



SLOVENSKI STANDARD
oSIST prEN 17015-2:2024
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Elektronska javna naročila - Katalog - 2. del: Transakcije

Electronic Public Procurement - Catalogue - Part 2: Transactions

Elektronisches öffentliches Beschaffungswesen - Katalog - Teil 2: Transaktionen

Marchés publics électroniques - Catalogue - Partie 2: Transactions

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35.240.20	Uporabniške rešitve IT pri pisarniškem delu	IT applications in office work
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EUROPEAN STANDARD
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ICS

English Version

Electronic Public Procurement - Catalogue - Part 2: Transactions

Marchés publics électroniques - Catalogue - Partie 2:
Transactions

Elektronisches öffentliches Beschaffungswesen -
Katalog - Teil 2: Transaktionen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 440.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European Foreword

This document (prEN 17015-2:2024) has been prepared by the Technical Committee CEN/TC 440 Electronic public procurement, the secretariat of which is held by DIN.

This document is currently submitted to the CEN Enquiry.

This document is part of a series of multi-part documents prepared, or under preparation, by CEN/TC 440:

- 17011-series: e-Procurement Architecture, providing a set of specifications outlining different aspects of the e-Procurement architecture for Business Interoperability Specifications.
- 17015-series: e-Catalogue Business Interoperability Specifications, providing a set of specifications outlining business choreography, transaction, syntax binding specifications and guidelines required to support the e-Catalogue processes.
- 17015-series: e-Ordering Business Interoperability Specifications, providing a set of specifications outlining business choreography, transaction, syntax binding specifications and guidelines required to support the e-Ordering processes.
- 17017-series: e-Fulfilment Business Interoperability Specifications, providing a set of specifications outlining business choreography, transaction, syntax binding specifications and guidelines required to support the e-Delivery processes.

The terms "shall", "shall not", "should", "should not", "may", "need not" "can" and "cannot" shall be interpreted according annex H of part 3 of the CEN-CENELEC internal regulations¹.

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¹ <https://www.cenelec.eu/membersandexperts/referencematerial/internalregulation.html>

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Introduction

Derivative use pilot

This publication falls under a CEN-CENELEC pilot on derivative use (as approved by the CEN/CA (Administrative Board) through decision 38/2019).

CEN has the copyright to all CEN publications, including their entire content and associated metadata, as described in CEN-CENELEC Guide 10 "Policy on dissemination, sales and copyright of CEN-CENELEC Publications". However, through the derivative use pilot, CEN gives permission to the copying, replication and translation of content from a CEN/TC 440 deliverables in specific circumstances.

Under the derivative use pilot, specific sections of CEN/TC 440 publications may be copied, replicated and translated in cases, where this is a necessary condition for the meaningful implementation of the publication. The sections which fall under derivative use will typically be elements, such as semantic definitions and rules related to the use of information elements, and the name, definition and description of processes and transactions, which are needed in software solutions, whether intended for sale in the private market or for use in the public sector, and documents guiding the implementation and use in specific countries and/or business sectors.

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Intended use of this publication

This document has been developed for any organization looking for guidance on the implementation and use of electronic procurement deliverables as well as for organizations developing or implementing software applications related to electronic procurement, such as software providers, business entities and national authorities. These software applications must be in conformance with this publication.

Parts of the document to which derivative use apply

Each sub-clause, which falls under derivative use, will be clearly marked with a note. The degree to which the specific content can be modified, is defined in CEN/TS 17011-3, Electronic Public Procurement – Architecture – Part 3: Customization Guideline.

Annex A provides an overview of the line number references to all sub-clauses of the publication which fall under derivative use.

1 Scope

This document describes the transaction information requirements of the transactions used in the basic collaborations described in FprEN 17015-2. For each transaction there is an overview, the transaction business requirements and the transaction information requirements model containing definitions of terms, usage descriptions and cardinality of the information elements, as well as business rules.

The document describes the following transactions:

- 1) Catalogue;
- 2) Catalogue Response
- 3) Pre-award Catalogue Request
- 4) Pre-award Catalogue
- 5) Shopping Cart

This document does not apply to the choreographies using in the specified transactions. These choreographies are specified in the related FprEN 17015-1. The relationship between the choreographies and the transaction is described in Clause 6.

The identifier of this transactions document is CEN/EN 17015-2:2024.

