

Definitions & Descriptions for XML and XSD

Seed Certification System (FCS)

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Scope

This document contains a description of all “known” parts of the XML exchange formats for the Seed Certification System (Frø Certificering Systemet, abbr. FCS) used by System-to-System.

The document is intended to be a “living document”, which will extend the description as more insight into the System is gained.

As a stating point, all changes to the individual XML specifications - in relation to external parties - must be done by adding “optional tags” in order to to impose development costs on the users. Anyway, legal demands or future “user driven” requirements can force a demand for implementing required XML tags.

The exchange of XML files is part of the System in a way so it builds on both “internal” exchanges within the system and “external” exchanges from/to external parties (customers). As such, it can be seen as a historic idea for extending the “system-to-system” functionality.

PRELIMINARY

General Provisions

Reading through this document a couple of prerequisites should be noted:

Filenames for exchange of system-to-system information **MUST** follow a general scheme:

- Only letters (uppercase, lowercase or mixed) from a-z - national characters are never allowed
- Digits (0-9)
- Dashes (“-”) and underscores (“_”) - only one occurrence between letters or digits, however repeated use is allowed when separated.

Extensions for files uploaded must be .xml or .XML

Hence, valid examples could be:

- DK_20180605-AVL.xml
- 4711-Avl-2018.XML
- TF_2018_Certif-001-002.XML

Similar, Invalid examples could be:

- DK__20180605-AVL.xml (two underscores in a row)
- 4711-Avl—2018.XML (two dashes in a row)
- TF__2018_Certif—001-002.XML (two dashes and two underscores in a row)

All decimal numbers must use a punctuation mark (.) as the decimal separator.

All occurrences of “Species” must use the Ident (in uppercase) as listed in the Guidelines. It is not allowed to use either National name, Latin (taxonomical) name or other name as identification. e.g. <tag>Malva sylvestris</tag> or <tag>Malva sp.</tag> must be identified as <tag>ALM-KATOST</tag>

Whenever there’s a need for adding species, the Guideline for Species will be updated accordingly.

All fixed “value-identifiers” for components, etc. must use the exact spelling and case as listed. We will strive to implement these in uppercase (only) in the future.

It’s the customers responsibility to assure, that a given Variety name is registered for the Species in question.

A special note on components (“Komponent” ~ Component) must be given:

- For components which consists of species names, these must apply to the Ident mentioned in the paragraph above.
- For components referring to “seed”, the component must be contained in the list from the Guideline ie having a valid Ident and referred to by that Ident.
- For components referring “non-seed” the correct value is <komponent>affald %</komponent> for any type of “Inert matter”.
 - At a later stage, Tystoftefonden may provide and maintain a list of allowed “non-species” related components.
 - At the same time it will no longer be allowed to combine components in a single XML-tag (eg. entries like <komponent>Broken seed; Pieces of stem; Chaff+Triticum aestivum L</komponent> needs to be broken up into 2 individual component tags <komponent>affald %</komponent> and <komponent>Triticum aestivum L</komponent>).

- For the above example given - in reality - we'll only accept the `<komponent>affald %</komponent>` and `<tag>HV</tag>`, where "Inert matter" refers to "non-seed" component and "HV" is the proper ident for *Triticum aestivum*.
- Special considerations must be taken for components listed for "SPIRING" (Germination). For these only the tags: `<komponent>Normale %</komponent>`, `<komponent>Hårde %</komponent>`, `<komponent>Friske %</komponent>`, `<komponent>Unormale %</komponent>` and `<komponent>Døde %</komponent>` (Normal, Hard, Fresh, Anormal and Dead) are allowed and required.
 - At a later stage, Tystoftefonden will implement "internationalisation" for these components, meaning:
 - ✓ `<komponent>Normale %</komponent>` will be replaced by `<komponent>NORMAL %</komponent>`
 - ✓ `<komponent>Hårde %</komponent>` will be replaced by `<komponent>HARD %</komponent>`
 - ✓ `<komponent>Friske %</komponent>` will be replaced by `<komponent>FRESH %</komponent>`
 - ✓ `<komponent>Unormale %</komponent>` will be replaced by `<komponent>ABNORMAL %</komponent>`
 - ✓ `<komponent>Døde %</komponent>` will be replaced by `<komponent>DEAD %</komponent>`
- Equally considerations must be done for components listed for "RENHED" (Purity). For these tags: `<komponent>rent frø %</komponent>`, `<komponent>affald %</komponent>`, `<komponent>frø af andre plantearter %</komponent>`, `<komponent>ukrudt %</komponent>`, `<komponent>kultur %</komponent>` and `<komponent>neddelt</komponent>` must be specified.
 - At a later stage, Tystoftefonden will implement "internationalisation" for these components, meaning:
 - ✓ `<komponent>rent frø %</komponent>` will be replaced by `<komponent>PURE SEEDS %</komponent>`
 - ✓ `<komponent>affald %</komponent>` will be replaced by `<komponent>INERT MATTER %</komponent>`
 - ✓ `<komponent>frø af andre plantearter %</komponent>` will be replaced by `<komponent>SEEDS FROM OTHER SPECIES %</komponent>`
 - ✓ `<komponent>ukrudt %</komponent>` will be replaced by `<komponent>WEED SEEDS %</komponent>`
 - ✓ `<komponent>kultur %</komponent>` will be replaced by `<komponent>CULTURE SEEDS %</komponent>`
 - ✓ `<komponent>neddelt</komponent>` will be replaced by `<komponent>DIVIDED AMOUNT</komponent>`
 - Components listed for "FLYVEHAVRE" (Wild Oat) the tags: `<komponent>FLY</komponent>` and `<komponent>neddelt</komponent>` should be used.

In General (while *currently* allowed, though) informations on different lots ("Partier") should be divided into individual XML-files.

Currently, we have no collected overview on how many parts of the exchange formats that are actually used by the individual, external users.

Moving on with the specifications, a natural part of this work will incorporate an investigation of this.

It should be noted - and stressed - that the current specification is inherited from both existing documentation (which is rather old - and outdated - as many changes have been made to the system, afterwards without changing the documentation) and investigation of the source code for the system. During the process we've found, that a lot of the apparently allowed values for a number of the stated XML-tags are no longer valid.

As an example the tag `<proevetype>` states the allowed values to be: "F-S", "F-K", "F-L", "F-U", "F-P", "F-O", "NONE", "F-KS", "F-US", "F-OS", "F-OO", "F-ON", "F-T", "F-F1", "F-F3", "F-VS", "F-BS", "F-V", "F-AU", "F-AT", "F-LT", "F-PT" even though only "F-AU" and "F-AT" are actually present to be validated in the source code and are hence, the only allowed values.

Unused XML-tags and -sections will be removed from the specification at a later stage.

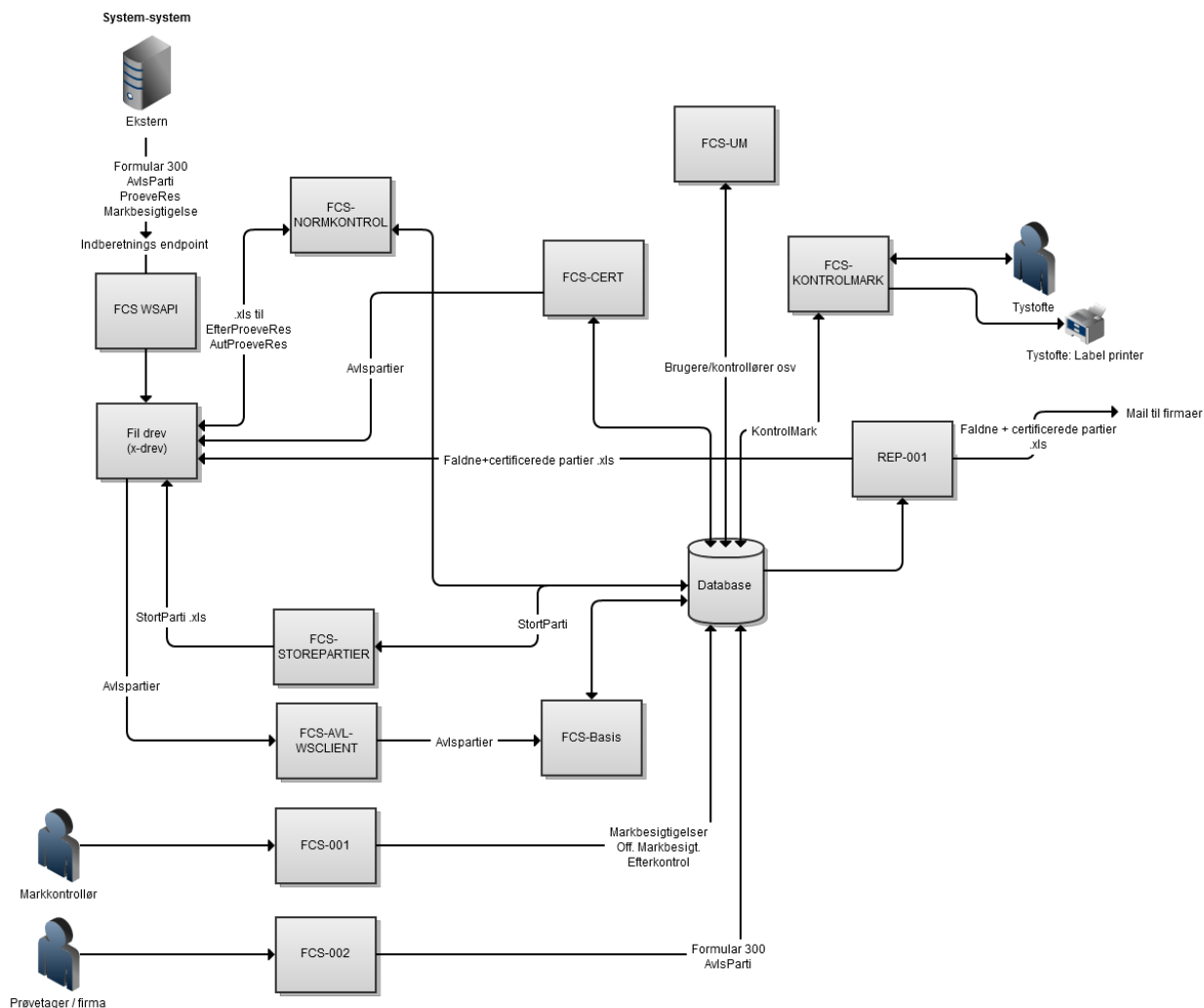
Whenever implementing or changing system-to-system transfers please make sure to do this in corporation with TystofteFonden.

