



UN/CEFACT

SIMPLE, TRANSPARENT AND EFFECTIVE PROCESSES
FOR GLOBAL BUSINESS

BUSINESS REQUIREMENTS SPECIFICATION (BRS)

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11/01/2007	0.6→ 0.7	<p>Modification of the class diagram</p> <p><u>New classes:</u></p> <p>Zone Characteristic Zone Plot Characteristic Measure Crop Variety Plot Crop Association Characteristic Production Cycle Motivation Condition Realization Measure Crop Condition Event Characteristic Manufacturer Information Parameter</p> <p><u>Modified classes:</u></p> <p>Commitments → Commitment Harvest → Harvested Product Batch Characteristic → Characteristic Harvest Batch → Harvested Product Batch</p> <p><u>Deleted classes</u></p> <p>Effluent Analysis Document Soil Analysis Document Effluent Adjuvant Soil Plant Health Product Mineral Element</p>	G CHERUY G HORVAIS

		Mineral Element Component Operator Previous Crop	
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Business Requirements Specification

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1 Preamble

Farmers must be able to produce reliable records about input and techniques used on crops (type of input, rate and date of application), and on livestock conditions (like the nature of feed, the quantity of feed and the use of drugs).

Demand for traceability implies that farmers are able to register data in the same manner despite the variety of software used for management purposes or the way in which products are sold.

The objectives of this document

- 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 the steps of traceability
- Installation of a standardized Crop Data Sheet message to facilitate the transmission of information since the field for all the vegetables cultures

DAPLOS is an EDIFACT message present in the UN/CEFACT Directory D.05B.

DAPLOS message describes the data crop sheet exchanged between farmers and their partners.

Majority of the farms are Small and Medium Enterprise (SME) and then, the use of ebXML format should be the best way to increase the electronic data interchange.

The purpose of this document is to define the crop data sheet processes for all vegetables dies, 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 Modeling Methodology User Guide (CEFACT/TMG/N093)

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

UN/EDIFACT DAPLOS message (Standard Directories D 05B)

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 the crop production.

The Business Process is the detailed description of the way trading 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 eDAPLOS data transfer is developed such as way that it specifies all information of data crop sheet (whatever the die), reusable business information entities.

It allows the extension of agricultural die specific business information entities such as it product specification details to describe a specific product.

It is up to each partner (farmer or farm's economic/administrative partner) to specify, based on the BRS of the eDAPLOS, its agricultural die specific information.

Categories	Description and Values
Business Process	Data Crop Sheet process
Product Classification	Arable crops products such as Wheat, Sugar beet, potatoes, etc.
Industry Classification	Agricultural sector
Geopolitical	Global
Official Constraint	European Regulations National regulation Local applicable regulation
Business Process Role	
Supporting Role	None
System Capabilities	No limitations

The eDAPLOS process is used to exchange the crop data sheet document between the farm and its administrative / economic partners.

This information includes technical description and information of the crop production in order to give data about traceability to the farmer's partners (cooperatives, manufacturers, suppliers, etc) and authorities (European CAP Regulation).

5 Business requirements

5.1 Business requirements view

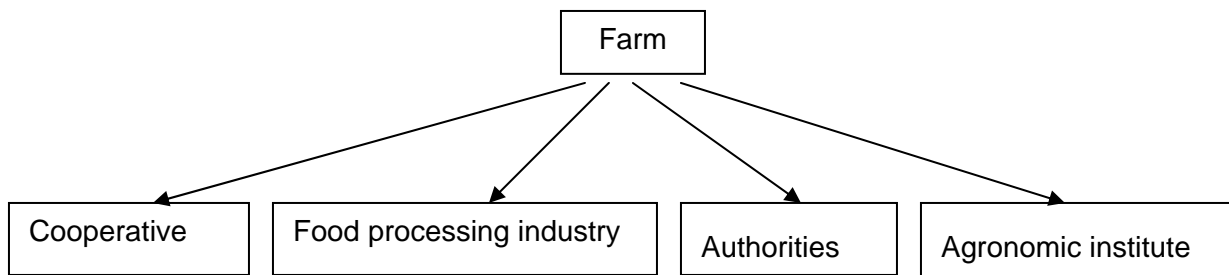
The eDAPLOS process is a simple case. The process consists on the agricultural data transmission between farmer and its administrative and/or economic partners.

5.2 Business process elaboration

Scope:

This process details the data crop sheet transmission between farmer and its economic partners (cooperatives, manufacturers, suppliers, etc.) and administrative partners like authorities (customs, Ministry of Agriculture, European CAP Regulation).

The Crop Data Sheet is created by the farmer and sent to an economic/administrative partner.



Principles

The farm has the obligation to note all the farming interventions carried out on its crops. He sends whole or piece of his technical information to its suppliers.

