

EUCARIS

VAT

Drawn up by:	Sjaak Kempe, Information Analyst, RDW Netherlands.
Date:	30-3-2020
Version:	2.0.13
Status:	Final

Document control

Version	Date	Remarks
2.0.13	30-3-2020	Updated Annex D.
2.0.12	23-3-2020	VATAIIVHOH: Adapted the names of elements to the XSD files.
2.0.11	18-3-2020	Corrected a circular reference error (PlaceOfBirth referring to VehHolderPlaceOfBirth, and back).
2.0.10	4-3-2020	Corrected changes between specs and XSD – addressed by Germany.
2.0.9	2-3-2020	More (text) remarks by Germany.
2.0.8	25-2-2020	More (text) remarks by Germany.
2.0.7	16-2-2020	Various (text) remarks by Germany.
2.0.6	12-2-2020	VATAIIVHOH: Change in error message to use when person of interest is not identified uniquely (use 117 instead of 103).
2.0.5	4-2-2020	VATAIIVHOH changes after acceptance test with LU and NL: Some extra clarification in Ch. 3.7.3. Specified what to do if the search request contains an unsupported Id number.
2.0.4	27-1-2020	Information provision of current name/address. More clearly stated that also the current name should be provided, wherever possible.
2.0.3	16-1-2020	See also v2.0.1, more errors corrected in 1999-37-ec references
2.0.2	7-1-2020	(Encountered while testing with NL) VATAIIVHOH, provision about what to do when the list of vehicles is larger than 500, can be interpreted in more than one way. Stated more clearly that no list at all is provided.
2.0.1	19-12-2019	(Encountered while testing with LT) Error corrected in 1999-37-ec references
2.0.0	16-12-2019	Final release version.
1.0.18	16-12-2019	VATAIIVHOH: Addition of a chapter in which a best practice on searching and refining is described. Change in all multiple requests: RequestBatchId mandatory instead of optional.
1.0.17	10-12-2019	Error corrected in nesting of single case VATAIIVHOH request.
1.0.16	3-12-2019	Changes in the enumeration for EuropeanCategoryCode.
1.0.15	25-11-2019	Added bookmarks for the document references.
1.0.14	7-11-2019	Error correction. Nesting error in specification of VATAIIVHOH request message Error correction, annex A, corrected error in description of an EU category code.
1.0.13	5-11-2019	Error correction. Textual errors in descriptions of vehicle European Union category codes.
1.0.12	30-10-2019	Error correction. Response message multiple VATAIIVHOH; RequestBatchId is mandatory instead of optional.
1.0.11	22-10-2019	Correction of an error detected by Lithuania: Ch. 4.1.4 Corrected specification of allowed time zone designators.
1.0.10	21-10-2019	Correction of an error detected by Slovenia: Nesting corrected in VATHitNoHit response messages (single case, multiple case).
1.0.9	8-10-2019	Changes in the VATAIIVHOH message. Changes in search and response rules of VATAIIVHOH.

1.0.8	7-10-2019	<p>Change request by Austria: Extend length of various name and address attributes, to mitigate problems with names and addresses that do not fit.</p> <p>Address: StreetName attributes => 100 positions StreetNumber attributes => string 25 positions (instead of numeric) StreetNumberAnnex => 25 positions AddressLine => 100 positions Place of residence => 100 positions</p> <p>Person: Company name (same as legal person name) =>200 positions Gender enumerations: Added value D for 'diverse' gender Place of birth => 100 positions NameLine => 100 positions</p>
1.0.7	24-9-2019	<p>Solution change in the VAT All vehicles of owner-holder inquiry (VATAIIVHOH). Possibility to launch the inquiry using a VATVHOH or VATVHOHLifecycle holder or owner result, and copy identifying data of the person as well as the vehicle. Removed the VATPOI inquiry.</p>
1.0.6	25-7-2019	<p>Change in multiple VATHitNoHit processing. For processing the request, the Batch Processor (at the requesting Member State) shall be used. Since this processing method results in one, complete, consolidated response, there are no consolidation issues when picking up the response at the client side. Update of related documentation list.</p>
1.0.5	11-7-2019	<p>Changes in VATHitNoHit message (InformationResponseMessage, BodyMessage).</p>
1.0.4	11-6-2019	<p>VATVHOH and VATVHOH Lifecycle: Design change in how to handle VehHolderReplyMessages and VehOwnerReplyMessages.</p>
1.0.3	6-6-2019	<p>VATVHOH: Error corrected, VehOwnerReferenceDateTime is only mandatory if the node VehicleOwner is present. Placeholder added.</p>
1.0.2	28-5-2019	<p>VATVHOH Lifecycle, removal of VehReferenceDateTime from the single case response message (item is not in the request, should not be present).</p>
1.0.1	22-5-2019	<p>VATVHOH Lifecycle, addition of Mileage section to the response message (which was forgotten).</p>
1.0.0	9-5-2019	<p>Final version, published 13th May 2019.</p>
0.0.10	9-5-2019	<p>Corrected inconsistency in field length of MiddleName, set to 40, everywhere the item is used.</p>
0.0.9	15-4-2019	<p>Corrected error in enumeration of MileageHistoryStatusCode.</p>
0.0.8	9-4-2019	<p>Changes in VATPOI request message.</p>
0.0.7	1-4-2019	<p>Changes after VAT workshop Removal of ELO identification as a specific edit field (for access to the system, it is conditional to be appointed as ELO, which means that user identification in messages is enough) Mileage information: If the full mileage history is not explicitly requested, only the last mileage, recorded before reference date and time is returned. Addition of graphical representations of single country/multi country synchronous flow, as well as multi asynchronous flow. Search PoI, vehicles held and owned. In the PoI response message, it is possible to return multiple personal id numbers or legal person numbers. Search criteria for both messages completely equal.</p>
0.0.6	13-3-2019	<p>Addition (for clarity): Request to 'self' is possible, MCI broadcast includes the own country.</p>

0.0.5	18-2-2019	Change in specification of VehSignalCode (info in Annex A and Annex E aligned), MileageRecordingCountryCode. Annex A: Change in descriptions of VehHolderStreetNameExtra, VehHolderStreetNrAnnex. Change in search of response rules in searching a person via a vehicle identifier.
0.0.4	7-2-2019	Corrected errors in VehColourCode value list
0.0.3	31-01-2019	EUCARIS Operations Team review: A number of remarks on the content, Changes where MCI requests are supported, support of MCI request to 'some', names of messages, improvements in message items, removal of browsing proposal, cosmetic changes, changes in description of statistics collection process, Annex E (on vehicle signals) addition of impact of signals on the possibility/legal right to sell a vehicle. Remarks by the EUCARIS Technical Working Group (advisory board for EUCARIS, consisting of representatives of RAs in Europe): In the PoI search, add a vehicle identifier, so that the RA can use this to find the person. Is thought to be more accurate than searching by name data (which fails if there's any difference between names requested and names recorded).
0.2	9-1-2019	Changes and additions because of comments from Eurofisc, SCAC and DG TAXUD; changes and additions after session with EUCARIS team
0.1	16-8-2018	Draft, for discussion and quotations.

Related Documentation

ID	Name
[DOC-1]	Council Regulation (EU) 2018/1541 of 2 October 2018, amending Regulations (EU) No 904/2010 and (EU) 2017/2454 as regards measures to strengthen administrative cooperation in the field of value added tax
[DOC-2]	Implementing Regulation 2019-1129 providing details for implementing the access to vehicle registration data for VAT purposes
[DOC-3]	Council Directive 1999/37/EC of 29 April 1999 on the registration documents for vehicles.
[DOC-4]	EUCARIS Batch Processor UC-1 Process Multi Case Request (by the Responding Member State)
[DOC-5]	EUCARIS Batch Processor UC-2 Process Multi Case Request (by the Requesting Member State)

Contents

1. INTRODUCTION	8
1.1 GENERAL	8
1.2 DEFINITIONS	9
2. EUCARIS VAT SERVICES	11
2.1 AVAILABLE WEB SERVICES	11
3. VAT SERVICES DESCRIPTION AND REQUIREMENTS	13
3.1 SYNCHRONOUS AND ASYNCHRONOUS PROCESSING	13
3.2 MULTI COUNTRY INQUIRY (MCI)	13
3.3 TOO LARGE RESULTS LIST	14
3.4 BATCH PROCESSOR	14
3.5 VAT OWNER HOLDER (VATVHOH)	15
3.6 VAT OWNER HOLDER DURING VEHICLE LIFECYCLE (VATVHOHLIFECYCLE)	20
3.7 VAT ALL VEHICLES OF OWNER-HOLDER (VATALLVHOH)	24
3.8 VAT HIT-NO HIT	30
4. XML MESSAGE SPECIFICATION	32
4.1 USED CONVENTIONS	32
4.2 HEADER	33
4.3 VAT OWNER HOLDER (VATVHOH)	34
4.4 VAT OWNER HOLDER LIFECYCLE (VATVHOHLIFECYCLE)	38
4.5 VAT ALL VEHICLES OF OWNER-HOLDER (VATALLVHOH)	41
4.6 VAT HIT NO-HIT	47
4.7 VEHICLE REGISTRATION DATA	49
4.8 VEHICLE TECHNICAL DATA	50
4.9 VEHICLE HOLDER DATA	50
4.10 VEHICLE OWNER DATA	51
4.11 VEHICLE MILEAGE DATA	52
5. STATISTICS	53
6. AVAILABILITY MONITORING	55
7. ANNEX A – NODES AND ELEMENTS	56
7.1 GENERAL MESSAGE ELEMENTS	56
7.2 VEHICLE REGISTRATION DATA	62
7.3 VEHICLE TECHNICAL DATA	63
7.4 NATURAL PERSON, LEGAL PERSON, HOLDER, OWNER DATA	68
7.5 VEHICLE MILEAGE DATA	77
8. ANNEX B – DEFINED CONTROL MESSAGES	79
8.1 CONTROL MESSAGES WHEN ENTIRE REQUEST MESSAGE CAN NOT BE PROCESSED	79
8.2 CONTROL MESSAGES WHEN AN INDIVIDUAL INFORMATION REQUEST IS UNSUCCESSFUL	79
8.3 CONTROL MESSAGES REGARDING DATA QUALITY	80
8.4 BEST PRACTICES	81
9. ANNEX C – XSD VALIDATION	83
10. ANNEX D – COUNTRY CODES	84
10.1 EUCARIS COUNTRY CODE CONVENTION	84
10.2 CODING SYSTEMS	FOUT! BLADWIJZER NIET GEDEFINIEERD.

10.3	ARTIFICIAL COUNTRY CODES	85
11.	ANNEX E – VEHICLE SIGNALS	86

1. Introduction

1.1 General

Legal basis under the messages described in this document, is [DOC-1]. The implementing regulation [DOC-2] describes cross-border exchanges between VAT authorities for VAT related purposes.

A VAT authority, responsible for investigations into suspected VAT fraud, needing vehicle information and/or holder-owner information from another Member State, send a VAT information request to its National Contact Point (NCP), via which the request is sent to the NCP of the information providing Member State.

The information providing Member State provides a response, using national vehicle registration data. The response message, via the NCP, is returned to the NCP of the requesting Member State, which returns the message to the VAT authority.

Access to the information exchange is exclusively reserved to natural persons in the role of Eurofisc Liaison Official (ELO) – see also [DOC-2]. Authorisation for client applications shall be granted to ELOs only. The user identification of the user making the request is included in request messages via the header attribute *SenderName*. In response messages, the contents of *SenderName* are echoed.

The following types of VAT requests exists:

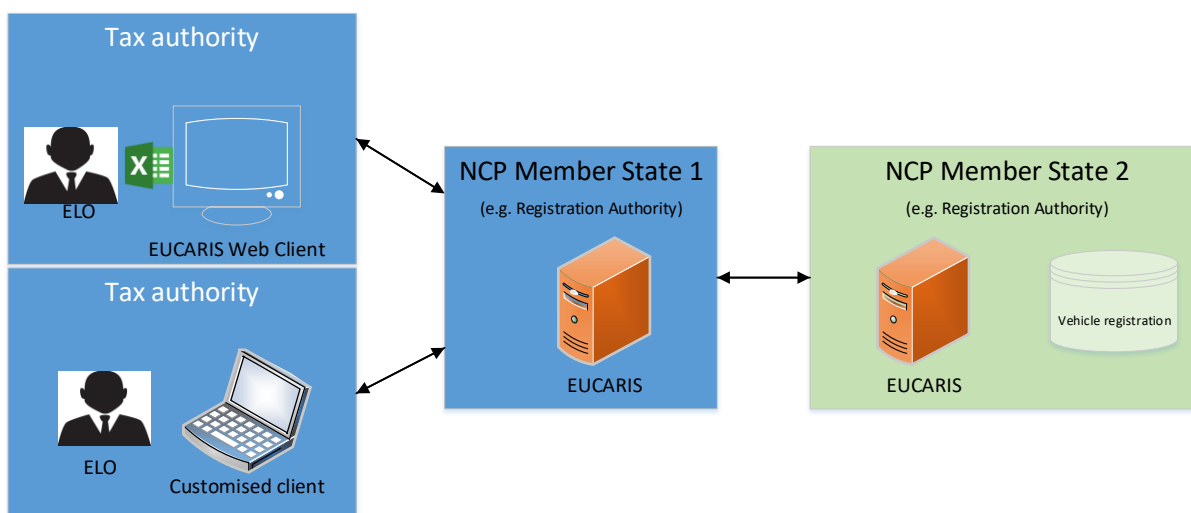
- A vehicle-owner/holder enquiry, by VIN or licence plate number, at a certain reference date and time.
- An inquiry to a vehicle's owner-holder history, by VIN.
- An inquiry to vehicles held and/or owned by a certain natural person or legal person, at a certain reference date and time.
- An inquiry in what Member States a vehicle is known, and in what Member States it is unknown (hit-no hit).

The types of request can be launched either multiple case or single case. Single inquiries can be sent to one specific Member State, or can be broadcast to all or a series of Member States connected to the VAT network (Multi Country Inquiry MCI).

Multiple requests are processed asynchronously (e.g. the information providing Member State processes the request overnight in a batch run), and yields a multiple case response. Information providing Member State may use the EUCARIS Batch Processor ([DOC-4]) to process multiple case requests.

Multiple HitNoHit VAT requests (MCI request) are processed using the EUCARIS Batch Processor at the requesting Members State ([DOC-5]).

The single case request is processed synchronously (real-time) and yields a single case response.



1.2 Definitions

Abbreviation	Full term	Meaning
CA	Competent Authority	Organisation responsible for collecting VAT and/or combating VAT fraud.
Eurofisc		Platform for the exchange of information between EU countries, to improve multilateral cooperation in combating VAT fraud.
ELO	Eurofisc Liaison Official	Eurofisc liaison officials will channel their Member State's exchanges of information in the working fields in which they participate and will study, analyse and exchange experiences regarding different types of fraud, national risk analyses, risk areas and other relevant information related to VAT fraud.
	Information request	A request related to one specific VAT case. A single case request contains 1 information request. A multiple case request contains N information requests, all of the same type and all meant for the same Member State, except for the hit-no hit request, that may be directed to all or to a series of countries.
	Information response	A response related to one specific VAT case. A multiple case response contains N information responses, a single case response contains 1 information response.
NCP	National Contact Point	A designated competent authority for the exchange of vehicle-owner-holder information, for VAT related purposes.
	Outdated registration	A vehicle registration is regarded to be outdated at a certain reference date if the vehicle has a status 13 (Vehicle exported), 14 (Vehicle registration cancelled due to destruction), 15 (Vehicle de-registered). The information known to and provided by the RA, is the actual information at end date of vehicle registration, and is most likely not updated after that.
PoI	Person of interest	A natural person or legal person, somehow involved in a VAT related investigation, for which knowledge of vehicles held and owned is required.
RA	Vehicle Registration Authority	The central authority in a Member State that is responsible for the registration of vehicle data and their holders/owners; the RA normally acts as the NCP for incoming requests and provides the requested information.
VAT	Value Added Tax	A value-added tax (VAT) is a consumption tax placed on a product whenever value is added at each stage of the supply chain, from production to the point of sale.
VAT number	VAT number	A national number that is used for value added tax purposes. For an overview of number names and numbering schemes: https://en.wikipedia.org/wiki/VAT_identification_number
	Vehicle holder	The natural person or legal person in whose name the vehicle is registered. The vehicle registration certificate – [DOC-3] – mentions the holder under item C.1
	Vehicle owner	Natural person or legal person that is the legal owner of the vehicle (i.e. the entity that has bought the vehicle, and has the

Abbreviation	Full term	Meaning
		right to sell it). The vehicle registration certificate – [DOC-3] – mentions the owner under item C.2 In many countries the owner of a vehicle is not specifically registered in the Vehicle Registration
	(XML) node	Element bundling underlying XML elements. In an XSD, an XML node is a complex type element, containing a sequence of underlying elements.
	(XML) element	The name and value of a certain data item.

2. EUCARIS VAT services

2.1 Available web services

The following Eucaris services are available for handling the VAT information exchange:

- 1) VAT Vehicle Info, Owner and Holder on Reference Date-Time (short name *VATVHOH*).
Via this service, the holder and owner of a vehicle is determined, at a specified moment in time (reference date and time).
 - a) Request by Licence Plate Number (Vehicle Registration Number)
 - i) Multiple case service – Message dialogue *VATVHOHMultipleByRegNumAndDate* and *VATVHOHMultipleResponse*.
 - ii) Single case service – Message dialogue *VATVHOHByRegNumAndDate* and *VATVHOHResponse*.
 - b) Request by Vehicle Identification Number (VIN)
 - i) Multiple case service – Message dialogue *VATVHOHMultipleByVINAndDate* and *VATVHOHMultipleResponse*
 - ii) Single case service – Message dialogue *VATVHOHByVINAndDate* and *VATVHOHResponse*.
The requester of the service denotes if extended vehicle data are required or not (*ExtendedVehicleDataRequired* ‘true’ or ‘false’).
- 2) VAT Owners and Holders During Vehicle Lifecycle (short name *VATVHOHLifecycle*)
Via this service, all holders and owner of a vehicle, during its complete lifecycle, are determined. If the vehicle has been registered in more than one Member State, its holders and owners will be provided by more than one country.
 - a) Request by Vehicle Identification Number (VIN)
 - i) Multiple case service – Message dialogue *VATVHOHMultipleLifecycleByVIN* and *VATVHOHMultipleLifecycleResponse*
 - ii) Single case service – Message dialogue *VATVHOHLifecycleByVIN* and *VATVHOHLifecycleResponse*
The requester of the service denotes if extended vehicle data are required or not (*ExtendedVehicleDataRequired* ‘true’ or ‘false’).
- 3) VAT All Vehicles of Owner-Holder (short name *VATAIIVHOH*)
Via this service, all vehicles held and owned by a specific natural person or legal person, can be determined. Identifying data of the person of interest (PoI) can be obtained from the result of a *VATVHOH* or *VATVHOHLifecycle* inquiry. A search request ‘all vehicles held and owned’ is composed, using the identifying personal data of one specific holder or owner, along with identifying data of the vehicle, and this request is sent to the Member State that provided the data. To provide the list of vehicles held and owned, the Member State either uses the personal data of the PoI or the identifying data of the vehicle, to search and find the PoI.
An ‘all vehicles held and owned’ request is always sent to one Member State specifically. If a PoI holds or owns vehicles in different Member States, a separate inquiry for each Member State must be launched¹.
 - a)
 - i) Multiple case service – Message dialogue *VATAIIVHOHMultipleRequest* and *VATAIIVHOHMultipleResponse*.
 - ii) Single case service – Message dialogue *VATAIIVHOHRequest* and *VATAIIVHOHResponse*.
- 4) VAT Hit-no hit (short name *VATVHHitNoHit*)
This service is intended to be used in ‘batch’ mode primarily (a single case service is available, however).
The request contains a (large) number of vehicles, identified by Vehicle Identification Number. The request

¹ Please note that the identifying data of the person may be different per Member State, because of name change (e.g. marriage), transliteration, or differences in use of diacritical characters.

is broadcast to each Member State connected to the VAT network. A Member State looks up all vehicles in the batch request, to denote if the vehicle is known ('hit') or unknown ('no hit') in the vehicle register.

- i) Single case service – Message dialogue *VATVHHitNoHitRequest* and *VATVHHitNoHitResponse*.
- ii) Multiple case service – Message dialogue *VATVHMultipleHitNoHitRequest* and *VATVHMultipleHitNoHitResponse*.

With a multiple case service, requests for a number of VAT related cases can be submitted via one request. A multiple case service is an asynchronous service, i.e. the message exchange is done using the EUCARIS generic message queues. The request message is submitted to the NCP (in the EUCARIS upload queue), and arrives in the download queue of the information providing Member State, where it remains until some domestic application, or the EUCARIS batch processor, picks it up for processing.

The resulting response message is submitted to the EUCARIS upload queue at the information providing Member State, and arrives in the download queue of the NCP of the requesting Member State, where it remains, until the application of the VAT authority asks for the response.

With the single case service, 1 VAT related case request can be submitted.

The single case service is a synchronous service, i.e. a request message is prepared using the EUCARIS web client or a customised client, and is sent to the recipient Member State in an interactive, synchronous session, in which MS-resp passes through the request to its vehicle register and passes through the response from its vehicle register to MS-req, where it is presented to the requesting client.

For all services, requests to one specific Member State are supported, including the possibility to send a request to 'self' (sender and recipient country are the same). For a number of services, an 'MCI' request is supported (i.e. the request message is either sent to all, or a series of Member States connected to the VAT network). If MCI is not supported, requests are always sent to one specific Member State. See Ch. 3.2 for an overview in which services MCI is supported.

The *VATVHOH* service is described in more detail in Chapter 3.5. For the message specs, see 4.3.

The *VATVHOHLifecycle* service is described in more detail in Chapter 3.6. For the message specs, see 4.4.

The *VATAIIVHOH* service is described in Chapter 3.7. For the message specs, see 4.5.

The *VATVHHitNoHit* service is described in Chapter 3.8. For the message specs, see 4.6.

3. VAT services description and requirements

3.1 Synchronous and asynchronous processing

A single case request contains one information request and is processed synchronously.

A multiple case request contains 1 .. N information requests and is processed asynchronously.

A client that submits a single case request, can wait for and receive a response within a synchronous session, i.e., within the synchronous session, either EUCARIS provides a response, or the timeout – about 20 seconds – elapses.

In ‘batch’ mode (multiple case request) the client, after submitting the request, cannot wait for the response to be returned, since it may take an indefinite amount of time before a response comes back from the requested Member State(s). Therefore, incoming responses are queued by EUCARIS.

So, to present or process responses, the client application of a VAT authority will have to fetch the responses from the EUCARIS download queue.

Using EUCARIS Generic Async Service, providing the *MessageId* of the request message, a client application may retrieve a response from the download queue of EUCARIS. If the EUCARIS web client is used, a facility to retrieve queued responses, is available.

Please note that if the response is unavailable, EUCARIS is unable to determine if the response is still underway and how long it may take before it arrives. So, a client application may have to request for queued responses repeatedly, before it is delivered. Technically, there is no deadline for the response to be delivered (so the amount of time to wait for a response, has to be agreed procedurally).

3.2 Multi Country Inquiry (MCI)

For various VAT services, it is possible to launch an ‘MCI’ request.

Service	Processing mode	Request by	MCI support	Remarks
VATVHOH	Single case	VIN	Yes	
	Multiple case	VIN	No	
	Single case	Licence plate number	No	Licence plates are issued nationally
	Multiple case	Licence plate number	No	Licence plates are issued nationally
VATVHOHLifecycle	Single case	VIN	Yes	
	Multiple case	VIN	No	
VATAIIVHOH	Single case	Personal + Vehicle data	No	
	Multiple case	Personal + Vehicle data	No	
VATVHHitNoHit	Single case	VIN	Yes	
	Multiple case	VIN	Yes	MCI supported, also in asynchronous mode

An MCI is either a 'request to all' (i.e. all Member States connected to the VAT network, including the Member State that sends the request) or a 'request to some' (i.e., a subset of Member States connected to the VAT network, e.g., a series of Member States in which a particular VAT fraud scheme is investigated, where the Member State that sends the request may be included).