Currently this Document is “a complete mess” of danish and english language - even for XML-tags and allowed values for these. This will change over time but for reasons of legacy implementations by the customers this will be a “slow process” where we’ll strive not to impose unneeded development costs for these.

PRELIMINARY

Flows

The drawing, below, depicts an overview of the “XML-life”.



XSD definitions (resources)

Location for source code files: "Sourcecode"/Grails/FCS-INTERN/FCS-WSAPI/web-app/WEB-INF/xsds/

TBD - Yderligere forklaring.

PRELIMINARY

globaltypes.xsd

Location: "Sourcecode"/Java/FCS-BASIS/src/main/resources/xsd/

Function: Additional datatypes defined for the XML-files

Data Structure (for non-standard Data types)

Type	Field	Data type	Pattern	Min. Length	Max. Length	Allow values
globaltypes	CVR	string	99999999	8	8	
	CVR-P	string	9999999999	10	10	
	kategori	string	-	-	-	"FM", "PB", "BA", "C1", "C2", "ID"
	proevetype	string	-	-	-	"F-AU", "F-AT"
	analysestype	string	-	-	-	"RENHED", "ANTAL", "FLYVEHAVRE", "SPIRING", "WATER"
	vaerdienhed	string	-	-	-	"GRAM", "PROCENT", "NONE"
	nonEmptyString	string	-	1	-	

PRELIMINARY

Source code:

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns="urn:dk:naturerhverv:fcs:indberetning"
  elementFormDefault="qualified"
  version="1.0"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  targetNamespace="urn:dk:naturerhverv:fcs:indberetning">
  <xs:simpleType name="CVR">
    <xs:restriction base='xs:string'>
      <xs:pattern value='[0-9]{8}' />
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="CVR-P">
    <xs:restriction base='xs:string'>
      <xs:pattern value='[0-9]{10}' />
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="kategori">
    <xs:restriction base="xs:string">
      <xs:enumeration value="FM" />
      <xs:enumeration value="PB" />
      <xs:enumeration value="BA" />
      <xs:enumeration value="C1" />
      <xs:enumeration value="C2" />
      <xs:enumeration value="ID" />
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="proevetype">
    <xs:restriction base="xs:string">
      <xs:enumeration value="F-AU" />
      <xs:enumeration value="F-AT" />
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="analysestype">
    <xs:restriction base="xs:string">
      <xs:enumeration value="RENHED" />
      <xs:enumeration value="ANTAL" />
      <xs:enumeration value="FLYVEHAVRE" />
      <xs:enumeration value="SPIRING" />
      <xs:enumeration value="WATER" />
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="vaerdienhed">
    <xs:restriction base="xs:string">
      <xs:enumeration value="GRAM" />
      <xs:enumeration value="PROCENT" />
      <xs:enumeration value="NONE" />
    </xs:restriction>
  </xs:simpleType>
  <xs:simpleType name="nonEmptyString">
    <xs:restriction base="xs:string">
      <xs:minLength value="1" />
      <xs:pattern value="(\s*[^\\s\\s]*)+" />
    </xs:restriction>
  </xs:simpleType>
</xs:schema>
```

Added 2020-01-13

Indberetning.xsd

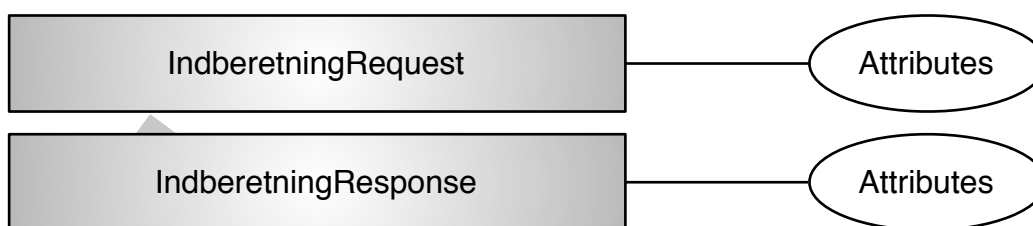
Location: "Sourcecode"/Grails/FCS-INTERN/FCS-WSAPI/web-app/WEB-INF/xsds/

Function: "Dispatcher" or "Wrapper" for (all) reporting of XML-files.

The IndberetningRequest will dispatch as follows:

If the Choice attribute "AvlsParti" is filled in, the Choice attribute "CVR" must be filled in and valid.

Topology:



Data Structure (for non-standard Data types marked with *), see *globaltypes.xsd* above):

Type	Field	Data type	Optional	Allowed values
IndberetningRequest	CVR	CVR (from globaltypes)	Choice	MinOccurs = 1, MaxOccurs = 1
	ISTACODE	string		
	SEKSYSID	string		
	AvlsParti	Entity (avlsParti)	Choice	MinOccurs = 1, MaxOccurs = 1
	Formular300	Entity (formular300)		
	AutoriseredeProeveResultater	Entity (autoriserede_proeve_resultater)		
	Markbesigtigelse	Entity (Markbesigtigelse)		
IndberetningResponse	status	string		

Source code:

```
<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns="urn:dk:naturerhverv:fcs:indberetning"
  elementFormDefault="qualified"
  version="1.0"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  targetNamespace="urn:dk:naturerhverv:fcs:indberetning">

  <xsd:include schemaLocation="globaltypes.xsd" />
  <xsd:include schemaLocation="avlsparti-schema.xsd" />
  <xsd:include schemaLocation="form300.xsd" />
  <xsd:include schemaLocation="autProeveRes.xsd" />
  <xsd:include schemaLocation="markbesigtigelse.xsd" />

  <xsd:element name="IndberetningRequest" >
    <xsd:complexType>
      <xsd:sequence>
        <xsd:choice>
          <xsd:element name="CVR" type="CVR" minOccurs="1" maxOccurs="1" />
          <xsd:element name="ISTACODE" type="xs:string" minOccurs="1" maxOccurs="1" />
          <xsd:element name="SEKSYSID" type="xs:string" minOccurs="1" maxOccurs="1" />
        </xsd:choice>
        <xsd:choice>
          <xsd:element name="AvlsParti" type="avlsParti" minOccurs="1" maxOccurs="1" />
          <xsd:element name="Formular300" type="formular300" minOccurs="1" maxOccurs="1" />
          <xsd:element name="AutoriseredeProeveResultater" type="autoriserede_proeve_resultater"
minOccurs="1" maxOccurs="1" />
          <xsd:element name="Markbesigtigelse" type="Markbesigtigelse" minOccurs="1" maxOccurs="1" />
        </xsd:choice>
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>

  <xsd:element name="IndberetningResponse">
    <xsd:complexType name="avlsparti-indberetning-response">
      <xsd:all>
        <xsd:element name="status" type="xs:string"/>
      </xsd:all>
    </xsd:complexType>
  </xsd:element>

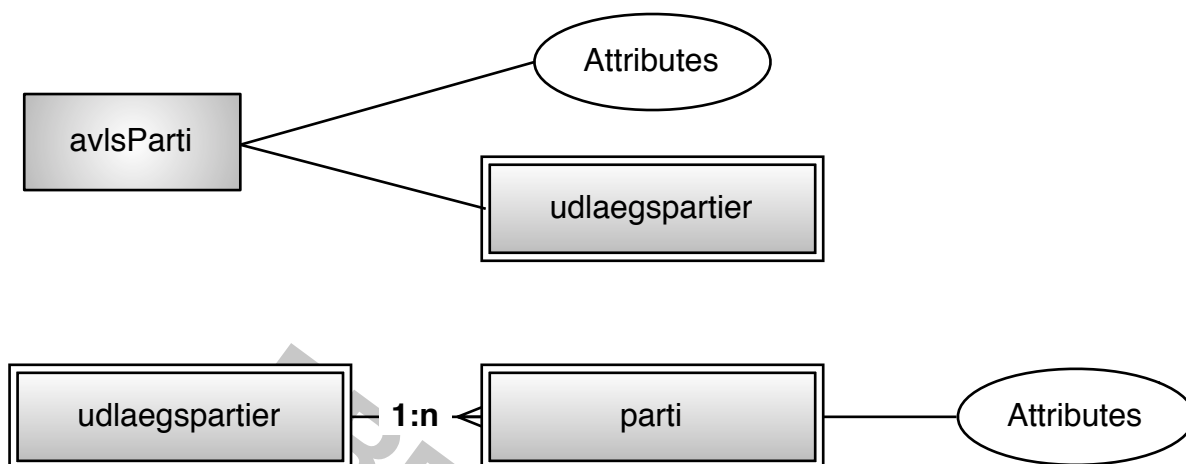
</xsd:schema>
```

avlsParti.xsd

Location: "Sourcecode"/Grails/FCS-INTERN/FCS-WSAPI/web-app/WEB-INF/xsds/

Function: System-to-system registration of Breeding lots ("Avlspartier").

Topology:



Data Structure (for non-standard Data types marked with *), see *globaltypes.xsd* above):

Type	Field	Data type	Optional	Allowed values
avlsParti	avlsParti	Entity	No	MinOccurs = 0, MaxOccurs = 1
avlsParti	parti	partirefnum *)		
	firma	sektorsysid *)		
	firmakontaktperson	string		
	avler	cvrnummer *)		
	avlerkontaktperson	string		
	hoestkategori	kategori *)		
	sort	string		
	art	string		
	kontraheretAreal	decimal		
	arealAdresse	string		
	anmeldelsesdato	date		
	udlaegsAar	gYear		
	hoestAar	gYear		
	hoestAarNr	int		
	bemaerkning	string		
	rekvireretOfficielBesigtigelse	boolean		
	oekologisk	boolean		
	autorisationsnummer	string		Must be numeric, if No number then "00000"
	udlaegspartier	indgaaendeMaengder *)		
udlaegspartier (avlsParti)	parti	Entity		
parti (udlaegsparti)	referencenummer	string		
	maengde	decimal		

Source code:

