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EVALUATION

Accompanying the document

Report from the Commission to the European Parliament and the Council

on the effects of Directive 2014/55/EU on the Internal Market and on the uptake of electronic invoicing in public procurement

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Glossary

Term or acronym	*Meaning or definition*
Access Point	In the Peppol and eDelivery network, an Access Point is a gateway linking the community of end-users (buyers and sellers) and their service providers with various eInvoicing / eProcurement solutions. It is a software service provided by an Access Point provider that enables the transfer of business documents, such as orders and invoices, over the Peppol Transport Infrastructure. The Access Point provider is responsible for establishing its own connections with its Peppol participants and is likely to offer a range of other services.
B2B	Business-to-business stands for a transaction that takes place between one business and another.
B2C	Business-to-consumer stands for a transaction that takes place between a business and an individual as an end-customer.
B2G	Business-to-government stands for a transaction between a public sector entity and a business.
Buyer or Receiver	Buyer of goods and services from a supplier or seller. An invoice issued by the seller is issued to the buyer, who is, therefore, the receiver of the goods and services and the receiver of the related invoice.
CEN	European Committee for Standardisation, an association that brings together the National Standardisation Bodies of 33 European countries. CEN is one of three European Standardisation Organisations (together with CENELEC and ETSI) that have been officially recognised by the European Union and by the European Free Trade Association (EFTA) as responsible for developing and defining voluntary standards at the European level.
CEN/TC 434	CEN Technical Committee that was launched in September 2014 as a project and then a technical committee operating within CEN governance, with responsibility for developing the standard for European eInvoicing based on a semantic model for the core information elements of an electronic invoice, syntax selection and bindings, and other related deliverables.
Clearance Model	It refers to the approval process from the tax authority to issue an invoice. In countries that have chosen the 'clearance model', the tax administration requires each invoice to be reported and authorised electronically by them before or during the exchange process.

Code List	Predefined list from which some statistical coded concepts take their values. Each code list has the following properties: a) identifier (it provides a unique identification within the set of code lists specified by a structural definitions maintenance agency); b) name (also unique); c) description (a description of the purpose of the code list); and d) code value length (either an exact or a maximum number of characters and a type, i.e. numeric or alphanumeric). Code Lists are used in invoice data format standards to represent countries, currencies, units of measure, etc.
Contracting authority /CA	Contracting authorities as defined in point 17 of Article 1 of Directive 2009/81/EC, Article 6(1) of Directive 2014/23/EU, and point (1) of Article 2(1) of Directive 2014/24/EU.
Contracting entities	Contracting entities as defined in point 17 of Article 1 of Directive 2009/81/EC, Article 7(1) and (2) of Directive 2014/23/EU and Article 4(1) of Directive 2014/25/EU.
Core elements of an electronic invoice	A set of essential information elements which an electronic invoice must contain to enable cross-border interoperability, including the necessary information to ensure legal compliance.
Core Invoice Usage Specification (CIUS)	A specification that provides a seller with detailed guidance, explanations and examples, as well as business rules related to the actual implementation and use (or restriction of use) of structured information elements present in the core invoice model in a specific trading situation. An instance document created following a given CIUS shall always be compliant with the European Norm (EN16931).
CTC (Continuous Transaction Controls)	A form of transaction-based reporting or clearance either based on the actual invoice or a subset of the invoice. CTCs enable law enforcement agencies, like tax administrations, to collect data associated with business activities that are relevant to the exercise of their function. This data is obtained directly from business data management systems, in real-time or near-real-time.
eDelivery	A European digital Building Block that provides technical specifications and standards, installable software, and ancillary services to allow projects to create a network of nodes for secure digital data exchange. By building with eDelivery, public and private organisations from different sectors can easily create a safe and interoperable channel to transfer documents and data among each other over a public or private network.
EDI	Electronic Data Interchange. The transfer of data from one computer system to another by standardised message formatting, without human intervention.

EDIFACT	Electronic Data Interchange For Administration, Commerce and Transport.
EEA	European Economic Area.
GENA (formerly EESPA)	The Global Exchange Network Association (GENA), formerly the European EInvoicing Service Providers Association (EESPA).
e-IDAS	The EU Regulation 910/2014 on electronic identification and trust services for electronic transactions in the European internal market. It repeals Directive 1999/93/EC. In addition to the regulation of electronic identification services, e-IDAS also regulates various 'trust services' such as electronic signatures, timestamps, and Electronic Registered Delivery Services.
Electronic invoice / eInvoice	An invoice that has been issued, transmitted and received in a structured electronic format, which allows for its automatic and electronic processing.
Electronic Signature	A general expression for any type of electronically generated signature on a message or document transmitted electronically. They range from facsimile signatures to more secure digital signatures.
EN	A European Norm (EN) is a standard which has been adopted by one of the three recognised European Standardisation Organisations: CEN, CENELEC or ETSI.
EN 16931	The European eInvoicing standard. It was developed by CEN at the request of the European Commission and published by the Commission in 2017.
Entity Identifier	Unique digital identifier of a trading party or business entity. This can be a Legal Entity Identifier or another convenient and recognisable identifier.
eProcurement	It refers to the use of electronic communications by public sector organisations when buying supplies and services or tendering public works.
ERP	Enterprise Resource Planning is a business process management software that allows an organisation to use a system of integrated applications to manage the business and automate many back-office functions such as procurement, production, technology, accounting and support services, and human resources.

European Interoperability Framework	The European interoperability framework is a commonly agreed approach to the delivery of European public services in an interoperable manner. It defines basic interoperability guidelines through common principles, models, and recommendations. It specifies layers of interoperability such as governance, legal, organisational, semantic, and technical.
European standard	European standard as defined in point (b) of Article 2(1) of Regulation (EU) No 1025/2012.
Extension	EN 16931 envisages requirements for trading parties to extend the core invoice model and the related business rules and code lists to support business use cases that are specific to their trading environment (sector or country) while at the same time maintaining semantic interoperability with the core invoice model. An Extension is a specification of the required additional or modified information elements and, in the EN 16931 is the subject of an Extension Methodology.
Format conversion or transformation	A process by which a structured eInvoice is converted from one technical representation or syntax to another while not altering its business or semantic content. It may also refer to the conversion of a structured eInvoice into a human-readable presentation such as a PDF, and vice-versa.
Format or File Format	A standard way that information is technically represented or encoded in a computer file. File formats may be either proprietary or free and may be either unpublished or open. In eInvoicing, a format is synonymous with syntax.
Four Corner Model	A model for interoperability in which the seller and buyer are not using the same service provider. The service providers or a party providing a 'self-service', in turn, inter-operate with each other, either based on bilateral agreements or as part of a multilateral network.
Global Interoperability Framework (GIF)	The Global Interoperability Framework (GIF) is a set of recommended practices, policies, and standards for the operation of any 'four-corner' interoperability network organised within a collaborative governance framework wishing to be GIF compliant. Such a network allows its dedicated access points, which are typically service and solution platform providers of various kinds, to inter-connect their customer networks for the exchange of digital supply chain-related transactions such as eInvoices and orders.

GS1 (Global Standards One)	A not-for-profit standards organisation that manages the assignment of various numbering schemes for global commerce. Active in the world of supply chains in retail, healthcare, transport, and logistics, GS1 is well known for having developed the barcode and implementation of standards such as EANCOM, GLN and GS1 XML.
Hybrid Invoice	A method of embedding structured eInvoice inside a PDF, using the PDF A/3 format. It is often called a 'hybrid' invoice, as it includes both a structured and a human-readable presentation. All information present in the structured format must be present in the readable PDF.
International standard	International standard as defined in point (a) of Article 2(1) of Regulation (EU) No 1025/2012.
Interoperability	The ability of organisations to interact towards mutually beneficial goals, involving the sharing of information and knowledge between these organisations through the business processes they support, by means of the exchange of data between their ICT systems.
Intra-EU Trade	It refers to the trade of goods and services within the EU, among its Member States.
Large Enterprises	Enterprises with 250 or more persons employed.
OASIS	The Organisation for the Advancement of Structured Information Standards (OASIS) is a global non-profit consortium that works on the development, convergence, and adoption of standards for the information society. In the context of eInvoicing, OASIS is known for the UBL 2.0 standard.
OpenPEPPOL Association	The membership association responsible for the governance and maintenance of the Peppol specifications.
PDF	The Portable Document Format is a file format used to present documents in a manner independent of application software, hardware, and operating systems. Each PDF file encapsulates a complete description of a fixed-layout flat document, including the text, fonts, graphics, and other information needed to display it.
Peppol	A set of artefacts and specifications enabling cross-border eProcurement.

Portal (or Web portal)	A synonymous with 'gateway' and refers to a website that often serves as the single point of access for information, for example, a website that users tend to visit as an anchor site for a specific purpose. In eInvoicing, a portal is usually provided by an eInvoicing service provider to give suppliers access to a range of eInvoicing services including the ability to upload or prepare invoices for delivery to buyers, and to receive information and status messages and manage exceptions.
Public Procurement	The process by which public authorities, such as government departments or local authorities, purchase work, goods or services from companies.
Qualified Electronic Signature	An electronic signature that is compliant to EU Regulation No 910/2014 (eIDAS Regulation) for electronic transactions within the European market. It enables parties to verify the integrity and authenticity of signed electronic data exchange over long periods of time. The difference between the advanced electronic signature and the qualified electronic signature is the addition of a qualified certificate and the use of a certified Secure Signature Creation Device. This certificate is issued by a qualified trust service provider.
Seller	The contractually responsible seller of goods and services and the issuer or sender of an invoice.
Semantic Data Model	List of business terms and their meanings that specify the core elements of an electronic invoice. In the EU eInvoicing context, it refers to EN 16931-1:2017 Electronic invoicing - Part 1: Semantic data model of the core elements of an electronic invoice.
SEPA	The Single Euro Payments Area in which retail payments in euro in the form of SEPA Credit Transfer, SEPA Direct Debit, and SEPA Card Payments are made available using common rules and standards.
Service Provider	In the context of eInvoicing, a Service Provider is an organisation that provides its customers with services for the creation, delivery, and processing of eInvoices and other related eBusiness transactions, as well as supporting software and analytics. Such organisations are typically based on the provision of networks, business outsourcing, financial services, technology and/or EDI platforms.

<table>
<tr><td>Shared Services</td><td>The provision of a service by one part of an organisation or group acting as a central servicing unit. It often applies to activities such as finance, administration, human resources, and facilities management, where there are economies of scale and scope, which have previously been carried out individually by every operating unit. The funding and resourcing of the centralised service is shared, and the providing unit or shared service centre effectively becomes an internal service provider.</td></tr>
<tr><td>SME</td><td>Small and medium-sized enterprises. SMEs are defined in the EU recommendation 2003/361. The main factors determining whether an enterprise is an SME are staff headcount and turnover or balance sheet total.
<table>
<tr><th>Company category</th><th>Staff headcount</th><th>Turnover</th><th>or</th><th>Balance sheet total</th></tr>
<tr><td>Medium-sized</td><td>< 250</td><td>≤ € 50 m</td><td></td><td>≤ € 43 m</td></tr>
<tr><td>Small</td><td>< 50</td><td>≤ € 10 m</td><td></td><td>≤ € 10 m</td></tr>
<tr><td>Micro</td><td>< 10</td><td>≤ € 2 m</td><td></td><td>≤ € 2 m</td></tr>
</table></td></tr>
<tr><td>Structured eInvoice</td><td>A structured electronic invoice contains (structured) data in a machine-readable format that can be automatically imported into the buyer's Account Payable (AP) system without requiring manual entering. Structured data refers to data that is organised and formatted in a specific way to make it easily readable and understandable by both humans and machines. This is typically achieved through a well-defined schema or data model, which provides a structure for the data.</td></tr>
<tr><td>Sub-central contracting authorities</td><td>All contracting authorities which are not central government authorities as defined in point (3) of Article 2(1) of Directive 2014/24/EU.</td></tr>
<tr><td>Supplier onboarding</td><td>The process of interfacing with the management of a supplier, gathering and providing the information needed to set up a company as an approved supplier, and establishing connectivity, in order to enable a supplier to efficiently conduct business, access services, and receive payments.</td></tr>
<tr><td>Syntax</td><td>The machine-readable language or dialect used to represent the data elements contained in an electronic invoice.</td></tr>
<tr><td>Syntax bindings</td><td>Guidelines on how a semantic data model for an electronic invoice could be represented in the various syntaxes.</td></tr>
</table>

Three Corner Model	An arrangement where a single service provider connects both the supplier and the buyer to its platform to offer eInvoicing and other supply chain services.
Two Corner, Bilateral, or Direct Model	An arrangement where invoice transmission takes place on a direct connection basis between the trading parties. The trading parties may use a third-party service or solution provider or SaaS to provide the functionality.
UBL	The Universal Business Language is an open library of standard electronic XML business documents for procurement and transportation, such as purchase orders, invoices, transport logistics and waybills. UBL was developed by an OASIS Technical Committee with participation from a variety of industry data standards organisations. It is one of the syntaxes selected for use in the EN 16931 to represent the semantic model.
UN/CEFACT and UN/CEFACT Syntax	The United Nations Centre for Trade Facilitation and Electronic Business. One of the key standards it has developed is the Cross Industry Invoice (CII). The underlying syntax for the CII is one of the technical languages selected for use in the EN 16931 to represent the semantic model.
UN/EDIFACT	United Nations/Electronic Data Interchange for Administration, Commerce and Transport (UN/EDIFACT) is the international EDI standard developed under the United Nations. In 1987, following the convergence of the UN and US/ANSI syntax proposals, the UN/EDIFACT Syntax Rules were approved as the ISO standard ISO 9735 by the International Organisation for Standardisation.
Unstructured invoice	An invoice presented in a format other than a structured format, such as a humanly generated PDF that is not capable of automated and electronic processing.
Validation or Verification	A process carried out by an eInvoice receiver or a service provider on its behalf to ensure that an eInvoice, inter alia, is compliant with its business and technical requirements and with the transaction undertaken.
Web Form	A form on a web page that allows a user to enter data that is sent to a server for processing. Forms can resemble paper or database forms because web users fill out the forms using standard graphical user interface elements such as checkboxes, templates, or text fields. Web forms are commonly provided in eInvoicing portals for customers, which do not use an integrated file transfer solution.

XML	Extensible Mark-up Language is a mark-up language that defines a set of rules for encoding documents in a format that is human-readable and machine-readable. Several schema systems exist to aid in the definition of XML-based languages, while programmers have developed many application programming interfaces (APIs) to aid the processing of XML data. XML provides a widely used foundation for creating documents and document systems.

Table 1 Glossary

1. INTRODUCTION

Purpose and scope of the evaluation

The purpose of this evaluation is to review the implementation and performance of Directive 2014/55/EU of the European Parliament and of the Council of 16 April 2014 on electronic invoicing in public procurement (hereinafter, 'the Directive')[1], and to provide conclusions that can be used as a basis for future policy development.

The evaluation allowed the gathering of valuable insights regarding the Directive's implementation in the Member States. It aimed, in particular, to evaluate whether the Directive has effectively achieved its intended objectives and expected outcomes.

The evaluation of the Directive has followed the European Commission's Better Regulation Guidelines[2]. A study supporting this ex-post evaluation of the Directive has been carried out by independent consultants[3]. The general public, industry stakeholders and representatives of national administrations have participated in this process. The evaluation has addressed the five mandatory evaluation criteria of relevance, effectiveness, efficiency, consistency, and EU added value.

The evaluation period considered in this evaluation report extends from 2014 to 2022. The impact assessment[4] accompanying the Directive proposal served as the baseline for this evaluation.

The geographical scope of this study encompasses all 27 EU Member States (UK is not included). Additionally, responses to the questionnaire from national authorities in Iceland and Norway were collected and used for comparison alongside the EU Member States.

2. WHAT WAS THE EXPECTED OUTCOME OF THE INTERVENTION?

2.1. Description of the intervention and its objectives

In the 2010 Digital Agenda for Europe[5], the European Commission recognised the potential of electronic invoicing (eInvoicing) as a key enabler for the digital economy and a means to promote the single market. In 2010, the EU's policy on eInvoicing was promoted with the Communication "Reaping the benefits of e-invoicing for Europe"[6],

[1] Directive 2014/55/EU of the European Parliament and of the Council of 16 April 2014 on electronic invoicing in public procurement, OJ L 133, 6.5.2014, p. 1 https://eur-lex.europa.eu/legal-content/EN/LSU/?uri=CELEX:32014L0055
[2] Better regulation: guidelines and toolbox (europa.eu)
[3] European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, Ciciriello, C., Gray, E., Preparatory study on the effects of the Directive 2014/55/EU on electronic invoicing in public procurement, Publications Office of the European Union, 2024, https://data.europa.eu/doi/10.2873/27631
[4] SWD(2013) 222 final, Commission Staff Working Document, Impact Assessment accompanying the document Proposal for a Directive of the European Parliament and of the Council on electronic invoicing in public procurement, 26.6.2013, Brussels. https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SWD:2013:0222:FIN:EN:PDF
[5] https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52010DC0245
[6] https://joinup.ec.europa.eu/collection/eprocurement/document/eu-reaping-benefits-e-invoicing-europe-commission-communication

advocating eInvoicing adoption and the development of a standard. However, two years after, the EU landscape of eInvoicing in public procurement had not significantly changed. Therefore, the Member States called for measures to promote eInvoicing in the European Council Conclusions of June 2012. In parallel, the European Parliament called for making eInvoicing compulsory in public procurement by 2016 in a resolution adopted in April 2012. This led to a proposal for a Directive, accompanied by an impact assessment that analysed the expected impacts of promoting eInvoicing adoption and interoperability in public procurement. In 2013, eInvoicing constituted 4-15% of all invoicing procedures in the EU public and private sector, with challenges hindering both Small and Medium Enterprises (SMEs) and large enterprises. At the time of the adoption of the Directive, the eInvoicing landscape in Europe was marked by diverse national formats, leading to non-interoperable systems. Several countries, including Denmark, Austria, and Italy, had mandated eInvoicing in public procurement. Other countries, such as Czechia, Finland, France, Germany, and Spain, were also taking steps towards broader use of eInvoicing in public procurement. However, EU Member States were adopting different national formats. This lack of a common standard created market barriers and complexity for firms conducting cross-border public procurement and led to a fragmented eInvoicing landscape in the EU[7].

In regard to eInvoicing procedures in the private sector, Eurostat data from 2011 showed that only 8.2% of EU enterprises exchanged eInvoices. Legal and technical complexities of eInvoicing hindered its adoption, especially for SMEs, with approximately 40% of them not considering eInvoicing due to the multitude of standards. Large enterprises also faced challenges with unclear laws and regulations related to eInvoicing adoption.

[7] SWD(2013) 222 final, Commission Staff Working Document, Impact Assessment accompanying the proposal for a Directive of the European Parliament and of the Council on electronic invoicing in public procurement. 26.6.2013, Brussels. https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SWD:2013:0222:FIN:EN:PDF

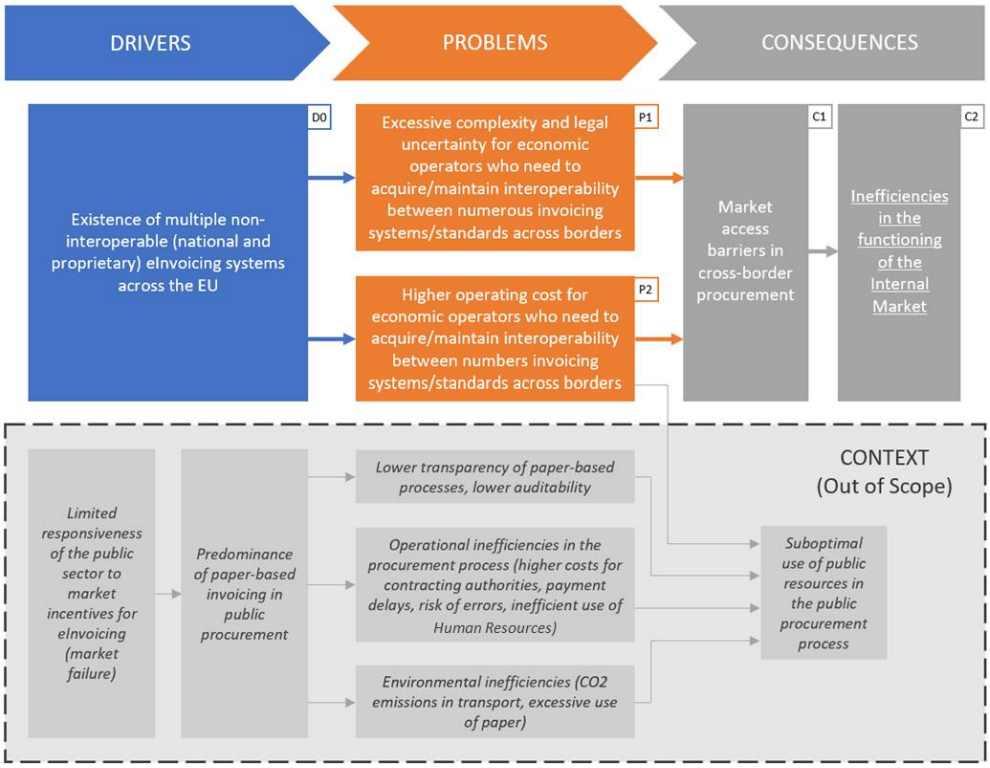


Figure 1 eInvoicing problem tree

(Source: Impact assessment accompanying the proposal for a Directive of the European Parliament and of the Council on electronic invoicing in public procurement.)

In this context, the main objective of the EU intervention, as identified in the impact assessment accompanying the proposal for the Directive, was to enhance the functioning of the Internal Market by reducing market access barriers in cross-border public procurement caused by the lack of interoperability in eInvoicing technical requirements and standards. The preferred option chosen in the assessment was obligatory acceptance, consisting of proposing a European eInvoicing standard to the market and making it mandatory for all contracting authorities. While parties could still agree to exchange eInvoices in other standards, the common standard aimed to achieve eInvoicing interoperability and simplify cross-border business.

The Directive aimed not only to address eInvoicing challenges in cross-border public procurement - Business-to-government (B2G) - but also to facilitate Business-to-business (B2B) cross-border trade. Specific objectives included reducing complexity and enhancing legal certainty for economic operators by allowing them to use the European eInvoicing standard with several business partners, public and private, in their own Member State or in the other Member States. Additionally, lowering operating costs for economic operators, such as the cost of supporting multiple eInvoicing standards and systems, was an important goal. The Directive also sought to create conditions for the emergence of technical solutions (operational objective) to ensure cross-border interoperability, making communication between eInvoicing systems less resource-intensive for buyers and sellers.

In pursuit of the eInvoicing policy objectives, the European Commission introduced legislative actions, establishing a new legal framework for mandatory acceptance of eInvoices compliant with the new common European eInvoicing standard. The European Committee for Standardisation (CEN) was assigned the task of necessary standardisation

work to implement the eInvoicing Directive. Non-legislative actions, such as financing projects to promote interoperable eInvoicing solutions in the EU (e-SENS) and supporting the development of end-to-end eProcurement, including eInvoicing through the Connecting Europe Facility (CEF), were also undertaken. Additionally, the European Commission continued to support the work of the European Multi-Stakeholder Forum on eInvoicing (EMSFEI). This European expert group gathered experts from each Member State government as well as market actors which contributed to the EU policy with key recommendations to the Commission.

Overall, the Directive's aims included facilitating the use of eInvoicing by economic operators supplying goods, works, and services to public administration, harmonising technical implementations based on the European eInvoicing standard, and simplifying business processes. It mandated all public administrations in Europe to receive and process electronic invoices (eInvoices) compliant with the EU eInvoicing standard when related to contracts governed by the EU Public Procurement Directives[8]. The primary expected impact of the Directive was improved interoperability, as eInvoices would have to be accepted by all public buyers. This, in turn, was foreseen to lead to an increased uptake of eInvoicing and lower costs and complexity of procedures[9].

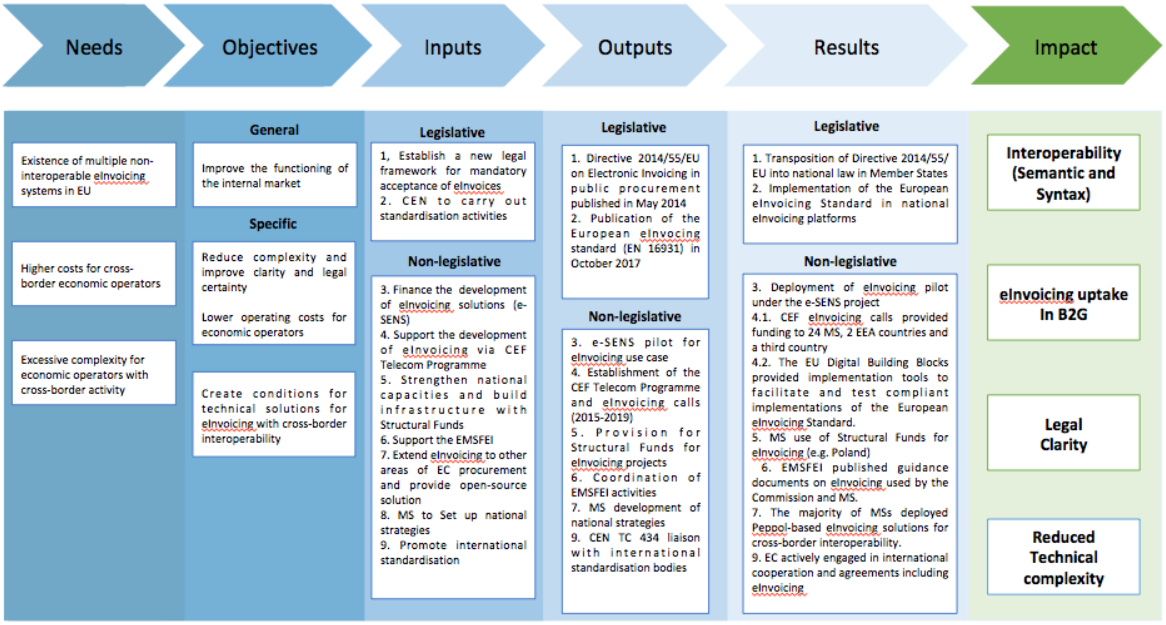


Figure 2 Intervention logic

[8] Directive 2009/81/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of procedures for the award of certain works contracts, supply contracts and service contracts by contracting authorities or entities in the fields of defence and security and amending Directives 2004/17/EC and 2004/18/EC (Text with EEA relevance), OJ L 216, 20.8.2009, p. 76–136, Brussels.
Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts Text with EEA relevance, OJ L 94, 28.3.2014, p. 1–64, Brussels.
Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, Brussels.
Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, OJ L 94, 28.3.2014, p. 243–374, Brussels.

[9] SWD(2013) 222 final, Commission Staff Working Document, Impact Assessment accompanying the proposal for a Directive of the European Parliament and of the Council on electronic invoicing in public procurement, 26.6.2013, Brussels. https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SWD:2013:0222:FIN:EN:PDF

2.2. Points of comparison

The impact assessment accompanying the proposal for the Directive described the expected impacts of the proposal's measures compared to the situation at the time. Therefore, the assessment of the Directive's actual impact must be based on the analysis of the compliance with the objectives and targets established by the Directive. The first point of comparison is the adoption of the Directive, which represents the key milestone for evaluating the evolution of eInvoicing in Member States and how the intervention has influenced it. The following key point of comparison is represented by the mandatory deadlines for the transposition of the Directive by central and sub-central contracting authorities and entities, 2019 and 2020, respectively. They are relevant because they serve to verify the timely transposition of the Directive in the Member States and to assess the impact on eInvoicing uptake and how it evolved in the years before the mandatory transposition (2019) and after the final optional deadline for sub-central authorities (2020).

3. HOW HAS THE SITUATION EVOLVED OVER THE EVALUATION PERIOD?

Beyond the Directive, the EU eInvoicing policy included cooperation with Member States and market actors to foster eInvoicing within the EU. The Commission worked to implement its policy through legislative and non-legislative initiatives. The legislative actions considered are the establishment of the new legal framework, the transposition of the Directive in Member States, which was accompanied in certain cases by a complementary obligation for suppliers to issue B2G eInvoices in 17 Member States.

The non-legislative actions considered are Peppol, the e-Sens Project, the EU Digital Building Blocks, the Connecting Europe Facility (CEF) Programme (2014-2020), and the e-Procurement Ontology. While the scope of the evaluation concerns the implementation of the Directive, the non-legislative actions are described below as they had an important role in the evolution of EU policy for eInvoicing.

3.1. Legislative Actions

3.1.1. Establishment of the new legal framework

Directive 2014/55/EU[10] aimed to remove obstacles to cross-border trade caused by different national eInvoicing requirements and lack of interoperability. It applies to eInvoices issued for contracts under EU Public Procurement Directives (Directive 2009/81/EC, Directive 2014/23/EU, Directive 2014/24/EU, and Directive 2014/25/EU) and is part of 2014 Public procurement legislative package, pursuing the same objective: the modernisation of public procurement.

The Directive emphasises the importance of promoting interoperability. Interoperability, as defined by the European Interoperability Framework, consists of four layers: legal,

[10] Directive 2014/55/EU of the European Parliament and of the Council of 16 April 2014 on electronic invoicing in public procurement

organisational, semantic, and technical interoperability[11] (for details, see Figure 10 on page 36). The Directive covers two layers: the semantic (defining the content of the invoice) and syntax (specifying the format or language used) levels, which are part of the technical interoperability. To achieve this goal, as defined in Article 3 of the Directive, the European Commission was called to give a mandate for the development of a European standard for the semantic data model of eInvoices and the identification of syntaxes that comply with this standard. The responsibility for creating this European eInvoicing standard was entrusted to CEN, the European Committee for Standardisation.
The Directive, in its Article 7, required Member States to ensure that contracting authorities receive and process eInvoices compliant with the European eInvoicing standard and the list of syntaxes published in the Official Journal of the European Union (OJEU). Only machine-readable invoices that can be processed automatically are considered eInvoices. In Article 2, the Directive introduced the following definition of eInvoice: 'an eInvoice is an invoice that has been issued, transmitted and received in a structured data format which allows for its automatic and electronic processing; electronic invoicing is the exchange of an eInvoice document between a supplier and a buyer'.

Central authorities had until April 2019 to comply with the obligation stemming from Article 7 of the Directive, and sub-central authorities had until April 2020, for the Member States that chose this option in their transposition law. Existing national standards could be used alongside the European standard in all Member States, but eInvoices should not be refused solely for non-compliance with other requirements. Member States were free to extend the scope of the mandate and require suppliers to send eInvoices to contracting authorities and contracting entities, and 17 of them chose to do so.

3.1.2. Transposition of the Directive in Member States

All Member States have transposed the Directive into national laws; 17 required the derogation for one year for sub-central contracting authorities, until April 2020.

The following table includes the reference to the national legislation in Member States that implemented Directive 2014/55/EU and whether they used the extra year until April 2020 as the optional extension for the implementation of the Directive by sub-central authorities and entities. As indicated in the table, 12 Member States were late in transposing and subsequently submitted non-transposition letters. However, in the meantime, all of them have completed the transposition process.

Member State	National legislation implementing Directive 2014/55/EU	Use of extra year
Austria	Federal Public Procurement Act, §368. Publication: 20 August 2018	Yes
Belgium	Law on public procurement. Publication: 7 April 2019	No
Bulgaria	Law for Amending and Supplementing the Public Procurement Act. Publication: 18 October 2018	No
Croatia	Act on eInvoicing in public procurement. Publication: 17 October 2018	No
Cyprus	Law on electronic invoicing (eInvoicing) in public procurement. Publication: 26 June 2019	Yes
Czechia	Act no. 134/2016 Coll. on Public Procurement. Publication: 19 April 2016	Yes

[11] Levels of Interoperability: https://joinup.ec.europa.eu/collection/nifo-national-interoperability-framework-observatory/solution/european-interoperability-framework-eif-toolbox/levels-interoperability

Member State	National legislation implementing Directive 2014/55/EU	Use of extra year
Denmark	Law on use of electronic invoice no 1593. Publication: 18 December 2018	Yes
Estonia	Accounting Act Official publication: *Riigi Teataja*; Number: RT I, 15.03.2019, 3. Publication: 1 July 2019	No
Finland	Law 241/2019 on electronic invoicing ("*Laki hankintayksiköiden ja elinkeinonharjoittajien sähköisestä laskutuksesta*"), Official publication: Suomen säädöskokoelma (SK); Number: 241/2019. Publication: 27 February 2019	Yes
France	Business Growth and Transformation law – PACTE, articles L.2192-1 to L. 2192-7, L.2392-1 to L.2392-7 and L. 3133-1 to L.3133-5. Publication: 23 May 2019	Yes
Germany	*E-Rechnungsgesetz*; Federal level: *Bundesgesetzblatt Teil* 1 (BGB 1); Number: 19. Publication: 10 April 2017	Yes
Greece	Law 4601/2019. Publication: 9 March 2019	Yes
Hungary	Act LXXXIII of 2018 amending Act CXLIII of 2015. Publication: 28 November 2018	No
Ireland	Statutory Instrument 258, in effect from 12 June 2019. Publication: 2019	Yes
Italy	Legislative decree n. 148/2018. Publication: 27 December 2018.	Yes
Latvia	Cabinet Regulation No.154 "Applicable Electronic Invoicing Standard and Specification and Procedure for the Use of its Basic Elements". Publication: 17 April 2019	Yes
Lithuania	Law No. XIII-1491 amending the Law on Public Procurement of the Republic of Lithuania No. XIII-2158. Publication: 10 June 2019	Yes
Luxembourg	The Law of 16 May 2019 on electronic invoicing in public procurement and concession contracts. Publication: 23 May 2019	Yes
Malta	Legal Notices 403 and 404. Publication: 30 November 2018	Yes
Poland	The Act of November 9, 2018, on electronic invoicing in public procurement, concessions for construction works or services and public-private partnerships. Publication: 23 November 2018	No
Portugal	Decree-Law 123/2018. Publication: 28 December 2018	Yes
Romania	Law 199/2020 on electronic invoicing in public procurement, on 8 September 2020. Publication: 8 September 2020	No
Slovakia	Act No. 2015/2019 on Guaranteed Electronic Invoicing and the Central Economic System. Publication: 17 July 2019	Yes
Slovenia	Act Amending the Provision of Payment Services to Budget Users Act. Publication: 2 December 2016	No
Spain	Law 18/2022 of 28 September, of creation and development of bussinesses. Publication: 28 September 2022	Yes
Sweden	Act (2018:1277) on electronic invoicing as a result of Public Procurement. Publication: 6 June 2018	No
The Netherlands	Law of 20 December 2017 amending the Public Procurement Law 2012. Publication: 17 July 2018	No
EEA		
Iceland	Regulation 44/2019 on electronic billing in public procurement. Publication: 24 January 2019	Yes
Norway	Regulation on electronic invoicing in public procurement (FOR-2019-04-01-444). Publication: 1 April 2019	No

Table 2 National legislation implementing the Directive in Member States

(Source: EC eInvoicing Country Factsheets)

3.1.3. Mandate for suppliers to issue B2G eInvoices in 17 Member States

The Directive required contracting authorities and entities to be able to receive and process eInvoices compliant with the European eInvoicing standard.

The following figure shows the number of Member States that have introduced obligations for suppliers to send eInvoices to the public sector (Yes), the number of Member States that introduced partial obligations (Partially), and the number of Member States that have not introduced obligations to suppliers (No).

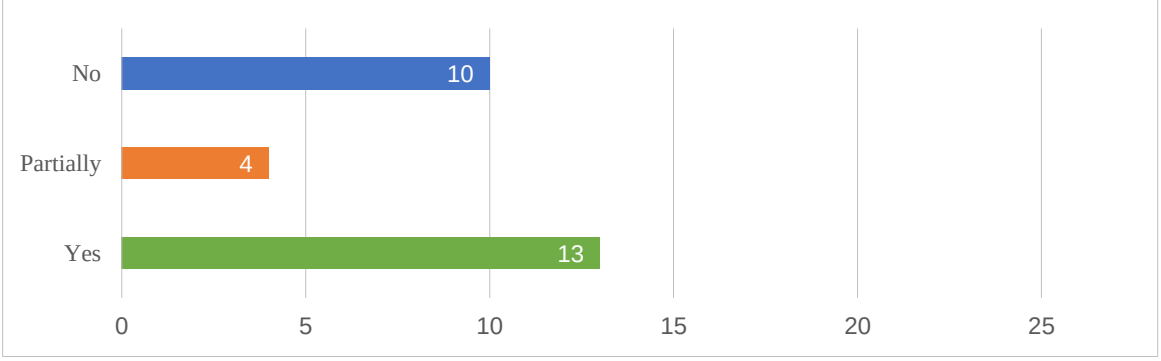


Figure 3 Member States that introduced obligations to suppliers for issuing B2G eInvoices.

(Source: Member State survey)

Of the 27 EU Member States:

- 13 Member States mandated suppliers to issue eInvoices for B2G (Croatia, Denmark, Estonia, Finland, France, Italy, Lithuania, Luxembourg, Portugal, Romania, Slovenija, Spain, and Sweden).
- 4 Member States have partial mandates on national suppliers to issue eInvoices for B2G (Austria, Belgium, Germany, The Netherlands). For example, in Austria, the mandate refers to suppliers at the central level (this means they can only send electronic invoices to the federal level), and the mandate does not cover the sub-central level.
- 10 Member States have no mandates on national suppliers to issue eInvoices for B2G (Bulgaria, Cyprus, Czechia, Greece, Hungary, Ireland, Latvia, Malta, Poland, and Slovakia).

The following table shows the Member States that had already introduced the obligation to suppliers to issue eInvoices to the public sector from 2014 to 2018. Member States such as France gradually introduced the obligation to suppliers based on their size.

Member States requiring suppliers to issue B2G eInvoices before 2019		
Member State	Obligation	When
Austria	Partial *	2014 **
Belgium (Flanders)	Yes	2017 **
Denmark	Yes	2005 **
France	Yes	2017 to 2020 **
Italy	Yes	2014 **
Slovenija	Yes	2015 **
Spain	Yes	2015 **
The Netherlands	Partial ***	2017 **
EEA		
Iceland	Yes	2014 **

Table 3 Member States requiring suppliers to issue B2G eInvoices from 2014 to 2018

** Only suppliers to the Austrian federal government.*
*** The law of 2015 introduced mandatory eInvoicing, but not the European standard.*
**** Only suppliers to the Dutch central government.*
*(*Sources: Member State survey and EC eInvoicing Country Factsheet)

The following table shows Member States that had introduced the obligation to suppliers for B2G eInvoicing in 2019 and 2020 at the time of the transposition of the Directive.

Member States requiring suppliers to issue B2G eInvoices in 2019 and 2020		
Member State	Obligation	When
Croatia	Yes	2019
Estonia	Yes	2019
Germany	Partial *	2020
Lithuania	Yes	2019
Sweden	Yes	2019
EEA		
Norway	Yes	2019

Table 4 Member States requiring suppliers to issue B2G eInvoices in 2019 and 2020

** Only suppliers to the German Federal authorities.*
*(*Sources: Member State survey and EC eInvoicing Country Factsheet)

The following table shows Member States that had introduced the obligation to suppliers for B2G eInvoicing from 2021.

Member States requiring suppliers to issue B2G eInvoices from 2021		
Member State	**Obligation**	**When**
Belgium	Yes	2022 to 2023
Finland	Yes	2021
Luxembourg	Yes	2022
Romania	Yes	2022
Portugal	Yes	2021 to 2023

Table 5 Member States requiring suppliers to issue B2G eInvoices from 2021

** Only suppliers of the regional government of Flanders and the regional government of Brussels.*
*(*Sources: Member State survey and EC eInvoicing Country Factsheet)

10 EU Member States have not yet imposed obligations on suppliers to issue eInvoices for B2G, of which 6 Member States have plans to mandate national suppliers in the future to issue eInvoices for B2G (Bulgaria, Cyprus, Greece, Latvia, Poland, and Slovakia) and 4 Member States have no plans to mandate national suppliers to issue eInvoices for B2G (Czechia, Hungary, Ireland, and Malta).

3.1.4. Development of the European eInvoicing Standard

The CEN Technical Committee 434[12] (CEN/TC 434) is the working body in CEN, the European Standardisation Organisation, which is responsible for developing and maintaining the European eInvoicing standard. CEN is funded by the European Commission. The Table below presents the deliverables published by CEN Technical Committee 434 as part of the European eInvoicing standard (EN 16931).

Reference	Title
EN 16931-1	Part 1: Semantic data model of the core elements of an electronic invoice
TS 16931-2	Part 2: List of syntaxes that comply with EN 16931-1
TS 16931-3-1	Part 3-1: Methodology for syntax bindings of the core elements of an electronic invoice
TS 16931-3-2	Part 3-2: Syntax binding for ISO/IEC 19845 (UBL 2.1) invoice and credit note
TS 16931-3-3	Part 3-3: Syntax binding for UN/CEFACT XML Industry Invoice D16B
TR 16931-3-4	Part 3-4: Syntax binding for UN/EDIFACT INVOIC D16B
TR 16931-4	Part 4: Guidelines on interoperability of electronic invoices at the transmission level
TR 16931-5	Part 5: Guidelines on the use of sector or country extensions in conjunction with EN 16931–1
TR 16931-6	Part 6: Result of the test of EN 16931–1 with respect to its practical application for an end user

Table 6 CEN Technical Committee 434 deliverables

In October 2017, the reference of EN 16931-1:2017 - Electronic invoicing — Part 1: Semantic data model of the core elements of an eInvoice and the list of syntaxes CEN/TS 16931-2:2017, Electronic invoicing — Part 2:2017 was published in the Official Journal of the European Union.

EN 16931-1 defines the information elements necessary for legal and fiscal compliance and enables cross-border, cross-sector, and domestic eInvoicing interoperability.

It supports various invoice-related functionalities, including issuance, validation, accounting, VAT reporting, payment, and auditing. The semantic model may be used by public and private sector organisations for public procurement invoicing (B2G eInvoicing). It may also be used for invoicing between private sector enterprises (B2B eInvoicing).

The European standard allows optional elements to be included in the core semantic model through Core Invoice Usage Specifications (CIUS), which provide detailed guidance and rules for specific trading situations. A Core Invoice Usage Specification (CIUS) is a specification that provides a seller with detailed guidance, explanations, and examples, as well as rules (business rules) related to the actual implementation and use of structured information elements present in the core invoice model in a specific trading

[12] CEN - CEN/TC 434 (cencenelec.eu)

situation[13]. According to the EN 16931, a compliant specification uses some features of the core invoice model, but all features used are in accordance with the rules of the core invoice model. Therefore, the CIUS is a compliant specification.

When additional information elements that are not part of the core invoice model are included in a technical specification for an eInvoice, this would become an extension. EU or Common Extensions could ensure harmonisation across multiple sectors, while Domain Extensions cater to specific industry sectors or supply chains. According to the EN 16931, a conformant instance or specification uses all features of the core invoice model in accordance with its rules and is extended with additional features. Therefore, an Extension is a conformant specification.

The difference between the core invoice data model and extensions are explained below:

- The Core Section contains the basic information elements (i.e. the core elements referred to in the Directive) required to exchange eInvoices between all types of trading entities (covering the basic needs of cross-border and cross-sector eInvoicing).
- The Sector extension contains those information elements that are only a concern of a specific industry sector, community, supply chain or buyers and sellers of a particular product type. Such information elements may be incorporated in an invoice as an 'Extension' to the Core Section information elements.
- The Country extension contains information elements or further information about such information elements, which represent the specific requirements of a particular Member State.

