

Recommendation on the use of ‘Core Invoice Usage Specifications’ (CIUS)

Version 1.0

This document was prepared by an Activity Group of the European Multi-Stakeholder Forum on e-invoicing (EMSFEI), focused on the adoption of e-invoicing in public procurement, for discussion and endorsed by the EMSFEI on 12 April, 2018.

Independent experts, not representing any government or organisation, make this contribution. The views expressed in this document are the views of the experts and do not necessarily reflect the views of the states and/or the organisations for which the experts work.

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Version: v 1.0
14 May, 2018

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1 INTRODUCTION

1.1. Background

In its meeting of 1 October 2013, the European Multi Stakeholder Forum on e-Invoicing unanimously adopted the 'Recommendation on the use of a Semantic Data Model to support Interoperability for Electronic Invoicing'.

The Recommendation led to Directive 2014/55/EU, and through Standardization Request M/528 the development of a European Standard: EN 16931-1:2017 for the semantic data model of the core elements of an electronic invoice (also called the 'European standard on electronic invoicing'). The EN was made available by 28 June 2017. The reference to the standard has been published in the Official Journal of the European Union. In practice this means that 18 April 2019 has been established as the final date for the implementation of the European Standard ('EN').

EN 16931-1 introduces the concept of a Core Invoice Usage Specification (CIUS). A CIUS is intended to enable the eInvoice receiver to e.g. define which of the optional elements it needs for automated billing processing. The consequence is that using a CIUS, a receiver will be able to reject EN 16931-1 compliant invoices that do not fulfil the rules defined in the CIUS. This opens the risk for non-interoperable 'CIUS communities'. This risk must be minimised.

With the Commission Decision C(2017) 5580 final¹ of 14.8.2017, the 'Third European Multi-Stakeholder Forum on Electronic Invoicing' (eInvoicing) was set up with monitoring, information- and advisory tasks. Its Sub Group 2 concludes that its work, in fact its scope and remit, is characterised as: '(Technical) Implementation of the EN 16931-1 and (future) work (a.o. in CEN TC 434) to support / enable that. Within that scope and remit falls '(Usage) guidelines on the use of Core Invoice Usage Specifications (CIUS)' - this document. It will also contain an explanatory section on the concept of CIUS, aimed at helping understand the challenges that it may imply.

1.2. Aim of the document

This document is giving recommendations on the use of Core Invoice Usage Specifications (CIUS), which is a concept in the European standard for e-invoices EN 16931.

For the Recommendations depicted in this document, endorsement by the EMSFEI is sought; afterwards it can be used to enable and guide further necessary work a.o. in CEN TC/434.

1.3. Scope and limitations

This document gives an overview to the concepts of the standard. Those interested in understanding all the details of the concepts described are recommended to buy a copy of the

¹ <http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=34232&no=1>

actual standard from any National Standardisation Body. For ease of reference, the CIUS description has been copied in this document.

1.4. Outline

For the purpose of understanding and development of Recommendations, this document will first introduce the three essential components of the eInvoicing standard: the CORE, the CIUS and Extensions.

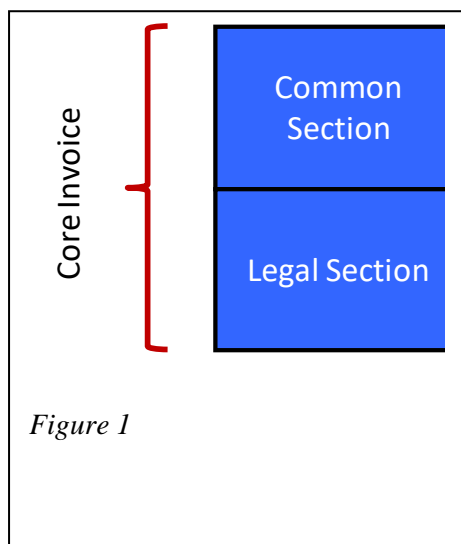
Later, the use of extensions is discussed in terms of both the opportunities and the risks associated and last the recommendation provide clarification and guidance on CIUS.

2. BASIC CONCEPTS OF THE EUROPEAN STANDARD FOR E- INVOICES

An invoice is a document submitted to a Buyer, identifying a transaction for which the Buyer owes payment to the Seller. To enable processing of the invoice, it needs to contain a certain set of information elements² to ensure legal (including fiscal) compliance and to enable interoperability for cross-border, cross-sector and domestic trade.