Use case: crop data sheet transmission

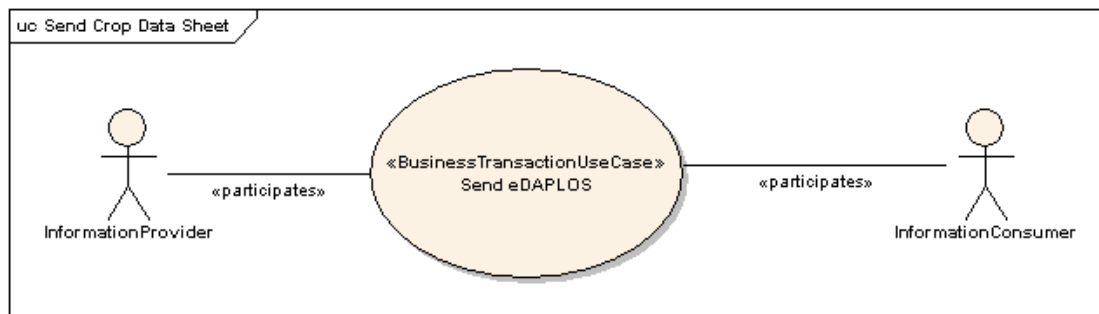


Figure 1: Use case diagram –crop data sheet process

Use case description

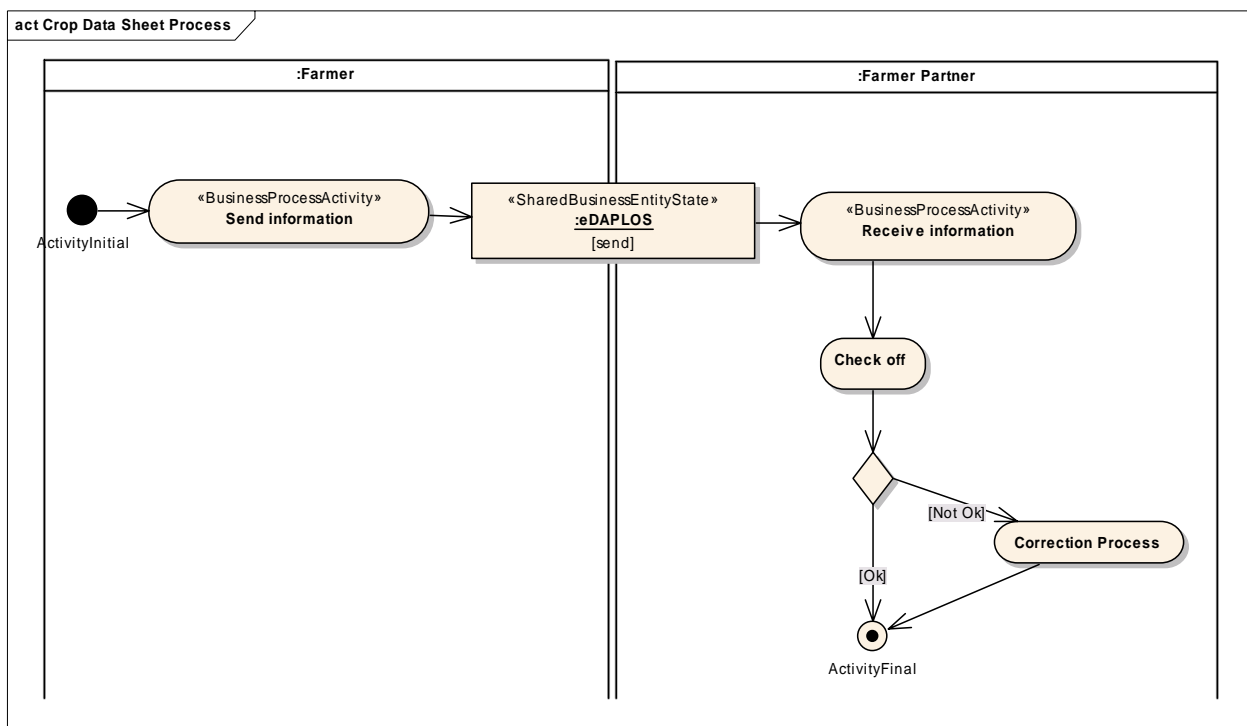
Business process name	Crop Data sheet process
Identifier	eDAPLOS
Actors	Farmers, cooperatives, suppliers, food industry, authorities
Description	The farm sends a crop data sheet to one of its economic /administrative partners (collectors, suppliers, authorities)
Pre-condition	No obligation to set up a precondition
Post-conditions	Success : The farmer sends the DAPLOS Failure : The economic partner has not received the DAPLOS
Scenarios	eDaplos message sending
Remarks	

5.3 Information flow definition (activity diagram, description)

The activity diagram allows identifying all the significant information flows between the farm and its partner.

Activity Diagram

Figure 2: Activity diagram-Data Crop Sheet information process



Activity diagram description: eDAPLOS process

The farmer sends the crop data sheet information to the cooperative. The technician of the cooperative (or food industry, authorities, agronomic institute) receives the information, checks of accuracy or the completeness and readability of information received. If there is any incoherence, the message is not accepted. If the message is ok, it's accepted.

Business collaboration

Business collaboration	
Identifier	Crop Data sheet information process
Description	<p>The farm sends a crop data sheet document to one of its partners.</p> <p>When the farm's partner receives the crop data sheet document, he checks of the document against the contractual conditions.</p> <p>If the crop data sheet is correct, the document is accepted.</p> <p>If there is any discrepancy detected, the process of correction starts</p>
Partners types	<p>FARM</p> <p>Economics partners (cooperatives, manufacturers, suppliers, accounting centers)</p> <p>Administrative partners (authorities, customs, ministry of agriculture, European CAP Regulation)</p>
Authorized Roles	<p>Farm (farmer)</p> <p>Partner (cooperative's agent, administrative person, etc.)</p>
Legal Steps/Requirement	None
Economic consequences	None
Initial/Terminal Events	
Scope	<p>Initial : the farm sends the document</p> <p>Terminal : the partner accepts the document</p>
Boundary	None
Constraints	None

5.4 Information model definition (class diagram)

Class diagram describes all the necessary classes of information for a flow.