The list of syntaxes that comply with the European eInvoicing standard are:

- UBL 2.1 invoice and credit note message as defined in ISO /IEC 19845:2015
- UN/CEFACT Cross Industry Invoice (CII) XML 16B

The CEN/TC 434 also provided a syntax binding for UN/EDIFACT INVOIC D16B[14].

3.2. Non-Legislative Actions

3.2.1. Peppol

The EC-funded Peppol project[15] (2008-2012), developed before the publication of the Directive, played a strategic role in addressing interoperability challenges in the eProcurement domain (including eInvoicing, eOrdering, eCatalogues, etc.) in Europe and globally. The basis of the European eInvoicing Standard was developed during this project as technical specifications.

The Pan-European Public Procurement On-Line (Peppol) project was initiated to facilitate eProcurement across borders. Peppol provides a set of technical specifications that can be implemented in existing eProcurement solutions to make them interoperable. The sustainability of the Peppol project has been ensured by the OpenPeppol Association

[13] Ref. EN16931-1:2017 Chapter 7.
[14] CEN - CEN/TC 434 (cencenelec.eu)
[15] https://peppol.eu/about-openpeppol/history-of-openpeppol/

set up in 2012, which has seen a significant expansion of its community of members. In 2012, the Peppol specifications had been implemented in production by private and public entities, and real transactions had begun, demonstrating how differently eProcurement and eInvoicing systems could interoperate across borders by using common standards, definitions and rules for transmission of eProcurement messages, such as eInvoices, eOrders, eCatalogues, to name a few, under an agreed governance and legal framework.

Since then, public and private entities in Europe have used Peppol as a solution to comply with the technical requirements of the Directive. Moreover, countries outside of Europe have recognised the value of Peppol in addressing common issues in terms of format fragmentation and the lack of interoperability between separate systems. The Peppol Interoperability Framework, with its legal agreements, policies, technical specifications, and governance model, has been recognised as a global reference point for the exchange of electronic business documents (such as eInvoices, eOrders, eDespatch advice, etc.). Its use is also expanding in specific industries, such as logistics.

In the EU, 23 Member States have implemented Peppol to ensure interoperability of eInvoicing across borders (see section 4 below for more information).

3.2.2. The e-SENS project

The European Commission funded the e-SENS project from 2013 to 2017 to develop interoperable eInvoicing solutions across the EU. It involved over 100 public and private actors from 22 countries and aimed to consolidate the work of previous projects like Peppol[16], providing generic IT solutions for cross-border communication.

The e-SENS project focused on supporting the standardisation of public procurement processes and eInvoicing[17]. It successfully tested the sending and processing of eInvoices between suppliers and contracting authorities in different Member States, reducing administrative burdens, and improving efficiency in business processes.

e-SENS offered a common standard-based eDelivery technical solution for cross-border eInvoicing, enabling seamless and secure document transfer between contractors in post-award procurement. Austria, Norway, Greece, and Slovenia launched online eInvoicing services based on e-SENS[18].

3.2.3. The Connecting Europe Facility (CEF) Programme (2014-2020)

CEF was an EU funding programme to support the development of high-performing, sustainable and efficiently interconnected trans-European networks in the fields of transport, energy, and digital services.

From 2015-2022, the CEF Telecom eInvoicing project[19] funded and supported the uptake of the eInvoicing and the implementation of the EN 16931, by supporting the deployment of eInvoicing solutions for B2G purposes. In total, 49 projects in 27 countries (24

[16] Peppol Final Report, 2012. https://peppol.eu/wp-content/uploads/2016/08/20121205_PEPPOL_final_report_v2_4_web.pdf
[17] http://www.esens.eu/content/e-procurement http://www.esens.eu/content/e-procurement
[18] http://www.esens.eu/sites/default/files/fs_e-invoicing.pdf
[19] https://hadea.ec.europa.eu/system/files/2022-06/DSI%20fiche%20eInvoicing_final_version.pdf

Member States, Norway, Iceland, and the United Kingdom) were implemented under the CEF Telecom eInvoicing calls.

3.2.4. The EU Digital Building Blocks

CEF Telecom Programme supported the implementation of EU Digital Building Blocks, including eInvoicing, eDelivery, eSignature, and eID, providing open and reusable digital solutions for cross-border digital public services[20]. Currently, the Building Blocks continue to be supported under the Digital Europe Programme (DIGITAL) (2021-2027) to accelerate the digital transformation of public administrations and promote interoperability across Europe.

eInvoicing Building Block

The eInvoicing Building Block plays a crucial role in supporting public administrations to comply with the Directive and promote the adoption of eInvoicing solutions. The Building Block offers a set of tools of different kinds to ease the work of its stakeholders:

- The validation artefacts and a conformance tool are tools, to facilitate and test the implementation of the European eInvoicing standard in IT systems and services.
- The European Commission maintains two essential code lists related to the standard, the Electronic Address Scheme code list and the VAT Exemption Reasons code list.
- The eInvoicing DIGITAL website is available as a place to compile all relevant information, and a user community is available to serve as a hub for stakeholders to be engaged.

eDelivery Building Block

The eDelivery Building Block facilitates secure and reliable exchange of electronic data and documents among users. Its four corner model employs Access Points to ensure interoperability between diverse IT systems, allowing seamless communication. These Access Points, managed by public or private entities in Member States, enable safe data exchange even among independently developed systems.

[20] https://ec.europa.eu/digital-building-blocks/wikis/display/DIGITAL/About+us

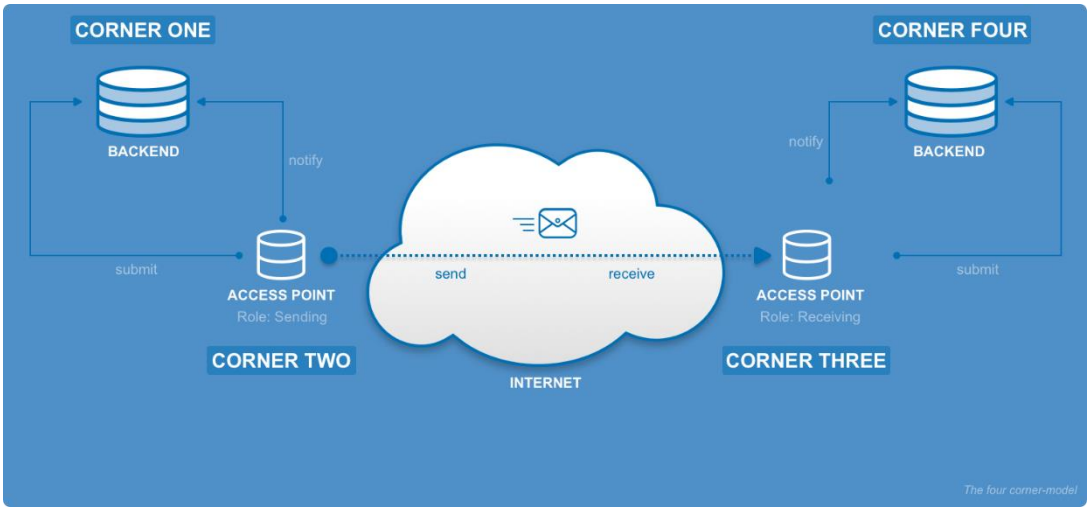


Figure 4 The four corner model

eDelivery's domain-neutral use cases and technical specifications empower organisations to create a unified network for secure digital data exchange. This fosters collaboration and efficiency in document transfer across different sectors. The standard transmission protocol, eDelivery AS4, ensures secure and payload-agnostic data exchange, supporting a variety of document types and network topologies.

By widely adopting eDelivery for transmitting electronic documents, including eInvoices, efficiency is maximised, and cross-border data exchange becomes smoother. The reusability and seamless integration of eDelivery make it a powerful tool for streamlining data exchange processes across Europe.

3.2.5. The eProcurement Ontology

The eProcurement Ontology enables the creation and dissemination of linked open data in the public procurement data space. Covering all phases of public procurement procedures, it permits not only the publication of public procurement data but most importantly the consumption and interpretation of this data to derive reports, analyses, and insights for decision-making.

The ultimate objective of the eProcurement Ontology is to conceptualise and formally encode eProcurement data and make it available in an open, structured, and machine-readable format. This data would cover the process from end-to-end, i.e., from notification, through tendering, awarding, ordering, invoicing, and finally to payment.

3.3. Current State of Play

The European Commission has placed significant emphasis on promoting an open and seamless exchange of eInvoices based on a common European standard to support the Internal Market and strengthen European leadership in standardisation worldwide. In line with this vision and the Directive’s requirement that the European standard for eInvoicing has to be kept up to date, the CEN was given a mandate in 2022 via a Grant

Agreement to ensure that the 2017 European eInvoicing standard's evolution aligns with the EU's new policy priorities.

To enhance cross-border interoperability and cooperation among EU Member States, the European Commission adopted the Interoperable Europe Act proposal[21] in November 2022. This proposal imposes obligations on Member States to share their interoperability solutions for digital services with public sector bodies in other Member States, aiming to streamline processes and promote efficiency. Therefore, the proposal for the Interoperable Europe Act establishes the broader EU framework to which the Directive shall align. On 8 December 2022, in the framework of its Action Plan for fair and simple taxation, the Commission unveiled the legislative proposals on VAT in the Digital Age[22] (ViDA). These proposals seek to modernise the EU VAT system and address VAT fraud issues that have resulted in substantial revenue losses. The ViDA package's key objectives include modernising VAT reporting obligations, addressing challenges posed by the platform economy, and introducing a single VAT registration to eliminate the need for multiple registrations within the EU.

As part of the plan, starting from January 2028, eInvoicing would become the default method for issuing invoices, and its definition would be aligned with Directive 2014/55/EU (this means eInvoices must be issued, transmitted, and received in a structured electronic format, enabling automatic and electronic processing). ViDA extends and promotes the European eInvoicing standard by imposing its use for VAT reporting of intra-community transactions at a minimum. It will stimulate the adoption of eInvoicing in general. Member States would have the option to mandate eInvoicing without requesting derogations. Furthermore, the European eInvoicing standard would be widely accepted across all Member States, enabling seamless transmission of eInvoices for Business-to-business transactions (B2B).

The European Commission has also been actively engaged in various international initiatives, such as free trade agreements (FTAs) and Digital Partnerships, to expand digital trade opportunities and promote eInvoicing globally. Notably, FTAs have been concluded with New Zealand, and there are ongoing negotiations with Australia and India. Digital Partnerships have been established with South Korea, Singapore, and Japan to foster collaboration on digital issues, including eInvoicing and digital payments. Complementing these efforts, regulatory dialogues have proven instrumental in addressing digital trade challenges. The EU's intensified cooperation with the U.S., through the Trade and Technology Council Working Group 10 on Global Trade Challenges, which facilitates discussions on interoperable eInvoicing. The eInvoicing exchange frameworks in the EU and the U.S. have a considerable degree of compatibility. The U.S. profiles of the eInvoice were modelled after the European standard purposefully to ensure a high degree of alignment to support interoperability while meeting U.S. business market requirements. Similarly, Taiwan and the EU started a regulatory dialogue on eInvoicing in July 2023.

[21] https://ec.europa.eu/commission/presscorner/detail/en/ip_22_6907
[22] COM/2022/701 final, Proposal for a COUNCIL DIRECTIVE amending Directive 2006/112/EC as regards VAT rules for the digital age, Brussels, 8.12.2022. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2022%3A701%3AFIN

In conclusion, the European Commission's efforts to promote eInvoicing and digitalisation are aimed at simplifying processes, enhancing cross-border cooperation, reducing administrative burdens, and fostering economic growth within the EU and on the international stage. These initiatives hold the promise of facilitating smoother and more efficient transactions for businesses and individuals alike.

4. EVALUATION FINDINGS

4.1. To what extent was the intervention successful and why?

The success of the intervention has been assessed by evaluating its effectiveness, its efficiency, and its coherence.

4.1.1. Effectiveness

Directive 2014/55/EU has set up a series of objectives, both direct objectives, which translated in the provisions of the Directive, and underlying objectives, which are listed in its recitals and in the Impact Assessment that accompanied the creation of the Directive.

The Directive and the introduction of the European eInvoicing standard fostered the Internal Market for electronic invoicing in Europe by fulfilling its direct objectives:

- By setting up a standard: the Directive created a common European instrument to be used both in B2B and B2G, both in the EU and beyond EU borders, by our international partners. Beyond B2G, the European eInvoicing standard has been implemented and used in the market as the common European reference standard for eInvoicing.

- By driving the implementation of the pan-European eInvoicing capability, the public sector in the EU was required to create IT systems able to receive and process eInvoices compliant with the European eInvoicing standard (or update their existing system). To support in practice the EU eInvoicing uptake and the implementation of the Directive, in the framework of the Digital Infrastructures policies financed by the Commission, CEF Telecom eInvoicing calls funded the implementation of eInvoicing solutions compliant with the European standard in 24 Member States on projects deployed between 2015 to 2022.

The underlying objectives are the following:

A general objective: to improve the functioning of the Internal Market by introducing mechanisms that would diminish market access barriers in cross-border public procurement generated by insufficient interoperability of eInvoicing technical requirements and standards.

Specific objectives:

- Reduce technical complexity and improve legal clarity for economic operators.

- Lowering operating costs for economic operators.

Operational objective:

- Creating the conditions for the emergence of technical solutions for eInvoicing in public procurement, which would ensure cross-border interoperability.

To assess the effectiveness of the Directive, the analysis looked into how successful the EU intervention has been in achieving the above-mentioned objectives, encompassed in the intervention logic.

4.1.1.1. General Objective

The main objective of the EU intervention identified in the impact assessment was to improve the functioning of the Internal Market by addressing the issue of insufficient interoperability of eInvoicing technical requirements and standards. To do so, the Directive addressed interoperability at the semantic and syntax levels. At the semantic level, it established a European standard, which is a core semantic data model. At the syntax level, it led to the identification of two syntaxes and required EU public authorities to accept any eInvoice sent to them in the European Standard and one of the two selected syntaxes. Furthermore, in order to help interoperability in the implementation, the European eInvoicing standard is also accompanied by supporting technical specifications and reports published by CEN at the same time as the standard, as foreseen by the Directive.

For the transmission level, for example, which was a challenge already identified at the time of the adoption of the Directive and mentioned in its recital 27, but not as a main challenge, only guidelines[23] have been issued by CEN together with the European eInvoicing Standard: "Part 4: Guidelines on interoperability of electronic invoices at the transmission level". These guidelines are not mandatory.

Fostering an Internal Market for eInvoicing

While the Directive, in what was considered a minimal approach, required contracting authorities and entities to be able to receive and process eInvoices compliant with EN 16931, it did not impose an obligation on suppliers to send eInvoices to the public sector.

In addition, the Directive and its provisions, as per their scope, only apply to public procurement contracts above the EU thresholds[24], leaving the freedom to Member States to require it also for contracts below the EU thresholds.

As regards the objective of fostering an Internal Market for eInvoicing, this can be assessed either based on the subjective evaluation by the Member States surveyed, as described below, and also on the following elements:

- Analysing the developments in terms of interoperability in the EU.

- Measuring the uptake of eInvoicing in general.

[23] CEN/TR 16931-4:2017 Electronic invoicing - Part 4: Guidelines on interoperability of electronic invoices at the transmission level.
[24] https://single-market-economy.ec.europa.eu/single-market/public-procurement/legal-rules-and-implementation/thresholds_en

- Measuring the uptake of eInvoicing in B2G.

- Measuring the uptake of the European Standard for eInvoicing.

As regards the subjective evaluation by the Member States, when Member States replied to the question "To what extent has the Directive and the introduction of the EN 16931 contributed to foster the functioning of the Internal Market", 15 out of 23 surveyed assessed the impact as positive, from medium to very high. The seven Member States that have said the impact was low or very low are either Member States with a low eInvoicing uptake or Member States which made eInvoicing mandatory before the European eInvoicing standard was introduced, as explained below:

- No or very low eInvoicing uptake and no supplier mandates, as Romania, Cyprus, Czechia, and Greece.

- High eInvoicing uptake and supplier mandates to issue B2G eInvoices and use of a mandatory national standard, as in Estonia and Italy. As the uptake was high before the Directive, these Member States did not experience a significant impact of it. The mandatory use of the respective national eInvoicing standard was introduced before EN 16931 became available. In Estonia, however, the strategy for the future is to replace the national standard with European eInvoicing standard and use Peppol for cross-border trade.

There were two indirect major developments in the Member States which were triggered either by the existence of the Directive itself, before even the transposition into the national law or by the transposition process:

- First, making eInvoicing mandatory for suppliers in B2G. This happened in 17 Member States either with a full mandate in 13 Member States or a partial mandate in four Member States.

- Second, extending the obligation for contracting authorities even below the EU thresholds. It should be noted that nine Member States have done it.

Interoperability

Achieving interoperability at the semantic and syntax level was a key objective of the Directive, through the adoption of the European eInvoicing standard. Moreover, improved interoperability was considered as the primary expected impact of the EU intervention in the Impact Assessment accompanying the proposal for the Directive (see Section 2).

The Directive positively addressed interoperability challenges by tackling the semantic and syntax levels with the development of the EU eInvoicing standard (EN 16931). However, in order to achieve full interoperability as defined in the European Framework for Interoperability, other levels should have been addressed, such as the transmission level and the governance level, which were not identified as big challenges at the time of the adoption of the Directive and, therefore, not covered by the EU initiative. Ultimately, the Directive improved interoperability but not to the extent predicted due to the emergence of transmission as a main challenge.

While the Directive only mandates interoperability at the semantic and syntax level, in practice, the market has seen the emergence of the Peppol network for exchange of electronic invoices, which has achieved interoperability in all the layers that are part of the European Interoperability Framework, including the legal, organisational, governance, and technical (format of business documents and secure transmission using eDelivery). Peppol has implemented the European standard in its technical specifications for electronic invoicing (Peppol BIS Billing 3.0). This means that, if the Peppol specifications are implemented, compliance with the European standard is ensured by default. In addition, as Peppol also mandates the use of a common exchange method across the network, interoperability at the transmission level is also ensured.

The European Commission continued to support the development of Peppol through the maintenance of the Service Metadata Locator (SML)[25], which is the only centralised component of the Peppol Network. Public entities in Europe have used Peppol[26] as a solution to comply with the technical requirements of the Directive. The Peppol Interoperability Framework, with its legal agreements, policies, technical specifications, and governance model, has been recognised as a global reference point for the exchange of electronic business documents (such as eInvoices, eOrders, eDespatch advice, etc.). Its use is also expanding in specific industries, such as logistics.

The following 12 Member States have established a Peppol Authority within the national government: Belgium (BOSA), Denmark (ERST), Finland (VK), Germany (KoSIT), Greece (GSIS), Ireland (OGP), Italy (AGID), Luxembourg (Ministry of Digitalisation), Poland (MriT), Portugal (eSPap), Sweden (Digg), The Netherlands (NPA). There are Peppol Authorities in Norway and Iceland (EEA), the UK (England NHS), Singapore, Australia, Malaysia, New Zealand and Japan.

OpenPeppol developed a specification (Peppol BIS Billing 3.0) to provide Peppol participants (buyers and sellers) with a common and documented approach to becoming compliant with the European standard. This specification is a Core Invoice Usage Specification (CIUS) of EN 16931 and is supported by several Member States in their national central eInvoicing infrastructure. Any eInvoice compliant with this specification is compliant with the European Standard (EN 16931). The purpose of the CIUS is to clarify aspects that are undefined in the standard and to give usage guidance to business partners in order to begin exchanging eInvoices without prior bilateral agreements on how to use the standard. Currently, all Peppol members, as soon as they become part of the network, need to support the Peppol CIUS for all transactions in the Peppol Network.

Another parallel development in interoperability is the Global Interoperability Framework (GIF) - a set of recommended practices, policies, and standards to be used by

[25] The Service Metadata Locator (SML) is the key component that enables dynamic discovery of participants in message exchange networks. As a result, these networks can scale up without being affected by the management of an increasing number of participants.
[26] As of July 2023, 19 countries have established a Peppol Authority, there are 527 Peppol members present in 43 countries globally, and 780,440 organisations are uniquely registered to receive Peppol-based business documents. Peppol Authorities are typically government agencies, and are in place in 12 EU Member States 2 EEA countries and 5 countries outside the EU and EEA. Peppol Authorities represent the Peppol governance framework at the national level, thereby ensuring compliance of Peppol participants, such as Service Providers, with the Peppol rules and agreements, including certain jurisdiction-specific requirements requested by Peppol Authorities.

any interoperability network, under a collaborative environment[27]. The GIF's approach is based on the European standard (four corner model of exchanging eInvoices) and builds upon an eDelivery network[28]. GIF was an initiative of four main stakeholders: GENA (the European Association of eInvoicing Service Providers), BCP (The Business Payments Coalition), Connect ONCE and OpenPeppol.

Since its formation, GENA established the Interoperability Working Group, where volunteer member representatives of the community actively participate. The working group advises and guides GENA Members on the adoption and implementation of the Multilateral Interoperability Agreement (MIFA) and the bilateral Model Interoperability Agreement (MIA), as well as addressing specific technical, compliance, and operational issues.

On 2 February 2022, OpenPeppol and GENA announced the move to a common interoperability framework, as both organisations support the European standard on electronic invoicing and eDelivery. An incubation project was approved by both Associations in May 2023 and is currently running, with the objective of GENA bringing its interoperability activities onto the Peppol Network. In parallel, the two Associations have been running since September 2022 a proof-of-concept project to support the eInvoicing mandate in France.

eInvoicing adoption in general

The increase in eInvoicing uptake in Europe was the expected secondary impact of the Directive. The availability of a European standard and obligation to accept compliant eInvoices was expected to significantly increase the uptake of eInvoicing, depending on business decisions. A "boule de neige" effect was expected to happen by inducing the EU suppliers in public procurement adopt the harmonised eInvoicing based on the European eInvoicing standard, even in the absence of an obligation, and, for them in turn, to induce their own suppliers to adopt the same standard. However, the findings from the evaluation showed that, even in B2G, 100% eInvoicing adoption is (or is to be) achieved only in the Member States that mandated B2G eInvoicing to their suppliers.

The first graph below illustrates the overall adoption trends of eInvoicing at the EU level. National trends are then compared, based on the entry into force of an obligation for suppliers to issue B2G eInvoices, and a correlation is determined between the mandates and the adoption patterns.

Eurostat gathers data from Member States on the percentage of enterprises (with more than 10 employees) that send eInvoices, suitable for automated processing. The data does not distinguish between B2G, B2B, nor B2C transactions.

[27] In 2019, an international group of associations and bodies with a common interest in interoperability for the exchange of supply chain digital transactions developed the Global Interoperability Framework [6] (GIF). The founders include OpenPeppol, the EU trade association for eInvoicing service providers (GENA), the Business Payments Coalition (BPC) from the US and Connect Once.

[28] Under the four-corner model, there are 4 corners underpinning the issue, exchange and receipt of e-invoices, namely: C1 – Sender of Invoice (C1 sends e-invoice to C2) C2 – Service Provider (C2 sends e-invoice to C3) C3 – Service Provider (C3 send e-invoice to C4).

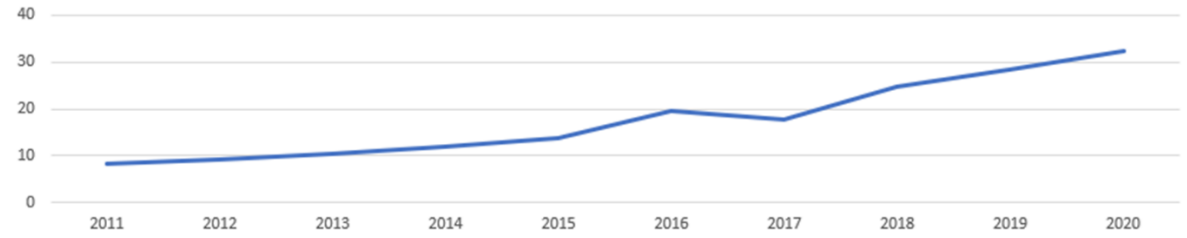


Figure 5 Percentage of EU enterprises sending eInvoices (2011-2020)

(Source: Eurostat)

The above figure shows that the percentage of EU enterprises that were sending eInvoices suitable for automated processing from 2011 to 2020 has increased considerably, moving from 8.2% in 2011 to 10.3% in 2013 (prior to the publication of the Directive), and 32.2% in 2020, a fourfold increase. In 2015, B2G eInvoicing was mandated in certain countries and B2B eInvoicing was mandated in Italy. In 2016, the effect of the obligations showed up in the general uptake of eInvoicing.

This figure includes XML-based formats such as UBL, UN/CEFACT, also national formats and non-XML formats such as UN/EDIFACT-based eInvoices. It does not include PDFs as the Eurostat query was for eInvoices that could be processed automatically.

The following figure shows the use of eInvoicing among EU enterprises in Member States that introduced an obligation to suppliers to send eInvoices to the public sector before the mandatory deadline for the transposition of the Directive in April 2019.

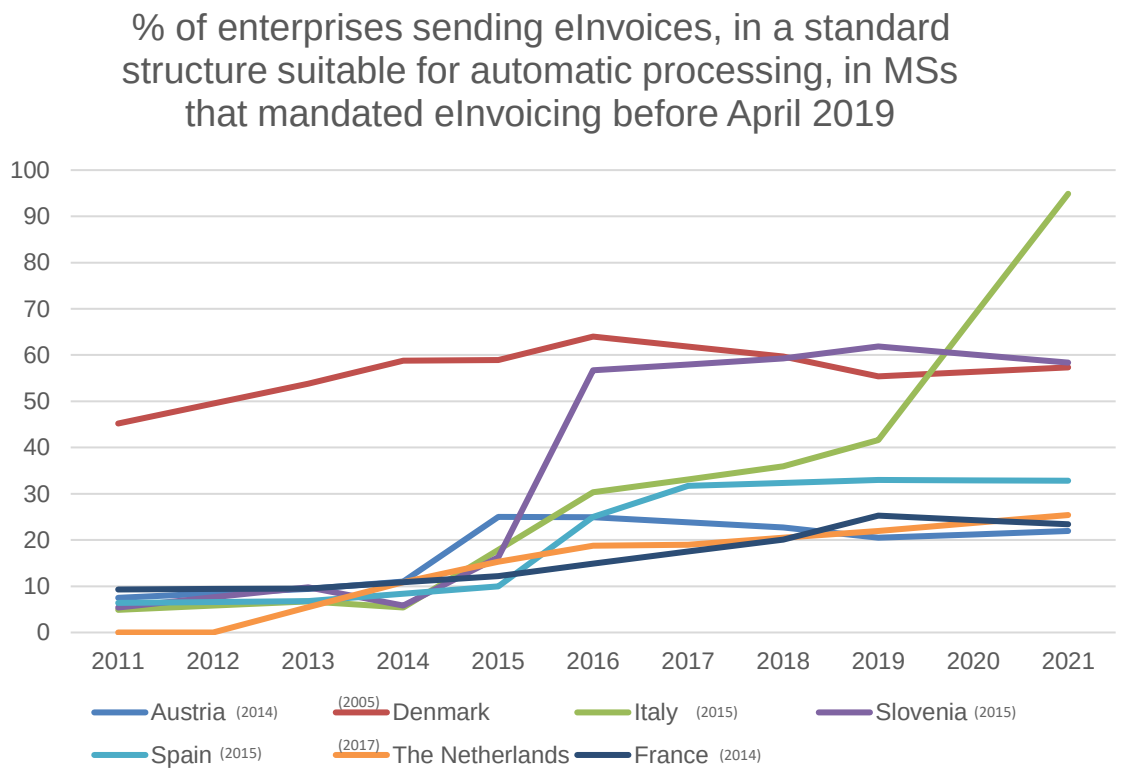


Figure 6 Percentage of enterprises sending eInvoices, in a standard structure suitable for automatic processing in Member States that mandated eInvoicing before April 2019

(Source: Eurostat)

In the above figure, the number of enterprises in Italy, Slovenia, and Spain using eInvoicing significantly increased after a short period from the time the national obligations to send only eInvoices to the public sector entered into force.

Beyond its immediate impact within the public procurement sphere, the Directive has played a role in promoting further harmonisation in the B2B context. By establishing a common foundation for eInvoicing practices within the EU and introducing a European standard, the Directive has encouraged developments in B2B, where the EU standard is already used and its usage will be further extended by the ViDA legislation.

Adoption of eInvoicing in B2G

The annual invoice volume was estimated to reach 36 billion invoices in 2016; 50% of the total volume were B2G and B2B invoices (the other 50% relates to Business-to-Consumer). Each year, 18 billion B2B and B2G invoices were sent within the EU[29]. The public sector is responsible for 14% of the GDP in all purchases in the EU[30]. Therefore, B2G volumes are estimated between 3.24 – 5.4 billion in Europe.It represents typically 9-15% of a country's inbound and outbound invoices.

[29] https://www.ecb.europa.eu/paym/intro/mip-online/2016/html/mip_qr_1_article_4_e-invoicing.en.html
[30] https://single-market-scoreboard.ec.europa.eu/business-framework-conditions/public-procurement_en

The following table represents the total number of B2G eInvoices received by central and sub-central contracting authorities, from national and foreign suppliers, in Member States. The percentage in parenthesis, in certain cases, shows the percentage of B2G eInvoices over the total number of B2G invoices (not electronic), if available. The adoption percentage is high in Member States that have mandated suppliers to send B2G eInvoices. Conversely, it is typically lower in countries where suppliers are not mandated to send B2G eInvoices.

Country	2019	2020	2021	2022
Belgium	550 000	680 000	1 100 000	
Croatia	2 674 531	5 292 282	5 700 887	5 973 266
Cyprus	6	208	119	
Estonia	50 000 (96%)	370 000 (100%)		
Finland		4 548 697	5 333 929 (91%)	
France		54 000 000	68 000 000	74 000 000 (75%)
Greece			0	3 000
Ireland*	48 000	48 000	48 000	
Italy	31 000 000	31 000 000	31 000 000	
Lithuania	1 195 000	1 121 000	1 268 107	
Luxembourg			70	700 000
Malta	0	0	0	0
Netherlands	1 176 044 (59%)	1 290 275 (66%)	1 646 106 (77%)	
Poland	3 356	97 000	263 829	
Portugal	107	352	2 202	4 980
Romania			0.10%	
Spain	12 700 000	12 800 000	14 400 000	15 900 000
Slovenia	432 894	403 859	437 572	
Sweden	19 000 000 (60%)	21 200 000 (70%)	24 300 000 (80%)	

Table 7 B2G eInvoicing uptake in Member States

Uptake of the European eInvoicing Standard

Since the publication of EN 16931 in October 2017, new national standards have not been imposed for eInvoicing in the B2G context. This represents an important achievement of the intervention as it has prevented the proliferation of national standards for B2G eInvoicing reducing technical complexity by establishing the use of a common semantic data model and only two syntaxes. This is also fully in line with the rules of the EU standardisation system according to which there cannot be competing national standards when a harmonised European standard is adopted. Nevertheless, there is a risk of potential fragmentation in B2B eInvoicing if Member States mandate national technical specifications in this context.

Member States that had already introduced national standards prior to the publication of the European eInvoicing standard have continued using them, as it emerges from the eInvoicing Country Factsheets. However, Estonia, Finland and Sweden have been gradually replacing their national standard with the European one.

Finland, in particular, recognised the benefit of using the European eInvoicing Standard (EN), its structured data and code lists as the key factor for higher data accuracy in public procurement. Previously, that was done through RPA (Robotic Process Automation), which proved to be unnecessary with the advent of EN compliant eInvoicing (see corresponding Case Study in Annex VI).

The following table indicates the percentage of B2G eInvoices received by contracting authorities that are compliant with the EN 16931, based on the information received from the Member States that responded to the survey comducted for the evaluation. Therefore, not all Member States are included in the analysis. The use of Peppol is a general indicator of compliance with the European eInvoicing standard.

	2019	2020	2021	2022	Use of Peppol
Austria	5%	5%	5%		Yes
Belgium	100%	100%	100%	*	Yes
Croatia					Yes
Cyprus					Yes
Czechia					No
Denmark					Yes
Estonia	100%	100%	100%		Yes
Finland			20%	58%	Yes
France		31%	34.5%		Yes
Germany					Yes
Greece	0%	0%	0%	100%	Yes
Hungary					No
Ireland				100%	Yes
Italy	0%	0%	0%		Yes
Latvia					Yes
Lithuania	0%	2%	3%		Yes
Luxembourg	100%	100%	100%		Yes
Malta			100%		Yes
Netherlands	100%	100%	100%	100%	Yes
Poland					Yes
Portugal	100%	100%	100%	100%	Yes

	2019	2020	2021	2022	Use of Peppol
Romania					No
Slovenia					Yes
Sweden	40%	50%	60%		Yes

Table 8 Percentage of B2G eInvoices compliant with EN 16931

*Belgium reported 1 420 000 eInvoices compliant with the European eInvoicing standard in 2022.

According to the EC eInvoicing country factsheets[31], all Member States declare to support the use of the European standard at the national level for B2G eInvoicing. Some Member States developed a national CIUS to ensure compliance with EN 16931. Others developed extensions, i.e. technical specifications that include information that is not part of the European standard. For instance, the Netherlands developed three extensions to EN 16931.

23 Member States have implemented the Peppol BIS Billing 3.0 to ensure compliance with the European standard, making it, by default, the most common specification used in the European Union for ensuring cross-border interoperability (at the semantic and syntax level).

4.1.1.2. Specific objectives

Reduce technical complexity and improve legal clarity for economic operators

The Directive and the introduction of the European standard aimed at reducing the proliferation of national formats for B2G eInvoicing (see General Objective: Uptake of the European Standard for eInvoicing section) that was creating cross-border market barriers, unnecessary complexity and costs. At the same time, it provided a coherent legal framework to foster interoperability at the technical level, which signalled a clear policy direction towards the need of harmonising legal and technical frameworks.

Article 2 of the Directive established the definition of an electronic invoice which ensured legal clarity: “electronic invoice means an invoice that has been issued, transmitted and received in a structured electronic format which allows for its automatic and electronic processing”. Only structured invoices fit for automation are covered. The Directive also sets the requirements for the European eInvoicing standard, including technological neutrality, compatibility with international standards, suitability for commercial transactions between enterprises and support for the needs of SMEs, and consistency with the relevant provisions of Directive 2006/112/EC[32].

The Directive increased legal certainty and reduced technical complexity for eInvoicing by establishing a clear legal basis and setting the European eInvoicing standard as the common standard to be supported by the EU public sector. Evidence of this is that 14 out of the 23 Member States surveyed, reported that the intervention had a positive impact on

[31] EC eInvoicing country factsheets for the following Member State have not been verified by national authorities: Bulgaria, Czechia, Germany, Greece, Hungary, Lithuania, Malta, Portugal, Romania, Slovakia, Spain.
[32] Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax, OJ L 347, 11.12.2006, Brussels.

increasing legal certainty and reducing technical complexity. In Finland, technical complexity is offset by improved automation and higher data quality provided by the use of the European eInvoicing standard, which replaced the national eInvoicing format.

Two-thirds of the private sector, particularly SMEs, view the European eInvoicing standard as a means of significantly simplifying intra-EU trade. This has been reported by 66% of surveyed SMEs and by all large enterprises surveyed (7 out of 7).

However, 41% of surveyed SMEs still experience technical challenges when using eInvoicing, including support for multiple eInvoicing formats, archiving for audit purposes, integration with service providers, data security and privacy concerns, interoperability with trading partners, infrastructure, and connectivity. The Directive focused on addressing interoperability issues and providing the conditions for widespread use of eInvoicing compliant with the European eInvoicing standard but did not mandate its use by suppliers. As a result, enterprises must support multiple eInvoicing formats in Member States where a national standard is mandated for B2G transactions while using other formats for B2B transactions. The public sector essentially acts as a large buyer imposing also its requirements on suppliers.

European bussinesses, especially large enterprises implement legal requirements regarding eInvoicing in several countries. The clarity of these requirements, as well as consideration of practical issues, differed strongly between the countries based on the findings of the survey targeting national authorities. Because of national and individual requirements regarding eInvoicing in the different EU Member States, it is necessary to have local specialists and service providers. This is costly compared to the implementation of an EU common standard.

The seven large enterprises surveyed also believe that a common EU standard used for B2G and B2B transactions would be beneficial only if every Member State uses the same standard without exceptions. For cross-border B2B eInvoicing, the same data set must be defined without exceptions.

According to the Global Exchange Network Association (GENA), the Directive is the first important step towards eInvoicing standardisation. The minimal standard approach enables Member States to continue accepting other formats while setting a baseline that removes the costs for suppliers that wish to adopt a single standard. According to GENA, notwithstanding the value of a minimum standard that the suppliers can adopt across Member States for B2G eInvoicing, the Directive could not lead to a significant increase of eInvoicing volumes, in either of the European eInvoicing standard syntaxes, in practice due to the lack of mandate. This result is also related to the lack of adoption of incentives for suppliers where a B2G eInvoicing method was implemented prior to the availability of the European eInvoicing standard in October 2017.

Lower operating costs for economic operators

For the specific objective of lowering operating costs for economic operators, the EU intervention has not been particularly successful. Operating costs are closely dependent on the number of eInvoices exchanged by businesses and the availability of cost-effective solutions and services. The lack of data does not allow to estimate whether operating costs have increased or decreased after the Directive’s implementation.

Operating costs for economic operators are influenced by the number of eInvoicing transactions, formats supported, transmission protocols, and number of countries in which the businesses operate as specialised support is required in each Member State that has mandated specific formats and requirements. This will be further detailed with quantitative elements in the Efficiency section below.

For SMEs, the availability of eInvoicing functionalities within ERP systems and accounting software is considered the most crucial factor in facilitating adoption. It would result in a new capability of IT systems that they already use, thus significantly lowering costs, as mapping and other integration costs will be eliminated. However, ERP vendors would support a standard only when there is sufficient demand for it and when mandated by the government.

The business case for eInvoicing is closely dependent on the number of eInvoices exchanged by businesses. According to the Swedish Companies Registration Office[33], a minimum number of five eInvoices per month makes eInvoicing financially viable.

4.1.1.3. Operational Objective

Create the conditions for the emergence of technical solutions ensuring cross-border interoperability for eInvoicing in public procurement

Following the Directive, this objective was achieved to a significant extent in two manners. First of all, the Directive created the conditions directly by imposing an obligation on public authorities who either created systems or adapted their systems in order to be able to accept the European standard, therefore, equipping themselves with the capabilities for interoperability.

Despite the positive impact, challenges remain. The different implementation of the European standard in national eInvoicing platforms has led to compatibility issues, which are exacerbated by a lack of interoperability at the transmission level. An important challenge related to having more than one national eInvoicing platform mandated by the government (a platform for B2G and another one for B2B) has to be considered. This is the case in Spain and Poland (although, according to current information, Poland will gradually phase out the B2G platform that is ensuring compliance with the European standard). Monitoring technical developments and adoption at the EU level also poses challenges due to varying common procedures and requirements and the absence of an obligation on Member States to monitor and report.

Secondly, with the creation of the European eInvoicing standard, the conditions for the emergence of technical solutions have been created as the Directive facilitated the expansion of the Peppol network as a solution for ensuring compliance with EN 16931 through the use of common specifications, a common transmission method, legal agreements, and a governance model. From the result of the Member States survey, it emerged that the number of Peppol-based eInvoices is increasing in Belgium, Finland, France, the Netherlands, Slovenia, and Sweden. This result was achieved through several contributing factors, including the original EU funding for the Peppol large-scale pilot

[33] EC eInvoicing webinar with Swedish stakeholders, 15th June 2023

project. The willingness of governments to sustain its results since 2012 and implement its interoperability framework at the national level also played a role, as it emerged from consultations with OpenPeppol. Service providers have developed access points for the public sector and private companies.

The Peppol Interoperability Framework has been adopted in several countries outside of the EU, including Australia, Japan, Malaysia, New Zealand, and Singapore. In the U.S., the reuse of Peppol with minor variants has been successfully piloted in the private sector.

Some Member States have imposed the use of eSignatures to guarantee the authenticity and integrity of eInvoices, and this constitutes a barrier to cross-border eInvoicing. As proven by systems that do not use this method of authentication, in practice this is not at all necessary.

4.1.2. Efficiency

This section analyses the costs and benefits for public authorities and the different identified categories of economic operators. There are important variations of costs and benefits among stakeholders.

4.1.2.1. Costs and benefits for public authorities

This section discusses the costs and benefits borne by public authorities to implement the national mandate to receive and process eInvoices compliant with the European eInvoicing standard.

For public authorities, the costs of implementing eInvoicing are largely dependent on the level of IT maturity of the public sector. The following categories of transposition costs were identified:

- one-off investment costs to set up or update a central platform for B2G;
- implementation costs related to the standard (included in Table 9 below);
- adaptation cost of the existing national B2G eInvoicing format.

The implementation of eInvoicing for the Member States that decided to use a central platform for B2G, implied an initial investment cost for either setting up a new platform or updating an existing one. This is confirmed by the results of the survey targetting Member States.

The costs specifically linked to the implementation of the European eInvoicing standard vary depending on the existence of a national standard and the requirement to ensure interoperability with the European eInvoicing standard. However, the highest costs are related to the establishment and maintenance of the national eInvoicing infrastructure, as explained below and detailed in Table 9.

National authorities in 15 out of the 23 surveyed Member States incurred costs related to the transposition of the Directive. These costs include the expenses due to the compliance with the European eInvoicing standard. Seven Member States declared they did not incur costs (Cyprus, Check Republic, Denmark, France, Finland, Greece and Romania).

The following Member States provided estimates of direct compliance costs:

- Poland is the Member State that incurred the highest costs, with a total of EUR 6.1 million, of which EUR 5 million have been funded through the Operational Program Digital Poland that was used for the establishment of the national B2G eInvoicing platform.
- Ireland has incurred total costs of EUR 1 144 863.
- Lithuania has incurred total costs of EUR 260 520.
- Luxembourg has incurred total costs of EUR 145 000.
- Malta has incurred costs of EUR 34 750.

Table 9 provides detailed information on the compliance and implementation costs borne by national authorities, which answered the Member States survey.

Compliance costs include the costs Member States incurred for the transposition of the Directive and the implementation of the European standard in national eInvoicing systems, which can be one-off costs, as for the setting up of the platform or its initial adaption, or maintenance costs to ensure it remains functional, efficient, and safe.

The costs of implementation for the public authorities are of different nature and consist of:

- Adjustment costs, which include the following: software, hardware, training, change management, test environment, and service providers' fees.
- Administrative costs, which include legal and solution analysis, publicity, user guides, support, security audit, and Peppol membership fee.

