



**UN/CEFACT**

SIMPLE, TRANSPARENT AND EFFECTIVE PROCESSES  
FOR GLOBAL BUSINESS

## **BUSINESS REQUIREMENTS SPECIFICATION (BRS)**

**Business domain: Agriculture**

**Business process: e-LABs observation report message**

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nov 2 2011	0.1	Initial document	In Dutch language
Feb, 2012	0.3	All	Update diagrams and classes defintions. in English language.

# Business Requirements Specification

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# 1 Preamble

The objectives of this document is

- Harmonization of the definitions of the technical data in order :
  - to speak the same language
  - to be able to exchange information between heterogeneous information systems
- Development of consensual data dictionaries which could to be used as a basis for all use in laboratory observation reports in the agriculture domain
- Installation of a standardized laboratory observation reporting message to facilitate the transmission of information between the observation institute (laboratory) and the users of the reported observations.
- Development and implementation of an electronic laboratorium observation message.

The purpose of this document is to define the laboratory observation exchange processes for all users in the agri domain of laboratory observations and the development and installation of a standard reporting message , using the UN/CEFACT Modeling Methodology (UMM) approach and Unified Modeling Language to describe and detail the business processes and transactions involved.

The structure of this document is based on the structure of the UN/CEFACT Business Requirements Specification (BRS) document reference CEFACT/ICG/005.

## 2 References

UN/CEFACT Modelling Methodology User Guide (CEFACT/TMG/N093)

UN/CEFACT Business Requirement Specification Document Template (CEFACT/ICG/005)

UN/CEFACT E-CERT BRS

UN/CEFACT E-DAPLOS BRS

UN/CEFACT CRIE cattle registration and information exchange BRS

UN/CEFACT agricultural observations BRS

### **3 Objective**

The objective of this document is to standardize the Business Processes, the Business Transactions and the Information Entities of the technical description and information of agricultural laboratory observation

The Business Process is the detailed description of the way partners intend to play their respective role, establish business relationship and share responsibilities to interact efficiently with the support of their respective information system.

The business documents are composed of Business Information Entities (BIE), which when available, are taken from the library of reusable business information entities and when not found, are proposed as new Business Information Entities. The contents of the business documents and the Business Information Entities are presented using class diagrams.

## 4 Scope

This section describes the extent and limits of the business process within the information chain being described in this document. The class diagram of the e-lab observation report message has been developed to specify exchange of information to enable business information to be re-used. It includes business information entities specifically required by the different users of observation reports in trading of agriculture products, plant health, and animal health. It covers the usage for the different roles the users can perform.

Categories	Description and Values
Business Process	Laboratory analyse and observation reports
Product Classification	Laboratory observations data
Industry Classification	Agricultural sector
Geopolitical	Global
Official Constraint	European Regulations National regulation Local applicable regulation
Business Process Role	Exchange observation data
Supporting Role	None
System Capabilities	Agreed level of security to protect data integrity Agreed level of standard laboratory observation methods and technology applied.

The laboratory observation information exchange process is used between the laboratory party who is reporting about the observation and the user of these observation report. This user is usually the party who uses the content of the report, but this user can also be the party who ordered and pays for the observation or has any other connection with the observation report.

The observation report can be used in private and in a public context.

## 5 Business requirements

### 5.1 Business requirements view

The e-Lab observation report is a message send by the laboratory to the concerned parties who are eligible to receive the results of the observations on the sample, performed by the laboratory . The observations are done on samples water, soil, agricultural commodities, plant products, animal product and or samples taken from live animals. It includes a broad usage ranging from soil, fertilizer, crop products, animal feed, and health status and diagnostic on live animals. These results are used to obtain information of the quality of soil, water, crop products, animal products , or health information about plants or animals.

Only two types of parties are involved, the laboratory and the receiving parties.

### 5.2 Business process elaboration

#### Use case description

<b>Business process name</b>	e-Labs observation report message
<b>Identifier</b>	e-Labs
<b>Actors</b>	Laboratories, authorities, traders, transporters, consultancy, farmers, finance and insurance agencies
<b>Description</b>	The laboratory sends an observation report to the dedicated party (parties)
<b>Pre-condition</b>	No obligation to set up a precondition
<b>Post-conditions</b>	Success: the laboratory sends the observation report.
<b>Scenarios</b>	Send observation report.
<b>Remarks</b>	

#### The e LAB XML information exchange

The activity diagram allows identifying all the significant information flows between the observation agency (laboratory) and their partners.

