SLOVENSKI STANDARD
kSIST-TP FprCEN/TR 16931-10:2025

01-april-2025

Elektronsko izdajanje računov - 10. del: Dodatne zahteve za razširitev na B2B

Electronic invoicing – Part 10: Additional requirements to extend to B2B

Elektronische Rechnungsstellung - Zusätzliche Anforderungen zur Ausweitung auf B2B

Ta slovenski standard je istoveten z: **FprCEN/TR 16931-10**

ICS:

03.100.20	Trgovina. Komercialna dejavnost. Trženje	Trade. Commercial function. Marketing
35.240.63	Uporabniške rešitve IT v trgovini	IT applications in trade

kSIST-TP FprCEN/TR 16931-10:2025 **en,fr,de**

TECHNICAL REPORT

RAPPORT TECHNIQUE

TECHNISCHER REPORT

FINAL DRAFT
FprCEN/TR 16931-10

February 2025

ICS

English Version

Electronic invoicing - Part 10: Additional requirements to extend to B2B

Elektronische Rechnungsstellung - Zusätzliche Anforderungen zur Ausweitung auf B2B

This draft Technical Report is submitted to CEN members for Vote. It has been drawn up by the Technical Committee CEN/TC 434.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Ref. No. FprCEN/TR 16931-10:2025 E

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European foreword

This document (FprCEN/TR 16931-10:2025) has been prepared by Technical Committee CEN/TC 434 “Electronic invoicing”, the secretariat of which is held by NEN.

This document is currently submitted to the Vote on TR.

This document has been prepared as part of a Grant Agreement (reference SA 2022-07e-Invoicing) from the European Commission to CEN. NEN has been appointed by CEN to perform work in accordance with their Specific Agreement with reference number Project 101098931 - e-Invoicing

This document is part of a set of documents, consisting of:

— EN 16931-1:2017 +A1:2019/AC:2020, Electronic invoicing — Part 1: Semantic data model of the core elements of an electronic invoice;

— CEN/TS 16931-2:2017, Electronic invoicing — Part 2: List of syntaxes that comply with EN 16931-1;

— CEN/TS 16931-3-1:2017, Electronic invoicing — Part 3-1: Methodology for syntax bindings of the core elements of an electronic invoice;

— CEN/TS 16931-3-2:2020, Electronic invoicing — Part 3-2: Syntax binding for ISO/IEC 19845 (UBL 2.1) invoice and credit note;

— CEN/TS 16931-3-3:2020, Electronic invoicing — Part 3-3: Syntax binding for UN/CEFACT XML Industry Invoice D16B;

— CEN/TS 16931-3-4:2020, Electronic invoicing — Part 3-4: Syntax binding for UN/EDIFACT INVOIC D16B;

— CEN/TR 16931-4:2017, Electronic invoicing — Part 4: Guidelines on interoperability of electronic invoices at the transmission level;

— CEN/TR 16931-5:2017, Electronic invoicing — Part 5: Guidelines on the use of sector or country extensions in conjunction with EN 16931-1, methodology to be applied in the real environment;

— CEN/TR 16931-6:2017, Electronic invoicing — Part 6: Result of the test of EN 16931-1 with respect to its practical application for an end user;

— CEN/TS 16931-7:2020, Electronic invoicing — Part 7: Methodology for the development and use of EN 16931-1 compliant structured Core Invoice Usage Specifications.

Introduction

In a Communication (COM/2010/0712)[1] the European Commission highlighted that the mass adoption of e-invoicing within the EU is projected to lead to significant economic benefits. It is estimated that moving from paper to eInvoices will generate savings of around EUR 240 billion over a six-year period. The Commission expressed a goal for eInvoicing to become the predominant method of invoicing in Europe by 2020.

Directive 2014/55/EU[2] on electronic invoicing in public procurement facilitates the use of electronic invoices by economic operators when supplying goods, works and services to public administrations (B2G), as well as supporting trading between economic operators themselves (B2B). It establishes the legal framework for the adoption of a European Standard (EN) for the semantic data model of the core elements of an electronic invoice (EN 16931-1).