Member State	Category	Cost breakdown
Croatia	Software / hardware	The cost for the maintenance of National Central Platform cannot be disclosed.
	Training costs	No fees charged for 150 educational workshops.
Cyprus	Software / hardware	These costs have not yet materialised as there is no mandatory eInvoicing
Germany		Costs for all categories have arisen but have not been determined.
Greece	Software / hardware	Adapting software especially for SMEs and contracting authorities. Complementary actions for that are being implemented.
	Training costs	Costs mainly for contracting authorities.
	Test environment	It has been centrally implemented.
	Service providers fees	Only for the economic operators for using eInvoicing service providers
Hungary		No information provided
Italy		No information provided

Ireland	Software / hardware	EUR 894 863
	Change management*	EUR 250 000
Lithuania	Software / hardware	EUR 68 500
	Training costs:	EUR 0
	Change management	EUR 16 720
	Test environment	EUR 38 000
	Service providers fees	EUR 7 500
	Other	EUR 129 800 for legal and solution analysis, publicity, user guides, support, security audit, etc.
Luxembourg	Training costs	EUR 10 000
	Service providers fees	EUR 100 000
	Other	Technical implementation costs: ~ EUR 35 000
Malta	Total	EUR 34 750
	Service providers fees	Cost per eInvoice received will be charged according to pre-established volumes/bands.
Poland	Software / hardware	EUR 5 000 000 (for the establishment of national B2G eInvoicing platform)
	Test Environment	Included in software category.
	Service Provider fees	Included in software category.
	Training costs	EUR 100 000
	Change management	EUR 1 000 000
Slovenia	Other	Public Payments Administration of the Republic of Slovenia pays an annual membership fee for Peppol
Sweden	Software / hardware	Relevant cost incurred but values not available.
	Test Environment	Relevant cost incurred but values not available.
	Service Provider fees	Relevant cost incurred but values not available.

*** Change management costs due to the usage/implementation of new methods or processes with software/hardware**

Table 9 Costs incurred for the transposition of the Directive and the implementation of the EN 16931

(Source: Member State survey)

Was there a cost associated with ensuring the national format complied with EN 16931?

Member States with an existing national B2G eInvoicing format had to adapt it or replace it with the EN 16931. The following figure shows which Member States experienced the related adjustment costs (Yes) and those who did not (No).

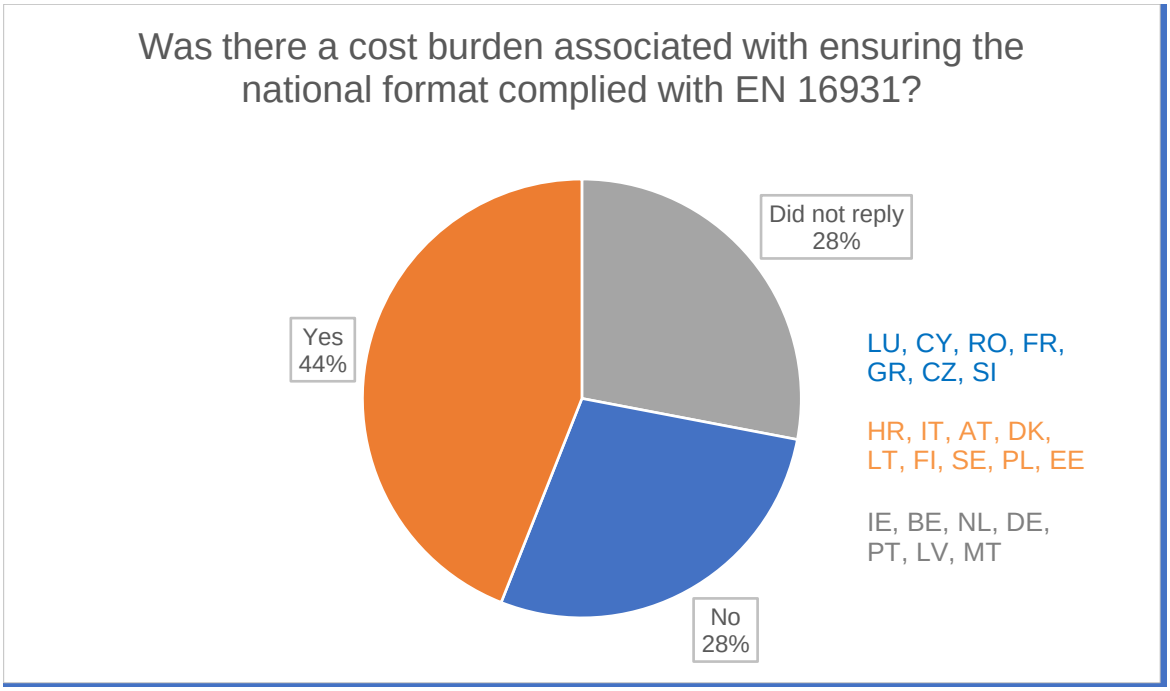


Figure 7 Cost burden to ensure compliance with EN 16931 in Member States

(Source: Member State survey)

Out of 16 Member States that provided an answer to the survey, nine Member States reported that they experience a cost burden related to ensuring their national format was European eInvoicing standard compliant; and seven Member States answered that they did not experience a cost burden.

The following nine Member States sustained costs for ensuring alignment with the EN 16931, as detailed below:

- In Finland, the conversion of the national eInvoicing standard costed EUR 250 000 to the national authorities. They consider that the benefits outweigh the costs.

- In Italy, two CEF eInvoicing funded projects were implemented for the alignment of the national standard to the EN 16931: eIGOR with funding of EUR 1 152 500 and EeISI with funding of EUR 1 136 942.

- In Poland, approximately EUR 1.5 million were spent to ensure that the national format was compliant with the EN 16931. It was necessary to implement an extension to the EU norm, which enabled the inclusion of representatives of specific sectors of mass services (such as energy or gas) in the eInvoicing process. Benefits are expected to be achieved in the coming years, as the extension was implemented in mid-2022 (see Country Profiles in Annex for more information).

- Slovenia incurred costs that were funded via the EU projects ROSE and ROSE 2 (see Country Profile for more information), for a total of EUR 88 407 for the Public Payment Administration (PPA).

- In Sweden, the upgrade of the national format to the EN 16931 resulted in conversion costs, but the Swedish authorities perceive that the benefits still outweigh the costs. There have been conversion costs for parties unable to handle the EN16931 from the start, but these costs are expected to vanish over time, and the benefits still outweigh the costs (see Country Profiles).

For the seven Member States, which declared that they bore no costs for the alignment to the European eInvoicing standard, the two following cases are relevant because they represent two typical scenarios:

- France, which went beyond the minimal obligation of the Directive relying on public authorities (in their national eInvoicing policy) and mandated eInvoicing for all suppliers in public procurement, declared it incurred no cost to ensure that the national format complied with the EN. Similarly, it did not incur costs for the transposition of the Directive. Indeed, France did not seek funds to ensure compliance. France stated that, as a measure to increase the efficiency of the initiative, the EN 16931 should be updated to consider some data required in B2B transactions or by the tax authorities.

- Greece declared they did not incur costs related to ensuring compliance with the EN 16931 (neither related to the transposition of the Directive), because the main costs are related to the establishment of the national eInvoicing infrastructure.

Overall, according to the findings of the consultation activities, the benefits outweighed the costs for public authorities. Five Member States provided estimates of the costs to ensure compliance of the national formats to the EN. With the exception of Poland, where the eInvoicing uptake is still very low, the benefits outweighed the costs. The benefits include operational efficiencies, improved transparency, and environmental benefits. Process automation is perceived as the main driver, followed by the use of a common standard, faster processing, and less complexity.

A high level of legal certainty was introduced by the Directive and significant technical simplification was provided through the use of a common European eInvoicing standard, leading to a considerable cost reduction.

CEF funding

The Connecting Europe Facility (CEF) Telecom eInvoicing calls, between 2015-2019, funded and supported the uptake of eInvoicing and the implementation of EN 16931. CEF Telecom eInvoicing funding supported consortia of private and public stakeholders to implement the final version of the EU eInvoicing standard, or to update existing solutions.

Most of the EU Member States received funding under the CEF eInvoicing calls from 2015 to 2019, which greatly facilitated and enabled the implementation of the EN 16931. In total, 24 Member States received EU funds under the CEF Telecom programme to develop eInvoicing solutions.

49 projects in 27 countries (24 Member States, Norway, Iceland, and the United Kingdom) were implemented under the CEF Telecom eInvoicing calls. A total of approximately EUR 28.6 million of CEF Telecom funding was allocated.

The following table shows the CEF funding received by Member States. Spain, Italy, and Ireland received the highest amounts of funding, while Bulgaria, Czechia, and Luxembourg did not receive any.

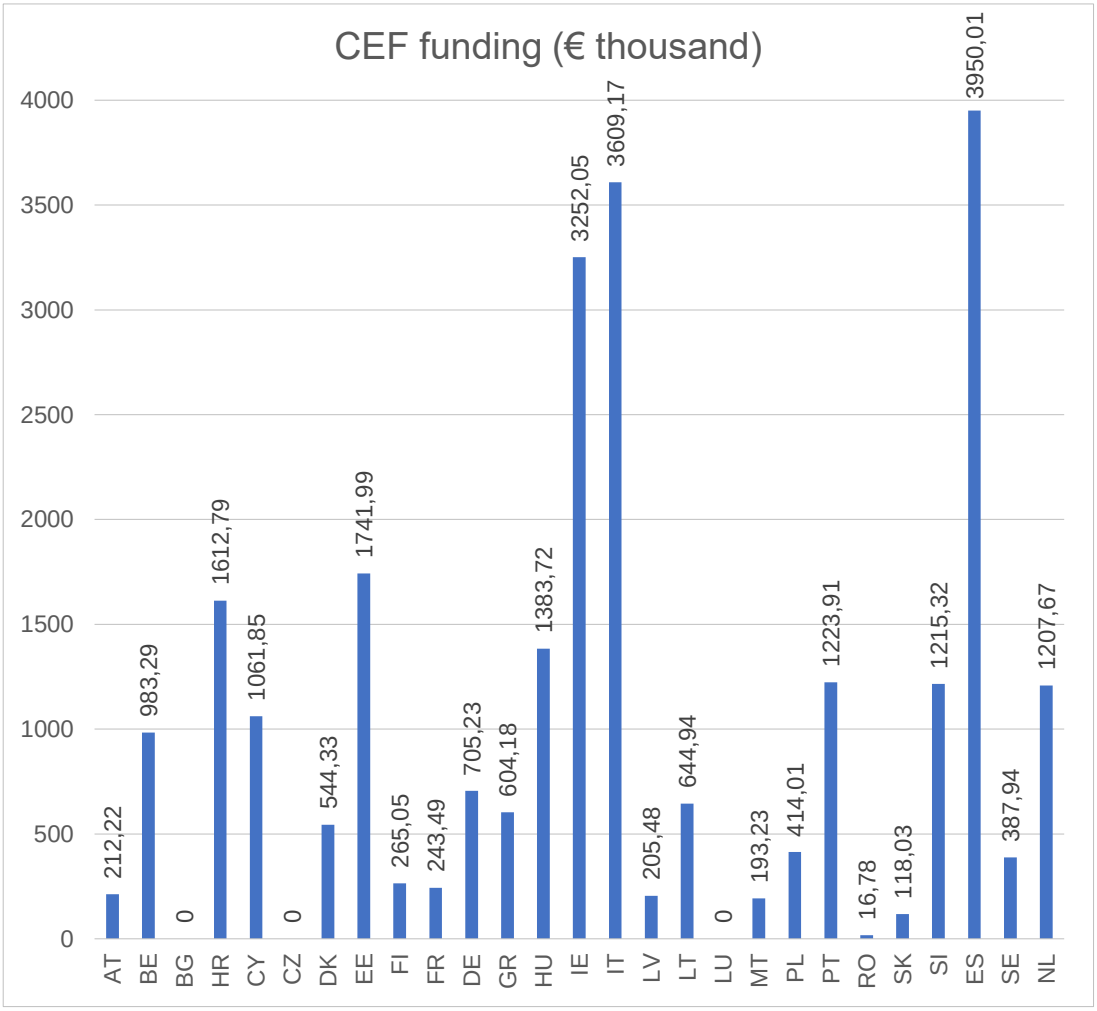


Figure 8 CEF Telecom eInvoicing funds received in Member States

(Source: European Commission, INEA)

The CEF eInvoicing Building Block includes services such as conformance testing for implementers to ensure the correct implementation of syntaxes, maintenance of code lists, interaction with the stakeholder community, as well as onsite and online training courses to build the capacity of public administrations in adopting the European eInvoicing standard and facilitate interoperability among contracting parties in Europe.

4.1.2.2. Costs and benefits for economic operators

The EU intervention has not been particularly successful in lowering operating costs for economic operators. However, market dynamics depend on different factors, such as the cost of labour per hour, the IT maturity of the society and the level of eInvoicing adoption. In addition, pricing models vary significantly depending on specific eInvoicing

features and are not always transparent, creating confusion for businesses, in particular SMEs, when selecting eInvoicing services and solutions (see Annex IV on Cost-Benefit Analysis).

One of the main impacts of the Directive is the automation of eInvoicing. From the findings of the Study on the Evolution of eInvoicing conducted for the European Commission in 2023[34] (see Annex IV), across all categories of stakeholders, the general quantitative benefits from automating the invoicing process are estimated at around EUR 5.28 to EUR 8.4 per eInvoice received (and processed), considering the cost of labour per hour at EUR 46. The same study indicates that eInvoicing can result in cost savings of 61–72%, compared to conventional paper invoice processing. Moreover, greater savings are achieved when automating the entire order-to-pay cycle, including orders, transport documents, invoices, and payment notices. Automating these processes allows for consistent electronic document exchange and enables automated reconciliation, resulting in benefits estimated between EUR 25 and EUR 65 per purchase-to-pay cycle.

As aforementioned, costs vary among and within each stakeholder category based on several external and internal factors. The results of the SME survey show that costs mainly vary depending on the eInvoice service package they select and the volumes of eInvoices handled. In general, enterprises with higher eInvoicing volumes yield more benefits, proportionally to the number of eInvoices they exchange. Furthermore, costs for SMEs may vary depending on whether the SME uses a service provider or an accountant It is important to consider that free-of-charge eInvoicing services are made available to SMEs by some governments, but this did not constitute a major factor for adoption due to lack of user-friendly features and services. Overall, there are considerable differences in costs borne per SME. Pricing per eInvoice transaction ranges from EUR 0.05 (when a EUR 2 500 set-up fee was part of the package) to EUR 0.30 (when an annual fee of EUR 550 was part of the package)[35].

In regards to the benefits perceived by SMEs, in addition to savings per eInvoice, the main eInvoicing benefits are easier B2G invoicing, followed by improved efficiency, and easier invoicing to large enterprises. Enhanced security and sustainability are ranked as second-tier benefits, followed by improved accuracy and data quality. Increased interoperability and reduction in operating costs are considered as moderately important benefits.

The results of the survey for large corporates show that for one of them (out of seven), the set-up costs for establishing eInvoicing in different EU Member States are significant (EUR 180 000 per country) and require the use of different service providers to cover specific national requirements. Recurring costs vary significantly across the large corporates surveyed, depending, for instance, on the use of internal or external resources for eInvoicing. In regards to the benefits for large corporates, in addition to savings per eInvoice, improved interoperability in supply chains, easier invoicing public bodies,

[34] European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, Ciciriello, C., Gray, E., Preparatory study on the effects of the Directive 2014/55/EU on electronic invoicing in public procurement, Publications Office of the European Union, 2024, https://data.europa.eu/doi/10.2873/27631

[35] https://www.corrierecomunicazioni.it/digital-economy/polimi-da-fattura-elettronica-risparmi-per-3-miliardi/

increased accuracy, improved data quality, and enhanced security are considered the most relevant benefits associated with eInvoicing.

On one hand, in general, companies (of all sizes) have to acquire eInvoicing services or software, and the prices for the eInvoicing services are still relatively high. Operating costs for economic operators depend on the availability of cost-effective solutions and services. These are influenced by the number of eInvoicing transactions, formats supported, transmission protocols, and the number of countries in which the businesses operate, as specialised support is required in each Member State that has defined specific formats and requirements. For SMEs, the availability of eInvoicing functionalities within ERP systems and accounting software is considered the most crucial factor in facilitating adoption.

On the other hand, according to the SMEs survey, even when they acquire the respective software/service, a company will fully reap the benefits of its investment when it is able to use electronic invoicing with all its business partners, which is far from being the case. On top of this, all companies would maximise their benefits when they are able to use eInvoicing for further applications, as the VAT reporting introduced by the current ViDA legislative proposals or fulfilling their administrative obligations such as customs declaration, sustainability reporting, and when integrating other processes like electronic orders and despatch advice (see Annex IV).

Mass adoption of eInvoicing would both allow the lowering of fees for eInvoicing services and maximise the benefits from using eInvoicing by default and for further applications.

Lastly, for service providers, while no precise data was provided, the evidence gathered shows that the establishment of a European eInvoicing standard helped simplify decisions in relation to selecting and investing in a single eInvoicing format for both domestic and cross-border public procurement. In addition, based on the findings of the Country Profiles, service providers are perceived as the stakeholders who benefited the most from eInvoicing.

4.1.3. Coherence

4.1.3.1. Internal coherence

The internal coherence of the eInvoicing Directive refers to how the various components of the intervention worked together effectively. These components include: (i) the development and mandatory support of the European eInvoicing standard by EU contracting authorities, and (ii) the establishment of the European Multi-Stakeholder Forum on eInvoicing (EMSFEI).

At the legislative level, the EU's provisions for the mandatory use of the European eInvoicing standard, published in October 2017 in the Official Journal of the EU (OJEU), align seamlessly with the requirements specified in the Directive. The Directive called for the creation of a European standard for the semantic data model of core elements in an eInvoice and identified a limited number of syntaxes complying with this standard for interoperability. Additionally, non-binding guidelines for eInvoicing transmission were stipulated to ensure further interoperability. These requirements have been successfully

reflected in the deliverables of the CEN Technical Committee, confirming the coherence between legislative objectives and the development of the European eInvoicing standard.

Furthermore, the development of the European eInvoicing standard is aligned with the recommendations of the European Multi-Stakeholder Forum on Electronic Invoicing (EMSFEI). The EMSFEI's deliverables, including the endorsement of the 'Core Invoice Usage Specifications', complement and support the implementation of the European standard, addressing potential interoperability challenges effectively.

In conclusion, the internal coherence of the eInvoicing Directive is evident in how its components complement each other. The alignment between the provisions of the Directive, the European eInvoicing standard, and the EMSFEI recommendations has contributed to the successful implementation and advancement of eInvoicing adoption within the EU.

4.1.3.2. External coherence

External coherence refers to how well the eInvoicing Directive aligns with other EU and national interventions that share similar objectives, including the promotion of the digitisation of public procurement and related 2014 Public Procurement Directives[36], the VAT in the Digital Age (ViDA) proposal[37], and the new proposal for a regulation[38] repealing the current Late Payment Directive [39].

This evaluation of the external coherence of the Directive focuses on several key areas of alignment with other policies, as shown in the Figure below. Each intervention category is scored from 1-5, with 1 indicating coherence at a very low extent and 5 indicating coherence at a very high extent.

As Figure 9 shows, Member States assess that the eInvoicing Directive aligns coherently with initiatives aimed at fostering the Internal Market, reducing technical complexity, improving legal certainty, and lowering operating costs for Economic Operators (EOs).

[36] Directive 2009/81/EC of the European Parliament and of the Council of 13 July 2009 on the coordination of procedures for the award of certain works contracts, supply contracts and service contracts by contracting authorities or entities in the fields of defence and security and amending Directives 2004/17/EC and 2004/18/EC (Text with EEA relevance), OJ L 216, 20.8.2009, p. 76–136, Brussels.
Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts Text with EEA relevance, OJ L 94, 28.3.2014, p. 1–64, Brussels.
Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC, OJ L 94, 28.3.2014, Brussels.
Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC, OJ L 94, 28.3.2014, p. 243–374, Brussels.
[37] COM/2022/701 final, Proposal for a COUNCIL DIRECTIVE amending Directive 2006/112/EC as regards VAT rules for the digital age, Brussels, 8.12.2022. https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52023PC0533(01)
[38] COM (2023) 533 final, Proposal for a regulation of the European Parliament and of the Council on combating late payment in commercial transactions https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52023PC0533(01)
[39] Directive 2011/7/EU of the European Parliament and of the Council of 16 February 2011 on combating late payment in commercial transactions (recast), OJ L 48, 23.2.2011, p. 1–10, Brussels.

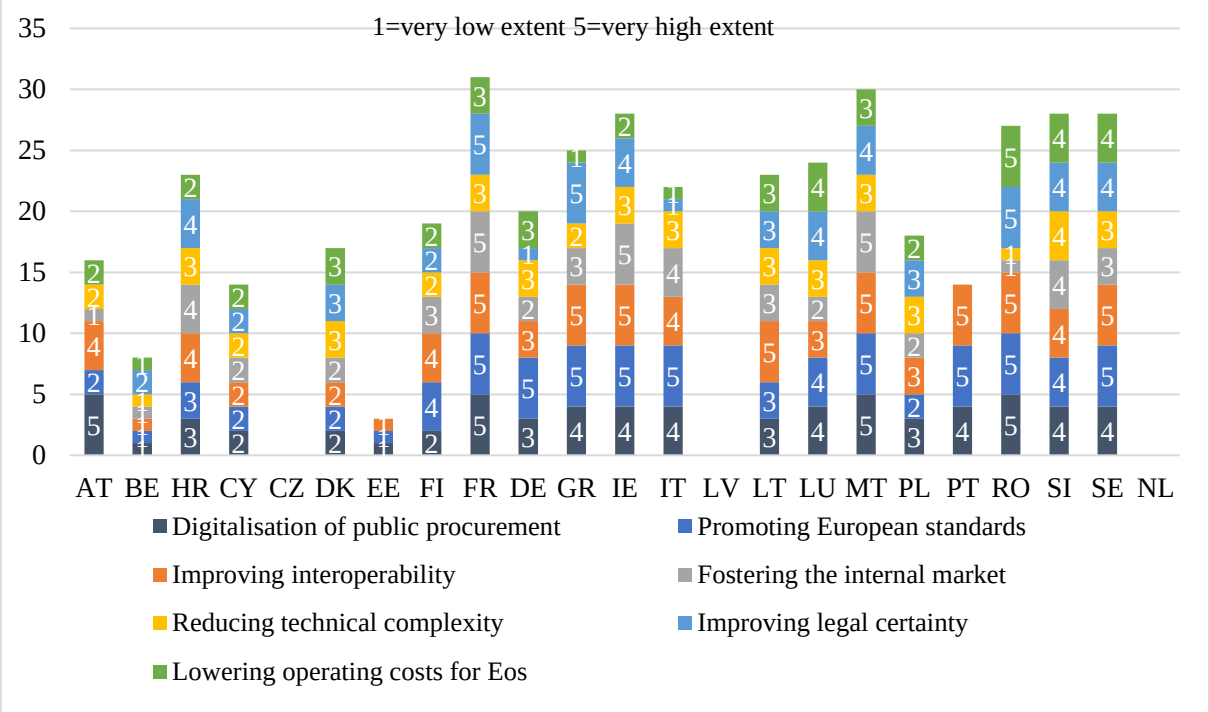


Figure 9 Member States' perception of the extent the initiative is consistent with other EU and national interventions

(Source: Member State survey)

Digitisation of Public Procurement

The eInvoicing Directive is perceived to be coherent with EU and national interventions related to the digitisation of public procurement. For instance, the 2014 Public Procurement Directives mandate the use of electronic tools and devices for communication in procurement procedures, which complements the eInvoicing Directive's objective of establishing electronic invoicing as a standard practice in public procurement. Member States generally acknowledge this alignment, with some variations in their perceptions, according to the findings of the survey targeting national authorities.

Promoting European Standards

There is a high level of coherence between the eInvoicing Directive and initiatives promoting European standards. Most Member States see strong alignment in this regard. For example, the EU's provision of funds through the CEF programme from 2015 to 2019 has played a crucial role in advancing eInvoicing adoption and the implementation of the European standard. The CEF Telecom eInvoicing calls funded and facilitated the uptake of eInvoicing, supporting the implementation of compliant solutions for B2G transactions in 24 Member States.

The Digital Building Block funded under CEF – eInvoicing Building Block and eDelivery Building Block – supported the implementation of the Directive. While the eInvoicing Building Block provided essential tools to facilitate and validate compliant implementations of the European eInvoicing standard in IT systems and services, the eDelivery Building Block provided technical specifications and standards, installable software, and ancillary services to create a network of nodes for the exchange of

eInvoices, as well as other secure digital data exchanges. Some eInvoicing solutions used eDelivery as a transmission method.

In addition, EU structural funds were utilised for similar purposes to the one provided under CEF, with countries like Poland leveraging these funds for eInvoicing initiatives.

Improving Interoperability

The eInvoicing Directive effectively addresses interoperability at both the semantic and legal layers. The European eInvoicing standard, consisting of EN 16931-1 and TS 16931-2, specifies the semantic data model and mandatory syntaxes, ensuring seamless exchange of eInvoices across different systems. This aligns well with the European Interoperability Framework (EIF), as shown by the conceptual model below.

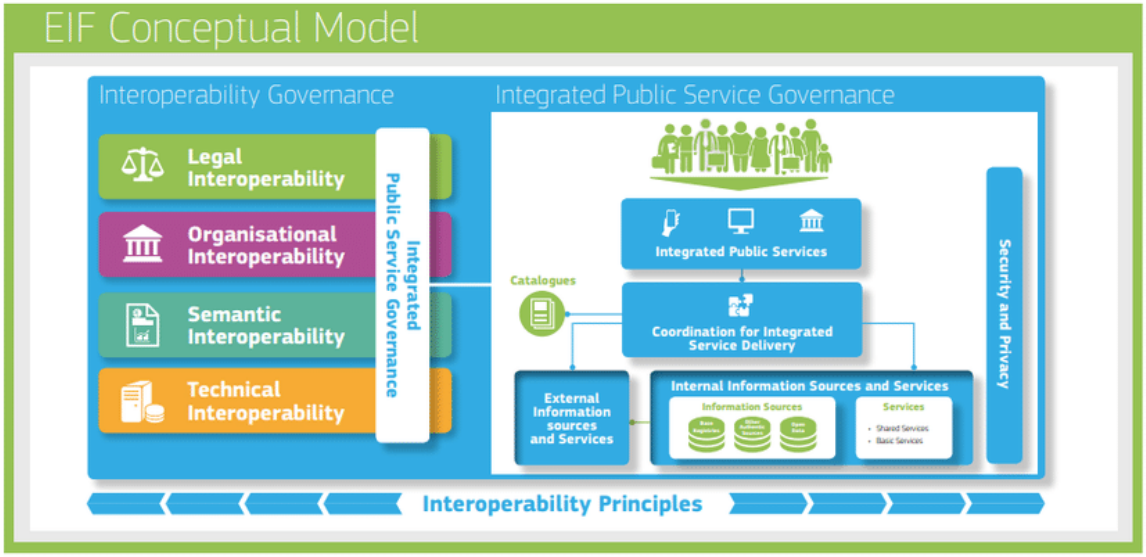


Figure 10 EIF Conceptual Model

However, as mentioned multiple times, it has not addressed all EIF four layers of interoperability, including transmission (technical interoperability) and governance (organisational interoperability), which would have further facilitated interoperability.

VAT in the Digital Age (ViDA) Proposals

The ViDA legislative proposals complement the eInvoicing Directive, especially in ensuring harmonisation and interoperability in cross-border eInvoicing for B2G and B2B transactions. While the Directive limited the mandate to the public sector, ViDA extends the use of eInvoicing to both senders and receivers of eInvoices in intra-Community B2B transactions. This alignment streamlines VAT reporting, reduces administrative burden, and fosters convergence towards the European eInvoicing standard. Several articles in the ViDA proposals directly align with the provisions of the Directive:

- Article 217 defines 'electronic invoice' consistently with the definition of the Directive, clarifying that invoices containing unstructured data cannot be considered as electronic invoices.

- Article 218 establishes electronic invoicing as the default system for issuing invoices, while the deletion of Article 232 removes the need for acceptance of the

eInvoice recipient. Taxable persons can issue eInvoices compliant with the European standard and its syntaxes, as set out in the Directive. The mandatory authorisation or verification by tax authorities, known as the 'clearance model', is also eliminated, ensuring a smoother process for eInvoicing.

- Articles 262 to 264 provide for the submission of information for each transaction and the adoption of implementing rules to define a common electronic message, which establishes a common subset of the European eInvoicing standard referred to as a digital VAT report.

- The deletion of Article 266 enables full harmonisation of data requirements across the EU by eliminating Member States' ability to request additional data on intra-Community transactions. This standardisation ensures that taxpayers submit the same information, regardless of the Member State where the transaction takes place, which is crucial for developing the subset of the EU standard.

- Articles 271a to 273 aim to reduce the administrative burden on taxable persons operating in different Member States by aligning the reporting systems for domestic transactions with the digital reporting system designed for intra-Community transactions. This alignment should be completed by 2028 at the latest.

Additionally, ViDA requires the transmission of data in compliance with the EU eInvoicing standard, while Member States have the flexibility to allow other formats as long as they ensure interoperability with the European standard for intra-Community transactions. This provision aims to promote interoperability at the semantic and syntax levels, making it easier for taxable persons to submit data according to the European standard for digital VAT reporting.

However, the coherence between the two EU initiatives might evolve due to changes in the text of ViDA in the frame of the ongoing Council negotiations.

The implementation of the Directive is coherent with the provisions of the current Late Payment Directive[40] and with the 2023 proposal for a Regulation repealing the current Late Payment Directive[41], as it automates the approval process for eInvoices, streamlining payment procedures and ensuring timely payments. The 2023 proposal for a Regulation on combating late payment in commercial transactions stresses that it is important to promote systems that give legal certainty as regards the exact date of receipt of invoices by the debtors, including in the field of eInvoicing where the receipt of invoices could generate electronic evidence.

In addition, the current activities carried out by the European Commission with its international partners are coherent with the Directive, both in the formal negotiations and during bilateral dialogues. Currently, non-EU countries, such as Australia, Japan,

[40] Directive 2011/7/EU of the European Parliament and of the Council of 16 February 2011 on combating late payment in commercial transactions (recast), OJ L 48, 23.2.2011, p. 1–10, Brussels.
[41] COM (2023) 533 final, Proposal for a regulation of the European Parliament and of the Council on combating late payment in commercial transactions, Strasbourg, 12.9.2023.

Malaysia, New Zealand, and Singapore[42], have based their national eInvoicing specifications on the European standard as extensions and are actively interested in Peppol International (PINT) Invoice Model, operational since July 2023, which generalises the European standard in a systematic way, facilitating interoperable exchange of invoices across the Peppol Network internationally. Other countries and regions have used the European model as a reference, adapting it to their specific needs. The eInvoicing cooperation with EU partner countries offers the opportunity to maximise the investments and implementations already carried out by EU companies to comply with the European standard and minimise trade costs by fostering eInvoicing interoperability across regions.

Overall, the eInvoicing Directive demonstrates a high level of coherence with other relevant interventions.

4.2. How did the EU intervention make a difference and to whom?

The EU's intervention in eInvoicing for public procurement was justified based on the need for interoperability and to prevent fragmentation within the Internal Market. The 2013 Impact Assessment highlighted that actions taken by individual Member States had exacerbated interoperability challenges, resulting in the emergence of various national eInvoicing standards. To address this issue and promote a cohesive approach, the EU's involvement was deemed beneficial.

The survey targetting Member States indicates varied assessment on the importance of EU-wide interoperability at the semantic and syntax levels. Out of 21 replies, 12 Member States believe that achieving these objectives individually would have been impractical, and they acknowledge the necessity of the EU's intervention as it can be seen in Figure 11.[43]

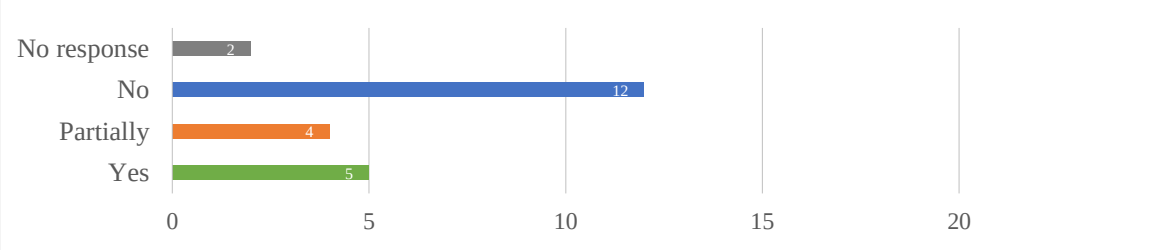


Figure 11 No. of Member States that believe the objectives of the Directive could not be achieved by Member States acting alone

(Source: Member State survey)

The Directive's implementation has yielded positive outcomes in several Member States, in the public and private sector. The EU's intervention has improved the functioning of the Internal Market through the adoption of interoperable eInvoicing solutions in Member States. It has done so by enabling the entire European public sector to process

[42] Malaysia is also in the process.
[43] Among these are Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Malta, Portugal, Sweden, and also the authorities of Iceland and Norway.

European standard-compliant eInvoices and facilitating the adoption of Peppol to ensure compliance with the European eInvoicing standard. Additionally, it has paved the way for further harmonisation in the B2B context, where the EU standard is set to be reused under the ViDA proposal.

The establishment of a European standard has significantly simplified decisions for contracting authorities and service providers in selecting and investing in a single eInvoicing format for both domestic and cross-border public procurement and because they could use only one standard with many of their business partners who choose to use the European standard. This intervention has proven to be a strong enabler.

Moreover, the Directive has promoted cooperation among Member States and with the European Commission, encouraging the establishment of national eInvoicing fora and fostering cooperation in achieving common objectives.

The European eInvoicing standard is considered to have become a standard with a broader impact by fostering interoperability globally, as demonstrated by the adoption of the Peppol Interoperability Framework outside of Europe in countries like Australia, Malaysia, New Zealand, Japan, and Singapore. The European Commission is involved in several initiatives to foster the European Interoperability Framework at the international level, such as free trade agreements (FTA), Digital Partnerships and Regulatory Dialogues.

In conclusion, the EU's intervention in eInvoicing for public procurement has brought significant added value by addressing interoperability challenges and fostering a cohesive approach within the Internal Market and beyond.

4.3. Is the intervention still relevant?

National authorities from 18 out of 27 Member States, consulted through a stakeholder survey targeting national authorities, consider that the needs and problems addressed by the Directive remain relevant today.

The challenges present at the time of the adoption of the Directive are still relevant today, while other challenges have emerged. The landscape of eInvoicing in Europe has evolved significantly over the past decade, largely due to the impact of the Directive, resulting in a broader adoption of eInvoicing. However, there is a general consensus among stakeholders that the needs and problems addressed by the Directive remain relevant today. An important objective underlying the EU eInvoicing policy and the Directive’s adoption was the increased uptake of eInvoicing in Europe, both in B2G and in B2B.

At the time of the introduction of the Directive, several challenges were identified, as described in the 2013 Impact Assessment. The existence of multiple non-interoperable eInvoicing systems in the EU led to excessive technical complexity and legal uncertainty for economic operators trading across intra-EU borders. Additionally, it imposed high operating costs on economic operators who had to acquire and maintain interoperability between eInvoicing systems and standards across borders within the EU.

These challenges have also evolved from the entry into force of the Directive and during its implementation.

While the EU intervention effectively tackled the primary challenges identified at the time of its introduction, the central challenge - ensuring the interoperability of eInvoicing systems and solutions - persists in both the B2G and B2B contexts. Although the integration of the European eInvoicing standard into national eInvoicing public procurement systems has created the foundation for the harmonisation of the Internal Market, divergent national requirements result in variations of the standard that may not always be compatible.

On the other hand, the implementation of eInvoicing in the B2G context, as well as the expansion of eInvoicing use in B2B, have resulted in the amplification of problems that had not been identified before as issues for policy decisions. In particular, the need to ensure seamless transmission of eInvoices across the EU has emerged as a key new challenge.

One major development consists in the emergence of new applications of eInvoicing, meaning that the eInvoicing software and data can be used for a large spectrum of innovative uses which can simplify life of companies, by reducing their administrative burden or allowing them to use eInvoicing for getting innovative financing. Examples of these new applications include VAT reporting based on eInvoicing as introduced by ViDA; the use of eInvoicing for the fulfilling of administrative obligations, such as customs declaration, sustainability reporting, or crowfactoring, eInvoice finance and other processes such as electronic orders and despatch advice. This is illustrated by the study commissioned by the European Commission "Report on the evolution of eInvoicing in the Digital Age"[44].

The EU policy on eInvoicing has evolved to encompass new applications of eInvocing, with an initial focus on VAT reporting, introducing a set of novel challenges in the process. In December 2022, the European Commission introduced the ViDA legislative proposals, aiming to mandate the use of eInvoicing by companies for B2B transactions to facilitate cross-border VAT reporting. Simultaneously, the Commission proposals envision electronic invoicing becoming the default invoicing method across the EU by 2028. Consequently, a new need emerged to further adapt the European eInvoicing standard to accommodate diverse business needs, an ongoing process currently underway in CEN.

Monitoring the adoption of eInvoicing in all Member States is another challenge, as procedures and tools may not always be in place in Member States and no monitoring or reporting obligation is included in the Directive.

Moreover, the uptake and interoperability challenges have evolved over time as described below, and the general evolution of eInvoicing brought up new challenges, including those related to B2B use and the need for a common approach in B2B, B2G, and B2C.

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[44] European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, Ciciriello, C., Gray, E., Report on the evolution of eInvoicing in the digital age, Publications Office of the European Union, 2024, https://data.europa.eu/doi/10.2873/104234

4.3.1. Interoperability challenge at the transmission level

Currently, Member States have implemented eInvoicing systems at the national level, and they ensure receiving capabilities for EN-compliant eInvoices. However, challenges exist for the transmission of eInvoices between non-interoperable networks and systems (see Section on Effectiveness). This is to the disadvantage of companies, including SMEs, which have to register to multiple platforms at the request of their customers. Key challenges for eInvoicing are the lack of a mandate for interoperability between public and private eInvoicing platforms and agreement on common transmission methods across the EU.

4.3.2. Uptake challenge

One of the initial challenges that the Directive addressed was the level of adoption of electronic invoicing in the EU. eInvoicing uptake has increased mainly in the Member States that introduced supplier mandates for B2G eInvoicing. 17 Member States, which introduced the obligation on suppliers, report either 100% uptake of eInvoicing in public procurement or this target is expected to be achieved in 2023/2024.

Based on the SME survey conducted in 2022 as part of the stakeholder consultation, this evaluation reaffirms the same need that SMEs expressed when the Directive was implemented (in the Impact Assessment done in 2013). From the SMEs consultation, one of the main challenges for SMEs for the eInvoicing adoption is the lack of integration of eInvoicing with ERP accounting software, which would allow them to access eInvoicing features immediately. Currently, SMEs have to use different solutions with their business partners.

In addition, some Member States with mature eInvoicing infrastructures have and will take measures to promote the use of compliant eInvoicing modules amongst the ERP and accounting software vendors in their countries (e.g. Denmark, Sweden[45]).

4.3.3. B2B use of the European eInvoicing standard

In view of its use in B2B for VAT reporting in cross-border transactions, and also in domestic transactions if a Member State decides to adopt such a system, the European eInvoicing standard will be adapted by CEN to cover all B2B use cases, including sectoral specifications. In light of the ViDA requirements, this need has been recognised by national authorities across EU Member States and it also emerged from the findings of the consultation activities (surveys and call for evidence). Without the adaptation of the European standard, there is a risk of fragmentation of the Internal Market if different non-interoperable national technical specifications for B2B eInvoicing are being developed. According to the EU standardisation policy reinforced by CEN rules, if there is a European standard for a specific domain, such as eInvoicing, Member States are not allowed to adopt competing national standards.

Member States pointed out that the appropriate legal framework to support B2B eInvoicing requires a deep understanding of business flows. Focusing excessively on the

[45] Annex VI: Country profiles.

tax collection aspects may cause a bias in the legal framework, undermining other legitimate requirements.

4.3.4. Common approach in B2G, B2B and B2C

Additionally, it has been emphasised that a significant challenge for economic operators stems from varying approaches in national policies concerning B2G, B2B, and even B2C in Member States that choose to regulate the latter. Economic operators, who offer services across all eInvoicing domains, require a unified process where consistent tools can be applied. Presently, the distinction between B2G and B2B approaches poses difficulties for end-users in Member States. This is evident in the development of separate platforms by governments for B2G and B2B eInvoicing, creating unnecessary complexity for enterprises compelled to use both.

5. WHAT ARE THE CONCLUSIONS AND LESSONS LEARNED?

5.1. Conclusions

The Directive on electronic invoicing in public procurement has been successful to a certain extent, as shown by the assessment of its effectiveness, efficiency and EU added-value.

Effectiveness

The implementation of the Directive, with the creation and the adoption of the European eInvoicing standard by public authorities and business in Europe has significantly contributed to the harmonisation of electronic invoicing in Europe and its uptake.

The Directive has been partially effective in fulfilling its objectives. With regard to its two direct objectives, translated in the provisions of the Directive, the first one - to set up the European eInvoicing standard - was fully achieved by endorsing the CEN standard (EN 16931) in October 2017. For the second objective, which has been partially achieved, the Directive imposed an obligation on Member States and their public authorities to require the public sector in the EU to accept and process eInvoices issued for contracts under EU Public Procurement Directives if they are compliant with the European eInvoicing standard. The absence of a monitoring mechanism does not allow to assess full achievement of this objective. This intervention has facilitated the establishment of pan-European eInvoicing capabilities.

Concerning the Directive's underlying objectives, these were partially fulfilled. The Directive aimed at fostering the Internal Market by addressing interoperability, increasing legal certainty, reducing legal complexity, and lowering the cost for economic operators (specific objectives), as well as creating the conditions for the emergence of technical solutions for eInvoicing in public procurement, to ensure interoperability (operational objective).

The Directive primarily focused on addressing interoperability challenges related to semantic and syntax levels. The development of the European eInvoicing standard effectively tackled these two layers of interoperability, amongst four levels, the other two being transmission and governance. Since the publication of the European standard in October 2017, the Directive has fostered the Internal Market by preventing the introduction of new national eInvoicing formats for the public sector (B2G), thus

avoiding further fragmentation. This is fully in line with the EU policy on standardisation which prevents Member States from creating competing national standards. While transmission and governance have not been addressed by the Directive, in practice, full interoperability across borders based on the European eInvoicing standard completed by other technical specifications has been ensured by the implementation of Peppol-based solutions in 23 Member States.

The Directive increased legal certainty and reduced technical complexity for eInvoicing by establishing a clear legal basis and setting the European eInvoicing standard as the common standard to be supported by the EU public sector. Article 2 of the Directive establishes the definition of an electronic invoice, which ensures legal clarity: only structured invoices fit for automation are covered. The Directive also sets the requirements for the European eInvoicing standard, including technological neutrality, compatibility with international standards, suitability for commercial transactions between enterprises and support for the needs of SMEs, and consistency with the relevant provisions of Directive 2006/112/EC[46].

For the specific objective of lowering operating costs for economic operators, the EU intervention has not been particularly successful. Operating costs for economic operators depend on the availability of cost-effective solutions and services, as well as on the uptake of eInvoicing. These are influenced by the number of eInvoicing transactions, formats supported, transmission protocols, and number of countries in which the businesses operate as specialised support is required in each Member State that has mandated specific formats and requirements. Mass adoption of eInvoicing has the potential to contribute to lowering fees for eInvoicing services and maximising the benefits from using eInvoicing by default with all business partners, including governments, and making use of eInvoicing for further applications like VAT or Environmental, Social and Governance (ESG) reporting, crowdfactoring and others.