How to claim compliance to these transactions is described in the section 7 “Claiming compliance” section.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

3.1

agent

person, organization, or system that acts in procurement or has the power to act in procurement

[SOURCE: eProcurement Ontology, v3.1.0, 2022-12-17]

3.2

business process

sequence or network of activities and collaborations between two or more *agents* (3.1)

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3.3

business process variant

specification of a *business process* (3.2) belonging to a *choreography* ()

Note 1 to entry: Different variants may support different electronic information exchange or collaborations. Agents may publicly advertise their capability to support one or more variants in an automated fashion.

3.4

buyer

role (3.14) of an *agent* (3.1) that awards a contract and/or purchases *items* (3.11)

Note 1 to entry: In pre-award, the buyer generally awards the contract, however future purchasers may be foreseen. In post-award the buyer generally refers to the purchaser of items.

[SOURCE: eProcurement Ontology, v3.1.0, 2022-12-17, modified Note 1 to entry has been added]

3.5

catalogue

document describing a set of *items* (3.11) offered for purchase that can be processed in an electronic way

Note 1 to entry: The terms “eCatalogue” and “Post-award Catalogue” are synonyms for this term.

[SOURCE: eProcurement Ontology, v3.1.0, 2022-12-17, modified Note 1 to entry has been added]

3.6

catalogue provider

role (3.14) of an *agent* (3.1) compiling and supplying a *catalogue* (3.5)

Note 1 to entry: The catalogue provider role is usually played by the agent that acts as a seller, or by another agent that acts on behalf of the seller.

[SOURCE: eProcurement Ontology, v3.1.0, 2022-12-17, modified Note 1 to entry has been added]

3.7

catalogue receiver

role (3.14) of an *agent* (3.1) processing a *catalogue* (3.5)

Note 1 to entry: The catalogue receiver may not only receive it but also validate it, process it, etc. The catalogue receiver role is usually played by the agent that acts as a buyer, or by another agent that acts on behalf of the buyer.

[SOURCE: eProcurement Ontology, v3.1.0, 2022-12-17, modified Note 1 to entry has been added]

3.8

catalogue response

single message from the *catalogue receiver* (3.7) to the *catalogue provider* (3.6) on the acceptance of the related *catalogue* (3.5) sent by the *catalogue provider* (3.6)

[SOURCE: eProcurement Ontology, v3.1.0, 2022-12-17, modified Note 1 to entry has been added]

3.9

choreography

set of business processes (3,2) having the same goals

3.10 collaboration

interaction between two or more *agents* (3.1) that results in the exchange of data between the *agents* (3.1) involved as part of a *business process* (3.2)

3.11 item

single product or service

Note 1 to entry: An item can be an atomic thing or a composition of things that together are seen as a unit, e.g., a tetrabrik of milk or an indivisible package of six tetrabriks.

[SOURCE: eProcurement Ontology, v3.1.0, 2022-12-17, modified Note 1 to entry has been added]

3.12 pre-award catalogue

catalogue (3.5) that is submitted as a tender in response to a call for tenders

3.13 pre-award catalogue request

document describing the requirements on *items* (3.11) to be tendered and on the *catalogue* (3.5) that should be submitted as a tender

3.14 role

part played by an *agent* (3.1) in a particular *business process* (3.2), including its responsibilities (options and obligations) to perform certain activities and *collaborations* (3.10) in that *business process* (3.2)

Note 1 to entry: The role is used to show the division of labour and responsibility amongst the agents involved in the process or within the organisation of an Agent.

[SOURCE: eProcurement Ontology, v3.1.0, 2022-12-17, modified Note 1 to entry has been added]

3.15 seller

role (3.14) of an *agent* (3.1) legally responsible for providing goods and services bought by a *buyer* (3.4)

[SOURCE: eProcurement Ontology, v3.1.0, 2022-12-17, modified Note 1 to entry has been added]

3.16 state

set of options and obligations of the participating *agents* (3.1) at a defined step in a business process to perform specific activities and *collaborations* (3.10)

Note 1 to entry: An activity of an agent or a collaboration may cause the transition of one state to another in a predefined set of next steps.

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3.17

transaction

content of data exchanged or shared between the *agents* (3.1) in a *collaboration* (3.10)

Note 1 to entry: A transaction is the atomic unit that leads to a synchronized state in the information systems of collaborating agents. It is the basic building block to define the choreography between agents. When an agent recognizes an event that changes the state of a business object within a business process, it uses a transaction to synchronize with the collaborating agent. A transaction therefore changes the state of a business process. It carries the intention of the initiating agent and is represented by a data structure that is defined by a data model. The exchange of a transaction may alter legal obligations between business partners.