In line with Directive 2014/55/EU, after publication of the reference to EN 16931-1 in the Official Journal of the European Union, contracting public authorities and entities in the EU are required to receive and process an eInvoice if it conforms to the semantic content described in EN 16931-1, is represented in any of the syntaxes identified in CEN/TS 16931-2 in accordance with the request referred to in Paragraph 1 of Article 3 of Directive 2014/55/EU, and conforms to the appropriate mapping defined in the applicable subpart of CEN/TS 16931-3

The semantic data model of the core elements of an electronic invoice – the core invoice model – as described in EN 16931 1 defines a limited but sufficient set of information elements that support generally applicable invoice-related functionalities.

In most situations, business partners use the core invoice model exclusively and the invoices they send or receive do contain additional structured information elements. In some sectors or situations with specific additional information requirements, the required information is conveyed in the form of unstructured text, which cannot be processed automatically and requires human intervention. Alternatively, specific information requirements can be implemented using information elements that extend the core invoice model. These circumstances allow for the definition of additional information elements while still utilising the concepts of the core invoice model.

In other situations, additional guidance or restrictions on the use of the information elements defined in the core invoice model are documented in a core invoice usage specification as outlined in EN 16931-1.

Guidelines on the optional use of extensions to the Core Invoice Model, including a methodology to be applied in real environments, were developed to align with the provisions of Directive 2014/55/EU.

This document identifies and documents additional Business Requirements to support the increased use of electronic invoicing (eInvoicing) in the Business-to-Business (B2B) market within the European Economic Area (EEA) and CEN Member states. It provides updates and extensions to the current standards, particularly EN 16931-1 and CEN/TR 16931-5, to better facilitate B2B transactions.

Included in the Scope are:

— Core Invoice Model (EN 16931-1): Enhancements and adaptations to address specific B2B requirements while maintaining compliance with the foundational elements.

— Extension Methodology (CEN/TR 16931-5): Revisions and updates to the Extension Methodology to incorporate new Business Requirements and facilitate the creation of interoperable Extension Components.

[1] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52010DC0712
[2] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014L0055

— Integration of Additional Requirements: Identification and integration of additional sector-specific and cross-sector Business Requirements into the existing standard framework.

— Harmonisation with EU Parliament Work: Ensuring that the updates align with ongoing and future initiatives by the EU Parliament to support a cohesive eInvoicing strategy across the EU.

Excluded from the Scope are:

— Detailed Implementation Guidelines: While the document provides the framework and requirements for extensions, detailed implementation guidelines for specific software solutions or bilateral agreements are not covered.

— Non-Standard Extensions: Extensions that do not conform to the defined methodology and are based solely on bilateral agreements without broader applicability are excluded.

Primary Goals:

— Identify how to gather Business Requirements: How to gather and document additional Business Requirements from various sectors to enhance the B2B eInvoicing process.

— Update EN 16931-1: Propose modifications to the Core Invoice Model to incorporate these new requirements, ensuring it remains relevant and useful for B2B transactions.

— Revise CEN/TR 16931-5: Update the Extension Methodology to support the creation and use of Extension Components, promoting greater interoperability and ease of use.

— Support B2B adoption: Facilitate the wider adoption of eInvoicing in the B2B market by addressing specific needs and challenges faced by different industry sectors.

— Harmonise with existing Standards: Ensure that the proposed changes integrate smoothly with the current standardisation deliverables and align with EU legislative and regulatory frameworks.

Relation to Other Parts of EN 16931

This document is directly related to and impacts the following parts of EN 16931:

EN 16931-1:2017: The core standard that defines the semantic data model of the core elements of an electronic invoice. This document recommends updates to ensure the core model addresses additional B2B requirements.

CEN/TR 16931-5:2017: Provides guidelines on the use of sector or country extensions in conjunction with EN 16931-1. This document suggests revisions to the extension methodology, including the introduction of Extension Components to better manage and utilise these extensions.

