optionally by a dot as decimal separator and 2 decimals
VESSEL-L01-00-0518	Storage Units	no negative value	R	Please provide a positive number without decimals for the storage unit
VESSEL-L01-00-0680	Storage Units	Format: XXXXX without decimals	R	The Storage Units should have a maximum of 5 digits without decimals
VESSEL-L01-00-0681	Vessel photo type	Code from the specified list	R	The Vessel photo type is not a valid code
VESSEL-L01-00-0519	Vessel Photo	max.size = 10Mb	R	The Vessel photo size should not exceed 10Mb.

BR Reference	*Validation Field*	*Business Rule*	*Res.*	*Message*
VESSEL-L01-00-0536	Crew size	no negative value	R	Please provide a positive number without decimals for crew size
VESSEL-L01-00-0682	Crew size	Format: XXX without decimals	R	The Crew size should have a maximum of 3 digits without decimals
VESSEL-L01-00-0538	Crew size, maximum	no negative value	R	Please provide a positive number without decimals for maximum crew size
VESSEL-L01-00-0683	Crew size, maximum	Format: XXX without decimals	R	The Crew size, maximum should have a maximum of 3 digits without decimals
VESSEL-L01-00-0540	Crew size, minimum	no negative value	R	Please provide a positive number without decimals for minimum crew size
VESSEL-L01-00-0684	Crew size, minimum	Format: XXX without decimals	R	The Crew size, minimum should have a maximum of 3 digits without decimals
VESSEL-L01-00-0619	Master name	Length <= 100 characters max	R	The Master name must have a maximum of 100 characters
VESSEL-L01-00-0685	Agent name	Length <= 100 characters max	R	The Agent name must have a maximum of 100 characters
VESSEL-L01-00-0633	Construction company name	Length <= 100 characters max	R	The Construction company name must have a maximum of 100 characters
VESSEL-L01-00-0712	Beneficial owner name	Length <= 100 characters max	R	The Beneficial owner name must have a maximum of 100 characters
VESSEL-L01-00-0618	Master nationality	Code from the specified list	R	The Master Nationality is not a valid code
VESSEL-L01-00-0686	Agent nationality	Code from the specified list	R	The Agent nationality is not a valid code
VESSEL-L01-00-0711	Beneficial owner nationality	Code from the specified list	R	The beneficial owner nationality is not a valid code

BR Reference	*Validation Field*	*Business Rule*	*Res.*	*Message*
VESSEL-L01-00-0687	IMO company number	Length = 7 characters	R	The IMO company number must have 7 characters
VESSEL-L01-00-0615	City	Length <= 100 characters	R	The City must have a maximum of 100 characters
VESSEL-L01-00-0617	Country of the address	Code from the specified list	R	The Country of the address is not a valid code
VESSEL-L01-00-0614	Post Office box	Length <= 25 characters	R	The Post Office Box must have a maximum of 25 characters
VESSEL-L01-00-0616	Post code	Length <= 25 characters	R	The Post code must have a maximum of 25 characters
VESSEL-L01-00-0613	Street name	Length <= 256 characters	R	The Street name must have a maximum of 256 characters
VESSEL-L01-00-0688	Email address	Length <= 50 characters	R	The Email address must have a maximum of 50 characters
VESSEL-L01-00-0689	Complete Number	Length <= 50 characters	R	The Complete Number must have a maximum of 50 characters

8.4.2.3. LEVEL 02 – Row Validation

Set of validation rules to verify the relations between data in a declaration and with existing EU regulations.

BR Reference	*Field*	*Validation*	*Result*	*Message*
VESSEL-L02-02-0001	GT Tonnage & Other Tonnage	For non-EU (foreign) fishing vessels, one tonnage should be given	E	The GT Tonnage or other tonnages must be given for non-EU fishing vessels
VESSEL-L02-02-0002	NT & NRT	For non-fishing vessels, one tonnage should be given	E	The Net Tonnage or Net Register Tonnage must be given for non-fishing vessels
VESSEL-L02-02-0003	Owner Street, City, Country of contact parties	Information of the address must be split in the street, city and country fields	E	The street, city and country of the contact party address must be filled in
VESSEL-L02-02-0004	Owner Street, City, Country of the construction place	Information of the address must be split in the street, city and country fields	E	The street, city and country of the construction place address must be filled in

8.4.2.4. LEVEL 03 – Full Content Validation

There is no set of rules for this level because there is no history in the Vessel Register for data in the context of the Fishing Authorisation management.

