Standardisation beyond the eInvoicing standard

SubGroup 8 of the European Multi-Stakeholder Forum on Electronic Invoicing

Revision Table

Revised by	Date	Revision (version) number
P.G.L. Potgieser	February 2019	0.1
F. van Blommestein	February 2019	0.2
P.G.L. Potgieser	February 2019	0.3
F. van Blommestein	February 2019	0.4
F. van Blommestein	April 2019	0.5
F. van Blommestein	April 2019	1.0
F. van Blommestein	September 2019	1.5
P.G.L. Potgieser	February 2019	2.0

Disclaimer

The members of the 'SubGroup 8' of the 'European Multi-Stakeholder Forum on Electronic Invoicing' contributed as independent experts, not representing their governments or organizations. The views expressed in this document are the views of these members and do not necessarily reflect the views of the European Commission or of the states or the organizations for which the members of the group work.

Chair: Fred van Blommestein, NL

Editors:

> Fred van Blommestein, NL
> Charles Bryant, EESPA
> Peter Potgieser, CEN

Contributers:

> Ahti Allikas, EE
> Andreas Michalewicz, DE
> Andrea Caccia, IT
> Anna Norden, SE
> Cyrille Sautereau, FR
> Gary Benson, EESPA
> Jostein Frømyr, NO
> Kerstin Wiss-Holmdahl, SE
> Stefan Engel-flechsig, DE
> Serge Libert, BE
> Sjaak Groeneveld, NL

Summary

This document contains suggestions from the EMSFEI for standards to be developed beyond the e-invoicing standards as published by CEN/TC 434. Newly to develop standards fall in one of the categories:

- e-invoice implementation
- innovation
- best practices

Table of contents

1   Introduction

The European Commission has continued to be a rallying point for e-invoicing adoption. In April 2014 its work led to the adoption by the European Parliament and the Council of the EU representing EU governments of the new '*Directive 2014/55/EU on e-invoicing in public procurement*'[1]. Following this, on 28 June 2017, CEN has published[2] a set of standards for eInvoicing*:* the European standard on *'the semantic data model of the core elements of an electronic invoice'*, a list of syntaxes and other related deliverables, collectively referenced here as "EN16931".

By 2018 all public administrations in the EU were expected to adopt the new e-invoicing standard, that was also designed for use in B2B and for which the development was in progress at that time, and by April 2019 accept e-invoices in this standard (April 2020 for sub-central entities).

The Commission is planning further support for these developments under its Connecting Europe Facility programme (CEF)[3] and, as CEF is ending, its successor(s).

The EMSFEI observes that, in order to achieve the objectives of the policy on e-invoicing as laid down in COM (2010) 712 Final[4], further work, including standardization, is needed in the following three categories:

- Standards for implementation of EU-wide e-invoicing *as such;*
- Standards needed to integrate e-invoicing in the overall business process(es);
- Best practices to grab the benefits of e-invoicing.

This work should preferably also cover the requirements following from '*Interoperability Framework*' and '*Methodology and Implementation Plan*' as also recommended by the EMSFEI.

The topics to be covered in future work were assembled on a long list by the EMSFEI Subgroup 8 and then discussed in the EMSFEI plenary. An informal poll among the members of EMSFEI resulted in the list of topics presented in this report.

---

[1] http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32014L0055
[2] https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/2017/06/28/CEN+Publishes+eInvoicing+Semantic+Data+Model
[3] https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/What+is+eInvoicing
[4] https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0712:FIN:en:PDF

The EMSFEI realizes that its observations will develop into '**what** should be done'; as advisory body to the European Commission and subject to Regulation (EU) 1025/2012, the EMSFEI may not be in the proper position to advise '**how / by whom** it should be done'; this should be agreed at a later stage, where also a verification needs to be made against '*The Rolling plan for ICT standardisation*' – an official Commission policy document[5]. Otherwise there is the real risk of overlapping work.

In the May 2019 meeting of the EMSFEI the remark was made that the work of SubGroup 8 does not imply the need to merely create <u>new</u> standards, as the ones currently in place are more than enough. Wherever possible, the objective should be to adapt the existing standard rather than develop new ones.

It should be noted that 'standards' are to be interpreted as described by the European Commission[6]: '*Standardisation can take different forms, ranging from the adoption of consensus based standards by the recognised European or national standards bodies, through consortia and fora, to agreements between independent companies*', so not all need to have the status of European Standard (EN).