Disclaimer:

As a Technical Report the statements made are not normative and therefore are not binding. However, it is expected that WG5 has agreed to implement any changes in future normative documents and approval of this report shows the future direction and intent to cater to the needs of invoicing for Business to Business (B2B) transactions.

1 Scope

This document focuses on identifying and documenting additional Business Requirements to support the increased use of electronic invoicing (eInvoicing) in the Business-to-Business (B2B) market within the European Economic Area (EEA) and CEN Member states. It aims to update and extend the current standards, particularly EN 16931-1 and CEN/TR 16931-5, to better facilitate B2B transactions.

Included in the Scope are:

— Core Invoice Model (EN 16931-1): Enhancements and adaptations to the Core Invoice Model to address specific B2B requirements while maintaining compliance with the foundational elements.

— Extension Methodology (CEN/TR 16931-5): Revisions and updates to the Extension Methodology to incorporate new Business Requirements and facilitate the creation of interoperable Extension Components.

— Integration of Additional Requirements: Identification and integration of additional sector-specific and cross-sector Business Requirements into the existing standard framework.

— Harmonisation with EU Parliament Work: Ensuring that the updates align with ongoing and future initiatives by the EU Parliament to support a cohesive eInvoicing strategy across the EU.

Excluded from the Scope are:

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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 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/

3.1
core invoice model
semantic data model of the core elements of an electronic invoice

Note 1 to entry: The model contains mandatory information elements that every invoice includes, along with optional elements that can be used when necessary.

3.2
mandatory core
core invoice Model information elements that are marked as mandatory

Note 1 to entry: These elements represent the legally required information included in all invoices, particularly for use in public procurement

3.3
information element
specific piece of data that is used to represent a particular item of information within an electronic invoice

Note 1 to entry: Information elements are often grouped using Business Terms (BTs), which can be further aggregated within Business Groups (BGs), such as the BG Seller, which contains relevant information about the selling entity

3.4
business term
label assigned to a given information element, used as its primary reference

3.5
business group
group of related business terms

3.6
core invoice usage specification
CIUS
specification providing guidance, explanations, and rules related to the implementation and use of structured information elements in the Core Invoice Model for specific trading situations

3.7
core invoice instance document
instance of an electronic invoice that conforms to the Core Invoice Model

3.8
extension specification
specification describing the use of additional information elements not defined in the Core Invoice Model, that falls within the Scope for Extensions

Note 1 to entry: An Extension Specification may describe an invoice that includes Core Invoice Model elements, Extension Components, and other elements needed for specific business requirements

Note 2 to entry: An Extension Specification can provide additional explanations and examples to support its use

3.9
extended invoice instance document
instance of an electronic invoice that conforms to an Extension Specification

3.10
eInvoice registry
registry of CIUS and Extensions, which define restrictions or Extensions to Core Invoice Model

Note 1 to entry: The Registry is currently hosted by the EU Commission

Note 2 to entry: It operates in an open, transparent, and free-of-charge manner

3.11
compliant
meets all the legal requirements and follows the binding legal rules associated with the standard

3.12
conformant
adheres to the applicable non-binding normative rules or guidelines of the standard

Note 1 to entry: When using Extensions, these should ideally be sourced from the Scope for Extensions or from an existing Extension Component

3.13
scope for extensions
possible information elements or rules that can be used in an extension

Note 1 to entry: Where possible, information elements and their usage rules for Extensions are aligned with existing models to ensure validation artefacts are preserved and function as expected

3.14
extension component
identified set of information elements and business rules, within the Scope for Extensions, that are not covered by the Core Invoice Model and are needed to support a specific business requirement

Note 1 to entry: An Extension Component includes the necessary information elements and business rules and specifies any Core rule it replaces.

Note 2 to entry: An Extension Component can encompass one or more business groups, which may include one or more business terms.