In MCI, a client application submits one request message to EUCARIS. For a 'request to all' the *RecipientCountry* attribute is denoted as 'MCI', and EUCARIS will determine the countries that must receive the request, i.e. the Member States that are connected to the VAT network. For a 'request to some' the *RecipientCountry* attribute is also denoted as 'MCI', while the Member States that must receive the request are specified by the requesting VAT authority, in the *RecipientCountryTable* (see also 4.2).

EUCARIS copies the request N times, one copy for each intended receiver, and sends the request to all or a series of Member States.

Each of these Member States receives one request to process. This results in N responses received by EUCARIS.

Since the client submitted one request only, it expects to receive one response as well. Therefore, all responses from all Member States are collected, and are merged into one 'MCI' response message.

For single case requests (synchronous processing), the consolidation step is carried out by EUCARIS, without requiring any effort from the VAT authority. If a client sends an 'MCI' request message, EUCARIS will deliver one response to the request. Since all responses are collected in one synchronous session, EUCARIS can check that it is complete (and if in one or some Member States a timeout occurs, it can add a timeout response from that Member State).

Hit-no hit multiple case requests, are processed using the EUCARIS Batch Processor (for further detail, refer to 3.4). This method of processing ensures that, at the moment the client of the VAT authority checks if a response is available (using the Generic Async Service of EUCARIS), either a complete response is provided, or no response at all, in which case the VAT authority has to come back later to check again if Batch Processor is done processing, and the response is available now.

3.3 Too large results list

This chapter applies to the VATVHOHLifecycle inquiry as well as the VATAllVHOH inquiry. In both cases, the list of items to retrieve, may be large. For that reason, a maximum is set on the number of items to retrieve in an automated request.

If the number of items to retrieve is larger than the maximum, then the response consists of an error message 103 (Too many records found, see also Annex B (chap. 8)). Preferably, the RA, via message 509, provides contact information via which the request can be dealt with in an offline, non-automated way.

3.4 Batch processor

3.4.1 Use of Batch processor to provide info

Each Member State that is connected to the VAT network, must develop a gateway to its vehicle registration, to be able to provide the information requested in the VAT services. This gateway must, always, be able to process single case inquiries, i.e. a synchronous inquiries to the vehicle registration, providing information about one VAT case per request message, within timeout.

When it comes to multiple case inquiries, each information providing Member State (the RA, not the VAT Authority) has a choice.

Option 1: Develop a gateway to process multiple case request message, i.e. support information provision in 'batch' mode.

Option 2: Use the EUCARIS batch processor. This is a EUCARIS component, able to pick up batch request messages from the download queue (at a moment scheduled by the Member State), split the batch request message into single requests, fire these requests one-by-one to the single case legacy, collect all responses and create a bundled batch response, and submit this response message to the upload queue, so that it is sent to the requesting Member State.

The use of batch processor to provide info on multiple case request is described in [DOC-4].

3.4.2 Use of Batch processor to process multiple case MCI requests

The VAT multiple case HitNoHit request is an MCI request. Since it is a multiple case request, and if these requests were sent directly to all Member States that are part of the VAT network. the processing would be asynchronous. This introduces a consolidation problem for the requester. The requester would send out one batch request, but would receive many batch responses, without knowing which country responds at what time. There would be no clear moment where the response could be picked up, with certainty that it would be complete. To avoid this consolidation issue, the multiple case HitNoHit request is processed using the EUCARIS Batch Processor. In this particular setup, the Batch Processor is used at the requesting Member State side, instead of the information providing Member State side (previous chapter).

A VAT multiple case HitNoHit is stored at the requesting Member State, and picked up by the Batch Processor at a suitable moment (scheduled by the requesting Member State). The batch file is split up into individual requests (cases) and these request are sent case-by-case, as single MCI requests, to all countries that belong to the VAT network. Each individual inquiry results in a consolidated response of all Member State inquired. If finished with all cases, the Batch Processor submits a combined multiple case, consolidated response, and submits this end result into the local download queue.

If from a client application it is inquired if a response is available, it will either receive the complete response or it will find nothing (in which case it will have to wait and retry until the Batch Processor is ready with processing).

The use of batch processor in processing multiple case HitNoHit requests, is described in [DOC-5].

3.5 VAT Owner Holder (VATVHOH)

The VAT authority requesting information either provides a full vehicle licence plate number and a reference date and time, or a full Vehicle Identification Number (VIN) and a reference date and time. For the request by licence plate number, the information request is sent to the Member State where the vehicle is registered. For the request by VIN, the information request is either sent to one specific Member State, or the request is broadcast to all or a series of Member States connected to the VAT network (Multi Country Inquiry or MCI).

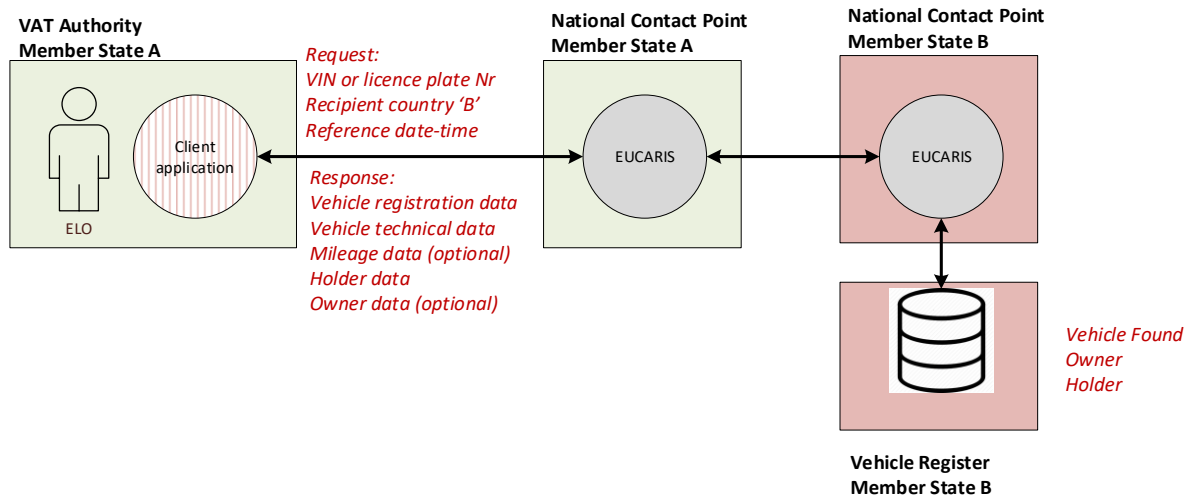
In the request, it is denoted if extended vehicle data are required or not.

The information response contains identifying data and registration data of the vehicle, data of the natural person or legal person that is holder of the vehicle at reference date and time, and, optionally, data of the natural person or legal person that is owner of the vehicle at reference date and time.

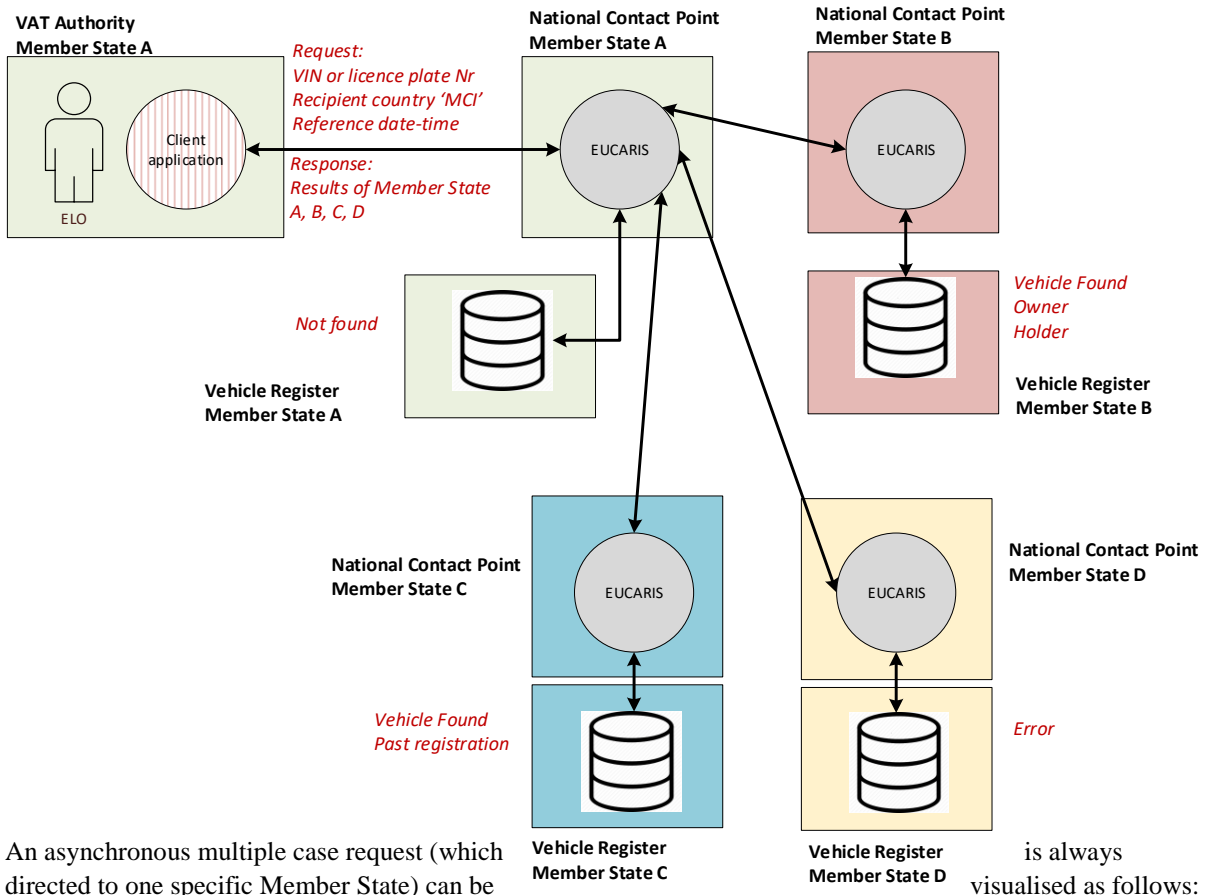
The service can be used 'single case' (synchronously) or 'multiple case' (asynchronously).

3.5.1 Graphical representation

A synchronous, single case request to one specified Member State, can be visualised as follows:

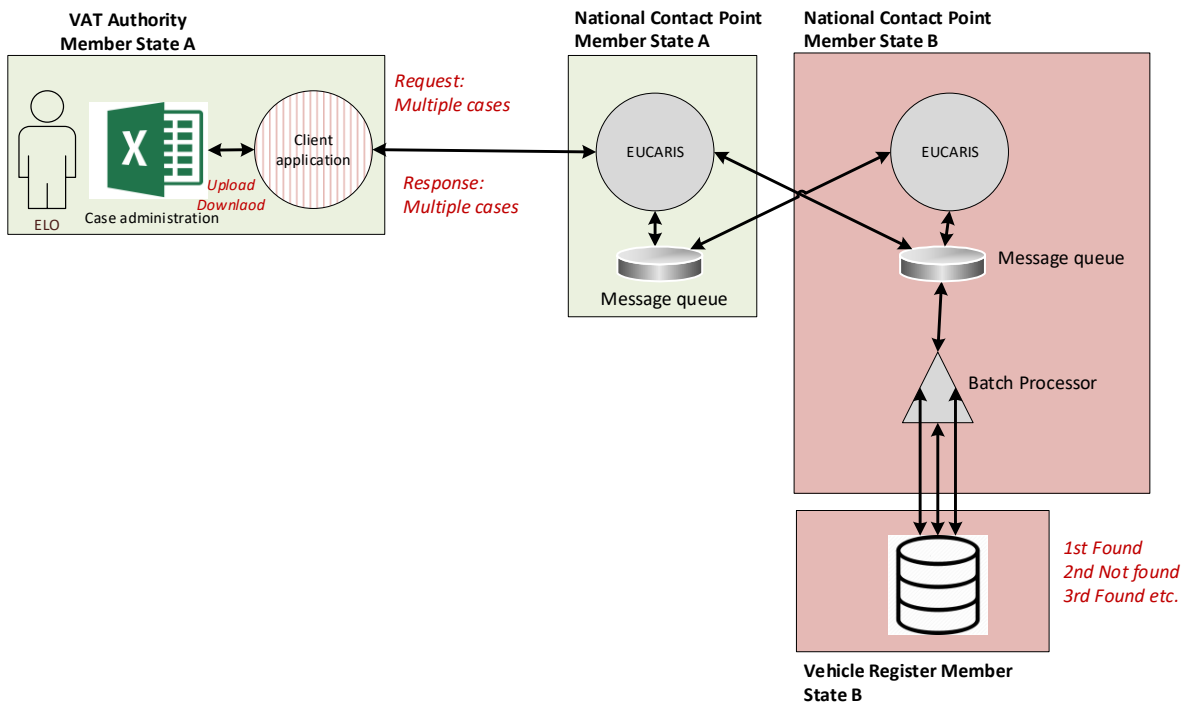


A synchronous, single case request to all countries or a subset of Member States, can be visualised as follows:



An asynchronous multiple case request (which directed to one specific Member State) can be

is always visualised as follows:



3.5.2 Request rules

1. Each individual information request will be assigned a reference (*RequestId*). This is an ID unique to the original sender of the information request, and it is used by the original sender to correlate information response to information request. May correspond to the case reference in the national domain.
2. A VAT authority either inquires case-by-case, using the single case service, or bundles cases into one request, using the multiple case service. A single case service request contains 1 information request, a multiple case request contains N information requests. There are separate request messages for inquiries based on licence plate number, and inquiries based on Vehicle Identification Number.
3. If the EUCARIS web client is used to submit requests, it is possible to offer input by uploading a .csv file containing N information requests. EUCARIS will convert the .csv input to xml. The response will be provided in .csv format as well, by EUCARIS (through conversion of the xml response).
4. An information request may be done by a full licence number. It is possible to provide the alphabetic characters only, but is also possible to provide the number 'as seen on the plate' i.e. including spaces or dots or hyphens.
5. An information request may also be done by a full Vehicle Identification Number (VIN).
6. For an information request by licence number, it is mandatory to denote the Member State of registration (*RecipientCountry*, header element).
7. For a multiple case request by VIN, the requester provides the Member State of Registration (*RecipientCountry*). For a single case request by VIN, the requester either provides the Member State of Registration (*RecipientCountry*) or denotes that the request is to be broadcast by EUCARIS to all countries (*RecipientCountry*='MCI') or denotes that the request is to be broadcast by EUCARIS to a series of countries (*RecipientCountry*='MCI', *RecipientCountryTable* contains the countries to inquire).
8. An information request contains a reference date and time, i.e. date and time for which the information is requested. If no reference date and time is provided, the actual information is inquired.
9. The user making the request (which is an ELO) is denoted in the header attribute *SenderName*.
10. An information request contains the name of the VAT authority handling the case.
11. If the ELO requires extended vehicle data in the response message, the Boolean *ExtendedVehicleDataRequired* in the request message is set to 'true'. The extended data includes the last recorded mileage prior to reference date and time (or the last recorded mileage, if reference date and time is not provided). If basic vehicle data is sufficient, it is set to 'false'.
12. If the ELO requires a full mileage history in the response message, the Boolean *FullMileageHistoryRequired* in the request message is set to 'true', otherwise 'false'.
13. If a multiple case request message is launched, it is the responsibility of the VAT authority to retrieve the response message (at an appropriate moment). If a response is not available yet, it is the responsibility of the VAT authority to repeat the inquiry for responses. It is the responsibility of the VAT authority to keep track of answered and unanswered requests. It is the responsibility of the VAT authority to contact the information providing Member State to inquire about unanswered requests (or repeated slowness in responding). However, EUCARIS assists this procedures by providing lists of functional and technical contact points.

3.5.3 Search and response rules

1. A multiple case request is processed asynchronously, i.e. Member State of registration is not obliged to pick up a request immediately. It can schedule processing at a suitable moment (e.g. overnight).
2. In the processing of a multiple request a Member State has a choice, either to use a specific legacy system for multiple case processing, or use the single case legacy system via the EUCARIS batch processor (refer to 3.4 for more information about the batch processor).

3. A single case request is processed synchronously, i.e. the Member State of registration processes the request right after it comes in, providing a response before the synchronous session is closed by EUCARIS (the time out will be about 20 seconds).
4. If necessary, the RA of the information providing Member State removes non-alphabetic characters (spaces, dots, hyphens) from the licence number, prior to searching the vehicle register. If there is any additional logic needed to carry out a successful search, the information providing Member State is responsible for applying it. It shall not impose any specific search logic on the requester.
5. The information valid at reference date and time shall be provided (vehicle info, holder and owner at reference date and time). This includes vehicle signal information (see Annex E). If the request contains no reference date and time, the actual information, including actual vehicle signals, shall be provided.
6. If the request contains no reference date and time, the current situation is inquired. If an 'outdated' vehicle registration is found, then the last known situation shall be provided, i.e. vehicle data, including end date of registration, applicable signal information (e.g. 'exported' or 'de-registered', see also Annex E(chap. 11)), last known holder, last known owner, including end dates of holdership/ownership. *Please note that in this case the RA provides information that was valid at end date of registration data of the vehicle. This information may not be actual anymore at the moment of inquiry.*
7. For the vehicle, basic identifying attributes shall be provided (licence plate number, VIN, make, commercial name, EU category)
8. The vehicle attributes colour, mass in running order, as well as the last recorded mileage before reference date and time, shall only be provided if in the request message, *ExtendedVehicleDataRequired* is set to 'true'.
9. A complete history of mileage recordings shall only be provided if in the request message, *FullMileageHistoryRequired* is set to 'true'.
10. In the following situations, a Member State of registration shall not provide holder-owner information:
 - a. Vehicle not found
 - b. No owner-holder found at reference date-time
 - c. The vehicle is reported stolen (on reference date-time).
 - d. The vehicle registration is 'outdated' at reference date-time, i.e. the vehicle registration has ended because of export or destruction, or the vehicle has been de-registered for other reasons.
In Annex B (chap. 8), variants of information responses are listed, including (error) messages to be used.
11. In the following situations, a Member State can choose not to disclose information:
 - a. For the particular type of licence plate, no owner-holder info is recorded in a register. No information is exchanged².
 - b. The Member State of registration is, under national law, not allowed to provide information about the owner-holder (members of the Royal Family or the Government, witness protection program, etc.). No information is exchanged.
12. It is possible that the search criterion (licence plate number or Vehicle Identification Number) does not identify one vehicle uniquely. In such cases, the Member State either provides all results OR, if national law prevents returning all data, returns an information response with message 103. If possible, the Member State also provides a contact (via message 509) via which the issue can be resolved.
13. A successful information response consists of the following elements:
 - a. Request Id (mandatory, copied from request message, denotes the corresponding information request).
 - b. Identifying vehicle data (Make, commercial name, vehicle category).
 - c. Extended vehicle data (Colour, mass in running order, last recorded mileage before reference date and time). Only if *ExtendedVehicleDataRequired* in the request message is set to 'true'.
 - d. Full history of mileages. Only if *FullMileageHistoryRequired* is set to 'true'.
 - e. Vehicle signals, if applicable, at reference date and time.
 - f. Information of the holder (mandatory if found, available, disclosed). A Member State shall always provide a holder, i.e. the natural person or legal person to whom Part I of the vehicle registration certificate [DOC-3] was issued.
 - g. Information of the owner (optional). Member States that record information about owners, shall also provide the owner information.
 - h. If a Member State of registration is able to provide owner as well as holder, it provides both (also if they are the same).

² It varies per Member States, for what types of licence plates (e.g. regular, temporary, seasonal, plates for export/transit, diplomatic plates, military plates) information can be provided. Detailed info per Member State will become available via data overviews per Member State.

- i. Information about data quality (optional).
14. The current name and address data of the vehicle owner or holder will be provided, whenever possible. If the current name/address is not available, the last known information will be provided, whenever possible. If the last known information is provided, a message is added, informing the VAT authority that the name and/or address data are unverified.

3.5.4 Data items to provide

All items specified in [DOC-2] as 'mandatory to provide if available' shall be provided whenever possible.

3.5.5 Consolidated responses

If a consolidated response is received on an MCI request, please note that:

- 1 The MCI response consists of the results of all connected Member States, including the sender country of the request.
- 2 Each Member State's response is either a 'found' result (vehicle found) or a 'not found' result (vehicle not found) or an 'error' result (functional error message provided by the Member State, or an error message generated by EUCARIS because the Member State is unavailable, or failed to produce a response message in time).
- 3 EUCARIS simply returns all results provided by all Member States. It will not interpret the result in any way, and does not check if the results from various Member States are consistent with each other. This must be done by the ELO receiving the results.
- 4 The combined result may consist of several hits, where the following variants are possible
 - a) The vehicle is not found anywhere.
 - b) One vehicle is found once, in one Member State.
 - c) One vehicle is found more than once, in different Member States.
 - d) In one Member State, more than one vehicle is found (if the VIN or licence plate number is not uniquely identifying).
 - e) Different vehicles from different Member States are found (if the VIN is not uniquely identifying).
- 5 A vehicle may have been registered in different Member States. However, at a given reference date and time, normally, only one actual registration exists, and only one owner-holder result will be provided.
- 6 If there are Member States that report an error, the VAT authority has to decide if a new request is launched or if the error can be dismissed as unimportant.

3.6 VAT Owner Holder during vehicle lifecycle (VATVHOHLifecycle)

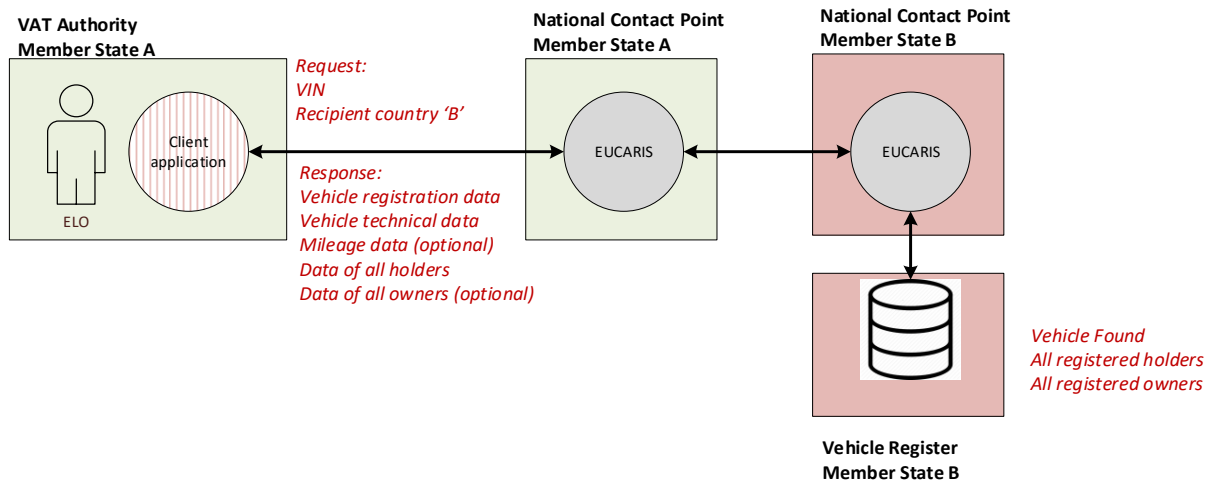
The VAT authority requesting information provides a full Vehicle Identification Number (VIN). The information request is either sent to one specific Member State, or the request is broadcast to all Member States connected to the VAT network (Multi Country Inquiry or MCI). An MCI request will retrieve all vehicle holders and owners, from all Member States the vehicle is or has been registered.

The information response contains identifying data and registration data of the vehicle, as well as the data of all natural persons or legal persons that have been holder or owner of the vehicle.

