

UN/CEFACT – SEC-PDA/AGRI eQuality

UNITED NATIONS
Centre for Trade Facilitation and Electronic Business
(UN/CEFACT)

1 SECTORAL PROGRAMME DEVELOPMENT AREA
2 AGRICULTURE DOMAIN
3
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5 EQUALITY CERTIFICATE PROJECT

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Document History

Phase	Status	Date Last Modified
Initial	concept	18 th July 2018
Expert meeting in The Netherlands	0.2	26 th September 2018
UNCEFACT Forum	0.3	11 th November 2018

Figure 1 - Document History

Change Log

The change log is designed to alert users about significant changes that occurred during the development of the BRS instance.

Date of Change	Version	Paragraph Changed	Summary of Changes
26 th September 2018	0.2		Correction of all diagrams Add ABIE Role and ABIE Certificate Limited scope to exchange of quality certificate Add BBIE's unit. type quantity under Trade Line Item and inspection status and status under Inspection_ Event
11 th November	0.3	2.2 2.4	Definition of consignment changed Removed

Figure 2 - Document Change Log

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34 **1 BRS eQuality**

35 The eQuality certificate is a unique document that issued by an authority, which states that
36 the product meets certain qualification criteria. The document is signed and uniquely
37 marked by the issuing authority.

38

39 **1.1 Preamble**

40 The current practice of the exchange of conformity certificates associated with the import of
41 agricultural commodities represents a major opportunity to improve the integrity and
42 business processes of importing border authorities.

43 The trade of agricultural commodities is highly regulated by governments to protect human,
44 animal and plant health and consumer interests. The importing authority sets quality
45 standards for commodities (products) crossing their border and requires certification issued
46 by the recognised competent export inspection body to verify compliance to bilaterally
47 agreed requirements and quality standards. The inspection body of the importing country
48 may decide, after a risk analysis, to repeat the conformity inspection for a second opinion.

49 At present conformity certificates are paper documents accompanying the consignment.
50 Therefore this document seeks to initiate the process to standardise the data elements and
51 message structure to facilitate global implementation of electronic exchange of conformity
52 certificates.

53 The outputs will be the harmonized XML schemas to support the information exchange for
54 the business process.

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

57
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59 **1.2 References**

60 The list of specifications that have substantially influenced the development of the business
61 requirements specification document, including formal standards from UN/CEFACT,
62 OECD and other standards bodies, international treaties or agreements, industry sector and
63 institutional specifications:

- 64 • *UN/CEFACT Modelling Methodology User Guide (CEFACT/TMG/N093)*
- 65 • *UN/CEFACT Business Requirement Specification Document Template*
66 *(CEFACT/ICG/005)*
- 67 • *UN/CEFACT E-CERT BRS*
- 68 • *ECE certificate based on the OECD conformity certificate:*
69 <http://www.unece.org/trade/agr/aboutus.html>
- 70 • *EU certificate – page 115 in Annex III to EU Regulation No 543/2011.*
71 [http://eur-lex.europa.eu/legal-](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32011R0543&from=en)
72 [content/EN/TXT/PDF/?uri=CELEX:32011R0543&from=en](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32011R0543&from=en)

1.3 Objective

The objective of this document is to propose a standard for the Business Processes, the Business Transactions and the Information Entities used in the process of exchanging data on product quality conformity certification.

The Business process is the detailed description of the way participants intend to play their respective roles, establish business relations and share responsibilities to interact efficiently with the support of their respective information systems. Each Business transaction is realized by an exchange of messages. The context and sequence in which these messages are used is presented as use cases in the document.

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.

1.4 Scope

The objective of this project is to standardise the business processes, the business transactions and the information entities of the electronic issuing and exchange of the eQuality certificate along the supply chain.

The project will describe the business process for the electronic exchange of:

- Data involved in the process of issuing an electronic quality certificate between the producer / trader and the issuing authority
- The electronic exchange of the eQuality certificate along the supply chain.