8.4.2.5. LEVEL 04 – Extended Validation

Set of validation rules used to verify the coherence of all vessels, meaning data in the Vessel Register:

BR Reference	*Field*	*Validation*	*Result*	*Message*
VESSEL-L04-02-0001	IRCS	Should be unique for vessels at the date of the validation process	**M**	The radio call sign is not unique for vessels
VESSEL-L04-02-0002	UVI	Should be unique for vessels at the date of the validation process	**M**	The UVI is not unique
VESSEL-L04-02-0003	Vessel identifier & All data	Vessel data has been updated but it is associated to an active FLAP	W	The characteristics of the vessel have been modified

8.5. Validation Levels for Queries

The entire data message is rejected if the structure of the XML message is not compliant with the vessel XSD or if the content is not in line with the definition of the message.

The validation structure is mainly performed by a XML parser. In case of non compliance with the XML schema, a generic message[58] must be sent back to the sender. The message is not registered.

In addition to the parser verifications, when the structure is valid the following controls are done by business rules. The field names are the BRS Business terms:

8.5.1. LEVEL 00 – Integrity Control

BR Reference	***Field***	***Validation***		***Message***
VESSEL-L00-00-0000	FLUXVesselMessage	Verifies whether or not the message is a valid XML	R	An invalid XML message has been received.
VESSEL-L00-03-9997	FLUXVesselQueryMessage	Verifies that the nbr of events returned by the query is not beyond a threshold (QUERY_MAX_ROW in Vessel BR Parameter list)	R	The query returns too many rows.
VESSEL-L00-03-9998	FLUXVesselQueryMessage	Verifies that the query will return results	R	No data corresponding to the query.
VESSEL-L00-03-0100	Vessel_Query/Identifier	Mandatory	R	The query identifier is not provided
VESSEL-L00-03-0101	Vessel_Query/Identifier	The identifier must be a valid UUID format	R	The query identifier has not a valid format
VESSEL-L00-03-0102	Vessel_Query/Identifier	The UUID is unique (he does not reference a report already received)	R	The query identifier is not unique
VESSEL-L00-03-0103	Vessel_Query/Submitted	Mandatory	R	The date of the query is not provided
VESSEL-L00-03-0104	Vessel_Query/Submitted	Date type	R	The submission date has not a valid format
VESSEL-L00-03-0117	Vessel_Query/Submitted	Not in the future	R	The submission date should not be in the future
VESSEL-L00-03-0105	Vessel_Query/Type	Mandatory	R	The type of query is not provided
VESSEL-L00-03-0106	Vessel_Query/Type	Type = Q-NEWS when received by	R	The Query Type is not a valid code

[58] It must be a message common to all FLUX system, so not included in this document.

BR Reference	*Field*	*Validation*		*Message*
		MARE or Q-NR		
VESSEL-L00-03-0107	Vessel_Query/Type	Type = Q-NR, Q-SNAP-F or Q-SNAP-L when received by a MS	R	The Query Type is not a valid code
VESSEL-L00-03-0118	FLUX_Party/Identification	SchemeId= FLUX_GP_PARTY	R	The list referenced for the Party identifier is not valid
VESSEL-L00-03-0108	FLUX_Party/Identification	Code from the specified list	R	The sender identification is not a valid code
VESSEL-L00-03-0109	FLUX_Party/Identification	Mandatory	R	The sender identification of the query is not provided
VESSEL-L00-03-0110	FLUX_Party/Identification & The sender (MS) from the Transportation Layer	The party sending the message must be the same as the one from the FR value of the FLUX TL envelope. 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.	R	The sender identifier in the query is not the MS sending the message
VESSEL-L00-03-0111	FLUX_Party/Identification & FLUX_Report Document/Type	The blocking indicator for queries for the flag state in the fleet system is set to 'Y'	R	No query is accepted by the system. Please contact the Commission.
VESSEL-L00-03-0121	Delimited_Period/Start	Mandatory	R	The delimited start date is not provided
VESSEL-L00-03-0122	Delimited_Period/End	Mandatory	R	The delimited end date is not provided
VESSEL-L00-03-0119	Delimited_Period/Start	Date type	R	The delimited start date has not a a valid date
VESSEL-L00-03-0120	Delimited_Period/End	Date type	R	The delimited end date has not a a valid date
VESSEL-L00-03-0114	Vessel_Identity/Identifier	SchemeId= code form the FLUX_VESSEL_ID_TYPE code list	R	The code to define the type of identifier of the vessel is not valid
VESSEL-L00-03-0115	Vessel_Identity/Vessel Registration Country	ListID=TERRITORY	R	The list referenced to define the flag of the vessel is not valid
VESSEL-L00-03-0116	Vessel_Identity/Vessel_Type	ListID= VESSEL_CATEGORY	R	The list referenced to identify the type of vessel is not valid