## Use case diagram

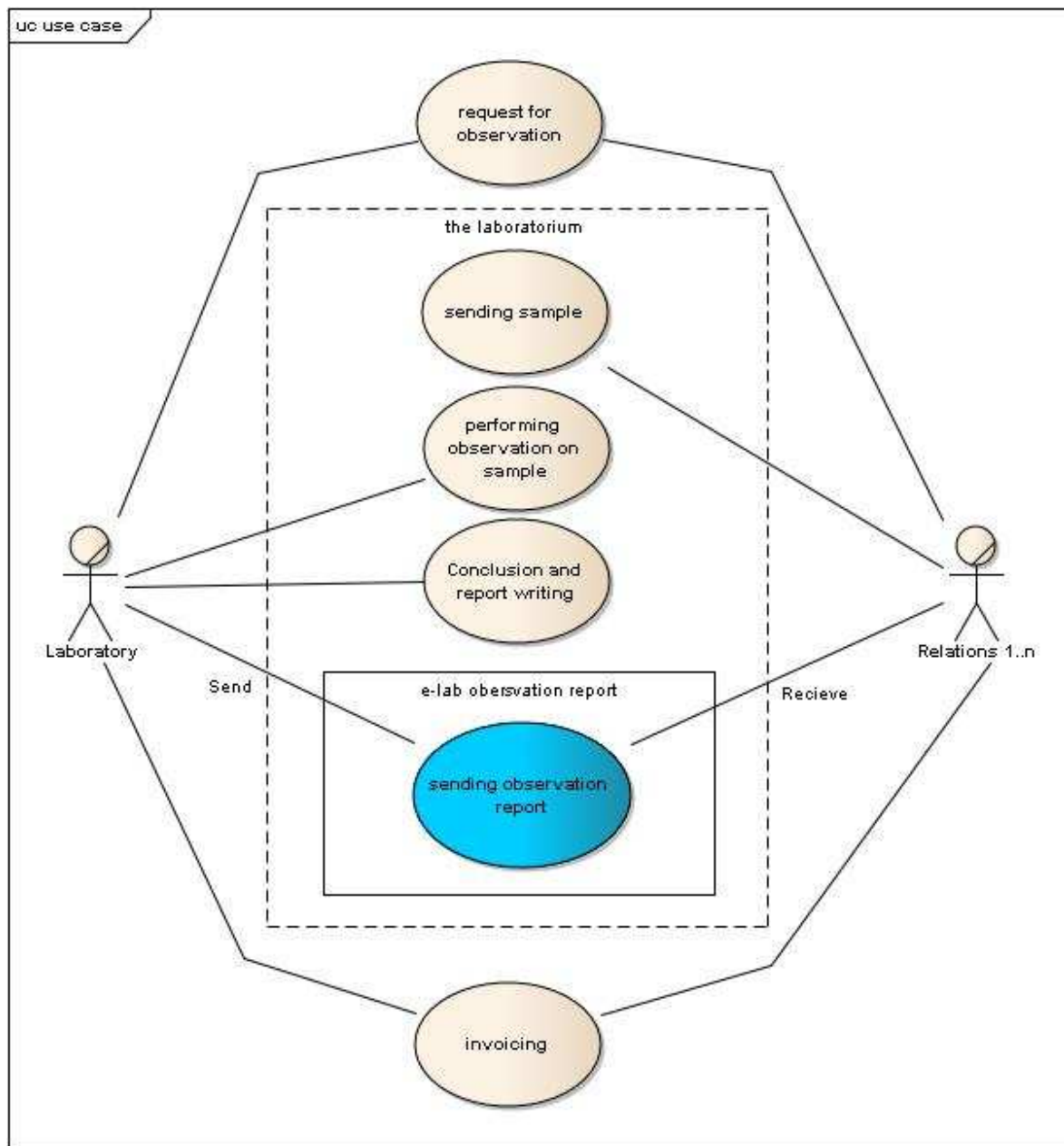


Figure 2



**Activity diagram description:**

The complete activity schema of all activities related to the sampling observation chain involves many activities, and many parties are related. It starts with taking a sample, order an observation, sending in the sample to the lab, performing several administrative and technical activities within the lab, and informing the dedicated relationa about the results of the observations. And finally the process ends with sending an invoice and get paid for the observation.

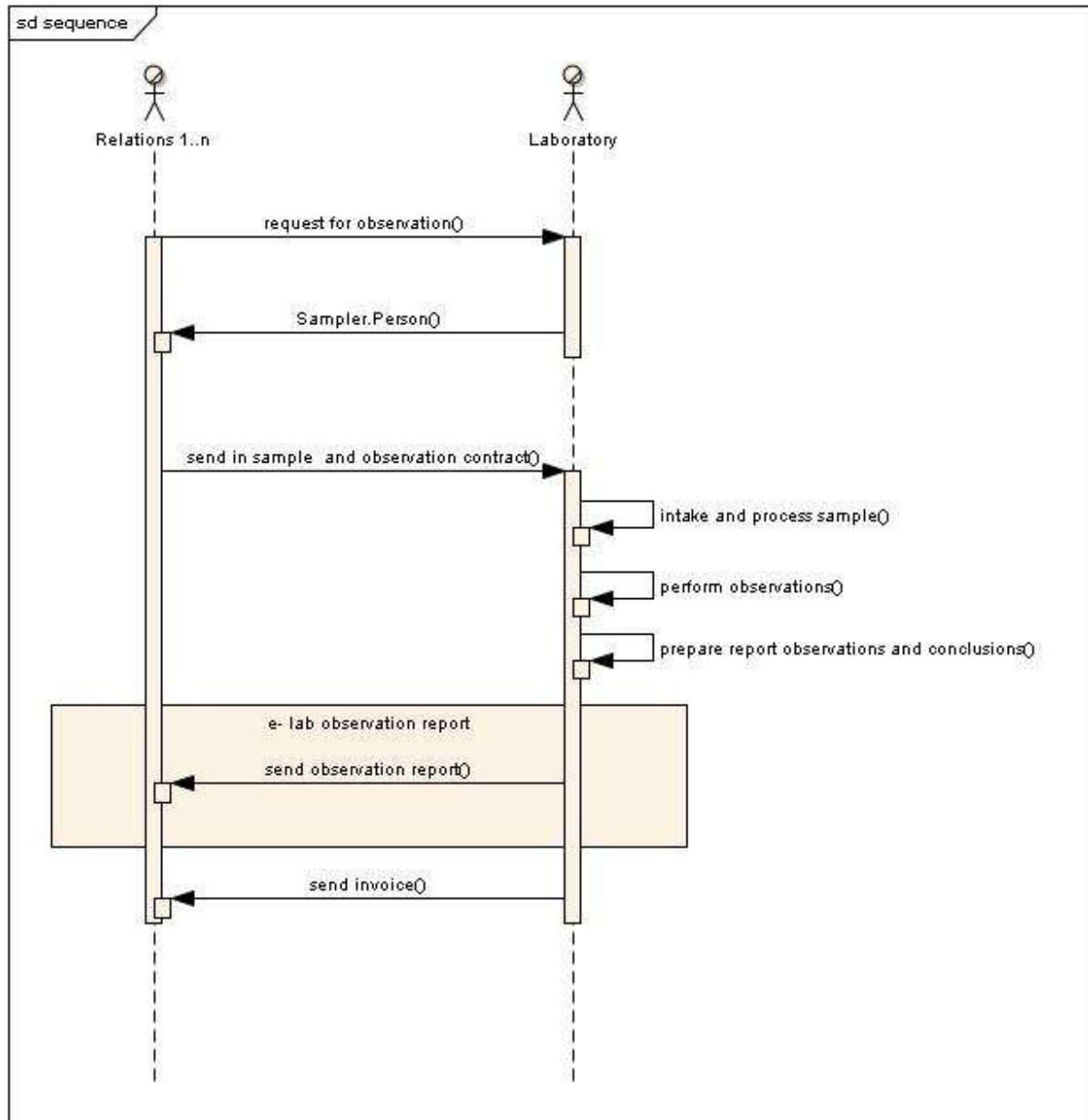
This use case only concerns about the sending of the observation results to the dediucated parties who are in need to receive a copy of the observation results. All other interactions between the laboratorium and the business parties are out of scope.