As regards the operational objective of creating the conditions for the emergence of technical solutions for eInvoicing in public procurement, ensuring interoperability was achieved in two manners: first of all, directly by imposing an obligation on public authorities who either created systems or adapted their systems in order to be able to accept the European standard, therefore, equipping themselves with the capabilities for interoperability and secondly, since its adoption, the Directive facilitated and gave an impetus to the use of Peppol as a technical interoperable network for the exchange of European standard-compliant electronic invoices among Member States.

Efficiency

With regard to the efficiency of the Directive for public authorities, the analysis of the costs and benefits shows a very varied situation from Member State to Member State. However, a significant number of Member States confirmed that the benefits of eInvoicing outweighed their associated costs at the national level. The benefits include operational efficiencies, improved transparency, and environmental benefits. Process

[46] Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax, OJ L 347, 11.12.2006, Brussels.

automation is perceived as the main driver, followed by the use of the common standard, faster processing, and less complexity.

The costs associated with implementing the Directive's obligation for contracting authorities largely depend on the IT maturity level of the public sector: the higher the digital maturity, the lower the costs. The costs specifically linked to the implementation of the European eInvoicing standard vary depending on the existence of a national standard or technical specifications. However, the highest costs are related to the establishment and maintenance of the national eInvoicing infrastructure.

As regards the efficiency analysis for economic operators, the evaluation has shown that this depends mainly on the uptake of eInvoicing and its mass adoption in two dimensions. On the one hand, in general, companies have to acquire eInvoicing services or software, and the prices for eInvoicing services are still relatively high. On the other hand, even when they acquire the respective software/service, a company will fully reap the benefits of its investment when it is able to use electronic invoicing with all its business partners, which is far from being the case. Mass adoption of eInvoicing has the potential to contribute to lowering the fees for eInvoicing services and maximise the benefits from using eInvoicing by default and for further applications. The results of the consultation activities targeting SMEs show that costs vary depending on the eInvoice service package they selected and the volumes of eInvoices handled. Large companies (multinationals) surveyed reported significantly high set-up costs for establishing eInvoicing in different EU Member States. Recurring costs vary considerably. These costs correlated to the need to use different service providers to cover specific national requirements.

Quantitative benefits from automating the invoicing process are estimated at around EUR 5.28 to EUR 8.4 per eInvoice, considering the cost of labour per hour at EUR 46. Greater savings are achieved when automating the entire order-to-pay cycle, including orders, transport documents, invoices, and payment notices, resulting in benefits estimated between EUR 25 and EUR 65 per cycle.

Coherence

The coherence of the Directive has been evaluated on two main levels: internal and external.

For the internal coherence, the Directive is coherent with the subsequent work on the European eInvoicing standard. First of all, the Directive called for the creation of a European standard for the semantic data model of core elements in an electronic invoice. Secondly, it listed several requirements for the European standard, which have been successfully reflected in the deliverables of CEN TC 434, confirming the coherence between legislative objectives and standard development. As to the establishment and the work of the European Multi-Stakeholder Forum on eInvoicing (EMSFEI) to support EU policy work on eInvoicing, between 2014 and 2020, all EMSFEI's deliverables complemented and supported the implementation of European standard, addressing potential interoperability challenges.

In terms of external coherence, the Directive is well-aligned with various EU digital policies, including the digitisation of public procurement.

- The Directive is aligned with the 2014 Public Procurement Directives, being an integrated part of the legislative package in pursuing the same objective of digitisation of public administration in a harmonised way, and it is also aligned with public procurement standardisation objectives.

- There is a strong link between the Directive and the 2022 European Commission VAT in the Digital Age (ViDA) legislative proposals[47] as regards the role of eInvoicing in VAT reporting and the establishment of electronic invoicing as a default method, starting in 2028.

- The implementation of eInvoicing and the Directive has been coherent with the provisions of the Late Payment Directive. The EU intervention is also aligned with the 2023 proposal for a Regulation repealing the current Late Payment Directive, as it automates the approval process for eInvoices, streamlining payment procedures and ensuring timely payments.

- As regards the EIF, the eInvoicing Directive effectively addresses interoperability at both the semantic and syntax layers, but not at all the interoperability layers, such as transmission and governance.

- In regard to the Digital Building Blocks, the eInvoicing Building Block provided essential tools to facilitate and validate compliant implementations of the European eInvoicing standard in IT systems and services. At the same time, the eDelivery Building Block provided technical specifications and standards, installable software, and ancillary services to create a network of nodes for the exchange of eInvoices, as well as other secure digital data exchanges.

- In addition, the current activities carried out by the European Commission with its international partners are coherent with the Directive, both in the formal negotiations and during bilateral dialogues. The EU-model model (Peppol-based) has been adopted in several countries outside of the EU, including Australia, Japan, Malaysia, New Zealand, and Singapore.

- The Directive aligns with the overall European standardisation policy by supporting the development and maintenance of the European eInvoicing standard, funded by the European Commission.

EU Added Value

There is a broad consensus among EU Member States that the Directive has produced significant value at the EU level since its adoption in 2014.

From the perspective of national authorities, the main EU contribution consists of limiting the emergence of various national eInvoicing standards.

[47] COM/2022/701 final, Proposal for a COUNCIL DIRECTIVE amending Directive 2006/112/EC as regards VAT rules for the digital age, 8.12.2022, Brussels. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2022%3A701%3AFIN

Relevance

The Directive is still relevant today as the challenges that prompted its adoption in 2014 persist. In addition, new challenges and developments have emerged since its adoption.

Concerning the challenges identified in 2014 that continue to be relevant today, one of the main ones is the uptake of eInvoicing in public procurement. It is noteworthy that while the capabilities for receiving electronic invoices in B2G are present to a certain extent, significant adoption in public procurement is primarily observed only in Member States that have required by law their suppliers to send electronic invoices to public authorities or in digitally mature Member States.

It is important to highlight that the uptake of eInvoicing does not necessarily align with the uptake of the European eInvoicing standard. Some Member States have ensured the uptake of eInvoicing in public procurement by imposing obligations on suppliers, but they have not simultaneously required the use of the European standard. Consequently, the adoption of the European Standard remains lower, as it relies on suppliers' voluntary choice.

Secondly, the challenge of interoperability persists, as all four levels of interoperability defined by the European Interoperability Framework, including transmission and governance, were not fully addressed by the Directive. While interoperability at the semantic and syntax level was identified as a challenge in 2014 and addressed by the EU intervention, transmission has emerged as a main challenge during the implementation of the eInvoicing Directive. This challenge is particularly burdensome for SMEs, which are required to register with multiple platforms to accommodate their customers' preferences. The lack of a mandate for interoperability between public and private eInvoicing platforms and agreement on common transmission methods across the EU stand out as key technical challenges for eInvoicing adoption. Beyond its immediate impact within the public procurement sphere, the Directive has played a role in promoting further harmonisation in the B2B context.

5.2. Lessons Learnt

New developments have taken place since the Directive's adoption. In particular, in line with the ViDA (VAT in the Digital Age) legislative proposals, EU action to ensure that the current European standard evolves to cover all B2B cases would avoid unnecessary burden on companies as they will use the same system to fulfil several obligations. According to the EU standardisation policy reinforced by CEN rules, if there is a European standard for a specific domain, such as eInvoicing, Member States are not allowed to adopt competing national standards. If the European eInvoicing standard is not enforced in B2B, there is a risk of fragmentation within the Internal Market stemming from the use of national non-interoperable technical specifications for B2B eInvoicing. The coherence between the Directive and ViDA is ensured with the current draft legislative proposals, which are, however, subject to evolution during the ongoing political negotiations. In light of the above, coherence between the two legislative instruments appears particularly important.

Monitoring the technical developments and adoption at the EU level also poses challenges due to varying procedures and requirements in the Member States and the absence of an obligation for monitoring and reporting.

As regards technical complexity, businesses, especially SMEs, experienced technical challenges when using eInvoicing, including support for multiple eInvoicing formats, archiving for audit purposes, integration with service providers, data security and privacy concerns, interoperability with trading partners, infrastructure, and connectivity.

Overall, the Directive is a significant achievement in the harmonisation of eInvoicing across Europe and beyond. It has successfully accomplished its goal of interoperability at the semantic and syntax levels, but it did not fully solve all interoperability related issues. Especially, the implementation of the Directive by the Member States showed that addressing interoperability at the transmission level is a critical element for full interoperability.

ANNEX I: PROCEDURAL INFORMATION

Lead DG and internal references

DG GROW is the lead Directorate General for the evaluation of the eInvoicing Directive.

The Decide Planning entry is: PLAN/2022/2793

Organisation and timing

The evaluation was launched in December 2022. The evaluation was coordinated by an InterService Steering Group (ISG), which was established early in the evaluation process and which was consulted on all key deliverables:

- Stakeholder consultation strategy, which set a number or consultation activities comprising a Call for Evidence and targeted consultation activities, in the form of interviews and surveys.
- Call for Evidence, which was open for feedback from 17 March 2023 until 14 April 2023.
- External Evaluation Study, which was conducted by an external contractor between November 2022 and July 2023.
- Report from the Commission to the European Parliament and Council and Commission Staff Working document.

The ISG is composed of DG GROW (unit G4), TAXUD, CNECT, DIGIT, Legal Service and Secretariat General.

Exceptions to the better regulation guidelines

The Better Regulation Guidelines were followed. No exceptions applicable.

Consultation of the RSB (if applicable)

This evaluation was not selected for assessment by the Regulatory Scrutiny Board.

Evidence, sources and quality

The evaluation relies to a large extent on the external support study. During the evaluation the consultant used a mix of approaches including desk research, field research and case studies.

Literature evidence was identified to develop several of the indicators that support the analysis for the evaluation questions and subsequently to identify key information for the development of the answers to the evaluation questions.

ANNEX II. METHODOLOGY AND ANALYTICAL MODELS USED

The evaluation findings rely on different sources and data collection methods, including desk research, stakeholder consultations, a Call for Evidence and interviews.

The Commission published a Call for Evidence in December 2022[48].

A study was commissioned to an external contractor to provide information to support the preparation of the Staff Working Document evaluation and the report to the European Parliament and the Council.

The aim of the desk research was to collect, organise and analyse relevant information from relevant secondary sources. This included statistical data, legislative documents, and relevant reports and studies, such as the KMPG eInvoicing and Digital Reporting global updates[49], as well as data collected by the European Commission in the context of the eProcurement monitoring activities in the Member States and the EC eInvoicing country factsheets[50].

Different stakeholder groups were consulted in the context of the study by developing specific targeted surveys.

- A questionnaire for national authorities was launched on 30 November 2022 and was open until 28 April 2023. Twenty-three Member States responded to the survey. National authorities from Iceland and Norway also provided feedback. Four Member States did not respond (Hungary, Bulgaria, Slovakia, and Spain).

- A survey was published for SMEs, and 100 companies responded. These enterprises were based in Spain, Germany, Italy, Belgium, Sweden, France, and Estonia. There were 63 micro, 16 medium, 18 small, and three did not state their size.

[48] https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13669-Public-procurement-EU-rules-on-electronic-invoicing-in-public-procurement-evaluation-_en

[49] https://kpmg.com/gr/en/home/insights/2022/05/electronic-invoicing-digital-reporting-global-updates.html

[50] https://ec.europa.eu/digital-building-blocks/wikis/display/DIGITAL/eInvoicing+Country+Factsheets+for+each+Member+State+and+other+countries

- A survey was also published for large enterprises, and seven of them responded. These were multinationals, which included sectors such as Energy, Chemical, Retail, and International Shipping.

Professional associations have also been consulted to gather more quantitative data on the uptake of eInvoicing and to use it to triangulate data received by national authorities in Member States. The OpenPeppol Association[51] and GENA, the European Association of the eInvoicing Service Providers, were consulted and contributed to the findings of this study.

The OpenPeppol Association provided feedback based on data from seven of its members. They operate in Denmark, Germany, Italy, Sweden, The Netherlands, and Poland.

GENA responded to the survey based on data from eight members with operations in Belgium, Croatia, Estonia, Hungary, Norway, Portugal, Romania, Slovenia, and Sweden. The largest service provider handled 80 million eInvoices per year.

Interviews with three service providers and Enterprise Resource Planning (ERP) vendors have been conducted to collect more details on why stakeholders hold certain opinions.

Four case studies were carried out based on the desk research and interviews covering the following countries: Croatia, Finland, France, and Italy. These four countries represent different eInvoicing scenarios.

All the analytical findings provide the basis for the evaluation of how the Directive has scored on the evaluation criteria. Each criterion was addressed through evaluation questions.

Assumptions and Limitations

Limitations and robustness of findings

[51] OpenPeppol is a member-driven non-profit Association set up as an Association Internationale Sans But Lucratif (AISBL) under Belgian law. It unites over 500 member-organisations including EU government entities, enterprises and service providers.

While the study was designed to ensure the robustness of the evidence supporting the findings, limitations were identified during the analysis of the gathered information.

Limitations concerning the stakeholder consultation

The information gaps in the three Member States that did not reply at all to the questionnaire were addressed through desk research and insights from the authors. Although the Hungarian Prime Minister's Office provided some feedback on eInvoicing, it contained very limited information. The European Commission's desk officers were contacted to liaise with the non-responsive Member States to improve the response rate. Additionally, additional survey were conducted from 5 May to 30 June 2023 to gather further feedback. Interviews were conducted with two additional service providers, and insights from two webinars with Greek and Swedish stakeholders were integrated into the study's results.

Reaching accounting associations proved challenging, and no data were directly received from them through the surveys. However, this limitation was compensated for through comprehensive desk research.

Limitations concerning data availability

As there is no obligation for Member States to report on eInvoicing transactions, only a few national authorities provided detailed information, and even fewer at the cross-border level. While data availability has improved in recent years, estimates for pre-2019 had to be used, and triangulation with other data sources was performed. The evaluation relies primarily on stakeholder-reported data and data published on national authorities' portals.

ANNEX III. EVALUATION MATRIX

This annex encompasses three distinct Evaluation Matrices — for National Authorities, Economic Operators, and Service Providers. These matrices serve as structured tools, each designed to assess specific entities' effectiveness, efficiency, EU added value, coherence, and relevance within their domains. With tailored evaluation criteria and mapped questions.

Annex III.1 Evaluation Matrix National Authorities

This matrix evaluates National Authorities' performance through criteria such as effectiveness, efficiency, EU added value, relevance, and coherence. With 48 mapped questions, it assesses key aspects such as the implementation of eInvoicing mandates and alignment with VAT digital reporting, ensuring compliance with EU standards and directives.

Evaluation Criteria	**Evaluation Question**		**Indicator**	**Data sources and collection methods**
Effectiveness	**1. To what extent has the Directive and the introduction of the EN 16931 contributed to foster the functioning of Internal market?**		Perception (1:low ; 5:high)	Questionnaire*
	How was this achieved?		Feedback	Questionnaire
	Please indicate if there are still challenges that have to be addressed to facilitate cross-border eInvoicing related to any of the following aspects.	Semantic data model:	Perception (1:low ; 5:high)	Questionnaire
		Syntax:	Perception (1:low ; 5:high)	Questionnaire
		Transmission:	Perception (1:low ; 5:high)	Questionnaire
		Governance:	Perception (1:low ; 5:high)	Questionnaire
		Legal certainty:	Perception (1:low ; 5:high)	Questionnaire

	Organisational	Perception (1:low ; 5:high)	Questionnaire
	Other, please describe:	Feedback	Questionnaire
2. Is electronic invoicing mandatory for businesses in your country?	B2G:	Yes/No	National portals; KPMG reports; EC eInvoicing fact sheets
	B2B:	Yes/No	National portals; KPMG reports; EC eInvoicing fact sheets
	B2C:	Yes/No	National portals; KPMG reports; EC eInvoicing fact sheets
	Comment:	Feedback	Questionnaire
Since when (for B2G; B2B; B2C; etc.)?	B2G	Year	National portals; KPMG reports; EC eInvoicing fact sheets
	B2B:	Year	National portals; KPMG reports; EC eInvoicing fact sheets
	B2C:	Year	National portals; KPMG reports; EC eInvoicing fact sheets
If not, are there plans to make electronic invoicing mandatory in your		Yes/No	Questionnaire

country?			
As part of the mandate, are there any standard or format foreseen?		Yes/No	Questionnaire
3. What is the national eInvoicing strategy in the medium (2023-2024) and long term (2025-2030)?		Feedback	Questionnaire
4. What is the strategy for ensuring cross-border eInvoicing interoperability?		Feedback	Questionnaire
5. Is eInvoicing currently used for VAT digital reporting?		Yes/No	Questionnaire
If not, is eInvoicing planned to be used for VAT digital reporting?		Yes/No	Questionnaire
Comment:		Feedback	Questionnaire
6. Is eInvoicing data used, or planned to be used, for decision-making and policy purposes?		Yes/No	Questionnaire
Please describe how eInvoice data are used, or planned to be used:	Financial planning:	Feedback	Questionnaire
	Fiscal monitoring:	Feedback	Questionnaire
	environmental impact :	Feedback	Questionnaire
	energy consumption:	Feedback	Questionnaire
	water consumption:	Feedback	Questionnaire
	Sustainable Development	Feedback	Questionnaire

	Goals (SDGs):		
	Other, please describe:	Feedback	Questionnaire
7. What technologies are used and planned to be used to leverage invoice data and the use cases?		Technology type	Questionnaire
8. Is anonymised or aggregated invoice data published as Open Data?		Select Anonymised / Aggregated	Questionnaire
9. What was the eInvoicing (i.e. structured data) uptake in your country before or at the time of the introduction of the Directive 2014/55/EU in B2G and B2B transactions?	B2G, in 2013 or 2014:	Number of eInvoices	Questionnaire; national portals; desk research
	B2G, in 2013 or 2014:	Percentage of eInvoices	Questionnaire; national portals; desk research
	B2B, in 2013 or 2014:	Number of eInvoices	Questionnaire; national portals; desk research
	B2B, in 2013 or 2014:	Percentage of eInvoices	Questionnaire; national portals; desk research
	Please, comment and/or provide a link to relevant survey or data already gathered in your country:	Feedback	Questionnaire

10. To what extent has Directive 2014/55/EU and the introduction of the EN 16931 contributed to increasing the adoption of eInvoicing in your country in B2G and B2B transactions?	Please indicate impact on uptake in B2G:	Perception (1:low ; 5:high)	Questionnaire
	Please indicate impact on uptake in B2B:	Perception (1:low ; 5:high)	Questionnaire
	Please, comment and/or provide a link to relevant survey or data already gathered in your country:	Feedback	Questionnaire
11. What is the number of Public Contracting Authorities using eInvoicing?	2019	Number of CAs	Questionnaire
	2020	Number of CAs	Questionnaire
	2021	Number of CAs	Questionnaire
12. What is the number of public contracting authorities and entities using eInvoicing compliant with the EN 16931, versus the total number of public contracting authorities and entities in your country?	2019	Number of CAs	Questionnaire
	2020	Number of CAs	Questionnaire
	2021	Number of CAs	Questionnaire
13. What is the number of suppliers sending eInvoices for public procurement contracts?	2019	Number of Economic Operators	Questionnaire
	2020	Number of Economic Operators	Questionnaire
	2021	Number of Economic Operators	Questionnaire

14. Is eInvoicing mandatory to suppliers for contracts below the EU thresholds?		Yes/No	Questionnaire; national law;
15. To what extent (i.e. percentage) is the EN 16931 used in eInvoicing in your country versus other format (e.g. national formats)? Please include the percentage of EN 16931 compliant eInvoices over the total number of eInvoices for the following years	2019	Perception (1:low ; 5:high)	Questionnaire
	2020	Perception (1:low ; 5:high)	Questionnaire
	2021	Perception (1:low ; 5:high)	Questionnaire
Please, comment and/or provide a link to relevant survey or data already gathered in your country:		Feedback	Questionnaire
16. How many B2G eInvoices from national suppliers does the Public Sector in your country receive on a yearly basis? **- Central level**	2019	Number of eInvoices	Questionnaire; desk research; national portals
	2020	Number of eInvoices	Questionnaire; desk research; national portals
	2021	Number of eInvoices	Questionnaire; desk research; national portals
- Sub-central level	2019	Number of eInvoices	Questionnaire; desk research; national portals
	2020	Number of eInvoices	Questionnaire; desk research; national

			portals
	2021	Number of eInvoices	Questionnaire; desk research; national portals
Please, comment:		Feedback	Questionnaire
17. How many B2G eInvoices from foreign suppliers does the Public Sector receive on a yearly basis?	B2G 2019	Number of eInvoices	Questionnaire
	B2G 2020	Number of eInvoices	Questionnaire
	B2G 2021	Number of eInvoices	Questionnaire
18. What is the percentage of public procurement Contract Notices (CN) in your country including an eInvoicing requirement?	B2G 2020	Number of eInvoices	Questionnaire
	B2G 2021	Number of eInvoices	Questionnaire
19. Is the PEPPOL eDelivery network used in your country?		Yes/No	Questionnaire; desk research
Please comment:		Feedback	Questionnaire
If yes, how many B2G eInvoices are exchanged via PEPPOL	B2G 2019	Number of eInvoices	Questionnaire; desk research
	B2G 2020	Number of eInvoices	Questionnaire; desk research
	B2G 2021	Number of eInvoices	Questionnaire; desk research

Please comment		Feedback	Questionnaire
20. How many eInvoices are exchanged in the B2B sector at a domestic level	Domestic 2019	Number of eInvoices	Questionnaire; desk research
	Domestic 2020	Number of eInvoices	Questionnaire; desk research
	Domestic 2021	Number of eInvoices	Questionnaire; desk research
the number of B2B eInvoices exchanged at a cross-border level	Cross-border 2019	Number of eInvoices	Questionnaire; desk research
	Cross-border 2020	Number of eInvoices	Questionnaire; desk research
	Cross-border 2021	Number of eInvoices	Questionnaire; desk research
21. Please indicate the percentage of eInvoices based on the EN 16931 over the total number of eInvoices in your country in B2G and B2B eInvoices	B2G:2019	Percentage of eInvoices	Questionnaire; desk research
	B2G: 2020	Percentage of eInvoices	Questionnaire; desk research
	B2G: 2021	Percentage of eInvoices	Questionnaire; desk research
	B2B: 2019	Percentage of eInvoices	Questionnaire; desk research

	B2B: 2020	Percentage of eInvoices	Questionnaire; desk research
	B2B: 2021	Percentage of eInvoices	Questionnaire; desk research
22. To what extent has the national policy been effective in increasing the adoption of eInvoicing?		Perception (1:low ; 5:high)	Questionnaire
Please comment		Feedback	Questionnaire
23. If applicable, please describe the reasons for not achieving high levels of eInvoicing adoption in your country (in B2G and B2B transactions)		Feedback	Questionnaire
24. Describe the most effective measures that could further increase eInvoicing adoption at EU and national level	**Mandatory B2B:**	Perception (1:low ; 5:high)	Questionnaire
	Mandatory B2G:	Perception (1:low ; 5:high)	Questionnaire
	Economic incentives:	Perception (1:low ; 5:high)	Questionnaire
	education and awareness:	Perception (1:low ; 5:high)	Questionnaire
	integration	Perception (1:low ; 5:high)	Questionnaire
	Please, provide your comments:	Feedback	Questionnaire
25. To what extent has it influenced your policy decision for eInvoicing in B2G and B2B transactions (going beyond the mandatory	**B2G transactions**	Perception (1:low ; 5:high)	Questionnaire
	B2B transactions	Perception (1:low ; 5:high)	Questionnaire

provisions of the Directive)?	**Please, comment:**	Feedback	Questionnaire
26. To what extent has Directive 2014/55/EU increased legal certainty for eInvoicing requirements and reduced technical complexity?		Perception (1:low ; 5:high)	Questionnaire
27. To what extent the following factors have contributed to achieving this objective?	**Clear legal basis**	Perception (1:low ; 5:high)	Questionnaire
	Common specifications	Perception (1:low ; 5:high)	Questionnaire
	Training	Perception (1:low ; 5:high)	Questionnaire
	Other, please describe:	Feedback	Questionnaire
28. Since the transposition of the Directive 2014/55/EU and the EN 16931, has your country experienced the expected benefits associated with eInvoicing in any of the following areas?	**Operational efficiencies:**	Feedback	Questionnaire
	Tax revenues:	Feedback	Questionnaire
	Improved transparency:	Feedback	Questionnaire
	Social benefits:	Feedback	Questionnaire
	Environmental benefits:	Feedback	Questionnaire
	Others, please describe:	Feedback	Questionnaire
29. What are the drivers behind these benefits?	**Process automation:**	Perception (1:low ; 5:high)	Questionnaire
	Common standard:	Perception (1:low ; 5:high)	Questionnaire
	Less complexity:	Perception (1:low ; 5:high)	Questionnaire
	Faster/timely	Perception (1:low ; 5:high)	Questionnaire

		processing:		
		Other, please describe:	Feedback	Questionnaire
	30. Which stakeholders have benefitted the most?	**Central Authorities:**	Perception (1:low ; 5:high)	Questionnaire
		Sub-central Authorities:	Perception (1:low ; 5:high)	Questionnaire
		Large corporates:	Perception (1:low ; 5:high)	Questionnaire
		Medium and small:	Perception (1:low ; 5:high)	Questionnaire
		Micro-enterprises:	Perception (1:low ; 5:high)	Questionnaire
		Service providers:	Perception (1:low ; 5:high)	Questionnaire
		Other	Feedback	Questionnaire
Efficiency	**31. To what extent has it lowered operating cost for economic operators participating in cross-border public procurement?**	**Please indicate:**	Perception (1:low ; 5:high)	Questionnaire
	32. Did your country incur costs solely related to transposing the Directive 2014/55/EU and ensuring compliance with EN 16931?		Yes/No	Questionnaire
	33. If so what are these costs	**Purchase software / hardware:**	Actual cost	Questionnaire
		Training costs:	Actual cost	Questionnaire
		Change management:	Actual cost	Questionnaire

Economic (implementation) costs	**Test environment:**	Actual cost	Questionnaire
	Service providers fees:	Actual cost	Questionnaire
	Other, please describe:	Actual cost	Questionnaire
Social costs	**Reduced number of staff working on manual invoicing:**	Actual cost	Questionnaire
	Number of staff redeployed in value added activities:	Actual cost	Questionnaire
Environmental costs	**Higher electricity usage due to processing power and data storage space:**	Actual cost	Questionnaire
	Increase in long term of electronic waste products:	Actual cost	Questionnaire
	Other, please describe:	Feedback	Questionnaire
34. Have EU funds been used to ensure compliance?		Yes/No	Questionnaire
Please indicate:	**Name of the EU funding programme:**	Name of fund	Questionnaire
	Requested funding (in euro):	Amount	Questionnaire

	Year:	Year	Questionnaire
35. Which stakeholders have borne the highest costs?	**Large CAs:**	Perception (1:low ; 5:high)	Questionnaire
	Small CAs:	Perception (1:low ; 5:high)	Questionnaire
	Large corporates:	Perception (1:low ; 5:high)	Questionnaire
	Small and Medium:	Perception (1:low ; 5:high)	Questionnaire
	Micro-enterprises:	Perception (1:low ; 5:high)	Questionnaire
	Service Providers	Perception (1:low ; 5:high)	Questionnaire
	Other	Feedback	Questionnaire
36. To what extent the overall benefits outweighed the costs in your country?		Perception (1:low ; 5:high)	Questionnaire
37. What is the perceived legal certainty introduced by the Directive and the technical simplification provided through the use of a common EU eInvoicing standard?		Perception (1:low ; 5:high)	Questionnaire
38. What is the perceived cost reduction as a result of the Directive and the EN 16931		Perception (1:low ; 5:high)	Questionnaire
39. What measures and policy options could the European Commission implement to further increase the efficiency of the intervention?		Feedback	Questionnaire
40. Did you calculate a return on investment (ROI) for eInvoicing in your country, or did you quantify the overall benefits?		Yes/No	Questionnaire

	If yes, please provide the quantitative benefits (e.g. overall savings, ROI, number of years to recover the costs, etc.):	Savings amount	Questionnaire
	Please, comment:	Feedback	Questionnaire
	41. Was there a cost burden associated with ensuring the national format complied with the EN 16931?	Yes/No	Questionnaire
	If so, what is the estimated cost (in euro)?	Cost amount	Questionnaire
	If yes, did the benefits outweigh the costs, and why?	Feedback	Questionnaire
EU Added Value	**42. Could the objectives of the Directive, in particular EU-wide interoperability, be achieved sufficiently by the Member States acting alone?**	Yes/No	Questionnaire
	43. Briefly describe the positive effects of the Directive 2014/55/EU (e.g. facilitating cross-border eInvoicing and/or cross-border public eProcurement, etc.):	Feedback	Questionnaire
	44. Were there benefits in replacing different national policies and rules with a more homogenous policy approach (to address the challenges related to the existence of multiple eInvoicing formats and systems that were not interoperable)? Please indicate:	Perception (1:low ; 5:high)	Questionnaire
	Please, comment:	Feedback	Questionnaire
Relevance	**45. To what extent do the needs and problems addressed by the Directive 2014/55/EU continue to require action at EU level?**	Perception (1:low ; 5:high)	Questionnaire
	46. Please describe the needs and the **in B2G:**	Perception (1:low ; 5:high)	Questionnaire

	problems that are still relevant in your country in the eInvoicing context	**in B2B:**	Perception (1:low ; 5:high)	Questionnaire
Coherence	**47. To what extent is the Directive 2014/55/EU and the publication of the EN 16931 consistent with other EU and national interventions that have similar objectives to:**	**digitisation of public procurement:**	Perception (1:low ; 5:high)	Questionnaire
		Promoting European standards:	Perception (1:low ; 5:high)	Questionnaire
		Improving interoperability:	Perception (1:low ; 5:high)	Questionnaire
		Fostering the Internal Market:	Perception (1:low ; 5:high)	Questionnaire
		Reducing technical complexity:	Perception (1:low ; 5:high)	Questionnaire
		Improving legal certainty:	Perception (1:low ; 5:high)	Questionnaire
		Lowering operating costs for economic operators:	Perception (1:low ; 5:high)	Questionnaire
		Please, comment:	Feedback	Questionnaire

	48. What other measures that could be introduced at the EU and national level to increase the coherence of policies and initiatives with similar objectives?	Feedback	Questionnaire

* Questionnaire refers to the questionnaire of national authorities

Annex III.2 Evaluation Matrix Economic Operators

This matrix puts a focus on Economic Operators, this matrix evaluates criteria of effectiveness, efficiency, and uptake related to eInvoicing. With 21 mapped questions, it examines elements such as the clarity of legal requirements and seeks measures to enhance eInvoicing adoption among EU businesses, aiming to streamline operations and improve compliance with both national and European standards.

Evaluation Criteria	**Evaluation Question**	**Indicator**	**Data sources and collection methods**
Effectiveness: Internal Market	**1. Are you aware of a European eInvoicing standard?**	Yes/No	Questionnaire
	If yes do you use or plan to use it?		
	Comments:	Feedback	Questionnaire
	2. To what extent could the EU eInvoicing standard simplify intra-EU trade with other enterprises (or public bodies)?	Perception (1:low, 5:high)	Questionnaire

	Comment	Feedback	Questionnaire
	3. Are you aware of Peppol or eDelivery?	Yes/No	Questionnaire
	If yes, are you using it or planning to use it, and why?	Feedback	Questionnaire
	Comment	Feedback	Questionnaire
	4. Would you welcome the general acceptance of using only one European eInvoicing standard for trade across the EU (for business-to-business and business-to-government transactions)?	Yes/No	Questionnaire
	Comment	Feedback	Questionnaire
	5. Would you welcome the general acceptance of selected common methods to exchange eInvoices (i.e. transmission protocols) for trade across the EU?	Yes/No	Questionnaire

	Comment		Feedback	Questionnaire
Effectiveness: Reduce complexity and improve clarity and legal certainty	**6. To what extent are the national legal eInvoicing requirements clear and accessible?**		Perception (1:low, 5:high)	Questionnaire
	Comment		Feedback	Questionnaire
	7. To what extent are eInvoicing requirements in other European Member States that you trade with clear and accessible?		Perception (1:low, 5:high)	Questionnaire
	Comment		Feedback	Questionnaire
	8. What is the ERP system/accounting software used (or planned to be used)?		Feedback	Questionnaire
	9. Who is your eInvoicing service provider?		Feedback	Questionnaire
	Comment		Feedback	Questionnaire
	10. What are the main services used (or planned to	Integration with	Select all that apply	Questionnaire

	be used)?	ERP system:		
		Handling of electronic orders, dispatch advices:	Select all that apply	Questionnaire
		Onboarding suppliers:	Select all that apply	Questionnaire
		Technical support for suppliers:	Select all that apply	Questionnaire
		Invoice validation:	Select all that apply	Questionnaire
		Compliance testing facilities:	Select all that apply	Questionnaire
		Reporting and analytics:	Select all that apply	Questionnaire
		Compliance with eInvoice legal requirements:	Select all that apply	Questionnaire
		Other:	Feedback	Questionnaire
	Would you plan to use an eInvoicing service provider also to fulfil your VAT-reporting obligations (based on the legislative proposal on VAT in the Digital Age)?		Yes/No	Questionnaire

	Comment		Feedback	Questionnaire
	11. Do you use or plan to use the European eInvoicing standard?		Yes/No	Questionnaire
	Comment		Feedback	Questionnaire
	12. Which format do you use to send elnvoices to foreign companies?	European eInvoicing standard	Select all that apply	Questionnaire
		Proprietary format	Select all that apply	Questionnaire
		No format	Select all that apply	Questionnaire
		Other, please specify	Feedback	Questionnaire
	13. What eInvoicing formats/syntaxes do you support?	EDIFACT or EANCOM	Select all that apply	Questionnaire
		UN/CEFACT XML	Select all that apply	Questionnaire
		UBL	Select all that apply	Questionnaire
		National mandatory format	Select all that apply	Questionnaire

		Other, please specify	Feedback	Questionnaire
Efficiency	**14. What costs do you associate with eInvoicing?**	Setup fee:	Actual cost	Questionnaire
		Hardware - Once-off cost: - Recurring annual cost:	Actual cost	Questionnaire
		Software - Once-off cost: - Recurring annual cost:	Actual cost	Questionnaire
		Training internal staff:	Actual cost	Questionnaire
		Legal and regulatory compliance cost (e.g. professional advice):	Actual cost	Questionnaire
		Service provider fees - Subscription fees: - Transaction fee for sending an eInvoice: - Transaction fee	Actual cost	Questionnaire

		for receiving an eInvoice:		
		vii. Any other cost:	Actual cost	Questionnaire
	Comment		Feedback	Questionnaire
	15. What are the main eInvoicing benefits perceived?)	Improved interoperability in supply chains:	Perception (0:none, 5:high)	Questionnaire
		Reduction in operating costs:	Perception (0:none, 5:high)	Questionnaire
		Reuse the data, such as for digital VAT reporting:	Perception (0:none, 5:high)	Questionnaire
		Easier to invoice public bodies:	Perception (0:none, 5:high)	Questionnaire
		Easier to invoice large enterprises:	Perception (0:none, 5:high)	Questionnaire
		Improved efficiency:	Perception (0:none, 5:high)	Questionnaire
		Increased accuracy:	Perception (0:none, 5:high)	Questionnaire
		Improved data	Perception (0:none, 5:high)	Questionnaire

		quality:		
		Enhanced security:	Perception (0:none, 5:high)	Questionnaire
		Enhanced sustainability:	Perception (0:none, 5:high)	Questionnaire
		Other, please comment:	Feedback	Questionnaire
	16. What are the main technical challenges?	Interoperability with trading partners:	Perception (0:none, 5:high)	Questionnaire
		Integration with service providers:	Perception (0:none, 5:high)	Questionnaire
		Infrastructure and connectivity:	Perception (0:none, 5:high)	Questionnaire
		Support for multiple eInvoicing formats:	Perception (0:none, 5:high)	Questionnaire
		Data security and privacy concerns:	Perception (0:none, 5:high)	Questionnaire
		Archiving invoices for audit purposes:	Perception (0:none, 5:high)	Questionnaire
		Other, please	Feedback	Questionnaire

		comment:		
Uptake	**17. What percentage of electronic invoices from suppliers are *processed* automatically?**	2019:	Number of eInvoices	Questionnaire
		2020:	Number of eInvoices	Questionnaire
		2021:	Number of eInvoices	Questionnaire
		2022:	Number of eInvoices	Questionnaire
	18. Do you *send* electronic invoices to public entities (B2G)?		Yes/No	Questionnaire
	Please enter the number of B2G eInvoices sent by year in the European Union	2019:	Number of eInvoices	Questionnaire
		2020:	Number of eInvoices	Questionnaire
		2021:	Number of eInvoices	Questionnaire
		2022:	Number of eInvoices	Questionnaire
	19. Do you *send* electronic invoices to enterprises (B2B)?		Yes/No	Questionnaire
	Please enter the number of B2B eInvoices sent per year	Domestic 2019:	Number of eInvoices	Questionnaire
		Domestic 2020:	Number of eInvoices	Questionnaire
		Domestic 2021:	Number of eInvoices	Questionnaire

		Domestic 2022:	Number of eInvoices	Questionnaire
		Intra-EU 2019:	Number of eInvoices	Questionnaire
		Intra-EU 2020:	Number of eInvoices	Questionnaire
		Intra-EU 2021:	Number of eInvoices	Questionnaire
		Intra-EU 2022:	Number of eInvoices	Questionnaire
		Total 2019:	Number of eInvoices	Questionnaire
		Total 2020:	Number of eInvoices	Questionnaire
		Total 2021:	Number of eInvoices	Questionnaire
		Total 2022:	Number of eInvoices	Questionnaire
	20. Do you *receive* electronic invoices from enterprises (B2B) in the European Union?		Yes/No	Questionnaire
	Please enter the number of B2B eInvoices received per year (if no distinction from domestic and intra-EU can be made, please provide totals)	Domestic 2019:	Number of eInvoices	Questionnaire
		Domestic 2020:	Number of eInvoices	Questionnaire
		Domestic 2021:	Number of eInvoices	Questionnaire
		Domestic 2022:	Number of eInvoices	Questionnaire

		Intra-EU 2019:	Number of eInvoices	Questionnaire
		Intra-EU 2020:	Number of eInvoices	Questionnaire
		Intra-EU 2021:	Number of eInvoices	Questionnaire
		Intra-EU 2022:	Number of eInvoices	Questionnaire
		Total 2019:	Number of eInvoices	Questionnaire
		Total 2020:	Number of eInvoices	Questionnaire
		Total 2021:	Number of eInvoices	Questionnaire
		Total 2022:	Number of eInvoices	Questionnaire
	21. What are the measures that should be taken to increase eInvoicing adoption among EU businesses? (select all that apply)	• eInvoicing functionality built into ERP/Accounting systems:	Select all that apply	Questionnaire
		• Education and awareness:	Select all that apply	Questionnaire
		• Technical support:	Select all that apply	Questionnaire
		• Funding:	Select all that apply	Questionnaire
		• Earlier payment	Select all that apply	Questionnaire

		from customers:		
		• eInvoicing used for VAT Reporting:	Select all that apply	Questionnaire
		• Mandatory use of eInvoicing at national level in B2G and B2B:	Select all that apply	Questionnaire
		• Other:	Select all that apply	Questionnaire
	Comment		Feedback	Questionnaire

Annex III.3 – Evaluation Matrix Service Providers

Centered on Service Providers, this matrix evaluates effectiveness, efficiency, EU added value, and coherence. With 45 mapped questions, it assesses items such as interoperability challenges and measures to improve collaboration among service providers. It aims to analyse data to address existing hurdles and foster more efficient and integrated services across sectors.