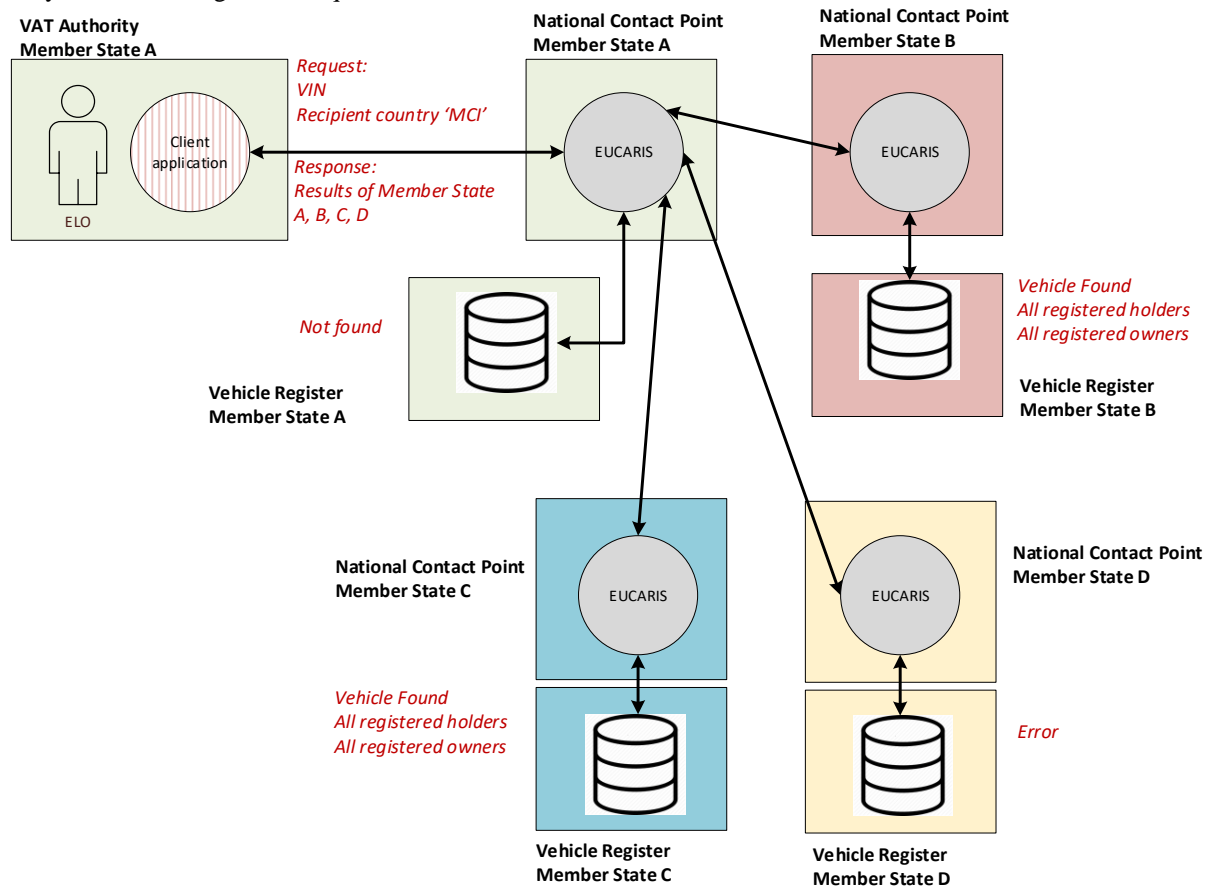
The service can be used 'single case' (synchronously) or 'multiple case' (asynchronously).

3.6.1 Graphical representation

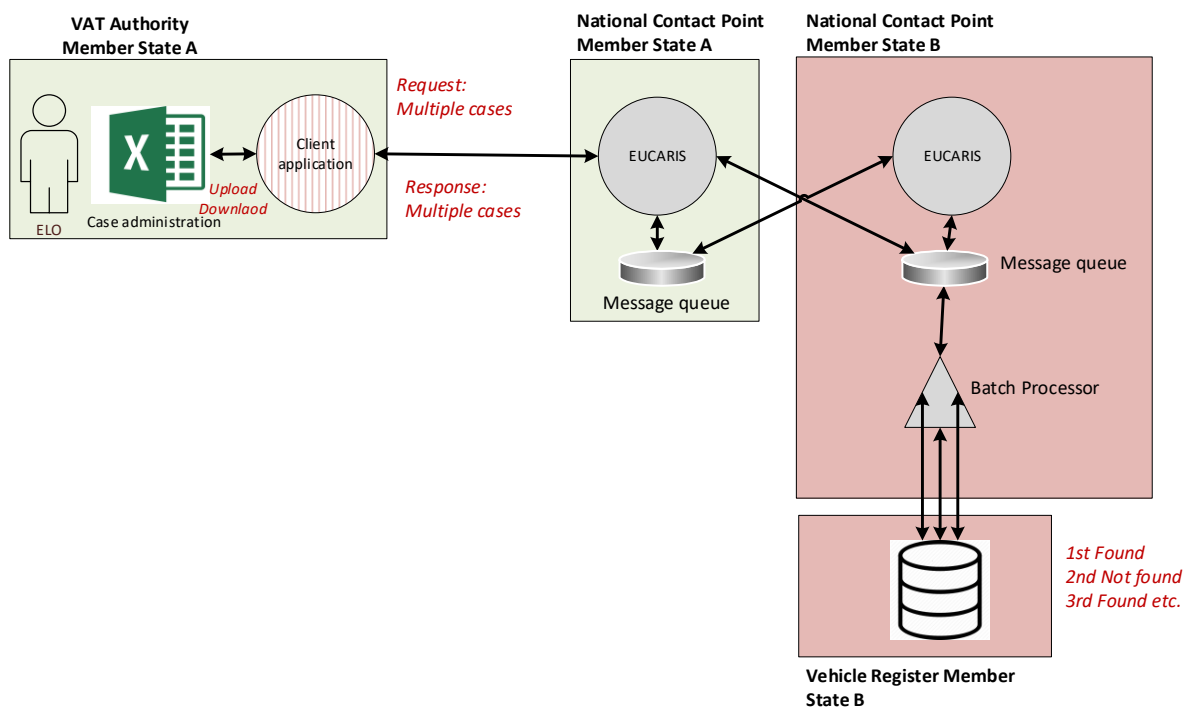
A synchronous, single case request to one specified Member State, can be visualised as follows:



A synchronous, single case request to all countries or a subset of Member States, can be visualised as follows:



An asynchronous multiple case request (which is always directed to one specific Member State) can be visualised as follows:



3.6.2 Request rules

See Chapter 0. Rules 1, 2, 3, 5, 7, 8, 9, 10, 11 and 12 apply for VATVHOHLifecycle. The other rules do not apply.

3.6.3 Search and response rules

1. A multiple case request is processed asynchronously, i.e. Member State of registration is not obliged to pick up a request immediately. It can schedule processing at a suitable moment (e.g. overnight).
2. In the processing of a multiple request a Member State has a choice, either to use a specific legacy system for multiple case processing, or use its single case legacy system, via the EUCARIS batch processor (refer to 3.4 for further information about the batch processor).
3. A single case request is processed synchronously, i.e. the Member State of registration processes the request right after it comes in, providing a response before the synchronous session is closed by EUCARIS (the time out will be about 20 seconds).
4. If applicable, vehicle signal information shall be provided (see Annex E(chap. 11)), as complete as possible, i.e. if possible, all signals that applied during the lifecycle of the vehicle, including start date and end date. Especially vehicle signals explaining gaps in holdership or ownership are useful to the VAT authority.
5. For the vehicle, basic identifying attributes shall be provided (licence plate number, VIN, make, commercial name, EU category)
6. The vehicle attributes colour, mass in running order, as well as the last recorded mileage prior to reference date and time (or the last recorded mileage, if reference date and time are absent), shall only be provided if in the request message, *ExtendedVehicleDataRequired* is set to 'true'.
7. A full history of mileages shall only be provided if in the request message, *FullMileageHistoryRequired* is set to 'true'.
8. Holders and owners are retrieved in chronological order, starting with the most recent holder and owner.
9. A Member State shall be able to provide as many as 50 holders and 50 owners. If a vehicle is inquired with more than 50 holders and/or more than 50 owners³, the Member State returns an information response with message 103. If possible, the Member State also provides a contact (via message 509) via which the issue can be resolved.
10. All known holders and owners shall be disclosed, with the possible exception of holders or owners for which the Member State of registration, under national law, is not allowed to provide information (members of the Royal Family or the Government, witness protection program, etc.). These holders or owners will not be present in the list, and no indication is given that they do exist.
11. It is possible that the search criterion (licence plate number or Vehicle Identification Number) does not identify one vehicle uniquely. In such cases, the Member State either provides all results OR, if national law prevents returning all data, returns an information response with message 103. If possible, the Member State also provides a contact (via message 509) via which the issue can be resolved.
12. A successful information response consists of the following elements:
 - a. Request Id (mandatory, denotes the corresponding information request).
 - b. Vehicle registration data, including start date of registration in the Member State, including end date of registration, if applicable.
 - c. Identifying vehicle data (Make, commercial name, vehicle category)
 - d. Extended vehicle data (Colour, mass in running order, last recorded mileage). Only if *ExtendedVehicleDataRequired* in the request message is set to 'true'.
 - e. Full history of mileages. Only if *FullMileageHistoryRequired* is set to 'true'.
 - f. Vehicle signal information, if applicable.
 - g. List of holders during the lifecycle of the vehicle, including start date and end date of holdership. For each holder, name and address data (dataset equal to VATVHOH).
 - h. Only if the Member State records ownership in its vehicle register: List of owners during the lifecycle of the vehicle, including start date and end date of ownership. For each owner, name and address data (dataset equal to VATVHOH).
 - i. Information about data quality (optional).
13. The current name and address data of the vehicle owners and holders will be provided, whenever possible. If the current name/address is not available, the last known information will be provided, whenever possible. If

³ Most likely rare. In the vehicle registration of the Netherlands, only 0,3 % of all registered vehicles, have had more than 50 holders during their lifecycle.

the last known information is provided, a message is added, informing the VAT authority that the name and/or address data are unverified.

3.6.4 Data items to provide

All items specified in [DOC-2] as ‘mandatory to provide if available’ shall be provided whenever possible.

3.6.5 Consolidated responses

If a consolidated response is received on an MCI request, please note that:

- 1 The MCI response consists of the results of all connected Member States, including the sender country of the request.
- 2 Each Member State’s response is either a ‘found’ result (vehicle found) or a ‘not found’ result (vehicle not found) or an ‘error’ result (functional error message provided by the Member State, or an error message generated by EUCARIS because the Member State is unavailable, or failed to produce a response message in time).
- 3 EUCARIS simply returns all results provided by all Member States. It will not interpret the result in any way, and does not check if the results from various Member States are consistent with each other. This must be done by the ELO receiving the results.
- 4 A Member State where the vehicle has been registered, can be expected to provide at least one holder.
- 5 Owners will only be provided by Member States that record ownership in their vehicle register.
- 6 The combined result may consist of several hits, where the following variants are possible
 - a) The vehicle is not found anywhere (and no holders or owners are reported).
 - b) One vehicle is found once, in one Member State, that provides a list of holders (and perhaps owners)
 - c) One vehicle is found more than once, in different Member States, each Member State providing a list of holders (and perhaps owners).
 - d) In one Member State, more than one vehicle is found (if the licence plate number or VIN is not uniquely identifying).
 - e) Different vehicles from different Member States are found (if the VIN is not uniquely identifying).
- 7 A vehicle may have been registered in different Member States. The combined results from these Member States, either consists of a complete history of holders (and perhaps owners), or an incomplete history (since the vehicle may also have been registered in countries not connected to the VAT network). It may not be possible to determine with certainty if the data provided form a complete history (gaps in holdership or ownership may or may not be explained by signal information and/or transfer of the vehicle from one Member State to another).
- 8 If there are Member States that report an error, the VAT authority has to decide if a new request is launched or if the error is dismissed as unimportant.

3.7 VAT All vehicles of owner-holder (VATAIIVHOH)

This service aims to retrieve all vehicles held and/or owned by a specific natural person or legal person.

The person of interest is identified by either name and birth date (natural person), or legal name (legal person), or name data combined with a personal id number and/or an identifier of a vehicle known to be held or owned.

These identifying can be obtained from a preceding VATVHOH or VATVHOHLifecycle inquiry. The data of one specific holder or owner, the PoI, obtained from a specific information providing Member State, are copied to the VATAIIVHOH request, together with identifying data of the vehicle, and this request is sent to the Member State providing the information.⁴

⁴ The EUCARIS web client offers a facility to select one specific holder or owner, shown in a VATVHOH or VATVHOHLifecycle response result, and copy its personal data plus identifying vehicle data, into a VATAIIVHOH request.

The PoI identifying data may contain a personal id number or a VAT number (if Member States record VAT numbers in their vehicle register).

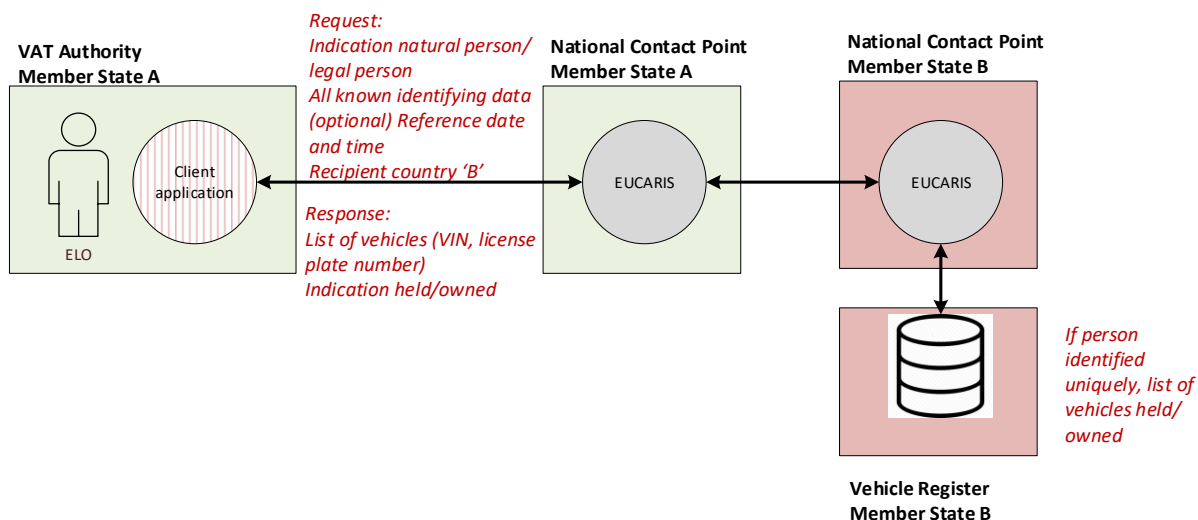
Please note that for the inquiry to succeed, the information providing Member State must be able to identify the PoI uniquely, otherwise no information is provided (and the VAT authority has to contact the Member State in order to try and resolve the matter in an offline way).

The VATAIIVHOH request is always sent to one specific Member State, i.e. the Member State providing personal data via the preceding VATVHOH or VATVHOHLifecycle inquiry. This Member State most likely is able to use the personal data as search criteria and find the PoI.

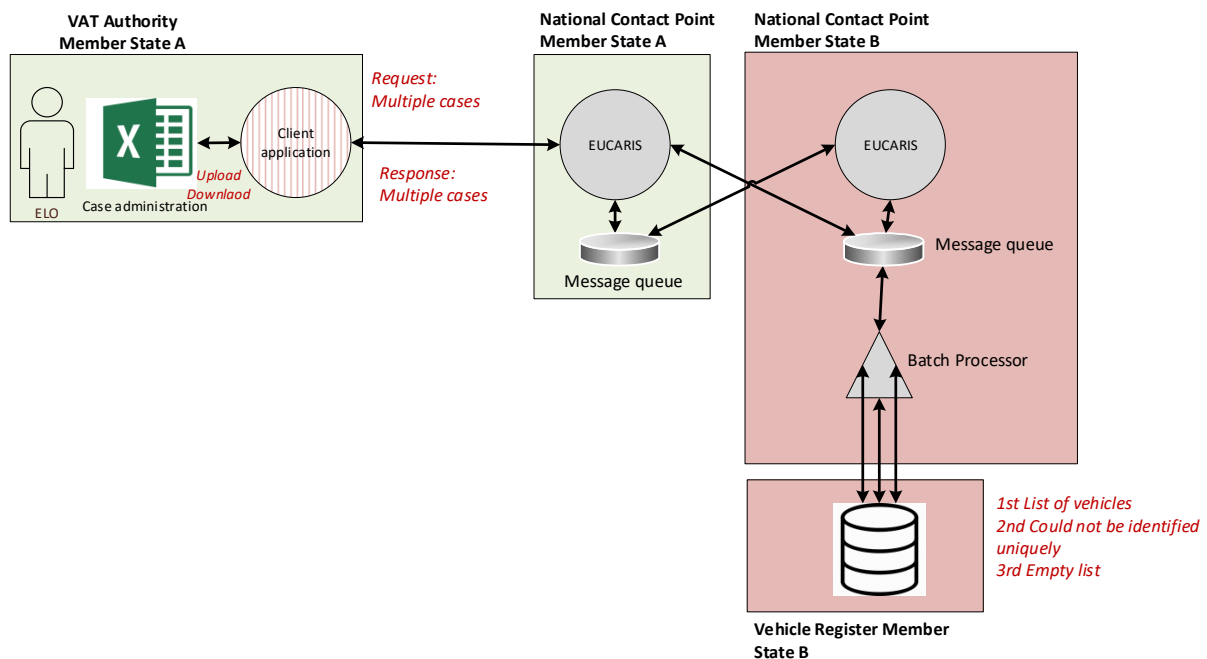
Note that a PoI may hold or own vehicles in various Member States. In that case, the information is to be collected using separate inquiries. Note that the personal data required to identify a PoI, may be different per Member State (because of difference in items that are registered, as well as differences in the name data of one and the same person, because of marriage, transliteration difference, or difference in the use of diacritical characters).

3.7.1 Graphical representation vehicles held and owned search

A synchronous, single case request which is always directed to one specific Member State, can be visualised as follows:



An asynchronous multiple case request (which is always directed to one specific Member State) can be visualised as follows:



3.7.2 Request rules

- 1) Each individual information request will be assigned a reference (RequestId). This is an ID unique to the original sender of the information request, and it is used by the original sender to correlate information response to information request. May correspond to the case reference in the national domain.
- 2) A VAT authority either inquires case-by-case, using the single case service, or bundles cases into one request, using the multiple case service. A single case service request contains 1 information request, a multiple case request contains N information requests. All information requests in one multiple case requests, are sent to the same destination Member State.
- 3) If the EUCARIS web client is used to submit requests, it is possible to offer input by uploading a .csv file. Containing N information requests. EUCARIS will convert the .csv input to xml. The response will be provided in .csv format as well, by EUCARIS (through conversion of the xml response).
- 4) The search data in a search request consist of:
 - a) Name data
 - i) Indication if the PoI is a natural person or legal person.
 - ii) If natural person: Surname, forenames and date of birth.
 - iii) If legal person: Name.

OR
 - b) Number data, i.e. a personal ID number, legal person ID number or VAT number
 - c) Name as well as number data.
- 5) Besides search data, a search request may contain refinement data, i.e. additional identifying data that is to be used if the search data alone do not identify a PoI uniquely. Refinement data consist of one or more of the following elements:
 - a) Additional personal data such as a partner name or gender or place of birth.
 - b) Address data
 - c) Data of a vehicle known to be held or owned by the PoI.
- 6) Identifying data of a natural person or legal person can be obtained from the results of a preceding VATVHOH or VATVHOH Lifecycle inquiry. If the search request is sent to the Member State that provided these data, there is a good chance the requested Member State will be able to find the PoI and

identify the PoI uniquely. Identifying data of a natural person or legal person can come from other sources, but in that case the chance of a successful search is smaller.

- 7) A search for vehicle held and owned shall contain a reference date and time, indicating the moment in time the vehicles held and owned are inquired. If the actual vehicles held and owned, are requested, reference date and time shall be absent in the request message.⁵
- 8) The search request is sent to one specific Member State.⁶
- 9) In the search request, the VAT authority shall provide enough identifying data to ensure that the PoI can be identified uniquely and correctly by the RA carrying out a search.
- 10) The user making the request (which is an ELO) is denoted in the header attribute SenderName.
- 11) An information request contains the name of the VAT authority handling the case.
- 12) If a multiple case request message is launched, it is the responsibility of the VAT authority to retrieve the response message (at an appropriate moment) from the EUCARIS download queue. If a response is not available yet, it is the responsibility of the VAT authority to repeat the inquiry for responses. It is the responsibility of the VAT authority to keep track of answered and unanswered requests. It is the responsibility of the VAT authority to contact the information providing Member State to inquire about unanswered requests (or repeated slowness in responding). However, EUCARIS assists this procedures by providing lists of functional and technical contact points.

3.7.3 Search and response rules

1. A multiple case request is processed asynchronously, i.e. the Member State of registration is not obliged to pick up a request immediately. It can schedule processing at a suitable moment (e.g. overnight).
2. In the processing of a multiple request a Member State has a choice, either to use a specific legacy system for multiple case processing, or use its single case legacy system, via the EUCARIS batch processor (refer to 3.4 for further information about the batch processor).
3. A single case request is processed synchronously, i.e. the Member State of registration processes the request right after it comes in, providing a response before the synchronous session is closed by EUCARIS (the time out will be about 20 seconds).
4. A Member State shall be able to carry out a search by name, i.e. surname, forenames and date of birth (for a natural person) or legal person name (legal person). Minimum requirement is an exact match search on the search criteria. It is optional to support a more elaborate search. It is optional, however recommended, to support a search by one or more national Id numbers.
5. A request message without forenames is to be interpreted as a search for natural persons without any official first name(s) – not as a wildcard search on forenames.
6. A Member State shall strive to be able search on name or number data provided by the Member State itself, in a response to a VATVHOH or VATVHOHLifecycle request. I.e. if a Member State provides a personal identification number, company id number or VAT number, it shall strive to implement a search possibility for it as well.
7. A Member State may use several search methods. If multiple search methods are used, results obtained more than once via different methods, shall be deduplicated.
8. If the search request contains an id number for which no search is possible (e.g., the search request contains a VAT number, but a search for VAT number is not supported), then the inquiry shall be answered by providing an information response with message 105 (Search input not correct). In the message variable, it shall be indicated what search input is supported.
9. If the search request contains name as well as number data, the Member State may choose to search on the number only (and either ignore the name data, or verify that the name of the person found, matches the name data provided in the request).
10. If the search criteria of the person of interest do *not identify the person of interest uniquely* (natural person or legal person), the Member State shall use the refinement data, provided in the request, to determine what search result matches the PoI, and for that search result it shall provide the list of vehicles held and owned. Refer to 3.7.4 for best practices on search and refinement.
11. If the search criteria of the person of interest do *not identify the person of interest uniquely* (also after refinement), then no list of vehicles held and owned shall be provided. The inquiry shall be answered by

⁵ Note that if a preceding VATVHOH inquiry has been done, the reference date and time should be the same in both inquiries, otherwise it is not certain that the VATAllVHOH inquiry will succeed.

⁶ If a preceding VATVHOH inquiry has been done, the request is to be sent to the Member State providing the personal data and vehicle identifiers.