**Business collaboration**

<b>Business collaboration</b>	
<b>Identifier</b>	e-Labs observation report
<b>Description</b>	The Laboratory sends a observation report to one or more dedicated parties.
<b>Partners types</b>	The laboratory, Business partners as authorities, traders, transporters, consultancy, farmers, finance and insurance agencies
<b>Authorized Roles</b>	The laboratory
<b>Legal Steps/Requirement</b>	none
<b>Economic consequences</b>	None
<b>Initial/Terminal Events</b>	None
<b>Scope</b>	None
<b>Boundary</b>	None
<b>Constraints</b>	None

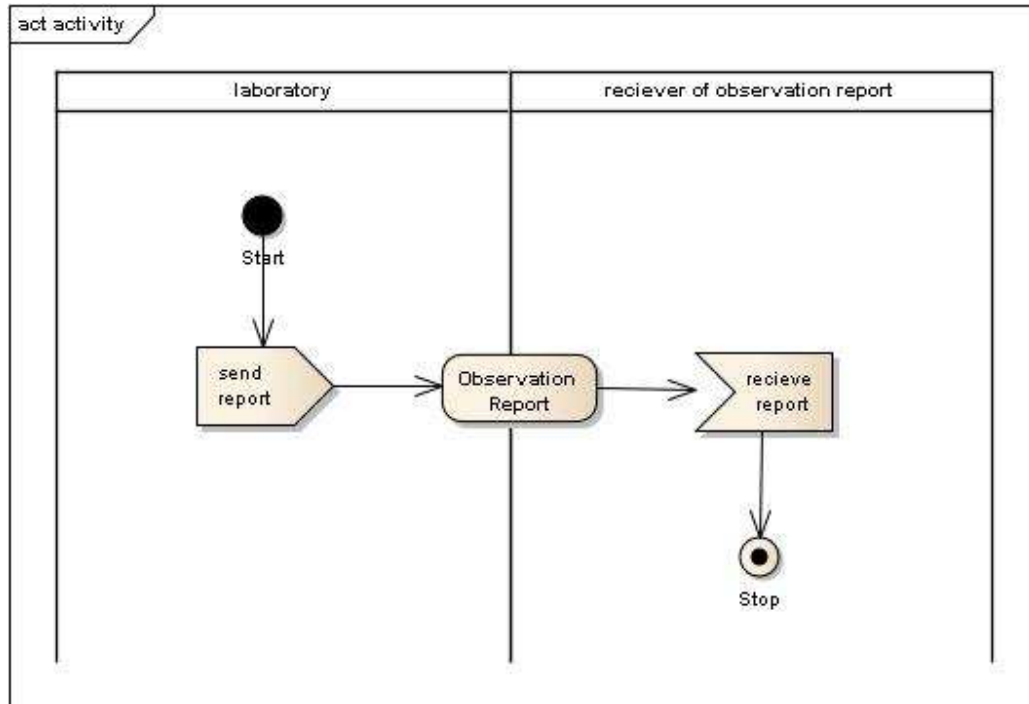
### 5.3 Information flow definition (sequence diagram description)

#### Sequence Diagram



**5.4 The activity diagram allows identifying all the significant information flows between the laboratory and their partner(s).**

**Activity Diagram**



**5.5 Information model definition (class diagram)**

Class diagram describes all the necessary classes of information for a flow of information exchange for the laboratory observation report.

