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SIST EN 17016-1:2024

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Elektronska javna naročila - Naročanje - 1. del: Koreografije

Electronic Public Procurement - Ordering - Part 1: Choreographies

Elektronisches öffentliches Beschaffungswesen - Bestellung - Teil 1: Choreographien

Passation électronique des marchés publics - Gestion des commandes - Partie 1 : Chorégraphies

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03.100.10	Nabava. Dobava. Logistika	Purchasing. Procurement. Logistics
35.240.20	Uporabniške rešitve IT pri pisarniškem delu	IT applications in office work
35.240.63	Uporabniške rešitve IT v trgovini	IT applications in trade

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NORME EUROPÉENNE

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EN 17016-1

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Passation électronique des marchés publics - Gestion des commandes - Partie 1 : Chorégraphies

Elektronisches öffentliches Beschaffungswesen - Bestellung - Teil 1: Choreographien

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European foreword

This document (EN 17016-1:2024) has been prepared by the Technical Committee CEN/TC 440 “Electronic public procurement”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2024, and conflicting national standards shall be withdrawn at the latest by October 2024.

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

- 17011-series: eProcurement Architecture, providing a set of specifications outlining different aspects of the eProcurement architecture for Business Interoperability Specifications.
- 17015-series: eCatalogue Business Interoperability Specifications, providing a set of specifications outlining business choreography, transaction, syntax binding specifications and guidelines required to support the eCatalogue processes.
- 17016-series: eOrdering Business Interoperability Specifications, providing a set of specifications outlining business choreography, transaction, syntax binding specifications and guidelines required to support the eOrdering processes.
- 17017-series: eFulfilment Business Interoperability Specifications, providing a set of specifications outlining business choreography, transaction, syntax binding specifications and guidelines required to support the eFulfilment processes.

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[1] https://boss.cen.eu/reference-material/refdocs/pages/

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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 should be in conformance with this publication.

Parts of the document to which derivative use apply

Each subclause, which falls under derivative use, will be clearly marked with a footnote. The degree to which the specific content can be modified is specified in CEN/TS 17011-3:—[2], *Electronic Public Procurement — Architecture — Part 3: Customization Guideline*.

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

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[2] Under preparation.

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1 Scope

This choreographies document specify ordering between Buyer and Seller where the Buyer wants to reach an agreement with the Seller about an order. It specifies a series of activities that govern communication between the parties and refers to the specifications where information and rules that apply are specified.

The various possible behaviours of the Seller and Buyer subsequent to the first order communication are conveyed by variants of this choreography that are specified in 5.2.

Previous activities (e.g. cataloguing) and subsequent activities (e.g. invoicing) are outside the scope of this document. If performed electronically, their implementation is covered by other choreographies.

The identifier of this choreographies document is EN 17016-1:2024.

How to claim compliance to this choreography is specified in 5.2.3.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 17016-2:—[3], *Electronic Public Procurement — Ordering — Part 2: Transactions*

3 Terms and definitions

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

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org

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3.1
agent
person, organization, or system that act in procurement or have the power to act in procurement

3.2
business process
sequence or network of activities and collaborations between two or more agents

3.3
business process variant
specification of a business process 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
choreography
set of business processes having the same goals

[3] Under preparation. Stage at the time of publication: prEN 17016-2:2023.

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3.5
collaboration
interaction between two or more agents that result in the exchange of data between the agents involved as part of a business process

3.6
role
part played by an agent in a particular business process, including its responsibilities (options and obligations) to perform certain activities and collaborations in that business process

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 organization of an agent.

3.7
state
set of options and obligations of the participating agents at a defined step in a business process to perform specific activities and collaborations

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

3.8
transaction
content of data exchanged or shared between the agents in a collaboration

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.

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4 Symbols and abbreviated terms

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ABB	Architectural Building Block
EIF	European Interoperability Framework
EIRA	European Interoperability Reference Architecture
IoP	Interoperability
MRO	Maintenance, Repair and Operations
SME	Small and Medium-sized Enterprise

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5 Business environment and high level business requirements

5.1 Choreographies (business) Goals

The business goals supported by implementing this choreography are specified in Table 1:

Table 1 — Business goals

ID	Description
G-17016-1:2024-1	Enable trading partners to communicate without a previous bi-lateral setup or agreement.
G-17016-1:2024-2	Enable the automation of handling orders in a semi-manual environment.
G-17016-1:2024-3	Enable buyers to set up a standardized acquisition process.
G-17016-1:2024-4	Enable SMEs to offer their trading partners the option of exchanging standardised documents in a uniform way and thereby move all orders into electronic form.