- providing an information response with message 117. If possible, the Member State also provides a contact (via message 509) via which the VAT authority can resolve the issue in a non-automated way (i.e., identify the person of interest uniquely, and receive a list of vehicles held and owned, of that person).
12. The responding Member State provides a list of vehicles held and owned on reference date-time; If at reference date and time, no vehicles held or owned are found, then the response consists of message 118.
 13. For each vehicle reported, a Member State indicates if this vehicle is held, owned or both; For Member States that do not record ownership in their vehicle register, the search for vehicles is limited to vehicles held only, and no information on ownership is reported (since this information is unknown).
 14. A Member State shall be able to provide as many as 500 vehicles held and/or owned (sorted by VIN, alphanumerically). If the list of vehicles is larger than 500⁷, then no list of vehicles held and owned shall be provided. The inquiry shall be answered by providing an information response with message 103. If possible, the Member State also provides a contact (via message 509) via which the VAT authority can resolve the issue in a non-automated way (i.e., identify the person of interest uniquely, and receive a list of vehicles held and owned, of that person).
 15. A successful information response consists of the following elements:
 - a. Request Id (mandatory, denotes the corresponding information request).
 - b. List of vehicles, identified by Vehicle Identification Number (VIN) – and sorted by VIN, alphanumerically – as well as the licence plate number, as well as an indication if the vehicle is held and/or owned at reference date and time OR
 - c. Response with message code 118, denoting that at reference date and time, no vehicles are held-owned.

3.7.4 Search and refinement best practices

An ELO from another Member State searches for a Person of Interest, either by name, or by number, or by name and number. Furthermore, the ELO may provide refinement data, consisting of additional name data (if the PoI is a natural person), and/or an address, and/or a vehicle identifier (licence plate number or VIN of a vehicle known to be held/owned by the PoI).

It is recommended that the ELO obtains the search and refinement via a preceding VATVHOH or VATVHOHLifecycle inquiry. One specific holder or owner result is selected by the ELO, and then all search and refinement data are copied into the VATAIIVHOH request.

Of course, it is not required for the ELO to start with VATVHOH or VATVHOHLifecycle, the ELO may launch a VATAIIVHOH request, using search and refinement data obtained by other means.

It is the responsibility of the information providing Member State, to apply search and refinement data, and identify the PoI, as best as is possible.

The following assumptions are made:

- A search by number is uniquely identifying (i.e. results in one result or no result), a search by name is not necessarily uniquely identifying.
- For GDPR reasons (privacy by design), the vehicles held and owned list is only provided if the PoI can be identified. This means that if the search results in more than one possible hit, a decision has to be made if one of them is the PoI. If this decision cannot be made, the response consists of a message 103 Too many records.
- If an ELO has used a preceding VATVHOH or VATVHOHLifecycle inquiry, probably the search and refinement data match 100% with (one of) the search result(s). However, if different reference dates and times are used in these two searches, results may not match 100%.
- Finally, if an ELO uses its own search criteria, search and refinement data may match to some extent with the search result(s) but perhaps the match is not 100%.
- Final assumption: It would be too strict to require a 100% match, always. If one of the results obtained, matches with the search and refinement data, to a certain extent, the assumption is that there is a reasonable certainty that the PoI has been identified. Returning a message 103 in all of these cases would be impractical, and frustrate proper functioning of the search.

⁷ Especially for legal persons, this is expected to occur incidentally. Particularly, vehicle leasing companies may own huge amounts of vehicles (in the EU more than 1,000,000 is possible)

For searching, the information providing Member State, i.e. the Member State receiving a VATAllVHOH request, the following approach is suggested:

- All search data that can be used, shall be used to search the Person of Interest
- Refinement data are *not used* for searching (only for refining).
- It is required to support an exact match search by name. It is allowed to implement additional searches using another algorithm. It is a Member State's responsibility to design and organise such a search.
- It is strongly advised to support searches on identifying numbers you provide. I.e., if you provide a Personal Identification Number in VATVHOH and VATVHOHLifecycle responses, it is strongly recommended to also implement a search of PoI by PIN. The same for providing VAT number, passport number or driving licence number.
- Please note that some identifying numbers usually do not change (Personal Id Number, VAT number), while others do (Passport number, DL number). If a search on passport number or DL number is supported, it should also be able to handle expired passports and driving licences.
- It is possible to provide more than one identifying number in the request. In that case it is advised to use one supported identifying number for the search, and set a priority which identifying number to use preferably. Best practice is to use the identifying number that gives the most reliable results (the decision what number to use depends on the Member State's register).
- If various searches are done, only distinct results shall be returned, duplicate results shall be deduplicated.

For refinement of the search, the following approach is suggested:

- If the search results in 1 hit, it is assumed that this result matches the PoI (regardless if the refinement data match with the result obtained or not). The list of vehicles held-owned is provided.
- If the search results in no hit, a message 101 No information found is returned.
- If the search results in more than one hit, then:
 - If the request does not contain any refinement data, refinement is not possible. Return message 103 *Too many records found*. If possible, add a functional contact address, via message 509, that the ELO can use to find out who the PoI is, e.g. via e-mail contact.
 - If the request does contain refinement data, and one of the results obtained matches fully with the refinement data, it is assumed that this result matches the PoI. The list of vehicles held-owned is provided.
 - If the request does contain refinement data, and none of the results matches with any refinement data, it is not possible to determine who is the PoI. Return message 103 *Too many records found*. If possible, add a functional contact address, via message 509, that the ELO can use to find out who the PoI is, e.g. via e-mail contact with a competent authority.
 - If the request does contain refinement data, it may be that only part of a search result matches with the refinement data (and another part does not). Theoretically, very complex comparisons are possible, weighing all results against all refinement data. However, it can be assumed that in practice, usually one of the search results results will match (partly) with the refinement data, while the other results will not match at all (exceptions are possible, but not very likely). The following algorithm is proposed as best practice:
 - First, consider the vehicle identifier. If this matches with one of the search results, assume that this is the PoI and return the list of vehicles held-owned.
 - Second, consider the refinement name data. If all refinement name data provided match with one of the search results, assume that this is the PoI and return the list of vehicles held-owned. Note: If only part of the name data match, consider this a no-match (it is too complicated to assess in program code what difference is acceptable and what is not).
 - Third, consider the address data. If the address matches with one of the search results, assume that this is the PoI and return the list of vehicles held-owned.
 - Finally, if none of the above is true, it is not possible to determine who is the PoI. Return message 103 *Too many records found*. If possible, add message 509.

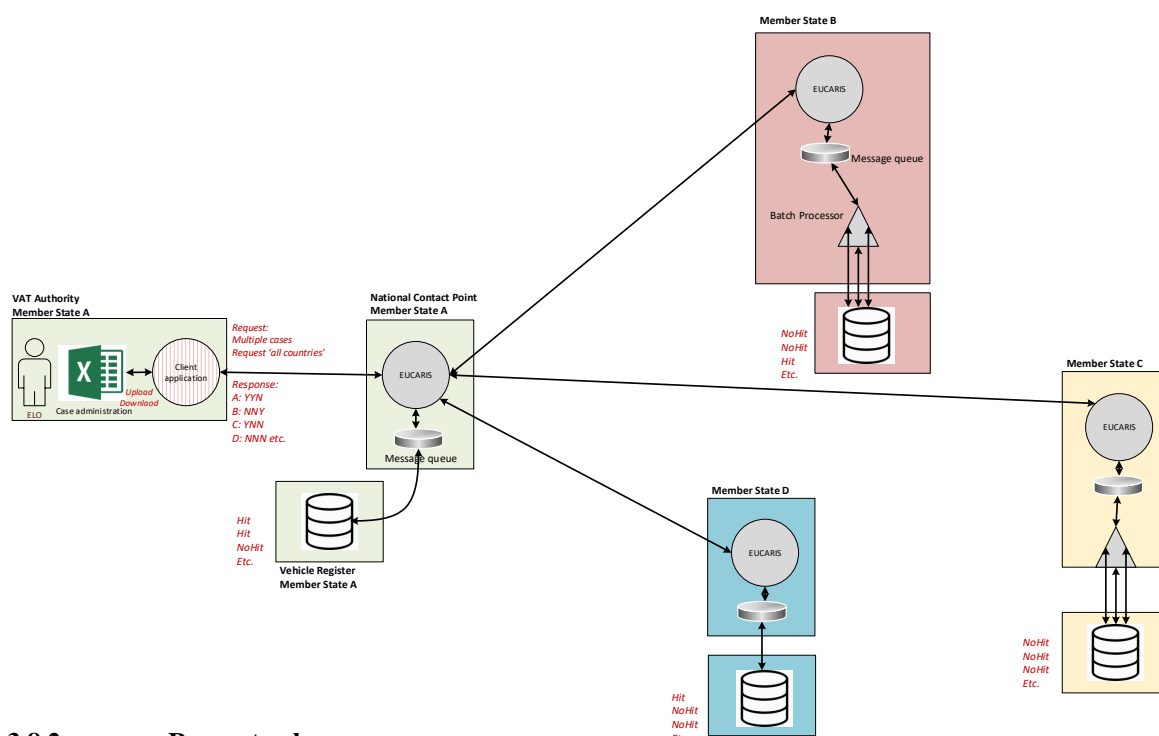
3.8 VAT Hit-No Hit

This search aims to find out in what Member States a certain vehicle is known, and if there is a holdership and/or ownership recorded at reference date and time (provided in the request). The request is typically a Multi Country Inquiry by Vehicle Identification Number, sent to all Member States connected to the VAT network.

The result of the inquiry, in each Member State, is a Yes/No (true/false) indication if the vehicle is known (registered) in the Member State, and a Yes/No (true/false) indication if a holder (and eventually owner) is registered, at reference date and time.

3.8.1 Graphical representation

This service is designed to be used as an asynchronous multicase request, directed to all countries or a subset of countries. The inquiry can be visualised as follows:



3.8.2 Request rules

- 1) A VAT authority usually bundles cases into one request, using the multiple case service. A multiple case request contains N information requests.
- 2) If the EUCARIS web client is used to submit requests, it is possible to offer input by uploading a .csv file. Containing N information requests. EUCARIS will convert the .csv input to xml. The response will be provided in .csv format as well, by EUCARIS (through conversion of the xml response).
- 3) For each information request, the requesting VAT authority provides a full Vehicle Identification Number.
- 4) The information request contains a reference date-time, to indicate the moment at time at which holdership information is requested. If the current situation is inquired, reference date-time is absent in the request.
- 5) The *RecipientCountry* in the information request is either 'MCI' to all, indicating that EUCARIS must broadcast the request to all Member States connected to the VAT network, or 'MCI' to some, where the Member States that need to receive a request, are denoted in *RecipientCountryTable*, or a request to one specific Member State (*RecipientCountry*).
- 6) The user making the request (which is an ELO) is denoted in the header attribute SenderName.
- 7) An information request contains the name of the VAT authority handling the case.
- 8) A multiple case request message is processed using the EUCARIS batch processor (described in [DOC-5]). The client application submits the request to EUCARIS, EUCARIS makes sure that the Batch Processor is used.

- 8) The requesting Member State, by scheduling, controls when multiple HitNoHit requests are processed. Preferably, the Batch Processor is configured to run outside of office hours.
- 9) The requesting Member State is responsible to install and configure the Batch Processor, so that multiple HitNoHit requests are processed correctly. EUCARIS assists whenever necessary in setting up the Batch Processor.
- 10) It is the responsibility of the VAT authority to retrieve the response message. Since the processing takes an indeterminate time (may be more than one day, or night) it is possible that the response is not yet delivered at the moment of inquiry, in which case the VAT authority returns at a later stage to pick up the response.
- 11) It is the responsibility of the VAT authority to contact the information providing Member State when it responds with technical errors (NotOKReply), more often than incidentally. EUCARIS assists by providing lists of functional and technical contact points, and investigative troubleshooting actions if requested.

3.8.3 Search and response rules

1. A Member State of registration will receive single case VAT HitNoHit requests only (see also Ch. 3.8.2). Since it will never receive multiple case requests, no facilities are needed to be able to process them.
2. A single case request is processed synchronously, i.e. the Member State of registration processes the request right after it comes in, providing a response before the synchronous session is closed by EUCARIS (the time out will be about 20 seconds).
3. The information providing Member State reports a 'hit' (VehicleFound='true') for all vehicles for which a vehicle registration is present (at any time, actual or historic⁸). If the vehicle is not found, it reports a 'no hit' (VehicleFound='false').
4. The information providing Member State also reports if a holder is registered at reference date-time, and, if the Member State records ownership in its national vehicle register, it also reports if there is a registered owner at reference date and time. If the request contains no reference date and time, it shall report if there is an actual holder or owner.

3.8.4 Consolidated responses

The search request is usually an MCI request. One response is received, which contains all responses given by each connected Member State.

- 1 The MCI response consists of the results of all connected Member States, including the sender country of the request.
- 2 Each Member State's response consists of either a 'hit' or a 'no hit'.
- 3 EUCARIS simply returns all results provided by all Member States. It will not interpret the result in any way, this must be done by the (employee of) VAT authority receiving the results.
- 4 A result may consist of several hits, where the following variants are possible
 - a) 'No hit' in all connected Member States.
 - b) A 'hit' in one or more connected Member States.Please note that it is not 100% sure that in all Member States the same vehicle is found (since the VIN is not 100% uniquely identifying). However, cases where the VIN is not uniquely identifying, are rare.

⁸ Note that knowledge of past holdership or ownership most likely is limited to a certain number of years, because of maximum retention times of holdership/ownership registrations, set out in national legislation.

4. XML Message Specification

4.1 Used conventions

The tables used to describe the XML messages provide the following information:

- NestingLevel
- Item
- Occ (occurrence)
- Type
- Remarks

4.1.1 Nesting level

Describes how the XML nodes and elements are nested in the message.

4.1.2 Item

The following items are distinguished:

- An ***XML node*** is indicated in bold & italic
- An XML element is indicated by a normal appearance

In Annex A, for every node and element, its functional definition and its use is described.

4.1.3 Occ

The occurrence denotes whether or not the item is technically mandatory (i.e. if an item is assumed to be available at all times, it is technically mandatory, but if it is not, it is technically optional). For information about items that are legally mandatory (provide if available), see [DOC-1], Annex I.

Value	Description
1	A mandatory item.
0-1	An optional item but if present, the item occurs only once.
0-n	An optional item. When present, it may appear more than once.
1-n	A mandatory item. The item may appear more than once

Remark:

If an optional item is absent, leave it out of the message entirely (do not send empty tags).

4.1.4 Type

Type	Description
Text	A sequence of characters. Usually, the minimum and maximum length of the sequence is specified (Annex A).
DT	Date and Time. Can be given in UTC format (Co-ordinated Universal Time) as 'CCYY-MM-DDThh:mm:ssZ' or 'CCYY-MM-DDThh:mm:ss±00.00', or can be given in local time with the offset to UTC as 'CCYY-MM-DDThh:mm:ss±nn.nn'. For more information see http://en.wikipedia.org/wiki/ISO_8601 .
Date	Date.

Type	Description
	Can be given as a date in format 'CCYY-MM-DD', or as a date with a time zone denomination, i.e. UTC 'CCYY-MM-DDZ' or local time with the offset to UTC as 'CCYY-MM-DD±nn.nn'.
DateInc	Date that can be incomplete. Format 'CCYYMMDD'. See Annex A for further information
Int	Numeric, integer values only.
Dec	Numeric, fractional numbers possible.
Boolean	An element that either has a 'true' value or a 'false' value.
Choice	Allows one and only one of the nodes or elements contained in the selected group to be present within the containing node (exclusive choice).
Enum	Enumeration; the element has a specified set of values. The possible values are described in Annex A. In XSD validation, the value of the element in the message will be checked against the possible values.
UUID	Universally Unique Identifier, version 4. For more information see http://en.wikipedia.org/wiki/Universally_Unique_Identifier and http://en.wikipedia.org/wiki/Universally_Unique_Identifier#Implementations

4.1.5 Remarks

Contains information about situations in which a node or element applies or not. Also contains information about relations between separate elements. Note: The functional definition and the use of each node or element is described in Annex A.

4.2 Header

The header is present in all EUCARIS messages:

NestingLevel	Item	Occ	Type	Remarks
1	Header	1		
2	MessageID	1	UUID	The MessageId uniquely identifies each individual message.
2	MessageRefID	0-1	UUID	Request message: Absent Response message: MessageID of the corresponding request message
2	MessageVersion	1	Text	Request message: Mention MessageVersion that is supported by (client application of) Sender. Response message: Mention MessageVersion that is supported by (legacy system of) Receiver. When downgrading takes place: Change MessageVersion to the version number of the downgraded message. Default value 1.0, subsequent versions will be 2.0, 3.0 etc.
2	ServiceExecutionReason	1		Provided in the request message, returned unaltered in the response message
3	ServiceExecutionReasonCode	1	Enum	
3	ServiceExecutionReasonDesc	1	Text	

NestingLevel	Item	Occ	Type	Remarks
2	ServiceFileNumber	0-1	Text	If provided in the request message, returned unaltered in the response message.
2	RecipientCountry	1	Enum	Country receiving the message. In a response message, the sender/recipient countries are reversed, compared to the original request. Use value 'MCI' for request to all connected Member States, as well as requests to a series of connected Member States
2	RecipientCountryTable	0-1		Is used for MCI requests to a series of Member States ('request to some'). The table contains the country codes of Member States that must receive a request.
3	RecipientCountryListValue	1-n	Enum	Country code in Unece coding system. See also Annex E.
2	SenderCountry	1	Enum	Country sending the message. In a response message, the sender/recipient countries are reversed, compared to the original request.
2	SenderOrganisation	1		Provided in the request message, returned unaltered in the response message
3	SenderOrganisationCode	1	Enum	
3	SenderOrganisationDesc	1	Text	
2	SenderName	1	Text	Contains a reference to the sender of a request, e.g. the username or userid. Return unaltered in the response message.
2	SenderOrganisationName	0-1	Text	Is not used.
2	TimeStamp	1	DT	Creation date and time in UTC
2	TimeOut	1	Int	Is not used. Provide value 0.

4.3 VAT Owner Holder (VATVHOH)

4.3.1 Search by licence plate number (multiple case)

This request is always sent to one specific Member State, denoted in the header attribute *RecipientCountry*.

Nesting level	Item	Occ	Type	Remarks
1	VATVHOHMultipleByRegNumAnd Date	1		
2	Header	1		
2	Body	1		
3	RequestBatchId	1	UUID	
3	InformationRequest	1-n		Multiple requests in one message.
4	CaseInformation	1		
5	RequestId	1	Text	
5	CaseHandlingOrganisationName	1	Text	
5	ExtendedVehicleDataRequired	1	Boolean	
5	FullMileageHistoryRequired	1	Boolean	

Nesting level	Item	Occ	Type	Remarks
4	VehicleSearchData	1		
5	VehRegistrationNumber	1		
6	VehRegistrationNumberPart1	1	Text	
6	VehRegistrationNumberPart2	0-1	Text	
5	ReferenceDateTime	0-1	DT	Is absent when the current situation is inquired.

4.3.2 Search by VIN (multiple case)

This request is always sent to one specific Member State, denoted in the header attribute *RecipientCountry*.

Nesting level	Item	Occ	Type	Remarks
1	VATVHOHMultipleByVINAndDate	1		
2	Header	1		
2	Body	1		
3	RequestBatchId	1	UUID	
3	InformationRequest	1-n		Multiple requests in one message.
4	CaseInformation	1		
5	RequestId	1	Text	
5	CaseHandlingOrganisationName	1	Text	
5	ExtendedVehicleDataRequired	1	Boolean	
5	FullMileageHistoryRequired	1	Boolean	
4	VehicleSearchData	1		
5	VehIdentificationNumber	1	Text	
5	ReferenceDateTime	0-1	DT	

4.3.3 Response message (multiple case)

Nesting Level	Item	Occ	Type	Remarks
1	VATVHOHMultipleResponse	1		
2	Header	1		
2	Body	1		
3	RequestBatchId	1	UUID	Copy from request message
3	BodyReply	0-1	Choice	When the request message has been processed by the replying Member State, node BodyReply is present, otherwise node BodyMessages .
4	InformationResponse	1-n		In this node the RequestId from the information request is echoed, followed by the response to the request.
5	RequestId	1	Text	Copy from request message
5	VehOwnerHolderReplies	0-1	Choice	When the information request yields information, node VehOwnerHolderReplies is present,

Nesting Level	Item	Occ	Type	Remarks
				otherwise node InformationResponseMessages .
6	VehOwnerHolderReply	1-n		Successful reply to an information request. Usually occurs once, only occurs more than once if the search request did not identify a vehicle uniquely.
7	VehReferenceDateTime	1	DT	
7	VehicleRegistrationData	1		For details see 4.7
7	VehicleTechnicalData	1		For details see 4.8
7	VehicleMileageData	0-1		For details see 4.11
7	VehicleHolderReply	1		
8	VehicleHolder	1		For details see 4.9
8	VehHolderReferenceDateTime	1	DT	
7	VehicleOwnerReply	0-1		
8	VehicleOwner	1		For details see 4.10
8	VehOwnerReferenceDateTime	1	DT	
5	InformationResponseMessages	0-1	Choice	
6	InformationResponseMessage	1-n		
7	InformationResponseMessageCode	1	Enum	
7	InformationResponseMessageDesc	1	Text	
7	InformationResponseMessageVariable	0-1	Text	
3	BodyMessages	0-1	Choice	
4	BodyMessage	1-n		
5	BodyMessageCode	1	Enum	
5	BodyMessageDesc	1	Text	
5	BodyMessageVariable	0-1	Text	

4.3.4 Search by licence plate number (single case)

This request is always sent to one specific Member State, denoted in the header attribute *RecipientCountry*.

Nesting level	Item	Occ	Type	Remarks
1	<i>VATVHOHByRegNumAndDate</i>	1		
2	<i>Header</i>	1		
2	<i>Body</i>	1		
3	<i>InformationRequest</i>	1		
4	<i>CaseInformation</i>	1		
5	RequestId	1	Text	
5	CaseHandlingOrganisationName	1	Text	
5	ExtendedVehicleDataRequired	1	Boolean	
5	FullMileageHistoryRequired	1	Boolean	
4	<i>VehicleSearchData</i>	1		
5	<i>VehRegistrationNumber</i>	1		
6	VehRegistrationNumberPart1	1	Text	
6	VehRegistrationNumberPart2	0-1	Text	
5	ReferenceDateTime	0-1	DT	

4.3.5 Search by VIN (single case)

This request is either broadcast to all (*RecipientCountry* = 'MCI'), broadcast to some (*RecipientCountry*='MCI', *RecipientCountryTable* specifies the list of recipients) or it is sent to one specific Member State, denoted in the header attribute *RecipientCountry*.

Nesting level	Item	Occ	Type	Remarks
1	<i>VATVHOHByVINAndDate</i>	1		
2	<i>Header</i>	1		
2	<i>Body</i>	1		
3	<i>InformationRequest</i>	1		
4	<i>CaseInformation</i>	1		
5	RequestId	1	Text	
5	CaseHandlingOrganisationName	1	Text	
5	ExtendedVehicleDataRequired	1	Boolean	
5	FullMileageHistoryRequired	1	Boolean	
4	<i>VehicleSearchData</i>	1		
5	VehIdentificationNumber	1	Text	
5	ReferenceDateTime	0-1	DT	

4.3.6 Response message (single case)

Nesting Level	Item	Occ	Type	Remarks
1	<i>VATVHOHResponse</i>	1		
2	<i>Header</i>	1		
2	<i>Body</i>	1		

Nesting Level	Item	Occ	Type	Remarks
3	<i>MemberStateReplies</i>	1		
4	<i>MemberStateReply</i>	1-n		Occurs N times for a consolidated MCI response
5	ReplyingMemberStateCode	1	Enum	
5	<i>InformationResponse</i>	1		
6	RequestId	1	Text	Copy from request message
6	<i>VehOwnerHolderReplies</i>	0-1	Choice	When the information request yields information, node <i>VehOwnerHolderReplies</i> is present, otherwise node <i>InformationResponseMessages</i> .
7	<i>VehOwnerHolderReply</i>	1-n		Successful reply to an information request. Usually occurs once, only occurs more than once if the search request did not identify a vehicle uniquely.
8	VehReferenceDateTime	1	DT	
8	<i>VehicleRegistrationData</i>	1		For details see 4.7
8	<i>VehicleTechnicalData</i>	1		For details see 4.8
8	<i>VehicleMileageData</i>	0-1		For details see 4.11
8	<i>VehicleHolderReply</i>	1		
9	<i>VehicleHolder</i>	1		For details see 4.9
9	VehHolderReferenceDateTime	1	DT	
8	<i>VehicleOwnerReply</i>	0-1		
9	<i>VehicleOwner</i>	1		For details see 4.10
9	VehOwnerReferenceDateTime	1	DT	
6	<i>InformationResponseMessages</i>	0-1	Choice	
7	<i>InformationResponseMessage</i>	1-n		
8	InformationResponseMessageCode	1	Enum	
8	InformationResponseMessageDesc	1	Text	
8	InformationResponseMessageVariable	0-1	Text	

4.4 VAT Owner Holder Lifecycle (VATVHOHLifecycle)

4.4.1 Search by VIN (multiple case)

This request is always sent to one specific Member State, denoted in the header attribute *RecipientCountry*.