The project will focus on the eQuality certificate for agricultural products, both of plant and animal origin.

The supply chain consists of all parties involved from farmer – fisherman, including cooperatives and producer organisations, packers and traders, processors up to the retailers, including the service providers and authorities.

The data involved in the request eQuality certification message contains:

- Information about the product (type, purpose, quantity, quality, identification) , production process, location, party and purpose of the certificate (ie. export to country X)

The eQuality certificate contains data about the related product and the administrative data of the certificate, (date of issue, inspection, etc; the certificate ID, inspector and an electronic signature of the authority.) The relation between the physical product instance and the assigned eQuality certificate for this product instance will be maintained along the lifecycle of the product instance.

The certificate is used by the producer / trader to prove the product qualifications in case of export or for other business processes. The certificate is used by the export control authority and by the (international) trade partners.

1.5 Contexts

Context Category	Description
Business Process	Process of issuance and exchange of product quality conformity certificate
Product Classification	Conformity certificates
Industry Classification	All sectors (agricultural and others) involved in trade in products from animal or plant origin
Geopolitical	Global
Official Constraints	International Regulations National regulations Local applicable regulations
Business Process Role	Customs, importer, exporter, transporter, inspection body, control authority
Supporting Role	None
System Capabilities	Agreed level of security to protect data integrity Preferably a single windows implementation Database applications with uniquely identified electronic certificates with a system of authorizations and keys for retrieving information.

Figure 3 – Context Categories

2 Business Requirements Elaboration

2.1 Business Requirements Lists

The business requirements and key business information is presented in the list below,

Number	Business Requirement Statement
A.1	Quality conformance data messages must use existing standards and methods allowing to provide information
A.2	A consignment contains one or more trade line items
A.3	The trade line items in the consignment contain one or more products from plant or animal origin.
A.4	The consignment is exported from one country and imported in another country
A.5	The inspection authority can take on the role of the competent inspection body, or can delegate inspection tasks to a competent inspection body.
A.6	The competent inspection body has a database with eQuality certificates
A.7	eQuality certificates are uniquely identified with a code
A.8	The competent inspection body export informs the competent inspection body import by sending a message with all conformity information available
A.9	The competent inspection body can verify the validity of an eQuality certificate in the database of another competent inspection body.
A.10	The eQuality certificate of the exporting country can be approved, rejected, updated, reissued or renewed by the competent inspection body of the importing country
A.11	The parties involved (exporter, transporter, importer, customs) are informed of the eQuality certificate ID and other relevant information (means of transport, container no., time and date of arrival, location of unloading, etc)
A.12	Interoperability between different systems
A.13	Independent of type of product and national and / or geographical locations

Figure 4 – Business Requirement List

Number	Data Domains
B1	Exchanged certificate
B2	Consignment
B3	Product

Figure 5 – Data Domains

2.2 Definitions Business Terms

The names and definitions of business terms used in the requirements specification are listed below:

Product	Any tangible output or service produced by human or mechanical effort or by a natural process.
Consignment	A separately identifiable collection of goods items to be transported or available to be transported from one consignor to one consignee via one or more modes of transport where each consignment is the subject of one single transport contract.
Trade line item	A collection of information specific to an item being used or reported on for trade purposes.
Party	An identified person, organization or authority.
Location	An identified geographical point or area where goods are loaded, unloaded or inspected.
Document	A collection of data for a piece of written, printed or electronic matter that provides information or evidence.
Quality certificate	Quality certificates or certificates of conformity may be issued by a competent authority to confirm that the products concerned conform to the relevant marketing standard
Conformity check	A conformity check is made by assessing samples taken at random from different points in the lot to be controlled. It is based on the assumption that the quality of the samples is representative of the quality of the lot.

Figure 6 – Sample Definitions of Terms

2.3 Business Requirements View

An outline description of the artefacts that form part of the BRS are given below and are described using the UMM terminology.

2.3.1 Business Domain View

The business processes that are included in the Business Domain are identified and classified in this view.