```
<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns="urn:dk:naturerhverv:fcs:indberetning"
  elementFormDefault="qualified"
  version="1.0"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  targetNamespace="urn:dk:naturerhverv:fcs:indberetning">
  <xs:include schemaLocation="globaltypes.xsd"/>
  <xs:complexType name="avlsParti">
    <xs:all>
      <xs:element name="parti" type="xs:string"/>
      <xs:element name="firma" type="xs:string"/>
      <xs:element name="firmakontaktperson" type="xs:string"/>
      <xs:element name="avler" type="CVR"/>
      <xs:element name="avlerkontaktperson" type="xs:string"/>
      <xs:element name="hoestkategori" type="kategori"/>
      <xs:element name="sort" type="xs:string"/>
      <xs:element name="art" type="xs:string"/>
      <xs:element name="kontraheretAreal" type="xs:decimal"/>
      <xs:element name="arealAdresse" type="xs:string"/>
      <xs:element name="anmeldelsesdato" type="xs:date"/>
      <xs:element name="udlaegsAar" type="xs:gYear"/>
      <xs:element name="hoestAar" type="xs:gYear"/>
      <xs:element name="hoestAarNr" type="xs:byte"/>
      <xs:element name="bemaerkning" type="xs:string" minOccurs="0"/>
      <xs:element name="rekvireretOfficielBesigtigelse" type="xs:boolean"/>
      <xs:element name="oekologisk" type="xs:boolean"/>
      <xs:element name="autorisationsnummer" type="xs:string" minOccurs="0"/>
      <xs:element name="udlaegspartier">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="parti" maxOccurs="unbounded" minOccurs="0">
              <xs:complexType>
                <xs:sequence>
                  <xs:element name="referencenummer" type="xs:string"/>
                  <xs:element name="maengde" type="xs:decimal"/>
                </xs:sequence>
              </xs:complexType>
            </xs:element>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
    </xs:all>
  </xs:complexType>
</xs:schema>
```

For registration of lots - AvlsParti (one XML-file per Lot):

<pre> <?xml version="1.0" encoding="utf-8"?> <IndberetningRequest xmlns="urn:dk:naturerhverv:fcs:indberetning" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"> <CVR>"CVR-no. of the reporting Entity"</CVR> <AvlsParti> <referencenummer>"Lot no."</referencenummer> <firma>"Your Company ID"</firma> <firmakontaktperson>"Contact"</firmakontaktperson> <avler>"CVR-no for the Breeder"</avler> <avlerkontaktperson>"Contact"</avlerkontaktperson> <hoestkategori>"Category"</hoestkategori> <sort>"Variety name"</sort> <art>"SpeciesID"</art> <kontraheretAreal>"Field Size"</kontraheretAreal> <arealAdresse>"Field Address"</arealAdresse> <anmeldelsesdato>"Date of reporting"</anmeldelsesdato> <udlaegsAar>"Year of sowing"</udlaegsAar> <hoestAar>"Harvest Year"</hoestAar> <hoestAarNr>"Rank of Harvest"</hoestAarNr> <bemaerkning>"Remarks"</bemaerkning> <rekvireretOfficielBesigtigelse>"Official Field Inspection"</rekvireretOfficielBesigtigelse> <oekologisk>"Ecological"</oekologisk> <autorisationsnummer>"Authorization no"</autorisationsnummer> <udlaegspartier> <parti> <referencenummer>"Lot1 no."</referencenummer> <maengde>"Amount kg"</maengde> </parti> <parti> <referencenummer>"Lot2 no."</referencenummer> <maengde>"Amount kg"</maengde> </parti> <parti> <referencenummer>"Lot3 no."</referencenummer> <mgd>"Amount kg"</mgd> </parti> </udlaegspartier> </AvlsParti> </IndberetningRequest> </pre>	<pre> # The Danish reg.no (VAT no) for the Reporting Company # Reporting Form is "AvlsParti" <avlsParti> Entity # Your Lot number # The CompanyID entitled to report "AvlsParti" # Your Company contact details # The Danish reg.no (VAT no) for the Breeder # Breeder contact details # Category for the seed (FM, PB, BA, C1, C2, etc) # Your reg. variety name # Ident(l) for species, eg RSV according to the Official List # Size of Breeding Field in hectares # Address of Breeding Field # Date for this reporting # Year when the crop is (or has been) sown # Year when the crop is (or will be) harvested # What Harvest Year (as a number ie 1,2,3,etc.) is reported # Any remarks for the Lot # If Off. Field Insp. is required (true or false) # Ecological seed (false or true) # If Ecological, the Auth. no. for the Breeder must be # Originating lot(s) / Lots used to actually sow in the Field # (Entity - XML-tag) - maybe many, but at least one (1) # Reference (<parti> Entity XML-tag) # Lot number for first (or only) Lot # Weight in kilos for the stated Lot # End of Entity <parti> # Optional more entities # End of Entity <udlaegspartier> # End of Entity <AvlsParti> </pre>
---	---

Please Note:

ALL XML tags must use the actual spelling (incl. uppercase/lowercase) and contain valid national character codes (if present).

ALL inserts, starting with # (a hashtag) are comments and **must** be left out of the actual XML-file.

ALL entries marked in **blue** (or **red**) colour **must** be present in any XML-file uploaded.

ALL entries marked in **red** colour **must** have the actual spelling (incl. uppercase/lowercase) and contain valid national character code(s).

ALL entries marked in **orange** colour **must** be present and use the actual spelling (uppercase/lowercase) and contain valid national character codes, whenever the type of Analysis is F-AU.

Entries marked in black colour **must** be present in any XML-file uploaded **if** more lots are used for the "AvlsParti"

The Official Guide, from the Danish Ministry of Agriculture, specifies the use of Species IDENT, which is a abbreviation/identifier for the Species.

These - while not, until now, being enforced - has been the ONLY valid identifiers for species for >10 Years.

Example for registration of a lot - AvlsParti:

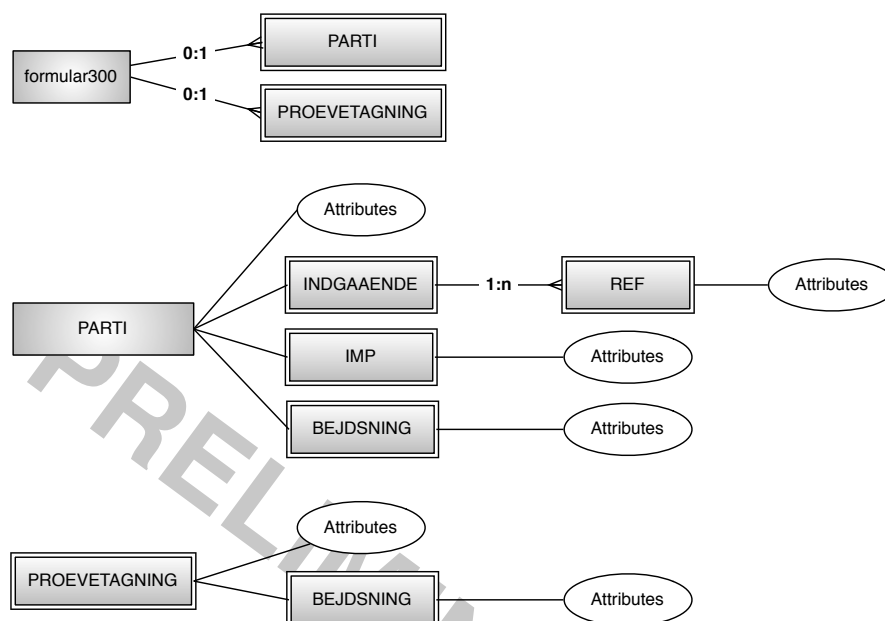
```
<?xml version="1.0" encoding="utf-8"?>
<IndberetningRequest xmlns="urn:dk:naturerhverv:fcs:indberetning" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <CVR>12345678</CVR>
  <AvlsParti>
    <parti>HEB-20191234</parti>
    <firma>HEB-REG</firma>
    <firmakontaktperson>Henrik Bønnerup</firmakontaktperson>
    <avler>11223344</avler>
    <avlerkontaktperson>Sigyn Valgrind, Tel.: +4511223344</avlerkontaktperson>
    <hoestkategori>C2</hoestkategori>
    <sort>HEB-Festuca</sort>
    <art>RSV</art>
    <kontraheretAreal>25.3</kontraheretAreal>
    <arealAdresse>Teglværksvej 10, 4230 Skælskør</arealAdresse>
    <anmeldelsesdato>2019-04-15</anmeldelsesdato>
    <udlaegsAar>2019</udlaegsAar>
    <hoestAar>2019</hoestAar>
    <hoestAarNr>1</hoestAarNr>
    <bemaerkning>The Field address is only more-or-less correct</bemaerkning>
    <rekvireretOfficielBesigtigelse>false</rekvireretOfficielBesigtigelse>
    <oekologisk>true</oekologisk>
    <autorisationsnummer>DK-AUTH-NO-4711</autorisationsnummer>
    <udlaegspartier>
      <parti>
        <referencenummer>19HB1001</referencenummer>
        <maengde>9000</maengde>
      </parti>
      <parti>
        <referencenummer>19HB1002</referencenummer>
        <maengde>1200</maengde>
      </parti>
      <parti>
        <referencenummer>19HB1003</referencenummer>
        <maengde>400</maengde>
      </parti>
    </udlaegspartier>
  </AvlsParti>
</IndberetningRequest>
```

formular300.xsd

Location: "Sourcecode"/Grails/FCS-INTERN/FCS-WSAPI/web-app/WEB-INF/xsds/

Function: XML based import of informations on lots ("partier") and/or samples taken ("prøvetagning").

Topology:



When reporting a Lot ("PARTI") one of the choices "INDGAAENDE" (from lot(s)), "IMP" (from imported lot(s)) or "BEJDSNING" (Seed Dressing) *must* be included.

When reporting "PROEVETAGNING" (Sample Taking), the Entity "BEJDSNING" (Seed Dressing) is optional.

It's possible to report a combination of "PARTI" and "PROEVETAGNING" in the same XML-file.

Data Structure (for non-standard Data types marked with *), see *globaltypes.xsd* above):

Type	Field	Data type	Optional	Allowed values
formular300	PARTI	Entity	Yes	
	PROEVETAGNING	Entity	Yes	
PARTI (Formular300)	referencenummer	string		Lot no
	firma	CVR-P *)	No	Company, Danish Prod. no.
	kategori	kategori *)	No	Category
	art	string	No	Species Ident(!) from the Official List
	sort	string	No	Variety
	oekologisk	boolean	No	true or false
	bemaerkning	string	No	Remarks
	kontroldyrkning	boolean	No	true or false
	kmSted	string	Yes	"DK_TYS" (default, if not specified) or "UDLAND"
	debitor	string	Yes	Only digits allowed, max. length 10
	INDGAAENDE	Entity	Yes	MinOccurs = 0, MaxOccurs = 1
	IMP	Entity	Yes	MinOccurs = 0, MaxOccurs = 1
	BEJDSNING	Entity	Yes	MinOccurs = 0, MaxOccurs = 1
REF (INDGAAENDE)	nummer	string	No	Existing certified(!) Lot. no
	mgd	integer	No	Amount in kilos
IMP (PARTI)	udenlandskref	string	No	Foreign Lot no
	importland	string	No	Imported from Country
BEJDSNING (PARTI)	bejdsemiddel	string	No	Seed Dressing - Substance
	dosering	decimal	No	Dose
PROEVETAGNING (Formular300)	referencenummer	string	Yes	Lot no for an existing(!) Lot
	antalkglalt	integer	No	Amount i kilos
	enheder	integer	No	No. of units
	formular	string	No	"60","64","65","66","67","70","71","72","84","85","86","87","88C","94","95","96","97","98C"
	proevetager	string	Yes	MinOccurs = 0, MaxOccurs = 1
	dato	date	No	YYYY-MM-DD
	metode	string	No	"AUTOMATISK", "MANUEL"
	analyseret	string	No	"AUT_DK_LAB", "AUT_UDL_LAB", "OFF_UDL_LAB"
	bemaerkning	string	Yes	Remarks
	BEJDSNING	Entity	Yes	MinOccurs = 0, MaxOccurs = 1
BEJDSNING (PROEVETAGNING)	pfoeb	boolean		true or false

Source code:

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns="urn:dk:naturerhverv:fcs:indberetning"
  elementFormDefault="qualified"
  version="1.0"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType name="formular300">
    <xs:sequence>
      <xs:element name="PARTI" type="PARTI" minOccurs="0" maxOccurs="1"/>
      <xs:element name="PROEVETAGNING" type="PROEVETAGNING" minOccurs="0" maxOccurs="1"/>
    </xs:sequence>
  </xs:complexType>
  <xs:complexType name="PARTI">
    <xs:sequence>
      <xs:element name="referencenummer" type="xs:string" />
      <xs:element name="firma" type="CVR-P" />
      <xs:element name="kategori" type="kategori" />
      <xs:element name="art" type="xs:string" />
      <xs:element name="sort" type="xs:string" />
      <xs:element name="oekologisk" type="xs:boolean" />
      <xs:element name="bemaerkning" type="xs:string" />
      <xs:element name="kontroldyrkning" type="xs:boolean" />
      <xs:element name="kmSted" minOccurs="0" maxOccurs="1">
        <xs:simpleType>
          <xs:restriction base="xs:string">
            <xs:enumeration value="DK_TYS"/>
            <xs:enumeration value="UDLAND"/>
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="debitor" minOccurs="0" maxOccurs="1">
        <xs:simpleType>
          <xs:restriction base="xs:string">
            <xs:pattern value="s*|[0-9]{10}" />
          </xs:restriction>
        </xs:simpleType>
      </xs:element>
      <xs:element name="INDGAAENDE" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:element maxOccurs="unbounded" name="REF">
              <xs:complexType>
                <xs:sequence>
                  <xs:element name="nummer" type="xs:string" />
                  <xs:element name="mgd" type="xs:int" />
                </xs:sequence>
              </xs:complexType>
            </xs:element>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="IMP" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="udenlandskRef" type="xs:string" />
            <xs:element name="importland" type="xs:string" />
          </xs:sequence>
        </xs:complexType>
      </xs:element>
      <xs:element name="BEJDSNING" minOccurs="0" maxOccurs="1">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="bejdsemiddel" type="xs:string" />
            <xs:element name="dosering" type="xs:decimal" />
          </xs:sequence>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:schema>
```