Nesting level	Item	Occ	Type	Remarks
1	<i>VATVHOHMultipleLifecycleByVIN</i>	1		
2	<i>Header</i>	1		
2	<i>Body</i>	1		
3	RequestBatchId	1	UUID	
3	<i>InformationRequest</i>	1-n		Multiple requests in one message.
4	<i>CaseInformation</i>	1		
5	RequestId	1	Text	
5	CaseHandlingOrganisationName	1	Text	
5	ExtendedVehicleDataRequired	1	Boolean	

Nesting level	Item	Occ	Type	Remarks
5	FullMileageHistoryRequired	1	Boolean	
4	VehicleSearchData	1		
5	VehIdentificationNumber	1	Text	

4.4.2 Response message (multiple case)

Nesting Level	Item	Occ	Type	Remarks
1	VATVHOHMultipleLifecycleResponse	1		
2	Header	1		
2	Body	1		
3	RequestBatchId	1	UUID	
3	BodyReply	0-1	Choice	When the request message has been processed by the replying Member State, node BodyReply is present, otherwise node BodyMessages .
4	InformationResponse	1-n		In this node the RequestId from the information request is echoed, followed by the response to the request.
5	RequestId	1	Text	Copy from request message
5	VehOwnerHolderReplies	0-1	Choice	When the information request yields information, node VehOwnerHolderReplies is present, otherwise node InformationResponseMessages .
6	VehOwnerHolderReply	1-n		Successful reply to an information request. Usually occurs once, only occurs more than once if the search request did not identify a vehicle uniquely.
7	VehicleRegistrationData	1		For details see 4.7
7	VehicleTechnicalData	1		For details see 4.8
7	VehicleMileageData	0-1		For details see 4.11
7	VehicleHolderReply	1		
8	VehicleHolder	1-50		For details see 4.9
7	VehicleOwnerReply	0-1		
8	VehicleOwner	1-50		For details see 4.10
5	InformationResponseMessages	0-1	Choice	
6	InformationResponseMessage	1-n		
7	InformationResponseMessageCode	1	Enum	
7	InformationResponseMessageDesc	1	Text	
7	InformationResponseMessageVariable	0-1	Text	
3	BodyMessages	0-1	Choice	
4	BodyMessage	1-n		
5	BodyMessageCode	1	Enum	
5	BodyMessageDesc	1	Text	
5	BodyMessageVariable	0-1	Text	

4.4.3 Search by VIN (single case)

This request is either broadcast to all (*RecipientCountry* = 'MCI'), broadcast to some (*RecipientCountry*='MCI', *RecipientCountryTable* specifies the list of recipients) or it is sent to one specific Member State, denoted in the header attribute *RecipientCountry*.

Nesting level	Item	Occ	Type	Remarks
1	<i>VATVHOHLifecycleByVIN</i>	1		
2	<i>Header</i>	1		
2	<i>Body</i>	1		
3	<i>InformationRequest</i>	1		
4	<i>CaseInformation</i>	1		
5	RequestId	1	Text	
5	CaseHandlingOrganisationName	1	Text	
5	ExtendedVehicleDataRequired	1	Boolean	
5	FullMileageHistoryRequired	1	Boolean	
4	<i>VehicleSearchData</i>	1		
5	VehIdentificationNumber	1	Text	

4.4.4 Response message (single case)

Nesting Level	Item	Occ	Type	Remarks
1	<i>VATVHOHLifecycleResponse</i>	1		
2	<i>Header</i>	1		
2	<i>Body</i>	1		
3	<i>MemberStateReplies</i>	1		
4	<i>MemberStateReply</i>	1-n		Occurs N times for a consolidated MCI response
5	ReplyingMemberStateCode	1	Enum	
5	<i>InformationResponse</i>	1		
6	RequestId	1	Text	Copy from request message
6	<i>VehOwnerHolderReplies</i>	0-1	Choice	When the information request yields information, node <i>VehOwnerHolderReplies</i> is present, otherwise node <i>InformationResponseMessages</i> .
7	<i>VehOwnerHolderReply</i>	1-n		Successful reply to an information request. One occurrence for each vehicle found. Usually occurs once, only occurs more than once if the search request did not identify a vehicle uniquely.
8	<i>VehicleRegistrationData</i>	1		For details see 4.7
8	<i>VehicleTechnicalData</i>	1		For details see 4.8
8	<i>VehicleMileageData</i>	0-1		For details see 4.11
8	<i>VehicleHolderReply</i>	1		

Nesting Level	Item	Occ	Type	Remarks
9	VehicleHolder	1-50		For details see 4.9
8	VehicleOwnerReply	0-1		
9	VehicleOwner	1-50		For details see 4.10
6	InformationResponseMessages	0-1	Choice	
7	InformationResponseMessage	1-n		
8	InformationResponseMessageCode	1	Enum	
8	InformationResponseMessageDesc	1	Text	
8	InformationResponseMessageVariable	0-1	Text	

4.5 VAT All vehicles of owner-holder (VATAIIVHOH)

4.5.1 Search all vehicles held and owned (multiple case)

This request is sent to one specific Member State, denoted in the header attribute *RecipientCountry*.

Nesting level	Item	Occ	Type	Remarks
1	VATAIIVHOHMultipleRequest	1		
2	Header	1		
2	Body	1		
3	RequestBatchId	1	UUID	
3	InformationRequest	1-n		Multiple requests in one message.
4	CaseInformation	1		
5	RequestId	1	Text	
5	CaseHandlingOrganisationName	1	Text	
5	ReferenceDateTime	0-1	DT	Is absent when the current situation is inquired.
4	PersonOfInterestSearchData	1		Data to be used to search for a person of interest
5	NameAndEventuallyNumberData	0-1	Choice	Choice between providing name and/or number data. Use this choice for providing name data and, eventually, also number data.
6	LegalEntityCode	1	Enum	
6	NaturalPersonSearchData	0-1	Choice	Applies if LegalEntityCode = 'NP' (natural person)
7	Surname	1	Text	
7	Forenames	0-1	Text	Is always provided when applicable
7	DateOfBirth	1	DateInc	
6	LegalPersonSearchData	0-1	Choice	Applies if LegalEntityCode = 'O' (other than natural person)
7	LegalPersonName	1	Text	
6	IdentificationNumbers	0-1		
7	IdentificationNumber	1-n		Multiple occurrences if various identifying numbers are known
8	IdTypeCode	1	Enum	

Nesting level	Item	Occ	Type	Remarks
8	IdNumber	1	Text	
5	NumberData	0-1	Choice	Choice between providing name and/or number data. Use this choice for providing number data, e.g. a search on VAT number.
6	IdentificationNumbers	1		
7	IdentificationNumber	1-n		Multiple occurrences if various identifying numbers are known
8	IdTypeCode	1	Enum	
8	IdNumber	1	Text	
4	PersonOfInterestRefinementData	0-1		Personal data that can be used to refine a search for a person of interest, i.e. uniquely identify a person of interest.
5	NaturalPersonRefinementData	0-1		Applies if LegalEntityCode = 'NP' (natural person)
6	VehHolderOtherNames	0-1		
7	VehHolderMiddleName	0-1	Text	
7	VehHolderOtherName	0-1	Text	
6	VehHolderPlaceOfBirth	0-1	Text	
6	VehHolderGenderCode	0-1	Text	
5	AddressRefinementData	0-1		Address data that can be used to refine a search for a person of interest, i.e. uniquely identify the person of interest.
6	VehHolderAddrCareOfName	0-1	Text	
6	VehHolderAddrStreetName	0-1	Text	
6	VehHolderAddrStreetNameExtra	0-1	Text	
6	VehHolderAddrStreetNumber	0-1	Text	
6	VehHolderAddrStreetNrAnnex	0-1	Text	
6	VehHolderAddrPostcode	0-1	Text	
6	VehHolderAddrPlaceOfResidence	0-1	Text	
6	VehHolderAddrCountryCode	0-1	Enum	
5	VehicleRefinementData	0-1		Vehicle data that can be used to refine a search for a person of interest, i.e. uniquely identify the person of interest
6	VehIdentificationNumber	0-1	Text	
6	VehRegistrationNumber	0-1		
7	VehRegistrationNumberPart1	1	Text	
7	VehRegistrationNumberPart2	0-1	Text	

4.5.2 Response all vehicles held and owned (multiple case)

Nesting Level	Item	Occ	Type	Remarks
1	VATAIUVHOHMultipleResponse	1		
2	Header	1		
2	Body	1		
3	RequestBatchId	1	UUID	Copy from request message

Nesting Level	Item	Occ	Type	Remarks
3	BodyReply	0-1	Choice	When the request message has been processed by the replying Member State, node BodyReply is present, otherwise node BodyMessages .
4	InformationResponse	1-n		In this node the RequestId from the information request is echoed, followed by the response to the request. This node is present in the response message as many times as the node InformationRequest was present in the request message.
5	RequestId	1	Text	Copy from request message
5	VehHeldOwnedReferenceDateTime	1	DT	
5	VehiclesReply	0-1	Choice	When the information request yields information, node VehiclesReply is present, otherwise node InformationResponseMessages .
6	ListOfVehiclesHeldAndOwned	1-500		The list is sorted by <i>VehIdentificationNumber</i> , ascending.
7	VehIdentificationNumber	1	Text	
7	VehRegistrationNumber	1		
8	VehRegistrationNumberPart1	1	Text	
8	VehRegistrationNumberPart2	0-1	Text	
7	VehicleIsHeld	1	Boolean	
7	VehicleIsOwned	0-1	Boolean	Is only provided by Member States that record owner information (in MemberStates that do not record this information, it is unknown if the vehicle is owned, so this information cannot be provided).
5	InformationResponseMessages	0-1	Choice	Is present if the information request did not yield information, or if an error occurred.
6	InformationResponseMessage	1-n		
7	InformationResponseMessageCode	1	Enum	
7	InformationResponseMessageDesc	1	Text	
7	InformationResponseMessageVariable	0-1	Text	
3	BodyMessages	0-1	Choice	
4	BodyMessage	1-n		
5	BodyMessageCode	1	Enum	
5	BodyMessageDesc	1	Text	
5	BodyMessageVariable	0-1	Text	

4.5.3 Search all vehicles held and owned (single case)

This request is sent to one specific Member State, denoted in the header attribute *RecipientCountry*.

Nesting level	Item	Occ	Type	Remarks
1	VATAIVHOHRequest	1		
2	Header	1		
2	Body	1		
3	InformationRequest	1		
4	CaseInformation	1		
5	RequestId	1	Text	
5	CaseHandlingOrganisationName	1	Text	
5	ReferenceDateTime	0-1	DT	Is absent when the current situation is inquired.
4	PersonOfInterestSearchData	1		Data to be used to search for a person of interest
5	NameAndEventuallyNumberData	0-1	Choice	Choice between providing name and/or number data. Use this choice for providing name data and, eventually, also number data.
6	LegalEntityCode	1	Enum	
6	NaturalPersonSearchData	0-1	Choice	Applies if LegalEntityCode = 'NP' (natural person)
7	Surname	1	Text	
7	Forenames	0-1	Text	Is always provided when applicable
7	DateOfBirth	1	DateInc	
6	LegalPersonSearchData	0-1	Choice	Applies if LegalEntityCode = 'O' (other than natural person)
7	LegalPersonName	1	Text	
6	IdentificationNumbers	0-1		
7	IdentificationNumber	1-n		Multiple occurrences if various identifying numbers are known
8	IdTypeCode	1	Enum	
8	IdNumber	1	Text	
5	NumberData	0-1	Choice	Choice between providing name and/or number data. Use this choice for providing number data, e.g. a search on VAT number.
6	IdentificationNumbers	1		
7	IdentificationNumber	1-n		Multiple occurrences if various identifying numbers are known
8	IdTypeCode	1	Enum	
8	IdNumber	1	Text	
4	PersonOfInterestRefinementData	0-1		Personal data that can be used to refine a search for a person of interest, i.e. uniquely identify a person of interest.
5	NaturalPersonRefinementData	0-1		Applies if LegalEntityCode = 'NP' (natural person)
6	VehHolderOtherNames	0-1		
7	VehHolderMiddleName	0-1	Text	

Nesting level	Item	Occ	Type	Remarks
7	VehHolderOtherName	0-1	Text	
6	VehHolderPlaceOfBirth	0-1	Text	
6	VehHolderGenderCode	0-1	Text	
5	AddressRefinementData	0-1		Address data that can be used to refine a search for a person of interest, i.e. uniquely identify the person of interest.
6	VehHolderAddrCareOfName	0-1	Text	
6	VehHolderAddrStreetName	0-1	Text	
6	VehHolderAddrStreetNameExtra	0-1	Text	
6	VehHolderAddrStreetNumber	0-1	Text	
6	VehHolderAddrStreetNrAnnex	0-1	Text	
6	VehHolderAddrPostcode	0-1	Text	
6	VehHolderAddrPlaceOfResidence	0-1	Text	
6	VehHolderAddrCountryCode	0-1	Enum	
5	VehicleRefinementData	0-1		Vehicle data that can be used to refine a search for a person of interest, i.e. uniquely identify the person of interest.
6	VehIdentificationNumber	0-1	Text	
6	VehRegistrationNumber	0-1		
7	VehRegistrationNumberPart1	1	Text	
7	VehRegistrationNumberPart2	0-1	Text	

4.5.4 Response all vehicles held and owned (single case)

Nesting Level	Item	Occ	Type	Remarks
1	VATAIIVHOHResponse	1		
2	Header	1		
2	Body	1		
3	InformationResponse	1		
4	RequestId	1	Text	Copy from request message
4	VehHeldOwnedReferenceDateTime	1	DT	
4	VehiclesReply	0-1	Choice	When the information request yields information, node VehiclesReply is present, otherwise node InformationResponseMessages .
5	ListOfVehiclesHeldAndOwned	1-500		The list is sorted by VehIdentificationNumber , ascending.
6	VehIdentificationNumber	1	Text	
6	VehRegistrationNumber	1		
7	VehRegistrationNumberPart1	1	Text	
7	VehRegistrationNumberPart2	0-1	Text	
6	VehicleIsHeld	1	Boolean	
6	VehicleIsOwned	0-1	Boolean	Is only provided by Member States that record owner information (in MemberStates that do not record this information, it is unknown if the

Nesting Level	Item	Occ	Type	Remarks
				vehicle is owned, so this information cannot be provided).
4	<i>InformationResponseMessages</i>	0-1	Choice	Is present if the information request did not yield information, or if an error occurred.
5	<i>InformationResponseMessage</i>	1-n		
6	InformationResponseMessageCode	1	Enum	
6	InformationResponseMessageDesc	1	Text	
6	InformationResponseMessageVariable	0-1	Text	

4.6 VAT Hit No-Hit

4.6.1 Search vehicle multiple case request message

This request is usually broadcast (*RecipientCountry* = 'MCI').

It is possible to send it to one specific Member State, denoted in the header attribute *RecipientCountry*.

Nesting level	Item	Occ	Type	Remarks
1	<i>VATVHMultipleHitNoHitRequest</i>	1		
2	<i>Header</i>	1		
2	<i>Body</i>	1		
3	RequestBatchId	1	UUID	
3	<i>InformationRequest</i>	1-n		Multiple requests in one message.
4	<i>CaseInformation</i>	1		
5	RequestId	1	Text	
5	CaseHandlingOrganisationName	1	Text	
4	<i>VehicleSearchData</i>	1		
5	VehIdentificationNumber	1	Text	
5	ReferenceDateTime	0-1	DT	Is absent when the current situation is inquired.

4.6.2 Search vehicle multiple case response message

Nesting Level	Item	Occ	Type	Remarks
1	<i>VATVHMultipleHitNoHitResponse</i>	1		
2	<i>Header</i>	1		
2	<i>Body</i>	1		
3	RequestBatchId	1	UUID	Copy from request message
3	BodyReply	0-1	Choice	
4	<i>InformationResponse</i>	1-n		Multiple responses in one message.
5	<i>CaseInformation</i>	1		Copy from request message
6	RequestId	1	Text	Copy from request message
6	CaseHandlingOrganisationName	1	Text	Copy from request message
5	<i>VehicleSearchData</i>	1		Copy from request message
6	VehIdentificationNumber	1	Text	Copy from request message
6	ReferenceDateTime	1	DT	Copy from request message, or, if absent in the request, denote date and time of retrieval.
5	<i>MemberStateReplies</i>	1		
6	<i>MemberStateReply</i>	1-n		Occurs n times for a consolidated MCI response. In a Member State's response, the node occurs 1 time, and <i>ReplyingMemberStateCode</i> is populated with the correct value
7	ReplyingMemberStateCode	1	Enum	
7	<i>OKReply</i>	0-1	Choice	Present if no technical error occurred (if a technical error occurred, <i>NotOKReply</i> is present).

Nesting Level	Item	Occ	Type	Remarks
8	VehicleFound	1	Boolean	
8	VehicleHolderRegistered	1	Boolean	
8	VehicleOwnerRegistered	0-1	Boolean	Only provided if ownership information is recorded in the vehicle register.
7	<i>NotOKReply</i>	0-1	Choice	Present if a technical error occurred
8	<i>InformationResponseMessages</i>	1		
9	<i>InformationResponseMessage</i>	1-n		
10	InformationResponseMessageCode	1	Enum	MessageCode 101 (not found) <i>shall not be used</i> . A not found situation is to be denoted as an OKReply, VehicleFound = 'false'.
10	InformationResponseMessageDesc	1	Text	
10	InformationResponseMessageVariable	0-1	Text	
3	<i>BodyMessages</i>	0-1	Choice	
4	<i>BodyMessage</i>	1-n		
5	BodyMessageCode	1	Enum	
5	BodyMessageDesc	1	Text	
5	BodyMessageVariable	0-1	Text	

4.6.3 Search vehicle single case request message

This request in single case mode, is probably not used by VAT authorities. However, it may be used by EUCARIS Batch Processor, to handle a multiple case request.

The request is usually broadcast (*RecipientCountry* = 'MCI').

It is possible to send it to one specific Member State, denoted in the header attribute *RecipientCountry*.

Nesting level	Item	Occ	Type	Remarks
1	<i>VATVHHitNoHitRequest</i>	1		
2	<i>Header</i>	1		
2	<i>Body</i>	1		
3	<i>InformationRequest</i>	1		
4	<i>CaseInformation</i>	1		
5	RequestId	1	Text	
5	CaseHandlingOrganisationName	1	Text	
4	<i>VehicleSearchData</i>	1		
5	VehIdentificationNumber	1	Text	
5	ReferenceDateTime	0-1	DT	Is absent when the current situation is inquired.

4.6.4 Search vehicle single case response message

Nesting Level	Item	Occ	Type	Remarks
1	<i>VATVHHitNoHitResponse</i>	1		
2	<i>Header</i>	1		

Nesting Level	Item	Occ	Type	Remarks
2	Body	1		
3	InformationResponse	1		
4	CaseInformation	1		
5	RequestId	1	Text	Copy from request message
5	CaseHandlingOrganisationName	1	Text	Copy from request message
4	VehicleSearchData	1		
5	VehIdentificationNumber	1	Text	Copy from request message
5	ReferenceDateTime	1	DT	Copy from request message, or, if absent in the request, denote date and time of retrieval.
4	MemberStateReplies	1		
5	MemberStateReply	1-n		Occurs n times for a consolidated MCI response. In a Member State's response, the node occurs 1 time, and ReplyingMemberStateCode is populated with the correct value
6	ReplyingMemberStateCode	1	Enum	
6	OKReply	0-1	Choice	Present if no technical error occurred (if a technical error occurred, NotOKReply is present).
7	VehicleFound	1	Boolean	
7	VehicleHolderRegistered	1	Boolean	
7	VehicleOwnerRegistered	0-1	Boolean	Only provided if ownership information is recorded in the vehicle register.
6	NotOKReply	0-1	Choice	Present if a technical error occurred
7	InformationResponseMessages	1		
8	InformationResponseMessage	1-n		
9	InformationResponseMessageCode	1	Enum	MessageCode 101 (not found) <i>shall not be used</i> . A not found situation is to be denoted as an OKReply, VehicleFound = 'false'.
9	InformationResponseMessageDesc	1	Text	
9	InformationResponseMessageVariable	0-1	Text	

4.7 Vehicle registration data

Nesting Level	Item	Occ	Type	Remarks
N+0	VehicleRegistrationData			
1	VehRegistrationNumber	1		1999/37/EC: A
2	VehRegistrationNumberPart1	1	Text	
2	VehRegistrationNumberPart2	0-1	Text	
1	VehFirstRegistrationDateWorld	0-1	DateInc	1999/37/EC: B
1	VehStartRegistrationDate	0-1	Date	
1	VehEndRegistrationDate	0-1	Date	
1	VehSignals	0-1		
2	VehSignal	1-n		

Nesting Level	Item	Occ	Type	Remarks
3	VehSignalCode	1	Enum	
3	VehSignalRegistrationDate	0-1	Date	
3	VehSignalEndDate	0-1	Date	

4.8 Vehicle technical data

Nesting Level	Item	Occ	Type	Remarks
<i>N+0</i>	<i>VehicleTechnicalData</i>			
1	VehIdentificationNumber	1	Text	1999/37/EC: E
1	VehMake	0-1	Text	
1	VehCommercialName	0-1	Text	1999/37/EC: B
1	VehEuropeanCategoryCode	0-1	Enum	
1	<i>VehColours</i>	0-1		
2	<i>VehColour</i>	1-n		
3	VehColourCode	1	Enum	
1	MassOfTheVehicleInRunningOrder	0-1	Num	

4.9 Vehicle holder data

Nesting Level	Item	Occ	Type	Remarks
<i>N+0</i>	<i>VehicleHolder</i>			
1	VehHolderStartDate	1	Date	1999/37/EC: I
1	VehHolderEndDate	0-1	Date	
1	VehHolderLegalEntityCode	1	Enum	
1	<i>VehHolderPersonalInformation</i>	0-1	Choice	When VehHolderLegalEntity='NP'
2	VehHolderSurname	1	Text	
2	VehHolderForenames	0-1	Text	
2	<i>VehHolderOtherNames</i>	0-1		
3	VehHolderMiddleName	0-1	Text	
3	VehHolderOtherName	0-1	Text	
2	VehHolderGenderCode	0-1	Enum	
2	VehHolderDateOfBirth	0-1	DateInc	
2	VehHolderPlaceOfBirth	0-1	Text	
2	<i>VehHolderPersonalIdentification</i>	0-1		
3	VehHolderPersonalIdTypeCode	1	Enum	
3	VehHolderPersonalIdNumber	1	Text	
1	<i>VehHolderCompanyInformation</i>	0-1	Choice	When VehHolderLegalEntity='O'
2	VehHolderCompanyName	1	Text	
2	<i>VehHolderCompanyIdentification</i>	0-1		
3	VehHolderCompanyIdTypeCode	1	Enum	
3	VehHolderCompanyIdNumber	1	Text	
1	<i>VehHolderAddress</i>	0-1		
2	VehHolderAddrCareOfName	0-1	Text	
2	VehHolderAddrStreetName	0-1	Text	
2	VehHolderAddrStreetNameExtra	0-1	Text	