The concept of a 'Core Invoice' is based on the proposition that a limited, but sufficient, set of information elements can be defined that supports generally applicable invoice-related functionalities.³ The core invoice model contains information elements that are commonly used and accepted, including those that are legally required: the Core Invoice may be seen as containing a 'Legal Section' plus a 'Common Section', see Figure 1.

A 'Core Invoice' or 'Minimum Core Dataset' should be seen as a key enabler for business efficiency by acting as a basis to achieve interoperability with minimum cost and complexity because semantic data will be able to travel without supplement and/or transformation between formats, as the data model is technology-neutral.



Still, not every recipient needs (or may be allowed to use) all the available features that the semantic data model provides.

To support this, the standard defines the concept of the Core Invoice Usage Specification ('CIUS').

It is intended to enable the receiver of the electronic invoice to define which of the optional elements are allowed or are needed for its automated invoice processing, how they should be filled and to state additional business rules.

The standard EN16931-1 gives a detailed description in its section 7.1.

The use and complexity of CIUS's should not be proliferated. They should be used for justified requirements only.

Although 'Extensions' are NOT a topic for this document, a brief description will be given here. 'Creating an Extension' means adding information elements to an electronic invoice that have not been defined in the EN 16931-1. For communities creating extensions, they have to be aware that these extensions will not be considered conformant to EN 16931-1. Therefore, in theory, public entities in the role of Buyer can define extensions to EN 16931-1, but they are obliged to support, receive and properly process also electronic invoices based on just the information elements defined in EN 16931-1.

² An **information element**, sometimes referred to as a **field**, is a key building block. An information element is often composed of three parts: 1) a type, 2) a value and 3) a length indicator.

³ Examples of these functionalities include invoice issuance and delivery, invoice validation, accounting, VAT reporting, payment and auditing.

A Seller that defines an extension to electronic invoices to a specific Buyer (-community) must realise that the information in the extension will be lost if the invoice is sent to Buyers outside that community.

3. THE USE OF CIUS

Core Invoice Usage Specifications (CIUS's) are a useful way to support the use of the Semantic Model by communities, which have needs for restriction of the set of information elements defined in the core semantic model. Such needs could be arising from sector or national practices. EN16931-1 specifies that such restrictions may be imposed on suppliers.

3.1. What is a CIUS and what is not?

A CIUS is basically a restriction. It is an additional specification on top of EN 16931-1:2017 that narrows certain fields for certain use cases. The methodology how a CIUS is defined can be found in CEN/TR 16931-5:2017.

According to EN 16931-1, each individual Buyer may issue a CIUS. In order to prevent interoperability problems and excessive cost for suppliers, the right to issue a CIUS should be limited to large buyer communities or entire Member States.

The standard EN16931-1 gives a detailed description in its section 7.3 on what may be specified in a CIUS:

- Business terms
- Cardinality
- Semantic data type
- Codes and identifiers
- Business rules

The standard EN16931-1 gives a detailed description in its section 7.6 where it states the actual CIUS and its version should be clearly referenced in the invoice message. That way processing is facilitated.

3.2. What is a CIUS registry, why is it needed, where to find it?

The standard EN16931-1 in its section 7.4 gives guidance on the documentation of the CIUS and it also covers the need for repositories for exposing the existing CIUSes.

It will be clear that proliferation of different CIUS's needs to be prevented. Some of the means to achieve that are: governance and guidance on the development and endorsement of CIUS's and re-use, which in turn is facilitated by making (publicly) available approved CIUS's. To that purpose, a 'repository' as mentioned in EN 16931-1 must be developed and put in operation. The obvious need to prevent the proliferation has created a mandate for the creation of such a repository (known herein as the Registry) and the implementation of appropriate accompanying procedures and governance to ensure it meets the requirements and provides a fully functional registration and approval process for artefacts based on EN 16931-1.

The benefits of a registration of these artefacts in the Registry are assessed as:

- Transparency of requirements and to help find common ground.
- Support interoperability
- Prevent undue proliferation and fragmentation
- Exercise quality control before registration
- Help stakeholders such as service and solution providers and ERP⁴-vendors to provide support.
- The ability of CEN/TC 434 to identify candidates for common extensions and upgrades to the EN 16931-x itself to reflect convergence on new business needs over time.

