



**NSAI**  
Standards

Irish Standard  
I.S. EN 16931-1:2017+A1:2019&AC:2020

# Electronic invoicing - Part 1: Semantic data model of the core elements of an electronic invoice

**I.S. EN 16931-1:2017+A1:2019&AC:2020**

*Incorporating amendments/corrigenda/National Annexes issued since publication:*

EN 16931-1:2017+A1:2019/AC:2020

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*This document is based on:*

EN 16931-1:2017+A1:2019

*Published:*

2019-11-13

*This document was published under the authority of the NSAI and comes into effect on:*

2020-08-16

ICS number:

35.240.20

35.240.63

NOTE: If blank see CEN/CENELEC cover page

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## National Foreword

I.S. EN 16931-1:2017+A1:2019&AC:2020 is the adopted Irish version of the European Document EN 16931-1:2017+A1:2019, Electronic invoicing - Part 1: Semantic data model of the core elements of an electronic invoice

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 16931-  
1:2017+A1:2019/AC**

July 2020

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ICS 35.240.20; 35.240.63

English version

Electronic invoicing - Part 1: Semantic data model of the core elements of an  
electronic invoice

Facturation électronique - Partie 1 : Modèle  
sémantique de données des éléments  
essentiels d'une facture électronique

Elektronische Rechnungsstellung - Teil 1:  
Semantisches Datenmodell der Kernelemente  
einer elektronischen Rechnung

This corrigendum becomes effective on 29 July 2020 for incorporation in the official English  
version of the EN.



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

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EUROPEAN STANDARD

**EN 16931-1:2017+A1**

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2019

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ICS 35.240.20; 35.240.63

English Version

## Electronic invoicing - Part 1: Semantic data model of the core elements of an electronic invoice

Facturation électronique - Partie 1 : Modèle  
sémantique de données des éléments essentiels d'une  
facture électronique

Elektronische Rechnungsstellung - Teil 1:  
Semantisches Datenmodell der Kernelemente einer  
elektronischen Rechnung

This European Standard was approved by CEN on 17 April 2017 and includes Amendment 1 approved by CEN on 25 September 2019.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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## European foreword

This document (EN 16931-1:2017+A1:2019) has been prepared by Technical Committee CEN/TC "Electronic Invoicing", the secretariat of which is held by NEN.

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 May 2019, and conflicting national standards shall be withdrawn at the latest by May 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document includes Corrigendum 1 issued by CEN on 2019-11-13 and Amendment 1, approved by CEN on 2019-9-25.

This document supersedes A1 EN 16931-1:2017 A1.

The start and finish of text introduced or altered by amendment is indicated in the text by tags A1 A1.

The start and finish of text introduced or altered by corrigendum is indicated in the text by tags AC AC.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive 2014/55/EU [1].

For relationship with EU Directive 2014/55/EU [1], see informative Annex B, which is an integral part of this document.

A1 Attention is drawn to the existence of deviations from the content of the EN due to national regulation. See annex E for all relevant information concerning them. A1

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

- EN 16931-1:2017 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 16931-3-2:2017 Electronic invoicing - Part 3-2: Syntax binding for ISO/IEC 19845 (UBL 2.1) invoice and credit note

## **EN 16931-1:2017+A1:2019 (E)**

- CEN/TS 16931-3-3:2017 Electronic invoicing - Part 3-3: Syntax binding for UN/CEFACT XML Cross Industry Invoice D16B
- CEN/TS 16931-3-4:2017 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<sup>1</sup> Electronic invoicing - Part 6: Result of the test of EN 16931-1 with respect to its practical application for an end user - Testing methodology

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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<sup>1</sup> In preparation.

## Introduction

The European Commission estimates that “The mass adoption of e-invoicing within the EU would lead to significant economic benefits and it is estimated that moving from paper to e-invoices will generate savings of around EUR 240 billion over a six-year period”<sup>2</sup>. Based on this recognition “The Commission wants to see e-invoicing become the predominant method of invoicing by 2020 in Europe.”