- continues on next page

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```

<xs:complexType name="PROEVETAGNING">
  <xs:sequence>
    <xs:element name="referencenummer" type="xs:string" />
    <xs:element name="antalKgIalt" type="xs:int" />
    <xs:element name="enheder" type="xs:int" />
    <xs:element name="formular">
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:enumeration value="64"/>
          <xs:enumeration value="65"/>
          <xs:enumeration value="66"/>
          <xs:enumeration value="67"/>
          <xs:enumeration value="94"/>
          <xs:enumeration value="95"/>
          <xs:enumeration value="96"/>
          <xs:enumeration value="97"/>
          <xs:enumeration value="84"/>
          <xs:enumeration value="85"/>
          <xs:enumeration value="86"/>
          <xs:enumeration value="87"/>
          <xs:enumeration value="71"/>
          <xs:enumeration value="70"/>
          <xs:enumeration value="88C"/>
          <xs:enumeration value="60"/>
          <xs:enumeration value="72"/>
          <xs:enumeration value="98C"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="proevetager" type="xs:string" minOccurs="0" maxOccurs="1" />
    <xs:element name="dato" type="xs:date" />
    <xs:element name="metode">
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:enumeration value="Automatisk"/>
          <xs:enumeration value="Manuel"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="analyseret">
      <xs:simpleType>
        <xs:restriction base="xs:string">
          <xs:enumeration value="AUT_DK_LAB"/>
          <xs:enumeration value="OFF_UDL_LAB"/>
          <xs:enumeration value="AUT_UDL_LAB"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
    <xs:element name="bemaerkning" type="xs:string" />
    <xs:element name="BEJDSNING" minOccurs="0" maxOccurs="1">
      <xs:complexType>
        <xs:sequence>
          <xs:element name="pfoeb" type="xs:boolean" />
        </xs:sequence>
      </xs:complexType>
    </xs:element>
  </xs:sequence>
</xs:complexType>
</xs:schema>

```

For registration of lots (one XML-file per Lot):

```
<?xml version="1.0" encoding="utf-8"?>
<IndberetningRequest xmlns="urn:dk:naturerhverv:fcs:indberetning" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <CVR>"CVR-no. of the reporting Entity"</CVR>
  <Formular300>
    <PARTI>
      <referencenummer>"Lotno."</referencenummer>
      <firma>"Your Company regno"</firma>
      <kategori>"Category"</kategori>
      <art>"SpeciesID"</art>
      <sort>"Variety name"</sort>
      <oekologisk>"Ecological"</oekologisk>
      <bemaerkning>"Remarks"</bemaerkning>
      <kontrol dyrkning>"Breeding in Control Field"</kontrol dyrkning>
      <INDGAAENDE>
        <REF>
          <nummer>"Lot1 no."</nummer>
          <mgd>"Amount kg"</mgd>
        </REF>
        <REF>
          <nummer>"Lot2 no."</nummer>
          <mgd>"Amount kg"</mgd>
        </REF>
        <REF>
          <nummer>"Lot3 no."</nummer>
          <mgd>"Amount kg"</mgd>
        </REF>
        <REF>
          <nummer>"Lot4 no."</nummer>
          <mgd>"Amount kg"</mgd>
        </REF>
      </INDGAAENDE>
    </PARTI>
  </Formular300>
</IndberetningRequest>
```

The Danish reg.no (VAT no) for the Reporting Company
 # Reporting Form is "Formular 300" <Formular300> Entity
 # Lot information (Entity <PARTI> - XML-tag)
 # Your Lot number
 # Probably 1015082069 for Barenbrug
 # Category for the seed (FM, PB, C1, C2, etc)
 # Ident(!) for species, eg RSV according to the Official List
 # Your reg. variety name
 # Ecological seed (false or true)
 # Any remarks for the Lot
 # Breeding in Control Field (false or true)
 # Originating lot(s) / Lots used to actually sow in the Field
 # (Entity - XML-tag) - maybe many, but at least one (1)
 # Reference (Entity <REF> XML-tag)
 # Lot number for first (or only) Lot
 # Weight in kilos for the stated Lot
 # End of Entity <REF>
 # Optional more entities
 # End of Entity <INDGAAENDE>
 # End of Entity <PARTI>
 # End of Entity <Formular300>

For registration of Sample Taking (one XML-file per Lot):