Evaluation Criteria	**Evaluation question**	**Indicator**	**Data sources and collection methods**

Effectiveness	**Objective 1 – Internal market and interoperability**		
	To what extent has the European Standard (EN 16931) improved the facilitation of cross-border eInvoicing?	Please indicate the perception: 1 (very low) to 5 (very high)	Questionnaire
	Since the introduction of the EN 16931, to what extent has interoperability for cross-border eInvoicing advanced?	Interoperability achieved with other Service/Solution Providers: from 0 to 5: - Low interoperability = 0 - High Interoperability = 5	Questionnaire
	What are the issues still hampering interoperability?	Please indicate if the issues are related to any of the following interoperability layers:	Questionnaire
		Semantic and Syntax	Questionnaire
		Technical (incl. transmission)	Questionnaire
		Governance	Questionnaire
		Legal	Questionnaire
		Organisational	Questionnaire
		Other (please describe)	Questionnaire

What measures could improve interoperability?	Feedback	Questionnaire
When was your solution EN compliant and ready to process eInvoices?	Please indicate the indicative time (Month / Year)	Questionnaire
Has EN 16931 and its mandate in law the potential to increase your uptake of clients?	Please indicate: for B2G 1 (very low) to 5 (very high) for B2B 1 (very low) to 5 (very high)	Questionnaire
What would further increase or decrease the uptake e.g. mandating business to send, mandate B2B?	Feedback	Questionnaire
How many eInvoices has your organisation exchanged in the B2G sector at domestic level?	number of eInvoices	Questionnaire
How many eInvoices has your organisation exchanged in the B2G sector at cross-border level?	number of eInvoices	Questionnaire
How many of the B2G eInvoices exchanged are compliant with the EN 16931?	Number or percentage of compliant eInvoices	Questionnaire
How many eInvoices has your organisation exchanged in the B2B sector at domestic level?	Number of invoices	Questionnaire
How many eInvoices has your organisation exchanged in the B2B sector at cross-border level?	Number of invoices	Questionnaire
How many B2B eInvoices are compliant with the EN 16931?	Number or percentage of	Questionnaire

	compliant eInvoices	
Objective 2 - Reduce complexity and improve clarity and legal certainty		
To what extent has Directive 2014/55/EU and the introduction of the EN 16931 reduced complexity and increased compliance for eInvoicing requirements?	Indicate: 1 (very low) to 5 (very high)	Questionnaire
What are they key factors that have contributed to achieving this objective?	Please select one or more of the following: 1. Clear national legal basis; 2. Less complex technical specifications; 3. Support and Training provided at National/EU level; 4. Other (please describe). 5. N/A	Questionnaire
What are the issues that still have to be tackled in this area, especially in the area of reducing complexity?	Feedback	Questionnaire
Objective 3 - Lowering operating cost (method)		
Since the introduction of the Directive and the EN 16931, has your organisation experienced the expected benefits associated with eInvoicing in any of the following areas?	Please indicate: - Operational efficiencies - Improved transparency - Social benefits - Others, please describe	Questionnaire

	15.1 What are the drivers behind these benefits?	Please indicate: - process automation - common standard - less complexity - faster/timely processing - other (please describe)	Questionnaire
Efficiency	**Did your organisation incur costs solely related to transposing the Directive and ensuring compliance with EN 16931?**	Yes / No	Questionnaire
	If so, what were those costs?		
	Economic (implementation) costs	- Purchase software / hardware - Training costs - Change management - Test environment - Service providers fees - Other (please describe)	Questionnaire

Social costs	- Reduced number of staff working on mapping; - Number of staff redeployed in value added activities	Questionnaire
Environmental costs	- Higher electricity usage due to processing power and data storage space; - Increase in long term of electronic waste products; - Other (please describe)	Questionnaire
If yes, did the benefits outweigh the costs?	Perception: 1 (very low) to 5 (very high)	Questionnaire
Have EU funds been used to ensure compliance with the EN 16931 in your organisation?	- Name of the EU funding programme: - Requested funding (in euro): - Year:	Questionnaire
To what extent the overall benefits outweighed the costs in your organisation?	Perception: 1 (very low) to 5 (very high)	Questionnaire
For organisations in Member States that use a national format in parallel with the European standard		

	Was there a cost burden associated with ensuring the national format complied with the European standard? If so, what is the estimated cost?	Estimated cost	Questionnaire
	If yes, did the benefits outweigh the costs?	Yes / No	Questionnaire
	Why?	Feedback	
	What is the perceived simplification and cost reduction potential of the EU intervention (compared to the scenario of the EU taking no action)?	Perception: 1 (very low) to 5 (very high)	Questionnaire
	What measures could the European Commission implement to further increase the efficiency of the intervention?	Feedback	Questionnaire
	Did you calculate a return on investment (ROI) for eInvoicing in your organisation?	Yes / No	Questionnaire
	If yes, what was the ROI?	ROI value	Questionnaire
	If yes, how many years to recover the cost (ROI)	Estimated number of years	Questionnaire
EU Added Value	**Could the objectives of the Directive, in particular EU-wide interoperability, be achieved sufficiently by the Member States acting alone?**	Yes/No/Some	Questionnaire
	In the absence of EU level action, to what extent would your Government have had the ability or possibility to put in place appropriate measures to	Perception: 1 (very low) to 5 (very high)	Questionnaire

achieve the objectives?		
In case the initial problem and its causes (e.g. multiple eInvoicing formats and non-interoperable systems) varied across the national, regional and local levels, did the EU level action help establish a level playing field?	Yes/No/Some	Questionnaire
Were there significant cross-border aspects being tackled, such as facilitating cross-border eInvoicing (either in B2G and B2B) and/or public eProcurement by the Directive?	feedback	Questionnaire, Eurostat
Could these be quantified?	% change of cross-border eInvoices, and/or % change of cross-border tenders	Questionnaire, Eurostat
Were there clear benefits from EU level action?	Perception: 1 (no clear benefits) to 5 (very clear benefits)	Impact Assessment
If yes, please describe them	Feedback	Questionnaire
What is the additional value resulting from the introduction of the Directive and the EN 16931, compared to what could have reasonably been achieved (in terms of effectiveness and efficiency) by Member States acting at national and/or regional levels?	Feedback	Questionnaire, Desk Research
Did you find the EU supporting initiatives that were put in place beneficial?	Yes / No	Questionnaire
Which of the EU supporting initiatives that were put in place did you find beneficial?	Select all the applicable ones: 1. CEN/TC 434 Development of the EN	Questionnaire

		2. EMSFEI (European Multi Stakeholder Forum on eInvoicing 3. EU funding to public and private stakeholders 4. CEF eInvoicing Test Bed 5. CEF eDelivery Test Bed 6. EC eInvoicing Support Desk 7. CEF Stakeholder Management Office 8. Other (please describe)	
	Were there EU economies of scale and services sharing (larger benefits per unit cost)?	Yes / No	Questionnaire, Desk Research
	Were there benefits in replacing different national policies and rules with a more homogenous policy approach?	Perception 1 (very low) to 5 (very high)	Questionnaire, Desk Research
	Is it still valid today to assume that the objectives of the Directive 2014/55/EU can best be met by action at EU level?	Yes / No	Questionnaire, Desk Research
	Has the reduction in complexity allowed for a more streamlined workforce? If yes, has this afforded your organisation more opportunities for innovation?		
Coherence	**To what extent do the needs/problems addressed by the Directive 2014/55/EU continue to require action at EU level?**	Perception 1 (very low) to 5 (very high)	Questionnaire + Interview with SP
	Please describe the needs and the problems that are still relevant in your	Feedback	Questionnaire +

organisation in the eInvoicing context (B2G and B2B), if any.		Interview with SP
To what extent did the scope (B2G eInvoicing) and the main three objectives of the EU intervention remain relevant over the implementation period in your organisation?	Perception 1 (very low) to 5 (very high)	Interview with SP; Desk Research
To what extent have the circumstances changed in the meantime, so much that the provisions of the Directive have to be adapted to future needs and trends (e.g. increased digitisation; use of eInvoicing compliant with the EN 16931 for VAT reporting of intra-EU transactions; etc.)?	Perception 1 (very low) to 5 (very high)	Interview with SP; Desk Research
How well adapted is the Directive and the EN 16931 to the technological advances that have appeared since its introduction?	Perception 1 (very low) to 5 (very high)	Interview with SP; Desk Research
How well adapted is the Directive and the EN 16931 to the UN Sustainable Development Goals?	Perception 1 (very low) to 5 (very high)	Interview with SP; Desk Research
How did the objectives of the EU intervention (legislative or spending measure) correspond to wider EU policy goals and priorities?	Feedback	Internal analysis
To what extent is this intervention consistent with other EU and national interventions that have similar objectives to:		
- Improving interoperability	Perception 1 (very low) to 5 (very high)	Questionnaire + Desk research
- Fostering the Internal Market	Perception 1 (very low) to 5 (very high)	Questionnaire + Desk research
- Reducing complexity	Perception 1 (very low) to 5 (very high))	Questionnaire + Desk research

	- Improving legal certainty	Perception 1 (very low) to 5 (very high)	Questionnaire + Desk research
	- Lowering operating costs for economic operators	Perception 1 (very low) to 5 (very high)	Questionnaire + Desk research

ANNEX IV. OVERVIEW OF BENEFITS AND COSTS

This annex provides an overview of eInvoicing cost-benefits, results of desk research conducted on eInvoicing pricing models and fees offered by commercial operators and results from SMEs survey conducted as a part of the stakeholder consultation in relation to the eInvoicing costs? They have incurred, if any.

The public sector is responsible for 15-18% of all purchases in a country. It represents typically **9-15%** of a country's inbound and outbound invoices[52].

The annual invoice volume was estimated to reach 36 billion invoices in 2016, 50% of the complete volume were B2G and B2B invoices[53]. Each year 18 billion B2B and B2G invoices were sent within EU[54]. B2G volumes are estimated between 3.24 and 5.4 billion in Europe.

The analysis indicates the benefits of automation per eInvoice issued of EUR 5.28 and EUR 8.4 per eInvoice received, when labour cost per hour is estimated at EUR 46.

The results of the SME survey show that costs vary depending on the package they select and the volumes of eInvoices handled. Free-of-charge are also available. All the SMEs surveyed have purchased eInvoice packages at fixed yearly costs while three SMEs purchased eInvoice packages with fixed costs and variable fees depending on transaction volumes. Pricing per eInvoice transaction range from EUR 0.05 (when a EUR 2 500 set-up fee was part of the package) to EUR 0.30 (when an annual fee of EUR 550 was part of the package).

[52] Billentis, The International E-Invoicing market development and the role of key stakeholders, Forum Elektronicznego Fakturowania, 23rd October 2012.
[53] https://www.ecb.europa.eu/paym/intro/mip-online/2016/html/mip_qr_1_article_4_e-invoicing.en.html
[54] Https ://www.ecb.europa.eu/paym/intro/mip-online/2016/html/mip_qr_1_article_4_e-invoicing.en.html

Table 1. Overview of costs and benefits identified in the evaluation[55]					
		Businesses		Administrations	
		Quantitative	Qualitative	Quantitative	Qualitative
[Cost or Benefit description]:					
Mark the type of cost/benefit, each on a separate line: **Costs:** Direct compliance costs (adjustment costs, administrative costs) **Benefits:**	**Type:** Choose **one-off or recurrent**		Pricing models for eInvoicing services and solutions vary. They include the following categories: - Use based - Transactions based - Recurrent subscription fees - Functionality based - Pay per use	Direct compliance costs vary per category and Member State. Costs range from EUR 145 000 (in Lithuania) to EUR 6 100 000 in Poland.	The adjustment costs include: software, hardware, training, change management, test environment, service providers' fees. The administrative costs include: legal and solution analysis, publicity, user guides, support, security audit, Peppol membership fee.

[55] Where there is a prior impact assessment, the table should contain as a minimum the costs/benefits identified in the IA with the information gathered on the actual cost/benefit. As available, the table should include the monetisation (EUR) of the costs/benefits based on any quantitative translation of the data (time taken, person days, number of records/equipment/staff etc. affected or involved represented in monetary value – see Standard cost model, for example). For all information presented, it should be included in the comments section whether it relates to all Member States or is drawn from a subset. An indication of the robustness of the data should be provided in Annex II on Methodology and analytical models used.

Direct benefits: costs and time savings. Indirect benefits: increased data quality and process optimisation.		Benefits of automation per eInvoice issued of EUR 5.28 and EUR 8.4 per eInvoice received.		Benefits of automation per eInvoice issued of EUR 5.28 and EUR 8.4 per eInvoice received.	

The results of the survey for multinational corporations show that for one of them, the set-up costs for establishing eInvoicing in different EU Member States are significant (EUR 180 000 per country) and require the use of different service providers to cover specific national requirements. A transaction-based pricing model is used by one of the multinational corporations (EUR 0.40 per eInvoice). Recurring costs vary significantly. One of the multinationals only used internal resources for eInvoicing. A multinational stated that an impact assessment will be launched once the B2B eInvoicing legislation will be finalised and clear in all the Member States.

The results of the desk research show that in transaction-based pricing models, the pricing ranges between EUR 0.01 – EUR 11 per eInvoice. Free-of-charge packages with basic eInvoicing functionalities are offered by service providers in most of the Member States analysed (with the exception of Portuguese service providers surveyed).

eInvoicing implementation costs vary based on the complexity of the project which typically takes into account the number of formats to be supported, related mapping and conversion services, transmission protocols and value-added services. In general, pricing for transaction volumes decreases proportionally with the increase in eInvoicing volumes, thus resulting in a few eurocents (between EUR 0.01 - EUR 0.30) per eInvoice for large eInvoicing volumes (from 10 000 to 500 000 eInvoices).

eInvoicing cost-savings models

This section of the annex analyses selected eInvoicing cost-benefit models in order to assess the results in terms of cost savings of each model and the rationale they are based on.

Three models have been taken into account to assess eInvoicing-related cost benefits:

1. Standard Cost Model – University of Hasselt
2. Process-based cost analysis – Billentis
3. Time-based model – Visma.

These models have been chosen for this study in order to estimate any savings experienced with the introduction of (structured) eInvoicing as opposed to unstructured invoicing methods and to distinguish between the savings for the issuer and the savings to the receiver.

Standard Cost Model

In a study conducted at the University of Hasselt in 2014 [56], the Standard Cost Model (SCM)[57] has been used to determine the costs that a company may save using eInvoicing. The SCM was applied to the eInvoicing adoption in Belgium between 2012 and 2014.

The SCM measured the opportunity cost of complying with information obligations (i.e. the time spent and the hourly tariff) as well as other 'out-of-pocket' costs (e.g. postal costs, printing costs, etc.) regarding the sending and receiving of eInvoices.

Calculations performed under this model include the five following administrative steps that a business will undertake:

1. data collection
2. drafting the invoice using accounting software
3. printing the invoice and preparing the envelope
4. sending the invoice by mail
5. archiving the invoice.

[56] Kevin Poel, Marneffe, W., Vanlaer, W., *Assessing the electronic invoicing potential for private sector firms in Belgium*, the International Journal of Digital Accounting Research, Vol. 16, 2016, pp. 1 – 34.
[57] The Standard Cost Model is a method for determining the administrative burdens for businesses imposed by regulation. It is a quantitative methodology that can be applied in all countries and at different levels.

The authors of the research assumed that the time to complete these 5 steps for a single invoice amounted to 8 minutes and the out-of-pocket costs amounted to EUR 0.76 /invoice (cost of the postal stamp) with an hourly administrative employee's tariff of EUR 35.21/invoice, the issuing of 1000 invoices brought the authors of the study to the following calculations:

P = Tariff x Time = ((EUR 35.21 * 8 min)/60) + EUR 0.76 = EUR 5.45

Q = (Number of businesses * Frequency) = (1 * 1,000) = 1,000

Administrative Burden = ∑ P x Q = EUR 5.45 * 1,000 = EUR 5,455

Using the Standard Cost Model (SCM), an estimate was made for the (total) amount of administrative cost burdens of invoicing for the Belgian private sector and citizens.

Within the scope of that research, the average cost per B2B and B2C invoice was also calculated for both issuers and receivers. In total, according to the calculation, each B2B eInvoice saved EUR 9.01 and each B2C eInvoice saved EUR 5.32.

Type of transaction	B2B Invoice (EUR)	B2C Invoice (EUR)
Paper invoice issue	4.44	4.44
eInvoice issue	1.20	1.20
E-mail invoice issue	2.02	2.02
Cost savings eInvoice issue	**3.24**	**3.24**
Cost savings e-mail issue	2.42	2.42
Paper invoice receiving	8.04	2.77
eInvoice receiving	2.27	0.69

E-mail invoice receiving	7.68	1.73
Cost savings eInvoice receiving	**5.77**	**2.08**
Cost savings e-mail invoice receiving	0.36	1.04
Total cost savings eInvoicing	**9.01**	**5.32**
Total cost savings e-mail invoicing	2.80	3.46

Table 10 Paper and electronic invoice cost per unit for our sample

Key findings

- Cost savings per eInvoice issued compared to a paper invoice in B2B is estimated at EUR 3.24.
- Cost savings per eInvoice received compared to a paper invoice in B2B is estimated at EUR 5.77.
- Average labour cost/hour: EUR 35.21/hour.

The calculations conducted through SCM have shown that, eInvoicing saves 54.5% of issuing costs, 71.77% of receiving costs, and 72.2% of total costs.

Billentis

The second model chosen for this report is a study prepared by Billentis in 2017. The author of the model analysed the situation in an industry company with 5 000 employees, based on calculated staff costs of EUR 60/hour (full costs including overhead, working place, etc.). The full costs based on traditional paper-based processes were analysed and compared with the new electronic automated solution[58].

[58]European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, Ciciriello, C., Gray, E., Preparatory study on the effects of the Directive 2014/55/EU on electronic invoicing in public procurement, Publications Office of the European Union, 2024, https://data.europa.eu/doi/10.2873/27631, p. 166.

The following table presents the cost savings per eInvoice issued.

	Costs per invoice (EUR)	
	Paper	**Electronic, automated**
Archiving	2.20	0.80
Remittance and cash management	4.50	3.00
Payment reminders	0.50	0.40
Print, envelope send	3.90	0
Full costs	11.10	4.50*

Table 12 Saving potential for invoice/bill issuers (actual customer case)

* + 0,30 EUR of third-party processing costs

Average saving per invoice	**EUR 6.60 = 59%**

The following table presents the cost savings per eInvoice received.

	Costs per invoice (EUR)	
	Paper	**Electronic, automated**

Archiving	2.20	0.80
Payment and cash management	4.80	2.00
Dispute management	2.50	2.00
Validation and matching	4.00	1.30
Full costs	11.10	4.50
Entering codification	3.00	0
Receive	1.10	0
Full costs	17.60	*6.40
Average saving per invoice	**EUR 11.20 = 64%**	

Table 13 Saving potential for invoice/bill recipients (actual customer case)

+ EUR 0.40 of a service provider processing cost

Key findings

- Cost savings per eInvoice issued compared to a paper invoice is estimated at EUR 6.60.
- Cost savings per eInvoice received compared to a paper invoice is estimated at EUR 11.20.
- Average labour cost/hour: EUR 60/hour.

Visma

The third model chosen for this report is the business case on eInvoicing cost savings published by Visma in 2019, conducted for the Nordic countries.

In the analysis, savings for issuers were calculated by multiplying the number of non-electronic invoices by EUR 6, which is the assumed saving per eInvoice issued by the businesses. It was done based on the gross number on savings estimated at EUR 6.90 in 2015. For calculation purposes the sum of EUR 6 was used with an assumption that there is no free-of-charge eInvoicing solution and there are transaction costs attached. For that purpose EUR 0.90 was used.

The estimate of savings for receivers is time-based. The time it takes to receive a paper invoice and/or scanned/OCRed invoice was estimated and compared to full manual handling for this process. Labour cost per country was also included[59].

	Norway	Sweden	Denmark	Finland
Invoices total amount (sent)	612 600 000	1 400 000 000	630 000 000	831 818 500
Share B2B/B2G (40%)	245 040 000	560 000 000	252 000 000	332 727 400
eInvoices				
B2B/B2G	95 565 600	196 000 000	100 800 000	243 900 000
Invoices non-electronic (Paper, email)				
B2B/B2G	149 474 400	364 000 000	151 200 000	88 827 400
Savings for issuers (EUR 6/invoice) assuming converting all paper to digital	2 504 606 400	6 337 200 000	2 575 200 000	1 332 411 000

[59] Visma, Business case: E-invoicing Across the Nordics, September 2019

invoices				
Savings for receivers assuming converting all non-electronic to digital invoices (average EUR 8.30 /eInvoice)	1 724 602 182	2 822 191 103	1 337 932 073	449 959 336
Annual potential saving (Euros)	4 229 208 582	9 159 391 103	3 913 132 073	1 782 370 336
Cross Nordic business case annual savings – Nordic countries combined in Euros	19 084 102 094			

Table 14 Detailed eInvoicing cost savings per country in the Nordics

Country	Cost of labour per hour (EUR)	Savings per eInvoice received (EUR)
Norway	60	11.54 /eInvoice
Sweden	40	7.75 /eInvoice
Denmark	46	8.85 /eInvoice
Finland	26	5.07 /eInvoice
Average	**43**	**8.30/eInvoice**

Table 15 eInvoice receiving cost savings per country in the Nordic region

Key findings

- Cost savings per eInvoice issued compared to a paper invoice is estimated at EUR 6.
- Cost savings per eInvoice received compared to a paper invoice is estimated at EUR 8.30.

- Average labour cost/hour: EUR 43 per hour

Conclusions

The analysis by Billentis (2017) correlates with the findings in absolute values of Visma (2019), indicating savings per eInvoice received ranging from EUR 11.22 - EUR 11.45 when labour cost per hour is estimated at EUR 60. The comparison of the Billentis model with the SCM proposed by the University of Hasselt shows significant correlation in terms of percentages, with a margin of 5-8%.

Savings by category (%)	Standard Cost Model	Billentis
Issuer costs savings	54.5%	59%
Receiver costs savings	71.77%	64%

Table 16 SCM and Billentis cost saving comparison

The analysis indicates the benefits of automation per eInvoice issued of EUR 5.28 and EUR 8.4 per eInvoice received, when labour cost per hour is estimated at EUR 46.

eInvoicing pricing models and fees

Pricing models and fees for 31 service providers from Estonia, France, Germany, Italy, Portugal Spain, and Sweden have been analysed in this section of the study. The information was gathered from public sources, official webpages of the service providers in the selected Member States.

These pricing models and fees have then been compared to the results from the survey for SMEs, as part of the stakeholder consultation conducted for this study to benchmark the data collected.

Pricing Models

Throughout the analysed service providers, four pricing models have been indicated.

- **User-based**
  13 service providers (42%) included user-based pricing. The price charged depends on the number of users that use the solution.
- **Transaction-based**
  10 service providers (32%) included a charge per transaction. This model has pricing depending on the number of eInvoicing transactions executed.

- **Recurrent subscription fees**
  This fee is charged per year or month and often includes a number of eInvoice transactions bundled in the price.
- **Functionality-based**
  This pricing model is applied by 7 service providers (23%). Pricing depends on the features required by the customer. The more advanced the features, the higher the fee will be.
- **Pay per use**
  One package (in Estonia) is priced according to the 'pay as you go' model. This model allows access to unlimited resources, but the payment is made based on what is actually used.

Although, these basic models are present in the majority of cases, service providers may also offer a mix of pricing models within the same package.

Example of eInvoicing packages

Package I

Target: Self-employed and micro-enterprises with limited eInvoicing needs.

Features: typically, these enterprises avail of the national platforms that are provided free of charge in many countries. They may also avail of free-of-charge packages – see below.

Package II

Target: Small enterprises with small volumes of eInvoicing.

Features: typically, packages from this category include the features of the first category with sending and receiving capacities for European standard eInvoices, full Peppol connectivity, PDF conversion into a structured format, and larger archiving capacities.

Package III

Target: Medium and large enterprises with high volumes of eInvoicing.

Features: typically, they offer very low transaction-based fees for very high invoicing volumes, plus a recurrent subscription fee. They will also typically integrate with ERP systems and therefore incur set-up costs, which vary greatly depending on the complexity of the implementation.

Package IV

Target: Tax payer with flat rate tax regime (Italy).

Features: the service provider is an accountant who provides added value services such as computerised accounting, bookkeeping, and archiving. When upgrading to an eInvoice system, the cost would be proportionally larger. In one case, in Italy, the accountant charged a fee of EUR 400 per annum for sending and receiving less than 20 eInvoices per year.

In the sample analysed, 20 service providers (65%) offer the three above-mentioned packages. 9 service providers (29%) offer 4-6 packages. 3 service providers offer 1-2 packages.

User-based pricing models

The following table presents the monthly pricing range and average monthly fee for pricing models based on the number of users in the selected Member States. The average monthly fee takes into account all the packages within the pricing range.

Country	Monthly pricing range (EUR per user)
Estonia	8 – 199
Sweden	21 – 69
France	3.7 - 36
Germany	0.75 - 30
France	6.6 - 99
Spain*	30 - 5 229
Italy	2 - 120

Table 17 Monthly pricing range of user-based pricing models in selected Member States

***** In Spain, service providers offer solutions within the framework of a national subvention policy "Kit Digital" that covers eInvoicing services for micro and small enterprises (up to 49 employees).

Transaction-based pricing models

The following table presents the pricing range and average fee for transaction-based pricing models in the selected Member States.

Country	Pricing ranges (EUR per eInvoice)
Estonia	0.05 - 0.40
Sweden	0,30[60]
Portugal	0.22 – 2.40
Germany	0.01– 0.50
France	0.11 – 1.14
Spain	0.68 – 11
Italy	0.12 – 0.5

Table 18 Pricing range and average fee for transaction-based pricing models in selected Member States

Free-of-charge packages

In **Estonia,** free-of-charge packages may include a limited number of eInvoices issued, up to 5 eInvoices per month. Also, it may include sending capability for up to 12 month under specific conditions. Finally there is a free solution offering unlimited sending/receiving of eInvoices solely based on the national standard. 4 out of 5 service providers analysed provide free-of-charge packages.

In **France and Germany,** free-of-charge offers include capability to send and receive eInvoices for up to 5 users.

[60] Source: EC eInvoicing webinar with Swedish stakeholders, 15th June 2023.

In **Spain,** a free-of-charge solution may offer unlimited national and Peppol-based eInvoice sending capability for 1 user, as well as eInvoice receiving within the same service provider network.

In **Sweden**, a service provider offers a free-of-charge service only in the following context: when a business receives a letter from a service provider on behalf of a customer requesting them to use eInvoicing, the customer may cover the service provider's fees. In this case, the service is free of charge for the supplier up to 100 eInvoices sent to the client.

In **Italy,** in addition to free-of-charge solutions provided by service providers, the Chamber of Commerce, the National Software Association also offer free-of-charge solutions.

In **Portugal**, none of the service providers analysed provides free-of-charge services.

Free-of-charge eInvoicing services provided by Member States

Member State	Service
Austria	Delivery of eInvoices to this service (E-Rechnung.gv.at) is free of charge for the user. (Factsheet)
Belgium	Mercurius Web Portal.
Croatia	Servis eRačun za državu platform
Czechia	The national platform is Národní elektronický nástroj (NEN).
Denmark	The NemHandel platform exchanges eInvoices in B2G eInvoicing.
Estonia	Estonian Ministry of Finance and RIK have agreed that businesses can use e-Financials free from charge for one year
Finland	Three platforms provided free-of-charge, by the State Treasury: Handi, Basware Supplier Portal, or Post Network Service.

France	Chorus Pro Portal is the national platform for central and sub-central contracting authorities.
Germany	E-Rechnungs-Portal is used for eInvoicing with the federal government.
Hungary	NAV is the centralised national platform used for real-time eInvoicing reporting.
Italy	The Revenue Agency has put in place free services to support the onboarding process of SMEs and to facilitate the process of transmission and archiving of eInvoices.
Lithuania	The central platform is eSaskaita.
Poland	The National eInvoicing platform (PEF)
Portugal	The Plataforma Eletrónica de Compras, a cost-free platform.
Slovenia	The national platform is PPA eInvoicing system
Spain	Free eInvoicing client software is provided by the Spanish Ministry of Industry.

Table 19 Free-of-charge eInvoicing services provided by Member States

SME survey

This section includes the results of the SMEs survey in relation to the costs reported for eInvoicing services and solutions. The survey involved 63 micro, 16 medium, 18 small sized companies and 1 did not state its size. 48 companies are based in Spain, 17 in Belgium, 8 in Italy, 6 in Germany, 1 in Estonia, 12 in Sweden and 4 in France.

Country	Size	No.	Intra EU	Recurring yearly fee: Package (EUR)	Recurring yearly fee: Software (EUR)	Recurring yearly fee: Hardware (EuR)	No. recurring fees	Cost per eInvoice France
France	Micro	3	1	100x1	2 500x1	2 500x1		0
	Medium	1	1	120 x1				0
Belgium	Micro	14	5	80x1	1 200x1		7	0

Country	Size	No.	Intra EU	Recurring yearly fee: Package (EUR)	Recurring yearly fee: Software (EUR)	Recurring yearly fee: Hardware (EuR)	No. recurring fees	Cost per eInvoice France
				300x1 360x1	50x1			
	Small	3	2			400x1	1	0
Spain	Medium	10	2	100x1 120x2 121x1 300x1	120x1 121x1 300x1	130x1 3 500x1		0
	Micro	28	6	18x1 100x4 120x3 121x3 300x1 500x1	54x1 120x1 150x1 200x1 600x1 1 000x1	27.78x1 100x1 120x1 300x1 2 000x1		0
	Small	9	1	100x1 121x1 150x1 300x1	100x1 120x1 121x1 1 500x1	100x1 900x1		0

Country	Size	No.	Intra EU	Recurring yearly fee: Package (EUR)	Recurring yearly fee: Software (EUR)	Recurring yearly fee: Hardware (EuR)	No. recurring fees	Cost per eInvoice France
				300x1				
Germany	Small	2	1	100x1		100x1		0
	Medium	1	1	100x1				0
	Micro	3		100x1	120x1			0
Estonia	Micro	1	0				1	0
Italy	Medium	2	0	2 500x1 plus 0.05 per eInvoice	1 300x1	1300x1		0.05x1
	Micro	1	1	500x1				0
Sweden	Small	1	1	150x1		150x1		0
	Medium	2	1			120x1 plus 0.4 per eInvoice sent	1	0.40x1
	Micro	9	1	100x1 150 x1 550 x1plus 0.30 per eInvoice sent	450x1		5	0.30x1

Table 19 SME recurring eInvoicing costs

Large enterprises (LE) survey

The following information was provided by 4 multinational corporations.

LE1:

- Service Provider annual fee: EUR 500, no fees per transaction.
- Setup costs: EUR 5 000 (one-off)
- Training: EUR 2 000 (one-off)
- Legal advice: EUR 2 000 (one-off)
- Hardware: EUR 10 000 (one-off)
- Software: EUR 5 000 (one-off)
- Recurring hardware costs: EUR 500
- Recurring software costs: EUR 500

LE2:

- Recurring costs: EUR 400 000 (different service providers)
- Set-up costs: EUR 180 000 per country

LE3:

- Transaction-based pricing model: EUR 0.40 per eInvoice
- No annual fees

LE4:

- Internal costs only

A multinational stated that an impact assessment will be launched once the B2B eInvoicing legislation will be finalised and clear in all the Member States.

ANNEX V. STAKEHOLDERS CONSULTATION - SYNOPSIS REPORT

The stakeholder consultation activities aimed to quantitatively and qualitatively evaluate the impact of the Directive. Surveys directed at Member States, EEA members, SMEs, and large enterprises, gathering insights on the Directive's effects were conducted. In addition, professional associations and eInvoicing service providers (Peppol and GENA) provided data, and an ERP vendor was interviewed. The European Commission conducted a Call for Evidence[61] and an additional online survey. The detail of such activities can be found below:

- **Member States and EEA members were asked to respond to a survey:** The objective was to gather quantitative and qualitative information to support an evidence-based assessment on the effects of Directive. 23 Member States responded to the survey. National authorities from Iceland and Norway also provided feedback. Four Member States did not respond, including Hungary, Bulgaria, Slovakia, and Spain. However, the Hungarian Prime Minister Office provided limited feedback to the survey.

- **A survey targeted to SMEs was published:** 100 SMEs responded. These enterprises were based in Spain, Germany, Italy, Belgium, Sweden, and France. There were 60 micro, 16 medium, 15 small and seven did not state their size.

- **A survey targeted to large enterprises was also published:** Seven responded. These were multi nationals that included sectors, such as Energy, Chemical, Retail, and International Shipping.

- **Professional associations have also been consulted** to gather more quantitative data on the uptake of eInvoicing and to use it to triangulate data received by national authorities in Member States.

    - Seven Peppol service providers responded that they provide services to Denmark, Germany, Italy, Sweden, Netherlands, and Poland. The largest provider consulted handled over 22 million eInvoices per year.

[61] https://single-market-economy.ec.europa.eu/news/commission-seeks-views-evaluation-eu-rules-electronic-invoicing-public-procurement-2023-03-17_en, n.d.

- Eight service providers from GENA responded who provided services in Croatia, Slovenia, Romania, Belgium, Portugal, Estonia, Sweden, Norway, and Hungary. Among these, the largest service provider consulted handled 80 million eInvoices per year.

- **An ERP vendor has been interviewed**.
- **A Call for Evidence**[62] was launched by the European Commission from 17 March until 14 April 2023. The consultation related to the uptake of eInvoicing in public procurement, the effects of the Directive on the Internal Market and its degree of success in meeting the objectives. A total of 24 responses were received. The results of the Call for Evidence are summarised below[63].

[62] https://single-market-economy.ec.europa.eu/news/commission-seeks-views-evaluation-eu-rules-electronic-invoicing-public-procurement-2023-03-17_en, n.d.

[63] Public procurement – EU rules on electronic invoicing in public procurement (evaluation) (europa.eu). https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13669-Public-procurement-EU-rules-on-electronic-invoicing-in-public-procurement-evaluation-/feedback_en?p_id=31908659

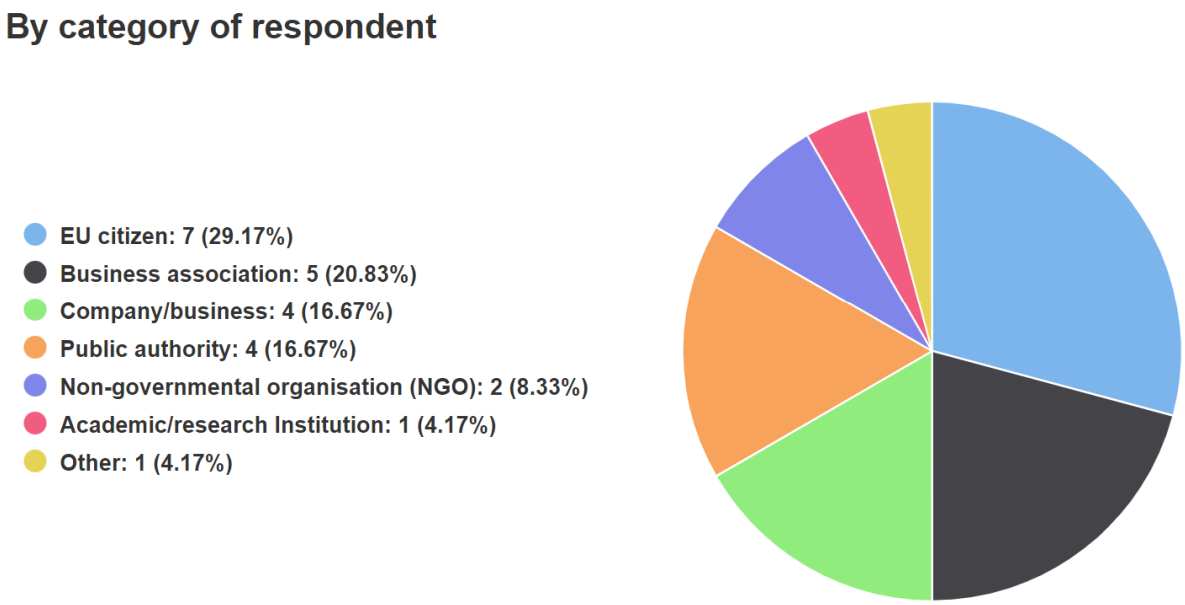


Figure 12 Call for evidence by category of respondent

- The graph illustrates respondent categories: EU citizens represented the highest participation with 7 respondents, followed by business associations (5), company/business (4), public authorities (4), NGOs (2), academic/research institutions (1), and one response categorised as 'Other.'.

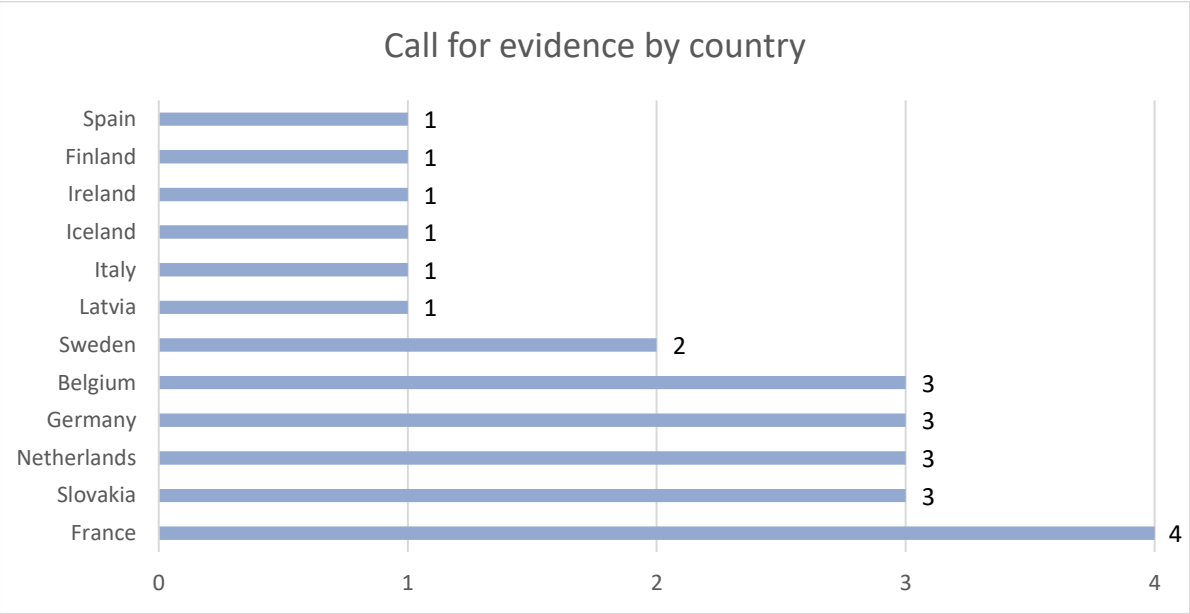


Figure 13 Call for evidence by country

- The graph depicts the response distribution by the number of responses received by country. France led with 4 responses, followed by Slovakia, Netherlands, Germany, and Belgium, each with 3. Sweden had 2 responses, while Latvia, Italy, Iceland, Ireland, Finland, and Spain each contributed 1 response.
- **An additional online survey open to all stakeholders was carried out in the context of the Call for Evidence:** It was conducted from 5 May 2023 to 30 June 2023 and collected a total of 36 responses. This was a simplified version of the Call for Evidence. These responses have predominantly come from Small and Medium-sized Enterprises (SMEs), service providers, and business associations, highlighting the valuable perspectives and insights from key stakeholders in the field.

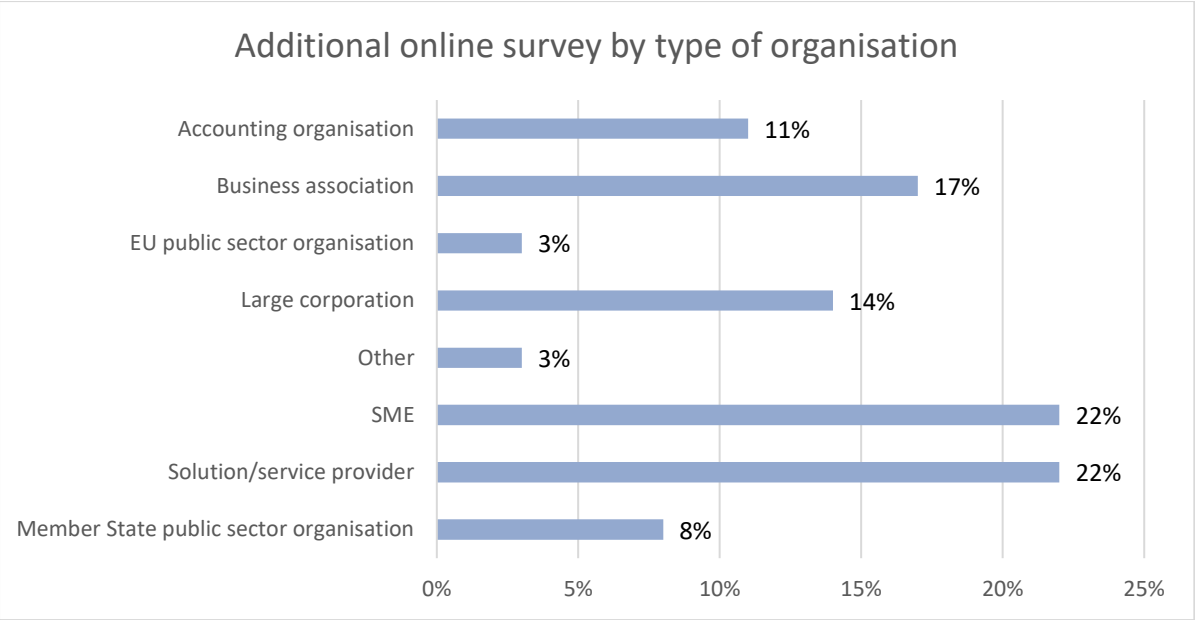


Figure 14 Additional online survey by category of respondent

- The graph illustrates diverse participation: SMEs and solution/service providers accounted for the highest at 22% each, followed by business associations (17%), large corporations (14%), accounting organizations (11%), Member State public sector organizations (8%), with EU public sector organizations and 'Other' representing 3% each.

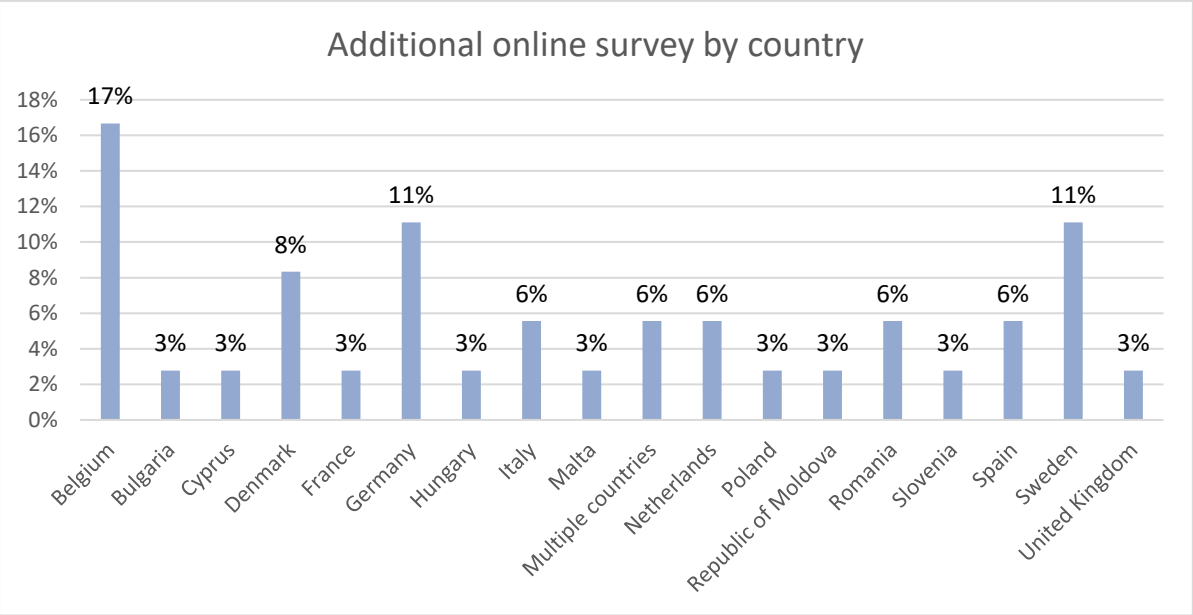


Figure 15 Additional online survey by country

- The graph depicts the response distribution by the number of responses received by country. Belgium and Sweden stood out with 17% of the responses each, followed by Germany and Sweden with 11% each, while Denmark held 8%. The Netherlands, Romania, and Spain, Italy and multiple other countries accounted for 6% each, and the rest held 3%.

- **Lastly, communications, such as emails or letters addressed to the Commission, from stakeholders have also been received by the European Commission** after the entering into force of the Directive. The related information has been reflected by this study.

ANNEX VI. CASE STUDIES AND COUNTRY PROFILES

Four Member States including France, Italy, Croatia, and Finland are analysed in this Annex, in relation to the evaluation criteria of effectiveness, efficiency, coherence, EU added value, and relevance. Challenges and solutions are discussed, particularly future challenges that need to be addressed.

1.1 France

Responsible

Ministry for the Economy and Finance (policy making) and Agency for State Financial Information (AIFE) (implementation and maintenance).

Legal Framework

- **Ordinance No. 2014-697**[64] of 26 June 2014 on the development of electronic invoicing
- **Business Growth and Transformation law - PACTE**[65] (Law's final text adopted since 11 April 2019)
- **Decree No 2019-748 of 18 July 2019 on electronic invoicing in public procurement**[66], Official publication: *Journal Officiel de la République Française* (JORF); Publication date: 2019-07-21.
- **Article 153 off the French law 2019-1479**[67] prepares France to move to an obligation to send and receive B2B electronic invoices.
- **Ordinance n°2021-1190 of 15 September 2021**[68] on the generalisation of electronic invoicing in transactions between taxable persons for value added tax and the transmission of transaction data.

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64 https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000029140226&categorieLien=id

65 https://www.gouvernement.fr/en/pacte-the-action-plan-for-business-growth-and-transformation

66 https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000038793215&categorieLien=id

67 https://www.legifrance.gouv.fr/affichTexteArticle.do;jsessionid=9359FBB55B3F3B6C7BB7248CBDAF37A0.tplgfr32s_3?idArticle=JORFARTI000039684090&cidTexte=JORFTEXT000039683923&dateTexte=29990101&categorieLien=id

68 https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000044044176?init=true&page=1&query=facturation+electronique&searchField=ALL&tab_selection=all

B2G eInvoicing mandates:

- **Receiving and processing**: Central authorities, regional authorities & local authorities
- **Submitting**: Economic Operators

Standard/format
The European standard on eInvoicing is implemented under UBL 2.1 and CII.

CIUS:

- CIUS for Chorus Pro
- CIUS for Factur-X, Basic profile
- Peppol BIS Billing 3.0

Platforms
Chorus Pro, developed by the Agence pour l'Informatique Financiére de l'État (AIFE), the French national public agency for IT.