2   e-invoice implementation

EN 16931-1 describes a semantic model. CEN/TS 16931-2 a list of 2 syntaxes (UBL and UN/CEFACT CII XML) that European Public Authorities are obliged to implement. CEN/TS 16931-3 defines the binding of EN 16931-1 to three available syntaxes. For implementation of e-invoicing the combination of these standards is not sufficient. Implementation also needs specifications of interoperable technologies to be used at transmission level. CEN/TR 16931-4 gives some guidelines, but a technical report is not a standard that implementation may claim compliance to.

A number of reference models for interoperable transmission frameworks exist in the European market, in particular the Connecting Europe Facility (CEF) e-Delivery Building Block, the PEPPOL specifications and the EESPA Model Agreements, all of which use substantially the same or similar open standards.

EMSFEI-III subgroup 4 has elaborated the topic of interoperability and transmission[7], and concluded that some further standardization is still needed (see appendix). This can be seen as a further recognition and underpinning of the corresponding paragraphs in the '*Recommendation on the use of a Semantic Data Model to support Interoperability for Electronic Invoicing[8]*' that was unanimously adopted by EMSFEI-I as early as its meeting of 1 October 2013. This further work should give an answer to the questions how invoices (together with other documents) may be transmitted over networks in a four corner environment, taking into account addressing, security, reliability, non-repudiation and status reporting. The following topics should be addressed:

1) Processes and messages at business level to report and track the status of the

---

[5] https://ec.europa.eu/docsroom/documents/34788
[6] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52011XC0114(04)&from=EN (in chapter 7. STANDARDISATION AGREEMENTS, section 7.1. Definition)
[7] Report of the European Multi-Stakeholder Forum on e-Invoicing (EMSFEI) regarding Interoperability and Transmission of e-Invoices with a special focus on the needs of Small and Medium-sized Enterprises (SMEs)
[8] https://ec.europa.eu/cefdigital/wiki/download/attachments/82773272/recommendation_on_the_use_of_a _semantic_data_model_en.pdf

invoice as it moves through the network and the buyers approval cycle, including invoice response messages and payment date notification (this is the subject of a current joint initiative of the European E-invoicing Service Providers Association (EESPA) and the OpenPEPPOL Association).

2) Addressing, routing and partner discovery: how trading partners can address themselves to exchange data elements through business documents, when using third parties for the exchange Network.

3) End to end compliance: how trading partners can be assured that the exchange of data elements through business documents and third Parties does not jeopardize their legal and fiscal compliance, especially regarding what electronic document will be considered as the tax e-invoice supporting VAT collection or deductibility and accounting, that should be archived on a long term basis mostly identically for both the Sender and the Receiver.

3   Innovation

Electronic invoicing, or better electronic exchange of information instead of paper-based information exchange, in fact means that: i), information is available earlier, ii) information is available with fewer errors and iii) there is more (reliable) information about its integrity, identification of parties and status. Electronic invoicing also reduces the effort for processing.

Combined with the rationale '*End-to-end e-procurement is not about implementing an IT project which would just replicate paper-based processes; it is an opportunity to fundamentally re-think the way public administration is organized. End-to-end e-procurement is therefore a key enabler ....*' (see COM(2013) 453 final[9]) this opens up the possibility for innovations, business incentives, business cases and (new) business supporting functions like 'Supply Chain Finance'.

Invoicing and payment processes are closely related, mainly in the B2C environment, but also in B2B and B2G.

A topic that therefore should be further elaborated is:

4) Integration of eInvoicing with payment processing (also for B2C); EIPP ('Electronic Invoice Presentment and Payment'), dynamic discounting. The European Retail Payments Board which operates under the auspices of the European Central Bank and with the support of the European Payments Council is working in this area. A standard for an enhanced ISO 20022 XML Request-to-Pay message and related servicing messages has been developed for both EIPP and wider use cases.

4   Best practices

Standards are not only needed to align communication between business partners. They can also play an important role when defining internal procedures within and across organizations. Such practices may include the development and use of agreements, governance, rules or implementation guidelines for standards, as well as specific additional areas such as:

---

[9] http://ec.europa.eu/transparency/regdoc/rep/1/2013/EN/1-2013-453-EN-F1-1.Pdf

5) Best practices for Continuous Transaction Control for VAT, real-time reporting, clearance models etc. A stakeholder group organized by the International Chamber of Commerce has a focus on this topic.
6) Best practices for integration of eInvoicing in tactical and operational procurement processes: Requirements gathering, Pre-award, contracting, ordering.

