



## **Global Record**

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### **HLR2 Activity: Detailed Requirements**

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**Version 0.4**  
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## Document Version History

Version No.	Date	Author	Summary of changes
0.1	6 May 2010	Jamie Cameron	Initial draft
0.2	19 May 2010	Jamie Cameron	Updated after review in conjunction with HLR4 Central Source
0.3	2 June 2010	Jamie Cameron	Updated after Shaun Driscoll's initial feedback
0.4	9 June 2010	Dan Martin	Additional updates and new requirements added after review

## Document Information

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# 1 Introduction

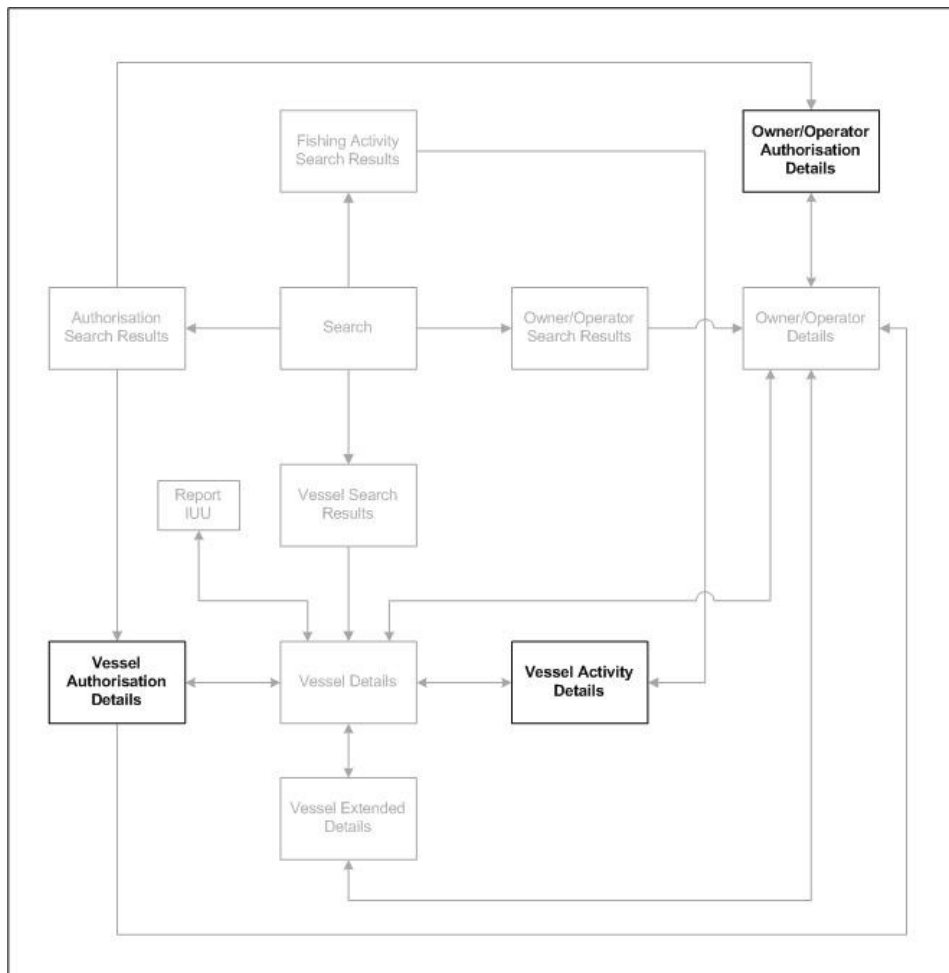
## 1.1 Document purpose

The purpose of this detailed requirements document is to further define the expectations of the GR in respect to the high level requirement for Activity. The detailed requirements identified identify the functionality that is required to support this HLR and a clear indication of what must be developed as part of the GR.

The Activity area is intended to cover the reporting of a vessels activity by those organisations who are charged with collecting Port State Management data under the PSM agreement, the recording of Vessel authorisation information as a means to inform users of where the vessel may or has fished and as a central source for many organisations vessel blacklists.

The PSM requirements developed in this area are based on the PSM data that is expected to be provided to the FAO under this agreement, however as this data is so far untested there may be differences in what is recorded here and what the final make up of this information will be. In addition it is unknown to what level vessel and IUU information is held by State, RFMO and other contributors other than the information that was easily accessible via these organisations websites. These requirements have been written to the best of our understanding at the point in time of writing.

The following diagram illustrates which components of the GR are covered within this document:<sup>1</sup>



<sup>1</sup> It is important to note that whilst the diagram illustrates the types of information modules that may be attached to the vessel record in future, it is by no means a definitive list, nor is it an approved list at this stage.

## 1.2 Intended audience

The audience for this document includes:

- *FAO*
- *Global record stakeholders*

## 1.3 Background

The need for a Comprehensive Global Record of Fishing Vessels was acknowledged as far back as 2002 in the implementation guidelines for the International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU) where it was acknowledged that the lack of such a tool produced a situation that undoubtedly creates opportunities for IUU vessels to escape detection. Subsequently, in the Rome Declaration on IUU Fishing, ministers called for the development of a comprehensive global record of fishing vessels within FAO, including refrigerated transport vessels and supply vessels. Following this, Proposal 2 of the Final Report “Closing the Net” produced by the High Seas Task Force (HSTF) promotes the establishment of a global information system on high seas fishing vessels. The purpose of this system is to combat the lack of access to transparent and authoritative information about the ownership, control and movements of fishing vessels. Provision of this information to Fisheries Management Organisations, Port States, Fisheries Enforcement and MCS authorities and other interested parties will enable actions to be undertaken to restrict and expose Illegal, Unregulated and Unreported (IUU) fishing activity.