8.5.1. LEVEL 01 – Data Field Validation

BR Reference	***Field***	***Validation***		***Message***
VESSEL-L01-03-0102	Vessel_Query/Type & Delimited_Period/End	For snapshots only, End date = ***2100/12/31***	R	The end date of the query period is wrong
VESSEL-L01-03-0103	Vessel_Query/Type Vessel_Identity/Identifier	For Q-NR queries: code from the specified list	R	The vessel identifier is not a valid code
VESSEL-L01-03-0104	Vessel_Query/Type Vessel_Identity/Vessel Registration Country	For Q-NR queries: code from the specified list	R	The Country of Registration is not a valid ISO-3 code of a reporting state
VESSEL-L01-03-0105	Vessel_Query/Type Vessel_Identity/Vessel_Type	For Q-NR queries: code from the specified list	R	The vessel type is not a valid code
VESSEL-L01-03-0106	Vessel_Query/Type & Vessel_Query Parameter/Search Type	For queries other than Q-NEWS: at least one value amongst the HIST* parameters	R	There is no criteria for identifying the type of historical data in the query
VESSEL-L01-03-0107	Vessel_Query/Type & Vessel_Query Parameter/Search Type	For queries other than Q-NEWS: at least one value amongst the DATA* parameters	R	There is no criteria for identifying the type of data in the query
VESSEL-L01-03-0108	Vessel_Query/Type & Vessel_Query Parameter/Search Type	For queries other than Q-NEWS: at least one value amongst the VESSEL* parameters	R	There is no criteria for identifying the type of vessel in the query

8.5.2. LEVEL 02 – Row Validation

BR Reference	***Field***	***Validation***		***Message***
VESSEL-L02-03-0100	Delimited_Period/Start & Delimited_Period/End	Start date <= End date	R	The query period is wrongly defined.
VESSEL-L02-03-0101	Vessel_Query/Type Vessel_Identity: all fields	For Q-NR queries: A value should be present for at least one criteria	R	There is no criteria for identifying the vessels in the query

8.6. Validation Levels for Responses

The entire data message is rejected if the structure of the XML message is not compliant with the vessel XSD or if the content is not in line with the definition of the message.

The validation structure is mainly performed by a XML parser. In case of non compliance with the XML schema, a generic message[59] must be sent back to the sender. The message is not registered.

In addition to the parser verifications, when the structure is valid the following controls are done by business rules. The field names are the BRS Business terms:

8.6.1. LEVEL 00 – Integrity Control

BR Reference	***Field***	***Validation***		***Message***
VESSEL-L00-00-0000	FLUXVesselMessage	Verifies whether or not the message is a valid XML	R	An invalid XML message has been received.
VESSEL-L00-04-0001	FLUX Response /Identification	Mandatory	R	The response identifier is not provided
VESSEL-L00-04-0002	FLUX Response /Identification	The identifier must be a valid UUID format	R	The response identifier has not a valid format
VESSEL-L00-04-0003	FLUX Response /Identification	The UUID is unique (he does not reference any message already received)	R	The response identifier is not unique
VESSEL-L00-04-0004	FLUX Response/Creation	Mandatory	R	The date of the response is not provided
VESSEL-L00-04-0005	FLUX Response/Creation	Datetime type	R	The creation date has not a valid format
VESSEL-L00-04-0006	FLUX Response/Creation	Not in the future	R	The creation date should not be in the future
VESSEL-L00-04-0007	FLUX_Response/Referenced Identification	Mandatory	R	The response referenced identifier is not provided
VESSEL-L00-04-0017	FLUX_Response/Referenced Identification	Check attribute schemeID. Must be in the FLUX_GP_MSG_ID list	R	The code for identifying the type of the response referenced identifier is not valid
VESSEL-L00-04-0008	FLUX_Reponse/Referenced Identification	Check Format. Must be according to the specified schemeID.	R	The response referenced identifier has not a valid format
VESSEL-L00-04-0009	FLUX_Reponse/Referenced	The identification must exist for a	R	The response referenced identifier does not refer to a

[59] It must be a message common to all FLUX system, so not included in this document.

BR Reference	Field	Validation		Message
	Identification	FLUXVesselReportMessage or for a FLUXVesselQuery message		message already sent
VESSEL-L00-04-0010	FLUX_Reponse/Response	listID= FLUX_GP_RESPONSE	R	The list referenced to define the response code is not valid
VESSEL-L00-04-0011	FLUX_Reponse/Response	Code from the specified list	R	The response code is not a valid code
VESSEL-L00-04-0012	Validation_Result Document/Identification	SchemeID=FLUX_GP_PARTY	R	The list referenced for the identification of the validator is not valid
VESSEL-L00-04-0013	Validation_Result Document/Creation	Datetime format	R	The creation date of the validation report has not a valid format
VESSEL-L00-04-0014	Validation_Quality Analysis/Identification	SchemeID=VESSEL_BR_DEF	R	The list referenced for the identification of the business rule is not valid
VESSEL-L00-04-0015	Validation_Quality Analysis/Level	ListID= FLUX_GP_VALIDATION_LEVEL	R	The list referenced for the level of the business rule is not valid
VESSEL-L00-04-0016	Validation_Quality Analysis/Type	ListID= FLUX_GP_VALIDATION_TYPE	R	The list referenced for the type of validation of the business rule is not valid