The main business benefits to be gained by implementing this choreography are specified in Table 2:

Table 2 — Business benefits

ID	Description
G-17016-1:2024-5	Realize significant savings both by buyers and sellers through automating and streamlining in-house processes of ordering and subsequent activities as well through increasing quality of data exchanged.
G-17016-1:2024-6	Pave the way for the buyer to enforce a formal process of approval and cost control within its organization.
G-17016-1:2024-7	Facilitate the processing of the invoice and so faster payments

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5.2 Business environment

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5.2.1 General

The intended scope for this choreography includes public procurement, but the choreography may also be used in Business to Business (B2B) relations.

This choreography is intended to support use of electronic documents for processing in (semi-) automated processes. The legal requirements that were taken into account are requirements from European legislation, particularly the EU directives, as mentioned in the Bibliography of this document.

The list of the transactions being part of this choreography is defined in Clause 6.

5.2.2 Business context

This choreography belongs to the eOrdering business process that is specified in Figure 1:

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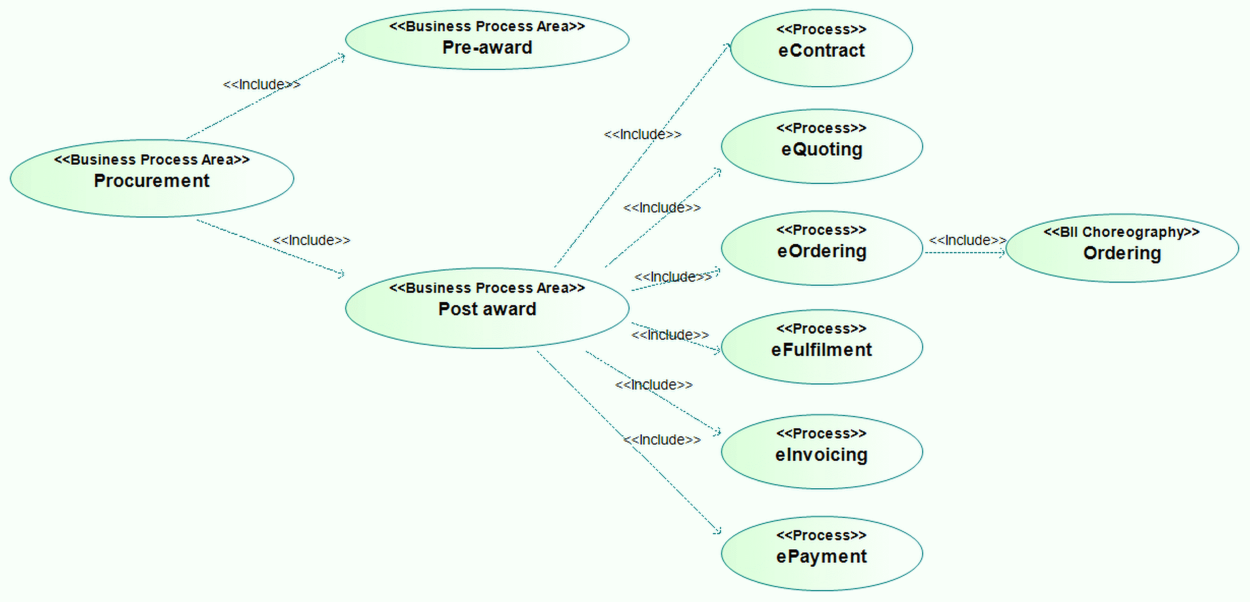

Figure 1— Position of the Ordering BII Choreography in the Procurement process

5.2.3 Positioning in EIRA

EIRA (European Interoperability Reference Architecture) provides a reference model that enables architects to position the IOP (InterOPerability) specifications. This document provides a domain-specific IOP specification to which any SBB (Solution Building Block) implementing the ABB (Architecture Building Block) should be compliant to. The positioning of this document in the EIRA context is specified in Table 3.