Nesting Level	Item	Occ	Type	Remarks
2	VehHolderAddrStreetNumber	0-1	Text	
2	VehHolderAddrStreetNrAnnex	0-1	Text	
2	VehHolderAddrPostcode	0-1	Text	
2	VehHolderAddrPlaceOfResidence	0-1	Text	
2	VehHolderAddrCountryCode	0-1	Enum	
1	<i>VehHolderPrintableName</i>	0-1		
2	<i>VehHolderNameLines</i>	1-n		
3	VehHolderNameLineSeqNumber	1	Int	
3	VehHolderNameLine	1	Text	
1	<i>VehHolderPrintableAddress</i>	0-1		
2	<i>VehHolderAddressLines</i>	1-n		
3	VehHolderAddressLineSeqNumber	1	Int	
3	VehHolderAddressLine	1	Text	
1	VehHolderStatusCode	0-1	Enum	
1	<i>VehHolderReplyMessages</i>	0-1		
2	<i>VehHolderReplyMessage</i>	1-n		
3	VehHolderReplyMessageCode	1	Enum	
3	VehHolderReplyMessageDesc	1	Text	
3	VehHolderReplyMessageVariable	0-1	Text	

4.10 Vehicle owner data

Nesting Level	Item	Occ	Type	Remarks
<i>N+0</i>	<i>VehicleOwner</i>			
1	VehOwnerStartDate	1	Date	
1	VehOwnerEndDate	0-1	Date	
1	VehOwnerLegalEntityCode	1	Enum	
1	<i>VehOwnerPersonalInformation</i>	0-1	Choice	When VehOwnerLegalEntity='NP'
2	VehOwnerSurname	1	Text	
2	VehOwnerForenames	0-1	Text	
2	<i>VehOwnerOtherNames</i>	0-1		
3	VehOwnerMiddleName	0-1	Text	
3	VehOwnerOtherName	0-1	Text	
2	VehOwnerGenderCode	0-1	Enum	
2	VehOwnerDateOfBirth	0-1	DateInc	
2	VehOwnerPlaceOfBirth	0-1	Text	
2	<i>VehOwnerPersonalIdentification</i>	0-1		
3	VehOwnerPersonalIdTypeCode	1	Enum	
3	VehOwnerPersonalIdNumber	1	Text	
1	<i>VehOwnerCompanyInformation</i>	0-1	Choice	When VehOwnerLegalEntity='O'
2	VehOwnerCompanyName	1	Text	
2	<i>VehOwnerCompanyIdentification</i>	0-1		
3	VehOwnerCompanyIdTypeCode	1	Enum	
3	VehOwnerCompanyIdNumber	1	Text	
1	<i>VehOwnerAddress</i>	0-1		
2	VehOwnerAddrCareOfName	0-1	Text	
2	VehOwnerAddrStreetName	0-1	Text	
2	VehOwnerAddrStreetNameExtra	0-1	Text	

Nesting Level	Item	Occ	Type	Remarks
2	VehOwnerAddrStreetNumber	0-1	Text	
2	VehOwnerAddrStreetNrAnnex	0-1	Text	
2	VehOwnerAddrPostcode	0-1	Text	
2	VehOwnerAddrPlaceOfResidence	0-1	Text	
2	VehOwnerAddrCountryCode	0-1	Enum	
1	<i>VehOwnerPrintableName</i>	0-1		
2	<i>VehOwnerNameLines</i>	1-n		
3	VehOwnerNameLineSeqNumber	1	Int	
3	VehOwnerNameLine	1	Text	
1	<i>VehOwnerPrintableAddress</i>	0-1		
2	<i>VehOwnerAddressLines</i>	1-n		
3	VehOwnerAddressLineSeqNumber	1	Int	
3	VehOwnerAddressLine	1	Text	
1	<i>VehOwnerReplyMessages</i>	0-1		
2	<i>VehOwnerReplyMessage</i>	1-n		
3	VehOwnerReplyMessageCode	1	Enum	
3	VehOwnerReplyMessageDesc	1	Text	
3	VehOwnerReplyMessageVariable	0-1	Text	

4.11 Vehicle mileage data

Nesting Level	Item	Occ	Type	Remarks
<i>N+0</i>	<i>VehicleMileageData</i>			
1	VehImported	0-1	Boolean	
1	<i>VehOdometerHistory</i>	0-1		This node contains 1 odometer history status for each found odometer history status found.
2	<i>VehOdometerHistoryStatus</i>	1-n		This node contains one odometer history status of a vehicle.
3	VehOdometerHistoryStatusCode	1	Enum	
1	<i>MileageRecordings</i>	0-1		This node contains the recorded mileage(s)
2	<i>MileageRecording</i>	1-n		This node occurs once if only the last recorded mileage (before reference date and time) is provided, may occur more than once if the full mileage history is provided.
3	MileageSeqNumber	0-1	Num	
3	MileageRecordingDate	1	DateInc	
3	MileageRecordingTime	0-1	Int	
3	Mileage	1	Int	
3	MileageUnityCode	0-1	Enum	
3	MileageStatusCode	0-1	Enum	
3	MileageRecordingOrganisation	0-1	Text	
3	MileageRecordingCountryCode	0-1	Enum	

5. Statistics

For a number of EUCARIS services, usage statistics are compiled. The method with which is done is roughly the same for all services. This chapter describes the process globally. **Detailed design documents are not yet available.**

Statistical counts are derived from the EUCARIS logging table, where each VAT message is logged, both when it is offered to EUCARIS (by a client or legacy system) and prior to sending the message to its destination. The counts are based on the messages exchanged between the Member States. For each VAT message, statistical metadata are collected:

1. At each Member State, per individual VAT request message, the number of outgoing requests to each Member State, as well as incoming requests from each Member State, are counted.
2. At each Member State, per individual VAT response message, the number of incoming responses from each Member State, as well as outgoing responses to each Member State, are counted. Furthermore, the result status of response messages is established (found, not found, error), and messages are counted per result status.

The counted data is saved into a specific VAT statistical count XML message. It is sent to the EUCARIS Nominated Party of Operations, for storage, and is also stored at the Member State itself.

Via a custom statistical report tool, available at both the EUCARIS Nominated Party (which has the combined data of all VAT Member States) and each VAT Member State (which has the data of its own activities), reports on numbers of requests and responses sent and received. The statistics period is user configurable period (a certain week, month, year, etc.). Reports made by a Member State give an overview of the Member State activity, reports made by a EUCARIS NPO give an overview of all activity of the combined VAT network, subdivided into each individual Member State.

The statistics tooling is software part of the EUCARIS VAT services. The software will be installed in each Member State at each VAT NCP.

A sample report:

VAT June 2018

Requests made by / made in "Vehicle"			
Made by / made in	A	B	C
A – Member State A	1536	1577	3117
B – Member State B	82	86	175
C – Member State C	250176	288888	551974
Total made in	251794	290551	555266

Response results "Vehicle"			
Made by / made in	A	B	C
Information found	245301	287551	540533
No information found	4112	2012	10005
Error message	2381	998	4728
Total made in	251794	290551	555266

Requests unanswered			
	A	B	C
Requests unanswered	6493	3010	14733
Deviation (%)	2,58%	1,04%	2,65%

6. Availability Monitoring

EUCARIS Operations may monitor the availability of EUCARIS VAT services in each connected Member State. The process by which this is done, is briefly outlined in this chapter.

To monitor availability, EUCARIS Operations sends business-like messages (e.g. VATVHOH single requests) to each Member State with a certain interval, typically 10 minutes. The request message is designed such that it should result in a 'Not Found' response (with each Member State it is agreed what request data should be used to obtain a 'Not Found' result with 100% certainty).

The availability monitoring request messages can be distinguished from other messages via the *ServiceExecutionReasonCode* attribute in the EUCARIS header.

For normal messages, *ServiceExecutionReasonCode* = 0 (Not specified).

For availability monitoring messages, *ServiceExecutionReasonCode* = 3 (Composing Statistics).

Availability monitoring messages will not be counted in reports on usage statistics (Chapter 5).

Availability monitoring messages are to be processed as any normal messages, i.e. a Member State uses the regular VAT legacy system to process messages, supposedly leading to a normal 'not found' response message (once again distinguishable in logs from normal business messages via *ServiceExecutionReasonCode*).

EUCARIS Operations records the availability monitoring results. If the result deviates from the expected result (i.e. any other response than a 'not found' response), this counts as 'failed'. However, one 'failed' measurement (which may happen because of a temporary hiccup), does not result in an availability incident immediately. Usually, an availability incident is launched if a Member States reports to be unavailable for more 2 hours in one continuous period.

The Member State then receives an automatically generated email from the availability monitoring tool, informing about the unavailability, requesting to take action and solve the availability problem.

It is possible to project the availability monitoring on a dashboard, showing each Member State either as 'available' or 'unavailable'. If agreed upon, the dashboard may be published on a public website (for an example of this, visit <https://www.eucaris.net/dashboard/>)

7. Annex A – Nodes and elements

In Alphabetical order this annex describes in detail all the nodes and elements used in the messages. The following information is provided:

- **Item**

The name of the XML node or element (see also 5.1.2)

- **Type**

The data type, which only applies to XML elements and not to XML nodes. See also 5.1.4.

- **Len**

This column indicates the length of the element.

- 'n' indicates a fixed length where 'n' is the number of characters
- 'm-n' indicates a variable length where "m" is the minimum and "n" is the maximum

- **Description**

Information about the purpose of the node or element, rules for usage and examples of usage. For elements of type "Enum", i.e. elements with a fixed set of values, in the description the possible values will be listed.

7.1 General message elements

Item	Type	Len	Description
<i>AddressRefinementData</i>			This node contains address data of a person of interest, meant to be used if a search fails to identify one person of interest immediately The refinement data are used to uniquely identify one person of interest.
<i>Body</i>			The body contains all the nodes and elements of the actual request, reply or message.
BodyMessage			See Annex B
BodyMessageCode	Enum		See Annex B
BodyMessageDesc	Text	1-80	See Annex B
BodyMessages			This node is used when a complete multiple case request message could not be processed, to inform the Member State of the offence about the error situation. If present, the node contains one or more <i>BodyMessage</i> . For more details see Annex B.
BodyMessageVariable	Text	1-240	See Annex B.
<i>BodyReply</i>			This node contains the response to a successfully processed multiple case request message.
CaseHandlingOrganisationName	Text	1-50	The name of the VAT authority handling the case.
<i>CaseInformation</i>			This node contains information about the case from which the request emerges.
ExtendedVehicleDataRequired	Boolean		Item via which the requester indicates if extended vehicle data are required. True – Extended vehicle data is required False – Extended vehicle data is not required
FullMileageHistoryRequired	Boolean		Item via which the requester indicates if the full mileage history is required. True – Full mileage history is required False – Full mileage history is not required

Item	Type	Len	Description
Header			The header is used to control the process flow. The header is sent with each message between client and server.
InformationRequest			This node contains the data of one request for information (identified by <i>RequestId</i>).
InformationResponse			This node contains the data of one response to an information request (identified by <i>RequestId</i>).
InformationResponseMessage			See Annex B.
InformationResponseMessageCode	Enum		See Annex B.
InformationResponseMessageDesc	Text	1-80	See Annex B.
InformationResponseMessages			This node is used when one individual information request is unsuccessful, i.e. does not yield information. For more details see Annex B.
InformationResponseMessageVariable	Text	1-240	See Annex B.
LegalPersonSearchData			This node contains identifying data of a legal person.
LegalPersonSearchResult			This node contains a search result consisting of legal person.
ListOfVehiclesHeldAndOwned			This node contains a list of vehicles held and owned.
MemberStateReplies			This node contains the replies of all Member States inquired.
MemberStateReply			This node contains the reply of one Member State inquired. Occurs once for requests sent to one specific Member State, occurs n times for MCI requests.
MessageID	UUID	36	A unique identifier for this message.
MessageRefID	UUID	36	Only applicable to response messages. The element contains the MessageId of the request message, so that request and response message can be correlated.
MessageVersion	Text	3	Specifies the version number of the message. This version number can be used to make distinctions between multiple versions of messages. Name conventions: First MessageVersion is 1.0, subsequent versions 2.0, 3.0 etc. The client (in the request) and the legacy system (in the response), mention the MessageVersion that is supported. A EUCARIS core system downgrades a response message to the MessageVersion of the client in case the response message contains a higher MessageVersion than the request message.
NameAndEventuallyNumberData			This node contains name data of a person of interest, and eventually also 'number' data, i.e. one or more identification numbers, such as a VAT number.
NaturalPersonRefinementData			This node contains identifying data of a natural person, meant to be used if a search fails to identify one person of interest immediately The refinement data are used to uniquely identify one person of interest.
NaturalPersonSearchData			This node contains identifying data of a natural person.
NaturalPersonSearchResult			This node contains a search result consisting of a natural person.

Item	Type	Len	Description
<i>NotOKReply</i>			This node contains a NotOK reply, i.e. a technical error occurred. Note: Do not use this for a not found reply (a 'not found' is an OK reply).
<i>NumberData</i>			This node contains 'number' data of a person of interest, i.e. one or more identification numbers, such as a VAT number.
<i>OKReply</i>			This node contains an OK reply (i.e. no technical error occurred).
<i>PersonOfInterestRefinementData</i>			This node contains identifying data of a person of interest, meant to be used if a search fails to identify one person of interest immediately The refinement data are used to uniquely identify one person of interest.
<i>PersonOfInterestSearchData</i>			This node contains identifying data of a person of interest.
RecipientCountry	Text	1-5	RecipientCountry specifies the Member State that receives the message. For request messages, this is the Member State of registration. For response messages, this is the Member State handling the VAT case. The coding system used should correspond with the URL at which the request is submitted. See further Annex D (chap. 10).
RecipientCountryListValue	Enum		One country (from a list of countries) that receives the message. The coding system used should correspond with the URL at which the request is submitted. See further Annex D (chap. 10).
<i>RecipientCountryTable</i>			This node contains a list of countries to which a certain request is directed. For more information see Annex D(chap. 10).
ReferenceDateTime	DT		Reference date and time, i.e. date and time for which information is requested. To be established by the VAT Authority handling the case. If a VAT authority wants to inquire about the current situation, reference date time is left out of the request message.
ReplyingMemberStateCode	Enum		Code of the Member State that provides the reply. Coding system DS-code. For further information, see Annex D(chap. 10).
RequestBatchId	UUID		Is assigned to each multiple case request. If a request is broadcast, each individual request receives the same RequestBatchId. In responses, RequestBatchId is echoed, so that it can be used by EUCARIS to prepare a consolidated multiple case response message, assembling all response messages that have the RequestBatchId of the original request message.
RequestId	Text	1-36	Identification associated with one single request The number is unique within one multiple case request message. In the response message, the RequestId from the request message is echoed, so that the individual responses can be linked to the individual requests.

Item	Type	Len	Description
			RequestId is assigned by the VAT Authority handling the case, e.g. a case reference id in the national domain.
<i>SearchResultReplies</i>			This node contains one or more replies with search results.
<i>SearchResultReply</i>			This node contains a reply with a search result
SenderCountry	Text	1-5	SenderCountry specifies the Member State that sends the message. For request messages, this is the Member State handling the VAT case. For response messages, this is the Member State of registration. The coding system used should correspond with the URL at which the request is submitted. See further Annex D.
SenderName	Text	1-50	Identification of the user making the request. Identificaton of the ELO responsible for the inquiry.
<i>SenderOrganisation</i>			Specifies the type of organisation making the request.
SenderOrganisationCode	Enum		Code for denoting the type of organisation, in combination with <i>SenderOrganisationDesc</i> . 5 = National Contact Point
SenderOrganisationDesc	Text	1-50	Description of the type of organisation, in combination with <i>SenderOrganisationCode</i> .
<i>ServiceExecutionReason</i>			Contains the reason for making the request.
ServiceExecutionReasonCode	Enum		Code for denoting the reason the request is made, in combination with <i>ServiceExecutionReasonDesc</i> . Value list: 0 = Not specified (for all regular requests) 3 = Composing statistics (used when monitoring EUCARIS availability) 5 = Test
ServiceExecutionReasonDesc	Text	1-50	Description of the reason the request is made, in combination with <i>ServiceExecutionReasonCode</i> .
ServiceFileNumber	Text	1-36	Can be used by a client application to provide an identification number or reference. Will be echoed in the response message, if provided in the request message.
TimeOut	Int	1-7	Is not used in the message exchange. Provide value 0.
Timestamp	DT		The full date and time stamp of the request/response.
<i>VATAIIVHOHMultipleRequest</i>			This node contains a multiple case request for all vehicles held and owned by a specific person of interest.
<i>VATAIIVHOHMultipleResponse</i>			This node contains a multiple case response for all vehicles held and owned by a specific person of interest.
<i>VATAIIVHOHRequest</i>			This node contains a single case request for all vehicles held and owned by a specific person of interest.
<i>VATAIIVHOHResponse</i>			This node contains a single case response for all vehicles held and owned by a specific person of interest.

Item	Type	Len	Description
<i>VATVHOHByRegNumAndDate</i>			This node contains a single case request for vehicle owner-holder information, based on licence plate number and reference date-time.
<i>VATVHOHByVINAndDate</i>			This node contains a single case request for vehicle owner-holder information, based on Vehicle Identification Number and reference date-time.
<i>VATVHOHLifecycleByVIN</i>			Placeholder of a single case request for vehicle owner-holder information during the lifecycle of a vehicle, based on Vehicle Identification Number.
<i>VATVHOHLifecycleResponse</i>			This node contains a single case response to a request for vehicle owner-holder information, during the lifecycle of a vehicle.
<i>VATVHOHMultipleByRegNumAndDate</i>			This node contains a multiple case request for vehicle owner-holder information, based on licence plate number and reference date-time.
<i>VATVHOHMultipleByVINAndDate</i>			This node contains a multiple case request for vehicle owner-holder information, based on Vehicle Identification Number and reference date-time.
<i>VATVHOHMultipleLifecycleByVIN</i>			This node contains a multiple case request for vehicle owner-holder information during the lifecycle of a vehicle, based on Vehicle Identification Number.
<i>VATVHOHMultipleLifecycleResponse</i>			This node contains a multiple case response to a request for vehicle owner-holder information, during the lifecycle of a vehicle.
<i>VATVHOHMultipleResponse</i>			This node contains a multiple case response to a request for vehicle owner-holder information.
<i>VATVHOHResponse</i>			This node contains a multiple case response to a request for vehicle owner-holder information.
VehHeldOwnedReferenceDateTime	DT		Matches with reference date-time in the request (if provided), or, if reference date-time was absent in the request – indicating that the actual situation is inquired – denotes the date and time at which the actual information was retrieved.
VehHolderReferenceDateTime	DT		Matches with reference date-time in the request (if provided), or, if reference date-time was absent in the request – indicating that the actual situation is inquired – denotes the date and time at which the actual information was retrieved.
<i>VehHolderReplyMessage</i>			See Annex B.
VehHolderReplyMessageCode	Enum		See Annex B.
VehHolderReplyMessageDesc	Text	1-80	See Annex B.
<i>VehHolderReplyMessages</i>			This node contains messages associated with the exchanged vehicle holder information, e.g. messages about data quality. For further information see Annex B.
VehHolderReplyMessageVariable	Text	1-240	See Annex B.
<i>VehOwnerHolderReplies</i>			This node contains one or more replies with requested vehicle-owner-holder information.
<i>VehOwnerHolderReply</i>			This node contains one reply with requested vehicle-owner-holder information.

Item	Type	Len	Description
VehOwnerReferenceDateTime	DT		Matches with reference date-time in the request (if provided), or, if reference date-time was absent in the request – indicating that the actual situation is inquired – denotes the date and time at which the actual information was retrieved.
<i>VehOwnerReplyMessage</i>			See Annex B.
VehOwnerReplyMessageCode	Enum		See Annex B.
VehOwnerReplyMessageDesc	Text	1-80	See Annex B.
<i>VehOwnerReplyMessages</i>			This node contains messages associated with the exchanged vehicle owner information, e.g. messages about data quality. For further information see Annex B.
VehOwnerReplyMessageVariable	Text	1-240	See Annex B.
VehReferenceDateTime	DT		Matches with reference date-time in the request (if provided), or, if reference date-time was absent in the request – indicating that the actual situation is inquired – denotes the date and time at which the actual information was retrieved.
VehicleFound	Boolean		Element denoting if a certain vehicle is known in the vehicle register. True – The vehicle is known/found in the vehicle register False – The vehicle is unknown/not found in the vehicle register
VehicleHolderRegistered	Boolean		Element denoting if at reference date and time a holder is registered for the vehicle. True – A holder is registered at reference date-time False – No holder registered at reference date-time
VehicleIsHeld	Boolean		Element denoting if a vehicle is ‘held’ by a person of interest (i.e. the person of interest, at reference date and time, is registered as holder of the vehicle). True – The vehicle is held False – The vehicle is not held
VehicleIsOwned	Boolean		Element denoting if a vehicle is ‘owned’ by a person of interest (i.e. the person of interest, at reference date and time, is registered as owner of the vehicle). True – The vehicle is owned False – The vehicle is not owned The element is only provided if the information providing Member State has knowledge of ownership, i.e. if the Member State records ownership in its vehicle register.
VehicleOwnerRegistered	Boolean		Element denoting if at reference date and time an owner is registered for the vehicle. True – An owner is registered at reference date-time False – No owner is registered at reference date-time This element is only provided if the information providing Member State has knowledge of ownership, i.e. if the Member State records ownership in its vehicle register.

Item	Type	Len	Description
VehicleRefinementData			This node contains vehicle data associated with of a person of interest, meant to be used if a search fails to identify one person of interest immediately The refinement data are used to uniquely identify one person of interest.
VehicleSearchData			This node contains identifying data of a vehicle.
VehiclesReply			This node contains a list of vehicles held and owned.

7.2 Vehicle registration data

Item	Type	Len	Description
VehEndRegistrationDate	Date	8	End date of registration in the Member State. Is populated if the vehicle has been de-registered in the Member State.
VehFirstRegistrationDateWorld	DateInc	8	Document abbreviation 1999/37/EC: B Date of first registration of the vehicle (somewhere in the world). Format CCYYMMDD. If the date is only partly known, fill the missing parts with 99. Incomplete date formats that are allowed: CCYY9999 and CCYYMM99.
VehRegistrationNumber			This node contains a vehicle registration number. Document abbreviation 1999/37/EC: A
VehRegistrationNumberPart1	Text	1-15	For most Member State, this part contains the full vehicle registration number or licence plate number. Germany: This part contains the city or region code (<i>Landkreis</i> in German).
VehRegistrationNumberPart2	Text	1-15	Is not used in most countries. Germany: This part contains the registration number, with the exception of the city or region code.
VehSignal			This node contains one specific vehicle signal.
VehSignalCode	Enum		Code for denoting the status of a vehicle or vehicle registration related circumstance or qualification, that normally emerged after registration of the vehicle. A signal/status may be temporary or definite. Value list: 1 = Vehicle stolen 9 = Registration suspended 11 = Vehicle registration plates stolen 12 = Re-registration blocked 13 = Vehicle exported 14 = Vehicle registration cancelled due to destruction 15 = Vehicle de-registered 16 = Duplicate vehicle registration certificate issued 17 = Vehicle seriously damaged 18 = Vehicle registration certificate stolen Provisions on when and how to provide signal information, is given in Chapter 3 (see Search and response rules for the various services).

Item	Type	Len	Description
VehEndRegistrationDate	Date	8	End date of registration in the Member State. Is populated if the vehicle has been de-registered in the Member State.
VehFirstRegistrationDateWorld	DateInc	8	Document abbreviation 1999/37/EC: B Date of first registration of the vehicle (somewhere in the world). Format CCYYMMDD. If the date is only partly known, fill the missing parts with 99. Incomplete date formats that are allowed: CCYY9999 and CCYYMM99.
<i>VehRegistrationNumber</i>			This node contains a vehicle registration number. Document abbreviation 1999/37/EC: A
			See Annex E for a definition and description of use of the available vehicle signals.
VehSignalRegistrationDate	Date	8	Date from which a particular vehicle signal applies. Format CCYYMMDD.
VehSignalEndDate	Date	8	Last date at which a particular vehicle signal applies. Format CCYYMMDD.
<i>VehSignals</i>			This node contains vehicle signals, i.e. information about the status of the vehicle or the vehicle registration. Multiple signals are possible.
VehStartRegistrationDate	Date	8	Start date of registration in the Member State. Format CCYYMMDD. If the date is only partly known, fill the missing parts with 99. Incomplete date formats that are allowed: CCYY9999 and CCYYMM99.
<i>VehicleRegistrationData</i>			This node contains registration data of a specific vehicle.