8.6.2. LEVEL 01 – Data Field Validation

BR Reference	Field	Validation		Message
VESSEL-L01-04-0001	Business rule identifier	Code from the specified list	R	The business rule identifier (code) is not a valid code
VESSEL-L01-04-0002	Business rule message	Length >= 300 characters	R	The BR message must have a maximum of 300 characters

8.7. Validation Levels of submissions resulting from a query sent by COM

The SUB-Q message is validated by COM like a SUB-VCD message.

9. CODE LISTS

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

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[60].

Code list alias (ListID in the XSD)
BOOLEAN_TYPE
COMM_EQUIP_TYPE
DECK_MACHINERY_TYPE
FISHFINDER_EQUIP_TYPE
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_TELECOM_USE
FLUX_UNIT
FLUX_VESSEL_ADMIN_ TYPE
FLUX_VESSEL_CONSTR_TYPE
FLUX_VESSEL_DIM_TYPE
FLUX_VESSEL_ENGINE_ROLE
FLUX_VESSEL_EQUIP_ TYPE
FLUX_VESSEL_GEAR_ROLE
FLUX_VESSEL_HIST_CHAR
FLUX_VESSEL_ID_TYPE
FLUX_VESSEL_QUERY_TYPE
FLUX_VESSEL_QUERY_PARAM

[60] FLUX BRS: P1000 – 10; MDM domain

FLUX_VESSEL_REGSTR_TYPE
FLUX_VESSEL_REPORT_TYPE
FLUX_VESSEL_TECH_ TYPE
GEAR_TYPE
MEMBER_STATE
NAVIG_EQUIP_TYPE
PROPELLER_TYPE
RFMO
TERRITORY
STORAGE_TYPE
VESSEL_BR_DEF
VESSEL_BR_LIMIT
VESSEL_BR_PARAMETER
VESSEL_CATEGORY
VESSEL_EXPORT_TYPE
VESSEL_EVENT
VESSEL_HULL_TYPE
VESSEL_PHOTO_TYPE
VESSEL_PORT
VESSEL_PUBLIC_AID_TYPE
VESSEL_SEGMENT
VESSEL_TYPE
VMS_SATELLITE_OPERATOR

10. 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:uncefact:fisheries:FLUX:VESSEL: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.

11. ANNEX I: LIST OF VESSEL DATA

11.1. Vessel Core Data (VCD)

List of vessel core data and their registration in the data model.

Name	Position in the data model
Country of registration	FLUX_Party: Identification
CFR	Vessel_Transport Means : Identification
UVI	Vessel_Transport Means : Identification
Event	Vessel_Event: Type
Date of event	Vessel_Event: Occurrence
Registration number	Vessel_Transport Means : Identification
External marking	Vessel_Transport Means : Identification
Name of vessel	Vessel_Transport Means : Name
Place of registration	Registration_Location: Identification
IRCS	Vessel_Transport Means : Identification
IRCS indicator	Vessel Equipment_Characteristic: Value
Licence indicator	Vessel Administrative_Characteristic: Value
VMS indicator	Vessel Equipment_Characteristic: Value
ERS indicator	Vessel Equipment_Characteristic: Value
ERS exemption indicator	Vessel Equipment_Characteristic: Value
AIS indicator	Vessel Equipment_Characteristic: Value
MMSI	Vessel_Transport Means : Identification
Vessel Type	Vessel_Transport Means: Type
Main fishing gear	Fishing_Gear: Type
Subsidiary fishing gear	Fishing_Gear: Type
LOA	Vessel_Dimension: Value
LBP	Vessel_Dimension: Value
Tonnage GT	Vessel_Dimension: Value
Other tonnage	Vessel_Dimension: Value
GTs	Vessel_Dimension: Value
Power of main engine	Vessel_Engine: Power
Power of auxiliary engine	Vessel_Engine: Power

Hull material	Vessel Technical_Characteristic: Value
Date of entry into service	Vessel Administrative_Characteristic: Value
Segment	Vessel Administrative_Characteristic: Value
Country of importation/exportation	Registration_Location: Country
Type of export	Vessel Administrative_Characteristic: Value
Public aid	Vessel Administrative_Characteristic: Value
Year of construction	Construction_Event: Occurence
For contacts Owner, operator	Contact_Party: Name, Nationality Structured_Address: (all) Nationality Email_Communication: URI Universal_Communication: (tel/fax) Use
LRE	Vessel_Dimension: Value
Other length	Vessel_Dimension: Value
Carrying capacity	Vessel_Dimension: Value
NT	Vessel_Dimension: Value
NRT	Vessel_Dimension: Value