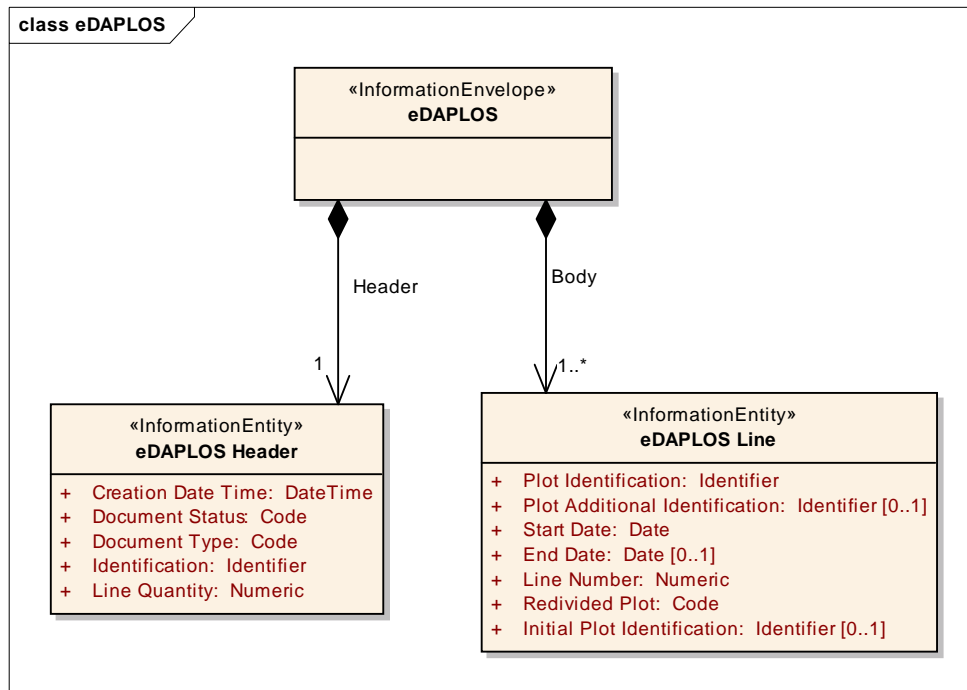


Figure 1: eDAPLOS

Data Crop Sheet:

Description:

This message describes the data plot sheet exchanged between farmers and suppliers. This information includes technical description and information of the crop production in order to give information about traceability to the farm's partners (cooperatives, manufacturers, suppliers etc.).

Mult.	Business term	Rel.	Type	Description
1	Schema version	Att.	String	Business document version number
1	DAPLOS Header	Ass	DAPLOS Header	The entity contains the general information (party details, date)
1..n	DAPLOS Line	Ass	DAPLOS Line	The entity contains the breakdown of 1 to n data crop sheet contained in the exchange

eDAPLOS Header:

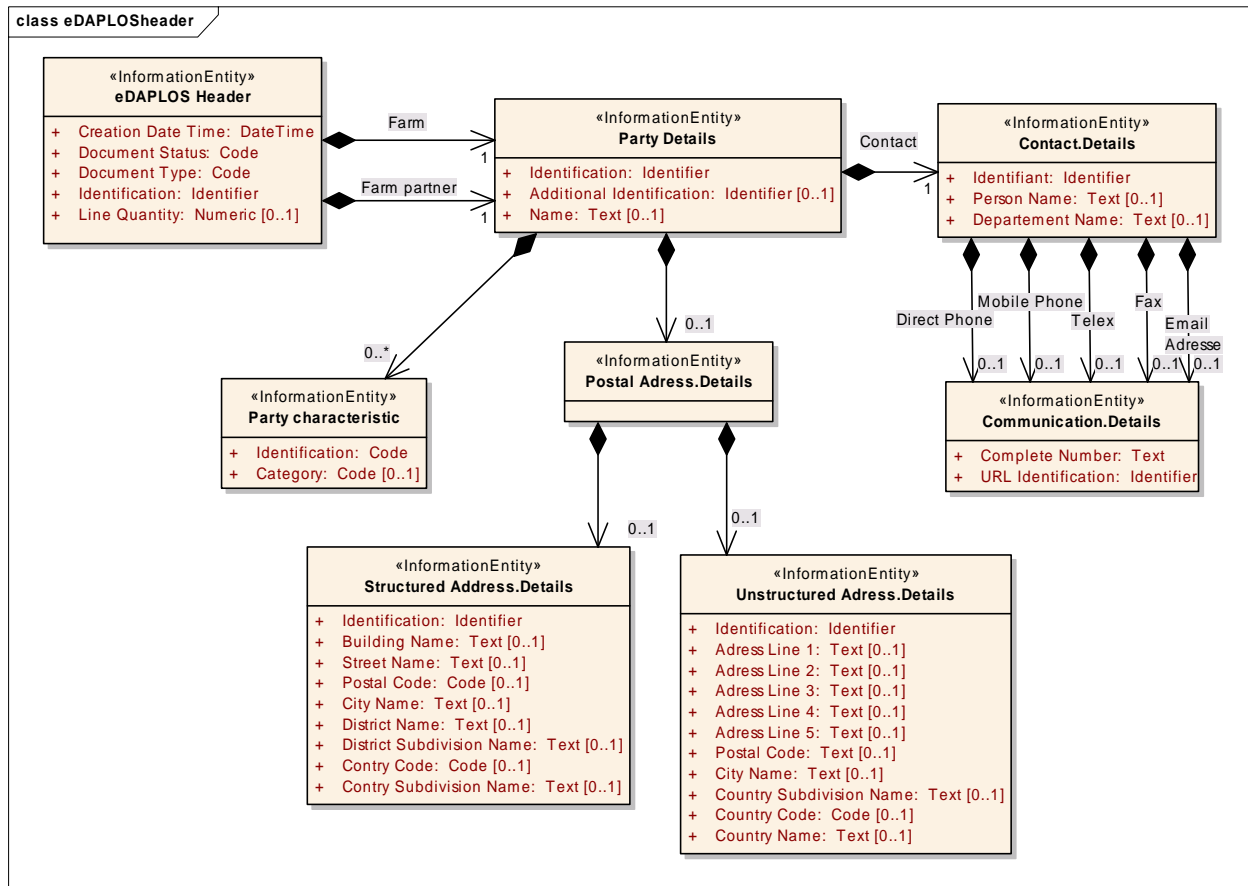


Figure 2: DAPLOS header

eDAPLOS Header:

Description: The entity contains the general information (party details, date)

Mult.	Business term	Rel.	Type	Description
1	Identification	Att.	identifier	The unique number assigned by the issuer to identify an DAPLOS message
1	Creation date time	Att.	DateTime	The date/time when the document is issued
1	Document Status	Att.	Code	The status of the document (original, duplicata)
1	Document type	Att.	Code	The code specifying the language of the free text of the Document
0..1	Line Quantity	Att.	Numeric	The number of message lines
1	Farm	Ass	Party details	The entity contains the details of the farm
1	Farm partner	Ass	Party details	The entity contains the details of the farm's economic partner

Party

Description: the entity contains the details of the name and the prime identification of a party.