The current Chorus Pro solution provides/allows:

- B2G eInvoicing: eInvoices to public bodies from national or foreign company
- A user interface for managing invoices issued and received (portal)
- Multiple transmission protocols such as PeSIT HS E, AS2, and SFTP protocols.
    - Peppol is used as receiving access point.
    - API for sending, receiving, and managing invoices.

In the next years, the Chorus Pro solution will also cover the following use cases:

- B2B eInvoicing: issuing and receiving eInvoices between private companies (French or foreign) subject to VAT in France.
    - Invoice data will be used by the administration to pre-fill the VAT return and to improve its knowledge of French companies and the French economy.
- International B2B eInvoicing: receipt of eInvoices received or sent by a company subject to VAT in France, issued or intended for a company not subject to VAT in France.
    - These invoices will not be transmitted to their addressee (exploitation of the data by the administration for the pre-filling of the VAT return).
- B2C eInvoicing**:** Receipt of invoices issued by a company subject to VAT in France to a final consumer.
    - These invoices will not be transmitted to their recipients (data processing by the administration for the pre-filling of the VAT return)

The Chorus Pro solution will also allow the use of AS4 protocol management to the flow exchange solution (EDI). It will require **compliance with the EN 16931** standard for exchanged invoices and will limit the accepted input and output formats to UBL, CII and Factur-X (**simple PDF will be deprecated** and then rejected within 3 years). It will use a new format for exchanging invoice life cycle data (UN/CEFACT SCRDM CI Cross Domain Application Response message).

Evaluation of the effects of Directive 2014/55/EU

Since January 2012, under Article 25 of Law No. 2008-776 of 4 August 2008 on the modernisation of the economy, France developed the Chorus portal to transmit electronic invoices between State suppliers and the Chorus information system that is used by the entire State administration. Despite the advantages for suppliers, and for the State, these transmission methods were little known and little used.

In 2013, the State was only able to process 34 000 electronic invoices.

The vast majority of the 95 million annual invoices received by the State, local authorities and public institutions were issued and transmitted in paper format. The processing of paper invoices required several tasks with low added value representing a significant cost, both for issuers and receivers of invoices.

Electronic invoicing was implemented progressively to consider the size of the undertakings concerned and their ability to fulfil this obligation. In 2014, the following milestones were proposed:

- January 1, 2017: obligation for large companies and public entities.
- January 1, 2018: obligation for mid-caps.
- January 1, 2019: obligation for small and medium-sized enterprises.
- January 1, 2020: obligation for micro-enterprises.

Effectiveness

France perceives the Directive 2014/55/EU and EN 16931 as moderately contributing to fostering the functioning of the Internal Market. eInvoicing in public procurement helped reduce low-value tasks and late payments for both buyers and economic operators.

Other eInvoicing formats were available before the Directive 2014/55/EU and EN 16931 were published, however, France indicated that the Directive and the European eInvoicing standard contributed highly to eInvoicing adoption in B2G. France also went beyond the scope of the Directive and mandated B2G eInvoicing, including contracts that fall below the EU thresholds. The combination of the EU eInvoicing Directive, the European standard, and France's own national policies was the main contributing factor for increasing B2G eInvoicing adoption. This has been a driver to mandate B2B eInvoicing, which is due to commence by September 2026.

B2G eInvoices in 2022

- National suppliers to central authorities: 4 368 900
- National suppliers to sub-central authorities: 66 743 093
- Suppliers sending eInvoices for public procurement contracts: 892 234.

In recent years, eInvoices received from foreign suppliers to France's public sector has been on an upwards trend, from 143 696 eInvoices in 2019 to 532 734 eInvoices in 2022.

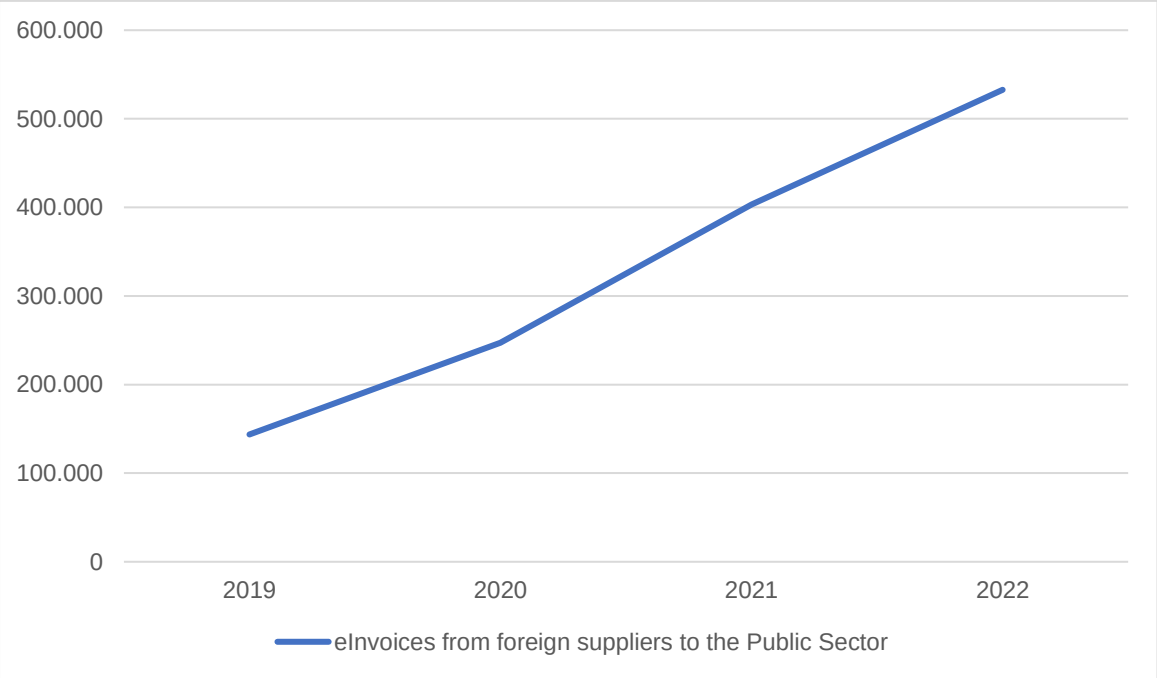


Figure 16 eInvoices from foreign suppliers to France's public sector

Peppol eDelivery network is used through a Pagero Access Point. There has been a constant increase in the number of eInvoices exchanged through Peppol each year. From 0 in 2016 to 244 063 in 2022.

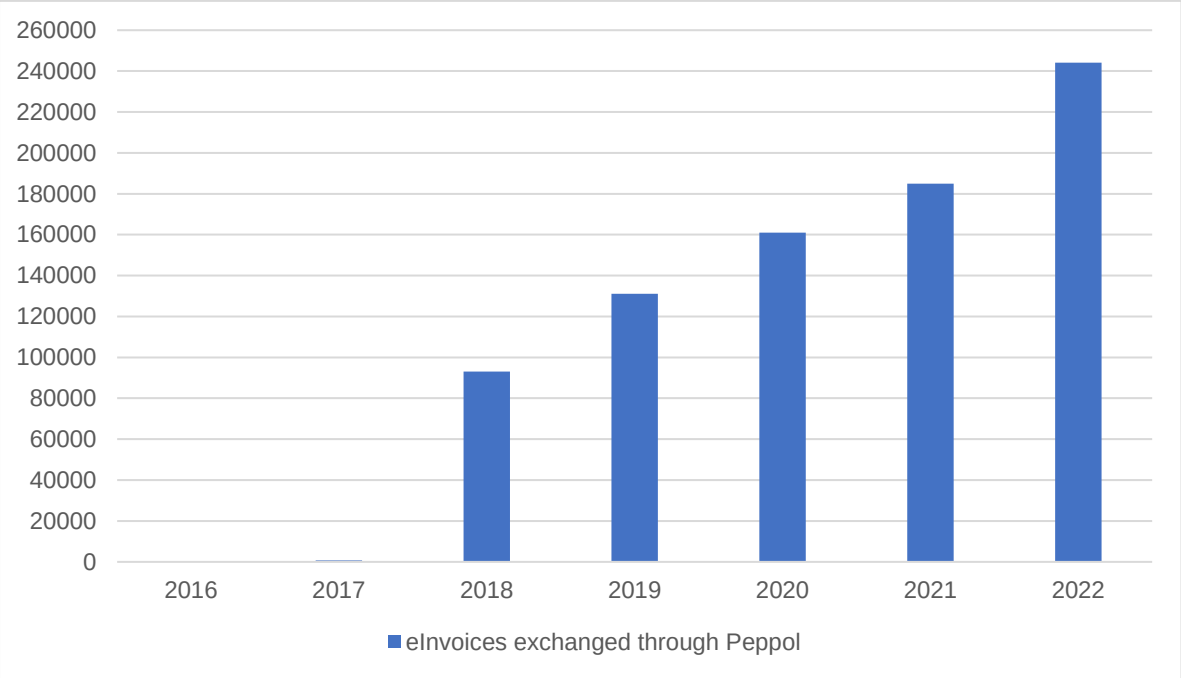


Figure 17 eInvoices exchanged through Peppol in France

However, these increasing and positive trends are not a full representation of the effectiveness of the Directive 2014/55/EU and EN 16931. EN 16931 compliant eInvoicing only accounted for 2.86% of the total number of eInvoices exchanged in France in 2021 (a small increase of 0.41% from the previous year). A high level of adoption was not achieved in the B2B sector; this is due to change from 2024-2026 when B2B mandated eInvoicing is enacted and approximately 4 million companies will require eInvoicing capabilities. France has adapted the B2G system to meet the standards required for their B2B system. France has submitted additional requirements that include extensions to CEN TC 434.

According to VAT rules, the majority of B2C transactions do not imply invoices, therefore France do not see a point in making eInvoicing mandatory for this category of transactions. However, B2C transactions will be subject to eReporting to the tax administration. B2G and B2B transactions are subject to the transmission of data to the tax administration.

How the objectives of the initiative were met

Directive 2014/55/EU increased legal certainty for eInvoicing requirements and reduced technical complexity to a very high extent. A clear legal basis and common technical specifications were the factors that most contributed to achieving these objectives.

One of the aims of the Directive is to reduce late payments. The average payment time is less than 14 days for State accountants in 2022. Particular attention was paid to the possibility for economic operators to follow the progress of eInvoices in the payment process.

France describes the main drivers of these benefits to be process automation, less complexity, and faster/more timely processing. Services providers are the stakeholders who benefitted the most, with large corporates and medium and small enterprises also seeing high benefits. France predicted micro-enterprises will realise moderate benefits, but SMEs entered the B2G system in 2022, therefore, it is too early to fully evaluate the impact on them. The stakeholders that had the least realised benefits were central and sub-central authorities.

Use of invoice data

Invoicing data will be used to fight against VAT fraud. It will also be used to propose a new service to enterprises: VAT prefilling. Data will also be used to better monitor public policies.

Efficiency

France did not incur costs solely related to transposing the Directive 2014/55/EU and ensuring compliance with EN 16931. There was also no cost burden ensuring the national format complied with the EN.

The French Ministry stated that overall benefits greatly outweighed the costs. A very high level of legal certainty was introduced by the Directive and significant technical simplification was provided through the use of a common EU eInvoicing standard. There was a considerable cost reduction because of the Directive and the EN 16931.

The impact study, related to Ordinance 2014-697[69],estimates the potential for recurring gains, once electronic invoicing is generalised (2021) at EUR 710.2 million per year, which can be broken down into financial gains of EUR 121 million and overall time savings representing 11 925 FTE equivalents.

- For companies, these gains would represent EUR 335 million per year, which can be broken down into EUR 83 million of financial gains and 3700 FTE equivalents.
- For local authorities, the estimate would represent EUR 260 million per year, which can be broken down into EUR 31 million in financial gains and 6 100 FTE equivalents.
- For the other administrations (State and EPN**),** the valuation would represent EUR 114 million per year, which can be broken down into EUR 6.8 million in financial gains and 2 100 FTE equivalents.

eInvoicing would also contribute to the digitisation of the public procurement process, making it possible to speed up the payment of the administration's suppliers. Finally, by avoiding the sending of 95 million paper invoices per year, it contributes to the preservation of the environment.

The State offered a shared technical solution to all the public bodies concerned, based on the one it currently has, to allow companies to have all their invoices on a single electronic portal. This measure has been the subject of extensive prior consultation with organisations representing businesses, local authorities, national entities, and the supervisory ministries.

In SMEs and particularly micro-enterprises, the time saved per invoices received or issued, will be much less than one FTE (Full Time Equivalent) person and therefore not seen as a significant saving in that regard.

Cost estimate (for the creation and maintenance of the single portal and the evolution of the Helios system)

The estimates carried by the State, are broken down as follows:

- cost of creating the single portal: EUR 7.66M
- cost of evolution of the Helios system: EUR 3.25M
- maintenance cost of the single portal: from EUR 2.6M in 2015 to EUR 4.5M from 2019

France stated that as a measure to increase the efficiency of the initiative, the EN 16931 should be updated to consider some data required in B2B transactions or by the tax authorities.

Coherence

France stated that the Directive 2014/55/EU and the publication of the EN 16931 is consistent with other EU and national interventions that have similar objectives to:

- digitisation of public procurement
- promoting European standards
- improving interoperability
- fostering the Internal Market
- improving legal certainty

They also stated that it was moderately consistent with the following EU and national intervention areas:

- reducing technical complexity
- lowering operating costs for economic operators

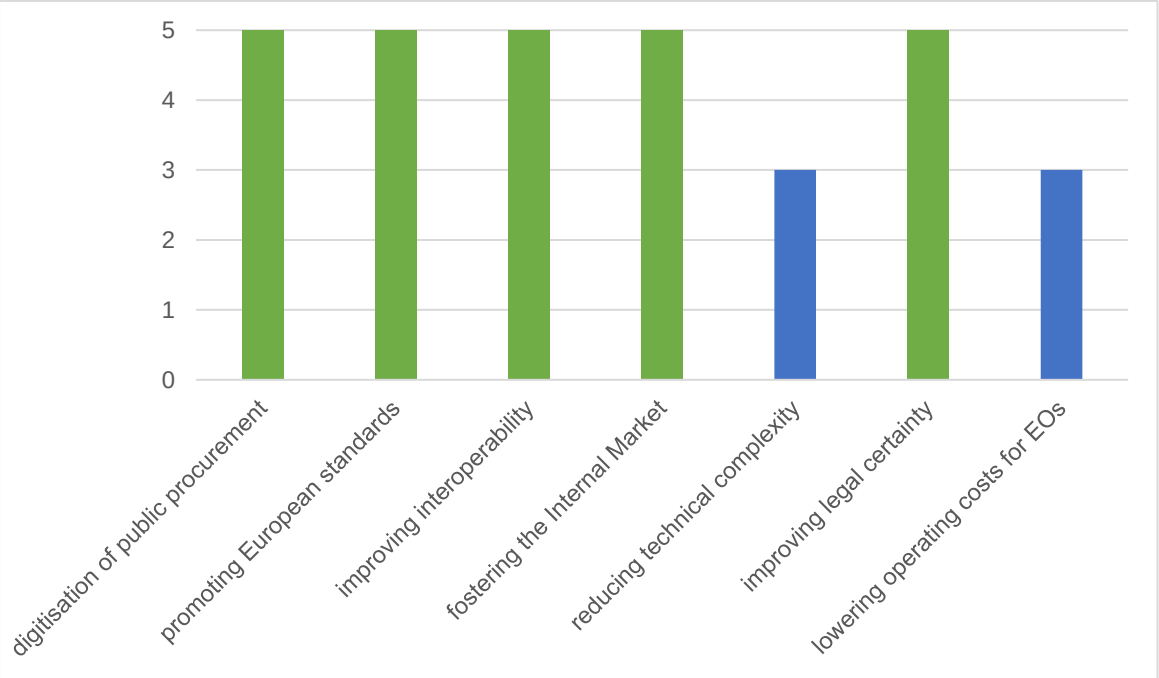


Figure 18 France's coherence scores

EU Added Value

France stated that the objectives of the Directive, in particular EU-wide interoperability, could not be achieved sufficiently by the Member States acting alone.

As part of the work of the national eInvoicing Forum, companies that participated in its workshops identified the main advantage of eInvoicing, namely:

- elimination of paper, envelopes, stamps, and lower printing costs
- elimination of postal delivery and delay associated.

- faster processing time at the customer's premises for invoices (no slow transmission from one department to another)
- simplification of the relationship with the public accountant (instant transmission, less missing paper)
- simplification of transmission, consultation, filing and storage
- reduction of payment times
- reduction of legal disputes.

The benefits for the administration are:

- reduction of storage costs, delivery, and postal costs
- improving accounting quality: the implementation of an automatised and unified processing chain is a quality factor by making the circulation of information faster and more reliable.
- real-time monitoring of the invoice processing circuit
- improved relationships with suppliers
- reduction of time-consuming tasks
- reduction of ecological impact.

There were moderate benefits in replacing different national policies and rules with a more homogenous policy approach.

Relevance

France believes that any revision of the Directive 2014/55/EU should take into account the VAT in Digital Age proposal final work and limit itself to reproduce its rules so as to simplify the implementation of eInvoicing for companies.

Future plans

eInvoicing will be mandatory for B2B transactions from September 2026 and subject to a transmission of data to the tax administration. This change will affect approximately 4 million companies, therefore, the B2G system has been adapted so as to meet the standards of the B2B system.

Three formats / syntaxes will be accepted which comply with the EN 16931 standard: UBL, CII and a hybrid format called Factur-X (which encapsulates both structured data and a pdf).

1.2 Italy

Responsible
Ministry of Economy and Finances, supported by the Revenue Agency.

Legal Framework:
The 2008 Budget Law states that eInvoices for state administrations must be transmitted through the Exchange System (SDI).

Ministerial Decree April 3, 2013, Number 55, lays down rules regarding the issue, transmission, and receipt of electronic billing and defines the way the Exchange System (Sistema di Interscambio - SDI) works.

eInvoicing to public administrations (B2G) has been mandatory since 31 March 2015.

eInvoicing between companies (B2B) has been mandatory since January 2019.

eInvoicing between companies and consumers (B2C) has been mandatory since January 2019.

From the April 30th, 2019, the Italian government mandated economic operators to send to the Revenue Agency the so-called "esterometro" based on a quarterly submission of a summary of transactions carried out from January 1st, 2019, to and from foreign subjects, according to a specific data format.

From July 1st, 2022, Italy has improved its FatturaPA eInvoicing technical specification to support a new way of communicating cross-border transactions (intra-EU and extra-EU) by using the same eInvoicing data model. This has eliminated the previous practice (“esterometro”).

Platform
Sistema di Interscambio (SDI) - centralised national eInvoicing hub

Standard/format
National format

FatturaPA XML format

PEPPOL CIUS *– national extension*

AGID maintains the national CIUS implemented using the PEPPOL CIUS PEPPOL which includes extensions: https://peppol-docs.agid.gov.it/docs/my_index_fatt.jsp.

Customisation ID: urn:cen.eu:en16931:2017#compliant#urn:fdc:peppol.eu:2017:poacc:billing:3.0#conformant#urn:www.agid.gov.it:trns:fattura:3.0

The PEPPOL network is used to exchange eInvoices in this format.

National CIUS

The Italian Tax Authority (Agenzia delle Entrate - AdE) has developed a CIUS of the EN 16931 without extensions and is used only to receive eInvoices compliant with the EU eInvoicing standard.

urn:cen.eu:en16931:2017#compliant#urn:fatturapa.gov.it:CIUS-IT:2.0.0

Web services are used to receive eInvoices in this format.

Evaluation of the effects of Directive 2014/55/EU
Effectiveness

At the time of the introduction of Directive 2014/55/EU, the use of eInvoicing in B2G in Italy was already mandatory using a national platform and mandatory format. Hence the effects in terms of effectiveness, the impact on the Italian eInvoicing market is extremely limited. However, Italy suggests that the key challenges to be addressed to facilitate cross-border eInvoicing are mainly related to the transmission, followed by governance and legal certainty.

For cross-border transactions, Italy would fully support the EN 16931, while leaving freedom of choice for the transmission level.

eInvoicing is already used also for VAT reporting, to conduct risk analysis, and provide services to simplify fiscal compliance. During the COVID pandemic, it has been possible to use eInvoicing data to determine loss in turnover compared to 2019. Thus it has been possible to distribute grants even without requesting directly to those enterprises which had evident difficulties.

Uptake

Since 2019, 22 800 over 43 000 public administrations have been using eInvoicing, while only a few dozen have been supporting the EN 16931.

Since 2019, 800 000 over 5 000 000 Economic Operators have been sending eInvoices to the public sector.

In the B2B context, since 2019, approximately 2 000 000 000 eInvoices are exchanged on a yearly basis.

Mandatory use of eInvoicing between enterprises (B2B) would be effective at EU level but makes no difference at domestic level.

Italy experience benefits from the adoption of eInvoicing. Nevertheless, as Italy adopted B2G eInvoicing before implementing directive 2014/55/EU, they are not able to attribute benefits directly to the Directive 2014/55/EU.

The EN 16931 is rarely used, while Peppol is used in the Emilia Romagna region where 209 public entities support the related specifications (https://notier.regione.emilia-romagna.it/notier/pub/countDocumenti.html)

Efficiency

Italy incurred costs related to support the EN 16931 by purchasing software/hardware and were funded some costs using European funds (CEF eInvoicing).

In general, the major cost is related to the implementation of the eInvoicing platform, it was paid by the public administration.

Coherence

In general the initiative is considered to be consistent with other EU and national initiatives that have similar objectives such as ensuring interoperability, facilitating the digitisation of public procurement and the use of EU standards but has not contributed to lower the operating costs or increased legal certainty, due to the national context.

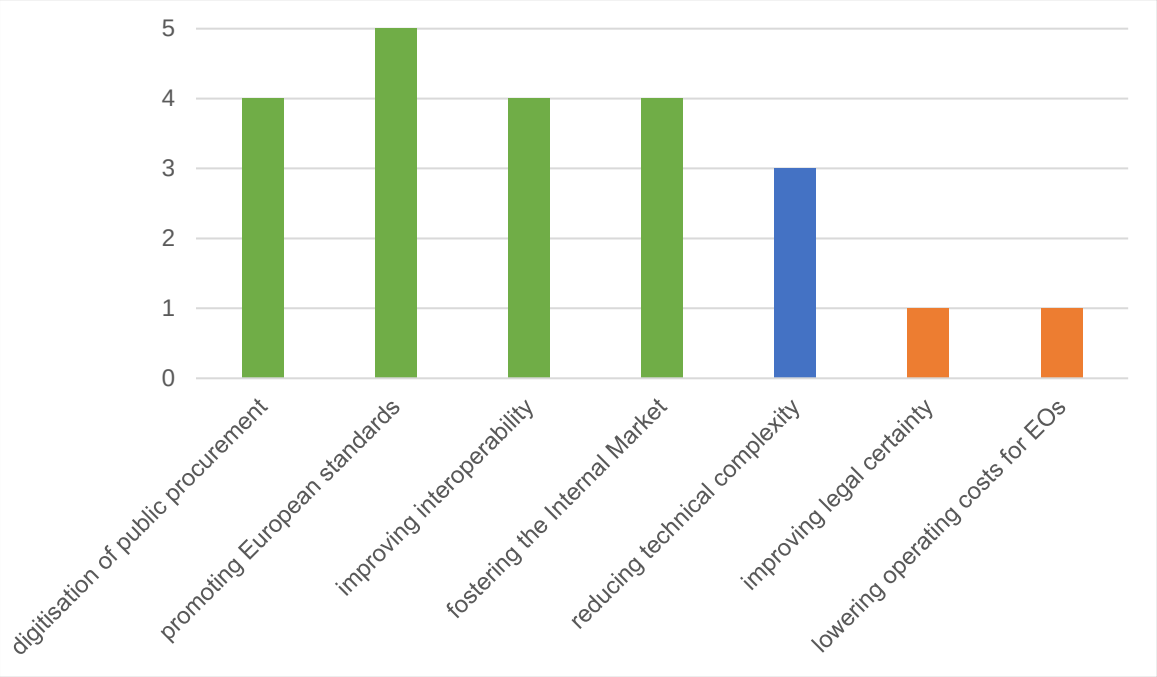


Figure 19 Italy's coherence scores

EU added value

The Directive marked a point in developing a European standard on eInvoicing. However, benefits cannot be fully realised until the adoption of the standard reaches a critical mass.

Relevance

eInvoicing is not mandatory in B2G for cross-border transactions and eInvoicing is rarely used in B2B for cross-border transactions.

Future plans

In its future plans, Italy will maintain the eInvoicing obligations and use of eInvoicing data to facilitate compliance.

Key findings
Between January-December 2019, The Politecnico di Milano conducted a statistically representative survey through a series of interviews with SMEs and large enterprises from all the regions of Italy.

The survey's overview of the state of the art of eInvoicing in Italy shows that 60% of eInvoices were sent by companies' resident in Northern Italy, particularly in Lombardy (34%). In terms of sector of activity, most eInvoices (47%) came from the wholesale, retail, and utilities sectors, characterised respectively by the highest number of companies and an average of eInvoices per issuer more than 25 times higher than the other sectors.

Large enterprises (with more than 250 employees) sent 57% of the invoices received by the SDI. SMEs (10-249 employees) sent 23% and sole proprietorships and micro enterprises (2-9 employees) the remaining 20%. More than three quarters of the invoices had a taxable amount between EUR 1 and EUR 400 and only 1% had amounts over EUR 25 000.

The survey's results shown in the 2020 report[70] testify to the success of the initiative, which, since its launch, has recorded limited rejections and typical criticalities of the start-up phase of a new system. The report links the success to the maturity of the Italian market as regards B2G eInvoicing, among other factors. According to the Politecnico di Milano, the introduction of the obligation on eInvoicing started to bring benefits both in terms of combating evasion and increasing efficiency and effectiveness for companies.

Benefits

Direct benefits

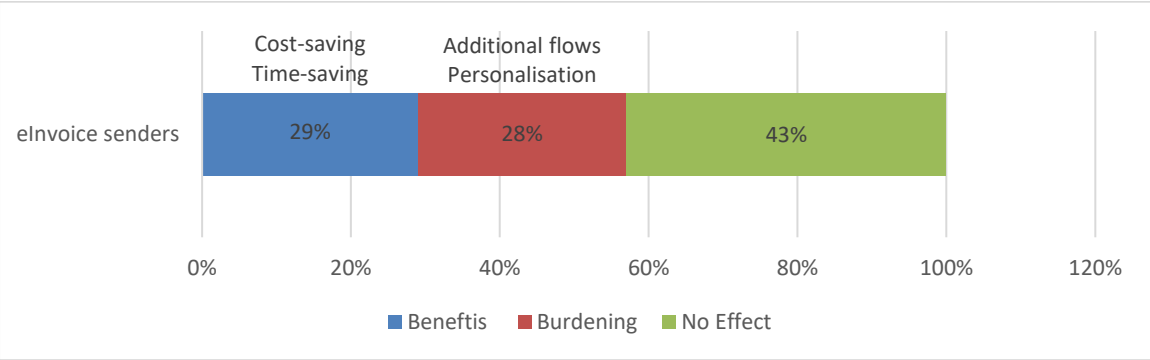


Figure 20 Direct benefits of eInvoice senders in Italy

[70] Politecnico di Milano, Osservatorio Digital B2b, *Scambio documentale in Italia e obblighi in vigore*, Milan, 2020

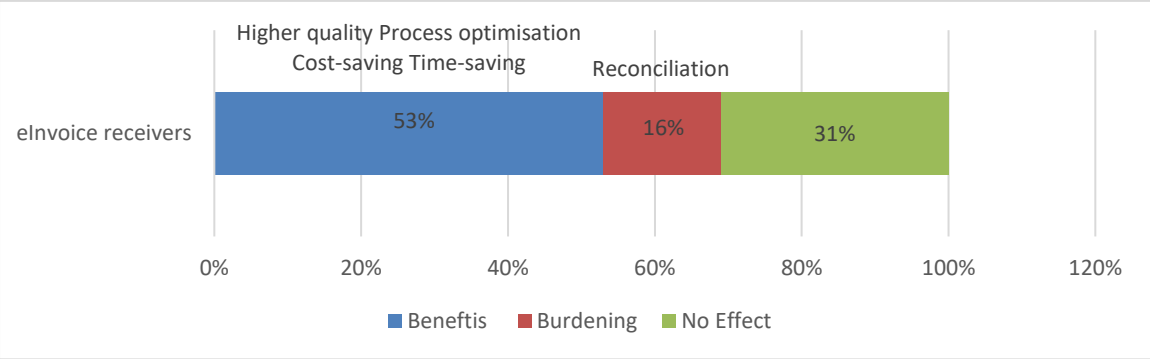


Figure 21 Direct benefits of eInvoice receivers in Italy

When it comes to eInvoice issuers, companies report two main problems:

- the need to customise a lot of information within eInvoices at the request of individual customers.
- the need to maintain a parallel flow, typically the EDI - which contains more information – and the national format.

From an eInvoicing receiver perspective, Italian enterprises' challenges were mainly determined by the reconciliation of eInvoices with other documents in the order cycle.

Benefits of eInvoicing vs unstructured invoicing

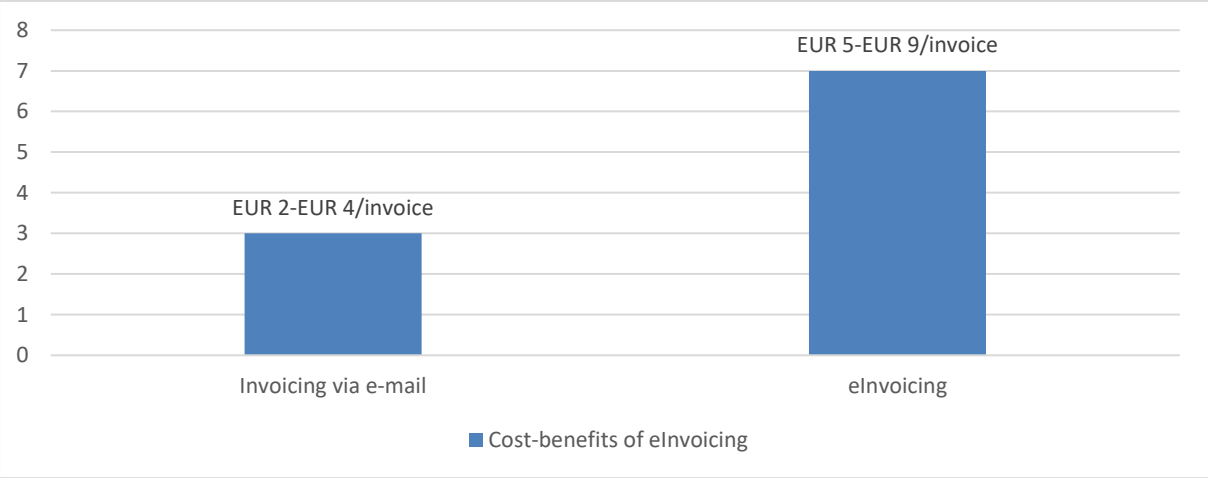


Figure 22 Benefits of eInvoices vs unstructured invoicing in Italy

Invoicing via e-mail:

- Payback time: <2 years
- Sources of the benefits:
  - Transmission
  - Space
  - Materials
  - Document research

eInvoicing:

- Payback time: <1 year
- Sources of the benefits:
  - Personnel productivity
  - Higher accuracy

Indirect benefits

The indirect benefits of electronic invoicing are perceived by 34% of Italian companies. In 2019, 53% of Italian companies receiving eInvoices and 30% of those sending eInvoices claimed that they were reaping benefits from the policy[71].

The benefits depend strongly depend on the enterprise's situation prior to the start of the obligation on eInvoicing. However, among both eInvoice receiving and sending enterprises several indirect benefits have been identified:

- Efficiency: time and cost savings, reduction of errors
- Effectiveness: increase in the quality of information and optimisation of processes
- For eInvoice sending enterprises: important cost savings in terms of consumables and the reduction in the time taken to perform activities.

Although, both senders and receivers of eInvoices perceived similar indirect benefits, benefits for the enterprises-receivers were slightly more palpable than those for senders.

[71] Ibid.

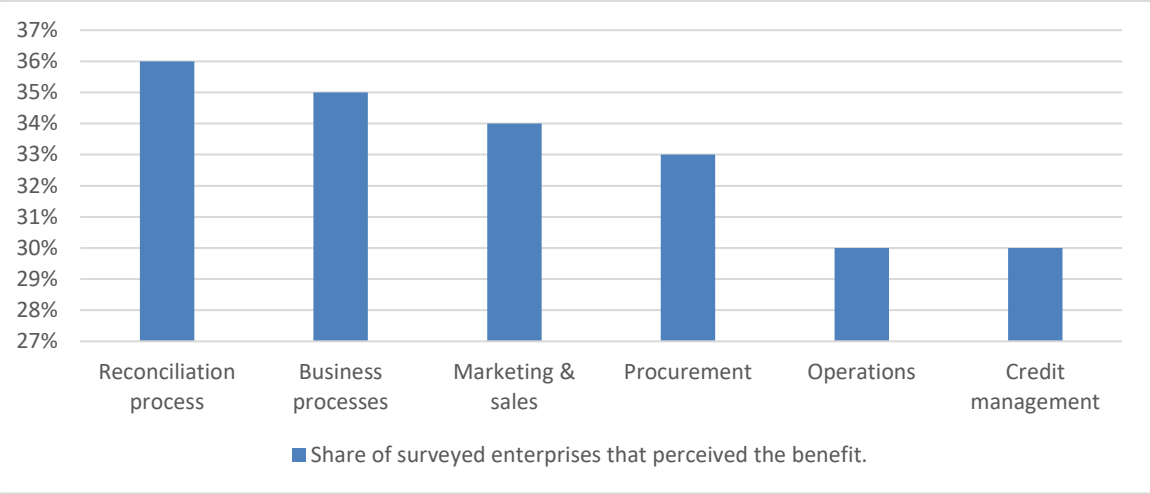


Figure 23 eInvoicing benefits perceived by Italian enterprises

On average, 34% of all the enterprises have perceived benefits from at least one category[72].

Fiscal benefits of eInvoicing in Italy

In Italy, the introduction of eInvoicing was related to 4 factors: fight against VAT evasion, fiscal and administrative simplification, Italy's competitiveness on the international scale, and higher digitalisation of the country's enterprises[73].

At the point of eInvoicing introduction, Italy registered around 25% of EU's tax evasion rate.

[72] Ibid.
[73] Ibid.

From January to December 2019, eInvoicing contributed to an increase in revenue of EUR 3.5 billion. This increase was based on 3 factors:

- 3.6% increase in VAT payments.
- Direct taxes: the increase is conservatively estimated at around EUR 580 million.
- Undue compensations: from January to November 2019, EUR 945 million of EUR 104.7 billion in VAT payments were detected and blocked as false VAT credits.

Blocked false VAT credits on EUR 945 million:

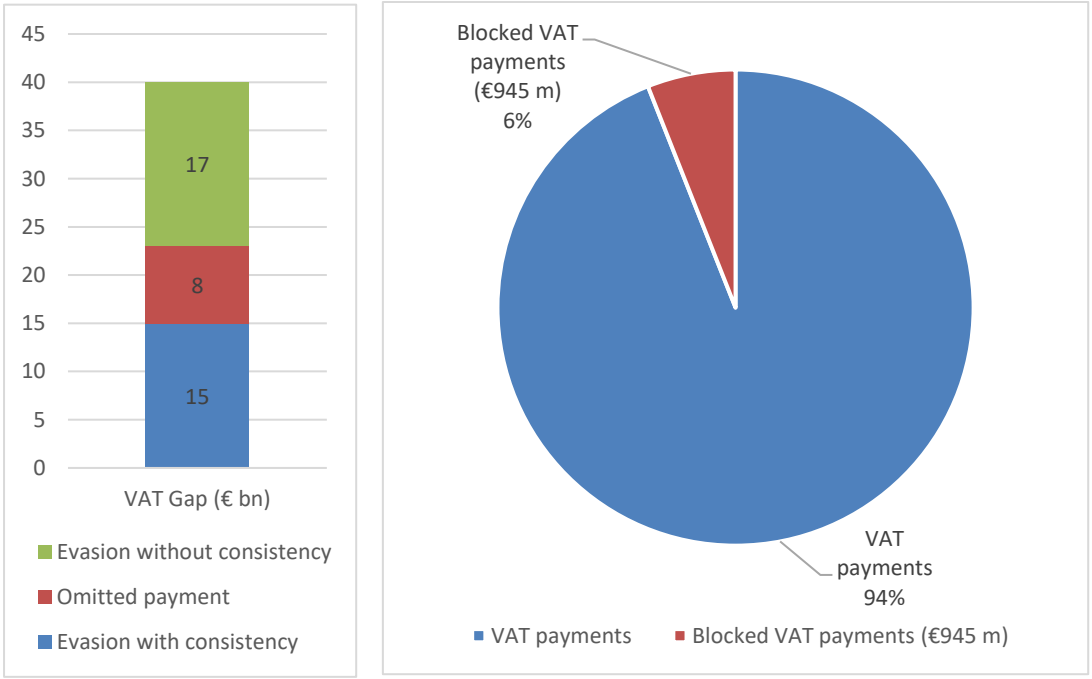


Figure 24 Italy's blocked and false VAT credits

1.3 Croatia

Responsible
Ministry of Economy and Sustainable Development[74]

Legal Framework
Act on eInvoicing in public procurement[75] (transposing Directive 55/2014/EU) entered into force on 1 November 2018. (OJ 94/2018)

Mandates:

- Receiving and processing: central and sub-central authorities and entities
- Sending: Suppliers of public bodies
- In Croatia the obligation for issuing eInvoices in public procurement was introduced from 1.7.2019. The Directive's scope was widened, so the Croatian Act on eInvoicing in public procurement includes all procurement procedures above but also those under the EU threshold.
- For B2B, the obligation is planned to be introduced 2023-2024. This is the jurisdiction of the Ministry of Finance.

Platforms
Servis eRačun za državu[76]

Standard/format
The European standard on eInvoicing is implemented under UBL 2.1. Croatia is using EN 16931 for B2G, and it is expected to use it for the B2B as well, with some national requirements added.

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[74] https://www.mingo.hr/en
[75] https://narodne-novine.nn.hr/clanci/sluzbeni/2018_10_94_1817.html
[76] http://www.fina.hr/Default.aspx?sec=1354

CIUS:

- **CIUS at the national level**[77] that complies with the Croatian VAT legislation.
- The national CIUS provides descriptions of elements and data that should be used in invoices for public procurement.

Evaluation of the effects of Directive 2014/55/EU
Effectiveness

In terms of effectiveness, the introduction of the EN 16931 European standard has created the possibility of wider harmonisation and acceleration of eInvoicing adoption in the public sector at the national level of each Member State. The adoption of the eInvoicing Directive has also removed obstacles to cross-border procurement and trade.

However, challenges still need to be addressed to facilitate cross-border eInvoicing, such as the lack of mandatory eInvoicing for businesses in EU countries, and extensions that other countries apply, which create barriers when conducting cross-border public procurement.

Croatia believes that the eInvoicing Directive and EN 16931 have had a significant effect on the adoption of B2G eInvoicing. However, the initiative had limited impact on B2B due to slow adoption, high investment costs, and no mandates.

To fully realise their effectiveness, mandatory B2G and B2B adoption, as well as economic incentives, education and awareness campaigns are necessary. Some semi-public bodies have cited the lack of integration with accounting software as a significant obstacle in their efforts to adopt eInvoicing. However, faster processing and process automation are key drivers to help overcome these obstacles. Adoption needs to increase EU-wide in order to fully realise the benefits associated with automation.

[77] https://www.fina.hr/e-racun-u-javnoj-nabavi

In 2021, the National Central Platform for eInvoice Exchange (NCP) received approximately 5.7 million invoices, with around 5 000 of them received through Peppol. In comparison, NCP received 5.3 million invoices in 2020 and 2.7 million in 2019.

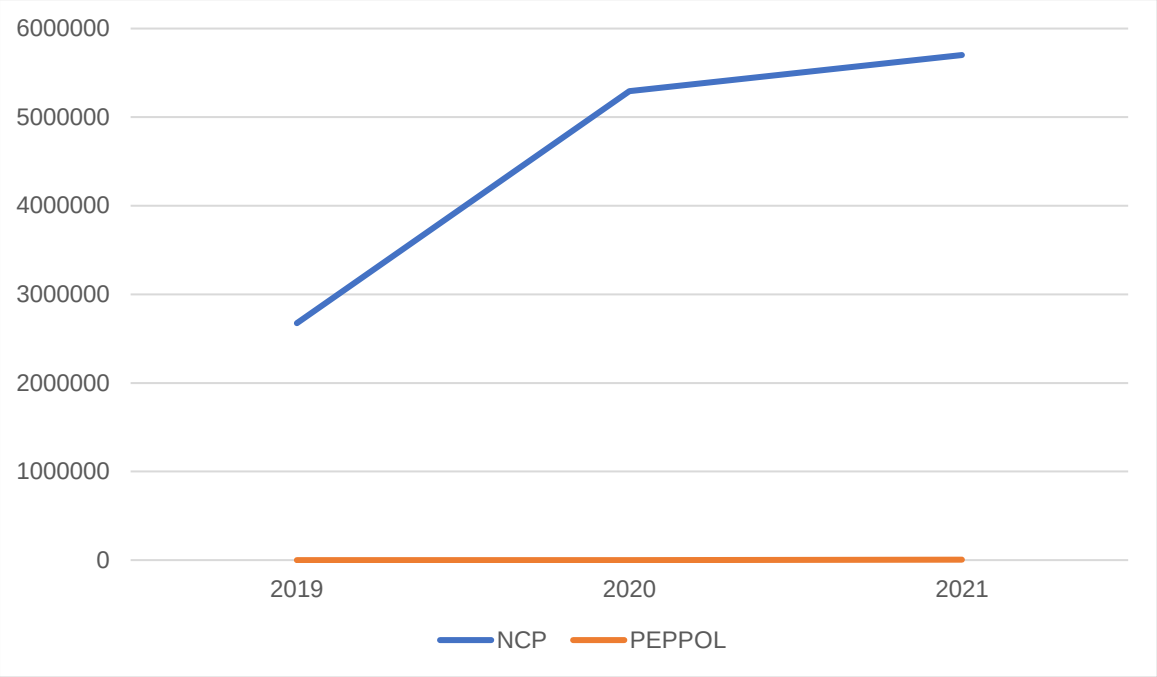


Figure 25 NCP and Peppol eInvoices exchanged in Croatia

Efficiency

Croatia did not provide specific cost figures related to the implementation of the eInvoicing Directive and EN 16931. They did mention the development of a National Central Platform for eInvoicing exchange in public procurement, which had a cost burden, but no further information was available regarding the costs associated with developing and maintaining it. Croatia did not believe that any stakeholder incurred significant costs to date.

Croatia conducted more than 150 educational workshops free of charge to introduce the Directives obligations and EN 16931. They received funding from CEF Telecom involving 40 contracts where they acted as coordinator. Croatian beneficiaries were funded for a total cost of EUR 13.2 million, of which EUR 1 627 556 of the funding was for eInvoicing.

Croatia stated that currently, (EU compliant) eInvoicing benefits only moderately outweigh costs. The implications in their survey response indicate that full benefits will not be realised until EU compliant eInvoicing adoption rates increase throughout the EU.