11.2. Vessel Extended Data (VED)

List of vessel extended data and their registration in the data model:

Name	Position in the data model
Date of event	Vessel_Event/Occurrence
Identification numbers (FFA & Third party identifications)	Vessel_Transport Means : Identification
Vessel speed	Vessel_Transport Means : Speed
Trawling speed	Vessel_Transport Means : Trawling Speed
Place of registration	Registration_Location : Name
Date of historical data	Vessel Historical_Characteristic : Value
Previous flag state	Vessel Historical_Characteristic : Value
Previous IRCS	Vessel Historical_Characteristic : Value
Previous vessel name	Vessel Historical_Characteristic : Value
Previous owner name	Vessel Historical_Characteristic : Value
Previous owner address	Vessel Historical_Characteristic : Value
Place of construction	Construction_Location : Country
Construction Address	Construction_Location
Engine mark	Vessel_Engine: Manufacturer
Engine model	Vessel_Engine: Model
Propeller type	Vessel_Engine: Propulsion_Type
Depth	Vessel_Dimension: Value
Moulded depth	Vessel_Dimension: Value
Draught	Vessel_Dimension: Value
Breadth	Vessel_Dimension: Value
Deadweight	Vessel_Dimension: Value
Navigation equipment details (code)	Vessel Equipment_Characteristic: Value
Navigation equipment details (text)	Vessel Equipment_Characteristic: Value
Communication equipment details (code)	Vessel Equipment_Characteristic: Value

Communication equipment details (text)	Vessel Equipment_Characteristic: Value
Fish finder equipment details (code)	Vessel Equipment_Characteristic: Value
Fish finder equipment details (text)	Vessel Equipment_Characteristic: Value
Deck machinery type	Vessel Equipment_Characteristic: Value
VMS satellite operator code	Vessel Equipment_Characteristic: Value
VMS satellite operator name	Vessel Equipment_Characteristic: Value
Fish processing equipment details	Vessel Equipment_Characteristic: Value
Fish processing line type	Vessel Equipment_Characteristic: Value
Refrigeration equipment details	Vessel Equipment_Characteristic: Value
Safety equipment details	Vessel Equipment_Characteristic: Value
Helicopter registration number	Vessel Equipment_Characteristic: Value
Aircraft registration number	Vessel Equipment_Characteristic: Value
VMS manufacturer	Vessel Equipment_Characteristic: Value
VMS model name	Vessel Equipment_Characteristic: Value
VMS serial number	Vessel Equipment_Characteristic: Value
VMS software version	Vessel Equipment_Characteristic: Value
VMS features	Vessel Equipment_Characteristic: Value
Speed boat engine power	Vessel Equipment_Characteristic: Value
Speed boat length	Vessel Equipment_Characteristic: Value
Support vessel skiff length	Vessel Equipment_Characteristic: Value
Support vessel skiff power	Vessel Equipment_Characteristic: Value
Fuel tank capacity	Vessel Equipment_Characteristic: Value
Number of fishing lights	Vessel Equipment_Characteristic: Value
Vessel purchase year	Vessel Administrative_Characteristic: Value
National authorisation name	Vessel Administrative_Characteristic: Value

Processing class	Vessel Technical_Characteristic: Value
Storage method	Vessel Storage_Characteristic: Type
General storage capacity	Vessel Storage_Characteristic: Capacity_Value
Fish hold capacity	Vessel Storage_Characteristic: Capacity_Value
Freezing capacity	Vessel Storage_Characteristic: Capacity_Value
General storage temperature	Vessel Storage_Characteristic: Temperature_Value
Freezing temperature	Vessel Storage_Characteristic: Temperature_Value
Fish hold temperature	Vessel Storage_Characteristic: Temperature_Value
Number of general storage units	Vessel Storage_Characteristic: Unit_Value
Number of fish hold units	Vessel Storage_Characteristic: Unit_Value
Number of freezing units	Vessel Storage_Characteristic: Unit_Value
Vessel photo type	FLUX Picture: Type
Vessel photo	FLUX Picture: Digital Image
Vessel photo date	FLUX Picture: Taken
Vessel photo description	FLUX Picture: Description
Crew size	Vessel Crew: Size
Crew size, maximum	Vessel Crew: Maximum_Size
Crew size, minimum	Vessel Crew: Minimum_Size
Master name	Contact_Party: Name
Agent name	Contact_Party: Name
Construction company name	Contact_Party: Name
Registration authority name	Contact_Party: Name
Beneficial owner name	Contact_Party: Name
Master nationality	Contact_Party: nationality_Country
Agent nationality	Contact_Party: nationality_Country
Beneficial owner nationality	Contact_Party: nationality_Country
IMO company number (for all contacts)	Contact_Party: identification
Company registration number (for all contacts)	Contact_Party: identification
Agent address	Structured_Address
Master address	Structured_Address