3.15
extension component library
library of Extension Components governed by CEN TC 434

Note 1 to entry: All the elements in the Extension Components form a Data Model that can be enumerated in a similarly to the Core Invoice Model

3.16
syntax
machine-readable text or format in which the invoice semantics are represented

Note 1 to entry: Syntax provides the structure for how invoice data is presented and processed.

4 Background

4.1 Facilitating business

Directive 2014/55/EU identified issues and barriers that were being created as a result of multiple disparate methods of electronic invoicing (eInvoicing) being used throughout the EU. The Directive called for the creation of a single European standard to remove these barriers to ensure that eInvoices can be easily exchanged and processed across different systems and national boundaries within the EU.

EN 16931-1, the European eInvoicing standard, was created to meet these needs. The Directive mandated that Central and Sub-central Public Bodies in Member States support the standard from April 2020.

Since then, any eInvoice that conforms with EN 16931-1 is accepted and processed by an EU Member State Public Body for a B2G (business-to-government) transaction.

The EN 16931-1 set of standards describes the semantics, business rules and syntax that are required for conformant eInvoicing. It also provides advice on transmission protocols that could be considered.

The OASIS UBL invoice and UN/CEFACT CII Models are the syntaxes mandated for B2G and are considered as the Scope for Extensions.

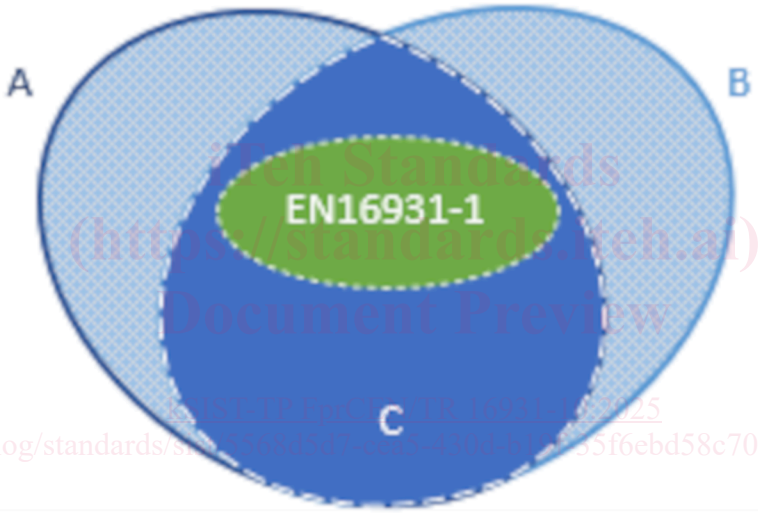
WG5 proposed the following guidelines:

— It is intended that information elements for Extensions will be based on those defined in the UBL Invoice or CII. Elements not standardised in these syntaxes are not expected to be included.

— Whenever feasible, the syntax version will align with one referenced in Part 2 List of Syntaxes.

— It is preferred that elements used for Extensions be available in both syntaxes whenever possible.

Defining a Scope for Extensions promotes interoperability and ensures that Extensions limited to this scope can relatively easily be proven by using artefacts (schema) supplied by both UN/CEFACT and OASIS. The Core Invoice Model, EN 16931-1, is a subset within the Scope for Extensions as demonstrated in the diagram below.



Key

A	UBL Invoice Model
B	CII Model
	Core Invoice Model (EN 16931-1)
	Overlapping elements
	Non-Overlapping elements

Figure 1 — The Scope for Extensions

Figure 1 illustrates the Extension Scope, which includes the Core Invoice Model (EN 16931-1) as a subset of the overlapping of both UBL Invoice and CII Models. This overlap contains standardised information elements that are easily usable for Extensions. While it is preferable to use these overlapping elements due to their compatibility with both syntaxes, non-overlapping elements from only one model can also be used when necessary. This approach allows an implementor to include a new information element from one model, while waiting for alignment with the other model. Governance can involve monitoring changes to either model to ensure that necessary adjustments are made accordingly.