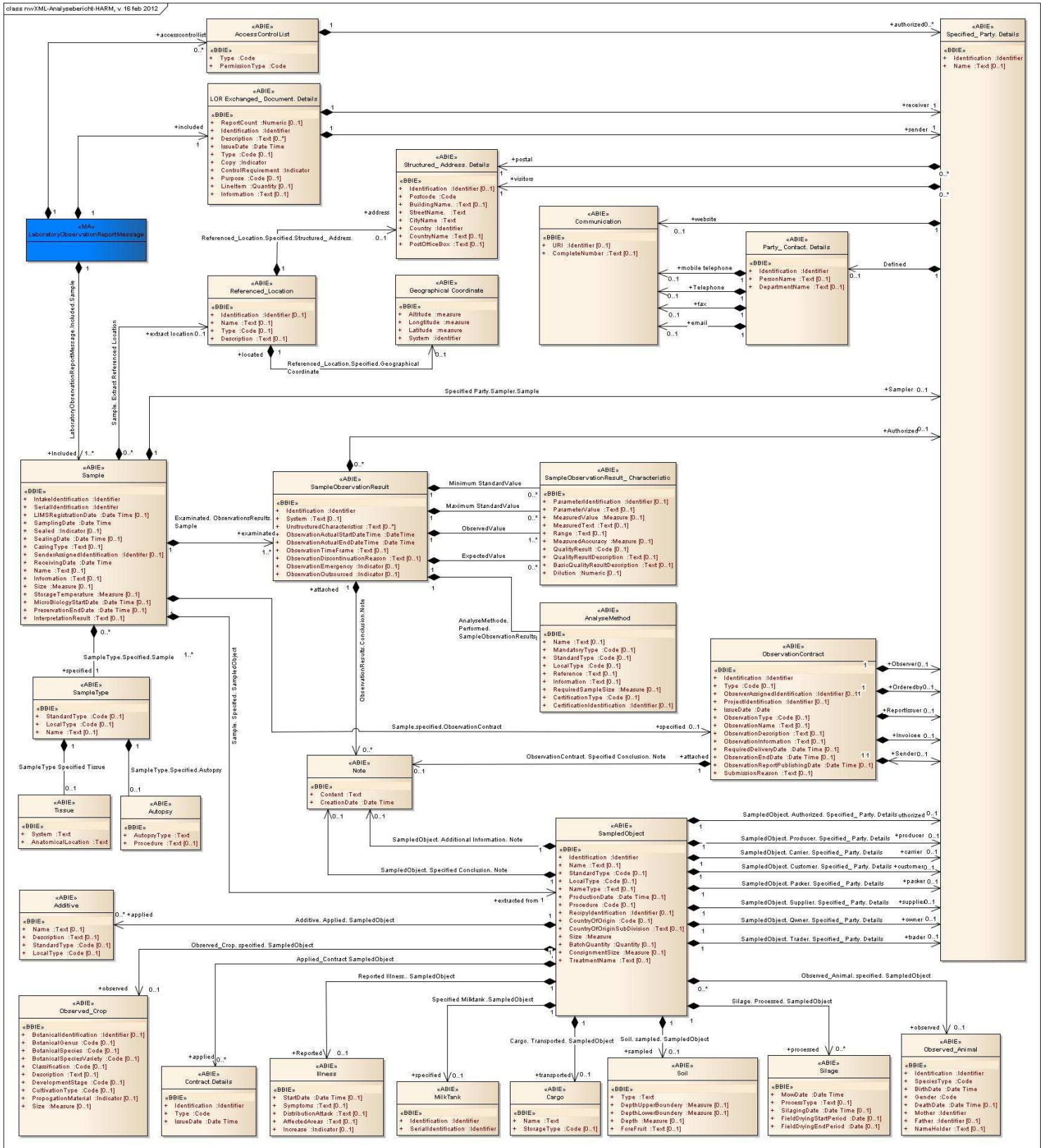


Figure 3 class diagram for the e-Labs observation report.

## 5.6 Business Information Entities

### AccessControlList:

Description: A party appointed or authorized to represent or act for another individual, group or body in a business transaction role.

Mult.	Business term	Rel.	Type	Description
1	Type	Att	Code	The code specifying the type of proxy party that is independent of its role.
1	PermissionType	Att	Code	The code specifying the role of this proxy party.

### Additive:

Description: A product with the purpose to be added to another product in order to maintain or to change the quality of that product.

Mult.	Business term	Rel.	Type	Description
0..1	Name	Att	Text	The name, expressed as text, identifying the type and characteristics of the additive.
0..1	Description	Att	Text	The textual description of the additive
0..1	StandardType	Att	Code	The standard name, expressed as code, for this type and characteristics of the additive. Either a standard or local code must be used.
0..1	LocalType	Att	Code	The local name , expressed as code, for this type and characteristics of the additive. Either a standard or local code must be used

### AnalyseMethod.

Description: Defines the method or set of methods used for the observation(s) of the sample.

Mult.	Business term	Rel.	Type	Description
0..1	Name	Att	Text	The name, expressed as text, which identifies the applicable method.

