

Implementation Guide

EHF Catalogue

Version: 1.0.4
Date: 23. Mai 2016

TABLE OF CONTENT

1	Introduction.....	4
1.1	Background and Objective	4
1.2	Target group	4
1.3	Document structure	5
1.4	About the document	5
2	Document history	6
2.1	Consequences of implementing this version.....	8
3	EHF – Elektronisk handelsformat (electronic commerce format)	9
3.1	About EHF.....	9
3.2	Information Consistency	9
3.3	Empty elements.....	10
3.4	Message transport	10
3.5	Message level response	10
3.6	Profiles and messages	10
3.7	Use of collaboration agreements	11
3.8	Versioning.....	12
3.8.1	Main version	12
3.8.2	Sub version	12
3.8.3	Revision.....	12
4	Definitions	13
5	Catalogue process and business requirements	14
5.1	About the Catalogue messages	14
5.2	Functionality and Roles	14
5.3	Profiles and messages	15
5.3.1	ProfileID	15
5.4	Catalogue process	15
5.5	Catalogue response	16
6	Description of selected elements of EHF Catalogue.....	17
6.1	Roles and Actors.....	17
6.2	Action code.....	18
6.3	Product Identification.....	19
6.4	Product Name and Description	19
6.5	Keyword	20
6.6	Quantities and units	21
6.6.1	Catch weight	23
6.7	Prices	23
6.8	Related Products and Accessories.....	24
6.9	Product Classification	26
6.10	Hazardous Item	26
6.11	VAT	27
6.12	Attachments	27
6.13	Logistics Information	28
6.14	Environment, Social responsibility and ecological	29
6.15	Dimension (height, width etc.)	30
6.16	Replacement product	31
6.17	Recommended article	31
6.18	Smartform ID	31
6.19	Additional Item properties	32

7	Information content	33
7.1	Information content Catalogue	34
7.2	Information content Catalogue Response.....	45
8	Validation	47
8.1	Validation principles	47
8.2	Dynamic validation	48
8.3	Validation rules per ProfileID and CustomizationID	49
8.3.1	ProfileID BII01, catalogue	49
8.4	Validation rules.....	50
8.4.1	Catalogue	50
8.4.2	Catalogue Response	57
9	Attachments	59
9.1	Attachment 1 – Structure tables	59
9.2	Attachment 2 – Message tables	59
9.3	Attachment 3 – Code lists	59
9.4	Attachment 4 - UBL 2.1 Schema	59
9.5	Attachment 5 – Schematron files	59
9.6	Attachment 6 – Example files.....	59

1 INTRODUCTION

This document describes the EHF Catalogue format to be used for the exchange of Catalogue information between trading partners. The document is part of Difi's (Direktoratet for Forvaltning og IKT) standardization work related to electronic commerce.

1.1 BACKGROUND AND OBJECTIVE

The Norwegian government has played an active role in the dissemination of electronic commerce both in domestic and foreign trade. The government white paper labeled "St.Meld. nr. 36 (2008-2009) Det gode innkjøp" (The good procurement), states among other things:

«It's the Government's opinion that increased use of electronic solutions is important to improve and increase the efficiency of public procurement. The use of electronic solutions may reduce time spent on public procurement, increase the competition and arrange for purchases to be more transparent and easier to re-examine. By spending less time and money on procurement, resources will be available for both modernizing the public sector and more welfare.
The goal for introducing electronic solutions is to contribute to a better, simpler and more secure procurement. »

The «Ministry of Government Administration, Reform and Church Affairs» (FAD) considers use of open standards as a vital means to build a well-functioning public administration, with good internal collaboration and a high level of service for both inhabitants and businesses.

Definition of Open Standard:

An Open Standard is a standard that is recognized and will be maintained by a non-profit organization. Development and changes to the standard is based on processes that are open to all parties having interest in the standard. The Standard is made available for free or for a small charge. This must include the right to copy, distribute and use the standard. The specification of the standard must be implemented on a royalty-free basis and with no patent protection. There are no restrictions related to re-use of the standard.¹

The purpose of this document is to describe a common format for the exchange of Catalogue information in the Norwegian market and to arrange for an effective implementation of Catalogue messages based on this format.

This Implementation Guide covers the exchange of Catalogues in a post-award process, after a commercial agreement has been signed between the Supplier and Buyer.

1.2 TARGET GROUP

The target group for this Implementation Guide (hereafter called IG) is both technical and non-technical personnel involved in the exchange of catalogue messages. The IG may also be used by system providers and message brokers.

¹ http://no.wikipedia.org/wiki/%C3%85pen_standard

- Chapter 1 to 5 are directed to non-technical personnel
- Chapter 6 to 9 (attachments) are directed to technical personnel

1.3 DOCUMENT STRUCTURE

The document consists of the following parts:

- Chapter 1 outlines the background and objective for the document.
- Chapter 2 contains document history.
- Chapter 3 describes the principles and conditions for EHF.
- Chapter 4 contains definitions.
- Chapter 5 describes the ordering process.
- Chapter 6 describes selected parts of the formats.
- Chapter 7 contains the information contents of the messages.
- Chapter 8 describes the validation of the messages.
- Chapter 9 contains the following references to separate documents:
 - Appendix 1: Message structure (branching tree)
 - Appendix 2: Message description
 - Appendix 3: Code lists
 - Appendix 4: Link to UBL 2.1 Schema for Catalogue and Catalogue Response
 - Appendix 5: Schematron files
 - Appendix 6: XML Example files

1.4 ABOUT THE DOCUMENT

Implementation Guide EHF Catalogue 1.0.2 is compliant with CEN BII2 and Peppol BIS 1A Catalogue version 2.0.

2 DOCUMENT HISTORY

Version	Comment	Author	Date
1.0.4	<p>Editorial change, example in chapter 6.6, addition or chapter 6.6.1</p> <p>Validator change:</p> <p>Correct rule NOGOV-T19-R002 to allow for Z as timezone indicator</p>	Siw Meckelborg, Edisys Consulting AS	2016-04-04
1.0.3	<p>Validation changes:</p> <ul style="list-style-type: none">• New validation artefacts from PEPPOL and BII, upgrade to XSLT/xPath2.0• Empty elements will generate error, not warning (Rules NOGOV-T19-R018 and NOGOV-T58-R009)	Siw Meckelborg, Edisys Consulting AS	2015-09-01
1.0.2	<p>Validation changes:</p> <ul style="list-style-type: none">• Validation of all mandatory and recommended elements.• Validation of datatypes (VAT number, date etc.)• Only organisational numbers are valid in EndpointID. <p>Editorial changes:</p> <ul style="list-style-type: none">• Added ruleID to message table• Adding Dependant to description of elements.• Clarification added to chapter 2.1	Siw Meckelborg, Edisys Consulting AS	2015-03-06
1.0.1	<ul style="list-style-type: none">• Added codes for Recommended Article (Anbefalt artikkel) and Smartform ID, chapter 6.17 and 6.18• Updated description of Catalogue Response, chapter 5.5• Added chapter 3.3• Added rules for party identifikator, endpoint identifikator, landkoder, valutakoder and attributtvalue• Added rule for correct use of Profile ID	Edisys Consulting	2014-08-21

1.0	Approved	Edisys Consulting	2013-09-25
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2.1 CONSEQUENCES OF IMPLEMENTING THIS VERSION

Version 1.0.4 is a revision of EHF Catalogue 1.0, and this version is backwards compatible to EHF Catalogue 1.0. This means that any instance documents valid towards EHF Catalogue 1.0 is also valid in version 1.0.4.

Please note that valid here reflects the validity against the implementation guide of EHF Catalogue 1.0, as this is the normative reference.

3 EHF – ELEKTRONISK HANDELSFORMAT (ELECTRONIC COMMERCE FORMAT)

3.1 ABOUT EHF

EHF is an anagram of the Norwegian expression «Elektronisk handelsformat» (Electronic Commerce Format).

EHF is based on the work performed by CEN BII². This is further adjusted to comply with the Norwegian accounting regulations and current practices for the different business processes in the Norwegian market. Difi pursues the goal to cover the full trading process using EHF documents, both before and after the signing of a contract.

Documents, from the tender catalogue to the credit note will be gathered under the EHF umbrella. During 2013 Difi will prepare for the use of EHF formats in what is known as the post award process, i.e. the part of the business process that starts when a supplier and a customer have signed a contract.

By using the EHF documents the collaboration between the supplier and the customer will be predictable. Elements from the tender Catalogue will be re-used in the Order, and elements from the Order will be re-used in the Invoice. This leads to a holistic use of all the documents under the EHF umbrella.

Difi has chosen to use CEN BII³ as a base for the EHF formats and the Universal Business Language (UBL)⁴ as a foundation for the implemented syntax. Both EHF and UBL are open standards and as such not liable to any licensing fees or royalties.

EHF is managed and maintained by Difi.

3.2 INFORMATION CONSISTENCY

The different EHF formats mentioned above contain a number of common information elements (supplier, customer, item etc.). It is important to preserve consistency in those common information elements, and that means that elements with identical content are declared in the same way and as far as possible given the same element tag name.

EHF invoicing formats will for instance re-use elements from the Catalogue and Order to ensure consistency between the messages and to make sure that the information from the business transactions are reflected in the invoicing documents. This makes it possible to implement an efficient and automated control of the invoice and the originating transactions.

² <http://www.cen.eu/cwa/bii/specs/>

³ <http://www.cen.eu/cwa/bii/specs/>

⁴ http://www.oasis-open.org/committees/tc_home.php?wg_abbrev=UBL

3.3 EMPTY ELEMENTS

Sending empty elements (tags) are not allowed in UBL-messages since these can be interpreted differently by sender and receiver. Empty elements can also cause errors in validation of numeric fields and date-fields.

Rule: Use of empty elements is not allowed in EHF.

3.4 MESSAGE TRANSPORT

Open PEPPOL Transport Infrastructure will provide an efficient use and transport of the EHF formats.

The objective is to make it easy for parties in different countries to do cross-border trade. Experience shows that it is easy to implement electronic messaging in Norway, because most of the service providers use standard processes.

It must be noted that every document scheduled for this infrastructure must be validated with no errors by Difi's own validation service. This is likely to be done by the document issuer or by the service provider on behalf of the document issuer.

According to circular P-10/2012⁵ FAD recommends all central government agencies to use this transport infrastructure.

3.5 MESSAGE LEVEL RESPONSE

The response message (Message Level Response) is an optional response message that the receiver of an electronic message, like an EHF Invoice, may use to:

- a) Acknowledge the reception of a message and/or
- b) Report any validation discrepancies in the received message.

The response message should be perceived as a technical response message being exchanged between the two parties' messaging systems and used in addition to any other business oriented response messages described in the different profiles.

The response message will be documented in a separate EHF implementation guide scheduled to be published within first half of 2013.

The ability to receive a response message must be registered in ELMA along with every other electronic message.

3.6 PROFILES AND MESSAGES

In line with the underlying methodology for the EHF formats (cf. www.cenbii.eu) the electronic messages included in a specific format will be exchanged between the parties as a part of an electronic collaboration process; a profile.

⁵ <http://www.regjeringen.no/nb/dep/fad/dok/rundskriv/2012/digitaliseringsrundskrivet.html?id=706462>

CEN BII has defined a profile as “A specification of how one or more business processes are executed by specifying the business rules governing its business collaborations and the information content (data model) of the electronic business transactions exchanged.”

To the largest extent the EHF is using profiles prepared by BII (ref www.cenbii.eu) or PEPPOL (cf. www.peppol.eu). Examples of relevant profiles are:

Interaction process	Messages	BII/PEPPOL ProfileID	EHF ProfileID
Catalogue	Catalogue → Catalogue Response ←	BII01	

The messages being exchanged within a profile are customized to comply with the requirements given for that particular business document. A CustomizationID is used to identify *the business rules that apply to the document in question, i.e. the whole set of business rules the document issuer founded the document on.*

The example CustomizationID below indicates that the contents of the current message is based on business rules determined by BII

(urn:www.cenbii.eu:transaction:biitrs019:ver2.0),

customized and clarified by PEPPOL

(extended:urn:www.peppol.eu:bis:peppolla:ver2.0)

and further customized and clarified in this implementation guide regarding the Norwegian businesses

(extended:urn:www.difi.no:ehf:katalog:ver1.0).

```
<cbc:CustomizationID>
urn:www.cenbii.eu:transaction:biitrs019:ver2.0:extended:urn:www.pepp
ol.eu:bis:peppolla:ver2.0:extended:urn:www.difi.no:ehf:katalog:ver1.0
</cbc:CustomizationID>
```

3.7 USE OF COLLABORATION AGREEMENTS

The combination of the ELMA registration and the implementation guides referred to in that context eliminates the need for any formal collaboration agreement between the sender and the receiver. The ELMA registration verifies that an actor has declared the ability and the commitment to receive business documents composed according to the specific implementation guide, and any party is free to send the business document to this actor.

Exchanging Catalogue and Order requires no registration in ELMA, and actors are advised to include the use of electronic messages in the purchase contract or to supply an collaboration agreement⁶ as an attachment, in order to link the electronic collaboration with the mercantile regulations and thus achieve a regularly revision of the electronic process.

⁶ [DIFI's mal for Samhandlingsavtale](#) (Interaction agreement template)

3.8 VERSIONING

Difi claims the right to exchange the current format with a new one as and when needed. If so, Difi will inform the public via the web site and their registered users via e-mail.