It is widely recognized that one of the significant barriers to eliminating IUU fishing is a lack of transparency and traceability in the global fishing sector. States implement individual measures without the benefit of any sort of global information picture and there is no single source where useful and relevant information can be collated, stored and displayed. One of the major enablers of IUU fishing is the lack of information about the global fishing fleet or the wide range of information associated with vessel activity. To make matters worse, fishing vessels frequently change flag, ownership, registration, and fishing authorizations, enabling them to act with impunity if they choose.

The Global Record, which is being planned as an integrated global data base, offers a solution as it is intended to fill this information void. It will make available the essential information to enhance the effectiveness of regional and national monitoring, control and surveillance (MCS) tools and in particular, to support vessel inspection and surveillance programs, investigations, traceability initiatives and resource prioritization decisions, through the effective sharing of information—something that is not currently possible. The development of a GR would improve transparency and traceability of vessels, products, owners, operators, flags, authorisations and registration. It would facilitate risk assessment for industry, RFMOs and Governments and improve decision making including on fleet capacity, size and structure, management, safety, pollution, security and statistics and more.

The importance of the GR is underscored by new and growing market demands for ecolabels and other forms of product certification which require product traceability. Market forces and incentives could stimulate compliance by countries to provide information to the GR prior to any mandatory legal requirement being imposed.

The GR would support existing binding and non binding instruments to prevent, deter and eliminate IUU fishing and increase the effectiveness of port state measures and MCS activities.

This document seeks to define at a high level the requirements of the GR that will allow it to meet these goals.

## 1.4 Definitions and Acronyms

FAO	The Food and Agriculture Organisation of the United Nations
GR	Global Record
UVI	Unique Vessel Identifier
MCS	Monitoring Control and Surveillance
RFMO	Regional Fisheries Management Organisation
UNGA	United Nations General Assembly
FAO	Food and Agriculture Organisation of the UN
NGO	Non-governmental organisation
COFI	Committee on Fisheries
UN	United Nations
FishVIS	High Seas Fishing Vessel Information System
FINNZ	FishServe Innovations New Zealand Limited
HSTF	High Seas Task Force
MU	High Seas Fishing Vessel Information System Management Unit
TU	High Seas Fishing Vessel Information System Technical Unit
IUU	Illegal, Unregulated and Unreported Fishing Activity
IHS Fairplay	IHS Fairplay
CFR	Community Fleet Register
EMSA	European Maritime Safety Agency

## 2 HLR2: Activity

### 2.1 Detailed Requirements

Requirement No.:	2.1.0 Authorisation Data-set
<b>Requirement:</b>	<p>The system will enable the following authorisation information to be captured and held by the GR:</p> <ul style="list-style-type: none"> <li>• Vessel Name (Varchar)</li> <li>• IMO Number (Int)</li> <li>• GR UVI (Int)</li> <li>• Issuing Organisation Authorisation Identifier (Varchar)</li> <li>• Authorisation Type * (Varchar)</li> <li>• Authorisation Issue Period (Datetime)</li> <li>• Authorisation Catch Area (Geography)</li> <li>• Authorisation Local Area Definition (Varchar)</li> <li>• Issuing Organisation * (Varchar)</li> <li>• Authorisation Flag State * (Varchar)</li> <li>• Authorised Fishing Method(s) * (Varchar)</li> <li>• Target Species * (Varchar)</li> <li>• Operator Name (Varchar)</li> <li>• Operator Address (Varchar)</li> <li>• Master's Name (Varchar)</li> <li>• Issuing Organisation Vessel Identifier (Varchar)</li> <li>• Date Issued (Datetime)</li> </ul> <p>The system will also capture any additional accompanying vessel details (see 1.1.0) that may be supplied by the issuing organisation.</p>
<b>Rationale:</b>	Storing authorisation data for both vessels and operators is required for authorised users to be able to view it and thus ascertain the legality of a fishing activity instance.
<b>Business Value:</b>	High

<b>Business Rules:</b>	<ul style="list-style-type: none"> <li>• Where a vessel's GR UVI is not supplied for a record the GR will determine if this information is still usable within the GR - see DR 2.11 - Data Without UVI.</li> <li>• Where the GR UVI has been provided but no matching vessel record exists the GR will determine if this information is still usable within the GR - see DR 2.12 - No Vessel Exists.</li> <li>• Where the GR UVI has been provided and matches upon an existing vessel record then any regional-specific identifiers (Vessel National or Regional Registration Numbers) should be recorded against the vessel record, along with the Issuing body. Together, these fields will form a unique vessel identifier that may be required for other checks.</li> <li>• One operator or vessel may have many authorisation instances.</li> <li>• An authorisation may be updated when it is cancelled or revoked. When this occurs this will change the authorisation period.</li> <li>• An authorisation may be received with no vessel information.</li> <li>• An authorisation may be received with no operator information.</li> <li>• An authorisation must contain either a vessel name or an operator name, a period, and issuing organisation details. If not, the record is rejected.</li> <li>• Where the UVI, IMO (if provided) and Vessel Name are provided but the Vessel Name does not match the vessel record held in the GR, the record will be flagged for manual review.</li> <li>• An authorisation instance may have 1 or more Stocks or Methods attached.</li> <li>• * Indicates fields' values may be derived from any associated FAO-classification standards or converted into these standards, i.e. flags are stored according to the ISO 3 letter convention</li> <li>• All * fields will be translated during the data upload process to ensure consistency e.g. all flags and countries will be changed to their ISO 3 letter country code-equivalents.</li> </ul>
<b>Related Req's:</b>	1.1.0, 4.4.0, 4.13, 4.14
<b>Assumptions:</b>	<ul style="list-style-type: none"> <li>• Geographical co-ordinates must be WGS 84 standard-compliant.</li> <li>• All Issuing Organisations will be known to the GR prior to the receipt of any data.</li> <li>• Authorisation numbers for an issuing organisation are unique for that issuing organisation and combined with the Flag State of the issuing organisation, form a unique identifier.</li> <li>• A record within the dataset can be rejected while the dataset itself is accepted.</li> </ul>
<b>Revisions:</b>	