4 Symbols and abbreviated terms

ABB Architectural Building Block

EIF European Interoperability Framework

EIRA European Interoperability Reference Architecture

5 Positioning in EIRA

Table 1 — Positioning in EIRA

EIRA ID	Title	Domain	Interface	Scope	Modality
CEN/EN 17015-2:20xx	Electronic Public Procurement - Catalogue - Transactions	Procurement	Machine /Customer Machine /Supplier	<ul style="list-style-type: none"> e-procurement extension of ABB176 Organisational Interoperability Specification e-procurement extension of ABB12 Business Capability, e-procurement extension of ABB170 Exchange of Business Information e-procurement extension of ABB16 Business Rule 	Endorsing

6 Collaborations and transactions

6.1 Transactions involved in Catalogue choreographies

Table 2 — Transactions identifiers

Role	Capability	Collaboration ID	Collaboration	Transaction ID	Transaction	Variant				
						A	B	C	D	E
Catalogue Provider	Send Catalogue	BC-17015-1:202x-1	Catalogue Provider send Catalogue	T-17015-2:20xx-1	Catalogue	M	M			
Catalogue Receiver		BC-17015-1:202x-2	Catalogue receiver Catalogue Response	T-17015-2:20xx-2	Catalogue Response		M			
Catalogue Receiver		BC-17015-1:202x-3	Catalogue Receiver sends Pre-award Catalogue Request	T-17015-2:20xx-3	Pre-award Catalogue Request				M	
Catalogue Provider		BC-17015-1:202x-4	Catalogue Provider sends Pre-award Catalogue	T-17015-2:20xx-4	Pre-award Catalogue			M	M	
Seller		BC-17015-1:202x-5	Seller sends shopping-cart	T-17015-2:20xx-5	Shopping Cart					M

6.2 Transactions identifiers

Table 3 — Transactions identifiers

Transaction ID	Transaction Name
T-17015-2:20xx-1	Catalogue
T-17015-2:20xx-2	Catalogue Response
T-17015-2:20xx-3	Pre-award Catalogue Request
T-17015-2:20xx-4	Pre-award Catalogue
T-17015-2:20xx-5	Shopping Cart

7 Claiming compliance and conformance

A transaction instance is compliant to a specified transaction, if the following conditions are met

- all specified business terms of that transaction are included according to their cardinalities as well as all corresponding business rules are fulfilled,

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- no additional business terms were added
- additional business rules may have been added, which shall not conflict with the specification

A transaction instance is conformant to a specified transaction, if the following conditions are met

- all specified business terms of that transaction are included according to their cardinalities as well as all corresponding business rules are fulfilled
- additional business terms may have been added
- additional business rules may have been added, which shall not conflict with the specification

8 Business requirements**8.1 Common business requirements²****Table 4 — Common business requirements**

ID	Description
R-17015-2:20xx-X1	A transaction shall provide information about its identity, type, issue date and validity.
R-17015-2:20xx-X2	All amounts in a transaction shall be stated in the same currency.
R-17015-2:20xx-X3	A transaction shall contain non-negative prices and quantities.
R-17015-2:20xx-X4	The transactions shall contain all information necessary for its application i.e., it shall not rely on the availability of external references such as a centralised repository of item information. To ease the processing of a catalogue, no external data sources are needed.
R-17015-2:20xx-X7	A transaction shall contain information on the organisations sending respectively receiving the transaction.
R-17015-2:20xx-X8	A transaction shall provide information about corresponding business process variant it is used in.

² Section 7.1 falls under derivative use (as set out in the introduction). When replicating the section, the content can be modified as specified in CEN/TS 17011-3 Electronic Public Procurement – Architecture – Part 3: Customization Guideline.