0..1	MandatoryType	Att	Code	The name, expressed as a code, which identifies the mandatory method for this type of observation.
0..1	StandardType	Att	Code	The name, expressed as a code, which identifies the applicable method, which is the default method of the observer party for this type of observation.
0..1	LocalType	Att	Code	The name, expressed as a code, which identifies the applicable method, which is the local method of the observer party for this type of observation.
0..1	Reference	Att	Text	The name, expressed as text, which refers to an external description of the the applied method.
0..1	Information	Att	Text	A text providing additional information about the applicable method.
0..1	RequiredSampleSize	Att	Measure	The minimum size of the sample needed for this type of observation, expressed as a measure.
0..1	CertificationCode	Att	Code	The code for the type of certificate granted to the observer party.
0..1	CertificationIdentification	Att	Identifier	The identifier for the certificate granted to the observer party.

### Autopsy

Description: Specifies characteristics of an autopsy type sample.

Mult.	Business term	Rel.	Type	Description
1	AutopsyType	Att	Text	Describes the type of the autopsy sample, expressed as text.
0..1	Procedure	Att	Text	Describes the procedure, expressed as text, used to take the autopsy sample.

### Cargo.

Description: Goods being transported

Mult.	Business term	Rel.	Type	Description
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1	Name	Att	Text	The name , expressed as text, for this goods under transport
0..1	StorageType	Att	Code	The type of package and storage in the transport unit, expressed as a code.

### Communication

Description: The exchange of information using a communication device.

Mult.	Business term	Rel.	Type	Description
0..1	URI	Att	Identifier	The Uniform Resource Identifier (URI) for this communication.
0..1	Complete Number	Att	Text	The text string of characters that make up the complete number for this unstructured telecommunication.

### Contract

Description: An reference between two or more parties related to the sampled object.

Mult.	Business term	Rel.	Type	Description
0..1	Identification	Att	Identifier	The unique identifier of this trade contract..
0..1	Type	Att	Code	The kind of contract.
0..1	IssueDate	Att	DateTime	The date, date time, or other date time value for the issuance of this trade contract.

### Geographical Coordinate.

Description: The latitude, longitude, and altitude of a place, by which its relative situation on the globe is known.

Mult.	Business term	Rel.	Type	Description
1	Altitude	Att	measure	The measure of the altitude that reflects the vertical elevation of an object above a surface for this specified geographical coordinate (Reference ISO 6709).

1	Longitude	Att	measure	The measure of the longitude as an angular distance east or west from the Greenwich meridian to the meridian of a specific place for this specified geographical coordinate. (Reference ISO 6709).
1	Latitude	Att	measure	The measure of the latitude as an angular distance north or south from the Equator meridian to the meridian of a specific place for this specified geographical coordinate. (Reference ISO 6709).
1	System	Att	Identifier	The unique identifier of the system used for measuring this specified geographical coordinate.

## Illness

Description: A collection of data about an illness.

Mult.	Business term	Rel.	Type	Description
0..1	StartDate	Att	Date Time	The day the illness started.
0..1	Symptoms	Att	Text	A textual description of the symptoms of the illness.
0..1	DistributionAttack	Att	Text	The level of illness distribution on the organism (animal, plant) expressed as text.
0..1	AffectedAreas	Att	Text	The affected areas of illness on the organism (animal, plant) expressed as text such as whole animal or crop, only lower parts etc.
0..1	Increase	Att	Indicator	An indication whether the illness increases or not.

## LOR ExchangedDocument

Description: A collection of data for a piece of written, printed or electronic matter that is exchanged between two or more parties in a laboratory observation report (LOR) document exchange.



Mult.	Business term	Rel.	Type	Description
0..1	ReportCount	Att	Numeric	The count of the number of reports in this exchanged document.
1	Identification	Att	Identifier	The unique identifier of this exchanged document.
0..*	Description	Att	Text	A textual description of this exchanged document.
1	IssueDate	Att	Date Time	The date, time, date time or other date time value for the issuance of this exchanged document.
0..1	Type	Att	Code	The code specifying the type of exchanged document.
1	Copy	Att	Indicator	The indication of whether or not this exchanged document is a copy.
1	ControlRequirement	Att	Indicator	The indication of whether or not this exchanged document has specific control requirements.
0..1	Purpose	Att	Code	A code specifying a purpose of an amendment to this exchanged document.
0..1	Line Item	Att	Quantity	The number of line items in this exchanged document.
0..1	Information	Att	Text	Information, expressed as text, for this exchanged document.

### **MilkTank**

Description: A bulk storage on a farm for collecting and storage of fresh raw milk.

Mult.	Business term	Rel.	Type	Description
1	Identification	Att	Identifier	The identifier for this milktank.
1	SerialIdentification	Att	Identifier	The unique serial number assigned to this milktank.

**Note.**

Description: Notes and conclusions about the observations.

Mult.	Business term	Rel.	Type	Description
1	Content	Att	Text	A note or a conclusion, expressed as text, about the observations performed on a sample.
1	Creation	Att	Date Time	The date when the note or conclusion, based on the observations on the sample was composed.

**ObservationContract**

Description: Specification of the directed observations and conditions. An agreement between two or more parties, especially one that is written or spoken and enforceable by law.