Difi manages the formats in this way:

3.8.1 MAIN VERSION

A new main version will be announced at least 5 months prior to release. When a main version is released, there will be at least a 12 months implementation period before the new version is made mandatory.

Difi intends to relate every main version to the regulations concerning IT standards in the public sector.

3.8.2 SUB VERSION

A new sub version will be announced at least 3 months prior to release and is made mandatory 5 months after release.

All sub versions must be backwards compatible. 2 months after the new sub version has become mandatory, the support (validation service and implementation guide) is ceased for preceding versions.

3.8.3 REVISION

A revision is in principle a result of bug fixing the latest sub version, and will be announced at release time and should be implemented without further delay.

4 DEFINITIONS

Term	Description
Catalogue	A document describing the properties of products and services.
Supplier	A person or company delivering products or services.
Buyer	A person or company buying a product or service at a set price.
Catalogue provider	A person or company collecting catalogue information and sending the catalogue.
Catalogue receiver	A person or company that is responsible for the reception of the catalogue.
UBL	UBL (Universal Business Language) is a collection of XML-formats (XML Schema) for the exchange of electronic documents such as Catalogue, Order and Invoice.
CEN BII	CEN BII (Business Interoperability Interfaces) is a subset of UBL containing documents and content that is required for electronic collaboration in the European public sector. Does not include separate XML Schemas.
Schematron validation	Validation of a message towards business requirements. Additional to the syntax check against XML Schema.

5 CATALOGUE PROCESS AND BUSINESS REQUIREMENTS

This chapter describes the catalogue process and functional requirements covered by EHF Catalogue. The description is based on the CEN BII profile BII01 Catalogue Only.

5.1 ABOUT THE CATALOGUE MESSAGES

The messages covered by this Implementation guide are EHF Catalogue and EHF Catalogue Response. Buyer and Seller must exchange both messages electronically to be in compliance with this guide.

An Electronic Catalogue is a listing of products and services to be used in a purchasing process. The EHF Catalogue can serve different purposes during the lifecycle of Catalogue information:

- Establish a new Catalogue
- Replace an existing Catalogue
- Add or delete Catalogue lines
- Update product properties or prizes on existing Catalogue lines

When doing changes to catalogue lines, it is recommended to replace the whole catalogue and not update separate lines.

A Catalogue containing sufficient information about articles and services will prevent faulty deliveries causing lost income for both suppliers and buyers.

Most often an Electronic Catalogue will be integrated with a Catalogue tool and a Search engine. The Search engines are set up differently providing possibility to search for different catalogue elements. The number of elements available will decide the preciseness of the search, and a well set up Search engine will in the end improve the quality of the purchase.

5.2 FUNCTIONALITY AND ROLES

This Implementation Guide covers exchange of catalogues in a post-award process, i.e. after the contract is signed between supplier and buyer. The content may also be used in a pre-award process (tendering), but with less mandatory elements.

The figure below shows the business functions and roles covered by EHF Catalogue.

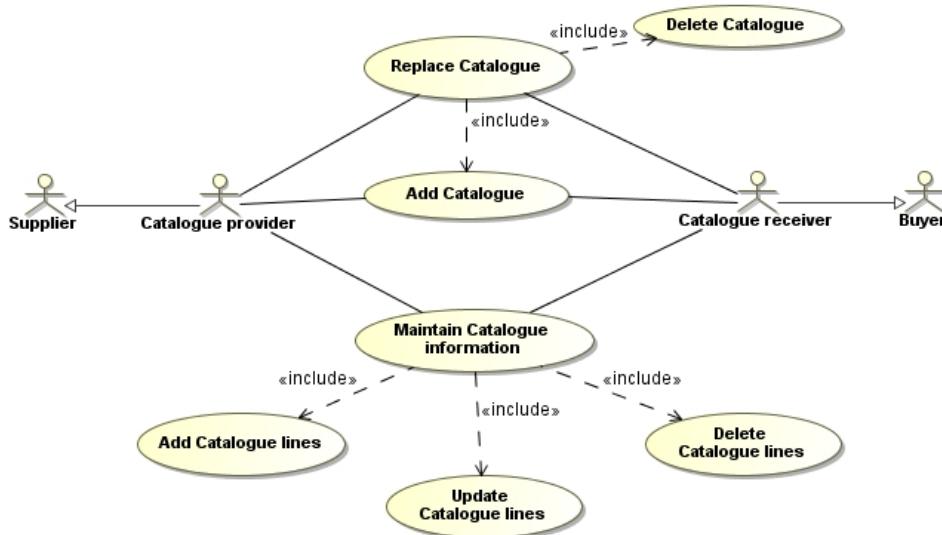


Figure 1: Functionality and roles

5.3 PROFILES AND MESSAGES

The definition of a profile is given in chapter 3.5.

The profile relevant to the EHF ordering process is shown in the table below:

Interaction process	Messages	BII/PEPPOL ProfileID	EHF ProfileID
Catalogue process	Catalogue Catalogue Response	BII01	

5.3.1 PROFILEID

The ProfileID identifies the process the business document is part of. EHF uses the identification system according to BII:

Profile contents	ProfileID
Catalogue process	urn:www.cenbii.eu:profile:bii01:ver2.0

5.4 CATALOGUE PROCESS

The Catalogue exchange is the first part of the post-award process and can be described as follows:

1. The Catalogue provider (Supplier) collects information about products or services and transforms these into a Catalogue format. This can either be a complete Catalogue or a Catalogue containing selected articles with changes.
2. The Catalogue is sent to the Catalogue receiver (Buyer) either directly or via a third party.

3. The Catalogue receiver controls if the Catalogue is syntactically correct and contains sufficient information.
4. If the Catalogue is accepted, the Catalogue receiver sends a positive Catalogue Response to the Catalogue provider. The Catalogue is now approved for ordering purposes.
5. If the Catalogue is rejected, the Catalogue receiver sends a negative Catalogue Response to the Catalogue provider with an explanation to the rejection. The Catalogue provider will make corrections to the Catalogue and resend it.

Figure 2 shows the Catalogue process including the exchange of the EHF Catalogue messages.

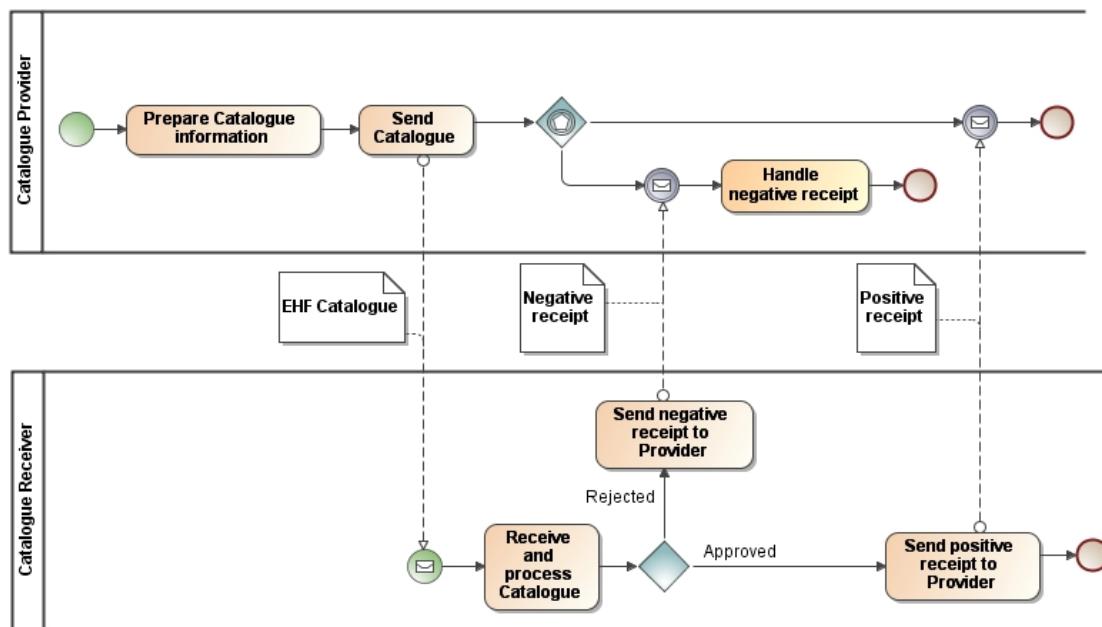


Figure 2: Process model for Catalogue exchange.

5.5 CATALOGUE RESPONSE

The Catalogue Response message is part of the Catalogue process described in chapter 5.4. The Catalogue Response is sent from the Catalogue Receiver/Buyer to the Catalogue Provider/Supplier as a business receipt stating that the Catalogue is accepted or rejected. In other words, this is not a technical receipt only stating that the catalogue message is received.

The Catalogue itself will not be returned from buyer to supplier. If a Catalogue message is rejected, a new corrected Catalogue must be sent.

If the exchange involves the use of a Catalogue tool, this may include a more advanced dialogue between buyer and supplier than described here.

6 DESCRIPTION OF SELECTED ELEMENTS OF EHF CATALOGUE

There are no formal requirements to catalogue content according to Norwegian regulations. The content requirements are therefore based on the following:

- Information content in the existing Procurement Platform (EPP)
- UBL 2.1
- CEN BII2
- Peppol BIS 1A catalogue

The format will also be verified against requirements in certain areas of the Norwegian private sector.

The following chapters describe selected areas of the format and specifically information elements being important for use in the Norwegian market.

6.1 ROLES AND ACTORS

The following roles are defined in the EHF Catalogue. These roles can either be held by the same physical actor or by different actors depending on how the catalogue administration is organized.

Role	Description
Catalogue Provider (ProviderParty)	Responsible for the preparation and transfer of the Catalogue to the Catalogue receiver. Can be the Supplier itself or a third party providing this service.
Catalogue Receiver (ReceiverParty)	Responsible for the reception and control of the Catalogue. Can be the Buyer itself or a third party providing this service to the Buyer.
Supplier (SellerSupplierParty)	Responsible for the delivery of products or services specified in the Catalogue.
Buyer (ContractorCustomerParty)	The party buying products or services from the Catalogue.
Manufacturer (ManufacturerParty)	The name of the Manufacturer.

Example of Supplier information on header level in an EHF Catalogue message:

```
<cac:SellerSupplierParty>
  <cac:Party>
    <cbc:EndpointID schemeID="NO:ORGNR">987654321</cbc:EndpointID>
    <cac:PartyIdentification>
      <cbc:ID schemeID="NO:ORGNR">984297793</cbc:ID>
    </cac:PartyIdentification>
    <cac:PartyName>
      <cbc:Name>Supplier</cbc:Name>
    </cac:PartyName>
    <cac:PostalAddress>
      <cbc:StreetName>Per Krohgs vei 1,Karihaugen</cbc:StreetName>
      <cbc:CityName>OSLO</cbc:CityName>
      <cbc:CountrySubentity>Norway</cbc:CountrySubentity>
```

```

<cac:Country>
  <cbc:IdentificationCode listID="ISO3166-1:Alpha2">NO</cbc:IdentificationCode>
    </cac:Country>
  </cac:PostalAddress>
  <cac:Contact>
    <cbc:Name>Ole Olsen</cbc:Name>
    <cbc:Telephone>+46123123123</cbc:Telephone>
    <cbc:ElectronicMail>test@ibxeurope.com</cbc:ElectronicMail>
  </cac:Contact>
</cac:Party>
</cac:SellerSupplierParty>

```

Example of Manufacturer information on line level:

```

<cac:CatalogueLine>
  ....
    <cac:Item>
      ....
        <cac:ManufacturerParty>
          <cac:PartyName>
            <cbc:Name>Manufacturers name</cbc:Name>
          </cac:PartyName>
        </cac:ManufacturerParty>

```

6.2 ACTION CODE

The Action code holds instructions about the treatment of the Catalogue by the recipients system. The Action code can be stated either on header or line level.

It is strongly recommended only to use Action code on header level.

Use of Action codes on line level must be explicitly agreed between sender and receiver.

Guidelines for use:

- Action code must be sent on either header or line level. If Action code is not sent the Catalogue message will be rejected.
- Action code sent on header level will overrule possible Action codes sent on line level.
- If Action code is not sent on header level it is mandatory to send Action codes on all catalogue lines.
- Legal values for Action Code are Add, Replace, Update or Delete.

Action Code on header level:

Action code	Treatment
Add	A new Catalogue with belonging product lines shall be created. If the Catalogue already exists, it must be rejected by receiver.
Replace	An existing Catalogue shall be completely replaced by a new version. The current version should be archived by the receiver. If the Catalogue does not exist, it must be rejected by receiver.
Update	Catalogue lines that are sent shall update existing Catalogue lines. The current version should be archived by the receiver. If the Catalogue does not exist, it must be rejected by receiver.

Delete	The whole Catalogue shall be deleted. If the Catalogue does not exist, the complete Catalogue message must be rejected.
--------	---

Action Code on line level:

Action code	Treatment
Add	A new Catalogue line shall be created. If the Catalogue line already exists, the complete Catalogue message must be rejected.
Update	An existing Catalogue line shall be completely replaced by a new version of the line. If the Catalogue line does not exist, the complete Catalogue message must be rejected.
Delete	The Catalogue line shall be deleted. If the Catalogue line does not exist, the complete Catalogue message must be rejected.