To achieve this goal, Directive 2014/55/EU [1] on electronic invoicing in public procurement aims at facilitating the use of electronic invoices by economic operators when supplying goods, works and services to the public administration. The Directive sets out the legal framework for the establishment and use of a European Standard (EN) for the semantic data model of the core elements of an electronic invoice.

The semantic data model of the core elements of an electronic invoice – the core invoice model – as described in this document is based on the proposition that a quite limited, but sufficient set of information elements can be defined that supports generally applicable invoice-related functionalities. These functionalities are described in Clause 5. The core invoice model, as described in Clause 6, contains information elements that are commonly used and accepted including those that are legally required.

It is expected that in most situations, business partners would use the core invoice model exclusively and the invoices they send or receive would not contain any additional structured information elements. However, in some sectors or situations where there are specific information requirements, the required information may be conveyed in the form of unstructured text. Unstructured text has the drawback in that it cannot be processed automatically and therefore requires human intervention. Alternatively, the specific information requirements can be implemented using information elements that extend the core invoice model. Any such extension needs to respect the semantic definitions in the core invoice model. Only business partners that are part of such a sector or supply chain would be expected to be able to process the extensions. In these circumstances, it should be possible to define a number of required additional information elements whilst still utilizing the core invoice model concept.

In line with Directive 2014/55/EU [1] and after the publication of the reference to this document in the Official Journal of the European Union, all contracting authorities and contracting entities in the EU will be obliged to be able to receive and process an e-invoice as long as it contains all of the (applicable) core elements of an invoice defined in this European Standard (and provided that it is represented in any of the syntaxes identified in the related Technical Specification CEN/TS 16931-2 “List of syntaxes that comply with EN 16931-1” in accordance with the request referred to in paragraph 1 of article 3 of the Directive 2014/55/EU. The inclusion of any additional information which is not contained in the core model will be at the sender’s discretion and contained in unstructured text or in an extension, by agreement with the contracting entity. The inclusion of any extension in an e-invoice will be optional, and it will not form an integral part of the European Standard. See Clause 4 below for further detail on extensions.

By ensuring semantic interoperability of electronic invoices, the European Standard and its ancillary European standardization deliverables will serve to remove market barriers and

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<sup>2</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0712:FIN:en:PDF>.

## **EN 16931-1:2017+A1:2019 (E)**

obstacles to trade deriving from the existence of various national rules and standards – and thus contribute to the goals set by the European Commission.

## 1 Scope

This European Standard establishes a semantic data model of the core elements of an electronic invoice. The semantic model includes only the essential information elements that an electronic invoice needs to ensure legal (including fiscal) compliance and to enable interoperability for cross-border, cross sector and for domestic trade. The semantic model may be used by organizations in the private and the public sector for public procurement invoicing. It may also be used for invoicing between private sector enterprises. It has not been specifically designed for invoicing consumers.

This European Standard complies at least with the following criteria:

- it is technologically neutral;
- it is compatible with relevant international standards on electronic invoicing;
- the application of this standard should comply with the requirements for the protection of personal data of Directive 95/46/EC, having due regard to the principles of privacy and data protection by-design, data minimization, purpose limitation, necessity and proportionality;
- it is consistent with the relevant provisions of Directive 2006/112/EC [2];
- it allows for the establishment of practical, user-friendly, flexible and cost-efficient electronic invoicing systems;
- it takes into account the special needs of small and medium-sized enterprises as well as of sub-central contracting authorities and contracting entities;
- it is suitable for use in commercial transactions between enterprises.

## 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN ISO 3166-1, *Codes for the representation of names of countries and their subdivisions — Part 1: Country codes (ISO 3166-1)*

ISO 4217, *Codes for the representation of currencies*

ISO 8601, *Data elements and interchange formats — Information interchange — Representation of dates and times*

ISO 15000-5, *Electronic Business Extensible Markup Language (ebXML) — Part 5: Core Components Specification (CCS)*

ISO/IEC 6523 (all parts), *Information technology — Structure for the identification of organizations and organization parts*

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