It is therefore important that CEN/TC 434 be mandated to develop such Registry. Note that the Connecting Europe Facility (CEF) is already providing an unofficial self-declaration based list of CIUSs.

3.3. Proliferation of CIUSes

CIUS's may pose risks to successful operation of EN16931-1. There are several dimensions to these risks, including excessive proliferation, lack of quality control (if third parties may create them at will) and inadequate recognition of the need for transparent registration and a general governance concern.

A simple example showing the consequences of handling multiple CIUSes:

Imagine that Buyer⁵ A publishes a CIUS restricting EN16931-1 that must be complied with for invoices sent to him. This CIUS states that the only payment method allowed is 'SEPA Credit Transfer'. Buyer B has defined another CIUS stating that the only payment method allowed in invoices sent to him is 'Direct Debit'. When a Seller compliant with the CIUS of Buyer B sends an invoice to Buyer A, Buyer A will reject it because it is not conformant according to its CIUS. The consequence is that using a CIUS restricting EN16931-1, a receiver will be able to reject invoices that are valid according to EN16931-1, but that do not fulfil the rules defined in the CIUS of the receiver.

This can generate many cross-CIUS interoperability problems: Sellers would need to adapt the electronic invoices they send to the CIUS of their individual Buyers.

3.3.1. Consequences for stakeholders

As described in the example above, a supplier having multiple customers from either different geographies or business sectors may face a complex situation if they will need to support several CIUSes. Implementing that can be costly as well as maintaining an updated registry of how to handle different customers.

⁴ Enterprise Resource Planning

⁵ This could also be 'community' or even 'country'

It is also a problem for IT providers to meet the needs from different customers that require support in software or IT services for different CIUSes. This will drive costs for the IT providers.

This also affects the buyers in the way that on-boarding of suppliers will be more time consuming and require more efforts on behalf of the buyer to communicate with the supplier to make the shift to e-invoicing happen.

3.3.2. How to handle the situation?

The European standard leaves it open for anyone to create CIUSes, an individual buyer may even create it. If the creation of CIUSes is not regulated, there is a risk of fragmentation of the use of e-invoices creating a myriad of 'dialects' of the standard. This will become a serious interoperability problem if it occurs and it will slow down the adoption of e-invoicing.

It is seldom an explicit ambition by a user group to create CIUSes that will create problems. Those cases are rather likely to be the result of lack of knowledge. Therefore, knowledge sharing is vital to avoid these problems. Meeting users from other communities will create understanding of common needs and solutions. Repositories along with communication activities is a measure to facilitate knowledge sharing and reuse.

Existing CIUSes and especially those created for a Pan-European and cross-sector perspective should therefore be promoted to enable reuse rather than creating of a multitude of CIUSes. The OpenPEPPOL BIS Billing 3 is the most predominant example of such a CIUS at present.

4. RECOMMENDATIONS

Recommendations to the European Commission

The EMSFEI recommends to the European Commission to ensure that in order to hinder excessive proliferation of different CIUS's to EN 16931-1 and to guide implementation, publications of CIUS's in a registry and publication of CIUS restrictions in a machine processable format should become mandatory.

The EMSFEI recommends to the European Commission to also in the CEF programme to undertake actions to facilitate knowledge sharing in the area of CIUS to promote reuse of solutions that are cross sector and Pan-European.

The EMSFEI recommends to the European Commission to ensure that the work of CEN can indeed provide the required support for this implication of Directive 2014/55/EU (and union legislation and policies at large) and CEN/TC 434 is mandated to develop and put into operation such Registry.

Recommendations to the Member states

The EMSFEI recommends to the Member States to ensure that the national legislation and other related regulations includes measures to avoid fragmentation of CIUS that create 'dialects' of the standard that are not interoperable.

The EMSFEI recommends the Member States to appoint a Ministry or a Government Agency responsible for setting recommendations to end users on how to handle e-invoicing to facilitate up-take and to foster interoperable solutions.

The EMSFEI recommends the Member States to participate in the workshops and support initiatives offered by the CEF programme in order to increase awareness and knowledge to avoid the risk of fragmentation.

Recommendations to end users

Aim at the re-use of CIUS's that have been made available via a Registry rather than defining (yet another) proprietary one.