Message response from receiver to sender shall be done according to description in chapter 3.3.

Example of Action code on header level:

```
<cac:Catalogue>
  ...
    <cbc:ActionCode listID="ACTIONCODE:PEPPOL">Add</cbc:ActionCode>
  ...
</cac:Catalogue>
```

Example of Action code on line level:

```
...
<cac:CatalogueLine>
  <cbc:ID>12345</cbc:ID>
  <cbc:ActionCode listID="ACTIONCODE:BII2">Update</cbc:ActionCode>
...
</cac:CatalogueLine>
```

6.3 PRODUCT IDENTIFICATION

Product identification must be done using the identifiers described below.

- Sellers ID.
- Standard ID, e.g. GTIN
- Manufacturers ID which is necessary when the same product is bought from several suppliers.

Either Sellers ID or Standard ID must be sent. Manufacturers ID shall be sent if available.

Which identifier to use depends on what is known at the time of catalogue exchange or what is commonly used in the relevant business sector.

Example of Sellers ID:

```
<cac:SellersItemIdentification>
  <cbc:ID>222222</cbc:ID>
</cac: SellersItemIdentification>
```

6.4 PRODUCT NAME AND DESCRIPTION

The Product name shall be sent in tag <Item/Name> on line level. Long Description of a product shall be sent in <Item/Description> on line level.

The Product name is often sent in the order from buyer to seller. The field length should not exceed 160 characters being the maximum length sent from most existing public purchasing systems. This element is also included in the shopping basket when OCI punch-out (round trip) is used.

Description should not exceed 2000 characters since this is stated as maximum field length from most existing public purchasing systems. This element is not included in the shopping basket when OCI punch-out (round trip) and is not sent in the order. The Description is only shown to the Buyer when searching for the product in the Catalogue.

Example in an EHF Catalogue message:

```
<cbc:Description>GUDBRANDSDALOST G35 1KG. En enhet består av: 10STK à  
1KG</cbc:Description>  
....  
<cbc:Name>GUDBRAND.OST G35 1KG</cbc:Name>
```

6.5 KEYWORD

Keywords are sent to let the Buyer search for a product without knowing the Product ID or name. Keywords can be repeated, but the number should be limited to ensure correct handling in the receiving system. If more than one Keyword is sent, they should be put in the same tag separated by the %-sign since this is already being used by several actors (but a different sign can be agreed by the trading partners).

Keywords may also be put in separate tags.

Example of several Keywords in the same tag:

```
<cac:Item>  
  <cbc:Description> Pallet of water </cbc:Description>  
  <cbc:Name languageID="no">Water</cbc:Name>  
  <cbc:Keyword>sparkling%natural%water</cbc:Keyword>  
  <cac:SellersItemIdentification>  
    <cbc:ID>111111</cbc:ID>  
  </cac:SellersItemIdentification>  
</cac:Item>
```

Example of Keywords in separate tags:

```
<cac:Item>  
  <cbc:Description>Pallet of water</cbc:Description>  
  <cbc:Name languageID="no">Water</cbc:Name>  
  <cbc:Keyword>sparkling</cbc:Keyword>  
  <cbc:Keyword>natural</cbc:Keyword>  
  <cbc:Keyword>water</cbc:Keyword>  
  <cac:SellersItemIdentification>  
    <cbc:ID>111111</cbc:ID>  
  </cac:SellersItemIdentification>  
</cac:Item>
```

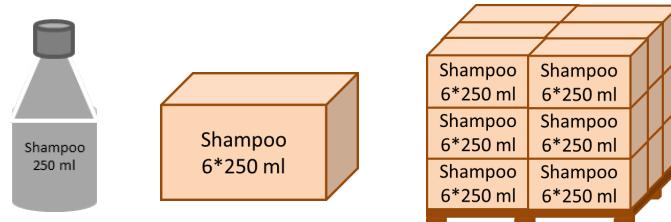
6.6 QUANTITIES AND UNITS

Various Quantities and Units can be stated in the EHF Catalogue. These are both related to the ordering process and the logistics process.

The table below lists quantities and units in the format. To all quantities there must be a legal Unit according to the Code list.

Element name / (Tag name)	Description
Orderable unit (OrderableUnit)	Unit code for the line item. Mandatory if the item is orderable. Code according to Code list
Content of Consumer item(s) (ContentUnitQuantity)	Content of Consumer item(s) in orderable unit, e.g. ml in bottles of Shampoo.
Quantity increment (OrderQuantityIncrementNumeric)	Possible limitation to the number of articles that can be ordered. If the Quantity increment is 6 the article must be ordered in a quantity of 6, 12, 18 etc.
Minimum Order Quantity (MinimumOrderQuantity)	The smallest number of items that can be ordered (most often 1).
Maximum Order Quantity (MaximumOrderQuantity)	The largest number of items that can be ordered (most often unlimited).
Pack Quantity (Item/PackQuantity)	Number of items on next lower level, e.g. number of Consumer units in a Trading unit.
Number of Consumer items (Item/PackSizeNumeric)	Number of Consumer items. E.g. number of bottles on a Pallet.

Example 1:



	1 bottle	Case of 6 bottles	Pallet of 18 cases
Line identifier	4	5	6
Supplier Item identifier	1111	111	11
Item Name	Shampoo 250 ml	6x250 ml Shampoo	Shampoo
Orderable unit	EA	CS	PF
Packaging level	CU	TU	DU
Packed units		EA	CS
Packed quantity		6	18
Consumable unit	EA	EA	EA
Consumable unit quantity	1	6	108
ItemNetQuantity	250	1500	27000
Unit	MLT	MLT	MLT
MinimumOrderQuantity	1	1	1
Unit	EA	EA	EA
Component related item Identifier		1111	111
Component related item quantity		6	18

EHF example:

```

<cac:CatalogueLine>
    <cbc:ID>4</cbc:ID>
    <cbc:OrderableUnit>EA</cbc:OrderableUnit>
    <cbc:ContentUnitQuantity unitCode="ML" unitCodeListID="UNECERec20">250
    </cbc:ContentUnitQuantity>
    <cbc:OrderQuantityIncrementNumeric>1</cbc:OrderQuantityIncrementNumeric>
    <cbc:MinimumOrderQuantity unitCode="CS" unitCodeListID="UNECERec20">1
    </cbc:MinimumOrderQuantity>
    <cbc:PackLevelCode listID="GS17009:PEPPOL">CU</cbc:PackLevelCode>
    .....
    <cac:Item>
        <cbc:Description languageID="en">Shampoo 250 ml</cbc:Description>
        <cbc:PackSizeNumeric>1</cbc:PackSizeNumeric>
        <cac:SellersItemIdentification>
            <cbc:ID>1111</cbc:ID>
        </cac:SellersItemIdentification>
        .....
    </cac:Item>
    .....
</cac:CatalogueLine>

```

Example 2:

	Pack of 500 sheets paper	Case of 5 packs paper	Pallet of 18 cases copypaper
Line identifier	7	8	9
Supplier Item identifier	A	AA	AAA
Item Name	500 copy paper	5*500 Copy paper	Pallet of paper
Orderable unit	EA	CS	PX
Packaging level	CU	TU	DU
Packed units		EA	CS
Packed quantity		5	18
Consumable unit	EA	EA	EA
Consumable unit quantity	1	5	90
ItemNetQuantity	500	2500	45000
Unit	EA	EA	EA
MinimumOrderQuantity	1	1	1
Unit	EA	EA	EA
Component related item Identifier		A	AA
Component related item quantity		5	18

EHF Example:

```

<cac:CatalogueLine>
    <cbc:ID>8</cbc:ID>
    <cbc:OrderableUnit>CS</cbc:OrderableUnit>
    <cbc:ContentUnitQuantity unitCode="EA" unitCodeListID="UNECERec20">2500

```

```

</cbc:ContentUnitQuantity>
<cbc:OrderQuantityIncrementNumeric>1</cbc:OrderQuantityIncrementNumeric>
<cbc:MinimumOrderQuantity unitCode="CS" unitCodeListID="UNECERec20">1
</cbc:MinimumOrderQuantity>
<cbc:PackLevelCode listID="GS17009:PEPPOL">TU</cbc:PackLevelCode>
<cac:ComponentRelatedItem>
    <cbc:ID>A</cbc:ID>
    <cbc:Quantity unitCode="EA" unitCodeListID="UNECERec20">5
    </cbc:Quantity>
</cac:ComponentRelatedItem>
.....
<cac:Item>
    <cbc:Description languageID="en">5*500 Copy paper</cbc:Description>
    <cbc:PackQuantity unitCode="CS" unitCodeListID="UNECERec20">5
    </cbc:PackQuantity>
    <cbc:PackSizeNumeric>5</cbc:PackSizeNumeric>
    <cac:SellersItemIdentification>
        <cbc:ID>AA</cbc:ID>
    </cac:SellersItemIdentification>
.....
</cac:Item>
.....
</cac:CatalogueLine>

```

6.6.1 CATCH WEIGHT

To inform that an item is catch weight (ex. Orderable quantity is pcs, but invoiced quantity is kilo, and where one pcs can be of variable weight), set unit code for content unit to 31 (catch weight) according to Un Recommandations 20.

Example:

```

<cac:CatalogueLine>
    <cbc:ID>8</cbc:ID>
    <cbc:OrderableUnit>EA</cbc:OrderableUnit>
    <cbc:ContentUnitQuantity unitCode="31" unitCodeListID="UNECERec20">10
    </cbc:ContentUnitQuantity>
...

```

6.7 PRICES

All prices in the format are related to the article or service within this Catalogue. The following prices can be stated:

- Net price including all discounts and charges but excluded Vat.

- Item comparison price defining price for a certain quantity. Used for comparing prices for different articles with various quantities.
- Conditional price related to a specific location or a certain order quantity.
- Campaign price.

Be aware that no Gross prices can be sent in the format (price before discount and charges).

All prices must have Currency as an attribute. Currency shall be according to Code list.

Example of Prices in EHF Catalogue:

Net Price:

```
...
<cac:RequiredItemLocationQuantity>
  <cac:Price>
    <cbc:PriceAmount currencyID="NOK">100.00</cbc:PriceAmount>
    <cac:ValidityPeriod>
      <cbc:StartDate>2012-04-26</cbc:StartDate>
      <cbc:EndDate>2012-05-26</cbc:EndDate>
    </cac:ValidityPeriod>
  </cac:Price>
<cac:RequiredItemLocationQuantity>
```

Comparision Price:

```
...
<cac:ItemComparision>
  <cbc:PriceAmount currencyID="NOK">100.00</cbc:PriceAmount>
  <cbc:Quantity unitCode="EA" unitCodeListID="UNECERec20">1
  </cbc:Quantity>
</cac:ItemComparision>
```

Conditional Price:

```
...
<cac:RequiredItemLocationQuantity>
  <cac:Price>
    <cbc:PriceAmount currencyID="NOK">75.00</cbc:PriceAmount>
    <cbc:BaseQuantity unitCode="EA" unitCodeListID="UNECERec20">100
    </cbc:BaseQuantity>
    <cac:ValidityPeriod>
      <cbc:StartDate>2012-04-26</cbc:StartDate>
      <cbc:EndDate>2012-05-26</cbc:EndDate>
    </cac:ValidityPeriod>
  </cac:Price>
<cac:RequiredItemLocationQuantity>
```

6.8 RELATED PRODUCTS AND ACCESSORIES

Products can be related to each other for ordering or logistic purposes. All related products must also be sent as separate Catalogue lines.

Types of relations:

- Products that are bundled and ordered/invoiced together, e.g. bottles and deposits.
- Products that are connected in a product line or a logistics structure, e.g. consumer units and trading units of the same article.
- Accessories that might be sold together with a product, e.g. disk station to a laptop.

Example of related products in an EHF Catalogue message:

Bundled products:

```
<cac:RequiredRelatedItem>
  <cbc:ID>987654</cbc:ID>
  <cbc:Quantity unitCode="EA" unitCodeListID="UNECERec20">1
  </cbc:Quantity>
</cac:RequiredRelatedItem>
```

Logistics structure (also described in chapter 4.11):

```
<cac:ComponentRelatedItem>
  <cbc:ID>2</cbc:ID>
  <cbc:Quantity unitCode="EA" unitCodeListID="UNECERec20">12
  </cbc:Quantity>
</cac:ComponentRelatedItem>
```

Accessories:

```
<cac:AccessoryRelatedItem>
  <cbc:ID>123456</cbc:ID>
  <cbc:Quantity unitCode="EA" unitCodeListID="UNECERec20">1
  </cbc:Quantity>
</cac:AccessoryRelatedItem>
```

6.9 PRODUCT CLASSIFICATION

A product must be classified according to UNSPSC being the mandatory public classification schemes. Products can also be classified according to regulatory schemes or classification schemes used in certain business sectors. The type of classification shall be stated in the attribute **listID**.

Product Classification.

Classification must be according to a relevant product classification scheme. UNSPSC is mandatory for all public purchases and must be stated for all products.

Example of Product classification:

```
<cac:CommodityClassification>
  <cbc:ItemClassificationCode listID="UNSPSC">43212105
  </cbc:ItemClassificationCode>
</cac:CommodityClassification>
```

6.10 HAZARDOUS ITEM

If a product is classified as Hazardous item, a reference to the relevant UNDG-code must be stated and further specification must be provided in an attached document or on a web-site (URI).