```
<?xml version="1.0" encoding="utf-8"?>
<IndberetningRequest xmlns="urn:dk:naturerhverv:fcs:indberetning" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <CVR>"CVR-no. of the reporting Entity"</CVR>
  <Formular300>
    <PROEVETAGNING>
      <referencenummer>"Lotno."</referencenummer>
      <antalKglalt>"Amount kg"</antalKglalt>
      <enheder>"No. of units"</enheder>
      <formular>"Form type used"</formular>
      <proevetager>"Auth. sample taker"</proevetager>
      <dato>"Date for sample taken"</dato>
      <metode>"Sampling method"</metode>
      <analyseret>"Analyzed by Lab."</analyseret>
      <bemaerkning>"Remarks"</bemaerkning>
    </PROEVETAGNING>
  </Formular300>
</IndberetningRequest>
```

The Danish reg.no (VAT no) for the Reporting Company
 # Reporting Form is "Formular 300" <Formular300> Entity
 # Sample taking (Entity - XML-tag)
 # Your Lot number
 # Total weight of the Lot in kilos.
 # No. of Colli used for packing
 # Probably 96 (adjust to the actual Form used)
 # The ID for the Sample taker
 # YYYY-MM-DD (when the sample was taken)
 # Manuel or Automatisk (Manual or Automatic)
 # Probably AUT_UDL_LAB but can be AUT_DK_LAB
 # Any remarks on Sample taking
 # End of Entity <PROEVETAGNING>
 # End of Entity <Formular300>

For registration of a Lot and a Sample (Combined):

```

<?xml version="1.0" encoding="utf-8"?>
<IndberetningRequest xmlns="urn:dk:naturerhverv:fcs:indberetning" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <CVR>"CVR-no. of the reporting Entity"</CVR>
  <Formular300>
    <PARTI>
      <referencenummer>"Lotno."</referencenummer>
      <firma>"Your Company regno"</firma>
      <kategori>"Category"</kategori>
      <art>"SpeciesID"</art>
      <sort>"Variety name"</sort>
      <oekologisk>"Ecological"</oekologisk>
      <bemaerkning>"Remarks"</bemaerkning>
      <kontroldyrkning>"Breeding in Control Field"</kontroldyrkning>
      <INDGAAENDE>
        <REF>
          <number>"Lot1 no."</number>
          <mgd>"Amount kg"</mgd>
        </REF>
        <REF>
          <number>"Lot2 no."</number>
          <mgd>"Amount kg"</mgd>
        </REF>
        <REF>
          <number>"Lot3 no."</number>
          <mgd>"Amount kg"</mgd>
        </REF>
        <REF>
          <number>"Lot4 no."</number>
          <mgd>"Amount kg"</mgd>
        </REF>
      </INDGAAENDE>
    </PARTI>
    <PROEVETAGNING>
      <referencenummer>"Lotno."</referencenummer>
      <antalKglalt>"Amount kg"</antalKglalt>
      <enheder>"No. of units"</enheder>
      <formular>"Form type used"</formular>
      <proevetager>"Auth. sample taker"</proevetager>
      <dato>"Date for sample taken"</dato>
      <metode>"Sampling method"</metode>
      <analyseret>"Analyzed by Lab."</analyseret>
      <bemaerkning>"Remarks"</bemaerkning>
    </PROEVETAGNING>
  </Formular300>
</IndberetningRequest>

```

The Danish reg.no (VAT no) for the Reporting Company
 # Reporting Form is "Formular 300" <Formular300> Entity
 # Lot information (Entity <PARTI> - XML-tag)
 # Your Lot number
 # Probably 1015082069 for Barenbrug
 # Category for the seed (FM, PB, C1, C2, etc)
 # Ident(!) for species, eg RSV according to the Official List
 # Your reg. variety name
 # Ecological seed (false or true)
 # Any remarks for the Lot
 # Breeding in Control Field (false or true)
 # Originating lot(s) / Lots used to actually sow in the Field
 # (Entity - XML-tag) - maybe many, but at least one (1)
 # Reference (Entity <REF> XML-tag)
 # Lot number for first (or only) Lot
 # Weight in kilos for the stated Lot
 # End of Entity <REF>
 # Optional more entities
 # End of Entity <INDGAAENDE>
 # End of Entity <PARTI>
 # Sample taking (Entity - XML-tag)
 # Your Lot number
 # Total weight of the Lot in kilos.
 # No. of Colli used for packing
 # Probably 96 (adjust to the actual Form used)
 # The ID for the Sample taker
 # YYYY-MM-DD (when the sample was taken)
 # Manuel or Automatisk (Manual or Automatic)
 # Probably AUT_UDL_LAB but can be AUT_DK_LAB
 # Any remarks on Sample taking
 # End of Entity <PROEVETAGNING>
 # End of Entity <Formular300>

Please Note:

ALL XML tags **must** use the actual spelling (incl. uppercase/lowercase) and contain valid national character codes (if present) as in the Source Code.

ALL inserts, starting with # (a hashtag) are comments and **must** be left out of the actual XML-file.

ALL entries marked in blue (or red) colour **must** be present in any XML-file uploaded.

ALL entries marked in red colour **must** have the actual spelling (incl. uppercase/lowercase) and contain valid national character code(s).

ALL entries marked in orange colour **must** be present and use the actual spelling (uppercase/lowercase) and contain valid national character codes, whenever the type of Analysis is F-AU.

Entries marked in black colour **must** be present in any XML-file uploaded **if** observations of components are made during the Laboratory tests. The depicted components are **only examples** more (less) - or other types - should be added if found during testings.

The Official Guide, from the Danish Ministry of Agriculture, specifies the use of Species IDENT, which is a abbreviation/identifier for the Species.

This - while not being enforced for Spreadsheet reporting - has been the ONLY valid identifiers for species for >10 Years.

EXAMPLE for Registration of a Lot (using Formular300)

```
<?xml version="1.0" encoding="utf-8"?>
<IndberetningRequest xmlns="urn:dk:naturerhverv:fcs:indberetning" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <CVR>12345678</CVR>
  <Formular300>
    <PARTI>
      <referencenummer>HENRIK-20191234</referencenummer>
      <firma>9988776655</firma>
      <kategori>C1</kategori>
      <art>RSV</art>
      <sort>HEN-Festuca</sort>
      <oekologisk>>false</oekologisk>
      <bemaerkning></bemaerkning>
      <kontroldyrkning>>true</kontroldyrkning>
      <INDGAAENDE>
        <REF>
          <nummer>USPEC</nummer>
          <mgd>1234</mgd>
        </REF>
      </INDGAAENDE>
      <IMP>
        <udenlandskRef>Henrik-Tysk-Lot1</udenlandskRef>
        <importland>TYSKLAND</importland>
      </IMP>
    </PARTI>
  </Formular300>
</IndberetningRequest>
```

PRELIMINARY

EXAMPLE for Registration of an IMPORT Lot (using Formular300 - Combined)

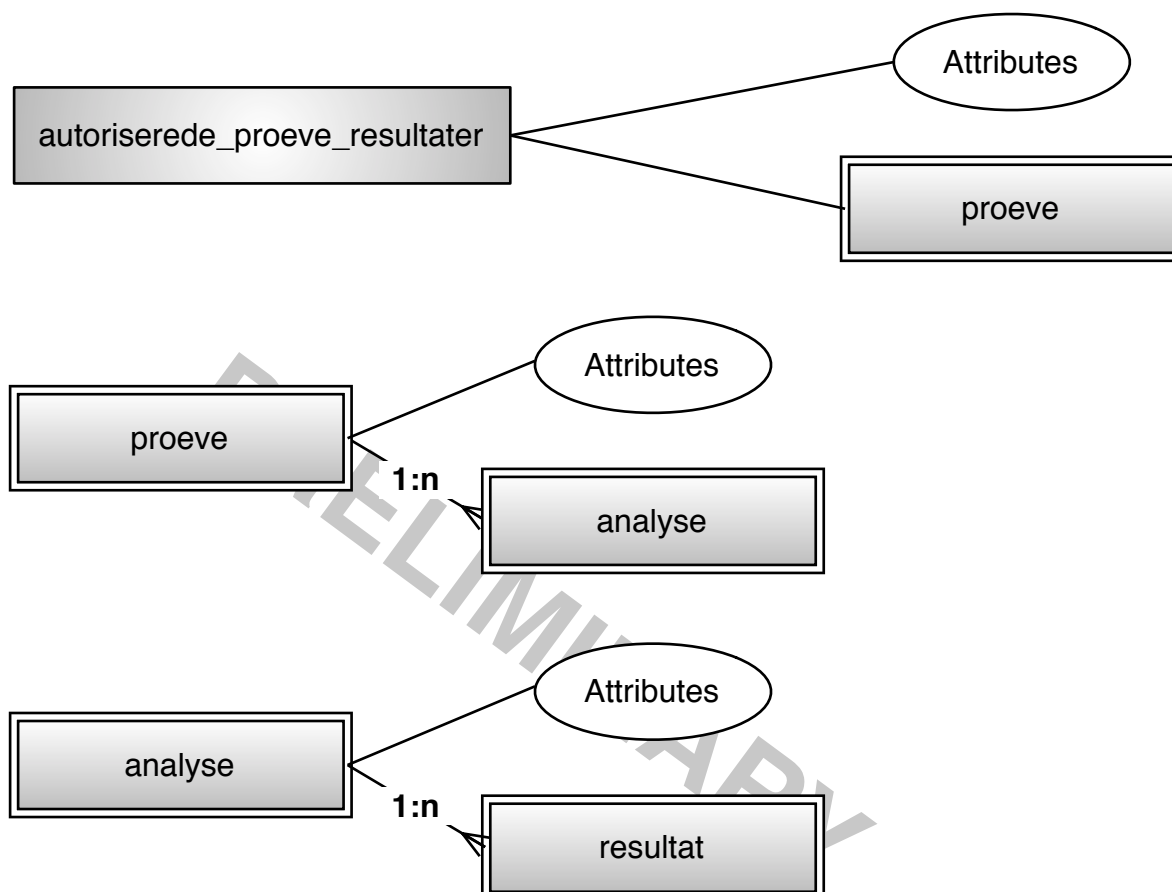
```
<?xml version="1.0" encoding="utf-8"?>
<IndberetningRequest xmlns="urn:dk:naturerhverv:fcs:indberetning" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <CVR>12345678</CVR>
  <Formular300>
    <PARTI>
      <referencenummer>HENRIK-20191234</referencenummer>
      <firma>9988776655</firma>
      <kategori>C1</kategori>
      <art>RSV</art>
      <sort>HEN-Festuca</sort>
      <oekologisk>false</oekologisk>
      <bemaerkning></bemaerkning>
      <kontrolldyrkning>true</kontrolldyrkning>
      <INDGAAENDE>
        <REF>
          <nummer>Henrik-Lot1</nummer>
          <mgd>1234</mgd>
        </REF>
        <REF>
          <nummer>Henrik-Lot2</nummer>
          <mgd>2345</mgd>
        </REF>
        <REF>
          <nummer>Henrik-Lot3</nummer>
          <mgd>3456</mgd>
        </REF>
      </INDGAAENDE>
    </PARTI>
    <PROEVETAGNING>
      <referencenummer>HENRIK-20191234</referencenummer>
      <antalkglalt>9999</antalkglalt>
      <enheder>7</enheder>
      <formular>96</formular>
      <proevetager>016</proevetager>
      <dato>2019-01-14</dato>
      <metode>Automatisk</metode>
      <analyseret>AUT_UDL_LAB</analyseret>
      <bemaerkning></bemaerkning>
    </PROEVETAGNING>
  </Formular300>
</IndberetningRequest>
```

autProeveRes.xsd

Location: "Sourcecode"/Grails/FCS-INTERN/FCS-WSAPI/web-app/WEB-INF/xsds/

Function: XML based import of informations laboratory results for lots ("partier").

Topology:



Data Structure (for non-standard Data types marked with *), see *globaltypes.xsd* below):

Type	Field	Data type	Optional	Allowed values / Remarks
AutoriseredeProeveResultat er	parti	string	No	
	cvrn	string	No	CVR-number for the "Lot-owner"
	proeve	Entity	No	
proeve (AutoriseredeProeveResultat er)	id	string	No	Not used for anything but identification
	seksysid	string	No	"SEKTORSYSID" for the reporting Laboratory
	proevetype	proevetype *)	No	"F-AU" Full analysis or "F-AT" Germination only
	provetagningsdato	string	No	
	analyse	Entity	No	While it's (formally) possible to omit this, the reporting doesn't make any sense if left out
analyse (proeve)	id	string	No	
	analysetype	analysetype *)	No	
	afslutdato	string	No	
	resultat	Entity	Yes	
resultat (analyse)	komponent	nonEmptyString *)	No	
	vaerdienhed	vaerdienhed *)	No	
	talvaerdi	decimal	No	

Source code:

```
<?xml version="1.0" encoding="utf-8"?>
<xs:schema xmlns="urn:dk:naturerhverv:fcs:indberetning"
  elementFormDefault="qualified"
  version="1.0"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType name="AutoriseredeProeveResultater">
    <xs:sequence>
      <xs:element name="parti" type="xs:string"/>
      <xs:element name="cvrnr" type="xs:string"/>
      <xs:element name="proeve">
        <xs:complexType>
          <xs:sequence>
            <xs:element name="id" type="xs:string"/>
            <xs:element name="seksysid" type="xs:string"/>
            <xs:element name="proevetype" type="proevetype"/>
            <xs:element name="provetagningsdato" type="xs:string"/>
            <xs:element name="analyse" maxOccurs="unbounded" minOccurs="0">
              <xs:complexType>
                <xs:sequence>
                  <xs:element name="id" type="xs:string"/>
                  <xs:element name="analysetype" type="analysetype"/>
                  <xs:element name="afslutdato" type="xs:string"/>
                  <xs:element name="resultat" maxOccurs="unbounded" minOccurs="0">
                    <xs:complexType>
                      <xs:sequence>
                        <xs:element name="komponent" type="nonEmptyString"/>
                        <xs:element name="vaerdienhed" type="vaerdienhed"/>
                        <xs:element name="talvaerdi" type="xs:decimal"/>
                      </xs:sequence>
                    </xs:complexType>
                  </xs:element>
                </xs:sequence>
              </xs:complexType>
            </xs:element>
          </xs:sequence>
        </xs:complexType>
      </xs:element>
    </xs:sequence>
  </xs:complexType>
</xs:schema>
```

For registration of laboratory results (one XML-file per Lot):

```
<?xml version="1.0" encoding="utf-8" standalone="yes"?>
<IndberetningRequest xmlns="urn:dk:naturerhverv:fcs:indberetning" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <CVR>"CVR-no. of the reporting Entity"</CVR> # The Danish reg.no (VAT no) for the Reporting Company
  <AutoriseredeProeveResultater> # Laboratory results (Entity - XML-tag)
    <parti>"Lot no."</parti> # Your Lot number
    <cvrnr>12345678</cvrnr> # CVR number for Company "owning" the stated Lot
    <proeve> # Sample (Entity XML-tag)
      <id>"Lab. ID"</id> # Laboratory ID for the Testing Laboratory
      <seksysid>"SektorsysID"</seksysid> # Your "SektorsysID" for the Laboratory (If you don't know we'll provide the details)
      <proevetype>"F-AU / F-AT"</proevetype> # "F-AU" for "Full analysis"
      # "F-AT" for "Prolongations of Validity for a seed" according to the Official Guide
    <provetagningsdato>"Date for sample taking"</provetagningsdato> # Date, when the sample was taken (YYYY-MM-DD)
```

— Continued in next Text Box —

The section below must always be present in any XML-file uploaded when Analysis type is F-AU

```
<analyse>
  <id>"Analysis ID"</id> # Analysis ID for Purity - Required for "F-AU" only
  <analysetype>RENHED</analysetype> # Purity analysis
  <afslutdato>"Ending Date"</afslutdato> # Analysis ended on Date (YYYY-MM-DD)
  <resultat>
    <komponent>neddelt</komponent> # "Divided down"
    <vaerdienhed>GRAM</vaerdienhed> # "Grammes"
    <talvaerdi>"Amount"</talvaerdi> # "Amount in grammes"
  </resultat>
  <resultat>
    <komponent>rent frø %</komponent> # Result for the specified Component (Entity - XML-tag)
    <vaerdienhed>PROCENT</vaerdienhed> # "Pure seed %"
    <talvaerdi>"Amount"</talvaerdi> # "Percentage"
  </resultat>
  <resultat>
    <komponent>affald %</komponent> # "Waste %"
    <vaerdienhed>PROCENT</vaerdienhed> # "Percentage"
    <talvaerdi>"Amount"</talvaerdi> # "Amount in pct."
  </resultat>
  <resultat>
    <komponent>frø af andre plantearter %</komponent> # "Seeds from other species %"
    <vaerdienhed>PROCENT</vaerdienhed> # "Percentage"
    <talvaerdi>"Amount"</talvaerdi> # "Amount in pct."
  </resultat>
  <resultat>
    <komponent>ukrudt %</komponent> # "Weed %"
    <vaerdienhed>PROCENT</vaerdienhed> # "Percentage"
    <talvaerdi>"Amount"</talvaerdi> # "Amount in pct."
  </resultat>
  <resultat>
    <komponent>kultur %</komponent> # "Cultural %"
    <vaerdienhed>PROCENT</vaerdienhed> # "Percentage"
    <talvaerdi>"Amount"</talvaerdi> # "Amount in pct."
  </resultat>
```

EXAMPLE of what *could* be inserted (all observations must be stated !):

```
<resultat>
  <komponent>ENÅRP</komponent> # "Poa annua"
  <vaerdienhed>PROCENT</vaerdienhed> # "Grammes"
  <talvaerdi>"Amount"</talvaerdi> # "Amount in pct."
</resultat>
<resultat>
  <komponent>ARÆV</komponent> # "Alopecurus myosuroides"
  <vaerdienhed>PROCENT</vaerdienhed> # "Grammes"
  <talvaerdi>"Amount"</talvaerdi> # "Amount in pct."
</resultat>
<resultat>
  <komponent>KVIK</komponent> # "Elytrigia repens"
  <vaerdienhed>PROCENT</vaerdienhed> # "Grammes"
  <talvaerdi>"Amount"</talvaerdi> # "Amount in pct."
</resultat>
<resultat>
  <komponent>SSY</komponent> # "Rumex sp. non R. acetosella et R. maritimus"
  <vaerdienhed>PROCENT</vaerdienhed> # "Grammes"
  <talvaerdi>"Amount"</talvaerdi> # "Amount in pct."
</resultat>
<resultat>
  <komponent>VÆSELH</komponent> # "Vulpia sp."
  <vaerdienhed>PROCENT</vaerdienhed> # "Grammes"
  <talvaerdi>"Amount"</talvaerdi> # "Amount in pct."
</resultat>
etc.
```

</analyse>

— Continued in next Text Box —

The section below must always be present in any XML-file uploaded when Analysis type is F-AU

```

<analyse>
  <id>"Analysis ID"</id>
  # Here (all) the relevant results for the Count Analysis by Species IDENT(!) MUST be added (According to the Official Guide).
  <analysetype>ANTAL</analysetype>
  <afslutdato>"Ending Date"</afslutdato>
  <resultat>
    <komponent>neddelt</komponent>
    <vaerdienhed>GRAM</vaerdienhed>
    <talvaerdi>"Amount"</talvaerdi>
  </resultat>

```

Analysis (Entity - XML-tag)
Your ID for the Analysis
"Count Analysis" - Required for "F-AU" only
Analysis ended on Date (YYYY-MM-DD)
Result for the specified Component (Entity - XML-tag)
Component specified (here "Divided down")
Unit for the stated Value (here "Grammes")
Value (in the stated Unit) for the Component "Amount in grammes"

EXAMPLE of what could be inserted (all observations must be stated !):