They also noted that some of the prices for eInvoicing services can be quite high. This can contribute to the reluctance to adopt, particularly for SMEs and Micro Enterprises. Currently, costs are only moderately reduced through the use of eInvoicing, this combined with the cost burden of adopting compliant eInvoicing are contributing factors for low adoption in areas where eInvoicing is not mandated. Croatia also reported a moderate increase in perceived legal certainty and reduced technical complexity through the introduction of the Directive 2014/55/EU and EN 16931.

Operational efficiencies have been achieved since transposing the Directive and the EN 16931, Croatia have automated and digitised procedures as a result of implementing eInvoicing. Archiving has been simplified, and Croatia has reported that the improved transparency has resulted in higher fiscal transparency and eInvoicing data which will be used for decision-making and policy purposes in the areas of financial planning (better planning of the state budget, calculation of savings, potential investments of added value) and fiscal monitoring (enables better transparency of fiscal performance and simplifies the inspection and supervision process).

Coherence

Croatia stated that the EN 16931 publication and Directive 2014/55/EU are aligned with other EU and national measures aimed at enhancing interoperability, promoting the Internal Market, and improving legal certainty. It moderately aligns with EU and national measures aimed at digitising public procurement, promoting EU standards, and reducing technical complexity.

Croatia reported that the Directive and the EN 16931 have a low alignment with other EU and national measures aimed at lowering operating costs for Economic Operators.

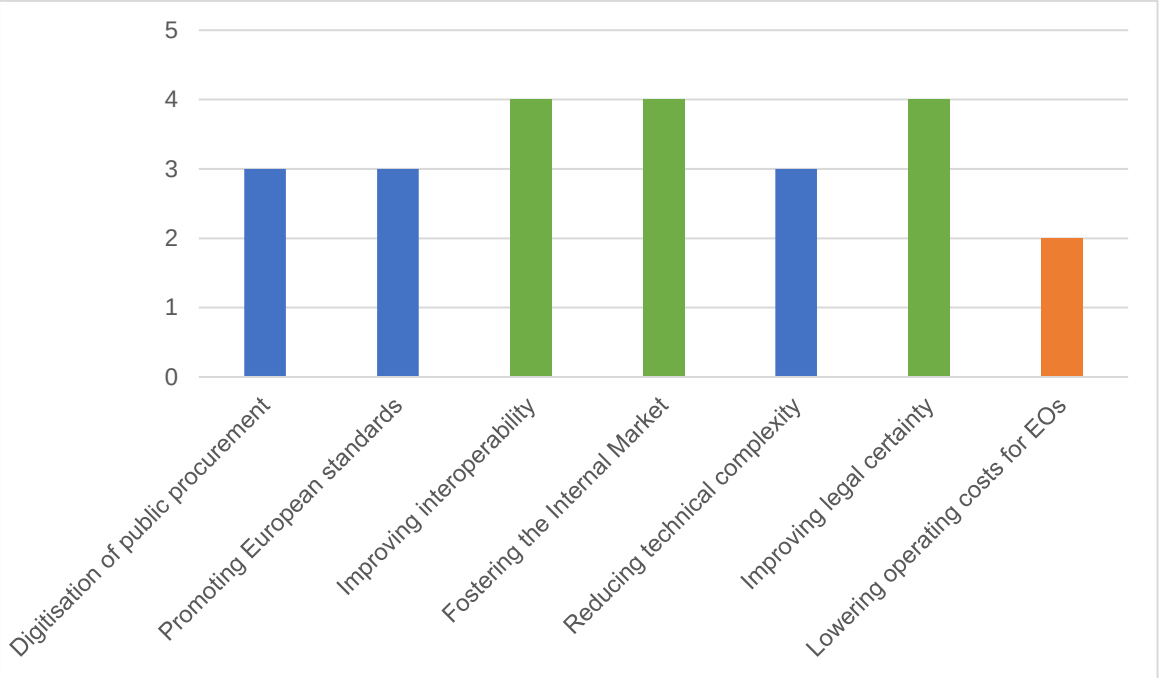


Figure 26 Croatia's coherence scores

EU added value

Regarding the EU added value of the eInvoicing Directive and EN 16931, the Ministry of Economy and Sustainable Development in Croatia commented that while Member States could partially achieve the objectives of the Directive on their own, the key benefit of EU wide involvement was in facilitating cross-border eInvoicing including cross-border procurement.

Issuers of eInvoices could reduce administrative costs associated with invoice preparation, printing, and postage, as well as benefit from faster delivery and secure electronic storage. For recipients of eInvoices, the speed and accuracy of invoice processing are critical, and faster payment can be ensured. Additionally, the use of eInvoicing can enable better financial management, increase productivity, and enhance transparency in public procurement. The

positive effects of the Directive on these fronts were significant while lowering operating costs was not. Croatia believe the positive effects will increase if adoption becomes more widespread, particularly in the B2B sector, throughout the EU.

Relevance

Regarding the ongoing needs and challenges of eInvoicing adoption across the EU, it is important to note that in the B2G context, some Member States have not yet mandated eInvoicing and others have requested extensions, which has resulted in additional challenges in cross-border procurement.

In Croatia, in the B2B context, the adoption of EN 16931 has been slow, and the high costs associated with implementation are also a challenge. Moreover, there is currently no mandatory requirement for B2B eInvoicing adoption.

Future plans

In its future plans, Croatia intends to implement a national strategy mandating eInvoicing for B2B transactions in the coming years.

For cross-border eInvoicing, the Croatian Financial Agency will serve as the access point for Peppol, enabling the receipt of cross-border invoices through this platform.

In terms of VAT digital reporting, the plan is to use EN 16931-compliant eInvoicing.

Moreover, eInvoicing data will be utilised for decision-making and policy purposes. This data can enable better planning of the state budget, calculation of savings, and identification of potential investment opportunities. Furthermore, it can enhance the transparency of fiscal performance and facilitate the inspection and supervision of the eInvoicing system.

Croatia are aiming to maximise savings by establishing a more efficient public procurement process that includes:

- Electronic public tenders
- Electronic submission of tenders
- Electronic supervision of contracts

- eInvoicing
- ePayments

Savings achieved through electronic public procurement are approx. 6 to 12 % of the total amount of public procurement in Croatia, which amounts to HRK 2.6 billion.

1.4 Finland

Responsible
State Treasury

Legal Framework
Law 241/2019 on electronic invoicing[78] "Laki hankintayksiköiden ja elinkeinonharjoittajien sähköisestä laskutuksesta" (Act on Electronic Invoicing of Contracting Entities and Traders), Official publication: Suomen säädöskokoelma (SK); Number: 241/2019; Publication date: 2019-02-27.

Mandates: Finland's national law on eInvoicing, which entered into force on April 1st, 2020, has two national extensions to Directive 2014/55/EU:

- include invoices based on contracts above national thresholds but **below EU thresholds,**
- the Contracting Entity or Trader (Buyer) has the right to receive, on request, an eInvoice from another Contracting Entity (Seller).

Strategy
National strategy: in medium term Peppol based electronic invoicing is increasing in cross-border invoicing. Peppol is also strongly supported in order-delivery and logistics area. Long term target is to close down national electronic invoice format usage and converge into UBL/Peppol based format.

Cross-border strategy: Enable and support Peppol infrastructure and usage of Peppol BIS 3.0 and PINT format invoices.

VAT Reporting: Currently eInvoicing is not used for VAT reporting. However there are plans to follow ViDA requirements.

eInvoicing data used, or planned to be used, for decision-making and policy purposes: Finland is investigating the use of standardised structured data for different purposes like national statistics or sustainability reporting.

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[78] https://www.finlex.fi/fi/laki/alkup/2019/20190241#Pidp446241968

Aggregated invoice data is currently published as **Open Data**

Platforms
Basware Supplier Portal, Handi supplier portal (State Treasury free portal), Tieke (collaboration forums and an eInvoice address repository). The Post Network Service ended in 2022.

Standard/format
In Finland there are two national formats widely used (TEAPPSXML 3.0, Finvoice 3.0.) and those are updated to support EN 16931 semantic contents.

CIUS: Peppol CIUS plus National CIUS

65% of all eInvoices sent to the state meet the EU standard requirements (source: Invoicing the state - Valtiokonttori[79]).

Evaluation of the effects of Directive 2014/55/EU
Effectiveness

The survey responses from Finland indicate that while progress has been made in the adoption of the eInvoicing Directive and the European eInvoicing standard formats, there are still challenges that need to be addressed to facilitate cross-border eInvoicing. These challenges include:

- semantic data modelling,
- syntax,
- governance,
- support for consumer eInvoicing,

[79] https://www.valtiokonttori.fi/en/services/public-administration-services-2/public-administration-services/invoicing-the-state/#application-instructions-for-public-administration-and-instructions-en16931_frequently-asked-questions-about-the-european-standard-of-electronic-invoicing

- national level VAT summary calculation, and
- common guidelines for certain invoice types.

Finland gave moderate scores for the effectiveness of the Directive and EN 16931 in adoption, with 30% usage of the European eInvoicing standard format in 2021. They also emphasised the importance of cost-effectiveness and easy-to-use applications for micro-companies. Finland gave a low score for the effectiveness of the national policy in adoption, instead they credit service providers (operators and banks) and large corporates for having a major impact on eInvoicing adoption.

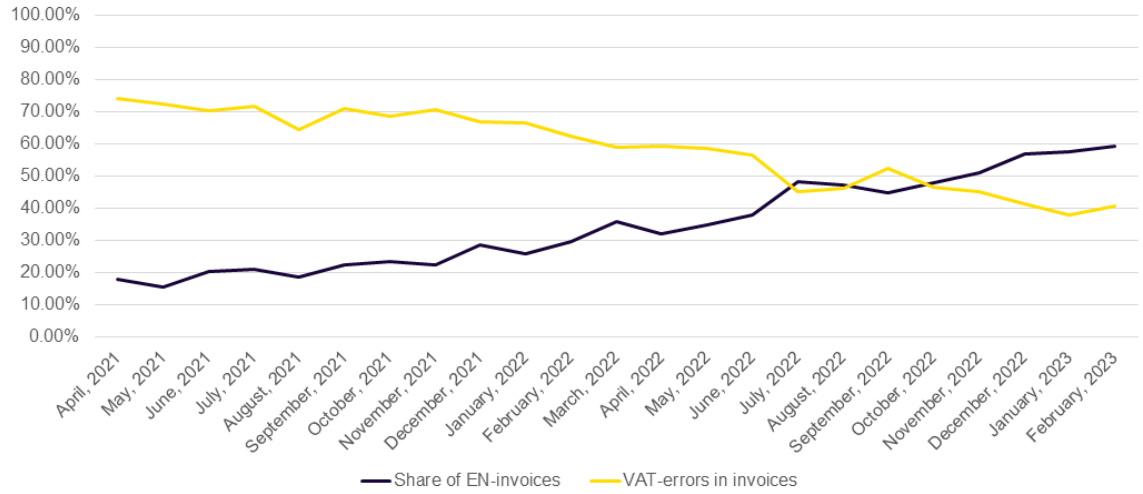


Figure 27 EU compliant eInvoices to the Finnish Government

Finland clarified that while clear legal basis and common specifications were beneficial in achieving this objective, some cases saw an increase in technical complexity due to additional requirements such as codelists. This increased complexity was justified as the EN 16931 compliant eInvoices had significantly fewer errors than the national format and was therefore better for automated processing. As a result, Finland is now phasing out the older national format, which should further reduce errors.

Service providers provide statistics to the government (it was in the contract in the procurement tender, they are contractually obliged to collect and provide data). Operators trust the government that they use the data correctly and it helps everybody to develop the policies.

Uptake

Finland has achieved very high B2G adoption, this amounts to 692 924 eInvoices for the central government and 4 641 005 for municipalities in 2021, without a government-wide mandate. However, the law states that a buyer can mandate a seller to an eInvoice.

Share of eInvoices in public sector purchase invoices

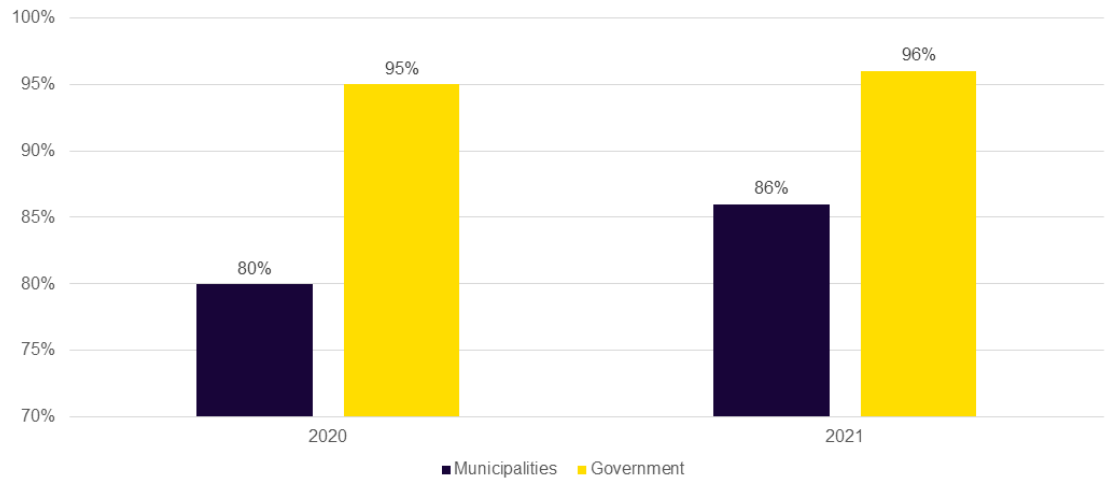


Figure 28 Finland's share of eInvoices in public sector purchases

Finland have agencies who continuously promote and create awareness of the benefits of eInvoicing. Service providers that include banks have been very influential.

Finland considers the role of ERP vendors and accountants to be important for adoption. There is great cooperation with accounting firms, and they promote eInvoicing. This is how the small businesses have been involved. The very small businesses (one man firm) typically invoice through a bank or service provider.

The Finnish authorities believe that the role of ERP vendors is important in driving the adoption.

Currently, Peppol usage is very low and used for non-domestic transactions such as intra-EU. This accounts for only 5 000 out of 139 million.

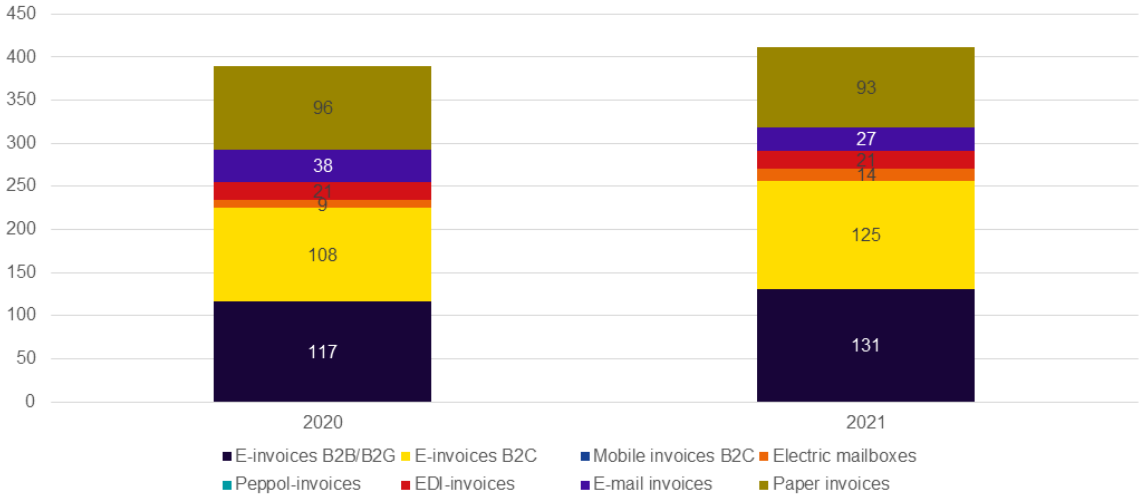


Figure 29 Sent invoice quantities in Finland

Finland also participate in the Nordic Smart Government (NSG) – automating financial flow between Scandinavian countries.

Efficiency

Finland did not incur costs solely related to transposing the Directive 2014/55/EU and ensuring compliance with EN 16931. The cost to ensure the national format complied with the EN 16931 was estimated at EUR 250 000. They obtained CEF funding in a EUR 100 000 joint project with Estonia in 2017 to 2018.

Finland commented that national format owners and software houses have borne the highest cost, however, although evidence was not collected Finland believes that the benefits significantly outweighed the costs. Legal certainty was introduced by the Directive and the technical simplification provided through the use of a common EU eInvoicing standard.

The main benefits come from increased data quality of the eInvoice which is important for process automation and good statistics. With the introduction of the EN 16931, the use of a common data structure and validation artefacts removed the need for machine learning (and RPA).

A key challenge is the adoption of eInvoicing for small businesses that have to use many different eInvoicing portals (up to 17) and this is not sustainable.

Finland suggests that the EC could increase efficiency by implementing measures such as:

- avoiding national implementations,
- adopting the same VAT reporting, and
- harmonising the usage of VAT codes.

Coherence

Finland provided the following score in relation to the extent to which the Directive and the European eInvoicing standard is consistent with other EU and national interventions:

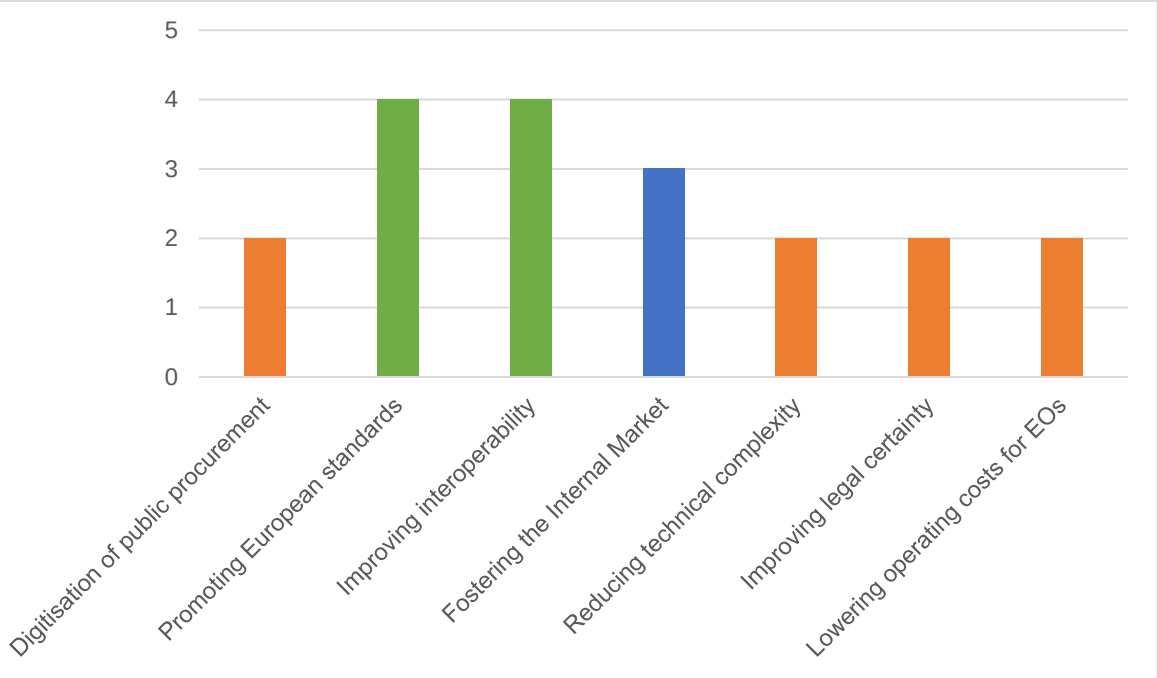


Figure 30 Finland's coherence scores

Promoting EU standards and interoperability are considered highly consistent policies with the score of 4/5.

EU added value

Finland stated that the objectives outlined in the eInvoicing Directive could not be achieved by Member States acting alone. Where previously they had implemented some B2B eInvoicing prior to this, the Directive resulted in the implementation of eInvoicing in public procurement (B2G).

Relevance

Finland gave a moderate score of 3 for the extent the needs and problems addressed by the Directive continue to require action at EU level indicating EU action may still be required. Finland stated the following needs and problems are still relevant in their country in B2G context:

- VAT calculation
- Existence of non-compliant eInvoices
- Since the Directive implies only invoices above EU threshold there is a lot of invoices outside the Directive scope and therefore benefits are only partially collected

Future plans

The Finnish government is adding Peppol BIS 3.0 capabilities to its own Handi-supplier portal. This should be ready in April 2024, when government starts to demand Peppol-orders.

Another project is a universal procurement-portal which should give abilities to all Finnish SMEs to use Peppol BIS 3.0-messages regardless of their customers. This project is in a pre-evaluation phase.

The national strategy is to:

- **in medium term** to promote Peppol based electronic invoicing in cross-border invoicing and usage of Peppol BIS 3.0 and PINT format invoices. Peppol is also supported in order-delivery and logistics area.
- **in the long term** the target is to close down national electronic invoice format usage and converge into UBL/Peppol based format.

It is under consideration to make B2B electronic invoicing mandatory in ongoing "yrityksen digitalous" program. The objective is to reach 90% adoption in B2B transactions in 2023.

Finland are investigating the use of standardised structured data for other purposes like national statistics or sustainability reporting.

They are also investigating new technologies like trust-over-ip and using Mobile based solutions for B2C invoicing.

In addition to the four case studies of Member States (i.e. France, Italy, Croatia, and Finland) analysed in this Annex; below a series of country profiles are outlined encapsulating comprehensive information regarding EU Member States. The case studies are of analytical nature while the country profiles are more of an informative nature.

Austria

Legislation

The provision of the IKT Konsolidierungsgesetz §5[80] mandates that all contracting partners of the federal government, including foreign contracting partners, must only submit structured electronic invoices for the provision of goods and services to government departments.

The national transposition of Directive 2014/55/EU is contained in BVergG 2018 §368[81]. In Austria, there has been a minimal transposition of the Directive and the obligation was applied only for contracting authorities above the EU thresholds.

Mandatory for

- **Receiving and processing**: Central authorities, Regional authorities & Local authorities.
- **Sending**: Since 2014, Economic Operators must send eInvoices to the Federal Government

Platform

Any portal can be used if connected to the authentication services of the Federal Service Portal (Unternehmensserviceportal – USP) E-rechnung.gv.at for eInvoicing Transmission

Standard(s)

National Standard in use (if any)

ebInterface (national XML standard)

EN 16931 compliant standard

Two CIUSs have been developed:

- CIUS AT NAT - CIUS with the legal rules, which is based directly on the EN.
- CIUS AT GOV - CIUS with special rules from e-Rechnung.gv.at for the federal government. This CIUS is based on the "CIUS AT NAT".

Monitoring

The monitoring is implemented only at the federal level.

[80] https://www.ris.bka.gv.at/NormDokument.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20007805&Paragraf=5

[81] https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20010295&FassungVom=2019-04-18

Strategy	There is no national eInvoicing strategy.
Structured eInvoicing uptake	All Contracting authorities in the federal government receive eInvoices plus there are 34 other public entities[82]. 5% of B2G eInvoices are based on EN 16931. The following data is based on an Austrian Chambers of Commerce (WKO) survey that was carried out in the second half of September 2021 and addressed to 444 self-employed/managing directors, freelancers or employees who deal with accounting in the company and carry out invoice receipt internally and accept electronic invoices. • 15% of the respondents received between 1% & 25% of their invoices electronically. • 22.3% of the respondents received between 26% & 50% of their invoices electronically. • 28.1% of the respondents received between 51% & 75% of their invoices electronically. • 34.1% of the respondents received between 76% & 100% of their invoices electronically. The most common format for invoices received electronically is a PDF document. The following figure shows the percentage of invoices received electronically.

[82] https://www.erechnung.gv.at/erb/recipients_others

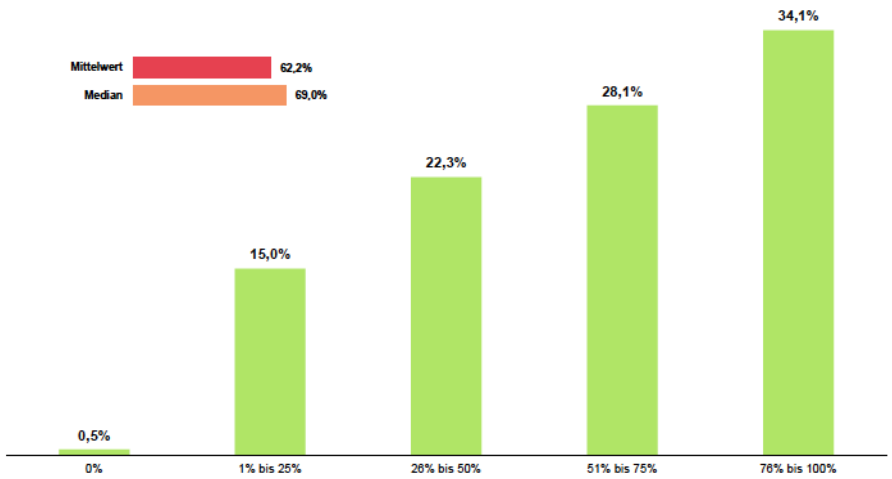


Figure 31 percentage of invoices received electronically (Source Austrian Chambers of Commerce (WKO) survey)

The following figure shows the formats of invoices received electronically.

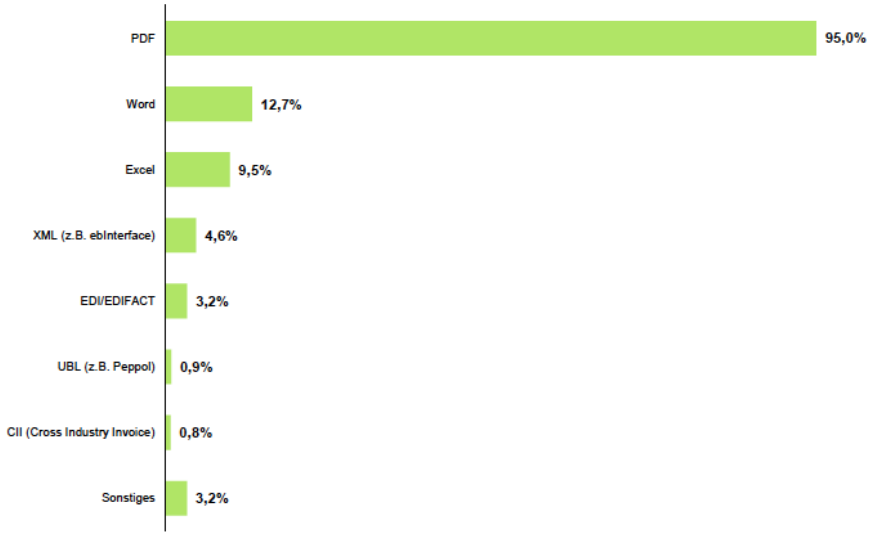


Figure 32 formats of invoices received electronically (Source Austrian Chambers of Commerce (WKO) survey)

Percentage of enterprises sending eInvoices

The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing.

The data[83] from Eurostat does not distinguish between B2G or B2B transactions.

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
7.5%		9.4%	11%	25%	24.9%		20.5%		22%

[83] https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm

Table 12 Eurostat Sending eInvoices suitable for automatic processing in Austria

Implementation of EN 16931 compliant eInvoices

Approach

Austria mandated the use of the Federal Service Portal (Unternehmensserviceportal – USP), the central processing eInvoicing platform of the federal government to receive eInvoices. eInvoices based on Austrian national eInvoicing format 'ebInterface' as well as PEPPOL eInvoices are sent to the Austrian Federal Government through the Federal Service Portal. The portal is operated by the Federal Computing Centre (BRZ).

Uptake of EN 16931

The Directive 2014/55/EU and the introduction of EN 16931 contributed moderately to increasing the adoption of eInvoicing in Austria.

Is Peppol / eDelivery used	Yes, the federal computing centre offered a Peppol interface.
Percentage of eInvoices EN 16931 compliant vs. total number of B2G eInvoices	**2019**: 5%
	2020: 5%
	2021: 5%

Table 13 Uptake EN 16931 in Austria

Cost and Benefits

Austrian authorities confirmed that they incurred costs ensuring the national format complied with the EN 16931.

CEF Telecom eInvoicing funding

- Budget requested: EUR 212 220.

eInvoicing services offered by the government (free of charge)

Delivery of eInvoices to E-Rechnung.gv.at is free of charge for the user.

eInvoicing services offered by the government (free of charge)

N/A

Call for evidence

N/A

Key findings	The Austrian Bundesbeschaffung GmbH (Federal Procurement) indicated that the Directive and the European eInvoicing standard contributed moderately to increasing adoption in B2G but had no contribution to adoption in B2B. However, they defined the following positive effects of the Directive: structured eInvoicing operations, transparent and effective process submitting an invoice, and statistical analyses of the invoicing data. Central authorities benefitted significantly followed by large and medium enterprises that had some benefits while micro enterprises and service providers did not benefit. They indicate that process automation is a key driver behind benefits. As can be seen by Eurostat data, adoption rate overall is still low. They indicated that mandatory B2G followed by mandatory B2B are the most effective measures that could increase eInvoicing adoption at EU and national level.

Belgium

Legislation

Transposition of European Directives

The federal law modifying the VAT code of 17.12.2012[84] transposes the Directive 2010/45/EU. This law links the use of eInvoices with the willingness of the receivers to process it. This law does not mandate the use of eInvoices in B2G procurement.

The federal law on public procurement of 7 April 2019[85] transposes the Directive 2014/55/EU.

The Belgian Parliament enacted the new Royal Decree of March 9, 2022[86], which establishes new requirements for eInvoicing in Belgium in the public sector. The procedures relate to the obligation of economic operators with regard to electronic invoicing in the context of public procurement and concession contracts. The new legislation expands the scope of existing eInvoicing requirements nationwide. The implementation schedule of this mandate requires suppliers of public bodies to issue eInvoices based on a combination of (a) the publication date of the tender, and (b) the value of the contract with the public body, excluding VAT, as follows:

- 1 November 2022: equal or greater than EUR 215,000.
- 1 May 2023: equal to or greater than EUR 30,000.
- 1 November 2023: below EUR 30,000 but above 3,000. Contract values below EUR 3,000 are exempt from the eInvoicing obligation.

Regional decisions

The regional government of Flanders decided in 2016[87] to make the use of eInvoices in B2G procurement also mandatory for economic operators as

[84] law modifying the VAT code of 17.12.2012
[85] law on public procurement of 7 April 2019
[86] Royal Decree of March 9, 2022
[87] https://overheid.vlaanderen.be/sites/default/files/documenten/overheidsopdrachten/e-procurement/B2016-12-16_beslissing_e-facturatie_0.pdf

	of 1 January 2017 for all its regional entities.
	
	Since 1 November 2020, only eInvoices are accepted for all public contracts awarded by the administrations and public organisations of the Brussels-Capital Region.
	
	Since 1 January 2022, eInvoices are the preferred method for B2G transactions in the Wallonia region following the region's announcement[88] and a guide[89] for the contracting suppliers. Invoices sent via PDF or Word formats are no longer accepted, but invoices can still be submitted by post. Taxpayers can send eInvoices through the Peppol network to the public entities or submit invoices manually via Mercurius[90] platform. All B2G invoices must have an invoice reference, a date, a VAT number, and a supplier's bank account number. Additionally, a Bank Identity Statement will be required to be included on the invoices if the bank account details of the issuer are not present in the new database of the Wallonia region.
	
	Mandatory for
	
	• **Receiving and processing**: Central, regional, and local contracting authorities
	  • **Sending**: Economic operators of Regional government of Flanders and regional government of Brussels
	  • **Mandatory below the EU thresholds**: Yes

Platform	The Belgian approach is platform agnostic. • The Belgian public sector operates the Mercurius platform for the exchange of eProcurement documents and supports Peppol. • Hermes platform provides a bridge between the entities capable of sending invoices complying with the European Norm, and receivers who have not yet found a suitable tool to receive such invoices natively.
Standard(s)	*National Standard in use (if any)* *EN 16931 compliant standard* The European standard on eInvoicing is fully implemented.

[88] announcement
[89] Guide
[90] Mercurius

Monitoring	There is a monitoring system in place at the central and sub-central levels. Mercurius ensures partially the monitoring, as the usage of this platform is not mandatory. The Government of Flanders reports on its results on a monthly basis.
Strategy	Suppliers will be mandated to use eInvoicing and a more coordinated approach is in progress between central and local authorities. Belgium has adopted the Peppol interoperability model. National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030) Between 2023-24 Belgium expects to consolidate the results of the initiative of the Flemish Government and the Brussels Government and extend them to all contracting authorities in Belgium. In the long term, the entry into force of the ViDA proposal may lead to a wider eInvoicing strategy. Strategy for ensuring cross-border eInvoicing interoperability Belgium has moved away from traditional platform-centric approach towards a distributed eInvoicing architecture based on Peppol interoperability model. The results achieved by the Flemish region (80% penetration of eInvoicing) and the Brussels region (30% penetration), which are based on the adoption of Peppol in combination with awareness programmes, indicate that this approach meets its objectives.
Structured eInvoicing uptake	According to a study performed by the Agency of Administrative simplification: • In 2013, 29 650 667 (6.02%) outbound invoices and 33 258 300 (7.40%) inbound invoices of enterprises were electronic. The Government of Flanders has received close to 80% of all eInvoices based on Peppol. Overall, the growth in the percentage of eInvoices received over the past 4 years has increased from 8% of invoices being electronic in early 2017 to 78% in March 2021. • They have approximatively 5 500 Contracting Authorities • The Mercurius platform, that helps Contracting Authorities to receive standardised eInvoices by connecting them to the Peppol network, currently supports 2 500 Contracting Authorities, out of which 1 100 are effectively able to receive structured invoices. The only format available is EN-compliant. • They estimate the evolution of this figure as follows: 2019: 500 (9%); 2020: 800 (14%); 2021: 900 (16%) (End of year); today: 1 100 (20%) • On the side of Economic Operators, we currently have approximatively 8 000 of them sending eInvoices through Peppol to our Contracting Authorities. We estimate the evolution of this figure as follows: 2019: 3 000; 2020: 4 000; 2021: 6 000; 2022: 8 000.

- They don't have a reliable estimate of the total amount of economic operators. To produce such a figure we should specify how it is to be calculated, and probably collect and consolidate figures across the Belgian public sector.
- CAs have freedom of choice how they meet the Directive, the ones not using Mercurius might use other solutions.
- They have not been informed of any other solution to receive EN-compliant invoices for Contracting Authorities (other than the Peppol - Mercurius combination)

Number of Contracting Authorities using eInvoicing	**2019**: 500 (9%) **2020**: 800 (14%) **2021** Q4: 900 (16%) **2023** Q1: 1 100 (20%) Note: estimates provided by the BE authorities for 1 100 Contracting Authorities receiving eInvoices out of 2 500 CAs, supported by the Mercurius Platform. A total of 5 500 Contracting Authorities are present in Belgium.
Number of suppliers sending eInvoices for public procurement contracts	**2019**: 3 000 **2020**: 4 000 **2021**: 6 000 **2022**: 8 000
Number of B2G eInvoices from national suppliers	**Central level** **2019**: 50 000 **2020**: 80 000 **2021**: 100 000

		2022: 120 000 **Sub-central level** **2019:** 500 000 **2020:** 650 000 **2021:** 1 000 000 **2022:** 1 300 000
	Notes on above data	The data reflect both domestic and foreign suppliers. All eInvoices handled by Mercurius are exchanged via Peppol, with the exception of a minor volume of manually keyed in invoices (today less than 5%)

Table 14 Structured eInvoicing uptake in Belgium

Percentage of enterprises sending eInvoices

The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing.

The data[91] from Eurostat does not distinguish between B2G or B2B transactions.

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
10%		11.6%	10.9%	12.3%	15.5%	18.3%	20.6%		24.6%

Table 15 Sending eInvoices suitable for automatic processing in Belgium

[91] https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm

Implementation of EN 16931 compliant eInvoices

Approach

The Belgian public sector receives eInvoices from any sender that meets the Peppol interoperability specifications. The Mercurius platform helps the entities composing the Belgian public sector by providing a mailroom service, thereby facilitating the technical aspects for both the sending and receiving side.

eInvoice processing is the responsibility of each entity. It highly depends on the business, technical capabilities, and organisational context of each entity.

Adoption of Peppol along with the national platform Mercurius, has been identified as the way to avoid different implementations and is broadly adopted in the public sector.

All Belgian entities can receive eInvoices compliant with the European standard on eInvoicing, using the components described above.

Uptake of EN 16931

According to the Federal Public Service Policy and Support (BOSA), the Directive 2014/55/EU and the introduction of EN 16931 moderately contributed to increasing the adoption of eInvoicing in Belgium for B2G transactions.

They also state that for B2G, up to now, only a fraction of Belgian Contracting Authorities, mostly at the Flemish government and the Brussels government, have implemented eInvoicing up to a significant level. Flanders has launched its adoption program before the Directive and the European Norm. Brussels stacked to the timing of the Directive. Only now that the national law also mandates B2G eInvoicing for all public procurement, it is expected that adoption will significantly take up.

Is Peppol / eDelivery used	Yes
Number of public contracting authorities and entities using eInvoicing compliant with the EN 16931, versus the total	**2019**: 500 (9%) **2020**: 800 (14%) **2021 Q4**: 900 (16%) **2023 Q1**: 1 100 (20%)

		Note: estimates provided by the BE authorities for 1 100 Contracting Authorities receiving eInvoices out of 2 500 Contracting Authorities, supported by the Mercurius Platform, where all eInvoices are exchanged via Peppol, except for a minor volume of manually keyed in invoices (today less than 5%).
	Percentage of eInvoices EN 16931 compliant vs. total number of B2G eInvoices	These are estimates of provided by the Belgian authorities for the Mercurius platform. **Central level** **2019**: 100% for all **2020**: 80 000 **2021**: 100 000 **2022:** 120 000 **Sub-central level** **2019:** 500 000 **2020:** 650 000 **2021:** 1 000 000 **2022:** 1 300 000

Table 16 Uptake of EN 16931 in Belgium

Cost and Benefits

The expected benefits of the eInvoicing adoption in Belgium were estimated to EUR 3.37 billion/year. The long-term objective is the massive adoption of eInvoicing. The fragmentation of the eInvoicing landscape is recognised as one of the main obstacles to such massive take-up.

It is also expected that the European eInvoicing standard should be usable for B2B transactions and become a cross-sector common denominator standard. The main additional essential practical component to avoid fragmentation, is adoption of a common framework that goes beyond semantic

and syntactic interoperability, and encompasses legal aspects, connectivity, and governance, providing a global and consistent model that enables unlimited interoperability.

Implementation costs for EN 16931	• Purchase software/hardware: • Training costs: • Change management: • Test environment: • Service providers fees: • Reduced number of staff working on manual invoicing: • Number of staff redeployed in value added • Higher electricity usage due to processing power and data storage space: • Increase in long term of electronic waste products:

Table 17 Implementation costs for EN 16931 in Belgium

CEF Telecom eInvoicing funding

Budget requested: EUR 983 290

Benefits at the national level

The Flemish government communicated[92] often about the benefits derived from eInvoicing implementation.

N/A

eInvoicing services offered by the government (free of charge)

Call for evidence

Feedback from GENA

GENA states that the directive was an important step towards eInvoicing, but it has led to moderate/low volumes of invoices in European eInvoicing

[92] https://overheid.vlaanderen.be/e-invoicing/resultaten

	standard syntaxes. This is partly due to a lack of adoption incentive for suppliers where a B2G e-invoicing method was already in place. GENA urges the Commission to ensure that Member States fully transpose Directive 2014/55/EU. GENA members agree that the European eInvoicing standard does not fully cover all use cases for B2B e-invoicing. The Commission should review realistic paths to resolve existing discrepancies, considering that it might not be possible to fully cater for using standardised data for every B2B use case, and that evolution of the European eInvoicing standard for B2B purposes may drive adaptation costs for B2G platforms in Member States. **Feedback from GS1** GS1 in Europe highlights the significant role of open, global, non-proprietary product data standards, like GS1 Electronic Data Interchange (EDI), in the debate on future EU rules on e-invoicing. GS1 EDI provides global standards for electronic business messaging, allowing automation of business transactions across global supply chains. Existing use of GS1 EDI includes over three hundred million invoices in the German retail sector and over one billion invoices based on GS1 Standards across Europe each year. The introduction of mandatory e-invoicing for B2G has extended digital exchange to the public sector, providing benefits for administrations. However, the impact on B2B and business in general has been more limited. To achieve maximum efficiency, it is advisable to focus on harmonised semantics and a scalable data model, avoid unnecessary disruption of existing supply chain processes, and focus on basic requirements in terms of exchange infrastructure and security.
Key findings	As of today, for B2G eInvoicing, only a fraction of Belgian Contracting Authorities, mostly at the Flemish government and the Brussels government, have implemented eInvoicing up to a significant level. Flanders has launched its adoption program before the Directive and the European Norm. Brussels implemented the initiative in alignment with the timing of the Directive. Since the national law also mandates B2G eInvoicing for all public procurement, it is expected that adoption will significantly increase. In the call for evidence, GENA state that it might not be possible to fully cater for using standardised data for every B2B use case. GS1 state that to achieve maximum efficiency, it is advisable to focus on harmonised semantics and a scalable data model, avoid unnecessary disruption of existing supply chain processes, and focus on basic requirements in terms of exchange infrastructure and security. The eInvoicing strategy according to the Federal Public Service Policy and Support (BOSA) is to replicate the results of the Flemish Government and the Brussels Government, to the broader scale of the Belgian Contracting Authorities. Beyond that (2025-2030), the main driver of tax collection will most probably be introduced (VAT in the Digital Age). As result of a B2G eInvoicing pilot project (2013-2015), BOSA identified the need to get rid of the costs of partners' onboarding, that goes along with traditional, platform-centric approach. This project indicated that this need was covered by adopting Peppol. The results booked by the Flemish region (80% penetration of eInvoicing) and the Brussels region (30% penetration), which are based on the

adoption of Peppol in combination with sensibilisation programs, indicate that this approach meets its objectives.

Bulgaria

Legislation

The amended Public Procurement Act (PPA) by the Law for Amending and Supplementing the Public Procurement Act (LASPPA[93]) legislates the use of eInvoicing and the European standard in Bulgaria since 18 October 2018.

The Public Procurement Agency created a dedicated portal[94] detailing guidance for compliance.

According to the Art. 115a. (new – State Gazette (SG) 86/18[95]), in force from 1 November 2019, in the case of payment under public procurement contracts, all contracting authorities are obliged to accept and process eInvoicing, this to comply with the Directive 2014/55/EU[96])[97] and implement the European standard on electronic invoicing.

On 1 July 2020, provisions entered into force regarding electronic means of communication for tender evaluation, conclusion of a contract, ordering, invoicing, and payment.

Mandatory for

- **Receiving and processing**: Central authorities, Regional authorities, and Local authorities.
    - **Sending**: The Bulgarian tax authority NRA (National Revenue Agency) along with industry stakeholders have been discussing the idea of introducing mandatory eInvoicing for private entities.

Platform

The LASPPA ensures the requirements of eInvoicing Directive transposition and the creation of the Central Automated Information System Electronic Public Procurement[98] (CAIS EPP) as a national platform for electronic public procurement[99].