The Business Domain view is represented by two Use Case Diagrams.

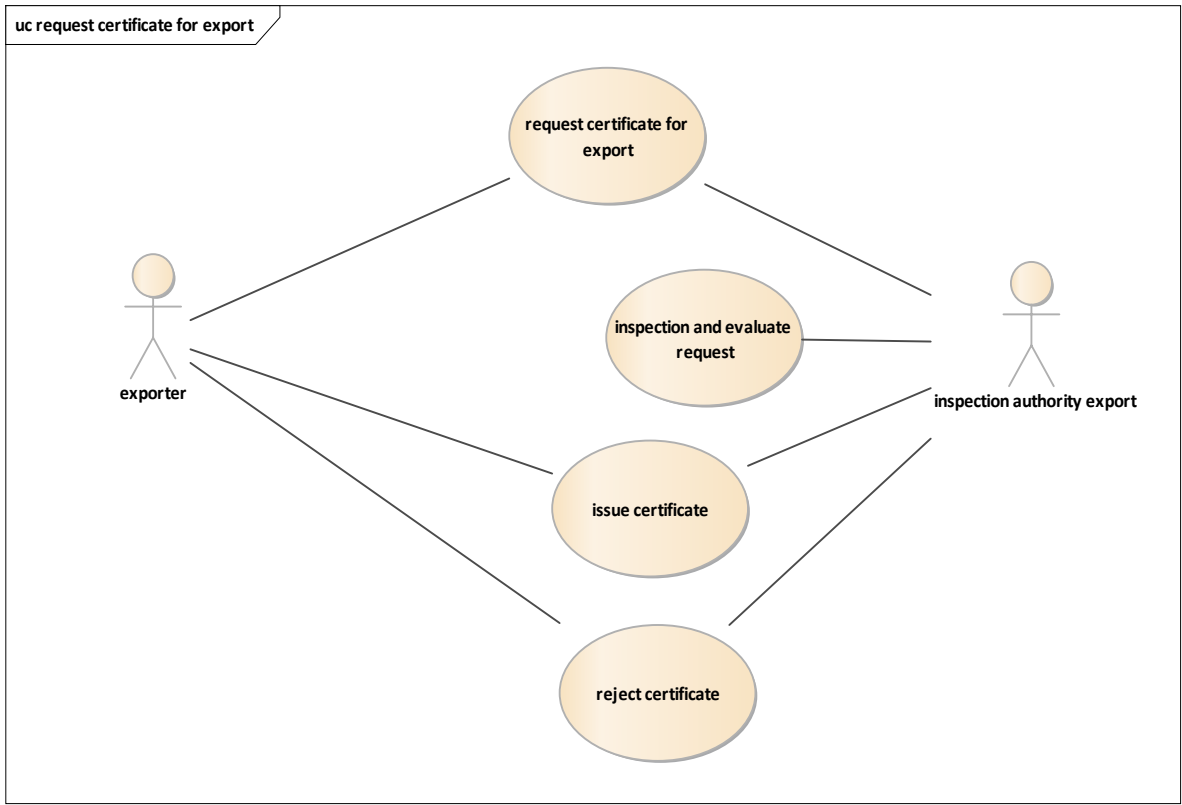


Figure 7 - Business Domain Use Case Diagram 1 - Business Process ‘Request for eQCert’

The request process of the certificate in use case 1 is not in scope. Only the issuance of the certificate is in scope.