7.3 Vehicle technical data

Item	Type	Len	Description
MassOfTheVehicleInRunningOrder	Num	6	Mass of the vehicle in running order, in kg.
<i>VehColour</i>			This node contains one colour of a vehicle.
VehColourCode	Enum		Document abbreviation [DOC-3] : R Code describing a colour. Value list: 1 = white 2 = yellow 3 = orange 4 = red 5 = violet 6 = blue 7 = green 8 = grey 9 = brown 10 = black 51 = not specified 52 = multi-colour 53 = beige 54 = bordeaux 55 = bronze

Item	Type	Len	Description
			56 = cream 57 = gold 58 = maroon 59 = pink 60 = purple 61 = silver 62 = turquoise
VehColours			This node contains the colour or colours of a vehicle.
VehCommercialName	Text	1-50	Document abbreviation [DOC-3]: D.3 The commercial description / type of the vehicle. For example, Focus, Astra, Megane.
VehEuropeanCategoryCode	Text	1-10	Document abbreviation [DOC-3]: J Vehicle category. Currently, EU legislation distinguishes about 100 different categories of vehicles. Most common categories are M1 for person's cars, N1 for vans, L3e for motorcycles. Known vehicle categories in EU regulations, entry into force per 31 st January 2019: C1 Track-laying tractor C1a Track-laying tractor, design speed not exceeding 40 km/h C1b Track-laying tractor, design speed exceeding 40 km/h C2 Track-laying tractor, gauge less than 1150 mm C2a Track-laying tractor, gauge less than 1150 mm, design speed not exceeding 40 km/h C2b Track-laying tractor, gauge less than 1150 mm, design speed exceeding 40 km/h C3 Track-laying tractor, mass less than 0,6 tonnes C3a Track-laying tractor, mass less than 0,6 tonnes, design speed not exceeding 40 km/h C3b Track-laying tractor, mass less than 0,6 tonnes, design speed exceeding 40 km/h C4.1 Track-laying tractor, ride height more than 1000 mm C4.1a Track-laying tractor, ride height more than 1000 mm, design speed not exceeding 40 km/h C4.1b Track-laying tractor, ride height more than 1000 mm, design speed exceeding 40 km/h C4.2 Track-laying tractor, extra wide C4.2a Track-laying tractor extra wide, design speed not exceeding 40 km/h C4.2b Track-laying tractor, extra wide, design speed exceeding 40 km/h C4.3 Track-laying tractor, low-clearance C4.3a Track-laying tractor , low-clearance, design speed not exceeding 40 km/h

Item	Type	Len	Description
			C4.3b Track-laying tractor, low-clearance, design speed exceeding 40 km/h
			C5 Track-laying tractor with a design speed over 40 km/h
			L1e Light two-wheel powered vehicle
			L1e-A Powered cycle
			L1e-B Two-wheel moped
			L2e Three-wheel moped
			L2e-P Three-wheel moped, designed for passenger transport
			L2e-U Three-wheel moped, designed for utility purposes
			L3e Two-wheel motorcycle without sidecar
			L3e-A1 Low-performance motorcycle
			L3e-A1E Low-performance motorcycle endure
			L3e-A1T Low-performance motorcycle trial
			L3e-A2 Medium-performance motorcycle
			L3e-A2E Medium-performance motorcycle endure
			L3e-A2T Medium-performance motorcycle trial
			L3e-A3 High-performance motorcycle
			L3e-A3E High-performance motorcycle 65ndure
			L3e-A3T High-performance motorcycle trial
			L4e Two-wheel motorcycle with sidecar
			L4e-A1 Low-performance motorcycle with sidecar
			L4e-A2 Medium-performance motorcycle with sidecar
			L4e-A3 High-performance motorcycle with sidecar
			L5e Powered tricycle
			L5e-A Tricycle, designed for passenger transport
			L5e-B Tricycle, designed for carriage of goods
			L6e Quadricycle, max design speed less than 45 km/h
			L6e-A Light on-road quad
			L6e-BP Light quadri-mobile designed for passenger transport
			L6e-BU Light quadri-mobile for utility purposes
			L7e Quadricycle, max design speed over 45 km/h
			L7e-A1 Heavy on-road quad
			L7e-A2 Heavy on-road quad
			L7e-B1 Heavy all terrain quad
			L7e-B2 Heavy all terrain quad with side-by-side buggy
			L7e-CP Heavy quadri-mobile designed for passenger transport
			L7e-CU Heavy quadri-mobile for utility purposes
			M1 Carriage of passengers, no more than 9 incl. driver
			M1G Off-road vehicle of category M1

Item	Type	Len	Description
			M1GS Special purpose vehicle for off-road use of category M1
			M1S Special purpose vehicle of category M1
			M2 Carriage of passengers, more than 9, mass not exceeding 5 tonnes
			M2G Off-road vehicle of category M2
			M2GS Special purpose vehicle for off-road use of category M2
			M2S Special purpose vehicle of category M2
			M3 Carriage of passengers, more than 9, mass exceeding 5 tonnes
			M3G Off-road vehicle of category M3
			M3GS Special purpose vehicle for off-road use of category M3
			M3S Special purpose vehicle of category M3
			N1 Carriage of goods, max mass not exceeding 3.5 tonnes
			N1G Off-road vehicle of category N1
			N1GS Special purpose vehicle for off-road use of category N1
			N1S Special purpose vehicle of category N1
			N2 Carriage of goods, max mass between 3.5 and 12 tonnes
			N2G Off-road vehicle of category N2
			N2GS Special purpose vehicle for off-road use of category N2
			N2S Special purpose vehicle of category N2
			N3 Carriage of goods, max mass exceeding 12 tonnes
			N3G Off-road vehicle of category N3
			N3GS Special purpose vehicle for off-road use of category N3
			N3S Special purpose vehicle of category N3
			O1 Trailer max mass not exceeding 0.75 tonnes
			O1S Special purpose trailer of category O1
			O2 Trailer max mass between 0.75 and 3.5 tonnes
			O2S Special purpose trailer of category O2
			O3 Trailer max mass between 3.5 and 10 tonnes
			O3S Special purpose trailer of category O3
			O4 Trailer max mass exceeding 10 tonnes
			O4S Special purpose trailer of category O4
			R1a Trailer, sum of technically permissible masses per axle not exceeding 1500 kg, design speed not exceeding 40 km/h
			R1b Trailer, sum of technically permissible masses per axle not exceeding 1500 kg, design speed exceeding 40 km/h

Item	Type	Len	Description
			R2a Trailer, sum of technically permissible masses per axle between 1501 kg and 3500 kg, design speed not exceeding 40 km/h
			R2b Trailer, sum of technically permissible masses per axle between 1501 kg and 3500 kg, design speed exceeding 40 km/h
			R3a Trailer, sum of technically permissible masses per axle between 3501 kg and 21000 kg, design speed not exceeding 40 km/h
			R3b Trailer, sum of technically permissible masses per axle between 3501 kg and 21000 kg, design speed exceeding 40 km/h
			R4a Trailer, sum of technically permissible masses per axle exceeding 21000 kg, design speed not exceeding 40 km/h
			R4b Trailer, sum of technically permissible masses per axle exceeding 21000 kg, design speed exceeding 40 km/h
			S1a Interchangeable towed equipment, sum of technically permissible masses per axle not exceeding 3500 kg. design speed not exceeding 40 km/h
			S1b Interchangeable towed equipment, sum of technically permissible masses per axle not exceeding 3500 kg. design speed exceeding 40 km/h
			S2a Interchangeable towed equipment, sum of technically permissible masses per axle exceeding 3500 kg. design speed not exceeding 40 km/h
			S2b Interchangeable towed equipment, sum of technically permissible masses per axle exceeding 3500 kg. design speed exceeding 40 km/h
			T1 Wheeled tractor
			T1a Wheeled tractor, design speed not exceeding 40 km/h
			T1b Wheeled tractor, design speed exceeding 40 km/h
			T2 Wheeled tractor, gauge less than 1150 mm
			T2a Wheeled tractor, design speed not exceeding 40 km/h
			T2b Wheeled tractor, design speed exceeding 40 km/h
			T3 Wheeled tractor, mass less than 0,6 tonnes
			T3a Wheeled tractor, mass less than 0,6 tonnes, design speed not exceeding 40 km/h
			T3b Wheeled tractor, mass less than 0,6 tonnes, design speed exceeding 40 km/h
			T4.1 Wheeled tractor, ride height more than 1000 mm
			T4.1a Wheeled tractor, ride height more than 1000 mm, design speed not exceeding 40 km/h

Item	Type	Len	Description
			<p>T4.1b Wheeled tractor, ride height more than 1000 mm, design speed exceeding 40 km/h</p> <p>T4.2 Wheeled tractor, extra wide</p> <p>T4.2a Wheeled tractor, extra wide, design speed not exceeding 40 km/h</p> <p>T4.2b Wheeled tractor, extra wide, design speed exceeding 40 km/h</p> <p>T4.3 Wheeled tractor, low-clearance</p> <p>T4.3a Wheeled tractor, low-clearance, design speed not exceeding 40 km/h</p> <p>T4.3b Wheeled tractor, low-clearance, design speed exceeding 40 km/h</p> <p>T5 Wheeled tractor with a design speed over 40 km/h</p> <p>L1, L2, L3, L4, L5, L6, L7 Same as L1e, L2e, etc., respectively.</p> <p>Code XXX can be used for vehicles of a category other than available in the list.</p>
VehIdentificationNumber	Text	1-25	Document abbreviation [DOC-3]]: E The identification number (VIN) of the vehicle.
VehMake	Text	1-50	Document abbreviation [DOC-3]: D.1 The make of the vehicle. For example Ford, Opel, Renault etc.
VehicleTechnicalData			This node contains technical data of a specific vehicle.

7.4 Natural person, legal person, holder, owner data

Item	Type	Len	Description
CareOfName	Text	1-80	See <i>VehHolderAddrCareOfName</i> .
CountryCode	Enum		See <i>VehHolderAddrCountryCode</i> .
DateOfBirth	DateInc	8	See <i>VehHolderDateOfBirth</i> .
Forenames	Text	1-200	See <i>VehHolderForenames</i> .
GenderCode	Enum		See <i>VehHolderGenderCode</i> .
IdNumber	Text	1-25	Denotes an identification number, in combination with <i>IdTypeCode</i> .
IdTypeCode	Enum		<p>Code denoting the type of ID number, in combination with <i>IdNumber</i>.</p> <p>Value list:</p> <p>COC = Chamber of commerce number</p> <p>CIN = Company identification number</p> <p>DLIC = Driving licence number</p> <p>PIN = National identification number (e.g. in NL Burgerservicenummer, in B persoonsnummer etc.)</p> <p>PASS = Passport number</p> <p>VAT = VAT number (See https://en.wikipedia.org/wiki/VAT_identification_number for further information)</p>
IdentificationNumber			This node contains contains the identification number of a person of interest (natural person or legal person).

Item	Type	Len	Description
IdentificationNumbers			This node contains 1 or more identification numbers of a person of interest.
LegalEntityCode	Enum		Code denoting the legal entity of a person of interest. Value list: NP = Natural person O = Legal entity other than natural person (i.e. legal person, a business, company, association, foundation etc).
LegalPersonName	Text	1-200	The name of a legal entity (other than natural person), i.e. a legal person's name, company name, association name, foundation name etc.
MiddleName	Text	1-40	See <i>VehHolderMiddleName</i> .
OtherName	Text	1-200	See <i>VehHolderOtherName</i> .
OtherNames			This node contains name information of a natural person, other than forenames and surname.
PlaceOfBirth	Text	1-100	See <i>VehHolderPlaceOfBirth</i> .
PlaceOfResidence	Text	1-100	See <i>VehHolderAddrPlaceOfResidence</i> .
PostCode	Text	1-12	See <i>VehHolderAddrPostcode</i> .
StreetName	Text	1-100	See <i>VehHolderAddrStreetName</i> .
StreetNrAnnex	Text	1-25	See <i>VehHolderAddrStreetNrAnnex</i> .
StreetNumber	Text	1-25	See <i>VehHolderAddrStreetNumber</i> .
Surname	Text	1-200	See <i>VehHolderSurname</i> .
VehHolderAddrCareOfName	Text	1-80	This element is present when the address provided, is a c/o address ("care of"), i.e. the vehicle holder receives its mail at the address of another person or a company. The element contains the name of the person or company associated with the address.
VehHolderAddrCountryCode	Enum		Code denoting the country associated with the address. Must always be provided. Coding system used: ISO-3166-alpha-2. For further reference see Annex D.
VehHolderAddrPlaceOfResidence	Text	1-100	Document abbreviation [DOC-3] : C1.3 or C3.3 Contains place of residence or post town of the address. For examples see <i>VehHolderAddress</i> .
VehHolderAddrPostCode	Text	1-12	Document abbreviation [DOC-3] : C1.3 or C3.3 Contains Postcode of the address. Format according to national conventions. For examples see <i>VehHolderAddress</i> .
VehHolderAddrStreetName	Text	1-100	Document abbreviation [DOC-3] : C1.3 or C3.3 Contains street name of the address. For examples see <i>VehHolderAddress</i> .
VehHolderAddrStreetNameExtra	Text	1-40	Document abbreviation [DOC-3] : C1.3 or C3.3 Contains additions to the street name, relevant to determine the correct address. E.g., Name of block, building or apartment. For examples see <i>VehHolderAddress</i> .
VehHolderAddrStreetNrAnnex	Text	1-25	Document abbreviation [DOC-2] : C1.3 or C3.3

Item	Type	Len	Description
			<p>Contains additions to the street number to distinguish between equivalent street numbers. For examples see <i>VehHolderAddress</i>.</p>
VehHolderAddrStreetNumber	Text	1-25	<p>Document abbreviation [DOC-2] : C1.3 or C3.3</p> <p>Contains the street number or building number of the address. For examples see <i>VehHolderAddress</i>.</p>
<i>VehHolderAddress</i>			<p>This node contains an address, split in separate fields.</p> <p>Provide the current address or, if that's not possible, the last known address.</p> <p>The node consists of the following parts: VehHolderAddrCareOfName VehHolderAddrStreetNumber VehHolderAddrStreetNrAnnex VehHolderAddrStreetName VehHolderAddrStreetNameExtra VehHolderAddrPostcode VehHolderAddrPlaceOfResidence VehHolderAddrCountryCode</p> <p>Example 1, the Netherlands. Printable address Helperwestsingel 88A 9721 BH Groningen NEDERLAND</p> <p>Split into separate fields, this yields: StreetNumber : 88; StreetNrAnnex: A; StreetName: Helperwestsingel; StreetNameExtra: <not applicable>; Postcode: 9721 BH; PlaceOfResidence: Groningen. Country code: NL</p> <p>Example 2, Belgium, Printable address Dijle 21 B402 2800 Mechelen BELGIE</p> <p>Split into separate fields, this yields: StreetNumber : 21; StreetNrAnnex: B402; StreetName: Dijle; StreetNameExtra: <not applicable>; Postcode: 2800; PlaceOfResidence: Mechelen. Country Code: B</p> <p>Example 3, United Kingdom, Printable address 10B Barry Jackson Tower (=no. + building name)</p>

Item	Type	Len	Description
			<p>Estone Walk (thoroughfare) BIRMINGHAM (post town) B6 5BA (Postcode) UNITED KINGDOM</p> <p>Split into separate fields, this yields: StreetNumber: 10; StreetNrAnnex: B; StreetName: Barry Jackson Tower; StreetNameExtra: Estone Walk; Postcode: B6 5BA; PlaceOfResidence: Birmingham. Country code: GB</p> <p>Example 4: c/o address c/o The Care Of Company Hegenheimermattweg 79 CH-4123 Luzern SCHWEIZ</p> <p>CareOfName: The Care Of Company StreetNumber: 79; StreetName: Hegenheimermattweg; Postcode: CH-4123; PlaceOfResidence: Luzern. Country Code: CH</p> <p>See also <i>VehHolderPrintableAddress</i>.</p>
VehHolderAddressLine	Text	1-100	Contains one line of the printable address.
VehHolderAddressLineSeqNumber	Num	1-3	Number denoting the sequence order of address lines.
<i>VehHolderAddressLines</i>			This node contains one or more <i>VehHolderAddressLine</i> .
VehHolderCompanyIdNumber	Text	1-25	Denotes a company identification number, in combination with <i>VehHolderCompanyIdTypeCode</i> .
VehHolderCompanyIdTypeCode	Enum		Code denoting the type of company identification number, in combination with <i>VehHolderCompanyIdNumber</i> . Value list: COC = Chamber of commerce number CIN = Company identification number VAT = VAT number (See https://en.wikipedia.org/wiki/VAT_identification_number for further information)
<i>VehHolderCompanyIdentification</i>			This node contains the identification number of the vehicle holder in case it's not a natural person. The node consists of the following elements: VehHolderCompanyIdNumber VehHolderCompanyIdTypeCode VehHolderCompanyIdTypeDesc
<i>VehHolderCompanyInformation</i>			This node contains the information of the vehicle holder, in case it is not a natural person.

Item	Type	Len	Description
			<p>This node applies when VehHolderLegalEntity = "O", other meaning legal person, company, business, association, foundation etc..</p> <p>The node consists of the following elements: VehHolderCompanyName</p>
VehHolderCompanyName	Text	1-200	See <i>LegalPersonName</i> .
VehHolderDateOfBirth	DateInc	8	Contains a person's date of birth. Format CCYYMMDD. If the date is only partly known, fill the missing parts with 99.
VehHolderEndDate	Date	8	Last date at which holdership is in effect. Not applicable if the holder is the current holder.
VehHolderForenames	Text	1-200	<p>Document abbreviation [DOC-3] : C1.2 or C3.2</p> <p>Either contains all, full forenames of the person, or the full first name plus initials of subsequent names, or initials only.</p> <p>Examples: "John Fitzgerald", "John F.", "J. F."</p> <p>Is only absent for people that have no official forenames.</p>
VehHolderGenderCode	Enum		<p>Code denoting the gender of a natural person. Leave out the element if there is no or no reliable recording in the register of the person's gender.</p> <p>Value list: M = Male F = Female U = Unknown</p> <p>Applies if a person, by national law, has chosen to be of non-specified gender (reflected as 'third gender option' or gender X on official documents).</p> <p>D = Diverse</p> <p>Applies if a person, by national law, has chosen not to mention a gender on official documents (the gender denomination is left blank).</p> <p>For further information on legal recognition of non-binary gender in various World countries, refer to https://en.wikipedia.org/wiki/Legal_recognition_of_non-binary_gender</p>
VehHolderLegalEntityCode	Enum		<p>Code for the legal entity of the vehicle holder.</p> <p>Value list: NP = Natural person O = Legal entity other than natural person (i.e. a business, company, association, foundation etc).</p>
VehHolderMiddleName	Text	1-40	<p>Document abbreviation [DOC-3] : C1.1 or C3.1</p> <p>Contains another name of a person like "de la" from "de la Peña".</p>
VehHolderNameLine	Text	1-100	Contains one line of the printable name.
VehHolderNameLineSeqNumber	Num	1-3	Number denoting the sequence order of name lines.

Item	Type	Len	Description
<i>VehHolderNameLines</i>			This node contains one or more <i>VehHolderNameLine</i> .
VehHolderOtherName	Text	1-200	Partner name or additional name of a person.
<i>VehHolderOtherNames</i>			Node containing names in addition to the Surname of a person. The node <i>VehHolderOtherNames</i> can consist of the following elements: VehHolderMiddleName VehHolderOtherName
VehHolderPersonalIdNumber	Text	1-25	Denotes a personal identification number, in combination with <i>VehHolderPersonalIdTypeCode</i> .
VehHolderPersonalIdTypeCode	Enum		Denotes a type of personal identification number, in combination with <i>VehHolderPersonalIdNumber</i> . Value list: PIN = National identification number (e.g. in NL Burgerservicenummer, in B persoonsnummer etc.) PASS = Passport number DLIC = Driving licence number VAT = VAT number (See https://en.wikipedia.org/wiki/VAT_identification_number for further information)
<i>VehHolderPersonalIdentification</i>			This node contains the identification number of the vehicle holder in case it's a natural person. The node consists of the following elements: VehHolderPersonalIdNumber VehHolderPersonalIdTypeCode
<i>VehHolderPersonalInformation</i>			This node contains the information of the vehicle holder, in case it is a natural person. This node applies when VehHolderLegalEntity='NP'. The node consists of the following elements: VehHolderSurname VehHolderForenames VehHolderDateOfBirth VehHolderPlaceOfBirth This node consists of the following subnodes : VehHolderOtherNames
VehHolderPlaceOfBirth	Text	1-100	This node contains the place of birth of a natural person. Please note that the place of birth is a language sensitive item. The item will be provided in whatever language the place of birth is stored in the vehicle register from which the information is provided. Example: Warszawa (Warsaw, Warschau, Varsovie, Varsavia, etc.)
<i>VehHolderPrintableAddress</i>			This node contains the printable address, to be used, in combination with <i>VehHolderPrintableName</i> , to print it on an envelope.

Item	Type	Len	Description
			<p>It consists of one or more VehHolderAddressLine.</p> <p>The printable address is formatted by the member state applying national conventions. The address will be shown exactly as it is delivered by the member state. Since for the recipient of the data, the address usually will be abroad, a country name (in English) must be included in the printable address. An official list of country names: http://en.wikipedia.org/wiki/List_of_sovereign_states</p> <p>The country code provided with the address can be used, translated into the corresponding country name in English.</p> <p>Postal conventions usually say to put the country name in capital letters.</p> <p>If the address is a c/o address, the care of name should be added to the printable address, preceded by c/o.</p> <p>Examples Helperwestsingel 88A 9721 BH Groningen THE NETHERLANDS</p> <p>Dijle 21 B402 Mechelen BELGIUM</p> <p>Unterer Sand 18 94032 Passau GERMANY</p> <p>c/o The Care Of Company Laisves pr. 40-12 LT-04340 VILNIUS LITHUANIA</p>
<i>VehHolderPrintableName</i>			<p>This node contains the printable name of the vehicle holder.</p> <p>The printable name is formatted by the member state applying national conventions. The name will be shown exactly as it is delivered by the member state.</p> <p>The printable name may contain elements that are not exchanged through separate fields, e.g. titles.</p> <p>Examples Sir John W. Frost, M.D. Irene K. de Groot e/v de la Peña RDW Voertuigtoelating en –Informatie Discount Car Leasing</p>

Item	Type	Len	Description
VehHolderStartDate	Date	8	Document abbreviation [DOC-3]: I Date of the registration to which the registration certificate refers, e.g. date at which the holdership starts.
VehHolderStatusCode	Enum		Document abbreviation [DOC-3]: C.4 Can be provided in cases where a vehicle holder is returned, and not a vehicle owner. In other cases, the element is not applicable. Provides information about the ownership of the holder. Value list: A = Holder is also the owner B = Holder is not the owner C = Unknown if the holder is also the owner Example, in NL the text C.4.c (unknown if holder is also owner) is printed on the vehicle registration document.
VehHolderSurname	Text	1-200	Document abbreviation [DOC-3] : C1.1 or C3.1 Contains the person's surname. Examples: "Kennedy", "Garcia Marquez", "Ivanišević" See https://en.wikipedia.org/wiki/Surname for further information.
VehOwnerAddrCareOfName	Text	1-80	See <i>VehHolderAddrCareOfName</i> .
VehOwnerAddrCountryCode	Enum		See <i>VehHolderAddrCountryCode</i> .
VehOwnerAddrPlaceOfResidence	Text	1-100	Document abbreviation [DOC-2]: C2.3 See <i>VehHolderAddrPlaceOfResidence</i>
VehOwnerAddrPostCode	Text	1-12	Document abbreviation [DOC-2]: C2.3 See <i>VehHolderAddrPostcode</i>
VehOwnerAddrStreetName	Text	1-100	Document abbreviation [DOC-2]: C2.3 See <i>VehHolderAddrStreetName</i>
VehOwnerAddrStreetNameExtra	Text	1-40	Document abbreviation [DOC-2]: C2.3 See <i>VehHolderAddrStreetNameExtra</i>
VehOwnerAddrStreetNrAnnex	Text	1-20	Document abbreviation [DOC-2]: C2.3 See <i>VehHolderAddrStreetNrAnnex</i>
VehOwnerAddrStreetNumber	Text	1-25	Document abbreviation [DOC-2]: C2.3 See <i>VehHolderAddrStreetNumber</i>
<i>VehOwnerAddress</i>			This node contains an address, split in separate fields. The node consists of the following parts: VehOwnerAddrCareOfName VehOwnerAddrStreetNumber VehOwnerAddrStreetNrAnnex VehOwnerAddrStreetName VehOwnerAddrStreetNameExtra VehOwnerAddrPostcode VehOwnerAddrPlaceOfResidence VehOwnerAddrCountryCode For examples See <i>VehHolderAddress</i>
VehOwnerAddressLine	Text	1-100	Contains one line of the printable address.