Beneficial owner address	Structured_Address
Construction company address	Structured_Address
Registration authority address	Structured_Address
Vessel contacts	Contact_Party and Universal_Communication
Construction place	Construction_ Event + Construction_ Location. Country. Identifier + Structured_ Address
URI (for all contacts)	Email_Communication: URI
Complete Number (for all contacts)	Universal_Communication Complete Number

12. ANNEX II: VESSEL EVENT SELECTION

This chapter gives information on vessel events **for EU fishing vessels** that must be submitted in limited snapshots or returned by some queries.

12.1. Validity period of a vessel event

Information from a vessel event in the Fleet register is valid in a time range or validity period defined by an event start date and event end date. The start date is communicated by the Member state while the end date is computed by the system when data is registered according to the following rules (cfr paragraph 8.1) :

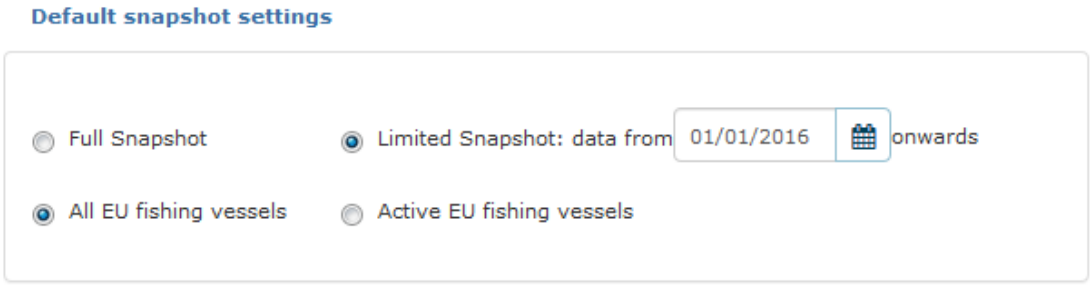
- the **end date** of a declaration (or vessel event) is:
    1. the event (start) date of the declaration when it is an exit from the fleet (for event types DES, EXP, RET), except for a RET if it is followed by a DES or EXP. In such case, point 2 is applicable; (cfr Event Type Transition Diagram)
    2. the event date minus one day of the next declaration (if any) considering all the declarations sorted by ascending event date;
    3. a default value '2100/12/31' if none of the above.

12.2. Queries

12.2.1. Q-SNAP-L query

COM may request at any time a limited snapshot (cfr paragraph 6.5). The main information is the time range from which vessel events must be reported. The delimited end date of the query is always the default date "31/12/2100".

In the following example, the snapshot time range is from "01/01/2016" until "31/12/2100".



A vessel event must be selected if his validity period (event start/end dates) overlaps the snapshot time range.

If the option 'Active EU fishing vessels' is selected, vessel events overlapping the snapshot time range must be delivered but only for vessels active in the EU fleet at the moment of the reception of the query (system date) while 'All EU fishing

vessels' means any events even for destroyed vessels or others who have left the fleet in the snapshot time range.

Example:

	Vessel	Event type	Event start date	Event end date (computed)
1	CFR1	CST	01/01/2015	19/10/2016
2	CFR1	MOD	20/10/2016	11/04/2018
3	CFR1	DES	12/04/2018	12/04/2018
4	CFR2	IMP	05/09/2010	31/05/2017
5	CFR2	MOD	01/06/2017	31/12/2100

Limited snapshot from 01/11/2016:

- For all fishing vessels: event 2, 3, 4 & 5 must be delivered;
- For active fishing vessels: event 4 & 5 is delivered because CFR2 is the only vessel active when the query has been issued (system date).

12.2.2. Q-NR query

The same selection of vessel events happens except that the snapshot time range of the previous paragraph is replaced by the delimited period of the query. The filtering of vessel events is also based on additional query parameters like the vessel identifier...

12.2.3. Q-NEWS query

The selection of vessel events is only based on the event start date that must be in the query delimited period.

13. ANNEX III: LIST OF MESSAGE TYPES

This chapter is a summary of the message types described in this document.