Mult.	Business term	Rel.	Type	Description
1	Identification	Att.	Identifier	The code identifying a party involved in the exchange
0..1	Additional Identification	Att.	Identifier	The additional identification of a party involved in the exchange
0..1	Name	Att.	Text	The name of the party involved in a transaction.
0..1	Postal address	Ass.	Postal Address	The collection of information which locates and identifies a specific address.
0..1	Contact	Ass.	Contact. Details	Details of the contact
0..n	Party characteristic	Ass.	Party characteristic	Information and characteristics for the partners involved in the exchange(ex: type of agriculture practiced)

Party characteristic

Description: The entity contains the details of party characteristic.

Mult.	Business term	Rel.	Type	Description
1	Identification	Att.	Code	Code identifying the characteristic.
0..1	Category	Att.	Code	Value of the characteristic.

Postal Address

Description: The entity contains the details of a geographical location and of a postal communication channel.

Mult.	Business term	Rel.	Type	Description
0..1	Structured postal address	Ass.	Structured Address. Details	The entity contains the details of a specific address in a structured way.
0..1	Unstructured postal address	Ass.	Unstructured Address. Details	The entity contains the details of a specific address in an unstructured way.

Structured postal address details

Description: The entity contains the details of a specific address in a structured way.

Mult.	Business term	Rel.	Type	Description
1	Identification	Att.	Identifier	The unique identification of an address based on the Duns (Duns & Bradstreet) number of the company followed by four numeric digits.
0..1	Building name	Att.	Text	The name of a building
0..1	Street name	Att.	Text	The name of a street.
0..1	Postcode	Att.	Text	The national postal code (ZIP code) of the address
0..1	City name	Att.	Text	The name of a city
0..1	City sub-division name	Att.	Text	The name of a sub-division of a city, for example a district or borough
0..1	Country sub-division name	Att.	Text	The name of a state or province in a country.
0..1	Country identification	Att.	Identifier	The country code specified in ISO 3166-1993 (2 alpha positions)

Unstructured postal address

Description: The entity contains the details of a specific address in an unstructured way.

Mult.	Business term	Rel.	Type	Description
1	Identification	Att.	Identifier	The unique identification of an address based on the Duns (Duns & Bradstreet) number of the company followed by four numeric digits.
1	Address line one	Att.	Text	The first line of the address.
0..1	Address line two	Att.	Text	The second line of the address.
0..1	Address line three	Att.	Text	The third line of the address.
0..1	Address line four	Att.	Text	The fourth line of the address.
0..1	Address line five	Att.	Text	The fifth line of the address.
0..1	Postcode	Att.	Text	The national postal code (ZIP code) of the address
0..1	City name	Att.	Text	The name of a city
0..1	Country sub-division name	Att.	Text	The name of a state or province in a country.
0..1	Country identification	Att.	Identifier	The country code specified in ISO 3166-1993 (2 alpha positions)

Contact details

Description: The entity contains the details of the contact person or department.

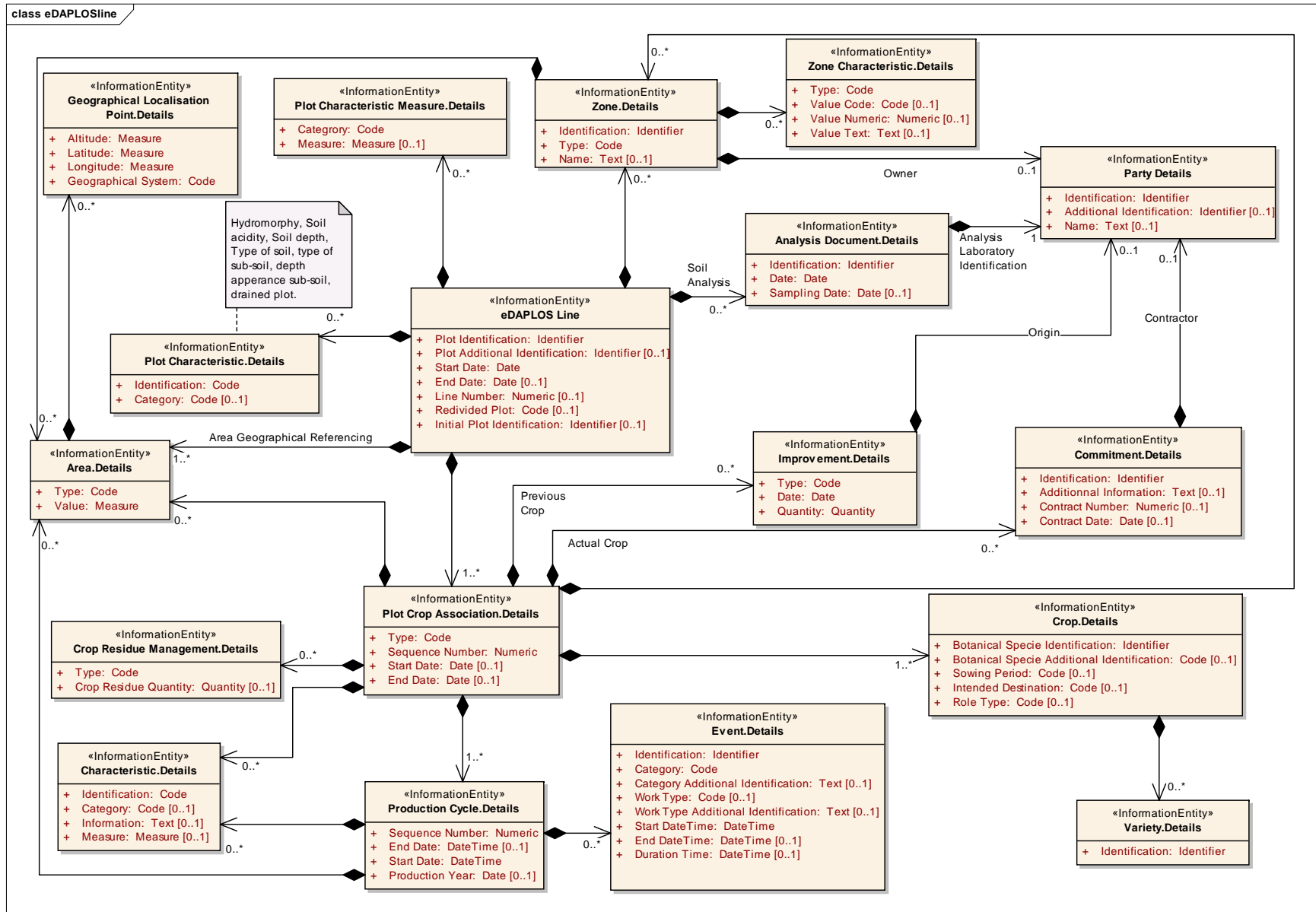
Mult.	Business term	Rel.	Type	Description
0..1	Identification	Att.	Identifier	The unique identifier of a contact person or department.
0..1	Person Name	Att.	Text	The name of a contact person.
0..1	Department name	Att.	Text	The name of identification of a department.
0..1	Direct phone number	Ass.	Communication	The number of the direct phone.
0..1	Mobile phone number	Ass.	Communication	The number of the mobile phone.
0..1	Telefax number	Ass.	Communication	The number of the facsimile.
0..1	Telex number	Ass.	Communication	The number of the telex.
0..1	E-Mail address	Ass.	Communication	The E-Mail address.