8.2 Catalogue (T-17015-2:20xx-1) specific business requirements³

Table 5 — Catalogue business requirements

ID	Description
T-17015-2:20xx-1-R-1	To support changing of the previously sent catalogue, the catalogue shall provide information on its version history and how changes shall be applied. Changes may be fully or partial updates and deletion of information sent in previous version of a catalogue.
T-17015-2:20xx-1-R-3	To support an easy identification for end-users on the buying side, a name of the catalogue may be provided in a catalogue.
T-17015-2:20xx-1-R-X23	To ensure that a catalogue can be understood by the end-users on the buying side, the language used in the catalogue shall be provided.
T-17015-2:20xx-1-R-4	To restrict the validity of a catalogue, a period of time the catalogue is valid may be defined in the catalogue. A catalogue without a stated validity period is assumed to be valid until it is cancelled. Sometimes products are offered only for a certain period of time or the prices for the product are assured to be fixed by the catalogue provider only during this period of time.
T-17015-2:20xx-1-R-5	If a catalogue is based on a contract, e.g., a framework agreement, a catalogue shall include details on the contract the catalogue is based on. In such a contract, further requirements on the catalogue may be specified.
T-17015-2:20xx-1-R-X11	To support use cases where the catalogue receiver is not the buyer, information on the organisation buying the items offered in the catalogue may be provided in the catalogue.
T-17015-2:20xx-1-R-X12	To support cases where the catalogue provider is not the seller, information on the organisation buying the items offered in the catalogue may be provided in the catalogue.
T-17015-2:20xx-1-R-X18	A catalogue must have information that makes it possible to reference specific instances of the catalogue.
T-17015-2:20xx-1-R-X16	To support offering an item with different condition such as different prices, delivery times, validity periods, orderability, warranties, packaging etc, an item may be more the once provided in a catalogue along with the information on the varying condition. Such a combinations of an item and conditions shall be uniquely identifiable.
T-17015-2:20xx-1-R-X8	An item shall be referenceable uniquely by an identifier. Such an identifier may be an identifier assigned by the seller, buyer, manufacturer or an identifier according to an international identification scheme.
T-17015-2:20xx-1-R-X26	To allow selection of an item by the end-user on the buying side, a name of the item shall be provided in the catalogue.

³ Section 7.2 falls under derivative use (as set out in the introduction). When replicating the section, the content can be modified as specified in CEN/TS 17011-3 Electronic Public Procurement – Architecture – Part 3: Customization Guideline.

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ID	Description
T-17015-2:20xx-1-R-X27	To support searching for items in buy-side ordering systems, additional names, e.g., if an item was rebranded, additional descriptions and keywords may be provided in the catalogue.
T-17015-2:20xx-1-R-X9	To support end-users on the buying side, additional documents, e.g., images, manuals, brochures etc. may be provided in the catalogue. These documents may be provided by references to external sources.
T-17015-2:20xx-1-R-X28	To support the buying decision information on how an items is priced shall be provided in a catalogue including additional charges like VAT. This also includes factors that have influence on the price as well as relationships to other parts of the catalogue that may have impact on the price. The price may also be dependent on factors, e.g., order size, delivery region (down to the city level), allowance, charges, currency, etc. Prices must not be negative.
T-17015-2:20xx-1-R-X29	To ease comparing the prices of items in a catalogue, a priced for a standardised order unit may be provided in the catalogue.
T-17015-2:20xx-1-R-X13	It must be possible to specify the kind of the item in the context of its delivery.
T-17015-2:20xx-1-R-X14	To support supply-chain due diligence processes, information on the origin of the item as well as on other involved organisation involved in the production/provision of the item may be provided in the catalogue.
T-17015-2:20xx-1-R-X17	An item in the catalogue may be classified according to a standardised classification system, e.g., CPV, UNSPSC, ECLASS, and GPC. Such classifications may be mandated by the Buyer or by legal frameworks.
T-17015-2:20xx-1-R-X15	To support the automated evaluation of an item, a structured description according to a standardised property systems may be provided in a catalogue.
T-17015-2:20xx-1-R-X24	To support logistics processes on the buying side, details on transporting and handling an item in logistics processes may be provided in a catalogue.
T-17015-2:20xx-1-R-X25	To support the assessment of the sustainability of an item as well as supply-chain due diligence processes, information on relevant labels, certificates etc. proofing the conformance of an item to relevant sustainability requirements may be provided in a catalogue.
T-17015-2:20xx-1-R-X29	To fulfil regulatory requirements on hazardous items, information on the hazardous nature of an item may be provided in a catalogue.
T-17015-2:20xx-1-R-X30	To allow a reload of a catalogue, a URL may be provided in a catalogue, where the catalogue can be retrieved as well.
T-17015-2:20xx-1-R-X31	To support offering perishable goods, dates on the durability and expiration of an item may be provided in catalogue.
T-17015-2:20xx-1-R-X32	To support offering items related to a selected item together in an ordering system, information on the relationship between various items may be provided in a catalogue. Examples of such relationships are replacement items, accessory items etc.