<b>Requirement No.:</b>	<b>2.2.0 Update Operator/Vessel Authorisation Data</b>
<b>Requirement:</b>	Operator/vessel authorisation data within the GR must be able to be updated.
<b>Rationale:</b>	Vessel authorisation data is subject to frequent change and therefore requires a mechanism to enable this to be reflected within the GR. An Authorisation record may be updated because it has been cancelled or revoked. The GR must reflect the current status of the Authorisation.
<b>Business Value:</b>	High
<b>Business Rules:</b>	<ul style="list-style-type: none"> <li>• Operator or vessel authorisation data will only be updated upon file upload where: <ul style="list-style-type: none"> <li>○ A matching record within the GR exists based on a combination of the Issuing Organisation Authorisation ID and Authorisation Flag State values.</li> <li>○ A value within the updating record differs from the current value (including NULL records where a non-NULL value currently exists).</li> </ul> </li> <li>• Any record within an uploaded operator/vessel authorisation file that matches upon an operator or vessel, but not an existing authorisation instance, will be inserted.</li> <li>• Any vessel within an uploaded vessel authorisation file that does not match upon an existing vessel will be inserted as a new vessel with the associated authorisation data attached.<sup>2</sup></li> <li>• One to many Authorisation Issue Period value sets may exist per operator/vessel.</li> <li>• Today's date will dictate the status of an Authorisation Issue Period.</li> </ul>
<b>Related Req's:</b>	2.1.0
<b>Assumptions:</b>	<ul style="list-style-type: none"> <li>• Authorisation ID's are unique for the Issuing Organisation</li> <li>• The Authorisation already exists within the GR</li> <li>• Vessel authorisation details may only be updated via a file upload.</li> <li>• An 'update' occurs when an operator/vessel authorisation record is uploaded to the GV that matches upon another operator/vessel authorisation record via a matching Issuing Organisation ID and Authorisation Flag State combination but with at least one other field differing from its current value.</li> <li>• The only update that can be made to an Authorisation instance is a change in the Authorisation period as a result of an activity such as a cancellation. Any other change to an authorisation will be treated as a new Authorisation record, and a new record will be created within the GR.</li> </ul>
<b>Revisions:</b>	

<sup>2</sup> For more on the creation of new vessels via an authorisation file upload, see DR6 - Review Mechanism

<b>Requirement No.:</b>	<b>2.3.0 View Operator/Vessel Authorisation Details</b>
<b>Requirement:</b>	<p>An authorised user must be able to view the following operator or vessel authorisation details within the GR.</p> <ul style="list-style-type: none"> <li>• Vessel Name</li> <li>• IMO Number</li> <li>• GR UVI Number</li> <li>• Issuing Organisation Authorisation Identifier</li> <li>• Authorisation Type</li> <li>• Authorisation Issue Period</li> <li>• Authorisation Catch Area</li> <li>• Authorisation Local Area Definition</li> <li>• Issuing Organisation</li> <li>• Authorisation Flag State</li> <li>• Authorised Fishing Method</li> <li>• Target Species</li> <li>• Operator Name</li> <li>• Operator Address</li> <li>• Master's Name<sup>3</sup></li> <li>• Issuing Organisation Vessel Identifier</li> <li>• Date Issued</li> <li>• Status</li> </ul> <p>This data can be viewed within either the operator or vessel context, depending upon which has been accessed by the user.</p>
<b>Rationale:</b>	Allowing a user to view authorisation details is paramount to determining the legality of a fishing activity instance.
<b>Business Value:</b>	High
<b>Business Rules:</b>	<ul style="list-style-type: none"> <li>• As above, both an operator and a vessel authorisation details page will display the same fields.</li> <li>• Where a vessel's GR UVI is not supplied see HLR6: Review Mechanisms, requirement 6.1.0.</li> <li>• The Commercial Operator will be a hypertext value linking back to the operator's detail page.</li> <li>• The Vessel Name will be a hypertext value linking back to the vessel's detail page.</li> <li>• Where supplied and supported by the issuing authority's website, the Authorisation ID will be a hypertext value linking externally to the associated web page.</li> <li>• Where supplied and supported by the issuing authority's website, the Operator ID will be a hypertext value linking externally to the associated web page.</li> <li>• One operator or vessel may have many authorisation instances and therefore many Authorisation Statuses.</li> <li>• A link will be provided to an IHS Fairplay contact form allowing a user to query the validity of any particular vessel's operator or authorisation details.</li> </ul>
<b>Business Rules</b>	<ul style="list-style-type: none"> <li>• Authorisation Status will be an auto-generated field based upon the following</li> </ul>

<sup>3</sup> Inclusion of this field is subject to future discussions on access rules and privacy implications.