Communication

Description: The entity contains the details of the communication numbers

Mult.	Business term	Rel.	Type	Description
0..1	Complete Number	Att.	Text	The complete communication number
0..1	URL Identification	Att.	Identifier	The URL Identification for the email

DAPLOS Line: Class diagram



DAPLOS line

Description: The entity contains the breakdown of 1 to n data crop sheet contained in the exchange

Mult.	Business term	Rel.	Type	Description
1	Plot Identification	Att.	Identifier	The unique number assigned by the issuer to identify an data crop sheet
0..1	Plot Additional Identification	Att.	Text	Name of the arable plot, given by the agricultural unit
1	Start Date	Att.	Date	The date when the plot is created
0..1	End Date	Att.	Date	Date of the end of plot (harvest)
0..1	Line Number	Att	Numeric	To specify the line number in the message
0..1	Redivided Plot	Att.	Code	To specify if the plot is redivided
0..1	Initial Plot Identification	Att.	Identifier	If the arable plot is redivided, the initial plot identification key is specified
0..n	Zone	Ass	Zone.Details	A zone is an geographical area which contains the plot and which has specific characteristics
0..n	Plot Characteristic	Ass	Plot characteristic.Details	The entity details the plot characteristics like : hydromorphy, soil acidity, type of soil, drained plot etc.
0..n	Plot Characteristic Measures	Ass	Plot characteristic Measure details	The entity details the plot characteristics measures
1..n	Plot Crop Association	Ass	Plot Crop Association.Details	The entity details the type of crop (previous, actual or next crop) and the dates associated
1..n	Area	Ass	Area.Details	The entity contains the details of area measures concerning the plot
0..n	Analysis document	Ass	Analysis document.Details	The entity contains the details of the analysis made on this crop

5.5 Business Information Entities

Description more informative

Analysis Document.Details

Description: the entity contains the details of the analysis document

Mult.	Business term	Rel.	Type	Description
1	Identification	Att.	Identifier	To identify the analysis document
1	Date	Att	Date	To specify the date/time of an analysis
0..1	Sampling Date	Att	Date	To specify the date/time of a sample
1	Analysis Identification Laboratory	Ass	<u>Party details</u>	The entity contains the details of the analysis laboratory identification

Area.Details

Description: the entity contains the details of all surface area concerned

Mult.	Business term	Rel.	Type	Description
1	Type	Att.	Code	Allow to specify the type of surface area mentioned like crop surface area, event area
1	Value	Att	Measure	The area value
0..n	Area Geographical referencing	Ass	<u>Geographical Localisation Point</u>	The entity contains the geographical coordinates points which determine the geographical position of the surface area.

Characteristic.Details

Description: the entity contains the details of Plot crop association and production cycle characteristics.

Mult.	Business term	Rel.	Type	Description
1	Category	Att.	Code	To specify the characteristic
0..1	Identification	Att	Code	The entity contains the details of the characteristics
0..1	Measure	Att	Measure	Measure related to the chosen Characteristic
0..1	Information	Att	Text	Information relative to the chosen characteristic

Commitment.Details

Description: the entity contains the details of contract in link with crop production

Mult.	Business term	Rel.	Type	Description
1	Identification	Att	Identifier	Code specifying the type of commitment in link with the arable plot
0..1	Additional Information	Att	Text	To specify additional information concerning the commitment
0..1	Contract Number	Att	Numeric	To specify the contract number if necessary
0..1	Contract Date	Att	Date/time	Date of the contract
0..1	Contractor	Ass	<u>Party details</u>	The entity contains the details of the contractor

Condition Realization.Details

Description: The entity contains the details of the event conditions of realization

Mult.	Business term	Rel.	Type	Description
0..1	Category	Att	Code	Code specifying the category of event conditions of realization (ex: weather conditions, soil conditions)
0..1	Identification	Att	Code	To identify the conditions of realization (wind, rain ; snow)

Condition realization Measure.Details

Description: The entity contains the details of the event conditions of realization