Example:

```
<cac:HazardousItem>
  <cbc:HazardClassID>H332</cbc:HazardClassID>
</cac:HazardousItem>
....
```

If Hazardous:

```
<cac:ItemSpecificationDocumentReference>
  <cbc:ID>1</cbc:ID>
  <cbc:DocumentDescription languageID="en">HMS Safety sheet
  </cbc:DocumentDescription>
  <cac:Attachment>
    <cac:ExternalReference>
```

```
<cbc:URI>http://www.klif.no/no/Tema/Kjemikalier/Klassifisering-og-merking-av-kjemikalier-CLP/Klassifisering-CLP-avsnitt-I-II-og-V/
</cbc:URI>
</cac:ExternalReference>
</cac:Attachment>
</cac:ItemSpecificationDocumentReference>
```

6.11 VAT

VAT-information is optional in EHF Catalogue and should be sent as a Category defining the VAT-percent. Catalogue receivers may require VAT-information in the Catalogues based on user or system requirements. If so this must be stated in the Purchasing contract or the Collaboration agreement.

The following VAT-codes are available

- **S** (Standard rate = 25%)
- **H** (Higher rate = 15%)
- **AA** (Low rate = 8%)
- **E** (VAT exemption rate = 0%)
- **Z** (Zero rate = 0%)

Example:

```
<cac:ClassifiedTaxCategory>
  <cbc:ID schemeID="UNECE5305">S</cbc:ID>
  <cac:TaxScheme>
    <cbc:ID>VAT</cbc:ID>
  </cac:TaxScheme>
</cac:ClassifiedTaxCategory>
```

6.12 ATTACHMENTS

Attachments can be sent on line level in the Catalogue. This can be images or additional descriptions of a product. It is strongly recommended to use external references in the form of URI's for attachments.

Example:

```
<cac:Item>
  .....
  <cac:ItemSpecificationDocumentReference>
    <cbc:ID>LK8788</cbc:ID>
    <cbc:DocumentDescription>Product image</cbc:DocumentDescription>
    <cac:Attachment>
      <cac:ExternalReference>
        <cbc:URI>http://img.trioving.net/Låskasser/LK8788\_PRD\_FPM\_000.JPG</cbc:URI>
      </cac:ExternalReference>
    </cac:Attachment>
  </cac:ItemSpecificationDocumentReference>
  .....
</cac:Item>
```

6.13 LOGISTICS INFORMATION

EHF Catalogue includes elements to support the need for logistics information which is a requirement in many industries in the Norwegian market. These elements are not mandatory, but trading partners can agree upon the use in the commercial agreements.

The Logistics elements can be used to specify different pack levels for the same article. This must be done as follows:

- Each pack level is regarded as a unique product and must be sent as a separate Catalogue line and identified with a unique ID such as GTIN.
- Information about pack level is done in the element PackLevelCode on line level. The Pack level codes are based on the Edifact/Eancom-standard and the following codes are available (codes in brackets are used in some business sectors in Norway):
 - DU = Dispatch Unit (T-Pak or Pall)
 - HN = Handling Unit (level between TU and DU). Not commonly used.
 - TU = Traded Unit (D-Pak or L-Pak)
 - CU = Consumer Unit (F-Pak)
- It must be stated if the pack level is orderable.
- The relation between pack levels must be specified, e.g. that a Dispatch unit contains Traded units.

Below is an example of Logistics information in an EHF Catalogue message.

The example shows a Dispatch unit (DU) containing a Traded unit containing a Consumer unit.

```
<!--Catalogue line for Dispatch unit, highest pack level...-->
<!--Contains 12 Traded units (cases) ...-->
<cac:CatalogueLine>
  <cbc:ID>1</cbc:ID>
  <cbc:ActionCode listID="ACTIONCODE:BII2">Add</cbc:ActionCode>
  <cbc:OrderableIndicator>false</cbc:OrderableIndicator>
  <cbc:PackLevelCode listID="GS17009:PEPPOL">DU</cbc:PackLevelCode>
  <cac:ComponentRelatedItem>
    <cbc:ID>2</cbc:ID>
    <cbc:Quantity unitCode="EA" unitCodeListID="UNECERec20">12
    </cbc:Quantity>
  </cac:ComponentRelatedItem>
  <cac:Item>
    <cbc:Description>Drikke Helpall</cbc:Description>
    <cbc:PackQuantity unitCode="EA" unitCodeListID="UNECERec20">1
    </cbc:PackQuantity>
    <cbc:Name languageID="no"> Drikke</cbc:Name>
    <cac:SellersItemIdentification>
      <cbc:ID>111111</cbc:ID>
    </cac:SellersItemIdentification>
  </cac:Item>
</cac:CatalogueLine>
<!--Catalogue line for Traded unit...-->
<!--Contains 6 consumer units ...-->
<cac:CatalogueLine>
  <cbc:ID>2</cbc:ID>
```

```
<cbc:ActionCode listID="ACTIONCODE:BII2">Add</cbc:ActionCode>
<cbc:OrderableIndicator>true</cbc:OrderableIndicator>
<cbc:PackLevelCode listID="GS17009:PEPPOL">TU</cbc:PackLevelCode>
<cac:ComponentRelatedItem>
  <cbc:ID>3</cbc:ID>
  <cbc:Quantity unitCode="EA" unitCodeListID="UNECERec20">6
  </cbc:Quantity>
</cac:ComponentRelatedItem>
<cac:Item>
  <cbc:Description>Drikke lagerpakning</cbc:Description>
  <cbc:PackQuantity unitCode="EA" unitCodeListID="UNECERec20">1
  </cbc:PackQuantity>
  <cbc:Name languageID="no">Drikke</cbc:Name>
  <cac:SellersItemIdentification>
    <cbc:ID>222222</cbc:ID>
  </cac:SellersItemIdentification>
</cac:Item>
</cac:CatalogueLine>
<!--Catalogue line for Consumer unit, lowest pack level...-->
<!--Contains prepack with 4 bottles of water ...-->
<cac:CatalogueLine>
  <cbc:ID>3</cbc:ID>
  <cbc:ActionCode listID="ACTIONCODE:BII2">Add</cbc:ActionCode>
  <cbc:OrderableIndicator>false</cbc:OrderableIndicator>
  <cbc:PackLevelCode listID="GS17009:PEPPOL">CU</cbc:PackLevelCode>
  <cac:Item>
    <cbc:Description>Drikke 4-pack</cbc:Description>
    <cbc:PackQuantity unitCode="EA" unitCodeListID="UNECERec20">1
    </cbc:PackQuantity>
    <cbc:Name languageID="no">Drikke</cbc:Name>
    <cac:SellersItemIdentification>
      <cbc:ID>333333</cbc:ID>
    </cac:SellersItemIdentification>
  </cac:Item>
</cac:CatalogueLine>
```

6.14 ENVIRONMENT, SOCIAL RESPONSIBILITY AND ECOLOGICAL

Public actors will have requirements related to the environment, ecologically produced food and fair trade. They will also demand that basic human rights are respected in the product production and trade. To be able to highlight products that meet some of these criteria, the EHF Catalogue contains elements to document Environmental labeling and Social certificates. The labels are connected to the relevant product or service on line level enabling the Search engines to make them visible for the buyer during the purchasing process. Detailed information about the different labels can be found on the issuing party's website which is referred to via an URI.

Several labels can be connected to each product, but for practical reasons there is a limitation of 8 labels on the Electronic Procurement Platform (EPP).

The following are used: <http://www.anskaffelser.no/verktoy/codes-use-ehf-catalogue-labels-environmental-and-social-responsibility>

Introducing these classification codes in the electronic messages will support the aim for correct purchases. The Procurement systems must collect the order lines with environmental and social labels and report them to the statistics tools available for the buyers. This will make it possible to measure the purchasing behavior and monitor that the requirements from the tendering process are fulfilled.

Example of Classification codes:



Svanemerket
Classification Code (ID) NEO
Certificate TypeCode: EcoLabel (Environment)



Fairtrade
Classification Code (ID) FBL
Certificate TypeCode: SosialLabel (Social responsibility)



EU organic products label
Classification Code (ID) EOP
Certificate TypeCode: OrganicLabel (Ecological)

Example of labeling in an EHF Catalogue message:

```
.....
<cac:Certificate>
  <cbc:ID>NEO</cbc:ID>
  <cbc:CertificateTypeCode>EcoLabel</cbc:CertificateTypeCode>
  <cbc:CertificateType>EcoLabel</cbc:CertificateType>
  <cac:IssuerParty>
    <cac:PartyName>
      <cbc:Name>Svanemerket</cbc:Name>
    </cac:PartyName>
  </cac:IssuerParty>
  <cac:DocumentReference>
    <cac:Attachment>
      <cac:ExternalReference>
        <cbc:URI>http://www.svanemerket.no/</cbc:URI>
      </cac:ExternalReference>
    </cac:Attachment>
  </cac:DocumentReference>
</cac:Certificate>
```

CertificateTypeCode is not in use today, but can be used by the Purchasing systems to group the different labels.

6.15 DIMENSION (HEIGHT, WIDTH ETC.)

Physical properties are important for logistics. The following values can be stated:

- Height (HT)
- Width (WD)
- Length (LN)

- Gross weight (AAE)
- Temperature (TC)

Example:

```
....  

<cac:Item>  

....  

    <cac:Dimension>  

        <cbc:AttributeID schemeID="UNCL6313">HT</cbc:AttributeID>  

        <cbc:Measure unitCode="CMT">12.5</cbc:Measure>  

    </cac:Dimension>  

....  

</cac:Item>
```

6.16 REPLACEMENT PRODUCT

Replacement product is used to identify a product replacing an existing product in the Catalogue. The existing product is stated as replaced on the Catalogue line for the new product.

Example:

```
....  

<cac:CatalogueLine>  

....  

    <cac:ReplacedRelatedItem>  

        <cbc:ID>12345</cbc:ID>  

        <cbc:Quantity unitCode="EA" unitCodeListID="UNECERec20">5  

        </cbc:Quantity>  

        <cbc:Description languageID ="no">Toner B (erstattes av Toner C)</cbc:Description>  

    </cac:ReplacedRelatedItem>  

....  

</cac:CatalogueLine>
```

6.17 RECOMMENDED ARTICLE

Recommended article is stated in AdditionalItemProperties with Name=ABF.

Example in EHF Catalogue message:

```
<cac:AdditionalItemProperty>  

    <cbc:Name>ABF</cbc:Name>  

    <cbc:Value>true</cbc:Value>  

</cac:AdditionalItemProperty>
```

6.18 SMARTFORM ID

Smartform ID is stated in AdditionalItemProperties with Name=SmartFormID.

Example in EHF Catalogue message:

```
<cac:AdditionalItemProperty>
```

```
<cbc:Name>SmartFormID</cbc:Name>
<cbc:Value>12345</cbc:Value>
</cac:AdditionalItemProperty>
```

6.19 ADDITIONAL ITEM PROPERTIES

Additional properties are meant for product properties that cannot be sent in any of the defined elements in EHF Catalogue. Additional properties consist of the Name of the property and the actual Value.

Example of additional properties:

- Color
- Allergens.
Legal values: YES, NO, UNKNOWN, FREE.
- Nutrition.
Stated with amount per 100 g/ml.
- Genetically modified.
Legal values: True, False

Example in EHF Catalogue message:

```
<cac:AdditionalItemProperty>
  <cbc:Name languageID="no">Farge</cbc:Name>
  <cbc:Value languageID="no">Rød</cbc:Value>
  <cbc:ValueQualifier>Color</cbc:ValueQualifier>
</cac:AdditionalItemProperty>
.....
<cac:AdditionalItemProperty>
  <cbc:Name>Farge</cbc:Name>
  <cbc:Value>Rød</cbc:Value>
  <cbc:ValueQualifier>Color</cbc:ValueQualifier>
</cac:AdditionalItemProperty>
.....
<cac:AdditionalItemProperty>
  <cbc:Name>ContainNuts</cbc:Name>
  <cbc:Value>YES</cbc:Value>
  <cbc:ValueQualifier>Allergen</cbc:ValueQualifier>
</cac:AdditionalItemProperty>
.....
<cac:AdditionalItemProperty>
  <cbc:Name>NutritionProtein</cbc:Name>
  <cbc:ValueQuantity unitCode="GRM" unitCodeListID="UNECERec20">2.5
  </cbc:ValueQuantity>
  <cbc:ValueQualifier>Nutrition</cbc:ValueQualifier>
</cac:AdditionalItemProperty>
.....
<cac:AdditionalItemProperty>
  <cbc:Name>GeneticallyModified</cbc:Name>
  <cbc:Value>True</cbc:Value>
</cac:AdditionalItemProperty>
```

7 INFORMATION CONTENT

The table on the next pages describes all elements of the EHF Catalogue.

Below are explanations of the columns in the table.

Name contains the descriptive name of the element. Names in blue are composite elements that should be read as headers for the following lines.

Description provides supplementary information of the element and possible rules for the use of it.

Req. states if the element is

M = Mandatory

R = Recommended

O = Optional

Max rep. States number of repetition's for the element.

1 Element can only be repeated once.

unbounded Element can be repeated as many times as wanted

Example shows examples of content.

XML Element is the tag-name according to UBL.