Mult.	Business term	Rel.	Type	Description
1	Identification	Att	Identifier	The identifier for this observation contract.
0..1	Type	Att	Code	The type for this observation contract.
0..1	ObserverAssignedIdentification	Att	Identifier	The unique identifier assigned by the observation party for this contract.  One observation can involve one or more samples. On one sample one or more observations can be done.
0..1	ProjectIdentification	Att	Identifier	A reference to the original contract identifier assigned by the customer (directing party), or the sender of the sample.
1	IssueDate	Att	Date	The date or date and time,, expressed as data time, when the observation contract is issued by the directing party, or when the sender send in the sample with instructions.
0..1	ObservationType	Att	Code	A code expressing the type of research.  Type of research such as soil analyses crop, animal feed analyses, blood

				analyses...
0..1	ObservationName	Att	Text	A name, expressed as text, expressing the type of observation.
0..1	ObservationDescription	Att	Text	A short text describing the characteristics of the observation.
0..1	ObservationInformation	Att	Text	A text explaining the results at the level of samples object and can cover many observation results and many samples.
0..1	RequiredDeliveryDate	Att	Date Time	The final date or date time, expressed as date time, when the customer (directing party) needs to be reported about the observation results.
0..1	ObservationEndDate.	Att	Date Time	The date or date time, expressed as date time, when the observation results have been finalized.
0..1	ObservationReportPublishingDate	Att	Date Time	The date or date time, expressed as date time, when the observer party publishes the observation results.
0..1	SubmissionReason	Att	Text	A description , expressed as text, explaining the reason for the observation.

### Observed\_Animal

Description: A creature kept or raised on a farm or ranch, kept in a aquaculture facility, or living or found in the natural environment. Can be livestock animals, pets, or wild animals.

Mult.	Business term	Rel.	Type	Description
1	Identification	Att	Identifier	The identifier for this animal, such as the number appearing on its ear tag or a tattoo.
1	SpeciesType	Att	Code	The code specifying the type of species for this animal, such as bovine, sheep, goat, chicken, dog, cat, rat, salmon, catfish, whale.
1	BirthDate	Att	Date Time	The date of birth for this animal.
1	Gender	Att	Code	The code specifying the gender of this animal, such as male, female or castrated.
0..1	DeathDate	Att	Date Time	The date of death for this animal.

1	Mother	Att	Identifier	The identifier of the mother of this animal.
0..1	Father	Att	Identifier	The identifier of the father of this animal.
0..1	NameHolder.	Att	Text	The name of the breeder of the animal.

### Observed\_Crop

Description: A botanical item such as a plant, flower or bulb.

Mult.	Business term	Rel.	Type	Description
0..1	Botanical Identification	Att	Identifier	A unique botanical identification for this crop.
0..1	Botanical Genus	Att	Code	A code specifying a botanical genus for this crop.
0..1	Botanical Species	Att	Code	A code specifying a botanical species for this crop.
0..1	Botanical Species Variety	Att	Code	A code specifying a botanical species variety for this crop
0..1	Classification	Att	Code	A code specifying a classification for this this crop
0..1	Description	Att	Text	A textual description for this crop.
0..1	DevelopmentStage	Att	Code	A code specifying a development stage for this crop.
0..1	CultivationType	Att	Code	A code specifying a type of cultivation.
0..1	PropogationMaterial	Att	Indicator	A indicator specifying wether a crop is propagation material of not.
0..1	Size	Att	Measure	The size of the crop expressed as a measure.

### Party\_Contact

Description: A person or department that acts as a point of contact for a party . A person or department that acts as a point of contact with another person or department.

Mult.	Business term	Rel.	Type	Description
1	Identification	Att	Identifier	The unique identifier of this party contact.

0..1	PersonName.	Att	Text	The name, expressed as text, of the person for this party contact.
0..1	DepartmentName	Att	Text	The location, using a structured address format, at which a particular organization or person may be found or reached.

### Referenced\_Location

Description : A reference to a physical location or place.

Mult.	Business term	Rel.	Type	Description
0..1	Identification	Att	Identifier	The unique identifier for this referenced location.
0..1	Name	Att	Text	A name, expressed as text, of this referenced location.
0..1	Type	Att	Code	The code specifying the type of this specified location. the code indicates its is a location of storage, production, destination transfer, origin...
0..1	Description	Att	Text	The textual description for this specified location.

### Sample

Description: A sample is a limited quantity of something which is intended to be similar to and represent a larger amount of that thing(s) (the sampledObject).

Mult.	Business term	Rel.	Type	Description
1	IntakeIndentification.	Att	Identifier	The unique identifier of the sample, assigned by the observer party during the intake of the sample.
1	SerialIdentification.	Att	Identifer	A serial identification assigned to the sample.
0..1	LIMSRegistrationDate.	Att	Date Time	The date, expresses as a date time, when the sample was registered in the

				information system of the observer party.
1	SamplingDate	Att	Date Time	The date, expresses as a date time, when the sample was taken.
0..1	Sealed	Att	Indicator	Specifying whether a sampled is sealed or not.
0..1	SealingDate	Att	Date Time	The date, expresses as a date time, when the sample was sealed.
0..1	CasingType.	Att	Text	The type of the casing, in which the sample was hold, expressed as text.
0..1	SenderAssignedIdentification	Att	Identifier	The unique identifier of the sample, assigned by the sender of the sample.
1	ReceivingDate	Att	Date Time	The date, expresses as a date time, when the sample was received at the observer agency.
0..1	Name	Att	Text	A name of the sample, expressed as text.
0..1	Information	Att	Text	A text providing additional information about the sample
0..1	Size	Att	Measure	The size of the sample, expressed as a measure. The size can be expressed as an amount, volume, weight.
0..1	StorageTemperature	Att	Measure	The temperature condition, expressed as a measure, by which the sample has been stored.
0..1	MicroBiologyStartDate	Att	Date Time	The date, expressed as a date time, when the sample is infected by the laboratory, with a fungous or bacteria organism.
0..1	PreservationEndDate	Att	Date Time	The date, expressed as a date time, representing the ultimate date for the sample is considered unsuitable for a being examined in an observation process.
0..1	InterpretationResult	Att	Text	A value, expressed as text, indicating the outcome of the observations performed on the sample, whether the sample complies to the normative values for this type of sample.  The value can be like "comply", "positive", "negative", "not detected",...