Mult.	Business term	Rel.	Type	Description
0..1	Category	Att	Code	Code specifying the category of event conditions of realization measured (ex: hygrometry, Temperature)
0..1	Measure	Att	Measure	Code specifying the condition of realization measure at the moment of the event

Crop.Details

Description: The entity contains the details of the crop

Mult.	Business term	Rel.	Type	Description
1	Botanical Specie Identification	Att	Identifier	Code defining the type of crop cultivated (botanical species)
0..1	Botanical Species Additional Code	Att	Code	Additional information concerning the botanical species cultivated
0..1	Sowing Period	Att	Code	To specify the period of sown (spring or winter)
0..1	Intended Destination	Att	Code	To specify the intended destination of the harvest
0..1	Role Type	Att	Code	To specify the function of the crop
0..n	Variety sown	Ass	Variety	The entity contains the details of the variety sowed

Crop Residue Management.Details

Description: The entity contains the details of Crop residue management concerning the arable crop and its previous crops if necessary

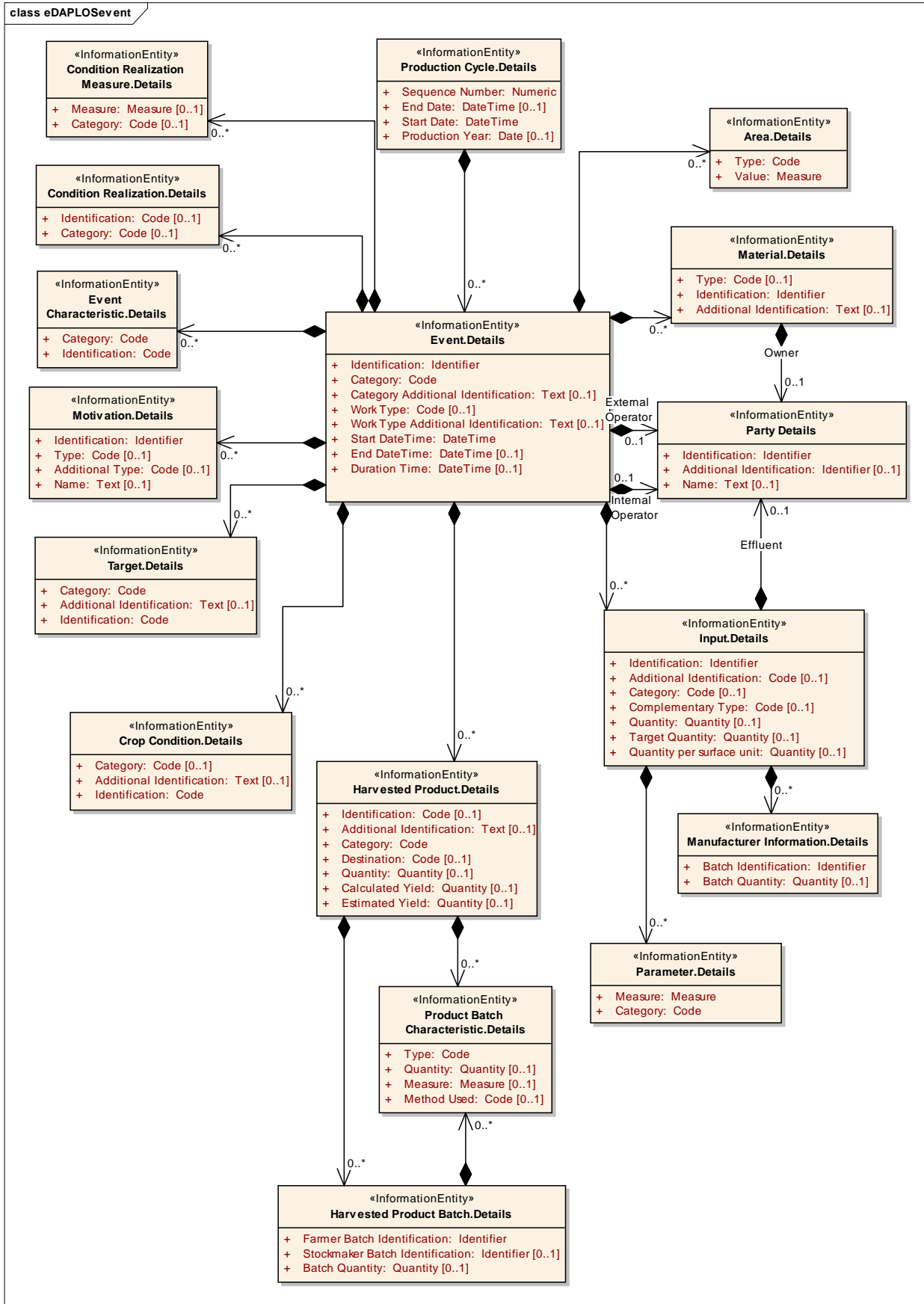
Mult.	Business term	Rel.	Type	Description
0..1	Type	Att	Code	Code defining the type of crop residue management
0..1	Crop residue Quantity	Att.	Quantity	Quantities applied

Crop Condition.Details

Description: The entity contains the details of the crop stage at the moment of the event (phenological growth stage)

Mult.	Business term	Rel.	Type	Description
0..1	Category	Att	Code	To identify the Crop stage category (phenological growth stage or crop conditions)
0..1	Identification	Att	Code	To identify the Crop stage by code
0..1	Additional Identification	Att	Text	To identify the Crop stage by text

Event.Details



Event.details

Description: The entity contains the details of any act (observation, recommendation, activity) which is related to an arable plot the entity contains the details of the event