5 Suggested way forward

EMSFEI invites the Commission to address the above mentioned topics and to invite the appropriate (standardization) bodies (CEN/TC434, CEN/TC440 or other) to, where not done or planned already, take them up and integrate them in their work planning.

Appendix
Recommendations on interoperability and transmission of e-Invoices by EMSFEI subgroup 4.

1. Stakeholders are urged to implement the defined principles herein at all levels of the eco-system and pay attention to the CEN Guidelines for Interoperability at the Transmission level.

2. Service and solution providers need to meet the expectations of customers in terms of convenience, ease of use, and value for money, covering timely and transparent services for e-invoice creation, validation, transmission and processing, clarity on fiscal compliance, visual presentations (where required), service level agreements, and archiving etc. **All records need to be survivable in the event of a contractual relationship ceasing.**

3. Transmission and interoperability mechanisms should be cost effective and tailored to the needs of user segments by providing both 'core and basic' levels of service with scope for additional value-added services.

4. The service and solutions industry and its governance frameworks should more concretely support the needs of SMEs with a very immediate focus on providing easy-to-use services for creating and delivering invoices containing invoice data in a structured format such as those required to be conformant with EN16931. **Such services need to provide easy-to-use and transparent facilities to enable users to switch service providers.**

5. **Service and solution providers are encouraged to support interoperability according to the EESPA Model Agreements and PEPPOL**, and preferably both as client demands require. They both represent best practice examples for interoperability **and are discussing convergence of standards and practices**, which is welcome. The services and solutions industry is encouraged to be open to the emergence of equivalent or improved frameworks in the future.

6. All interoperability arrangements should be documented by customer agreements and service provider-to-service provider agreements that include service descriptions and the allocation of tasks and responsibilities. Such agreements should create a clear end-to-end chain of authority and mutual obligations between the parties. In a four-corner model, SPR and SPS will satisfy themselves as to the status, technical and compliance capabilities of the other party acting in their own and their client's interests. All parties should be open to reasonably sharing information about the roles performed in their dealings along the chain of agreements.

7. Transmission protocols should make use of open and non-proprietary standards and **there should be widespread adoption of technical and business-level response messages.**

8. **Further efforts should be made to promote more standardization in the use of identifiers, electronic addresses and routing. This should include the concept of a federation of registries. This should also address the issue of portability, which is the possibility for a trading entity to change its service**

provider with a minimum impact on the existing routing and addressing set-up for its trading parties.

9. National Platforms should adopt well-accepted standards and practices and consider the re-use of existing well-proven artefacts and network services. Such national initiatives should foster competition and innovation in support of the market for services and solutions and not provide inappropriate state-funded competition. **National Platforms should provide an in-bound PEPPOL capability to support intra-EU interoperability at least for public sector transactions.**

10. **Through cooperation with the payments industry** more pervasive EIPP services should be made available **to provide more convenience for consumers and small business in aggregating and paying invoices**, including the necessary linkages to enterprise systems used by SMEs.

11. **Attention should be paid to portals which are proliferating.** It should be possible to develop a set of standards and best practices for the way these operate to create a more uniform customer experience for end-users in terms of ease of use and cost-effective solutions. **Application Programming Interfaces (API) should be evaluated as to their potential in relation to the customer experience. Given the availability of interoperability agreements service providers should provide facilities for receiving e-invoices through their portals destined for buyers on other platforms, especially for SMEs, who would benefit from a 'one-stop shop'.**

12. **Email should not be recommended for transmission within an automated process environment. It is recognized however that email is a common and accepted means of transmission for SMEs and will likely remain a means for 'first mile' invoice (or data) collection in an automated process chain, and as an important exchange mechanism between SMEs themselves.** As long as email usage persists it is recommended that it is reinforced by additional means such as digital signatures or e-seals applied to the e-invoice, acknowledgement response messages, and potentially by means of Electronic Registered Delivery Services, as recognized by the e-IDAS regulations.

13. Developments in e-invoice reporting and registration for fiscal purposes **should be harmonized on common definitions**, practices and messaging requirements as has been proposed in a recent EMSFEI paper.

14. **The topic of fiscal compliance should be the subject of a separate project within the EMSFEI agenda.**

15. Investigation should be made of the potential and concrete **benefits of the Zero-corner model and Block-Chain** to e-invoicing.

16. EMSFEI should consider a future project to examine and extract lessons from the numerous country experiences already available[10].

---

[10] See country descriptions at: https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/Situation+per+country