7.1 INFORMATION CONTENT CATALOGUE

Name	Description	Req.	Max rep.	Example	XML Element
EHF Catalogue	Norwegian catalogue format based on BII2				
—UBL VersionID	Identifies the UBL version on which the transaction instance is based	M	1	2.1	cbc:UBLVersionID
Customization identifier	Identifies the specification of content and rules that apply to the transaction.	M	1	urn:www.cenbii.eu:transaction:biitrns19:ver2.0: #urn:www.difi.no:ehf:katalog:ver0.99	cbc:CustomizationID
Profile identifier	Identifies the BII profile or business process context in which the transaction appears.	M	1	urn:www.cenbii.eu:profile:bii01:ver2.0	cbc:ProfileID
Catalogue identifier	An catalogue instance must contain an identifier. The identifier enables positive referencing the document instance for various purposes including referencing between transactions that are part of the same process.	M	1	Cat-02	cbc:ID
Catalogue action code	Identifies how a received catalogue should be used against existing catalogue lines sent in previous catalogues, so that no discrepancies occur between the suppliers and customers information. Describes how to treat existing items, not part of the received catalogue and those that are included (unchanged, changed or deleted). Default action is to fully replace the source catalogue. Legal values: Add, Update, Delete, Replace	D	1	Add	cbc:ActionCode
Catalogue name	A name of the catalogue for general reference. E.g. "Christmas catalogue"	O	1	Spring Catalogue	cbc:Name
Catalogue issue date	The date on which the catalogue instance was issued.	M	1	2013-04-01	cbc:IssueDate
Catalogue version	The version of the catalogue revision. The version ID is used to controll how a Catalogue transaction acts on existing lines that are not stated in the transactions. Should they be left alone or deleted. If Catalogue transaction is „Replace“ then action codes on the line have no relevance. All existing lines are deleted and the ones stated in the Catalogue transaction added. If Catalogue transaction is „Update“ then action codes on lines controll each line.	R	1	v2	cbc:VersionID
Validity period	Information about Validity period	M	1		cac:ValidityPeriod
—Period start date	The date on which the period starts. The start dates counts as part of the period.	M	1	2013-04-01	cbc:StartDate
—Period end date	The date on which the period ends. The end date counts as part of the period.	R	1	2013-08-01	cbc:EndDate
Contract	A referece to a document or other source that can be positively identified.	O	1		cac:ReferencedContract

Name	Description	Req.	Max rep.	Example	XML Element
—Reference identifier	Positive identification of the reference such as a unique identifier.	O	1	Contract-01	cbc:ID
—Contract Issuedate	Date of referenced contract	O	1	2013-09-15	cbc:IssueDate
—Reference type	The short description of what is reference such as contract type, document type , meter etc.	O	1	Frame agreement	cbc:ContractType
Source catalogue reference	Reference to prior catalogue	O	1		cac:SourceCatalogueReference
—Source catalogue identifier	Identifies the existing, already received catalogue that this message should be acted upon, so that no discrepancies occur between the suppliers and customers information.	O	1	Cat-01	cbc:ID
ProviderParty	The party that sends the catalogue.	M	1		cac:ProviderParty
—Electronic address ID	A catalogue may contain the providing party electronic address. The address can be of any format and the format should be identified in the message.	M	1	123456789	cbc:EndpointID
Party identification	Information about PartyID	O	1		cac:PartyIdentification
—Party identifier	Use in the absence of or in addition to Party Name. Use an identifier known to the document recipient.	D	1	7080000985698	cbc:ID
Party name	Information about party name	O	1		cac:PartyName
—Party name	Use in the absence of or in addition to Party Identifier.	D	1	Provider	cbc:Name
Postal address	Information about Postal address	O	1		cac:PostalAddress
—Address line 1	The main address line in a postal address usually the street name and number.	O	1	Torggata 2	cbc:StreetName
—Address line 2	An additional address line in a postal address that can be used to give further details supplementing the main line. Common use are secondary house number in a complex or in a building.	O	1		cbc:AdditionalStreetName
—City	The common name of the city where the postal address is. The name is written in full rather than as a code.	O	1	Kristiansand	cbc:CityName
—Post code	The identifier for an addressable group of properties according to the relevant national postal service, such as a ZIP code or Post Code.	O	1	4634	cbc:PostalZone
—Country Subdivision	For specifying a region, county, state, province etc. within a country by using text.	O	1		cbc:CountrySubentity
Country	Country information	O	1		cac:Country
—Country code	The country where the address is. The country should always be given by using ISO code 3166 alpha 2	O	1	NO	cbc:IdentificationCode
Legal entity	Assosiation to Party Legal Entity	O	unbounded		cac:PartyLegalEntity
—Registration name	The name under which the provider is legally registered.	O	1	Aktoren ASA	cbc:RegistrationName

Name	Description	Req.	Max rep.	Example	XML Element
Company ID	The supplying organisations legal organisation number. For norwegian suppliers: Attributes: schemeID="NO:ORGNR", schemeName="Foretaksregisteret" for companies AS, ASA and NUF, but is recommended for all companies registered in "Foretaksregisteret". schemeAgencyID="82"	O	1	987654321	cbc:CompanyID
Address	Adress for the legal entity	O	1		cac:RegistrationAddress
City name	The name of the city where the provider is legally registered.	O	1	Oslo	cbc:CityName
Country	Country information	O	1		cac:Country
Country	The country in which the provider is legally registered.	O	1	NO	cbc:IdentificationCode
Receiver party	The party to which the catalogue is sent.	M	1		cac:ReceiverParty
Electronic address ID	A catalogue may contain the receiving party electronic address. The address can be of any format and the format should be identified in the message.	M	1	923654321	cbc:EndpointID
Party identification	Information about PartyID	O	1		cac:PartyIdentification
Party identifier	Use in the absence of or in addition to Party Name. Use an identifier known to the document recipient.	D	1	7080000374200	cbc:ID
Party name	Information about Party name	O	1		cac:PartyName
Party name	Use in the absence of or in addition to Party Identifier.	D	1	Receiver	cbc:Name
Postal address	Information about Postal address	O	1		cac:PostalAddress
Address line 1	The main address line in a postal address usually the street name and number.	O	1	Mainstreet 13B	cbc:StreetName
Address line 2	An additional address line in a postal address that can be used to give further details supplementing the main line. Common use are secondary house number in a complex or in a building.	O	1		cbc:AdditionalStreetName
City	The common name of the city where the postal address is. The name is written in full rather than as a code.	O	1	London	cbc:CityName
Post code	The identifier for an addressable group of properties according to the relevant national postal service, such as a ZIP code or Post Code.	O	1	N8 7DY	cbc:PostalZone
Country subdivision	For specifying a region, county, state, province etc. within a country by using text.	O	1		cbc:CountrySubentity
Country	Country information	O	1		cac:Country
Country code	The country where the address is. The country should always be given by using ISO code 3166 alpha 2	O	1	GB	cbc:IdentificationCode
Legal entity	Assosiation to Party Legal Entity	O	unbounded		cac:PartyLegalEntity
Registration name	The name under which the provider is legally registered.	O	1	Aktøren ASA	cbc:RegistrationName

Name	Description	Req.	Max rep.	Example	XML Element
Company ID	The supplying organisations legal organisation number. For norwegian suppliers: Attributes: schemeID="NO:ORGNR", schemeName="Foretaksregisteret" for companies AS, ASA and NUF, but is recommended for all companies registered in "Foretaksregisteret". schemeAgencyID="82"	O	1	987654321	cbc:CompanyID
Address	Adress for the legal entity	O	1		cac:RegistrationAddress
City name	The name of the city where the receiver is legally registered.	O	1	Oslo	cbc:CityName
Country	Country information	O	1		cac:Country
Country	The country in which the receiver is legally registered.	O	1	NO	cbc:IdentificationCode
Supplier	The party that provides the items specified in the catalogue.	O	1		cac:SellerSupplierParty
Party	Party information	O	1		cac:Party
Electronic address ID	A catalogue may contain the receiving party electronic address. The address can be of any format and the format should be identified in the message.	R	1	123456789	cbc:EndpointID
Party identification	Information about Party identification	O	1		cac:PartyIdentification
Party identifier	Use in the absence of or in addition to Party Name. Use an identifier known to the document recipient.	D	1	7080000985134	cbc:ID
Party name	Information about Party name	O	1		cac:PartyName
Party name	Use in the absence of or in addition to Party Identifier.	D	1	Supplier	cbc:Name
Postal address	Information about Postal address	O	1		cac:PostalAddress
Address line 1	The main address line in a postal address usually the street name and number.	O	1	Storgata 1	cbc:StreetName
Address line 2	An additional address line in a postal address that can be used to give further details supplementing the main line. Common use are secondary house number in a complex or in a building.	O	1		cbc:AdditionalStreetName
City	The common name of the city where the postal address is. The name is written in full rather than as a code.	O	1	Oslo	cbc:CityName
Post code	The identifier for an addressable group of properties according to the relevant national postal service, such as a ZIP code or Post Code.	O	1	0612	cbc:PostalZone
Country subdivision	For specifying a region, county, state, province etc. within a country by using text.	O	1		cbc:CountrySubentity
Country	Country information	O	1		cac:Country
Country code	The country where the address is. The country should always be given by using ISO code 3166 alpha 2	O	1	NO	cbc:IdentificationCode

Name	Description	Req.	Max rep.	Example	XML Element
Contact	Contact information	O	1		cac:Contact
Contact person name	The name of the contact person.	O	1	Ole Olsen	cbc:Name
Contact telephone number	A phone number for the contact person. If the person has a direct number, this is that number.	O	1	90123456	cbc:Telephone
Contact fax number	A fax number for the contact persons.	O	1		cbc:Telefax
Contact email address	The e-mail address for the contact person. If the person has a direct e-mail this is that email.	O	1	ole.olsen@supplier.no	cbc:ElectronicMail
Customer	Customer information	O	1		cac:ContractorCustomerParty
Party	Party information	O	1		cac:Party
Electronic address ID	A catalogue may contain the receiving party electronic address. The address can be of any format and the format should be identified in the message.	R	1		cbc:EndpointID
Party identification	Information about Party identification	O	1		cac:PartyIdentification
Party identifier	Use in the absence of or in addition to Party Name. Use an identifier known to the document recipient.	D	1	7080000374764	cbc:ID
Party name	Information about Party name	O	1		cac:PartyName
Party name	Use in the absence of or in addition to Party Identifier.	D	1		cbc:Name
Contact	Contact information	O	1		cac:Contact
Kjøpers referanse	Name or identifier specifying the customers reference (Eg employee number)	O	1		cbc:ID
Contact person name	The name of the contact person.	O	1		cbc:Name
Contact telephone number	A phone number for the contact person. If the person has a direct number, this is that number.	O	1		cbc:Telephone
Contact fax number	A fax number for the contact persons.	O	1		cbc:Telefax
Contact email address	The e-mail address for the contact person. If the person has a direct e-mail this is that email.	O	1		cbc:ElectronicMail
TradingTerms	General payment conditions	O	unbounded		cac:TradingTerms
General payment conditions	Description of general payment conditions	O	unbounded		cbc:Information
Catalogue line	Information on Catalogue line	M	unbounded		cac:CatalogueLine
Line identifier	Each line must have an identifier that is unique within the document to make it possible to positively reference the line. For example, from other documents.	M	1	1	cbc:ID

Name	Description	Req.	Max rep.	Example	XML Element
—Line action code	Used to instruct the catalogue receiver on what action should be taken on the identified line when revising a catalogue. See rule on catalogue version ID. When using Update or Delete codes, the entire Catalogue Line is updated or deleted. Legal values: Add, Update, Delete.	D	1	Update	cbc:ActionCode
—Contract Subdivision	Reference to subsection of contract	O	1		cbc:ContractSubdivision
—Orderable indicator	Default value is True i.e. Item on the Catalogue Line can be ordered. Can be used to indicate if an Item is temporarily out of stock (via a Catalogue Update).	M	1	true	cbc:OrderableIndicator
—Orderable unit	The unit in which the item described in this catalogue line can be ordered. The same item can be described in more than one catalogue line with different orderable units. E.g. catalogue line 1 describes item X that can be ordered in boxes at a given price. Line 2 may describe the same item X as orderable in pallets where the price is lower.	D	1	EA	cbc:OrderableUnit
—Item net quantity	The net quantity of the item that is contained in each consumable unit, excluding any packaging materials.	O	1	10	cbc:ContentUnitQuantity
—Order quantity increment	The increment of Orderable units that can be ordered.	O	1	1	cbe: OrderQuantityIncrementNumeric
—Minimum order quantity	The minimum number of orderable units that can be ordered according to details provided in the catalogue line, such as price.	O	1	1	cbc:MinimumOrderQuantity
—Maximum order quantity	The maximum number of orderable units that can be ordered according to details provided in the catalogue line, such as price.	O	1	100	cbc:MaximumOrderQuantity
—Line warranty information	Warranty information that applies to the catalogue line item.	O	1		cbc:WarrantyInformation
—Packaging level	The packing level of the catalogue line.	O	1	TU	cbc:PackLevelCode
Validity period	The period during which the information in the catalogue line is valid. An orderable catalogue item is no longer orderable after the validity period expires. Used for example for promotional item or prices.	O	1		cac:LineValidityPeriod
—Period start date	The date on which the period starts. The start dates counts as part of the period.	O	1	2013-04-01	cbc:StartDate
—Period end date	The date on which the period ends. The end date counts as part of the period.	O	1		cbc:EndDate
Item comparison	Used to provide price information based on a standard quantity	O	unbounded		cac:ItemComparison
—Standardized unit price	The item price based on a standardized unit. E.g. Price of each liter. See guideline on Items and packing units in a catalogue.	O	1		cbc:PriceAmount