Item	Type	Len	Description
VehOwnerAddressLineSeqNumber	Int	1-3	Number denoting the sequence order of address lines.
<i>VehOwnerAddressLines</i>			This node contains one or more <i>VehOwnerAddressLine</i> .
VehOwnerCompanyIdNumber	Text	1-25	See <i>VehHolderCompanyIdNumber</i> .
VehOwnerCompanyIdTypeCode	Enum		See <i>VehHolderCompanyIdTypeCode</i> .
<i>VehOwnerCompanyIdentification</i>			This node contains the identification number of the vehicle owner in case it's not a natural person. The node consists of the following elements: VehOwnerCompanyIdNumber VehOwnerCompanyIdTypeCode VehOwnerCompanyIdTypeDesc
<i>VehOwnerCompanyInformation</i>			This node contains the information of the vehicle owner, in case it is not a natural person. This node applies when VehOwnerLegalEntity = "O", other meaning legal person, company, business, association, foundation etc..
VehOwnerCompanyName	Text	1-200	See <i>LegalPersonName</i>
VehOwnerDateOfBirth	DateInc	8	See <i>VehHolderDateOfBirth</i>
VehOwnerEndDate	Date	8	Last date at which ownership is in effect. Not applicable if the owner is the current owner.
VehOwnerForenames	Text	1-200	Document abbreviation [DOC-2]: C2.2 For examples See <i>VehHolderForenames</i> .
VehOwnerGenderCode	Enum		See <i>VehHolderGenderCode</i> .
<i>VehOwnerHolderReplies</i>			This node contains a successful reply to a vehicle owner holder inquiry on vehicles.
<i>VehOwnerHolderReply</i>			This node contains a successful reply to a vehicle owner holder inquiry of one individual vehicle.
VehOwnerLegalEntityCode	Text	1-3	See <i>VehHolderLegalEntityCode</i> .
VehOwnerMiddleName	Text	1-40	See <i>VehHolderMiddleName</i> .
VehOwnerNameLine	Text	1-100	Contains one line of the printable name.
VehOwnerNameLineSeqNumber	Int	1-3	Number denoting the sequence order of name lines.
<i>VehOwnerNameLines</i>			This node contains one or more <i>VehOwnerNameLine</i> .
VehOwnerOtherName	Text	1-200	See <i>VehHolderOtherName</i>
<i>VehOwnerOtherNames</i>			Node containing Names in addition to the Surname of a person. The node <i>VehOwnerOtherNames</i> consists of the following elements: VehOwnerMiddleName, VehOwnerOtherName.
VehOwnerPersonalIdNumber	Text	1-25	See <i>VehHolderPersonalIdNumber</i>
VehOwnerPersonalIdTypeCode	Enum		See <i>VehHolderPersonalIdTypeCode</i> .
<i>VehOwnerPersonalIdentification</i>			This node contains the identification number of the vehicle owner in case it's a natural person. The node consists of the following elements: VehOwnerPersonalIdNumber VehOwnerPersonalIdTypeCode

Item	Type	Len	Description
<i>VehOwnerPersonalInformation</i>			<p>This node contains the information of the vehicle owner, in case it is a natural person.</p> <p>This node applies when VehOwnerLegalEntity='NP'.</p> <p>The node consists of the following elements :</p> <p>VehOwnerSurname VehOwnerForenames VehOwnerDateOfBirth VehOwnerPlaceOfBirth</p> <p>This node consists of the following subnodes :</p> <p>VehOwnerOtherNames</p>
VehOwnerPlaceOfBirth	Text	1-100	See <i>PlaceOfBirth</i> .
<i>VehOwnerPrintableAddress</i>			See <i>VehHolderPrintableAddress</i> .
<i>VehOwnerPrintableName</i>			See <i>VehHolderPrintableName</i> .
VehOwnerStartDate	Date	8	Date at which ownership starts.
VehOwnerSurname	Text	1-200	See <i>VehHolderSurname</i> .
<i>VehicleHolder</i>			<p>This node contains data relating to the holder of the vehicle, harmonised document abbreviation C.1 in [DOC-3].</p> <p>Holder of the registration certificate, i.e. registered keeper of the vehicle.</p> <p>In case there is no holder (C.1 is not available), the data under harmonised document abbreviation C.3 in [DOC-3] can be provided, i.e. the data of a natural or legal person who may use the vehicle by virtue of legal right other than that of ownership.</p>
<i>VehicleHolderReply</i>			This node contains data relating to one or more holders of vehicles.
<i>VehicleOwner</i>			This node contains data relating to the owner of the vehicle, harmonised document abbreviation C.2 in [DOC-3].
<i>VehicleOwnerReply</i>			This node contains data relating to one or more owners of vehicles.

7.5 Vehicle mileage data

Item	Type	Len	Description
Mileage	Int	1-7	The mileage recorded at a certain <i>MileageRecordingDate</i> , in a certain <i>MileageUnity</i> .
<i>MileageRecording</i>			This node contains one mileage recording.
MileageRecordingCountryCode	Enum		Code of the country where the mileage was recorded. Coding system: DS code. See Annex D for a list of possible values.
MileageRecordingDate	DateInc	8	Date at which the mileage has been recorded. Format CCYYMMDD. The day and/or month part of the data may be unknown. If this is the case, fill the unknown parts with 99.
MileageRecordingOrganisation	Text	1-50	Name of the organisation responsible for the mileage recording.

Item	Type	Len	Description
MileageRecordingTime	Time	3-4	Time at which the mileage has been recorded, in format hhmm.
MileageRecordings			This node contains a table of mileage recordings.
MileageSeqNumber	Num	1-5	Order of the mileage within the mileage recording table. This sequence number denotes the order in which the mileages were received and recorded.
MileageStatusCode	Enum		Code denoting the status of the odometer if it is replaced. Value list: 10 = Odometer replaced Use this status code with the mileage recorded at the date and time the odometer is replaced. The following values are also allowed (since they are allowed in a MileageResponse message v1.0). However, these values <i>shall not be used anymore</i> : 1 = No odometer 2 = Odometer unreadable 3 = Not recorded 4 = Under investigation 5 = Suspect 99 = Not specified
MileageUnityCode	Enum		Code denoting the unity of the mileage recording, or the unity of the odometer of the vehicle. Value list: km = kilometre m = mile xx = not specified
VehImported	Boolean		Element denoting if the vehicle was imported as a used vehicle from another Member State. True – The vehicle was imported as used False – The vehicle was not imported as used
VehOdometerHistoryStatus			This node contains one odometer history status of a vehicle.
VehOdometerHistoryStatusCode	Enum		Code denoting a status of the vehicle/odometer related to the mileage recordings. Value list: 1 = No odometer 2 = 5-digit odometer or deviant odometer Use this code when the vehicle has an odometer with 5-digit, or deviant odometer (not 999,999), or the odometer has reached his maximum. 3 = Odometer replaced Use this code when during the lifetime of the vehicle the odometer has been replaced.
VehOdometerHistory			This node contains all odometer history statuses of a vehicle.
VehicleMileageData			This node contains the mileage data of a specific vehicle.

8. Annex B – Defined control messages

It is possible to give more than one control message to clarify (error) situations. For all control messages, the element `MessageVariable` can be used for further explanation. The message descriptions shall be communicated in the English language.

Three types of error messages are distinguished:

Message name	Kind of message/Situation	Examples
<code>BodyMessage</code>	General error message when the complete request could not be processed	System error, system not available
<code>InformationResponseMessage</code>	Error message concerning one individual information response that could not be processed	Vehicle not found, no owner holder found, information not disclosed
<code>VehHolderReplyMessage</code> / <code>VehOwnerReplyMessage</code>	Messages related to the holder or owner information that is exchanged	Data quality issues

8.1 Control messages when entire request message can not be processed

These messages are put in the node *BodyMessages*. A message contains the following elements:

`BodyMessageCode`
`BodyMessageDesc`
`BodyMessageVariable`

The following messages are available. One or more messages can be used for explanation. *BodyMessageVariable* might be used to give additional details.

BodyMessageCode	BodyMessageDesc	BodyMessageVariable
1	System not available	May be used to provide additional info.
2	System returned error	May be used to provide additional info.
3	Authorisation error	---
4	Timeout occurred	---
501	EUCARIS Server	
502	Register server	
503	Gateway server	
504	Local web server	
505	Contact servicedesk	Contact data of the Servicedesk.
508	This error was returned	Is used to provide the error that was returned.

Value 0 (unknown) is allowed in the XSD, to handle cases where the legacy system behaves unexpectedly and no specified error handling is available.

However, it is recommended to not use this value.

8.2 Control messages when an individual information request is unsuccessful

These messages are put in *InformationResponseMessages*. A message contains the following elements:

`InformationResponseMessageCode`
`InformationResponseMessageDesc`
`InformationResponseMessageVariable`

The following messages are available. One or more messages can be used for explanation. InformationResponseMessageVariable might be used to give additional details.

InformationResponseMessageCode	InformationResponseMessageDesc	InformationResponseMessageVariable
1	System not available	May be used to provide additional info.
2	System returned error	May be used to provide additional info.
3	Authorisation error	---
4	Timeout occurred	---
8	Invalid response message received	---
101	No information found	
103	Too many records found	Is used to indicate the number of records found.
105	Search input not correct	
108	Dataset not complete	May be used to provide additional info.
110	No owner-holder found	
117	Person of interest not identified uniquely	May be used to provide additional info.
118	No vehicle held-owned at ref date and time	
111	Information not disclosed	
121	Owner-holder data unavailable	Optional: Further elaboration.
501	EUCARIS Server	
502	Register server	
503	Gateway server	
504	Local web server	
505	Contact servicedesk	Contact data of the Servicedesk.
508	This error was returned	Is used to provide the error that was returned.
509	For further information please contact	Contact data.

If message 121 is used, in InformationResponseMessageVariable the reason might be given why the information is not available. The message is specifically intended to be used for vehicles that can be identified via the licence plate, but there is no owner holder available for such vehicle (because it is not recorded, or because it is in a separate register not connected to EUCARIS).

8.3 Control messages regarding data quality

These messages are put in *VehHolderReplyMessages* (when applicable to the holder) or *VehOwnerReplyMessages* (when applicable to the owner).

A message contains the following elements:

VehHolderReplyMessageCode
VehHolderReplyMessageDesc
VehHolderReplyMessageVariable

VehOwnerReplyMessageCode
VehOwnerReplyMessageDesc
VehOwnerReplyMessageVariable

The following messages are available. One or more messages can be used for explanation. The reply message variable may be used to give additional details.

MessageCode	MessageDesc	MessageVariable
106	Unverified data	< further information>
509	For further information please contact	Contact data

Message 106: Use MessageVariable to give further information about unverified data.

There are several possibilities to specify the data:

1. If the whole dataset is unverified, indicate “complete dataset” in MessageVariable
2. If one node (or a few nodes) is/are unverified, indicate “node <nodename> (, <nodename>, ,,,,) in MessageVariable. Nodenames as text, without XML tags.
3. If one element (or a few elements) is/are unverified, indicate “element <element name> (, <element name>, ,,,) in MessageVariable. Element names as text, without XML tags.
4. It is possible to use MessageCode 106 more than once to state all unverified data.

8.4 Best practices

The processing of the complete request is either successful or not successful (note that “successful processing” says nothing about the results obtained, these might all be NotFound/ServerError etc.). The table below lists possible situations when processing is not possible:

Processing unsuccessful			
Situation	BodyReply	InformationResponse	BodyMessages
Processing failed because legacy system unavailable	Not present	Not present	Present (1,2,3 or 4)
Processing successful			
Request message is offered to the VRD legacy system and has been processed	Present	Present	Not present

Best practices to handle common error situations:

Error situation	Message to use	Remarks
Vehicle not found (VATVHOH, VATVHOH Lifecycle)	101	
Erroneous search input	105	Please only use this message if the input cannot possibly yield a result in your Member State, e.g. because the licence plate number is too long or short, or the syntax is unknown in your Member State.
VATAIIVHOH: Search request contains an unsupported id number	105	In the MessageVariable, it is denoted what search input is supported.
More than one vehicle found, national law prevents returning all results	103	Eventually with a 509 message to indicate via which contact the information can be obtained by other means.
Too many holders and/or owners (VATVHOH Lifecycle)	103	Eventually with a 509 message to indicate via which contact the information the matter can be resolved in a non-automated way.
Person of interest cannot be identified uniquely (VATAIIVHOH)	117	The search results in more than one hit, and refinement is not possible or inconclusive. lead

Error situation	Message to use	Remarks
		Eventually with a 509 message to indicate via which contact the information the matter can be resolved in a non-automated way.
No vehicles held or owned at the requested date and time (VATALLVHOH)	118	
Too many vehicles held or owned (VATALLVHOH)	103	Eventually with a 509 message to indicate via which contact the information the matter can be resolved in a non-automated way.
Data retrieval did not fully complete, e.g. retrieval to an external data source failed	108	MessageVariable may be used to denote what info is missing, e.g. 'Vehicle stolen inquiry failed'.
Vehicle found, but at reference date and time, there is no holder	110	
The vehicle is found. However, owner-holder data are unavailable for this kind of vehicle (temporary plate, transit plate)	121	
Vehicle owner-holder data are available, but are known to be outdated or suspect (e.g. no current address available or current address is suspected to be incorrect or no current name data available)	106	The data are provided, however the outdated/suspect data is flagged as 'unverified'.
The national system provides an invalid response message	8	
The national system fails to respond in time	4	Eventually with a message 501-504 to denote the component.
The national system is unavailable, network problems, database problems	2	Eventually with a message 501-504 to denote the component. Eventually plus message 505, with contact details of a servicedesk.
The national system is unavailable because of scheduled downtime	1	

9. Annex C – XSD validation

Basis for validation applied in the XSD specifications is Annex A. The restrictions that are mentioned in the description of elements will also be implemented in the XSD specifications (e.g. data type, minimum length, maximum length, enumeration).

Data in request and response messages will be validated by EUCARIS against these XSD specifications. If a request or response message fails XSD validation, the sender of the message will receive a SOAP error with an explanatory error message.

10. Annex D – Country codes

10.1 EUCARIS country code convention

For a request message, the SenderCountry is the country where the request originated, and the RecipientCountry is the country that is to receive the request.

In response messages, SenderCountry/RecipientCountry are reversed. Now, the SenderCountry is the country where the response originated, and the RecipientCountry is the country that is to receive the response.

10.2 Coding systems

EUCARIS supports the following coding system for country codes:

- EUCARIS country codes. The coding is based on a United Nations agreement on vehicle country codes (hereafter named DS code) <http://www.unece.org/fileadmin/DAM/trans/conventn/Distsigns.pdf>. However, if there is more than one organisation that is National Contact Point for EUCARIS, to the country code, a sequence number might be added.
- ISO 3166-1 alpha-2

A client submitting a request, can choose the coding systems it wants to use, via the URL at which it submits the request. Each supported country coding system has a different URL.

In a consolidated response, the responding countries will be denoted in the coding system that was chosen while submitting the request.

The table below lists the coded values for each coding system and each country:

Country name (english)	ISO 3166-1 alpha-2	ISO 3166-1 alpha-3	DS code
Austria	AT	AUT	A
Belgium	BE	BEL	B
Bulgaria	BG	BGR	BG
Croatia	HR	HRV	HR
Cyprus	CY	CYP	CY
Czech Republic	CZ	CZE	CZ
Denmark	DK	DNK	DK
Estonia	EE	EST	EST
Finland	FI	FIN	FIN
France	FR	FRA	F
Germany	DE	DEU	D
Gibraltar	GI	GIB	GBZ
Greece	GR	GRC	GR
Guernsey	GG	GGY	GBG
Hungary	HU	HUN	H
Iceland	IS	ISL	IS
Ireland	IE	IRL	IRL
Isle of Man	IM	IMN	GBM
Italy	IT	ITA	I
Jersey	JE	JEY	GBJ
Latvia	LV	LVA	LV
Liechtenstein	LI	LIE	FL
Lithuania	LT	LTU	LT

Country name (english)	ISO 3166-1 alpha-2	ISO 3166-1 alpha-3	DS code
Luxembourg	LU	LUX	L
Malta	MT	MLT	M
The Netherlands	NL	NLD	NL
Netherlands Antilles	AN	ANT	NA
Norway	NO	NOR	N
Poland	PL	POL	PL
Portugal	PT	PRT	P
Romania	RO	ROU	RO
Slovakia	SK	SVK	SK
Slovenia	SI	SVN	SLO
Spain	ES	ESP	E
Sweden	SE	SWE	S
Switzerland	CH	CHE	CH
United Kingdom	GB	GBR	GB

10.3 Artificial country codes

MCI	<p>Multi Country Inquiry. Two variants possible.</p> <p>Variant A (RecipientCountryTable is not present): The request message should be broadcast to all countries that support the particular service and the particular search method, including the Member State that sends the request.</p> <p>Variant B (RecipientCountryTable present): The request message should be broadcast to the countries listed in RecipientCountryTable. The list may include the Member State that sends the request.</p> <p>The EUCARIS core system performs the broadcast, converting the request message from the client application to N single request messages to the recipient countries. These messages, as well as the response to these messages, contain ordinary country codes.</p> <p>An MCI-request leads to a consolidated response message, containing the responses of all queried countries.</p>
-----	--

11. Annex E – Vehicle signals

A vehicle signal/status is a vehicle or vehicle registration related circumstance or qualification, that normally emerged after registration of the vehicle. A signal/status may be temporary or definite.

Signals that are current (“active”) at the time of requesting, are always communicated. Signals that are historic at the time of requesting, may be provided if the information providing Member State considers this useful in the VAT context. The start and expiry date of signals (*VehSignalRegistrationDate* and *VehSignalEndDate*, if applicable) shall be provided wherever possible.

1= Vehicle stolen

Definition: ‘Vehicle has been reported stolen or missing by the police, insurance companies or other sources’
When this signal applies, the vehicle is not allowed to use the public road, cannot be sold, and cannot be re-registered in another Member State. The holder and owner are not in possession of the vehicle.

13 = Vehicle exported

The signal is used to indicate that the vehicle has been de-registered in the Member State, because of export. The signal also indicates that the vehicle is now registered in another country (and this new country may or may not be part of the EUCARIS network).

When this signal is provided, the vehicle data are outdated. The last holder and owner are not in possession of the vehicle anymore.

The licence plates and registration certificate have become invalid. The vehicle cannot use the public road, with the plates and registration certificate coming from the Member State that provides this signal. It will have plates and registration documents from the Member State where the vehicle is now registered.

It is not possible to re-register the vehicle, using the registration data, plates or documents from the country providing the signal. Re-registration must be based on the data, plates and documents from the new Member State of registration.

14 = Vehicle registration cancelled due to destruction

Definition: ‘Vehicle has been reported end-of-life in accordance with Directive 2000/53/EC. The authorisation for the vehicle to be used in road traffic has been cancelled permanently’.

This signal is used for officially destroyed vehicles, by a licenced destruction company, after which a Certificate of Destruction (CoD) has been issued. The holder and owner are not in possession of the vehicle anymore.

When this signal applies, the vehicle does not exist anymore, it cannot be restored with the same VIN. Therefore, it is not possible that a vehicle with this signal uses the public road. Also, it is not possible to sell or re-register a vehicle with this signal.

When this signal is provided, the vehicle data are outdated.

15 = Vehicle de-registered

Definition: ‘Termination of the registration for unspecified reasons’.

Situations in which this signal maybe used’.

- a. “Unofficial” destruction, i.e. the vehicle is reported as destroyed, but there is no official CoD. The technical state of the vehicle is unknown (it may or may not still exist).
- b. Export - If this event cannot be specifically distinguished from other de-registration events, and/or if export is intended but not final, i.e. de-registration in the current Member State has been carried out, but the registration in the new Member State has not been completed..
- c. Withdrawal of the vehicle from road traffic, because there is no holder-owner anymore, or because there are holdership-ownership issues, or there are other administrative issues.

When this signal applies, the vehicle is not allowed to use the public road. Note that the signal does not imply anything about the technical condition of the vehicle (since the reason to provide it, may be purely

administrative). Therefore, the signal does not imply specific requirements for re-registration, e.g. a technical inspection. The vehicle cannot be sold or re-registered, prior to consulting the Member State providing the signal. When this signal is provided, the vehicle data are outdated.

16 = Duplicate vehicle registration certificate issued

This signal can be used if after loss, theft or severe damage to the vehicle registration certificate, this has been replaced by a new document, or a copy with the same document number.

The signal does not have a direct impact on enforcement or re-registration. It is merely an alert message to check the vehicle registration certificate carefully.

The previous version of this signal

17 = Vehicle seriously damaged

Definition: ‘The vehicle was seriously damaged in an accident or was reported to have dangerous defects at an inspection’.

If this signal applies, the vehicle is not allowed to use the public road, and cannot be sold or re-registered, before having passed a technical inspection.

9 = Registration suspended

Definition: ‘The authorisation for the vehicle to be used in road traffic is suspended for a limited period of time following which – provided the reasons for suspension have ceased to apply – it may be authorised to be used again, without involving a new process of registration.

This signal may be used for suspension on request of the vehicle owner, as well as suspension by the registration authority.

Suspension is an administrative matter, the signal does not say anything about the technical state of the vehicle.

If this signal applies, the vehicle is not allowed to use the public road. In a re-registration process, this signal has no impact. The signal may impact on the amount of vehicle tax the holder/owner have to pay in the Member State of registration.

18 = Vehicle registration certificate stolen

Definition: ‘Vehicle registration certificate has been reported stolen or missing by the police or other sources’.

This signal is used if the vehicle registration certificate has been reported stolen, *but only when no new certificate has been issued to the vehicle owner or registered keeper (yet)*. As soon as a new certificate is issued, the signal is not provided anymore.

(After that, signal 16 may be used to alert that multiple certificates were issued).

If this signal applies, the vehicle is not allowed to use the public road, and cannot be sold or re-registered.

11=Vehicle registration plates stolen

Definition: ‘Vehicle registration plate has been reported stolen or missing by the police or other sources’

This signal is used if the vehicle registration plates are reported stolen, and no new plates have yet been issued. If new plates are issued, a Member State can choose either to not provide the signal anymore, or to keep on providing the signal as an alert message that multiple plates have been issued.

Please note that in this situation, some countries issue a new plate with a new licence plate number than the previous one, while others issue a new plate with the same licence plate number.

Enforcement and re-registration impact: None, if the plate on the vehicle matches the vehicle registration certificate. Otherwise the vehicle is not allowed to use the public road and cannot be sold or re-registered.

12=Re-registration blocked

Definition: ‘Re-registration blocked for various administrative reasons’

The signal indicates that the Registration Authority wants to be contacted if the vehicle is offered for re-registration somewhere.

Possible reasons for providing this signal: 1. The holder or registered keeper of the vehicle has no legal right to sell or re-register the vehicle, 2. Because of tax issues, 3. Because of legal issues.

For the right to use the public road, the signal has no impact.

If this signal applies, re-registration is not possible (not before consulting the Registration Authority of the country where the vehicle is registered).