	<p>authorisation date scenarios:</p> <table border="1" data-bbox="475 253 863 488"> <thead> <tr> <th colspan="3">Authorisation Period</th> </tr> <tr> <th>From</th> <th>To</th> <th>Status</th> </tr> </thead> <tbody> <tr> <td>&lt; Today</td> <td>&lt; Today</td> <td>Expired</td> </tr> <tr> <td>&lt; Today</td> <td>&gt; Today</td> <td>Active</td> </tr> <tr> <td>&gt; Today</td> <td>&gt; Today</td> <td>Pending</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>• From the Owner/Operator Authorisation Details page the user may link to: <ul style="list-style-type: none"> <li>○ Owner/Operator Details</li> <li>○ Report IUU</li> <li>○ Vessel Details (if vessel known)</li> <li>○ Authorisation Search (if navigated from)</li> </ul> </li> <li>• From the Vessel Authorisation Details page the user may link to: <ul style="list-style-type: none"> <li>○ Owner/Operator Details (if operator known)</li> <li>○ Report IUU</li> <li>○ Vessel Details</li> <li>○ Authorisation Search (if navigated from)</li> </ul> </li> </ul> <p>Note: Some information relating to personal information may not be displayed due to privacy rules. Once these have been confirmed the data to be displayed will be confirmed.</p>	Authorisation Period			From	To	Status	< Today	< Today	Expired	< Today	> Today	Active	> Today	> Today	Pending
Authorisation Period																
From	To	Status														
< Today	< Today	Expired														
< Today	> Today	Active														
> Today	> Today	Pending														
<b>Related Req's:</b>	2.1.1, 2.1.4															
<b>Assumptions:</b>	<ul style="list-style-type: none"> <li>• Externally-hosted authorisation details for a particular vessel do not require user authentication.</li> <li>• Externally-hosted operator details for a particular vessel do not require user authentication.</li> <li>• Geographical co-ordinates must be WGS 84 standard-compliant.</li> </ul>															
<b>Revisions:</b>																

<b>Requirement No.:</b>	<b>2.4.0 IUU Activity Dataset</b>
<b>Requirement:</b>	<p>The system will enable the following IUU activity information to be captured:</p> <ul style="list-style-type: none"> <li>• IMO Number (Int)</li> <li>• GR UVI Number</li> <li>• Vessel Name (Varchar)</li> <li>• Vessel Operator Name (Varchar)</li> <li>• Activity Location Co-ordinates (Geography)</li> <li>• Activity Location (Varchar)</li> <li>• Activity Description (Varchar)</li> <li>• Reason for Reporting * (Varchar)</li> <li>• Targeted Species * (Varchar)</li> <li>• Date of Activity (Datetime)</li> <li>• Activity Type * (Varchar)</li> <li>• Vessel Flag * (Varchar)</li> <li>• External ID (Varchar)</li> <li>• Submitter Organisation (Varchar)</li> </ul> <p>The system will also capture any additional accompanying vessel details (see 1.1.0) that may be supplied by the issuing organisation.</p>
<b>Rationale:</b>	For the GR to be an effective system in combating suspected IUU activity there must exist a means of reporting it.
<b>Business Value:</b>	High
<b>Business Rules:</b>	<ul style="list-style-type: none"> <li>• Where a vessel's GR UVI is not supplied for a record the GR will determine if this information is still usable within the GR - see DR 2.11 - Data without UVI</li> <li>• Where the GR UVI has been provided but no matching Vessel record exists the GR will determine if this information is still usable within the GR - see DR 2.12 - No Vessel Exists.</li> <li>• Where the GR UVI has been provided and matches upon an existing vessel record then any regional-specific identifiers (Vessel National or Regional Registration Numbers) should be recorded against the vessel record, along with the Issuing body. Together, these fields will form a unique vessel identifier that may be required for other checks.</li> <li>• Where the UVI, IMO (if provided) and Vessel Name are provided but the Vessel Name does not match the vessel record held in the GR, the record will be flagged for manual review</li> <li>• If no Vessel Name is provided the record will be rejected (other mandatory fields are yet to be confirmed)</li> <li>• * Indicates fields' values may be derived from any associated FAO-classification standards, i.e. flags are stored according to the ISO 3 letter convention</li> <li>• All * fields will be translated during the data upload process to ensure consistency e.g. all flags and countries will be changed to their ISO 3 letter country code-equivalents.</li> </ul>
<b>Related Req's:</b>	

<b>Assumptions:</b>	<ul style="list-style-type: none"><li>• IUU activity or blacklisted vessel data will be received from RFMO's and/or flag, port or coastal states and potentially include PSM records identified as IUU activity.</li><li>• As the complete dataset that may be received is yet to be confirmed, the data identified here is indicative of what may be capture.</li><li>• A record within the dataset can be rejected while the dataset itself is accepted.</li></ul>
<b>Revisions:</b>	