IoP specifications provide a valuable source of information to formulate requirements during architecture development and solution development. By identifying architectural building blocks through a common terminology, it

— helps reuse of cross domain building blocks such for instance eSignature Verification and Validation Service, and eTimestamp Creation Service;

— helps synchronization with European solutions such as CEF eDelivery;

— and will provide guidance in using them to provide the prescribed capability enabling, thus managing and rationalizing IT portfolios.

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Table 3 — Positioning in EIRA

EIRA ID	Title	Domain	Interface	Scope	Modality
EN 17016-1:2024	Electronic Public Procurement - Ordering - Choreography	Procurement	Machine /Buyer Machine /Seller	• eProcurement extension of ABB176 Organizational Interoperability Specification • eProcurement extension of ABB12 Business Capability • eProcurement extension of ABB170 Exchange of Business Information • eProcurement extension of ABB16 Business Rule	Endorsing

5.3 Organization and business partners involved

The following business partners participate in this BII Choreography, acting in the roles as defined in Table 4 and Figure 2 below.

Table 4 — Roles

Key Role	Description
Buyer	A role of an agent that awards the contract. Additional information: Examples of The Buyer may be the role of contracting authority, contracting entity, a defence contractor, an international organization, or an organization awarding a contract subsidized by a contracting authority.
Seller	A role played by any natural or legal person or public entity or group of such persons and/or entities, including any temporary association of undertakings acting on behalf of a seller who sells goods, works or services to the buyer

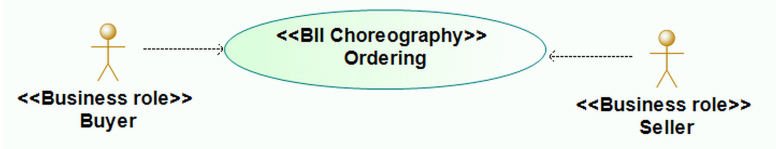

Figure 2 — Ordering BII Choreography Roles

5.4 High level business process requirements

Based on the goals and scope of this choreography the following set of high-level requirements is identified. Each requirement is connected to a goal.

Additionally, requirements of major business processes that are frequently supported within ordering are listed.

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These requirements are relevant for all variants depicted within this choreography and specified in Table 5.

Table 5 — High level business requirements

Req. ID	Requirement statement	Ref. to goal
HLR-17016-1:2024-1	A Buyer submits an Order for delivery of goods, services or works to a Seller.	G-17016-1:2024-1
HLR-17016-1:2024-2	Actors involved in the ordering process require a gradual automation of all information exchange of the ordering process: Depending on their capabilities, the organizations may be willing to exchange electronically only some transactions participating in the process.	G-17016-1:2024-2
HLR-17016-1:2024-3	Depending on the general rules of a national environment and/or the sector specific rules/contractual terms actors may be willing to exchange electronic documents on the basis of different business processes.	G-17016-1:2024-1 G-17016-1:2024-2 G-17016-1:2024-3
HLR-17016-1:2024-4	Actors involved in the ordering process require a gradual automation of all information exchange of the ordering process: Depending on their capabilities, the organizations may be willing to exchange electronically only some core information in a structured manner.	G-17016-1:2024-2 G-17016-1:2024-3
HLR-17016-1:2024-5	Structured Ordering: The Order transaction should support the structured ordering of goods and services, using free text or use of identifiers. The information source of the ordered products may be a (paper or electronic) catalogue.	G-17016-1:2024-2 G-17016-1:2024-3
HLR-17016-1:2024-6	An Order may refer to framework agreement for its items and conditions. Otherwise the Buyer terms and conditions apply.	G-17016-1:2024-1
HLR-17016-1:2024-7	An Order may contain items (goods or services) with item identifiers or items with free text description or item specification,	G-17016-1:2024-3
HLR-17016-1:2024-8	Provided that there is a previous contractual agreement between them about the use of electronic Orders and that it is acceptable on a legal basis, if the Order is accepted, a contractual commitment is established between the Buyer and the Seller	G-17016-1:2024-1

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