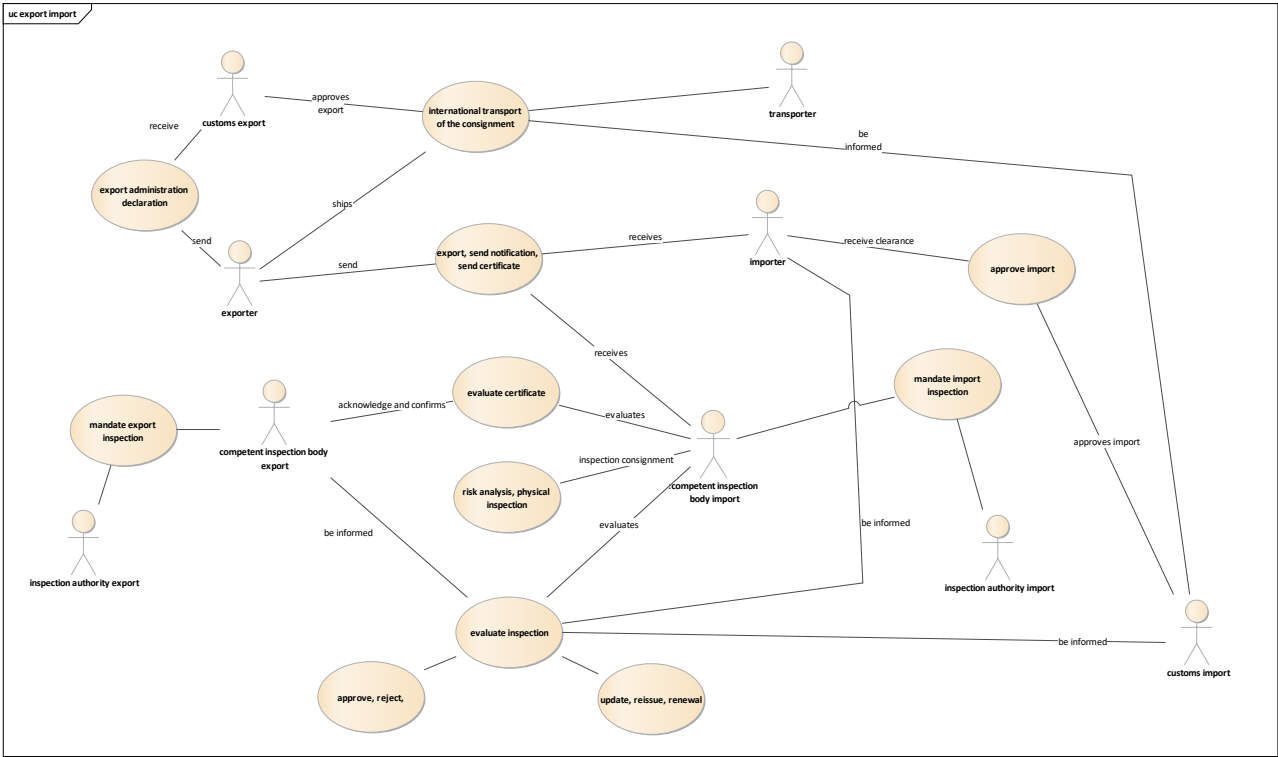


Figure 8 - Business Domain Use Case Diagram 2 - Business Process ‘eQCert information exchange in export and import processes’

2.3.2 Business Process Activity Diagram

A Business Process Activity Diagram is used to model the dynamics of each business process, to depict a collaborative process involving the Business Partners and to denote important states of business entities that are manipulated during the execution of a business process.

In the list below some activities are optional or may slightly differ in different countries.

Steps that are in scope of the eQuality standard are highlighted.