Message type	Description
SUB-VCD	Submission to COM of vessel core data of EU fishing vessels only
SUB-VED	Submission to COM of vessel extended data of any vessel
SUB	Submission to COM of VCD and VED of any vessel except EU fishing vessels
Q-NR	Normal query to get vessel information: • Sent by MS to get data from the EU vessel register • Sent by COM to a MS to get data from their national fleet register
Q-NEWS	Query to get vessel events based mainly on the event start date
SUB-Q	Submission containing data resulting from a query Q-NR or Q-NEWS
Q-SNAP-F	Query to get a full snapshot
SNAP-F	Submission containing data resulting from a query for a full snapshot
Q-SNAP-L	Query to get a limited snapshot
SNAP-L	Submission containing data resulting from a query for a limited snapshot
R	FLUX Response

VERSIONING

Version	Changes	Date
2.0	Consolidated version agreed by MS on November 2016	16/11/2016
2.1	-) Query reviewed (limited scope for external parties and parameters code reviewed to be more clear) -) BRs reviewed: some deleted (in particular rules related to data from the gear_characteritics entity which was already suppressed from the model but not for BRs), two new BRs added, severity changed -) List of the code lists: updated -) Universal communication entity: codes changed for due to UNCEFACT standard. ListID "FLUX_TELCOM_USE", removed. -) Default values for query parameters removed after the agreement of the MS at the DMG meeting in September because contradicting existing BRs	16/01/2017 27/09/2017
2.2	Changes due to the harmonisation of the query-response procedure (agreed by the ERS and Data Management Group on 25/01/2018): -) Chap 5.3: definition of message types -) Chap 6.4: review of the Query procedure -) Chap 7.1: data model reviewed based on entity updates. The main change is the introduction of the Validation Result and Quality Analysis entities -) Business rules: cfr BR set below Other changes: -) Chap 6.3: graph added about types of message -) Chap 7.2: new service Q-NEWS introduced. Change of cardinality for associations from	01/02/2018

	the Vessel_Query entity -) Chap 7.3: add code list for Referenced_Identification in 7.3.1. 7.3.4& 7.3.5 added for info (they were in the data model, not in the entity description) -) BRs: First column in BRs about existing rules in the old FRONT system has been deleted. -) New: L00-00-0000, L00-00-9999, L00-00-0146, L03-01-0018, L00-00-0151, L01-00-0706, L00-03-9997, L00-03-9998, L00-03-0121, L00-03-0122, L00-04-0017, -) Update: L00-00-0014, L00-00-0016, L00-00-0018, L00-00-0020, L00-00-0024, L03-01-0003, L03-01-0004, L00-03-0106, L00-03-0110, L00-03-0111, L01-03-0106, L01-03-0107, L01-03-0108, L00-04-0008, L00-04-0009, L02-01-0015, L00-03-0106, -) Delete: L00-00-0083, L00-00-0065, L00-03-0112 -) Severity changes for L02-01-0015, L03-01-0001, L03-01-0016, L03-01-0017	
2.3	New BRs: L00-00-9996 and L00-00-0000 for SUB/SUB-VED files Change of validation result severity for L03-01-01. Adaptation of the result message or field description of some BRs.	04/09/2018
2.3.1	L03-01-0004 BR suppressed.	07/09/2018
2.3.2	Changes: 1) L00-00-0017, L01-01-0006, L00-00-0149: description modified 2) L03-01-0002, L04-01-0001, L04-01-0013: message text modified 3) L04-01-0016, L00-00-0148: description and attributes modified 4) L03-01-0005, L03-01-0006, L03-01-0007, L04-01-0007, L04-01-0003: severity changed. No control done on past data (before 2003). Additions: 1) Annex II has been added about how to select vessel events for snapshots and queries 2) Hask key attribute in the Vessel_Transport Means entity 3) Addition information provided for the submission procedure	19/09/2019
2.3.3	Changes: 1) In the 7.1.20 Contact Party entity, the description of the IMO company number restricted the use for core data (VCD) while it can be also provided for some extended data (VED). 2) L04-01-0013: the severity has been modified from 'M' (major error) to 'W' (warning) because the rule based on values comparison cannot certify that the change of CFR is about the same vessel.	06/01/2020
2.3.4	Corrigendum: 1) NT, NRT, CART, LRE and LOTH data: they are core data but for non-fishing vessels. The comment has been modified in the Vessel_Dimension entity and the corresponding BRs have been moved from the extended part to the core part of the non EU fishing vessels. Changes	24/09/2020