Mult.	Business term	Rel.	Type	Description
1	Identification	Att	Identifier	The unique number assigned by the sender to identify an event
1	Category	Att.	Code	To identify the event category code
0..1	Category Identification Additional	Att	text	Event additional identification by text
0..1	Work Type	Att.	Code	To specify the type of agricultural work (sowing, harvesting) by code
0..1	Work Type Identification Additional	Att.	text	To specify the type of agricultural work (sowing, harvesting) by text
1	Start DateTime	Att.	Date/time	To specify Date/Time event begun
0..1	End DateTime	Att.	Date/time	Date/Time event finished
0..1	Duration Time	Att.	Date/time	Event duration ddmmyy-ddmmyy
0..n	Motivation	Ass	Motivation.Details	To detail the reason of the event (plant disease..)
0..1	Internal Operator	Ass	Party Details	The entity contains the details of the internal operator who did the work
0..1	External Operator	Ass	Party Details	The entity contains the details of the external operator who did the work
0..n	Material used for the event	Ass	Material details	The entity contains the details of the material used for doing the event
0..n	Event area	Ass	Area. Details	The entity contains the details of the event area
0..n	Input	Ass	Input Details	The entity contains the details of the input
0..n	Harvested product	Ass	Harvested Product .Details	The entity contains the details of the output (harvest)
0..n	Event characteristics	Ass	Event Characteristic.Details	The entity contains the details of the event characteristics
0..n	Event target	Ass	Target details	The entity contains the details of the event's target (plant disease, etc.)
0..n	Phenological growth stage and conditions	Ass	Crop Condition.Details	The entity contains the details of the phenological growth stage and conditions of the plant at the time of event
0..n	Event conditions of realization	Ass	Condition Realization.Details	The entity contains the details of the event conditions of realisations by code
0..n	Event conditions of realization Measure.Details	Ass	Condition Realization. Measure.Details	The entity contains the details of the event conditions of realisations by measure

Event Characteristic.Details

Description: The entity contains the details of event characteristics

Mult.	Business term	Rel.	Type	Description
1	Category	Att.	Code	To specify the characteristic category
1	Identification	Att	Code	To identify the characteristic

Geographical Localisation Point.Details

Description: The entity contains the geographical coordinate points which determine the geographical position of the surface area.

Mult.	Business term	Rel.	Type	Description
1	Geographical System	Attr.	Code	reference frame used for the geographical co-ordinates (ex: Lambert 2 or WGS84)
1	Latitude	Attr.	Measure	To specify latitude degree of the geographical point
1	Longitude	Attr.	Measure	To specify longitude degree of the geographical point
1	Altitude	Attr.	Measure	To specify altitude degree of the geographical point

Harvested Product.Details

Description: The entity contains the details of the crop harvest

Mult.	Business term	Rel.	Type	Description
1	Category	Att.	Code	To specify the type of harvested product (main product or co-product)
0..1	Identification	Att.	Code	Identification of the harvested product by code
0..1	Additional Identification	Att.	text	Additional Identification of the harvested product by text
0..1	Quantity	Att	Quantity	Quantity of the product harvested
0..1	Destination	Att	Code	To specify the destination of the harvested product
0..1	Calculated Yield	Att	Quantity	Calculated yield of the harvest
0..1	Estimated Yield	Att	Quantity	Estimated yield of the harvest
0..n	Harvest batch details	Ass	Harvest Batch Details	The entity contains the details of the harvest batch details if necessary

Harvest Product Batch.Details

Description: The entity contains the details of the harvest batch

Mult.	Business term	Rel.	Type	Description
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0.1	StockMaker Identification	Batch	Attr.	Identifier	Identification number of one of the harvested batch given by the stockmaker
1	Farmer Batch Identification		Attr.	Identifier	Identification number of one of the harvested batch given by the farmer
0..1	Batch Quantity		Att	quantity	To specify the quantity of the batch concerned
0..n	Batch characteristics	technical	Ass	Product Batch Characteristic.Details	The entity contains the details of the batch technical characteristics

Improvement.Details

Description: The entity contains the details of the improvements applied on the previous crop

Mult.	Business term	Rel.	Type	Description
0..1	Type	Att	Code	To identify the type of improvement applied on the crop
0..1	Date	Att	Date	To specify the date of improvement
0..1	Quantity	Att	Quantity	To specify the quantity applied

Input.Details

Description: The entity contains the details of the input applied on the crop

Mult.	Business term	Rel.	Type	Description
1	Identification	Att	Identifier	The code specifying the input identification
0..1	Additional Identification	Att	Code	To specify additional identification about input by code
0..1	Category	Att	Code	To specify the category of input
0..1	Complementary Type	Att	Code	To specify moiré details of an organic input
0..1	Quantity	Att	Quantity	To specify the quantity applied
0..1	Target Quantity	Att	Quantity	Target quantity applied
0..1	Quantity per surface unit	Att.	Quantity	Quantity applied per surface unit
0..n	Input manufacturer batch information	Ass	Manufacturer Information	The entity contains the details of the manufacturer batch information
0..n	Parameter	Ass	Parameter	The entity contains the parameter measured of input (= mineral element)
0..n	Effluent Analysis	Ass	Analysis Document	The entity contains the details of the effluent analysis document
0..n	Effluent Origin	Ass	Party details	The entity contains the details of the effluent origin

Manufacturer Information.Details

Description: The entity contains the details of the input manufacturer batch information

Mult.	Business term	Rel.	Type	Description
1	Batch identification	Att	Identifier	To identify the batch number given by the manufacturer
0..1	Batch Quantity	Att	Quantity	To specify the quantity of input inside the batch

Material.Details

Description: The entity contains the details of the material used during the event

Mult.	Business term	Rel.	Type	Description
1	Identification	Att	Identifier	To identify the material used
0..1	Additional Identification	Att	Text	To identify the material used by text
0..1	Type	Att	Code	To specify the material type by code
0..1	Material owner	Ass	Party details	Details of the material owner

Motivation.Details

Description: The entity contains the details of the reason of the event (technical advices, analysis results, plant diseases, pests, etc.)