```

<resultat>
  <komponent>FLY</komponent>
  <vaerdienhed>NONE</vaerdienhed>
  <talvaerdi>"Count"</talvaerdi>
</resultat>
<resultat>
  <komponent>ENÅRP</komponent>
  <vaerdienhed>NONE</vaerdienhed>
  <talvaerdi>"Count"</talvaerdi>
</resultat>
<resultat>
  <komponent>ARÆV</komponent>
  <vaerdienhed>NONE</vaerdienhed>
  <talvaerdi>"Count"</talvaerdi>
</resultat>
<resultat>
  <komponent>KVIK</komponent>
  <vaerdienhed>NONE</vaerdienhed>
  <talvaerdi>"Count"</talvaerdi>
</resultat>
<resultat>
  <komponent>SSY</komponent>
  <vaerdienhed>NONE</vaerdienhed>
  <talvaerdi>"Count"</talvaerdi>
</resultat>
<resultat>
  <komponent>VÆSELH</komponent>
  <vaerdienhed>NONE</vaerdienhed>
  <talvaerdi>"Count"</talvaerdi>
</resultat>
etc.
</analyse>

```

"Avena fatua"
"Next XML-tag specifies an actual value"
"The actual seed count"
"Poa annua"
"Next XML-tag specifies an actual value"
"The actual seed count"
"Alopecurus myosuroides"
"Next XML-tag specifies an actual value"
"The actual seed count"
"Elytrigia repens"
"Next XML-tag specifies an actual value"
"The actual seed count"
"Rumex sp. non R.acetosella et R.maritimus"
"Next XML-tag specifies an actual value"
"The actual seed count"
"Vulpia sp."
"Next XML-tag specifies an actual value"
"The actual seed count"

-- Continued in next Text Box --

The section below must always be present in any XML-file uploaded when Analysis type is F-AU

```

<analyse>
  <id>"Analysis ID"</id>
  <analysetype>FLYVEHAVRE</analysetype>
  <afslutdato>"Ending Date"</afslutdato>
  <resultat>
    <komponent>neddelt</komponent>
    <vaerdienhed>GRAM</vaerdienhed>
    <talvaerdi>"Amount"</talvaerdi>
  </resultat>
  <resultat>
    <komponent>FLY</komponent>
    <vaerdienhed>NONE</vaerdienhed>
    <talvaerdi>"Count"</talvaerdi>
  </resultat>
</analyse>

```

Analysis ID for Avena fatua analysis - Required for "F-AU" only
"Avena fatua"
Analysis ended on Date (YYYY-MM-DD)
Result for the specified Component (Entity - XML-tag)
Component specified (here "Divided down")
Unit for the stated Value (here "Grammes")
Value (in the stated Unit) for the Component "Amount in grammes"
"Avena fatua"
"Next XML-tag specifies an actual value"
"The actual seed count"

-- Continued in next Text Box --

The section below must always be present in any XML-file uploaded when Analysis type is F-AU and Crop is Beets

```

<analyse>
  <id>"Analysis ID"</id>
  <analysetype>WATER</analysetype>
  <afslutdato>"Ending Date"</afslutdato>
  <resultat>
    <komponent>watercontent</komponent>
    <vaerdienhed>PROCENT</vaerdienhed>
    <talvaerdi>"Amount"</talvaerdi>
  </resultat>
</analyse>

```

Analysis ID for Water Content analysis - Required for "F-AU" only
Water (Content)
Analysis ended on Date (YYYY-MM-DD)
Result for the specified Component (Entity - XML-tag)
Component specified - always "watercontent" (water)
Unit for the stated Value , always "PROCENT" (percentage)
Value (in the stated Unit) for the Component "Amount in percent"

-- Continued in next Text Box --

```

# The section below must always be present in any XML-file uploaded
<analyse>
  <id>"Analysis ID"</id> # Analysis ID for Germination - Required BOTH for "F-AU" and "F-AT"
  <analysetype>SPIRING</analysetype> # "Germination"
  <afslutdato>"Ending Date"</afslutdato> # Analysis ended on Date (YYYY-MM-DD)
  <resultat>
    <komponent>Normale %</komponent> # "Normal seeds %"
    <vaerdienhed>PROCENT</vaerdienhed> # "Percentage"
    <talvaerdi>"Amount"</talvaerdi> # "Amount in pct."
  </resultat>
  <resultat>
    <komponent>Unormale %</komponent> # "Abnormal seeds %"
    <vaerdienhed>PROCENT</vaerdienhed> # "Percentage"
    <talvaerdi>"Amount"</talvaerdi> # "Amount in pct."
  </resultat>
  <resultat>
    <komponent>Friske %</komponent> # "Fresh seeds %"
    <vaerdienhed>PROCENT</vaerdienhed> # "Percentage"
    <talvaerdi>"Amount"</talvaerdi> # "Amount in pct."
  </resultat>
  <resultat>
    <komponent>Døde %</komponent> # "Dead seeds %"
    <vaerdienhed>PROCENT</vaerdienhed> # "Percentage"
    <talvaerdi>"Amount"</talvaerdi> # "Amount in pct."
  </resultat>
  <resultat>
    <komponent>Hårde %</komponent> # "Hard seeds %"
    <vaerdienhed>PROCENT</vaerdienhed> # "Percentage"
    <talvaerdi>"Amount"</talvaerdi> # "Amount in pct."
  </resultat>
</analyse>
</proeve>
</AutoriseredeProeveResultater>
</IndberetningRequest>

```

Please Note:

ALL XML tags **must** use the actual spelling (incl. uppercase/lowercase) and contain valid national character codes (if present) as in the Source Code.

ALL inserts, starting with # (a hashtag) are comments and **must** be left out of the actual XML-file

ALL entries marked in blue (or red) colour **must** be present in any XML-file uploaded

ALL entries marked in red colour **must** have the actual spelling (uppercase/lowercase) and contain valid national character codes

ALL entries marked in orange colour **must** be present and use the actual spelling (uppercase/lowercase) and contain valid national character codes, whenever the type of Analysis is F-AU

Entries marked in black colour **must** be present in any XML-file uploaded **if** observations of components are made during the Laboratory tests. The depicted components are **only examples** more (less) - or other types - should be added if found during testings.

The Official Guide, from the Danish Ministry of Agriculture, specifies the use of Species IDENT, which is an abbreviation/identifier for the Species.

This - while not, prior, being enforced for reporting - has been the ONLY valid identifiers for species for >10 Years.

For Components **not contained in** the Official Guide the National danish name or the Latin name can be specified.

As we've collected empiric information on errors for topics *that should be obvious* it should be stressed (redundant information is unwanted and treated as an error):

Any result (resultat) for a given analysis (analyse) **must only** be stated **once** - eg.

<komponent>neddelt</komponent><vaerdienhed>GRAM</vaerdienhed><talvaerdi>50</talvaerdi> must only appear once in a result-set for an analysis.

Any analysis type for a given sample (proeve) **must only** be stated **once** - eg. <analyse>...

<analysetype>SPIRING</analysetype>.....</analyse> must only appear once in an analysis for a sample.

Any sample for a given Lot (in AutoriseredeProeveResultater) **must only** be stated **once** - eg.

<AutoriseredeProeveResultater><parti>"Lot no."</parti>...<proeve>....</proeve> must only appear once in any "AutoriseredeProeveResultater".

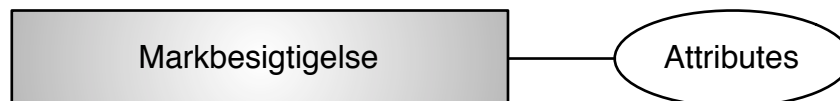
- and so on

markbesigtigelse.xsd

Location: "Sourcecode"/Grails/FCS-INTERN/FCS-WSAPI/web-app/WEB-INF/xsds/

Function: XML based import of informations on Field Inspections.

Topology:

Data Structure (for non-standard Data types marked with *), see *globaltypes.xsd* below):

Type	Field	Data type	Optional	Allowed values / Remarks
Markbesigtigelse	avlspartiNummer	string	No	Lot no for the Breeding lot
	godkendteHa	double	No	Hectares approved on inspection
	kasseredeHa	double	No	Hectares not approved on inspection
	avlskontrolloer	string	No	ID for Field Inspector
	bemaerkninger	string	Yes	Remarks
	andenHoestkategori	kategori *)	Yes	Either the specified Category of the Harvest or a "Downgrading"
	CVR	avlerCvr *)	Yes	The Danish reg.no (VAT no) for the Breeder

Source code:

```

<?xml version="1.0" encoding="UTF-8"?>
<xs:schema xmlns="urn:dk:naturerhverv:fcs:indberetning"
  elementFormDefault="qualified"
  version="1.0"
  xmlns:xs="http://www.w3.org/2001/XMLSchema">
  <xs:complexType name="Markbesigtigelse">
    <xs:sequence>
      <xs:element name="avlspartiNummer" type="xs:string"/>
      <xs:element name="godkendteHa" type="xs:double"/>
      <xs:element name="kasseredeHa" type="xs:double"/>
      <xs:element name="avlskontrolloer" type="xs:string"/>
      <xs:element name="bemaerkninger" type="xs:string"/>
      <xs:element name="andenHoestkategori" type="kategori"/>
      <xs:element name="avlerCvr" type="CVR"/>
    </xs:sequence>
  </xs:complexType>
</xs:schema>

```

For registration of Field Inspection (one XML-file per Insp.):

```
<?xml version="1.0" encoding="UTF-8"?>
<IndberetningRequest xmlns="urn:dk:naturerhverv:fcs:indberetning" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <CVR>"CVR-no. of the reporting Entity"</CVR> # The Danish reg.no (VAT no) for the Reporting Company
  <Markbesigtigelse> # Field Inspection (Entity - XML-tag)
    <avlspartiNummer>"Lot no."</avlspartiNummer> # Your Lot number for the Breeding Lot
    <godkendteHa>"Approved Field Size"</godkendteHa> # Hectares Approved (0 if None)
    <kasseredeHa>"Rejected Approved Field Size"</kasseredeHa> # Hectares not Approved (0 if None)
    <avlskontrolloer>"ID for the Inspector"</avlskontrolloer> # Registered ID for the Field Inspector
    <bemaerkninger>"Remarks"</bemaerkninger> # Remarks
    <andenHoestkategori>"Category"</andenHoestkategori> # Either the specified Category of the Harvest or a "Downgrading"
    <avlerCvr>"CVR-no. for the Breeder"</avlerCvr> # The Danish reg.no (VAT no) for the Breeder
  </Markbesigtigelse> # End of Field Inspection Entity - XML-tag
</IndberetningRequest> # End of Entity - XML-tag
```

EXAMPLE for Reporting of a Field Inspection