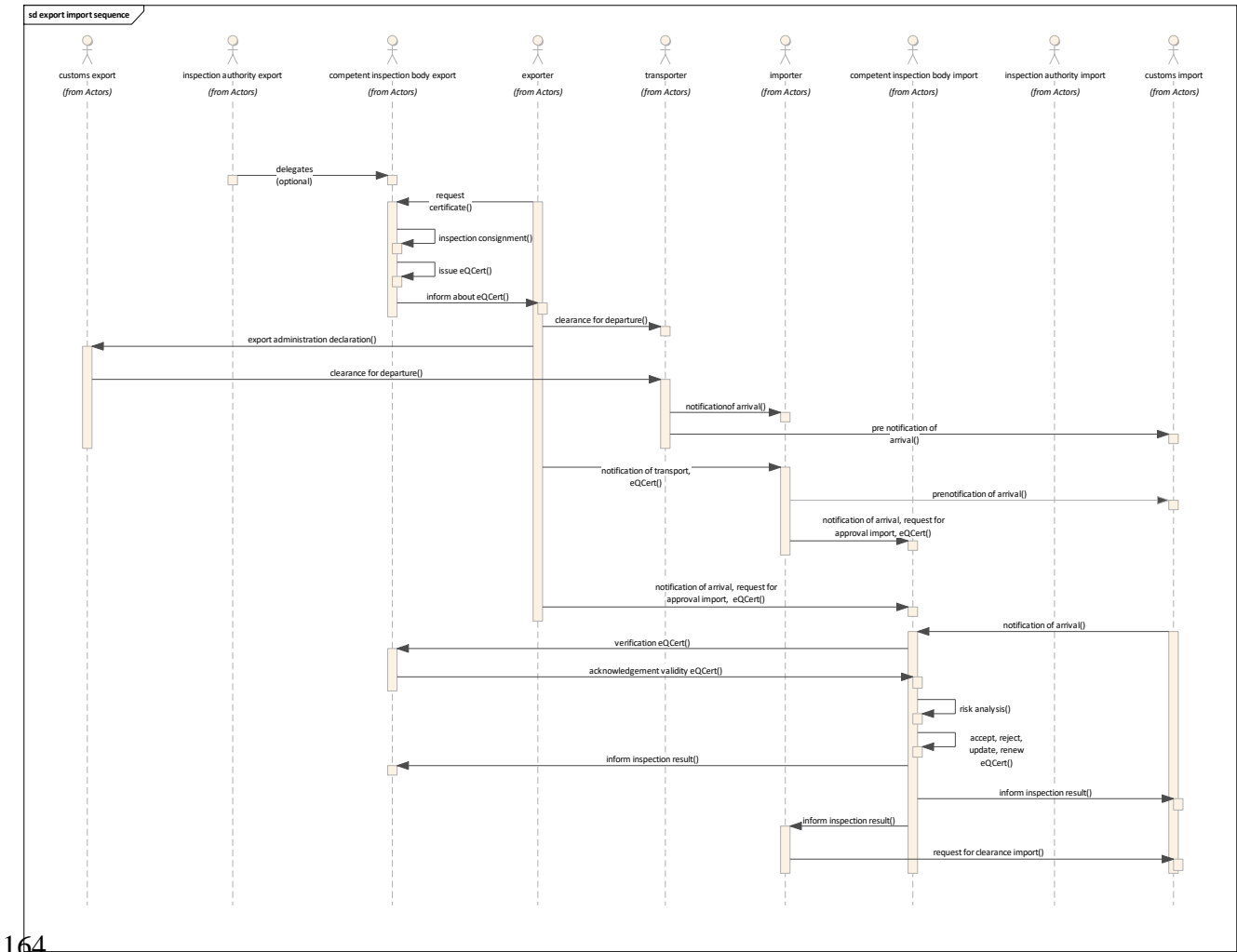
List of activities in eQuality certification

The Inspection authority can delegate inspection tasks to a Competent inspection body (optional)	Delegate inspection tasks
The Exporter initiates the certification process by requesting a conformity certificate for a consignment from the Competent inspection body export.	Request for certification
The Competent inspection body export issues the certificate after inspection.	Issue eQCert
The Competent inspection body export informs the exporter of the conformity certificate.	Inform about eQCert
The Exporter informs the Transporter that the goods are ready for transport.	Inform about eQCert
The Exporter sends all export documents for the consignment to Customs export.	Export administration declaration
Customs export gives the Exporter clearance for export of the consignment.	Clearance for departure
Transporter informs Importer of arrival of the consignment.	Notification of arrival
Transporter informs Customs import of the estimated date and time arrival of the consignment.	Pre-notification of arrival
Exporter informs Importer that goods are being transported.	Notification of transport, eQCert
Importer informs Customs import of the estimated date and time arrival of the consignment.	Pre-notification of arrival
Customs informs Competent inspection body import of arrival of the consignment.	Notification of arrival
Competent inspection body import verifies the eQCert at Competent inspection body export	Verification eQCert
Competent inspection body export acknowledges the validity of the eQCert	Acknowledgement validity eQCert
Competent inspection body import does a risk analysis and decides about inspection. Competent inspection body import accepts, rejects, updates or renews the eQCert and informs the Competent inspection body export about the result.	Inform inspection result
Competent inspection body import accepts, rejects, updates or renews the eQCert and informs the Customs import about the result.	Inform inspection result