<b>Requirement No.:</b>	<b>2.5.0 PSM Port Entry Request Dataset</b>
<b>Requirement:</b>	<p>The system will enable the following PSM port entry request details to be captured:</p> <ul style="list-style-type: none"> <li>• PSM Identifier (Varchar)</li> <li>• Intended Port of Call (Varchar)</li> <li>• Port Flag State (Varchar)</li> <li>• Estimated Date and Time of Arrival (Datetime)</li> <li>• Purpose (Varchar)</li> <li>• Port and Date of Last Port Call (Varchar)</li> <li>• Vessel Name (Varchar)</li> <li>• Vessel Flag State (Varchar)</li> <li>• Vessel Type (Varchar)</li> <li>• Vessel Contact Information (Varchar)</li> <li>• Vessel Owner(s) (Varchar)</li> <li>• Commercial Operator (Varchar)</li> <li>• Certificate of Registry ID (Varchar)</li> <li>• IMO Number (Int)</li> <li>• External ID (Varchar)</li> <li>• RFMO ID (Varchar)</li> <li>• VMS Home (Varchar)</li> <li>• VMS Type * (Varchar)</li> <li>• Length</li> <li>• Beam</li> <li>• Draft</li> <li>• Vessel Master Name (Varchar)</li> <li>• Vessel Master Nationality * (Varchar)</li> <li>• Relevant Fishing Authorisations <ul style="list-style-type: none"> <li>○ RFMO Authorisation ID (Varchar)</li> <li>○ Issuing Organisation * (Varchar)</li> <li>○ Validity * (Varchar)</li> <li>○ Fishing Area (Geography)</li> <li>○ Fishing Area Local Definition (Varchar)</li> <li>○ Target Species * (Varchar)</li> <li>○ Operator Name * (Varchar)</li> <li>○ Operator ID (Varchar)</li> <li>○ Captain's Name (Varchar)</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• Relevant Trans-Shipment Authorisations <ul style="list-style-type: none"> <li>○ Trans Authorisation ID (Varchar)</li> <li>○ Issuing Organisation * (Varchar)</li> <li>○ Authorisation Type * (Varchar)</li> <li>○ Authorisation Issue Period (Datetime)</li> <li>○ Authorisation Cancel Date (Datetime)</li> <li>○ Authorisation Cancel Reason (Varchar)</li> <li>○ Authorisation Location (Varchar)</li> <li>○ Authorisation Flag * (Varchar)</li> </ul> </li> <li>• Trans-Shipment Information Concerning Donor Vessels <ul style="list-style-type: none"> <li>○ Donor Date (Datetime)</li> <li>○ Donor Location (Varchar)</li> <li>○ Donor Vessel Name (Varchar)</li> <li>○ Donor Vessel Flag State * (Varchar)</li> <li>○ Donor ID (Varchar)</li> <li>○ Species * (Varchar)</li> <li>○ Product Form * (Varchar)</li> <li>○ Catch Area (Geography)</li> <li>○ Catch Area Local Definition (Varchar)</li> <li>○ Quantity (Int)</li> </ul> </li> <li>• Total Catch Onboard <ul style="list-style-type: none"> <li>○ Species * (Varchar)</li> <li>○ Product Form * (Varchar)</li> <li>○ Catch Area (Geography)</li> <li>○ Catch Area Local Definition (Varchar)</li> <li>○ Quantity (Int)</li> </ul> </li> <li>• Catch to be Off-loaded (Int)</li> <li>• Quantity (Int)</li> <li>• Source</li> </ul>
<b>Rationale:</b>	<p>Capturing this data allows a vessel's claimed fishing activity to be reconciled with the information captured by port state authorities upon inspection.</p> <p>Refer PSM IUU paper CCLM 88/8, Annex A for form.</p>
<b>Business Value:</b>	High

<b>Business Rules:</b>	<ul style="list-style-type: none"> <li>• Where the UVI, IMO (if provided) and Vessel Name are provided but the Vessel Name does not match the vessel record held in the GR, the record will be flagged for manual review.</li> <li>• If no Vessel Name is provided the record will be rejected (other mandatory fields are yet to be confirmed).</li> <li>• The PSM Identifier is a unique identifier assigned to both a PSM port entry request and its associated inspection report.</li> <li>• One to many Relevant Fishing Authorisation value sets may exist per PSM port entry request.</li> <li>• One to many Relevant Transhipment value sets may exist per PSM port entry request.</li> <li>• One to many Transhipment Information Concerning Donor Vessels value sets may exist per PSM port entry request.</li> <li>• One to many Total Catch Onboard value sets may exist per PSM port entry request.</li> <li>• * Indicates fields' values may be derived from any associated FAO-classification standards, i.e. flags are stored according to the ISO 3 letter convention</li> <li>• All * fields will be translated during the data upload process to ensure consistency e.g. all flags and countries will be changed to their ISO 3 letter country code-equivalents.</li> </ul>
<b>Related Req's:</b>	
<b>Assumptions:</b>	<ul style="list-style-type: none"> <li>• The GR UVI will be added to the agreed PSM data specifications.</li> <li>• The PSM Identifier is a unique identifier assigned to both a PSM port entry request and its associated inspection report.</li> <li>• Each organisation capturing PSM data will assign its own PSM identification code to each port entry request that can be used, in conjunction with the Flag State, to link to the associated vessel inspection details within the GR.</li> <li>• Geographical co-ordinates must be WGS 84 standard-compliant.</li> <li>• There is a one to zero/one relationship between a PSM Port Entry Request and its associated PSM Vessel Inspection instance.</li> <li>• PSM data will not be entered directly into the GR but via the data upload processes.</li> <li>• Mandatory data requirements are yet to be determined.</li> </ul>
<b>Revisions:</b>	



<b>Requirement No.:</b>	<b>2.6.0 Capture PSM Vessel Inspection Dataset</b>
<b>Requirement:</b>	<p>The system will enable the following PSM port entry request details to be captured:</p> <ul style="list-style-type: none"> <li>• PSM Identifier (Varchar)</li> <li>• Port Flag State (Varchar)</li> <li>• Inspecting Authority (Varchar)</li> <li>• Name of Principal Inspector (Varchar)</li> <li>• Port of Inspection (Varchar)</li> <li>• Commencement of Inspection (Datetime)</li> <li>• Completion of Inspection (Datetime)</li> <li>• Advanced Notification Received (Boolean)</li> <li>• Purpose(s) (Varchar)</li> <li>• Port of Last Port Call (Varchar)</li> <li>• Date of Last Port Call (Datetime)</li> <li>• Vessel Name (Varchar)</li> <li>• Vessel Flag State (Varchar)</li> <li>• Vessel Type (Varchar)</li> <li>• Radio Call Sign (Varchar)</li> <li>• Certificate of Registry ID (Varchar)</li> <li>• IMO Number (Int)</li> <li>• External ID (Varchar)</li> <li>• Port of Registry (Varchar)</li> <li>• Vessel Owner(s) (Varchar)</li> <li>• Vessel Beneficial Owner(s) (Varchar)</li> <li>• Commercial Operator (Varchar)</li> <li>• RFMO ID (Varchar)</li> <li>• Vessel Master Name (Varchar)</li> <li>• Vessel Master Nationality * (Varchar)</li> </ul>