Name	Description	Req.	Max rep.	Example	XML Element
Standard unit quantity	The quantity of standard units that are in each consumable unit. E.g. if consumable units are bottles and each bottle contains 0,333 liters the standard unit quantity is 0,333 See guideline on Items and packing units in a catalogue.	O	1		cbc:Quantity
ComponentRelated Item	Product that is a component to current product	O	unbounded		cac:ComponentRelatedItem
Item identifier	The sellers identifier for the related item.	O	1		cbc:ID
Item quantity	The quantity that applies to the relationship.	O	1		cbc:Quantity
AccessoryRelated Item	Product that is an accessory to current product	O	unbounded		cac:AccessoryRelatedItem
Item identifier	The sellers identifier for the related item.	O	1		cbc:ID
Item quantity	The quantity that applies to the relationship.	O	1		cbc:Quantity
RequiredRelated Item	Product that is a required component to current product and is always sold together	O	unbounded		cac:RequiredRelatedItem
Item identifier	The sellers identifier for the related item.	O	1		cbc:ID
Item quantity	The quantity that applies to the relationship.	O	1		cbc:Quantity
ReplacedRelated Item	Product that is being replaced by current product	O	unbounded		cac:ReplacedRelatedItem
Item identifier	The sellers identifier for the related item.	O	1		cbc:ID
Item quantity	The quantity that applies to the relationship.	O	1		cbc:Quantity
RequiredItemLocationQuantity	Used to specify the price of the item. Can also be used to specify prices that may be dependent on quantities and/or locations.	O	unbounded		cac:RequiredItemLocationQuantity
Price lead time	The order lead time for the particular location.	O	1	1	cbc:LeadTimeMeasure
Quantity threshold	Minimum quantity for the given price	O	1		cbc:MinimumQuantity
Quantity ceiling	Max quantity for the given price	O	1		cbc:MaximumQuantity
ApplicableTerritory Address	Use to specify the area or place to which the Item Location Quantity values e.g. lead time, base price and base quantity, apply.	O	unbounded		cac:ApplicableTerritoryAddress
Address line 1	The main address line in a postal address usually the street name and number.	O	1		cbc:StreetName
Address line 2	An additional address line in a postal address that can be used to give further details supplementing the main line. Common use are secondary house number in a complex or in a building.	O	1		cbc:AdditionalStreetName
City	The common name of the city where the postal address is. The name is written in full rather than as a code.	O	1		cbc:CityName
City	The common name of the city where the postal address is. The name is written in full rather than as a code.	O			
Post code	The identifier for an addressable group of properties according to the relevant national postal service, such as a ZIP code or Post Code.	O	1		cbc:PostalZone

Name	Description	Req.	Max rep.	Example	XML Element
Country subdivision Country subdivision	For specifying a region, county, state, province etc. within a country by using text. For specifying a region, county, state, province etc. within a country by using text.	O O	1	Østlandet	cbc:CountrySubentity
Country	Country information	O	1		cac:Country
Country code Country code	The country where the address is. The country should always be given by using ISO code 3166 alpha 2 The country where the address is. The country should always be given by using ISO code 3166 alpha 2	O O	1	NO NO	cbc:IdentificationCode
Price	The price for the item at the specified locations	O	1		cac:Price
Item price	The price for the item at the specified locations. The price is given for each orderable unit.	O	1	200,00	cbc:PriceAmount
Base Quantity	The number of quantity units for which the price is stated	O	1	10	cbc:BaseQuantity
Price type	The type of the price so that the receiver knows if the price may be changed, is indicative. When prices are temporary the validity period for the price should be defined by stating the price validity period.	O	1		cbc:PriceType
OrderableUnit FactorRate	The factor used to convert the Base Quantity to an Orderable Unit. Must be specified if the Orderable Unit differs from the Base Quantity. If not present, assumed value is 1	O	1		cbc:OrderableUnitFactorRate
Validity period	Information about Validity period	O	unbounded		cac:ValidityPeriod
Period end date Period start date Period start date	The date on which the period ends. The end date counts as part of the period. The date on which the period starts. The start dates counts as part of the period. The date on which the period starts. The start dates counts as part of the period.	O O O	1	2013-05-01 2013-04-01 2013-04-01	cbc:StartDate
Period end date Period end date	The date on which the period ends. The end date counts as part of the period. The date on which the period ends. The end date counts as part of the period.	O O	1	2013-05-01 2013-05-01	cbc:EndDate
Item	Used to specify the details of the item in the catalogue.	M	1		cac:Item
Item description	A detailed description of the item. Use one description pr. language	R	unbounded	Office chair by John Doe.	cbc:Description
Packed quantity	The number of packed units that are in the orderable unit. E.g. if the orderable unit is a pallet that contains 30 boxes then the packed units are BOX and the packed quantity is 30.	O	1	30	cbc:PackQuantity

Name	Description	Req.	Max rep.	Example	XML Element
— Consumable unit quantity	Specifies the number of consumable units that are in each orderable unit. See guideline on Items and packing units in a catalogue.	O	1		cbc:PackSizeNumeric
— Item name	A short name for an item.	R	1	Office chair	cbc:Name
— Item key words	Used to specify searchable keywords and/or synonyms for the Item. E.g. Item Name = Colgate or Total / Keyword =Toothpaste	O	unbounded	Toothpaste	cbc:Keyword
— Brand name	Brand name for the product	O	unbounded		cbc:BrandName
Sellers ItemIdentification	The sellers ID for the item	O	1		cac:SellersItemIdentification
— Sellers item identifier	The sellers identifier for the item.	D	1	222222	cbc:ID
Manufacturers ItemIdentification	The manufacturers ID for the item	O	unbounded		cac:ManufacturersItemIdentification
— Manufacturers item identifier	The manufacturers identifier for the item.	O	1	Prod-01	cbc:ID
Standard ItemIdentification	Standardized ID for the item, e.g. GTIN	O	1		cac:StandardItemIdentification
— Items standard identifier	A item identifier based on a registered schema.	D	1	7330869106661	cbc:ID
Document Reference	Reference to a document containing Item specifications.	O	unbounded		cac:ItemSpecificationDocumentReference
— Attachment ID	A positive identification of the relevant document, such as an unique identifier.	O	1		cbc:ID
— External Item Specifications Type	Code for document type	O	1		cbc:DocumentTypeCode
— Attachment description	A short description of the document type.	O	1		cbc:DocumentDescription
Attachment	Information about Attachments	O	1		cac:Attachment
— Attached object	The attached document embedded as binary object.	O	1		cbc:EmbeddedDocumentBinaryObject
External reference	Information about external references, most often an URI	O	1		cac:ExternalReference
	URI reference to external item information or specifications. E.g. web address		1		cbc:URI
Country of origin	Information about Country of origin	O	1		cac:OriginCountry
— Item origin country	Used to provide the country from which the item has it's origin. Commonly used in cross border trade for statistical and customs purposes.	O	1	NO	cbc:IdentificationCode
Commodity classification	A classification code used to classify the type or nature of the Item. More than one classification can be used.	O	unbounded		cac:CommodityClassification
— Commodity classification	A classification code used to classify the type or nature of the Item. More than one classifications can be used including UNSPSC code and CPV code.	O	1	43212105	cbc:ItemClassificationCode

Name	Description	Req.	Max rep.	Example	XML Element
Transaction conditions	Used to define if the product is contracted	O	unbounded		cac:TransactionConditions
Transaction conditions	When ActionCode = CT, the product is under contract.		1		
Contracted item indicator	Indicates that an item is offered in accordance to an existing contract.	O	1	true	cbc:ActionCode
Hazardous Item	Provides detail of the classification and nature of a hazardous item.	O	unbounded		cac:HazardousItem
Hazardous UNDG code	Provides detail of the classification and nature of a hazardous item.	O	1		cbc:UNDGCode
Hazard class identifier	Provides detail of the classification and nature of a hazardous item.	O	1		cbc:HazardClassID
Classified tax category	Used to provide information about in what tax category the item	O	unbounded		cac:ClassifiedTaxCategory
Item VAT category code	The VAT code that indicates what VAT details apply to the item.	O	1	S	cbc:ID
Item VAT percentage	The VAT percentage rate that applies to the item unless specific trade reasons apply such as exemptions.	O	1	25	cbc:Percent
Tax scheme	Identification of tax type	M	1		cac:TaxScheme
Tax Scheme ID	Tax Scheme ID =VAT	M	1	VAT	cbc:ID
Additional Item property	Use for structured specification of Item Properties. Any properties of the item that can not be specified in other elements.	O	unbounded		cac:AdditionalItemProperty
Property name	The name of the property. The name must be sufficiently descriptive to define the value. The definition may be supplemented with the property unit of measure when relevant. E.g. Size, Color, Year.	O	1	Size	cbc:Name
Property value	The value of the item property. E.g. XXL, Blue, 2007.	M	1	XXL	cbc:Value
Item expiry date	Used to express the expiry date of the item or items in the line instance.	O	1	2013-06-01	
Property unit of measure	The unit of measure in which the property value is stated, if relevant. May not be relevant when properties are descriptive.	O	1	KG	cbc:ValueQuantity
Minimum quantity guaranteed for delivery	The minimum quantity that is guaranteed for delivery	O	1		
Property classification	Standardized and predefined classification of items properties.	O	1	Allergen	cbc:ValueQualifier
Manufacturer	Information about the manufacturer of the Item	O	1		cac:ManufacturerParty
Party name	Information about Party name	O	1		cac:PartyName
Manufacturer party name	The name of the manufacturer of the item	O	1	Manufacturer	cbc:Name
Item instance	Specifications of a particular instans of the item	O	1		cac:ItemInstance

Name	Description	Req.	Max rep.	Example	XML Element
— Item best before date	Used to express the best before date of the item or items in the line instance.	O	1	2013-08-01	cbc:BestBeforeDate
Lot identification	Information about the production lot of the item	O	1		cac:LotIdentification
Item batch identifier	Identifies the production batch that the item(s) listed in the catalogue line were part of.	O	1	B-10	cbc:LotNumberID
Certificate	Environmental labelling or other type of certificate	O	unbounded		cac:Certificate
Label name	The name of the product label.	O	1	NEO	cbc:ID
Certificate Type code	The code type for the label	O	1	EcoLabel	cbc:CertificateTypeCode
Label type	The label type such environmental, quality, social etc.	O	1	EcoLabel	cbc:CertificateType
Label value	The label value that applies to the item.	O	1	Svanemerket	cbc:Remarks
Issuer	Information about issuer	M	1		cac:IssuerParty
Name	Information about issuer name	O	1		cac:PartyName
Issuer name	Name of Label issuer	O	1	Svanemerket	cbc:Name
Document reference	Information about Document reference	O	unbounded		cac:DocumentReference
Label reference	A reference to where the label specification can be found, e.g. a URI.	O	1		cbc:ID
Dimension	Information about measurements	O	unbounded		cac:Dimension
Dimension ID	Possible values: Weight, Height, Length, Width, Minimum Storage Temperature, Maximum Storage Temperature	O	1	Weight	cbc:AttributeID
Height	The vertical height of the orderable unit.	O	1	10	cbc:Measure
Length	The horizontal measure of the longer side of the orderable unit.	O			
Width	The horizontal measure of the shorter side of the orderable unit.	O			
Weight	The weight of the orderable unit incuding its packaging.	O			
Description		unbounded			cbc:Description
Minimum storage temperature	The lower margin of the recommended storage temerature range for the item.	O	1		cbc:MinimumMeasure
Maximum storage temperature	The upper margin of the recommended storage temerature range for the item.	O	1		cbc:MaximumMeasure