```
<?xml version="1.0" encoding="UTF-8"?>
<IndberetningRequest xmlns="urn:dk:naturerhverv:fcs:indberetning" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <CVR>"CVR-no. of the reporting Entity"</CVR> # The Danish reg.no (VAT no) for the Reporting Company
  <Markbesigtigelse> # Field Inspection (Entity - XML-tag)
    <avlspartiNummer>HEB-4711</avlspartiNummer> # Your Lot number for the Breeding Lot
    <godkendteHa>47.00</godkendteHa> # Hectares Approved (0 if None)
    <kasseredeHa>0.11</kasseredeHa> # Hectares not Approved (0 if None)
    <avlskontrolloer>HEB-001</avlskontrolloer> # Registered ID for the Field Inspector
    <bemaerkninger>Small area with ARÆV found</bemaerkninger> # Remarks
    <andenHoestkategori>C1</andenHoestkategori> # Either the specified Category of the Harvest or a "Downgrading"
    <avlerCvr>47114711</avlerCvr> # The Danish reg.no (VAT no) for the Breeder
  </Markbesigtigelse> # End of Field Inspection Entity - XML-tag
</IndberetningRequest> # End of Entity - XML-tag
```

Please Note:

ALL XML tags **must** use the actual spelling (incl. uppercase/lowercase) and contain valid national character codes (if present) as in the Source Code.

ALL inserts, starting with # (a hashtag) are comments and **must** be left out of the actual XML-file

ALL entries marked in blue (or red) colour **must** be present in any XML-file uploaded

IMPORTANT:

Until recently it has been possible to (successfully) transfer XML-files stating a **wrong** type of reporting (with content like):

```
<?xml version="1.0" encoding="UTF-8"?>
<fcs:MarkbesigtigelseRequest xsi:schemaLocation="http://pdir.dk/fcs/ws/avl/markbesigtigelse Markbesigtigelse.xsd" xmlns:fcs="http://pdir.dk/fcs/ws/avl/markbesigtigelse" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <fcs:Markbesigtigelse xmlns:fcs="http://pdir.dk/fcs/avl/markbesigtigelse">
```

.... Ordinary content

```
</fcs:Markbesigtigelse>
</fcs:MarkbesigtigelseRequest>
```

This will not be acceptable anymore !

Glossary / Translations

Danish Name Capitol letters are NOT important	English translation	German translation Google
Analysedata	Data from analysis (results)	Analysedaten
Analyseresultat / Analyseresultater	Result from an analysis / -plural	Testergebnis
Anmærkning / Anmærkninger	Annotation / -plural	Anmerkung /
Antal	Number or Count	Anzahl
Art /Arter	Species / -plural	Art(en)
Artsoplysning / Artsoplysninger	Species Information / -plural	Arts Informationen
Auditinspektør	Audit Inspector	Audit-Inspektor
Autoriseret	Authorised	Autorisiert
Autoriseret Laboratorium / -Laboratorier	Authorised Laboratory (operated by a Seed Company) / -plural	Zugelassenen Labor
Autoriseret Markkontrollør	Authorised Field Inspector (employed by a Seed Company)	autorisierten Feldinspektor
Autoriseret Prøveresultat / -Prøveresultater	Authorised Sample Test Result / -plural	autorisierten Testergebnis
Autoriseret Prøvetager	Authorised Sampler (employed by a Seed Company)	autorisierten Sampler
Autoriseret Resultat / Autoriserede resultater	Authorised Result / -plural (results provided by "authorised staff")	autorisierten Ergebnis
Avl	Breeding / Breed	Zucht
Avlskontrollør / Avlskontrollører	Breeding Checker	Zucht Kontrolleure
Avlsparti / Avlspartier	Breeding batch / -plural	Zuchtbatch
Bekendtgørelse	Legal Announcement / Official Announcement (states the many different prerequisites for getting a seed certified)	Bestellen
Certificering	Certification	Bescheinigung / Zertifizierung
Certificeringsprocess	Certification Process	Zertifizierungsprozess
Dato	Date	Datum
Efterkontrol / efterkontroller	"Efterkontrol" of "Markbesigtigelse"	Nach Prüfung
Efterprøveresultat / Efterprøveresultater	"After Sample Test Result" / -plural	überprüfen Ergebnisse
Egenskab / Egenskaber	Property / -plural	Eigenschaften
Ekstern / Eksterne	External / -plural	extern /
Eksterne Applikationer	External Applications (exposed to the internet)	Systeme für externe Anwendung
Ekstern Bruger / Eksterne Brugere	External User / -plural	externer Benutzer
Firma / Firmaer	Company / -plural	Unternehmen
Formular	Form	Form
Fradrag	Deduction	Abzüge
Frø	Seed / Seeds	Saatgut
Frøanalyse / Frøanalyser	Seed Analysis / -plural	Saatgutanalyse
Frøart / Frøarter	Seed Specie / -plural	Samenarten
Frøfirma / Frøfirmaer	Seed (producing) Company / -plural	Saatgut-Unternehmen
Frølaboratorium / Frølaboratorier	Seed Laboratory / -plural	Saatgutlabor

Danish Name Capitol letters are NOT important	English translation	German translation Google
Godkendt / godkendte	Approved	genehmigt
Indberetning / Indberetninger	Report / Reports (in the sense of "incoming"! data)	Berichterstattung
Integreret	Integrated	integriert
Intern / Interne	Internal / -plural	intern /
Interne Applikationer	Internal Applications (not exposed to the internet)	Systeme für interne Anwendung
Intern Bruger / Interne Brugere	Internal User / -plural	interner Benutzer
ISTA	International Seed Testing Association	-
ISTA vejetal	Weighing Standards or numbers according to ISTA weighing standards	ISTA Wägezahlen
Kasseret / kasserede	Discarded	verworfen
Kategori / Kategorier	Category / -plural	Kategorie
Kontrolmark	Control Field (a special field sown by/in Tystofte)	Kontrollfeld
Kontrolmarksprøve / Kontrolmarksprøver	Control Field Sample(s) (sample from a Control Field)	Steuerfeldversuch
Kvalitetsnorm	Quality Norm / Quality Standard	Qualitätsstandard
Laboratorium / Laboratorier	Laboratory / -plural	Labor
Latinsk Navn / Latinske Navne	Latin Name / -plural	lateinischer Name
Markbesigtigelse / markbesigtigelser	Field Inspection / -plural	Feldbesichtigung / Feldinspektion
Markkontrol / Markkontrollør	Field check or Field inspection / -plural	Feldprüfung
Markkontrollør / Markkontrollører	Field Inspector / -plural	Feldinspektor
Marknummer	Field Number / Field Identification	Feldnummer
Navision	Name of a Book keeping system	Buchhaltung systeme
Normkontrol	Quality Standard / Norm Control (in the sense: check for normality / consistency / etc.)	Norm Kontrolle
Ny	New / Create (new)	Neu
Officiel	Official (in the sense: "by an independent authority")	offiziell
Officiel Markbesigtigelse	Official Field Inspection (by an independent authority)	offiziell Feldbesichtigung
Officiel Markkontrollør	Official Field Inspector (Employed by an independent authority)	offiziell Feldinspektor
Officiel Prøvetager	Official Sampler (Employed by an independent authority)	offiziell Sampler
Officielt Laboratorium / -Laboratorier	Official Laboratory (operated by an independent authority) / -plural	offiziell Labor
Opdater / Opdaterer / Opdatering	Update / -plural	Aktualisierung
Overblik	Overview	Überblick
Parameter / Parametre	Parameter / -plural	Parameter
Parti / Partier	Batch (of seeds) / -plural	Partie
Plante / Planter	Plant / -plural (in the sense of living thing)	Pflanze
Prøvemodtagelse / Prøvemodtagelser	Receiving a Sample / -plural	Probenaufnahme
Prøveresultat / Prøveresultater	Sample Result / -plural	Prüfungsergebnisse
Prøvetager / Prøvetagere	Sampler / -plural	Sampler ?
Referencenummer / Referencenumre	Reference Number / -plural	Kennziffer

Danish Name Capitol letters are NOT important	English translation	German translation Google
Referenceprøve / Referenceprøver	Reference Sample / -plural	Referenzprobe
Regneark	SpreadSheet	Kalkulationstabelle
Resultat / Resultater	Result / -plural	Ergebnisse
Retur	Return (or "getting back")	Rückkehr
Sagsbehandler / Sagsbehandlere	Caseworker / -plural	Fallbearbeiter
Sagsbehandling	Case Management	Fallmanagement
Slet	Delete	löschen
Sort	Variety	Sorten
Specifik / Specifikke	Specific / -plural	spezifisch
Sted	Place or Location	Ort
Søg	Search	Suche
Tid	Time	zeit
Undersøgelse	Investigation	Prüfung
UI	User Interface (probably web-forms)	Benutzer interface
Validere / Validerer / Validering	Validate (check/control) / -plural	bestätigen
Vis	Show / Display	Zeigen

References and Related documentation

Official Guide(s) from the Ministry:

<https://lbst.dk/virksomheder/froe-og-korn/vejledninger/>

Source Code, etc. (internal ONLY):

Kildeteksterne fra NAER: FraLFST20170609

Technical information on System-to-System (by request from Tystoftefonden):
naer-sikker-replacement-client.pdf

PRELIMINARY