Feedback from business communities has indicated a large and varied number of business requirements for their invoices. Accommodating all those requirements in the standard, however, would be

counterproductive as the invoice would become complex and, in many cases, too much of a technical burden for smaller businesses to bear. The EN solved this problem by describing the Core Invoice Model, which is comprised of the most commonly used information elements used in invoices. The aim of the Core is to support the most common requirements, while also recognising that it did not meet all requirements of all businesses. For this reason, the concept of Extensions to the Core was recognised and has been an integral part of the EN.

The Core contains the elements of an electronic invoice containing over 200 individual information elements. 35 of which are mandatory to support while the rest are optional. It has been said, anecdotally, that this could cover 80% of all business requirements. The Core defines and describes all the Business Terms and Groups that can be used in conformant eInvoicing. eInvoicing parties have the option to support the full Core, the Mandatory Core, or a specific selection of all mandatory and some optional elements, which can be mandated in a CIUS (Core Invoice Usage Specification). The objective was to create a model that allows for the flexibility required to meet both large and small invoicing requirements, while keeping the standard as simple as possible.

4.2 An Analogy for the Core Invoice Model

4.2.1 General

The flexible methodology/concept of the Core Invoice Model can be confusing for some, particularly first-time users. To simplify the concept, an analogy that is more relatable can be used to express the flexibility of the standard. In the figure below, imagine the Core Invoice Model as a vehicle with various optional extras.

Figure 2 — EN 16931-1, the Core Invoice Model, as a visual analogy

There are two methods of providing a specification that is conformant with the Core Invoice Model:

- supporting the full Core Invoice Model (vehicle with all optional extras)
- supporting a CIUS of the Core Invoice Model (vehicle with some or none of the optional extras).

Supporting the full Core

Supporting a CIUS of the Core

a) EN 16931-1

When the full Core Invoice Model is supported, you are maximising interoperability potential

b) CIUS

c) Mandatory Core

When some of the Optional elements of the Core Invoice Model are excluded from invoice specifications this is considered a CIUS of

EN 16931-1

When all the Optional elements of the Core Invoice Model are excluded from invoice specifications this is considered as supporting the Mandatory Core which is also a type of CIUS

Figure 3 — Visual analogy of methods for supporting EN 16931-1, the Core Invoice Data Model

Deciding which method to support depends on the business's invoicing requirements. Some businesses use the full Core Invoice Model, while others only use the mandatory elements along with some optional elements. This is similar to the analogy of choosing the base model of a vehicle with some or none of the optional extras. Both methods of supporting EN 16931-1 include the Mandatory Core, i.e. the base model of the vehicle, ensuring a high level of interoperability despite other differences in their invoicing requirements.

When creating an invoice specification for a specific business need using specialist software, the process begins by laying out the full Core Invoice Model. Optional elements that are not necessary are then deselected. However, in the planning stages, all invoice specifications typically start with the Mandatory Core elements (the base model of the vehicle). These elements, identified by CEN/TC 434 as legally required and commonly used, are included in the invoice specification to conform with EN 16931-1. The less common elements are considered optional and are added as needed, particularly if required to enable automation of the invoice processing.

Using the vehicular analogy, a business defining their eInvoicing Specification is similar to a car dealership customer ordering their new vehicle. They begin with the base model of their chosen vehicle (the Mandatory Core of EN 16931-1) and then decide if they also require any of the available optional extras.

4.2.2 Understanding the Core

It is important that the Core Invoice Model is fully understood in all scenarios. Implementors first consider the entire Core when determining their needs and then decide how to handle unneeded elements, possibly by archiving them. This approach ensures the system processing the Core can make informed decisions about both mandatory and optional elements.

When a Buyer system receives elements that it does not need, it can recognise them as part of the Core and take appropriate action. In some cases, this might mean archiving the elements without further processing. However, rejecting these elements, as discussed below, is not ideal.

To further explore this concept we explore strict vs non-strict as defined in CEN/CWA Conformance and Customizations methodology guideline.