### SampleObservationResults.

Description: A collection of diagnostic data, visual or technical, and processing data, performed on a sample. The result of the observation.

Mult.	Business term	Rel.	Type	Description
1	Identification	Att	Identifier	The identifier for this sample observation result.
0..1	System	Att	Text	The context material of the observed sample, expressed as text, like animal, blood, isolate.
0..1	UnstructuredCharacteristics	Att	Text	Describes the type of characteristic(s) observed during the observation, like length, volume, density, titer, sensitivity, conductivity.
1	ObservationActualStartDateTime	Att	DateTime	The date and time , expresses as a date time, determining the date and time the observation was started.
1	ObservationActualEndDateTime	Att	Date Time	The date and time , expresses as a date time, determining the date and time the observation was ended.
0..1	ObservationTimeFrame	Att	Text	An indication, expressed as text, for the time dimension of the observation.  Description E.g. whether it is an single observation at one moment, or multiple observations during a period of time, or a single observation after a certain period of time.
0..1	DiscontinuingReason	Att	Text	Reason why the observation procedure is discontinued, expressed as text.
0..1	ObservationEmergency	Att	Indicator	The indication, expresses as a code, indicating whether the observation was a emergency observation or not.
0..1	ObservationOutsourced	Att	Indicator	The indication, expresses as a code , indicating whether the observation was an outsourced observation (performed by a third party) or not

### SampleObservationResultCharacteristic

Description: Specifies the type of the performed observation and the acquired values of this observation on the sample.

Mult.	Business term	Rel.	Type	Description
0..1	ParameterIdentification	Att	Identifier	<p>A unique identifier for parameter used to specify the observation method and the parameter which have been practised for the observation on the sample.</p> <p>Description International standard identifier of the parameter reflecting the results of the</p> <p>Condition One of these should be filled: the internal identifier or parameter identifier. The component is what is measured (glucose, bovine herpes virus lab, ampicillin).</p>
0..1	ParameterValue	Att	Text	<p>The value , expressed as text, for the parameter used to specify the observation methode and the units of measure, which have been practiced for the observation on the sample.</p>
0..1	MeasuredValue	Att	Measure	<p>The actual measure of this observation on the sample, expressed as measure.</p>
0..1	MeasuredText	Att	Text	<p>The actual value of this observation on the sample, expressed as text.</p>
0..1	Range	Att	Text	<p>The range of the values of the measurements performed on the sample, expressed as text.</p>
0..1	MeasuredAccuracy	Att	Measure	<p>The accuracy of the observation on the sample, expressed as measure.</p> <p>Expressed as a plus or minus value, according to NEN-777 standard definition.</p>
0..1	QualityResult	Att	Code	<p>The actual value of the observation on the sample , expressed as a code.</p> <p>The value is expressed in non numeric values, but codes indicating certain levels of quality. like good, average, poor,</p>



				positive, negative, healthy, not infected , infected, not contaminated, contaminated etc.
0..1	QualityResultDescription	Att	Text	The actual value of the observation on the sample , expressed as a text.  The value is expressed in non numeric values, but in text , indicating certain levels of quality and specifying the quality of the sample.  like good, average, poor, positive, negative, healthy, not infected , infected, not contaminated, contaminated etc.
0..1	BasicQualityResultDescription	Att	Text	Defines the reference level of the sample for the observation results, expressed as text.  The observation results are expressed as values measured in the sample itself, in the dry matter content, or in an extract and so on.
0..1	Dilution	Att	Numeric	Defines the rate of the dilution applied to the sample, in advance of observation.

### SampleType.

Description: The type of material the sample contains, expressed as code.

Mult.	Business term	Rel.	Type	Description
0..1	StandardType	Att	Code	A standard naming description, expressed as code, indicating the type of material the sample contains.  Condition Either a standard or local code must be used.
0..1	LocalType	Att	Code	A local description, expressed as code, indicating the type of material the sample contains.  Indication of the type of material using an internal code.  Either a standard or local code must be used.
0..1	Name	Att	Text	A description , expressed as text, indicating the type of material the sample contains.

### SampledObject.

Description: The physical object of which a sample has been taken. This can be of any kind, like soil, crop, animal, harvest product, etc.

Mult.	Business term	Rel.	Type	Description
1	Identification	Att	Identifier	The identifier for this sampled object.
0..1	Name	Att	Text	The name, expressed as text, to identify this sampled object.
0..1	StandardType.	Att	Code	The type, expressed as code, for this sampled object. Indication of the type of sampled object using a standard code. Either a standard or local code must be used
0..1	LocalType	Att	Code	A local description, expressed as code, used by the observer party or the customer (directing party) for this sampled object. Indication of the type of sampled object using an internal code. Either a standard or local code must be used
0..1	NameType	Att	Text	The name, expressed as text, describing the type for this sampled object.
0..1	ProductionDate	Att	Date Time	The date or date time, expressed as date time, when the sampled object is produced or composed.
0..1	Procedure	Att	Code	A code defining the process of composing the sample out of the sampled object. Defines whether it is one sample, from one object, many separated samples of one object, a mixed sample of one object or a mixed sample out of many objects.
0..1	RecipyIdentification	Att	Identifier	A recipy identifier of a sampling procedure defined by the customer.
0..1	CountryOfOrigin	Att	Code	The unique identifier of a country of origin of the sample. (Reference ISO 3166 and