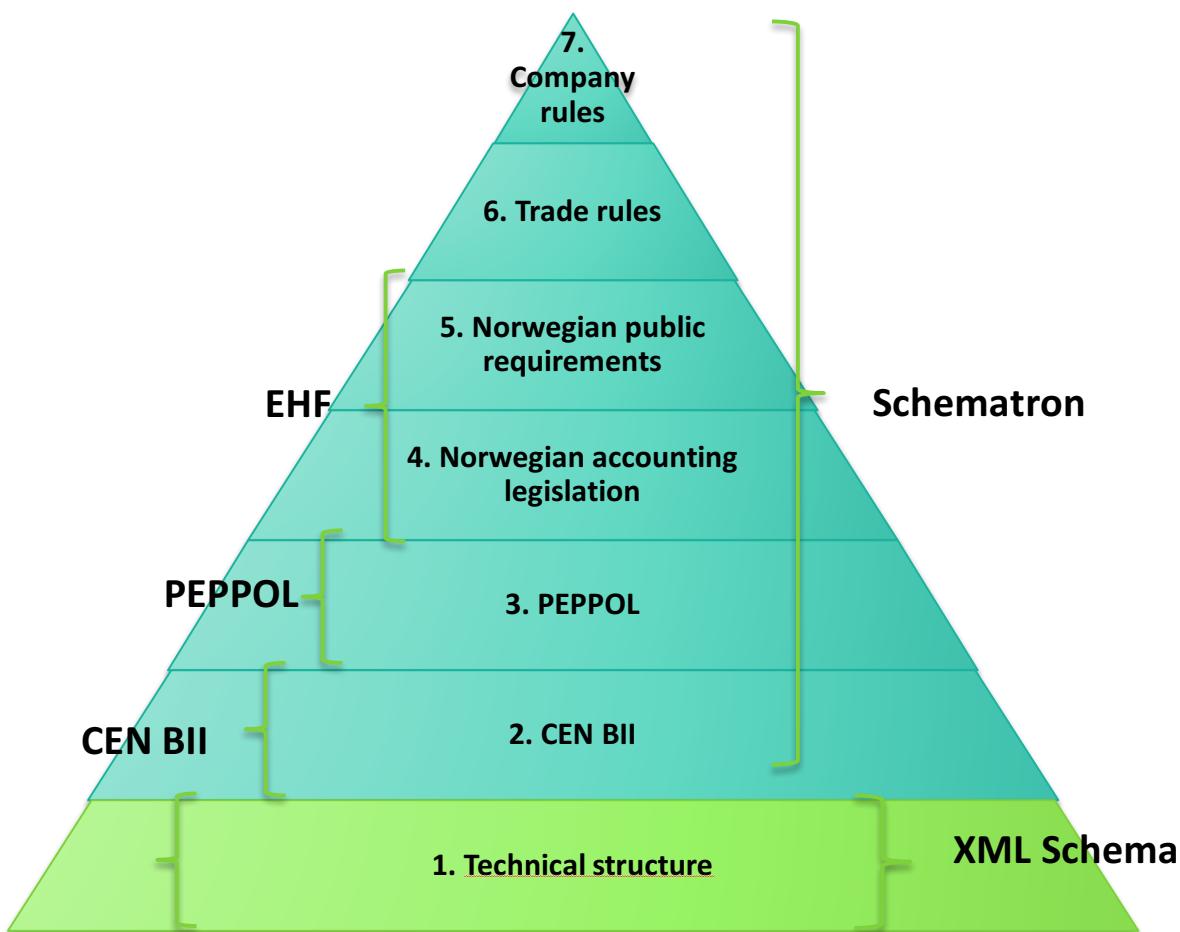
7.2 INFORMATION CONTENT CATALOGUE RESPONSE

Name	Description	Req.	Max rep.	Example	XML Element
EHF Catalogue Response	Format for Catalogue Response based on CEN BII				ApplicationResponse
UBL Version ID	Identifies the UBL version on which the transaction instance is based	M	1	2.1	cbc:UBLVersionID
Customization identifier	Identifies the specification of content and rules that apply to the transaction.	M	1	urn:www.cenbii.eu:transaction:biiRNS058:ver2.0:#urn:www.difi.no:ehf:katalogbekreftelse:ver1.0	cbc:CustomizationID
Profile identifier	Identifies the BII profile or business process context in which the transaction appears.	M	1	urn:www.cenbii.eu:profile:bii01:ver2.0	cbc:ProfileID
Response identifier	An transaction instance must contain an identifier. The identifier enables positive referencing the document instance for various purposes including referencing between transactions that are part of the same process.	M	1	1	cbc:ID
Response issue date	The date on which the transaction instance was issued.	M	1	2013-05-10	cbc:IssueDate
Response issue data	The time at which the transaction instance was issued.	O	1		cbc:IssueTime
Response textual notes	Used to make any comments or instructions relevant to the response, including the date that the reported decision becomes effective.	O	unbounded		cbc>Note
SenderParty	Information about message sender	M	1		cac:SenderParty
Electronic address	A response may contain the party electronic address. The address can be of any format and the format should be identified in the message.	R	1		cbc:EndpointID
Party Identification	Information about Party ID	O	1		cac:PartyIdentification
Party identifier	It should be possible to specify the identifier or identifiers for the party.	D	1	923654321	cbc:ID
Party Name	Information about Party Name	O	1		cac:PartyName
Party name	The name of the party sending the response.	D	1	Buyer	cbc:Name
ReceiverParty	Information about message receiver	M	1		cac:ReceiverParty
Electronic address	A response may contain the party electronic address. The address can be of any format and the format should be identified in the message.	R	1		cbc:EndpointID
Party Identification	Information about PartyID	O	1		cac:PartyIdentification
Party identifier	It should be possible to specify the identifier or identifiers for the party.	D	1	123456789	cbc:ID
Party Name	Information about Party Name	O	1		cac:PartyName
Party name	The name of the party receiving the response.	D	1	Supplier	cbc:Name
DocumentResponse	Information about the reason code	O	1		cac:DocumentResponse

Name	Description	Req.	Max rep.	Example	XML Element
Response <ul style="list-style-type: none"> - Coded decision 	Responseinformation A code for the description of the response to the transaction document. AP= Accepted, RE = Rejected, UN/Cefact 4343 Response type code	M	1	AP	cac:Response cbc:ResponseCode
Document Reference <ul style="list-style-type: none"> - Document identifier - Document version 	Document Reference information Identifies the document being referred to. The version of the document that has been identified with the document identifier.	M	1	Catalogue-01	cac:DocumentReference cbc:ID cbc:VersionID

8 VALIDATION

To optimize the flexibility in the validation process, each EHF document is validated in different stages with shifting focus in every stage. The pyramid below illustrates the different stages.



8.1 VALIDATION PRINCIPLES

Stages in the validation process:

1. Validation of syntax against UBL 2.1 Schema, for example:
 - Tag names and attributes must be correctly written and follow the UBL 2.1 sequence
 - All UBL 2.1 mandatory tag names must be present.
 - The element's contents must be according to the element's type definition.
2. Validation against CEN BII to verify that the message is according to international requirements, like:
 - Valid codes for currencies, countries, tax etc.
 - Mandatory tag names according to CEN BII.
 - Logical correlations between information element, i.e. that start date is at least lower than end date, sub totals must be totaled, multiplications give the correct result etc.
3. Validation against PEPPOL (EU) rules and regulations

4. Validation against Norwegian accounting legislation, like:
 - Organisation number must be specified for the seller/supplier.
5. Validation against Norwegian public requirements, like:
 - «Your ref» must be specified.
 - Addresses, postal zone number and post office/city must be specified for the buyer/customer.

Validation stage 6 and 7 is decided upon by the trading parties if deemed necessary.

8.2 DYNAMIC VALIDATION

The combination of ProfileID and CustomizationID in an XML document defines the validation rules applied to the document.

CustomizationID may be extended with more elements for specific trade or business validation rules.

8.3 VALIDATION RULES PER PROFILEID AND CUSTOMIZATIONID

The table below shows the validation rules for ProfileID and CustomizationID. The specific validation rules are described in Chapter 8.4.

8.3.1 PROFILEID BII01, CATALOGUE

Document	Norwegian receiver	Norwegian sender	Profile ID	Customization ID	Validation rules
Catalogue	Yes	Yes	urn:www.cenbii.eu:profile:bii01:ver2.0	urn:www.cenbii.eu:transaction:biitrns019:ver2.0: extended:urn:www.peppol.eu:bis:peppol1a:ver2.0 :extended:urn:www.difi.no:ehf:katalog:ver1.0	Validation against UBL 2.1 Catalogue Schema and business rules for BII and Norway.
Catalogue	Yes	No	urn:www.cenbii.eu:profile:bii01:ver2.0	urn:www.cenbii.eu:transaction:biitrns019:ver2.0: extended:urn:www.peppol.eu:bis:peppol1a:ver2.0	Validation against UBL 2.1 Catalogue Schema and business rules for BII and Peppol.
Catalogue	No	Yes	urn:www.cenbii.eu:profile:bii01:ver2.0	urn:www.cenbii.eu:transaction:biitrns019:ver2.0: extended:urn:www.peppol.eu:bis:peppol1a:ver2.0	Validation against UBL 2.1 Catalogue Schema and business rules for BII and Peppol.
Catalogue Response	Yes	Yes	urn:www.cenbii.eu:profile:bii01:ver2.0	urn:www.cenbii.eu:transaction:biitrns058:ver2.0: extended:urn:www.peppol.eu:bis:peppol1a:ver2.0 :extended:urn:www.difi.no:ehf:katalogbekreftelse: ver1.0	Validation against UBL 2.1 ApplicationResponse Schema and business rules for BII and Norway.
Catalogue Response	Yes	No	urn:www.cenbii.eu:profile:bii01:ver2.0	urn:www.cenbii.eu:transaction:biitrns058:ver2.0: extended:urn:www.peppol.eu:bis:peppol1a:ver2.0	Validation against UBL 2.1 ApplicationResponse Schema and business rules for BII and Peppol.
Catalogue Response	No	Yes	urn:www.cenbii.eu:profile:bii01:ver2.0	urn:www.cenbii.eu:transaction:biitrns058:ver2.0: extended:urn:www.peppol.eu:bis:peppol1a:ver2.0	Validation against UBL 2.1 ApplicationResponse Schema and business rules for BII and Peppol.

8.4 VALIDATION RULES

The 2 tables below show the validation rules that apply to the Catalogue and Catalogue Response.

Description of the table columns:

- Element The data element that the rule applies to.
- Rule Business rule description.
- Message Each rule has its own message.
- E/W Severity. F=Fatal, the document is rejected. W=Warning, the document should be passed on.
- RuleID Identification of validation stage:
 - BII → CEN BII
 - EU → PEPPOL
 - OP → Rules related to PEPPOL code lists
 - CL → Rules related to general code lists
 - NOGOV & EHF -> Norwegian rules

8.4.1 CATALOGUE

Name	Element (xPath)	Errormessage	F/W	Rule ID
Profile and transaction				
UBL Version ID	Catalogue/cbc:UBLVersionID	A catalogue MUST have a syntax identifier.	F	NOGOV-T19-R007
Customization identifier	Catalogue/cbc:CustomizationID	A catalogue MUST have a customization identifier	F	BII2-T19-R001
Profile identifier	Catalogue/cbc:ProfileID	A catalogue MUST have a profile identifier	F	BII2-T19-R002
Profile identifier	Catalogue/cbc:ProfileID	A catalogue must only be used in profile 1	F	EHFPROFILE-T19-R001
Header level				
Catalogue issue date	Catalogue/cbc:IssueDate	A catalogue MUST have a document issue date	F	BII2-T19-R003
Catalogue version	Catalogue/cbc:VersionID	A catalogue should have a catalogue version	W	NOGOV-T19-R012

Name	Element (xPath)	Errormessage	F/W	Rule ID
Catalogue identifier	Catalogue/cbc:ID	A catalogue MUST contain the catalogue document identifier	F	BII2-T19-R004
Validity period	Catalogue/cac:ValidityPeriod	A catalogue MUST have a validity period.	F	NOGOV-T19-R008
Start date of validity period	Catalogue/cac:ValidityPeriod/cbc:StartDate	A catalogue MUST have a validity start date.	F	NOGOV-T19-R009
Validity period	Catalogue/cac:ValidityPeriod/cbc:StartDate Catalogue/cac:ValidityPeriod/cbc:EndDate	A validity period end date MUST be later or equal to a validity period start date if both validity period end date and validity period start date are present	F	BII2-T19-R006
Validity period	Catalogue/cac:ValidityPeriod/cbc:EndDate	A Catalogue must have a validity period enddate grater or equal to the current date	F	NOGOV-T19-R002
Catalogue action code	Catalogue/cbc:ActionCode Catalogue/cbc:ActionCode/@listID	A catalogue header action code MUST be according to the code list "ACTIONCODE:PEPPOL", and the listID must have the value "ACTIONCODE:PEPPOL".	F	EUGEN-T19-R046 OP-T19-007
Catalogue action code	Catalogue/cbc:ActionCode Catalogue/cac:CatalogueLine/cbc:ActionCode	A Catalogue must contain ActionCode on either Header or Line level	F	NOGOV-T19-R001
Party information				
Electronic address ID	//cbc:EndpointID/@schemeID	An endpoint identifier MUST have a scheme identifier attribute An Endpoint Identifier Scheme MUST be from the list of PEPPOL Party Identifiers described in the "PEPPOL Policy for using Identifiers".	F	EUGEN-T19-R043 OP-T19-R005

Name	Element (xPath)	Errormessage	F/W	Rule ID
Party identification	//cac:PartyIdentification/cbc:ID/@schemeID	A party identifier MUST have a scheme identifier attribute A Party Identifier Scheme MUST be from the list of PEPPOL Party Identifiers described in the "PEPPOL Policy for using Identifiers".	F	EUGEN-T19-R044 OP-T19-R006
Company ID for legal entity	//cac:PartyLegalEntity/cbc:CompanyID/@schemeID	A Party Company Identifier Scheme MUST be from the list of PEPPOL Party Identifiers described in the "PEPPOL Policy for using Identifiers".	F	OP-T19-R013
Provider party	Catalogue/cac:ProviderParty	The party providing the catalogue MUST be specified	F	BII2-T19-R007
Provider party	Catalogue/cac:ProviderParty/cac:PartyIdentification/cbc:ID Catalogue/cac:ProviderParty/cac:PartyName/cbc:Name	A catalogue provider MUST contain the full name or an identifier	F	BII2-T19-R010
Receiver party	Catalogue/cac:ReceiverParty	The party receiving the catalogue MUST be specified	F	BII2-T19-R008
Receiver party	Catalogue/cac:ReceiverParty/cac:PartyIdentification/cbc:ID Catalogue/cac:ReceiverParty/cac:PartyName/cbc:Name	A catalogue receiver MUST contain the full name or an identifier	F	BII2-T19-R011
Supplier	Catalogue/cac:SellerSupplierParty	A catalogue MUST have maximum one catalogue supplier	F	BII2-T19-R009
Supplier	Catalogue/cac:SellerSupplierParty/cac:Party/cac:PartyIdentification/cbc:ID Catalogue/cac:SellerSupplierParty/cac:Party/cac:PartyName/cbc:Name	A catalogue supplier MUST contain the full name or an identifier	F	BII2-T19-R012