	-)L01-02-0001: the name of the code list has been added in the description. -)L01-02-0002: the name of the code list has been added in the description. -) Chapter 6.3 about the submission procedure has been modified to highlight that all available data must be provided in messages and in particular in SUB-VED messages. -) Chapter 7.1.17 about vessel storage characteristics: the attribute is a UnitCode and not a ListID for the Unit_Value element. -) Chapter 7.1.8 about vessel historical characteristics: the presentation of the data element in the table has been changed for a better understanding but without changing the way to declare them.	
2.3.5	Changes: The severity of the following business rules have been changed from M(ajor error) to R(ejection): VESSEL-L04-01-0009 and VESSEL-L04-01-0010	28/01/2021
2.4.0	Changes: -) 6.4.2: Normal query sent by COM : new procedure -) 7.1.1: add SUB-Q for MS in description of the report type -) 7.1.11: Vessel Engine: business terms for main and auxiliary engines have been modified to explain that total powers must be declared -) 7.1.12: Vessel Dimension: Carrying Tonnage renamed into Carrying Capacity -) 7.1.13: Fishing Gear: the description has been modified to inform that a maximum of five auxiliary gears can be declared -) 7.1.14: Vessel Equipment Characteristic: +) new elements added of type "Text" : Navigation Equip, Fish Finder Equip, Communication Equip +) number of fish holds element removed because it can be communicated in the Vessel Storage Characteristic -) 7.1.17: Vessel Storage Characteristic: +) the description has been modified to add that a storage type can be declared twice with different units. The presentation of the data elements has been also reviewed to highlight that any entries from the STORAGE_TYPE list can be declared and not just the three types previously mentioned in the document. +) the presentation of the list of data elements has been reviewed to avoid the confusion that just three different capacity types can be declared while there is more in the STORAGE_TYPE list. -) 7.1.20: Contact Party: +) the description has been modified to explain that up to five owners and operators can be declared. +) the description of the "Name" has been modified to be more precise on the way to declare it +) a new element "Company national registration number" has been added -) 7.1.21: Contact Person +) the description has been modified to highlight that only one person per contact party can be registered. +) a new element "Given Name" has been added -) 7.1.22: Structured address : the description of the Street Name has been modified to explain that the street number is included in street information. -) 7.1.23: Email Communication: the description of the URI has been modified to explain that data is not for the VESSEL contact role. -) 7.1.24: Universal Communication: the descriptions of the Channel has been modified to explain that data is not for the VESSEL contact role. -) Business rules +) L00-00-0015 has been replaced by L00-00-0154 +) L01-01-0024 about IRCS has been replaced by L01-01-0112 +) L01-01-0108 about UVI has been replaced by L01-01-0113 +) L01-02-0005 about UVI has been replaced by L01-02-0045 +) L00-00-0079 & L00-00-0128 are suppressed +) L00-00-0137 has been replaced by L00-00-0152 +) L00-00-0151 has been replaced by L00-00-0153 +) L01-02-0006 about IRCS has been replaced by L01-02-0046 +) L01-00-0703 & 704 & 705: field name has been renamed	23/09/2021

	+) L01-00-0640 about IRCS has been replaced by L01-00-0707 +) L01-00-0554 & L01-00-0674 are suppressed +) L00-03-0106 is amended +) L02-01-0068 is added +) L01-00-0673 is modified -) 8.7: Validation levels for a SUB-Q was missing -) 13: annex of message types has been added All changes are applicable from 15/03/2022 except for the new query procedure (see 6.4.2) that could be used from 15/11/2022 only	
2.5.0	Changes: -) 8.1 : additional explanations given for some definitions -) Business rules +) New: L00-00-0155, L02-01-0070, L02-01-0069, L02-02-0003, L02-02-0004 +) Severity changed: L02-01-0048, L02-01-0049 +) Corrections of BR references in the v2.4.0 version (see above)	18/11/2021
2.6.0	Changes: -) NT and NRT, core data for EU fishing vessels too -) New VCD data 'ERS exemption indicator' added -) Footnotes suppressed in the vessel_dimension entity -) Business rules +) New: L01-01-0114, L01-01-0115, L01-01-0116, L01-01-0117, L00-00-0156, L01-01-0118, L01-01-0119, L02-01-0071, L01-00-0708, L01-00-0709, L01-00-0710, L01-00-0710, L01-00-0711 +) Suppressed: L01-00-0699, L01-00-0702. +) Modified: L01-00-0635 updated to allow 13 chars for the third party vessel ID. +) Modified: these old changes were not reflected in the document. Severity changed from 'R' to 'E' for L01-02-0015, L01-02-0016, L01-02-0019, L01-02-0026, L01-02-0029, L01-02-0040. -) Chapter 8.2 about validation principle: better explanation given on how FLEET selects business rules to apply on the message. -) Legal basis updated for external fishing fleet. -) Management of VED data changes (complete VED data set overwrites previous values). History of SUB-VED events is kept.	09/06/2022
2.7.0	Changes: New BR: L00-00-0157, L00-00-0158, L04-01-0017, L02-01-0073. Change error level to Rejection: L02-01-0004. BR reference error corrected for L01-00-0712. BR description and error message corrected: L01-01-0071, L01-01-0084, L01-00-0614. All possible storage characteristic combinations are listed. All possible contact details are listed for all contact roles. Text is improved and errors are corrected throughout the document. Document proposed for adoption with MS on 1 June 2023.	15/05/2023
2.7.1	Changes: Remove BR L04-01-0017. Document approved with MS.	01/06/2023