- Vessel Agent (Varchar)
- Status in RFMO areas where fishing activity has been undertaken
  - Vessel Identifier (Varchar)
  - RFMO (Varchar)
  - Flag State Status (Varchar)
  - Vessel on Authorised Vessel List (Boolean)
  - Vessel on IUU Vessel List (Boolean)
- Relevant Fishing Authorisation(s)
  - RFMO Authorisation ID (Varchar)
  - Issuing Organisation \* (Varchar)
  - Validity \* (Varchar)
  - Fishing Area (Geography)
  - Fishing Area Local Definition (Varchar)
  - Target Species \* (Varchar)
  - Fishing Gear \* (Varchar)
- Relevant Transshipment Authorisation(s)
  - Vessel Identifier (Varchar)
  - Issued By (Varchar)
  - Validity (Varchar)
- Trans-Shipments Information Concerning Donor Vessels
  - Donor Date (Datetime)
  - Donor Location (Varchar)
  - Donor Vessel Name (Varchar)
  - Donor Vessel Flag State \* (Varchar)
  - Donor ID (Varchar)
  - Species \* (Varchar)
  - Product Form \* (Varchar)
  - Catch Area (Geography)
  - Catch Area Local Definition (Varchar)
  - Quantity (Int)
- Evaluation of Offloaded Catch
  - Species \* (Varchar)
  - Product Form \* (Varchar)
  - Catch Area (Geography)
  - Catch Area Local Definition (Varchar)
  - Quantity Declared (Int)
  - Quantity Retained (Int)
- Catch Retained Onboard
  - Species \* (Varchar)
  - Product Form \* (Varchar)
  - Catch Area (Geography)
  - Catch Area Local Definition (Varchar)
  - Quantity Declared (Int)
  - Quantity Retained (Int)

	<ul style="list-style-type: none"> <li>• Examination of Logbook (Boolean)</li> <li>• Logbook Comments (Varchar)</li> <li>• Compliance with Catch Documentation Schemes (Boolean)</li> <li>• Catch Documentation Compliance Comments (Varchar)</li> <li>• Compliance with Trade Information Schemes (Boolean)</li> <li>• Trade Information Compliance Comments (Varchar)</li> <li>• Fishing Gear Used * (Varchar)</li> <li>• Gear Examined as per Annex B (Boolean)</li> <li>• Gear Examined Comments (Varchar)</li> <li>• Findings by Inspector (Varchar)</li> <li>• Apparent Infringement Noted (Varchar)</li> <li>• Comments by Master (Varchar)</li> <li>• Action Taken (Varchar)</li> </ul>
<b>Rationale:</b>	<p>Capturing this data allows a vessel's claimed fishing activity to be reconciled with the information captured by port state authorities upon inspection.</p> <p>Refer PSM IUU paper CCLM 88/8, Annex C for form.</p>
<b>Business Value:</b>	High
<b>Business Rules:</b>	<ul style="list-style-type: none"> <li>• Where the UVI, IMO (if provided) and Vessel Name are provided but the Vessel Name does not match the vessel record held in the GR, the record will be flagged for manual review.</li> <li>• If no Vessel Name is provided the record will be rejected (other mandatory fields are yet to be confirmed)</li> <li>• The PSM Identifier is a unique identifier assigned to both a PSM port entry request and its associated inspection report.</li> <li>• The RFMO ID represents the unique identifier the relevant port state authority may already hold for the vessel inspected.</li> <li>• One to many Status in RFMO Areas Where Fishing Activity Has Been Undertaken value sets may exist per PSM inspection report.</li> <li>• One to many Relevant Transshipment Authorisation(s) value sets may exist per PSM inspection report.</li> <li>• One to many Transshipment Information Donor Vessels value sets may exist per PSM inspection report.</li> <li>• One to many Evaluation of Offloaded Catch value sets may exist per PSM inspection report.</li> <li>• One to many Catch Retained Onboard value sets may exist per PSM inspection report.</li> <li>• * Indicates fields' values may be derived from any associated FAO-classification standards, i.e. flags are stored according to the ISO 3 letter convention</li> <li>• All * fields will be translated during the data upload process to ensure consistency e.g. all flags and countries will be changed to their ISO 3 letter country code-equivalents.</li> </ul>
<b>Related Req's:</b>	2.7.0

<b>Assumptions:</b>	<ul style="list-style-type: none"> <li>• The GR UVI will be added to the agreed PSM data specifications.</li> <li>• The PSM Identifier is a unique identifier assigned to both a PSM port entry request and its associated vessel inspection report.</li> <li>• Each organisation capturing PSM data will assign its own PSM identification code to each vessel inspection report that can be used, in conjunction with the Flag State, to link to the associated port entry request details within the GR.</li> <li>• Geographical co-ordinates must be WGS 84 standard-compliant.</li> <li>• There is a zero/one to one relationship between a PSM Vessel Inspection and its associated PSM Port Entry Request instance.</li> <li>• PSM data will not be entered directly into the GR but via the data upload processes.</li> <li>• Mandatory field requirements are yet to be determined.</li> </ul>
<b>Revisions:</b>	<ul style="list-style-type: none"> <li>• Added as a new requirement in 0.2</li> </ul>

<b>Requirement No.:</b>	<b>2.7.0 Update PSM Vessel Inspection/Port Entry Request Data</b>
<b>Requirement:</b>	Any of the aforementioned PSM vessel inspection or port entry request fields may be updated via an upload file containing a matching record's PSM identifier and Flag State.
<b>Rationale:</b>	Whilst infrequent, PSM vessel inspection or port entry request data is potentially subject to change.
<b>Business Value:</b>	Medium
<b>Business Rules:</b>	<ul style="list-style-type: none"> <li>• PSM Port Entry Request and Vessel Inspection details may only be updated via a file upload.</li> <li>• An 'update' occurs when a PSM record is uploaded to the GV that matches upon another a record via a matching PSM Identifier and Authorisation Flag State combination but with at least one other field differing from its current value.</li> <li>• Any subsequently-updated data will be stored in its previous state within audit tables, alongside: <ul style="list-style-type: none"> <li>○ User ID of the user responsible for uploading the import file</li> <li>○ The File ID of the import file</li> <li>○ Date 'From' which the new value is correct</li> </ul> </li> <li>• PSM vessel inspection or port entry request fields will only be updated where: <ul style="list-style-type: none"> <li>○ A matching record within the GR exists, based on a combination of the PSM Identifier and Flag State fields.</li> <li>○ A value within the updating record differs from the current value (including NULL records where a non-NULL value currently exists)</li> </ul> </li> </ul>
<b>Related Req's:</b>	2.7.0
<b>Assumptions:</b>	<ul style="list-style-type: none"> <li>• PSM updates can occur.</li> <li>• This is an automated background process elicited via a PSM file upload.</li> </ul>
<b>Revisions:</b>	