Name	Element (xPath)	Errormessage	F/W	Rule ID
Customer	Catalogue/cac:ContractorCustomerParty/cac:Party/cac:PartyIdentification/cbc:ID Catalogue/cac:ContractorCustomerParty/cac:Party/cac:PartyName/cbc:Name	A catalogue customer MUST contain the full name or an identifier	F	BII2-T19-R013
EndpointID for receiver	Catalogue/cac:ReceiverParty/cbc:EndpointID	A catalogue MUST have an endpoint ID for receiver.	F	NOGOV-T19-R010
EndpointID for seller	Catalogue/cac:SellerSupplierParty/cbc:EndpointID	A catalogue should have an endpoint ID for seller.	W	NOGOV-T19-R013
EndpointID for provider	Catalogue/cac:ProviderParty/cbc:EndpointID	An endpoint identifier scheme for provider MUST have the value 'NO:ORGNR'	F	NOGOV-T19-R014
EndpointID for provider	Catalogue/cac:ProviderParty/cbc:EndpointID	MUST be a norwegian organizational number. Only numerical value allowed	F	NOGOV-T19-R015
EndpointID for receiver	Catalogue/cac:ReceiverParty/cbc:EndpointID	An endpoint identifier scheme for receiver MUST have the value 'NO:ORGNR'	F	NOGOV-T19-R016
EndpointID for receiver	Catalogue/cac:ReceiverParty/cbc:EndpointID	MUST be a norwegian organizational number. Only numerical value allowed	F	NOGOV-T19-R017
Catalogue line				
Catalogue line	Catalogue/cac:CatalogueLine	A catalogue MUST have at least one catalogue line	F	BII2-T19-R023

Name	Element (xPath)	Errormessage	F/W	Rule ID
Line identifier	Catalogue/cac:CatalogueLine/cbc:ID	A catalogue line MUST contain a unique line identifier	F	BII2-T19-R024
Price	Catalogue/cac:CatalogueLine/cac:RequiredItem LocationQuantity/cac:Price/cbc:PriceAmount	Prices of items MUST not be negative	F	BII2-T19-R015
	Catalogue/cac:CatalogueLine/cac:LineValidityPeriod	Catalogue line validity period MUST be within the range of the whole catalogue validity period	F	BII2-T19-R017
Validity period, for price	Catalogue/cac:CatalogueLine/cac:RequiredItem LocationQuantity/cac:Price/cac:ValidityPeriod	Price validity period MUST be within the range of the whole catalogue line validity period	F	BII2-T19-R018
Line action code	Catalogue/cac:CatalogueLine/cbc:ActionCode Catalogue/cac:CatalogueLine/cbc:ActionCode/@listID	A catalogue line action code MUST be according to the code list "ACTIONCODE:BII2", and the listID must have the value "ACTIONCODE:BII2".	F	EUGEN-T19-R045 CL-T19-001
Packaging level	Catalogue/cac:CatalogueLine/cbc:PackLevelCode	A package level code MUST have a list identifier attribute "GS17009:PEPPOL" A package level code MUST be according to code list "GS17009:PEPPOL".	F	EUGEN-T19-R050 OP-T19-008
Item information				
Item name	Catalogue/cac:CatalogueLine/cac:Item/cbc:Name	An item in a catalogue line SHOULD have a name	W	BII2-T19-R019
Sellers item identification or standard item identification	Catalogue/cac:CatalogueLine/cac:Item/cac:SellerItemIdentification/cbc:ID Catalogue/cac:CatalogueLine/cac:Item/cac:StandardItemIdentification/cbc:ID	An item in a catalogue line MUST be uniquely identifiable by at least one of the following: - Catalogue Provider identifier - Standard identifier	F	BII2-T19-R020
Standard item identification	Catalogue/cac:CatalogueLine/cac:Item/cac:StandardItemIdentification/cbc:ID/@schemeID	Standard Identifiers SHOULD contain the Schema Identifier (e.g. GTIN)	W	BII2-T19-R021
Commodity classification	Catalogue/cac:CatalogueLine/cac:Item/cac:CommodityClassification/cbc:ItemClassificationCode/@listID	Classification codes SHOULD contain the Classification scheme Identifier (e.g. CPV or UNSPSC)	W	BII2-T19-R022

Name	Element (xPath)	Errormessage	F/W	Rule ID
Dimension	Catalogue/cac:CatalogueLine/cac:Item/cac:Dimension/cbc:AttributeID/@schemeID	An attribute identifier MUST have an scheme identifier "UNCL6313"	F	EUGEN-T19-R053
Dimension	Catalogue/cac:CatalogueLine/cac:Item/cac:Dimension/cbc:AttributeID	An attribute identifier MUST be from the UN EDIFACT 6313 code list	F	OP-T19-R009
Additional Item Property	Catalogue/cac:CatalogueLine/cac:Item/cac:AdditionalItemProperty/cbc:Name Catalogue/cac:CatalogueLine/cac:Item/cac:AdditionalItemProperty/cbc:Value	An item property data name MUST specify a data value	F	BII2-T19-R027
Hazardous UNDG code	/Catalogue/cac:CatalogueLine/cac:Item/cac:HazardousItem/cbc:UNDGCode	A UNDG code MUST have a list identifier attribute "UNCL8273" A UNDG code MUST be according to code list "UNCL8273".	F	EUGEN-T19-R051 OP-T19-003
Mime code	Catalogue/cac:CatalogueLine/cac:Item/cac:ItemSpecificationDocumentReference/cac:Attachment/cbc:EmbeddedDocumentBinaryObject/@mimeCode	For Mime code in attribute use MIMEMediaType.	F	CL-T19-R002
Quantities				
Item net quantity	Catalogue/cac:CatalogueLine/cbc:ContentUnitQuantity	Orderable quantities MUST be greater than zero	F	BII2-T19-R026
Maximum order quantity	Catalogue/cac:CatalogueLine/cbc:MaximumOrderQuantity	Maximum quantity MUST be greater than zero	F	BII2-T19-R029
Minimum order quantity	Catalogue/cac:CatalogueLine/cbc:MinimumOrderQuantity	Minimum quantity MUST be greater than zero	F	BII2-T19-R030
Minimum - and maximum order quantity	Catalogue/cac:CatalogueLine/cbc:MaximumOrderQuantity Catalogue/cac:CatalogueLine/cbc:MinimumOrderQuantity	Maximum quantity MUST be greater or equal to the Minimum quantity	F	BII2-T19-R031
General				
Country codes	//cac:Country/cbc:IdentificationCode/@listID	All country identification code MUST have a listID="ISO3166-1:Alpha2" and the code MUST be from this list.	F	EUGEN-T19-R047 OP-T19-001

Name	Element (xPath)	Errormessage	F/W	Rule ID
Language attribute	//@languageID	languageID MUST be coded using ISO code list 639-1	F	OP-T19-R012
Unit codes	//@unitCode	A unit code attribute MUST have a unit code list identifier attribute “UNECERec20”, and the code must be from this list.	F	EUGEN-T19-R048 OP-T19-002
Attribute for currency	//@currencyID	currencyID MUST be coded using ISO code list 4217	F	OP-T19-R011
Tax category	//cac:ClassifiedTaxCategorycbc:ID //cac:ClassifiedTaxCategorycbc:ID/@schemeID	A classified tax category identifier MUST have a listID= “UNCL5305” and ID MUST be according to the code list.	F	EUGEN-T19-R049 CL-T19-R004
Tax Scheme	//cac:TaxSchemecbc:ID	Every tax scheme MUST be defined through an identifier.	F	NOGOV-T19-R011
Empty elements	NA	A catalogue MUST not contain empty elements	F	NOGOV-T19-R018

8.4.2 CATALOGUE RESPONSE

Name	Element (xPath)	Error message	F/W	Rule ID
Profile and transaction				
UBL Version ID	Catalogue/cbc:UBLVersionID	A catalogue response MUST have a syntax identifier.	F	NOGOV-T58-R002
Customization identifier	ApplicationResponse/cbc:CustomizationID	A catalogue response MUST have a customization identifier	F	BII2- T58-R002
Profile identifier	ApplicationResponse/cbc:ProfileID	A catalogue response MUST have a profile identifier	F	BII2- T58-R001
Profile identifier	ApplicationResponse/cbc:ProfileID	A Catalogue response must only be used in profile 1		EHFP PROFILE-T58-R001
Document level				
Issue date	ApplicationResponse/cbc:IssueDate	A catalogue response MUST have a document issue date	F	BII2- T58-R003
Response identifier	ApplicationResponse/cbc:ID	A catalogue response MUST contain the catalogue document identifier	F	BII2- T58-R004
Response code	ApplicationResponse/cac:DocumentResponse/cac:Response/cbc:ResponseCode	A catalogue response MUST contain a response decision	F	BII2- T58-R009
Response code	ApplicationResponse/cac:DocumentResponse/cac:Response/cbc:ResponseCode/@listID	A response code MUST have a list identifier attribute "UNCL4343"	F	EUGEN-T58-R003
Document reference ID	ApplicationResponse/cac:DocumentResponse/cac:DocumentReference/cbc:ID	A catalogue response MUST contain a document reference	F	BII2- T58-R010
Partyinformation				
Endpoint ID	//cbc:EndpointID/@schemeID	An endpoint identifier MUST have a scheme identifier attribute	F	EUGEN-T58-R001
Party identificaion	//cac:PartyIdentification/cbc:ID/@schemeID	A party identifier MUST have a scheme identifier attribute	F	EUGEN-T58-R002

Name	Element (xPath)	Error message	F/W	Rule ID
Sender party	ApplicationResponse/cac:SenderParty	The party providing the catalogue response MUST be specified	F	BII2- T58-R005
Sender party	ApplicationResponse/cac:SenderParty/cac:PartyIdentification/cbc:ID ApplicationResponse/cac:SenderParty/cac:PartyName/cbc:Name	A catalogue response sending party MUST contain the full name or an identifier	F	BII2- T58-R008
Receiver party	ApplicationResponse/cac:ReceiverParty	The party receiving the catalogue response MUST be specified	F	BII2- T58-R006
Receiver party	ApplicationResponse/cac:ReceiverParty/cac:PartyIdentification/cbc:ID ApplicationResponse/cac:ReceiverParty/cac:PartyName/cbc:Name	A catalogue response receiving party MUST contain the full name or an identifier	F	BII2- T58-R007
EndpointID for sender	cac:SenderParty/cbc:EndpointID	A catalogue response should have sellers endpoint id	W	NOGOV-T58-R003
Receivers endpointId	cac:ReceiverParty/cbc:EndpointID	A catalogue response should have the receivers endpoint id	W	NOGOV-T58-R004
EndpointID for sender	Catalogue/cac:SenderParty/cbc:EndpointID	An endpoint identifier scheme for sender MUST have the value 'NO:ORGNR'	F	NOGOV-T58-R005
EndpointID for sender	Catalogue/cac:SenderParty/cbc:EndpointID	MUST be a norwegian organizational number. Only numerical value allowed	F	NOGOV-T58-R006
EndpointID for receiver	Catalogue/cac:ReceiverParty/cbc:EndpointID	An endpoint identifier scheme for receiver MUST have the value 'NO:ORGNR'	F	NOGOV-T58-R007
EndpointID for receiver	Catalogue/cac:ReceiverParty/cbc:EndpointID	MUST be a norwegian organizational number. Only numerical value allowed	F	NOGOV-T58-R008
General:				
Empty elements	NA	A catalogue response MUST not contain empty elements	F	NOGOV-T58-R009

9 ATTACHMENTS

9.1 ATTACHMENT 1 – STRUCTURE TABLES

Attachment 1 provides a structured overview of EHF Catalogue and Catalogue Response.

9.2 ATTACHMENT 2 – MESSAGE TABLES

Attachment 2 contains a Message table with all elements and attributes in EHF Catalogue and Catalogue Response.

9.3 ATTACHMENT 3 – CODE LISTS

To ensure consistency and quality of the code lists used in EHF, a decision has been made to move these to a website. This site contains all code lists used in all the different EHF guides, and you find it here:

<http://www.anskaffelser.no/temaer-elektronisk-handel/ehf-formater-innhold/kodelister>

9.4 ATTACHMENT 4 - UBL 2.1 SCHEMA

The UBL 2.1 Schema that the EHF catalogue messages are based on, is found here:

<http://docs.oasis-open.org/ubl/os-UBL-2.1/xsd/maindoc/UBL-Catalogue-2.1.xsd>

<http://docs.oasis-open.org/ubl/os-UBL-2.1/UBL-2.1.html#T-APPLICATION-RESPONSE>

Syntax validation is performed against these schemas.

9.5 ATTACHMENT 5 – SCHEMATRON FILES

Attachment 5 contains the schematron files being used in the validation of EHF Catalogue and Catalogue Response messages. These are based on business rules defined by CEN BII.

9.6 ATTACHMENT 6 – EXAMPLE FILES

Attachment 6 contains example messages.