				UN/ECE Rec 3).
0..1	CountryOfOriginSubDivision	Att	Text	A political or physical area or region within the political boundaries of a country of origin of the sample.
1	Size	Att	Measure	The size of the sample, expressed as measure.
0..1	BatchQuantity	Att	Quantity	The quantity of the sample, expressed as a number e.g. in pieces, kgm etc..
0..1	ConsignmentSize	Att	Measure	The size of the consignment for which the sample is representative, expressed as measure
0..1	Treatment	Att	Text	Any kind of treatment on the sampled object (dsuch as isinfection)

### Silage.

Description: Silage is fermented, high-moisture fodder that can be fed to ruminants or used as a biofuel feedstock for anaerobic digesters. It is fermented and stored in a process called ensiling or silaging, and is usually made from grass crops, including corn (maize), sorghum or other cereals, using the entire green plant (not just the grain). Silage can be made from many field crops.

Mult.	Business term	Rel.	Type	Description
1	MowDate	Att	Date Time	The date, expressed as date time, indicating the day that the crop is mowed.
0..1	ProcessType	Att	Text	A name or code, expressed as text, to indicate the type of silage process and storage.
0..1	Silagingdate	Att	Date Time	The date , expressed as date time, indicating the day the crop is stored in the silo or packed and sealed in packs.
0..1	FieldDryingStartPeriod	Att	Date	The date, expressed as date time, indicating the start of the period that the mowed crop remains in the field to dry.
0..1	FieldDryingEndPeriod	Att	Date	The date, expressed as date time, indicating the end of the period that the mowed crop remains in the field to dry.

### Soil.

Description: Soil is a natural body consisting of layers (soil horizons) of primarily mineral constituents of variable thicknesses, generally the natural upper layer of the earth surface.

Mult.	Business term	Rel.	Type	Description
1	Type	Att	Text	A name, word or code , expressed as text, to specify the type of soil.
0..1	DepthUpperBoundery	Att	Measure	The upper boundary of the zone of which the soil sample is taken, measured from the earth surface, expressed as a measure.
0..1	DepthLowerBoundery	Att	Measure	The lower boundary of the zone of which the soil sample is taken, measured from the earth surface, expressed as a measure.
0..1	Depth	Att	Measure	The depth where the soil sample is taken, measured from the earth surface , expressed as a measure.
0..1	ForeFruit	Att	Text	The crop that was cultivated on the soil in the previous year(s).

### Specified\_Party.

Description: A specified individual, group, or body having a role in a business function.

Mult.	Business term	Rel.	Type	Description
1	Identification	Att	Identifier	The unique identifier of this party contact.
0..1	Name	Att	Text	The name, expressed as text, of the department to which this party contact belongs.

### Structured\_Address

Definition: The location, using a structured address format, at which a particular organization or person may be found or reached.

Mult.	Business term	Rel.	Type	Description
0..1	Identification	Att	Identifier	The unique identifier in the structured address.

1	Postcode	Att	Code	The code specifying the postcode in the structured address.
0..1	BuildingName	Att	Text	The name, expressed as text, of a building, a house or other structure on a street in the structured address
1	StreetName	Att	Text	The name, expressed as text, of a street or thoroughfare in the structured address.
1	CityName	Att	Text	The name, expressed as text, of a street or thoroughfare in the structured address.
1	Country	Att	Identifier	The unique identifier of a country in the structured address (Reference ISO 3166 and UN/ECE Rec 3).
0..1	CountryName	Att	Text	The name, expressed as text, of the country in the structured address.
0..1	PostOfficeBox	Att	Text	The unique identifier, expressed as text, of a container commonly referred to as a box, in a post office or other postal service location, where postal items may be kept for this structured address.

### Tissue.

Description: Specifies characteristics of a tissue, a sample taken from an organism itself, not being material produced and extinguished by the organism.

Mult.	Business term	Rel.	Type	Description
1	System	Att	Text	The anatomical name, expressed as text, of the organ or part of the organism the tissue sample has been taken. like heart, leaver, kidney, muscle, vain. Plant anatomy is frequently investigated at the cellular level, and often involves the sectioning of tissues and microscopy.
1	AnatomicalLocation	Att	Text	The text specifying the area or part of the body or plant where the disease or injury is located, like like heart, leaver, kidney for animals and root, stem, leaf and flower for plants.

## 5.7 Business rules

The e-lab message is used to exchange information between laboratories and concerned parties. The message contains not any specified business rules.

The different receiving parties may get dedicated content, according to their information requirements and conform the specifications of the observation contract. It is to the Laboratory to implement certain dedicated business rules in a specific occurrence of the message to a certain party.

## 5.8 Definition of terms

### Parties and party roles

Terms	Definitions
Laboratory	The Party under which responsibility a <b>laboratory</b> (a facility that provides controlled conditions in which measurements and observations may be performed) is operated, which performs the measurements and observations on the sample and who produces a report about the measurements, observations and eventually conclusions.
Relation, Receiving Party	The Party who is receiving the report regarding the measurements, observations and conclusions related to the sample.