Mult.	Business term	Rel.	Type	Description
1	Identification	Att	Identifier	To identify the motivation of event (technical advices, analysis results, plant diseases, pests, etc..)
0..1	Type	Att	Code	Code specifying the type of event motivation
0..1	Additional Type	Att	Code	To identify the motivation by text
0..1	Name	Att	Text	To specify the motivation by text

Product Batch Characteristic.Details

Description: The entity contains the details of the output technical characteristics

Mult.	Business term	Rel.	Type	Description
1	Type	Att.	Code	To specify the characteristic measured (ex: grain humidity, protein content, nitrat content etc.)
0..1	Quantity	Att	numeric	The characteristic quantity
0..1	Measure	Att	numeric	The characteristic measure
0..1	Method Used	Att	Code	To specify the method used (vine growing)

Parameter.Details

Description: The entity contains the details of the input parameters measured (ex: mineral element)

Mult.	Business term	Rel.	Type	Description
1	Category	Att	Code	To identify parameter measured (ex: magnesium, nitrogen, zinc etc.)
1	Measure	Att	Measure	Value of the mineral element measure

Plot Crop Association.Details

Description: The entity details the type of crop (previous, actual, next crop or catch crop) and the dates associated

Mult.	Business term	Rel.	Type	Description
1	Type	Att	Code	To identify the type of crop (main crop or catch crop)
1	Sequence number	Att	Numeric	To specify the sequence number of the crop concerned : -1 : previous crop (n-1) 0 : actual crop (n) +1 : next crop (n+1)
0..1	Start Date	Att	Date/time	The start date of the crop
0..1	End Date	Att	Date/time	The end date of the crop
1..n	Crop	Ass	Crop details	The entity contains the details the crop (botanical species, etc.)
0..n	Crop residue Management	Ass	Crop residue Management details	The entity contains the details of Crop residue management concerning the arable crop and its previous crops if necessary
0..n	Zone	Ass	Zone.Details	A zone is a geographical area which contains the plot and which has specific characteristics
1..n	Production Cycle	Ass	Production Cycle	The entity contains the details of the cycle of production

			details	
0..n	Commitment	Ass	Commitment details	The entity contains the details of contract in link with crop production
0..n	Area	Ass	Area.Details	To specify the surface of this entity
0..n	Improvement	Ass	Improvement details	The entity contains the details of the improvements applied on the previous crop

Plot Characteristic.Details

Description: The entity contains the details of plot characteristics

Mult.	Business term	Rel.	Type	Description
1..1	Identification	Att.	Code	To specify the characteristic (hydromorphy, type of soil, etc.)
0..1	Category	Att	Code	To specify the characteristic code

Plot Characteristic Measure.Details

Description: The entity contains the details of plot characteristics

Mult.	Business term	Rel.	Type	Description
1	Category	Att.	Code	To specify the characteristic (hydromorphy, type of soil, etc.)
0..1	Measure	Att	Measure	The entity contains the details of the characteristics measures

Production Cycle.Details

Description: The entity contains the details of the cycle of production. !!It's the period of the crop production which concerned.

Exemple: a vineyard has a 30 years life and a one cycle a year of production (the vine is produced every year or one harvest per year)

Mult.	Business term	Rel.	Type	Description
1	Sequence number	Att	numeric	To specify the number of the cycle of production
1	Start date	Att	Date/time	To specify the start date of the cycle of production
0..1	End Date	Att	Date/Time	To specify the end date of the cycle of production
0..1	Production year	Att	Date	To specify the year of production concerned
0..n	Event	Ass	Event details	The entity contains the details of the event

Target.Details

Description: The entity contains the details of the event target

Mult.	Business term	Rel.	Type	Description
1	Category	Att	Code	To identify the event target category (pests, diseases, weeds)
1	Identification	Att	Code	To identify the target by code
0..1	Additional Identification	Att	Text	To identify the event target by text

Variety.Details

Description: The entity contains the details of the variety sowed

Mult.	Business term	Rel.	Type	Description
1	Identification	Att	Identifier	To identify the variety sowed

Zone.Details

Description: A zone is a geographical area which contains the plot and which has specific characteristics.

Mult.	Business term	Rel.	Type	Description
1	dentification	Att	Identifier	To identify the zone
1	Type	Att	code	To identify the type of zone Ex: land registry area,
0..1	Name	Att	Text	To specify the zone name
0..n	Characteristic	Ass	Zone characteristic. Details	The entity contains the details of the zone characteristics like city
0..n	Zone Area	Ass	Area.Details	To specify the zone area
0..1	Zone Owner	Ass	Party.Details	The entity contains the details of the zone owner

Zone Characteristic.Details

Description: The entity contains the details of the zone characteristics

Mult.	Business term	Rel.	Type	Description
1	Characteristic Type	Att	Identifier	To identify the type of the characteristic
0..1	Value numeric	Att	numeric	To identify the characteristic like : cadastral map number Ex: land registry area,
0..1	Value code	Att	Code	Type of farming (farming by the owner or farming

				by the tenant)
0..1	Value text	Att	Text	To identify the location name, city name

5.6 Business rules

The eDAPLOS message is used between farmers and suppliers and/or customers (cooperatives, manufacturers, food industry, etc.) There are no special rules applied to these exchanges of technical data. Any agricultural unit can initiate the send of data crop sheet to a receiving organization without any regulation by the business rules.

5.7 Definition of terms

Parties and party roles

Terms	Definitions
Farmer	Person engaged in agriculture business, field crop growing, cattle rearing for the meat or others productions (milk, egg, wool, etc). In this Business Process, only the crop production is required.
Cooperative / stock makers	Farmer's partner which stocks and sells farmer's crop productions. Most of time, farmer has signed a quality contract with the cooperative.
Food industry	Customer of farmer or cooperative. Food industry which imposes strict contracts of production as regards chemical inputs, environmental good practices, etc.
Ministry of agriculture	Control the European CAP regulation and pay the "primes"
Agronomic institute	Farmer's partner who study all the parameter of production to finally insure a better crop production in quality and/or quantity and less bad environment issues.

Definition of terms

The definition of terms are shown in the §5.4 and §5.5.