Competent inspection body import accepts, rejects, updates or renews the eQCert and informs the Importer about the result.	Inform inspection result
For updates or renewals of the eQCertificate a new certificate is issued and the previous one(s) are attached as referenced documents.	Inform about new eQCert, add previous eQCert as Referenced Document
Importer asks Customs import clearance for import of the consignment	Request for clearance import

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Figure 9 – Business Process Activity Diagram

*Only activity steps with eQCert are in scope

Any change in an eQCert has to result in the issuance of a new eQCert with the previous one(s) as Referenced Document.

2.3.3 Business Partners View – Participants and Stakeholders

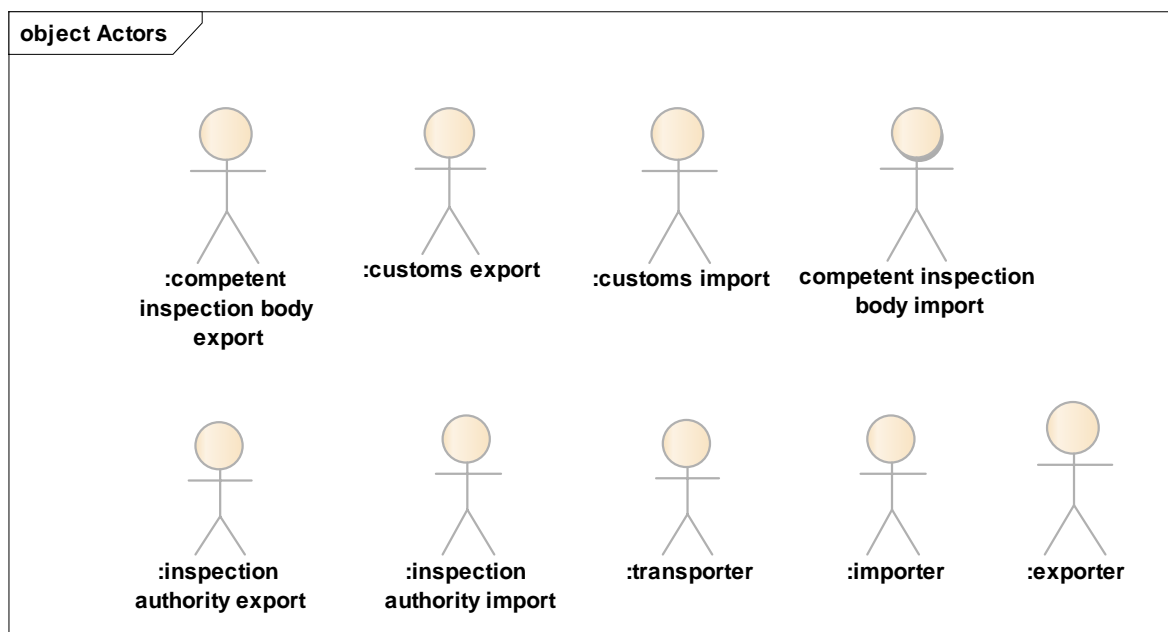


Figure 10 – Business Partner View Use Case Diagram

2.3.4 Class diagram

This model represents the set of data for the electronic exchange of eQuality information.