<b>Requirement No.:</b>	<b>2.8.0 Capture Other Activity Data</b>
<b>Requirement:</b>	The GR must be versatile enough to capture other sources of activity data, which may include vessel blacklists, vessel sighting reports and other activity file types. As a minimum, any such file type would need to include Vessel Name as a vessel identifier.
<b>Rationale:</b>	To maximise the GR's effectiveness as a tool with which to combat IUU, the broader the range of such data that it can store, the more valuable it is,
<b>Business Value:</b>	High
<b>Business Rules:</b>	
<b>Related Req's:</b>	
<b>Assumptions:</b>	<ul style="list-style-type: none"> <li>Given the lack of certainty surrounding all potential activity file types that may be uploaded to the GR, it is not possible to provide a definitive list of fields which may be captured.</li> </ul>
<b>Revisions:</b>	<ul style="list-style-type: none"> <li>Added as a new requirements in 0.2</li> </ul>

<b>Requirement No.:</b>	<b>2.9.0 Attach Files</b>
<b>Requirement:</b>	Registered users are able to upload files (e.g. scanned originals of activity reports) and attach them to either the owner/operator or vessel to which they are linked. Files may be attached to specific Vessel records, or Activity, Authorisation, IUU or PSM records
<b>Rationale:</b>	Providing such functionality further enriches the data the GR is able to provide.
<b>Business Value:</b>	Medium
<b>Business Rules:</b>	<ul style="list-style-type: none"> <li>The following file types may be uploaded - bmp, doc, docx, eml, gif, jpeg, jpg, msg, pdf, png, rtf, tif, tiff, txt, xls, xlsx</li> <li>Only registered users for the contributing organisation that submitted the record may attach a file to that record. I.e. only a user for the state authority that recorded a PSM record can add a file to that record.</li> <li>A GR management user can add a file to any record.</li> <li>The GR is to visually indicate that a file is attached against a record and provide a mechanism for that attachment to be viewed (whether or not the attachment can be downloaded by a user will require legal sign-off).</li> </ul>
<b>Related Req's:</b>	
<b>Assumptions:</b>	
<b>Revisions:</b>	Added as a new requirements in 0.3

<b>Requirement No.:</b>	<b>2.10.0 View Activity Details</b>
<b>Requirement:</b>	Authorised users are able to view all PSM Vessel Inspection and Port Entry Request data stored against a particular vessel within the GR, as well as any verified IUU fishing activity linked to it.
<b>Rationale:</b>	Capturing fishing activity data is paramount to fulfilling the GR's goal of identifying, preventing and eliminating IUU fishing activity.
<b>Business Value:</b>	High
<b>Business Rules:</b>	<ul style="list-style-type: none"> <li>• Fishing activity detail pages will be separated into two types, both accessible from the vessel activity search results and vessel details pages: <ul style="list-style-type: none"> <li>○ PSM-sourced activity details, comprising the above Port Entry Request and associated Vessel Inspection fields captured within the GR and;</li> <li>○ IUU activity, comprising all validated IUU activity details</li> </ul> </li> <li>• Where the GR has captured both, an individual vessel's PSM Port Entry Request and associated PSM Vessel Inspection details will be displayed separately within the same page.</li> <li>• Only display fields for those vessel details which have a non-null value. The exception to this are Vessel Owner(s) and Vessel Operator(s), whose null values will display as 'Unknown'.</li> <li>• From this page the user may link to: <ul style="list-style-type: none"> <li>○ Vessel Summary</li> <li>○ Report IUU</li> <li>○ Activity Search (if navigated from)</li> </ul> </li> <li>• Where Commercial Operator Name is populated, the value will be a hypertext link to a pre-executed operator search results page containing all vessels associated with that operator.</li> <li>• A link will be provided to an IHS Fairplay contact form allowing a user to query the validity of any particular vessel's details.</li> </ul>
<b>Related Req's:</b>	1.1.1, 2.5.0, 2.6.0
<b>Assumptions:</b>	
<b>Revisions:</b>	

<b>Requirement No.:</b>	<b>2.11.0 Activity, Authorisation, PSM or IUU datasets without vessel UVI</b>
<b>Requirement:</b>	<p>The GR will need to manage incomplete data sets and in some cases store additional information to allow it to link activity, authorisation, PSM and IUU data to specific vessels.</p> <p>While the GR UVI is the preferred link, the GR must be able to link these records to vessels based on other context-specific identifiers.</p> <p>The GR must provide the GR management unit with the ability to reject or accept such records after a review.</p>
<b>Business Rules:</b>	<ul style="list-style-type: none"> <li>• If no UVI is supplied the system should attempt to identify the vessel using one or a combination of the following: <ul style="list-style-type: none"> <li>○ IMO number;</li> <li>○ Data provider + data provider identifier for vessel (will be unique);</li> <li>○ Flag state + flag state identifier for vessel (will be unique)</li> <li>○ Other identifiers can be confirmed once datasets are defined</li> </ul> </li> <li>• If a vessel match is identified then the Activity, Authorisation, PSM or IUU record should be flagged for manual review.</li> <li>• If no match is identified then the Authorisation, PSM or IUU record should be rejected (cannot search for it within the GR).</li> <li>• If no match is identified for an Authorisation record then the GR must attempt to link the record with an Owner/Operator record (at this stage the process surrounding this is unknown due to the unconfirmed nature of the datasets).</li> </ul>
<b>Rationale:</b>	<p>It is expected that the GR will receive Authority, Activity, PSM and IUU information that does not contain the UVI number of a vessel, but does contain the data providers' unique identifier or the Flag State registration number. This information should still be linked to the vessel (either immediately or if the vessel does not yet exist in the GR, once it is received) based on other vessel information.</p> <p>Data provider unique identifiers and Flag State unique identifiers will only be received via Authority, Activity, PSM and IUU information, therefore this data may also result in new information being recorded against the vessel OR these records being updated with the data the GR requires to make the link between these data sets.</p> <p>Fishing Authorities may be issued to Owners or Operators rather than a vessel. The GR should make an attempt to reconcile these with Owner / Operator records within the GR.</p>
<b>Business Value:</b>	High
<b>Related Req's:</b>	2.1, 2.4, 2.5, 2.6, 2.8, 6.1, 6.3
<b>Assumptions:</b>	<p>The GR will need to hold joint unique keys that will allow it to confirm the vessel. When a flag state issues a registration number, this number is unique for the vessel and state combination.</p> <p>When a State or RFMO issues a registration number, while this number may be the same as another identifying number, it is unique to that regional body and vessel.</p> <p>These joint identifiers provide an additional means of identifying a vessel and allow for contributors which do not know or are unable to provide the GR UVI to the GR to still contribute. The GR will need to know the source of the data and record identifiers for vessels against the data provider for such an identification process to work.</p>

<b>Requirement No.:</b>	<b>2.12.0 Authority, Activity, PSM and IUU datasets with UVI but where no matching vessel exists in GR</b>
<b>Requirement:</b>	Where Authority, Activity, PSM and IUU information is received and no vessel exists within the GR or it cannot be identified using the UVI, a vessel record is to be generated to enable the vessel search functions to identify this vessel.
<b>Business Rules:</b>	<ul style="list-style-type: none"> <li>• If no vessel record for the UVI supplied exists, then the GR should attempt to identify the vessel using a combination of the following: <ul style="list-style-type: none"> <li>○ IMO number;</li> <li>○ Data provider + data provider identifier for vessel (will be unique);</li> <li>○ Flag state + flag state identifier for vessel (will be unique)</li> <li>○ Other identifiers can be confirmed once datasets are defined</li> <li>○ Name</li> </ul> </li> <li>• If a Vessel match is identified the Activity, Authorisation, PSM or IUU record should be flagged for manual review.</li> <li>• If no Vessel match is identified then the GR is to create a Vessel record with all available vessel information.</li> </ul>
<b>Rationale:</b>	<p>The GR should make every attempt to reconcile the information available to it. If a record contains a UVI then it is assumed that vessel information will be received from the UVI supplier in the near future.</p> <p>Adding the activity, authorisation, IUU or PSM record first allows the GR to manage a more complete history of the vessel and may be reconciled with the vessel once the core vessel information is received.</p>
<b>Business Value:</b>	High
<b>Related Req's:</b>	1.1.0, 6.1.0
<b>Assumptions:</b>	A vessel will be created with Vessel Name being the least amount of vessel information held.



<b>Requirement No.:</b>	<b>2.13.0 Authority, Activity, PSM and IUU datasets where Vessel details do not match GR held details</b>
<b>Requirement:</b>	Where Authority, Activity, PSM and IUU information is received the GR is to perform some basic validation on the vessel elements of the data set. If some elements do not match, then the GR Management unit requires the ability to identify and accept or reject the records
<b>Business Rules:</b>	<p>If an authority, activity, PSM or IUU record is received and it contains the GR UVI, the system is to validate the following fields:</p> <ul style="list-style-type: none"> <li>○ Name</li> <li>○ Call Sign</li> <li>○ Flag State</li> <li>○ Year Built</li> <li>○ Vessel Type *</li> <li>○ Length</li> <li>○ Moulded Depth</li> <li>○ Beam (</li> <li>○ Gross Register Tonnage</li> <li>○ Gross Tonnage</li> <li>○ Net Tonnage</li> <li>○ Dead Weight</li> <li>○ Hull Colour *</li> <li>○ Superstructure Colour *</li> <li>○ Vessel Markings</li> <li>○ Owner Name</li> <li>○ Operator Name</li> <li>○ Master</li> </ul> <ul style="list-style-type: none"> <li>• If the GR vessel record contains different values for these fields then the authority, activity, PSM or IUU record should be flagged for manual review.</li> <li>• During the review the GR Management user should be provided the ability to : <ul style="list-style-type: none"> <li>○ Accept the authority, activity, PSM or IUU and update the vessel record to match the new data</li> <li>○ Accept the authority, activity, PSM or IUU record and not update the vessel</li> <li>○ Reject the authority, activity, PSM or IUU record</li> </ul> </li> </ul>
<b>Rationale:</b>	<p>The GR should make every attempt to reconcile the information available to it. If a record contains a UVI then it is assumed that vessel information will be received from the UVI supplier in the near future.</p> <p>Adding the activity, authorisation, IUU or PSM record first allows the GR to manage a more complete history of the vessel and will be correctly linked once the vessel dataset with the remaining vessel information is received.</p>
<b>Business Value:</b>	High
<b>Related Req's:</b>	1.1.0, 6.1.0
<b>Assumptions:</b>	<ul style="list-style-type: none"> <li>• A vessel will be created with Vessel Name being the least amount of vessel information held.</li> </ul>