[93] https://www2.aop.bg/wp-content/uploads/2019/08/ppa_26022019.pdf
[94] https://www2.aop.bg/
[95] https://ials.sas.ac.uk/eagle-i/bulgarian-state-gazette
[96] https://eur-lex.europa.eu/legal-content/FR/TXT/?uri=CELEX%3A32014L0055
[97] https://www2.aop.bg/wp-content/uploads/2019/08/ppa_26022019.pdf
[98] http://app.eop.bg/
[99] https://www2.aop.bg/cais-eop-questions/

Standard(s)	*National Standard in use (if any)*	*EN 16931 compliant standard* The European standard on eInvoicing is fully implemented. • ISO 20022[100] (technical specification used voluntarily, mostly used as a payment standard).
Monitoring	It is specified that according to Article 9k, paragraph 3 of the Regulation for the Implementation of the Public Procurement Act[101], the users of the platform are obliged to monitor their profiles for notifications, messages, and documents.	
Strategy	N/A	
Structured eInvoicing uptake	N/A	
Percentage of enterprises sending eInvoices	Percentage of enterprises sending eInvoices The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing. The data[102] from Eurostat does not distinguish between B2G or B2B transactions. 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020	

[100] https://www.iso20022.org/
[101] https://www.oecd.org/gov/public-procurement/publications/guide-public-procurement-legislation-bulgaria.pdf
[102] https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm

	6.3% 9.4% 8.6% 8.8% 10.2% 12% 12.5% 10%

Table 18 Sending eInvoices suitable for automatic processing in Bulgaria

Implementation of EN 16931 compliant eInvoices	**Approach** The European standard is mandatory by law for all the contracting authorities. eInvoicing in Bulgaria is based on bilateral agreements between economic operators (or solution providers acting on their behalf) and public administrations. The Regulation for the Implementation of the Public Procurement Act[103] states that the exchange of documents and communications between contracting authorities, candidates, participants, and contractors is carried out through the national platform. The electronic signature is optional for eInvoices, and the archiving period amounts to 6 years[104].
eInvoicing services offered by the government (free of charge)	N/A
Cost and Benefits	EU funding • Requested funding (in euro): No funding requested.
Call for evidence	N/A
Key findings	Bulgaria provided no response to the Member State survey.

[103] https://www.oecd.org/gov/public-procurement/publications/guide-public-procurement-legislation-bulgaria.pdf
[104] https://www.pagero.com/compliance/regulatory-updates/bulgaria

Croatia

Legislation

Act on eInvoicing in public procurement[105] (transposing Directive 55/2014/EU) entered into force on 1 November 2018. (OJ 94/2018). The Act obliged all public procurement entities (purchasers/procurers) to receive and process EN-compliant electronic invoices (eInvoices) as of 1 December 2018.

The Act also introduced mandatory issuance of structured eInvoices for suppliers /issuers of eInvoices to public administrations as of 1 July 2019.

According to the Act, all eInvoices issued in public procurement must comply with the European standard on eInvoicing (EN 16931).

Furthermore, the Act broadened the scope of the Directive and Croatia has made eInvoicing mandatory for procurement procedures below the following thresholds: purchase of goods and services below HRK 200 000 (about EUR 26 000) and works below 500 000 (about EUR 66 000). The Act also made eInvoicing mandatory for all procurement using direct purchasing with purchase orders and other similar procedures.

Mandatory for

- **Receiving and processing**: central and sub-central authorities and entities
- **Sending**: Suppliers of public bodies
    - **Mandatory below the EU thresholds**: Yes

[105] https://narodne-novine.nn.hr/clanci/sluzbeni/2018_10_94_1817.html

Platform	Servis eRačun za državu[106]. There is a central national platform for the exchange of eInvoices, Servis eRačun za državu. All B2G eInvoice exchanges must connect to this platform, which interconnects public purchasers, contracting authorities, sectoral contractors, and information intermediaries with their clients. The platform is also connected to Peppol (FINA[107] Peppol Access Point connected to it) so that all Peppol members could send eInvoices via the central platform.	
Standard(s)	*National Standard in use (if any)*	*EN 16931 compliant standard* The European Standard on eInvoicing (EN) is fully implemented in Croatia. The Croatian government recommends the use of the OASIS UBL 2.1 syntax for B2G public procurement. However, the Cross-Industry Invoice (CII) is accepted as an alternative.
Monitoring	All B2G eInvoice exchanges are monitored through the central eInvoicing platform Servis eRačun za državu. The Ministry of Economy, Entrepreneurship and Crafts, as the implementing body, may audit public procurement eInvoices, as well as the checking the conformity and operations of information intermediaries.	

[106] https://www.fina.hr/e-servisi
[107] Financial Agency (central eInvoicing intermediary actor)

Strategy	More than 3.5 million eInvoices have been exchanged through the Croatian eInvoicing platform between July 2019 and mid-February 2020. National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030) Mandating an obligation B2B eInvoicing in upcoming years. Strategy for ensuring cross-border eInvoicing interoperability Croatian Financial Agency is the access point for Peppol, so Croatia is able to receive any cross-border eInvoice via Peppol.	
Structured eInvoicing uptake	Number of Contracting Authorities using eInvoicing	**2020**: 5 000 **2021**: 5 789
	Number of suppliers sending eInvoices for public procurement contracts	**2021**: 82 291
	Number of B2G eInvoices from national suppliers	The number of eInvoices exchanged through the National Central Platform for eInvoice Exchange: **2019**: 2 674 531 **2020**: 5 292 282 **2021**: 5 700 887 **2022**: 4 181 434

Percentage of enterprises sending eInvoices	**Table 19 Structured eInvoicing uptake in Croatia** The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing. The data[108] from Eurostat does not distinguish between B2G or B2B transactions. 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 11.3% 12.1% 10.3% 10.1% 9.9% 11.2% 12.3% 43.0% **Table 20 Sending eInvoices suitable for automatic processing in Croatia**
Implementation of EN 16931 compliant eInvoices	The national eInvoicing model is required at both the central and sub-central levels. All contracting authorities and associated companies are required to implement eInvoicing for their public procurement processes. With the full implementation of the eInvoicing Act from 1 July 2019, all eInvoicing exchanges must comply with EN 16931 and be transmitted via the national platform. All central contracting authorities are required to connect directly to the central platform, while the sub-central entities may choose to either connect directly to the platform or to use an information intermediary. All information intermediaries (service providers) are required to comply with EN 16931, and the technical specifications needed to connect to the platforms. Intermediaries are monitored and a list of compliant companies is published on the Ministry of Economy, Entrepreneurship and Crafts web page[109]. Croatia has a CIUS at the national level[110] that ensures compliance with Croatian VAT legislation[111]. eInvoices sent through Peppol are not required to be electronically signed, and their archiving is mandatory for 11 years. Uptake of EN 16931 According to the Ministry of Economy and Sustainable Development, the Directive 2014/55/EU, and the introduction of EN 16931 contributed

[108] https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm
[109] https://gospodarstvo.gov.hr/o-ministarstvu/uprave-samostalne-sluzbe/uprava-za-trgovinu-i-unutarnje-trziste/digitalno-gospodarstvo-i-potrosaci/e-racun-11257/11257
[110] https://www.fina.hr/documents/52450/242619/EN-UBL-HR-Specifikacija+upotrebe.pdf/994bf347-5212-6268-932e-4d0685a70927?t=1578052532521
[111] https://www.fina.hr/e-racun-u-javnoj-nabavi

	significantly to increasing the adoption of eInvoicing in Croatia.

Is Peppol / eDelivery used	Yes, 5 176 eInvoices via Peppol in 2022
Number of public contracting authorities and entities using eInvoicing compliant with the EN 16931, versus the total	**2020**: 5 000 **2021**: 5 789

Table 21 Uptake of EN 16931 in Croatia

Cost and Benefits

EU funding
Name of the EU funding programme: CEF Telecom eInvoicing funding

- Requested funding (in euro): EUR 1 612 790.
- Year: 2015 - 2018

eInvoicing was part of the three projects undertaken from 2015 to 2018, by the Ministry of Economy, Entrepreneurship and Crafts, as a coordinator of Croatian partner consortia. Through these projects, central government bodies, private companies and public authorities of local and regional government were supported to prepare to receive and process an eInvoice.

In cooperation with the Financial Agency (central eInvoicing intermediary actor) and the Croatian Association of Employers, more than 40 educational workshops through Croatian cities (Zagreb, Split, Osijek, Rijeka, Varaždin and Vukovar) have been organised. These initiatives aimed to promote and educate business entities and public administration bodies in receiving/issuing eInvoices.

Through November and December 2018, and January 2019, the Financial Agency organised and conducted at least 30 technical workshops for eInvoice issuers/suppliers, system integrators (issuing), and public purchasers (receiving and issuing).

Benefits at the national level
According to the Ministry of Economy and Sustainable Development, Croatia has experienced the following benefits: automated and digitised procedures, archiving made easy, fiscal transparency is higher, no more unnecessary printing wasting paper.

eInvoicing services offered by the government (free of

The central national platform is available for all entities for eInvoicing.

charge	
Call for evidence	N/A
Key findings	According to the Ministry of Economy and Sustainable Development the Directive 2014/55/EU and the introduction of the EN 16931 contributed significantly to increasing the adoption of eInvoicing in Croatia. In terms of effectiveness, the introduction of EN 16931 has created the possibility of wider harmonisation and acceleration of the global eInvoicing adoption process in the public sector at the national level of each Member State. The adoption of the eInvoicing Directive has also removed obstacles to cross-border procurement and trade. The Croatian authorities believe that the Directive has had a significant impact on the adoption of B2G eInvoicing. However, in B2B, because of slow adoption, high investment, and no mandate on invoicing, the impact has been limited. The authorities also find that the Directive has increased operational effectiveness, had a beneficial impact on fiscal transparency.

Cyprus

Legislation

The Digital Strategy for Cyprus[112], approved by the Council of Ministers of Cyprus on 8 February 2012, recommends the adoption of eInvoicing in the context of promoting the use of ICT to enable a smart, sustainable, and inclusive economy and society. The Department of Electronic Communications[113], with the guidance of the Advisory Committee for Information Society, developed the strategy for the period 2012 to 2020. This strategy is in line with the objectives and actions proposed by the Digital Agenda for Europe[114].

In Cyprus, Directive 2014/55/EU has been transposed via the law of 26 June 2019 on electronic invoicing (eInvoicing) in public procurement. eInvoices in B2G public procurement are used on a voluntary basis by suppliers. Receiving and processing of compliant eInvoices is mandatory for central public sector bodies from 18 April 2019 on. Sub-central entities are mandated to receive and process compliant eInvoices from 18 April 2020.

Mandatory for

- **Receiving and processing:** Central (as of 26 June 2019) and Sub-Central Authorities (as of 19 April 2020)
- **Sending**: not mandated.

Platform

Centralised eInvoicing platform (foreseen in 2024)

Standard(s)

National Standard in use (if any)

EN 16931 compliant standard

The European standard on eInvoicing is fully implemented. There is no monitoring strategy in place.

[112] http://ec.europa.eu/information_society/newsroom/cf/dae/document.cfm?doc_id=4831
[113] http://www.mcw.gov.cy/mcw/dec/dec.nsf/DMLindex_en/DMLindex_en?opendocument
[114] http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52010DC0245R(01)

Monitoring	There is no monitoring strategy in place.	
Strategy	National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030) The goal is for the electronic invoicing to start to be become mandatory for B2G in 2024. This will depend on the planned Enterprise Resource Planning (ERP) which will facilitate the processing of eInvoices. Otherwise it may be postponed. In the long-term, the plan is for the elnvoicing to become mandatory for all public contracts and, at the same time, to intensify the efforts for mandatory eInvoicing in the other two areas, B2B and B2C.	
Structured eInvoicing uptake	Number of Contracting Authorities using eInvoicing	3 out of many 1 000s in 2021
	Number of suppliers sending eInvoices for public procurement contracts	**2021**: 0%
	Number of B2G eInvoices from national suppliers	**2019**: 6 **2020**: 208 **2021**: 119
	Number of B2G eInvoices from foreign suppliers	**2021**: 0

	Number of B2B eInvoices exchanged at domestic level	N/A
	Number of B2B eInvoices exchanged at cross-border level	N/A

Table 22 Structured eInvoicing uptake in Cyprus

Percentage of enterprises sending eInvoices

The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing.

The data[115] from Eurostat does not distinguish between B2G or B2B transactions.

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
4.6%		5.3%	3.5%	5.1%	6%	8.8%	11.4%		13.1%

Table 23 Sending eInvoices suitable for automatic processing in Cyprus

Implementation of EN 16931 compliant eInvoices

Approach

Currently, economic operators submit eInvoices to the Treasury of the Republic[116] on a voluntary basis via the eInvoicing Peppol Access Point and through www.gov.cy, the Cyprus Government gateway portal, which replaced the ARIADNE[117] digital services catalogue. The eInvoices are processed manually (i.e. non-automated process). This process will be updated and performed in an automated manner once the centralised ERP System of the Cypriot Government enters into operation (2024).

Cyprus is expected to develop a centralised eInvoicing platform to process eInvoices. This platform will serve as an Enterprise Resource Planning (ERP) system operated in a hybrid model with the management of the Treasury of the Republic and involvement of AC Goldman Solutions &

[115] https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm
[116] https://www.eprocurement.gov.cy/epps/home.do
[117] https://cge.cyprus.gov.cy/re/public/

Services Ltd as the service provider acting on behalf of public sector organisation.

Uptake of EN 16931

According to Treasury of the Republic of Cyprus, the Directive 2014/55/EU, and the introduction of EN 16931 contributed very little to increasing the adoption of eInvoicing in Cyprus.

Is Peppol / eDelivery used	Yes
Number of public contracting authorities and entities using eInvoicing compliant with the EN 16931, versus the total	**N/A**
How many B2G eInvoices are exchanged via PEPPOL.	**2019**: 6 **2020**: 208 **2021**: 119
Percentage of eInvoices EN 16931 compliant vs. total number of B2G eInvoices	N/A
Percentage of EN 16931 compliant eInvoices vs. total number of B2B eInvoices	N/A

Table 24 Uptake of EN 16931 in Cyprus

Cost and Benefits	
Implementation costs for EN 16931	These costs have not materialised or incurred yet as there is no mandatory elnvoicing.

Table 25 Implementation costs for EN 16931 in Cyprus

EU funding

- Name of the EU funding programme: CEF - Connecting Europe Facility
- Requested funding (in euro): 2 projects for EUR 1 061 850.
- Year: 2018

eInvoicing services offered by the government (free of charge)	N/A
Call for evidence	N/A
Key findings	According to Treasury of the Republic of Cyprus, the Directive 2014/55/EU and the introduction of EN 16931 contributed very little to increasing the adoption of eInvoicing in Cyprus. In 2021 only 3 public bodies received eInvoices with a total of 119 eInvoices. According to Eurostat in 2020 only 13% of enterprises send structured eInvoices. The strategic goal is for the electronic invoicing to start to be become mandatory for B2G in 2024. This will depend on the planned Enterprise Resource Planning (ERP) which will facilitate the processing of e-invoices. Otherwise, it may be postponed. In the long-term, the plan is for the eInvoicing to become mandatory for all public contracts and at the same time, to intensify the efforts for mandatory eInvoicing in the other two areas, B2B and B2C.

Czechia

Legislation	Act no. 134/2016 Coll. on Public Procurement transposes EU legislation related to public procurement, including the Directive 2014/55/EU on electronic invoicing (eInvoicing) in public procurement, into the Czech national legislation. Section 221 of the Act stipulates that public contracting authorities shall not reject any eInvoice issued by an economic operator if it is issued in a format compatible with the European standard on eInvoicing. The Act became effective on 1 October 2016. Mandatory for • **Receiving and processing**: Central, regional, and local contracting authorities

Platform	• **Sending**: (not verified information in EC Country Fact sheet) • For B2B – for some bilateral agreements e.g. In some retail, automotive, and global companies. *Národní elektronický nástroj* (NEN)[118]. Launched in 2015, the NEN platform enables central, regional, and local public contracting authorities to process the entire eProcurement life cycle. Developed by the Ministry of Regional Development, it was fully deployed by the end of 2017, the usage of the NEN is obligatory for all contracting authorities, unless they have the authorisation to use their own procurement tool.
Standard(s)	*National Standard in use (if any)*: ISDOC[119] *EN 16931 compliant standard*: The European standard on eInvoicing is fully implemented under EDIFACT and UBL 2.1.
Monitoring	There is a monitoring mechanism in place but only at the central level.
Strategy	National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030) The Ministry of the Interior state that the plan is to use ISDOC inside the PDF/A3 format i.e. a hybrid. Strategy for ensuring cross-border eInvoicing interoperability The Ministry of the Interior stated there is no information on a cross-border strategy for eInvoicing.
Structured eInvoicing uptake	On 16 October 2008, 14 major Czech economic operators signed a Declaration on a common approach to electronic invoicing solutions in the Czechia, which contained a commitment to build and implement a common standard for eInvoicing within one year. The Ministry of Finance and the Ministry of Interior also signed this document. This initiative leads to the launch of the national eInvoicing standard, ISDOC, on 19 March 2009. The process of handling eInvoicing is considered as mostly automated. The vast majority of Enterprise Resource Planning systems (ERPs) and accounting programmes enhance the usage of eInvoices. Some software providers are already working on their automatic distribution.

[118] https://nen.nipez.cz/
[119] http://isdoc.cz/

Percentage of enterprises sending eInvoices

All economic operators must issue eInvoices for B2G transactions with public administrations. For receiving eInvoices, all public contracting authorities are mandated within a B2G context, while within a B2B context the buyer's consent is required. An eSignature is not required and the archiving period for eInvoices amounts to ten years, while, archiving abroad is allowed under conditions.

The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing.

The data[120] from Eurostat does not distinguish between B2G or B2B transactions.

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
8.4%		11.4%	11.1%	12.5%	12.9%	18.4%	14.4%		12.2%

Table 26 sending eInvoices suitable for automatic processing in Czechia

Implementation of EN 16931 compliant eInvoices

Approach

The translation of the new European standard on eInvoicing (EN 16931) into Czech language and integration into the system of national technical standards (ČSN) was completed and published on 8 January 2018. This activity is led by the Czech Office for Standards, Metrology and Testing (ÚNMZ) in cooperation with the National eInvoicing Forum, Ministry of Finance and Ministry of Interior.

Uptake of EN 16931

According to the Ministry of Interior, the Directive 2014/55/EU, and the introduction of EN 16931 did not contribute to increasing the adoption of eInvoicing in Czechia.

According to Eurostat data, the number of enterprises using eInvoices declined slightly in the recent past.

[120] https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm

Cost and Benefits	The Ministry of Interior stated that the Central Authorities did not benefit from the Directive or the EN. The reason for not achieving high levels of eInvoicing adoption is because it is not in scope or priorities. EU funding CEF Telecom eInvoicing funding: No funds were requested.
eInvoicing services offered by the government (free of charge)	N/A
Call for evidence	N/A
Key findings	As can be seen by Eurostat data, the uptake of eInvoicing has plateaued and even declined slightly in the recent past. In a recent report from Czech Statistical Office[121], eInvoicing data is not mentioned for 2022. This correlates with a comment from the Ministry of Interior stating that the Central Authorities did not benefit from this initiative and the reason for not achieving high levels of eInvoicing adoption is because it is not in scope or priorities. The Ministry stated that economic incentives, and accounting integration would be the most effective measure that could increase eInvoicing adoption followed by mandates for B2G and B2B. The key drivers are a common standard, process automation providing faster or timely processing.

[121] https://www.czso.cz/csu/czso/elektronickafakturace

Denmark

Legislation	Law on use of electronic invoice no 1593 of 18/12/2018 transposes the Directive 2014/55/EU. Consolidation Law on public payments, etc. Act. No.798 of 02.28.2007[122] Order on electronic settlement with public administrations, Order No. 206 of 11.03.2011[123] Order on Information and transport of OIOUBL electronic invoice used for electronic settlement with public authorities, Order No. 354 of 03.26.2010. Mandatory for • **Receiving and processing:** Central authorities, Regional authorities & Local authorities • **Sending:** Economic operators	
Platform	NemHandel	
Standard(s)	*National Standard in use (if any)*	*EN 16931 compliant standard*
	OIOUBL (national UBL 2.0 standard)	The European standard on eInvoicing is fully implemented under UBL 2.1. .
Monitoring	There is a no systemic monitoring system in place.	
Strategy	National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030). National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030). While the country adopted eInvoicing in 2005, it hasn't been mandatory for B2B organisations. Only the public administrators and (B2G) suppliers	

[122] https://www.retsinformation.dk/eli/lta/2007/798
[123] https://www.retsinformation.dk/Forms/R0710.aspx?id=133430

	were required to comply with electronic invoicing in Denmark. The Danish parliament passed the Bookkeeping Act on May 19th, 2022, initially slated to take effect on July 1st, 2022. The Act mandates all companies of all sizes to issue, receive, process, and archive invoices electronically. All B2B businesses in Denmark will start using the approved system as of January 2024. By January 2026, All private companies in class A accounting class generating more than DKK 300,000 must comply with mandatory e-invoicing in Denmark. Strategy for ensuring cross-border eInvoicing interoperability Use of Peppol.
Implementation of EN 16931 compliant eInvoices	**Approach** Economic operators can submit eInvoices using three main tools: • fully integrated eInvoice-enabled Enterprise Resource Planning (ERP) solutions (software or web-based) • ERP solutions in combination with an open-source software provided by the Danish Business Authority, the NemHandel message handler client • Manually created in the web-based invoicing portals (webform[124]). Overall, the Danish system is based on the same architectural principles to sign and almost identical open standards for payload. Uptake of EN 16931 The Directive 2014/55/EU and the introduction of EN 16931 poorly contributed to increasing the adoption of eInvoicing in Denmark.

[124] https://virk.dk/myndigheder/stat/ERST/selvbetjening/NemHandel_Fakturablanket/

Cost and Benefits	EU funding CEF Telecom eInvoicing funding: EUR 544 330
eInvoicing services offered by the government (free of charge)	N/A
Call for evidence	N/A
Key findings	In general, the Danish authorities consider their own national action moderately beneficial for the implementation of the Directive. However, the Directive itself has had a very low impact on the country's adoption of eInvoicing in B2B, which is the subject of the latest eInvoicing legislation adopted in the country.

Estonia

Legislation

Accounting Act (259 SE), 27.12.2016, Official publication: Riigi Teataja; Number: RT I, 27.12.2016, 3 ; Publication date: 2017-01-01.

Accounting Act, Official publication: Riigi Teataja ; Number: RT I, 09.05.2017, 30 ; Publication date: 2018-01-0.

Accounting Act Official publication: Riigi Teataja ; Number: RT I, 15.03.2019, 12 ; Publication date: 2019-01-07 - Currently valid.

The Accounting Act states that eInvoicing is mandatory upon transfer of goods or services to a public sector accounting entity (local authority, legal person in public law or accounting entity which is directly or indirectly under the dominant influence of said persons.

In addition, it mandates the use of specific formats, either the Estonian standard (national XML-based standard) or the European standard on e-Invoicing.

Platform

Mandatory B2G eInvoicing for

- **Receiving and processing** (for contracting authorities): since 1 March 2017
- **Submitting** (for economic operators): since the 1st of July 2019

- Billberry
- E-arveldaja
- Finbite
- Telema
- Unifiedpost

Standard(s)

National Standard in use (if any)	*EN 16931 compliant standard*
EVS 923: 2014 (National XML-based Standard)	The European standard on eInvoicing is fully implemented and mandatory under UBL, UN/CEFACT CII.

Monitoring

There is no systemic monitoring system in place for B2G eInvoicing. It is possible to view from an eBusiness registry provided by the Centre of Registers and Information systems (RIK) if a private company (only) can receive eInvoices or not.

Strategy

National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030)

While the country adopted eInvoicing in 2005, it hasn't been mandatory for B2B organisations. Only the public administrators and (B2G)

	suppliers were required to comply with electronic invoicing in Denmark. The Danish parliament passed the Bookkeeping Act on May 19th, 2022, initially slated to take effect on July 1st, 2022[125]. The Act mandates all companies of all sizes to issue, receive, process, and archive invoices electronically. All B2B businesses in Denmark will start using the approved system as of January 2024[126]. By January 2026, All private companies in class A accounting class generating more than DKK 300 000 must comply with mandatory eInvoicing in Denmark. According to the Danish Business Agency, eInvoicing is planned to be used for VAT digital reporting. It is also planned to be used for decision-making and policy purposes on the environmental impact. Strategy for ensuring cross-border eInvoicing interoperability. Use of Peppol.
Structured eInvoicing uptake	According to the Ministry of Finance, eInvoicing is mandatory B2G since 2019. Estonia moved a bit early (before EU standard became available), and therefore mostly the national standard is used still. In total around 75 million invoices circulate annually in Estonia, around 45% of these are eInvoices. B2G eInvoicing transactions (Source State Shared Service Centre (RTK)) There is no central database for eInvoice sending capability, but Estonian eInvoice operators share this information among themselves. According to the RTK, all Estonian public authorities only accept eInvoices. There are also some authorities that have not specified an operator

[125] https://erhvervsstyrelsen.dk/bagom-bogfoeringsloven-gevinster-for-dansk-erhvervsliv
[126] https://www.unimaze.com/e-invoicing-in-denmark/

(11%), but those are mainly local government authorities that take care of their accounting at the local government level.

On July 1, 2020, 1 year passed since the state of Estonia started accepting only eInvoices. Since then, the number of eInvoices received by state agencies increased by more than 400%[127].

eInvoices received by the public sector

Year	2019	2020	2021
Total number of eInvoices	50 000	370 000	
Percentage of eInvoices	96%		100%

Table 27 eInvoices received by the public sector in Estonia 2019-2021

Contracting authorities (CAs) receiving eInvoices

2021: 2 446 corresponding to 100% of all CAs.

Enterprises sending eInvoices.

2017: 35% of enterprises send eInvoices

2018: 51% of enterprises send eInvoices

2019: 73% of enterprises send eInvoices

The eBusiness registry, where legal persons register their eInvoice operators, contains information about 10 800 persons. As there are approx. 130 000 active businesses in Estonia according to Statistics Estonia, approx. 8% of businesses have the capability for receiving eInvoices.

[127] https://www.baltictimes.com/the_public_sector_e-invoicing_in_estonia_is_celebrating_its_first_anniversary/

	45% of invoices in the private sector are electronic (incl. B2B and B2C). B2B uptake For eInvoicing in the private sector there are no reliable statistics, however, it is estimated that B2B eInvoicing is at 23% of total 52 million B2B invoices. In settlements between micro and small enterprises, the share of eInvoices is only around 5%[128].
Percentage of enterprises sending eInvoices	N/A
Implementation of EN 16931 compliant eInvoices	**Approach** Economic operators must have an accounting software or ERP in place to generate eInvoices or can alternatively outsource the generation of eInvoices to different software providers. eInvoicing service providers provide eInvoicing management services including the creation of eInvoices. Economic operators are free to contract other private or public software providers such as Merit Tarkvara[129] or the Centre of Registers and Information Systems (RIK[130]). In all cases, the service and software providers are mandated to use a national standard to exchange eInvoices. The European eInvoicing standard is also mandated in accordance with the Directive. This allows the usage of any standard compliant with the EN. Uptake of eInvoicing

Is Peppol / eDelivery used	Yes, use of Peppol is generally growing.
Number of public contracting authorities and entities using eInvoicing	2 446 Authorities.

[128] Ibid, p.3.
[129] https://www.merit.ee/
[130] http://www.rik.ee/en

2019:100%

2020:100%

2021:100%

No exact numerical data available, but public sector entities only accept eInvoices.

Table 28 uptake of eInvoicing in Estonia

Cost and Benefits

The transition to the EU eInvoicing standard would not be accompanied by direct financial expenses for businesses, but the expenses on the development of business software and operators may be indirectly transferred to businesses in the form of service fees[131].

The estimated cost for business software developers would amount to approx. EUR 30 000–50 000[132].

The costs of additional developments related to the internal systems of a company may be added to the estimated amount for certain businesses (such as large companies), and the extent of such costs would depend on the level of complexity of the existing system, potentially amounting to up to EUR 100 000 in the case of large businesses.

The use of the EN 16931 may increase the accuracy of the data also required for the automatic generation of different reports (incl. sustainability reports)[133].

EU funding

[131] *Ibid.*, p 35.
[132] Ibid.
[133] Ibid.

CEF Telecom eInvoicing:

3 projects were funded totalling EUR 1 741 990.

eInvoicing services offered by the government (free of charge)

RIK[134], a state agency working under the Estonian Ministry of Justice, offers an automated accounting software (**e-Financials**[135]), helping entrepreneurs organise their accounting and allowing them to generate eInvoices. Unlike all service providers, RIK only charges for its services after one year, allowing the economic operators to use its **e-Financials**[136] software free of charge during the first year. The Ministry of Finance and RIK agreed on the use of the e-Financials software free of charge from 2019 onwards. If a customer only uses e-Financials for sending eInvoices to public sector organisations, then there is no fee for the customer.

Costs for Service and solution provider

For the operators, the transition to the EU eInvoice standard would come with a relatively low financial cost, as the services of large operators already support the EU eInvoice standard since subscribing to the Peppol network.

Costs for Accounting Service Providers/ considerations

Accounting service providers have attempted to sway their clients and their suppliers to use more eInvoices to make their work simpler, but this activity has not had a significant effect. Accountants themselves see making eInvoices mandatory in the private sector as a solution, for example by giving the buyer the right to request an eInvoice from the seller if the business is marked as an eInvoice user in the commercial register.

Larger accounting bureaus believe that wider use of eInvoices will reduce their workload, reduce errors, and simplify the process of drawing up reports, thereby increasing the efficiency of the sector. Larger bureaus have been promoting wider use of eInvoicing among their clients and their suppliers in recent years, but this has not yet resulted in a significant effect. However, the obligation to send eInvoices to the public sector has

[134] http://www.rik.ee/en
[135] http://www.rik.ee/en/e-financials/about-service-0
[136] http://www.rik.ee/en/e-financials/about-service-0

	significantly increased the number of enterprises that can send eInvoices.
eInvoicing services offered by the government (free of charge)	The NemHandel platform is available for all entities to use.
Call for evidence	N/A
Key findings	The Ministry of Finance indicated that the Directive and European eInvoicing standard did not contribute to increasing adoption of eInvoicing for either B2B or B2G. The national standard was released in advance of the Directive requirements. According to uptake statistics 100% of public bodies receive eInvoices only while 73% of businesses send eInvoices. Therefore adoption rates are high albeit using the national standard. The strategy for the future is to replace the national standard with EN compliant standards and use Peppol for cross-border trade. The Estonian Chamber of Commerce and Industry assessed that the implementation of eInvoicing among SMEs is relatively low as they often lack the necessary technical capability. Also, it may be due to little eInvoicing awareness among SMEs. As a result, while large enterprises in the Estonian market tend to use eInvoices, SMEs, which form over 90% of the legal persons in Estonia, have often not even heard about eInvoices and are thus unable to quantify the benefit arising from using them. The large Estonian business software providers have mostly developed the functionalities for processing eInvoices in their solutions. However, activation of an eInvoice functionality requires a certain amount of configuration and calls for administrative operations by the business or accountants, which are deemed complicated and also relatively time-consuming. For example, a business may have concluded a contract with eInvoice operator, but their accounting service provider who uses a business software application may have a contract with another eInvoice operator. In this case, the business must undertake the burdensome process of changing its eInvoice operator to be able to use eInvoices. Smaller business software applications are often equipped with the capability to send eInvoices, but they may not be able to receive eInvoices. Business software providers (whose solutions enable sending and receiving eInvoices) did not highlight any specific issues or obstacles and tended to believe that they were not the party preventing wider use of eInvoices. Such business software developers are also not expecting support from the state for eInvoicing-related developments in their software applications. It was, however, found that the other links of the chain of using eInvoices may have issues.

Another issue is the lack of interfaces between the business processes and business software related to issuing invoices. For example, businesses often issue invoices in a certain software application and send the invoice to the customer and the accountant. In this case, the outgoing sales invoice is not located in the accounting system and data interoperability issues may arise.

Another issue identified was the potential psychological reluctance among accountants to eInvoicing, as this may require them to step out of their comfort zone and wider use of eInvoices would also directly mean a decrease in the workload of accountants from the temporal perspective, which is why they expect to start earning less in the case of volume-based pricing. All of the above gives rise to a decisive opposition against the wider use of eInvoices.

Taking into consideration the current market of operators, it can be stated that the competition is reasonable, there is no monopoly position, and the market is not too fractured, which could pose a problem in a small market.

Finland

Legislation

Law 241/2019 on electronic invoicing[137] ("Laki hankintayksiköiden ja elinkeinonharjoittajien sähköisestä laskutuksesta"), Official publication: Suomen säädöskokoelma (SK) ; Number: 241/2019 ; Publication date: 2019-02-27

This law requires public bodies to accept exclusively eInvoices compliant with the European invoicing standard. It also requires using eInvoices below EU thresholds.

In B2B invoicing, a buyer has the right to request EN-compliant eInvoices from the seller. The contracting entity and the trader shall have the right to receive, on request, an invoice from another contracting entity or trader as an EN-compliant eInvoice.

Mandatory for

- **Receiving and processing**: Central, regional, and local contracting authorities.
- **Sending**: Economic operators
  - **Mandatory below the EU thresholds**: Yes

Platform

- Basware Supplier Portal
- Post Network Service

Standard(s)

National Standard in use (if any)	*EN 16931 compliant standard*
• TEAPPSXML 3.0 • Finvoice 3.0	The European standard on eInvoicing is fully implemented under UBL 2.1 and CII.

Monitoring

The government has set specific targets for eInvoicing, and its uptake is monitored monthly. The monitoring includes the total number of invoices that are submitted electronically to public bodies.

[137] https://www.finlex.fi/fi/laki/alkup/2019/20190241#Pidp446241968

Strategy	National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030) It is expected that, in the medium term, Peppol-based electronic invoicing will increase in cross-border transactions in particular. Peppol is also strongly supported in order-delivery and logistics areas. The long-term target is to phase out the national eInvoice format usage and convert it into UBL/Peppol-based format. Strategy for ensuring cross-border eInvoicing interoperability. Enable and support Peppol infrastructure and usage of Peppol Bis 3.0 (and PINT[138] format) invoices.	
Structured eInvoicing uptake	Number of Contracting Authorities using eInvoicing	100%
	Number of suppliers sending eInvoices for public procurement contracts	**2021**: 98%
	Number of B2G eInvoices from national suppliers	**2019**: **2020**: **2021**: 692 924 (Central Government) **2022**: 4 368 900 (Central Government)

[138] https://test-docs.peppol.eu/poacc/pint/pint/guide/

	2022: 66 743 093 (Sub-central authorities)
Notes on above data	Enquiry made by State Treasury for municipalities. **2020**: number of eInvoices for 199 municipalities was 4 548 697. **2021**: number of eInvoices for 233 municipalities was 4 641 005. Total number of municipalities in Finland is 309.
Number of B2G eInvoices from foreign suppliers	**2019:** **2020:** **2021:** 5 000
Number of B2B eInvoices exchanged at domestic level	**2019**: **2020**: 117 263 427 **2021**: 139 402 994
Number of B2B eInvoices exchanged at cross-border level	**2019:** **2020:** **2021:**

Table 29 structured eInvoicing uptake in Finland

Percentage of enterprises sending eInvoices

The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing.

The data[139] from Eurostat does not distinguish between B2G or B2B transactions.

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
48.9%		60%			71.8%		79.3%		82.9%

Table 30 sending eInvoices suitable for automatic processing in Finland

Implementation of EN 16931 compliant eInvoices

Approach

The eInvoices sent to the government are centrally processed at the Finnish Government Shared Services Centre for Finance and HR.

eInvoicing implementation is promoted at the Scandinavian level, in the **Nordic Smart Government (NSG) project**. In Finland, this project is led by the Finnish Patent and Registration Office (PRH) in cooperation with the Ministry of Finance and the Tax Authorities. The aim of the NSG project is to automate the financial flow of information between companies in Scandinavian countries.

Uptake of EN 16931

According to the Valtiokonttori (State Treasury), the Directive 2014/55/EU and the introduction of EN 16931 contributed moderately to increasing the adoption of eInvoicing in Finland. The main impacts came from service providers (operators and banks) and large corporates.

Finland already experienced high usage before the entry into force of the Directive. However, the Directive and, in particular, the use of EN 16931 have significantly increased the data quality of the eInvoices.

Is Peppol / eDelivery used	Yes
Number of public contracting authorities and entities using eInvoicing compliant with the EN 16931, versus the total	**2021**: 100%

[139] The data description can be found at https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm

	Percentage of eInvoices EN 16931 compliant vs. total number of B2G eInvoices	**2021**: 20% **Feb/2023**: 60%
	Percentage of EN 16931 compliant eInvoices vs. total number of B2B eInvoices	**2021**: 20%

Table 31 Implementation of EN 16931 in Finland

Cost and Benefits

Costs for insuring that the national standard complies with European eInvoicing standard are estimated at EUR 250 000 but there is no estimate of the cost in the ERP system.

EU funding

- Name of the EU funding programme: Internet of Business
- Requested funding (in euro): EUR 100 000
- Year: 2017 – 2018

CEF Telecom eInvoicing funding

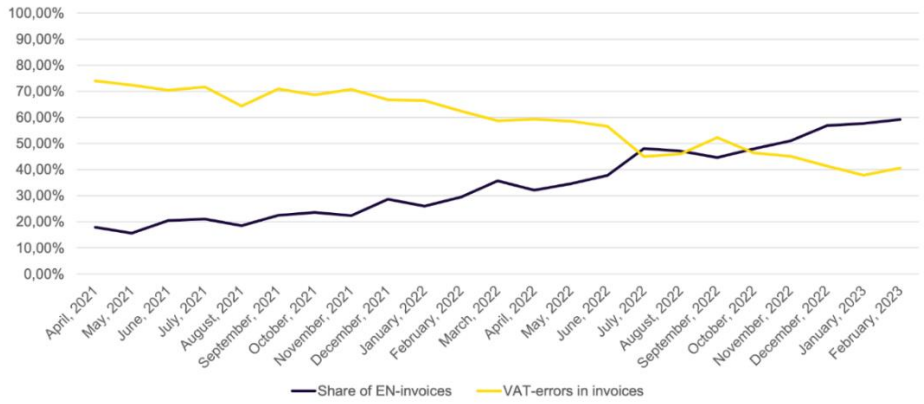
- Budget requested: EUR 265 050

eInvoicing services offered by the government (free of charge)

There are three free-of-charge platforms provided by the State Treasury:

- The Finnish Government's eBilling service Handi produces and send eInvoices.
- The Post Network Service allows the creation and sending of eInvoices by Finnish companies. Once registered to the platform, economic operators can create and send eInvoices. The system verifies the correct provision of information by economic operators and guarantees the successful submission of eInvoices to the contracting authorities.
- The Basware Supplier Portal. To submit eInvoices via the Basware Supplier Portal, economic operators need to register as a supplier and must be approved by public contracting authorities as a "supplier candidate". This portal allows the registration of both Finnish and foreign companies as suppliers. It also enables the storage of eInvoices in the database for three months after their creation.

Benefits at the national level

	The quality of the invoice data has significantly improved. According to the Finnish authorities, the Standard enables invoice processing automation. The driver behind the benefits achieved is the work-satisfaction indicated by the national authorities.
Call for evidence	Feedback from Finnish State Treasury Here are statistics about our eInvoice volumes and link to this information. https://www.valtiokonttori.fi/en/statistics-and-reports/statistics-on-public-administration-services/state-e-invoicing-statistics/
Key findings	Finland already experienced high usage before the entrance into force of the Directive. However, the Directive and, in particular, the use of European eInvoicing standard have improved the data-quality of the eInvoices.  **Figure 33 eInvoice VAT error rates in Finland (Source: Finnish Treasury study)** In particular, the latest findings of the Finnish Treasury show that, while the percentage of VAT-errors was at over 70% in April 2021, it decreased to 40% by the end of the researched period, thanks to the higher adoption of EN 16931-compliant eInvoices. It demonstrates the significant increase of data quality of using the eInvoicing standard. The use of B2G eInvoicing is increasing from 92% in 2018, to 98% in 2022.

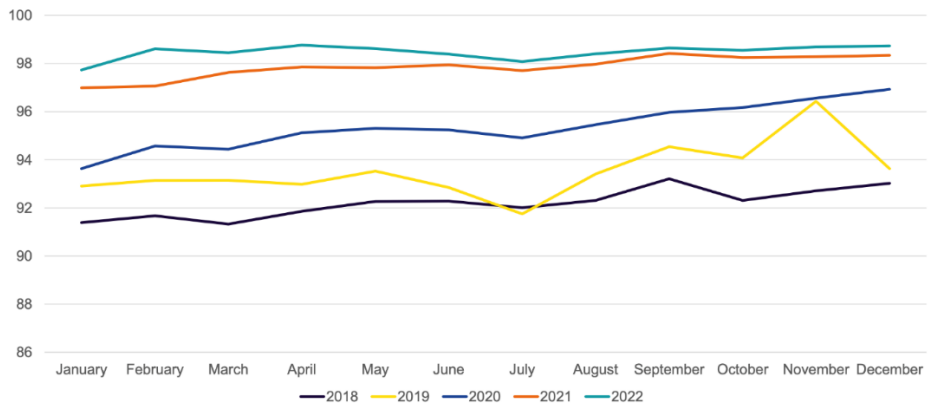


Figure 34 eInvoice uptake in Finland (Source: Finnish study)

France

Legislation

- Ordinance No. 2014-697[140] of 26 June 2014 on the development of electronic invoicing repealed by the Law n°2019-486 of 22 May 2019.
- Business Growth and Transformation law n°2019-486 of 22 May 2019, Article 193[141]) – PACTE, official publication : Journal official de la République française (JORF), Publication date : 23 May 2019,which amended the Public Procurement Code[142] to introduce provisions on electronic invoicing in public procurement (articles L.2192-1 to L. 2192-7, L.2392-1 to L.2392-7 and L. 3133-1 to L.3133-5).
- Decree No 2019-748 of 18 July 2019 on electronic invoicing in public procurement[143], Official publication: Journal Officiel de la République Française (JORF) ; Publication date: 2019-07-21
- Article 26 of the amending finance law n°2022-1157 for 2022[144] on B2B eInvoicing and the transmission of transactions data.
- Decree n°2022-1199[145] and Order of 7 October 2022[146] on the generalisation of electronic invoicing in transactions between taxable persons for value added tax and the transmission of transaction data, Official publication: Journal officiel de la République Française (JORF), Publication date: 2022-10-09.

Article 193 of the Law n°2019-486 of 22 May 2019 codified in the Public Procurement Code stipulates that holders and subcontractors entitled to direct payment of contracts involved in public procurement shall send their invoices in electronic form, which have to be accepted by all public administrations.

The mandatory submission of eInvoices started, on a gradual basis, from January 2017. According to the latest ordinance, the date of

[140] https://www.legifrance.gouv.fr/loda/id/JORFTEXT000029140226
[141] https://www.legifrance.gouv.fr/loda/article_lc/LEGIARTI000038497517
[142] https://www.legifrance.gouv.fr/codes/section_lc/LEGITEXT000037701019/LEGISCTA000037703428/#LEGISCTA000037703428
[143] https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000038793215&categorieLien=id
[144] https://www.legifrance.gouv.fr/jorf/article_jo/JORFARTI000046186698
[145] https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000046383394
[146] https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000046383471

	enforcement of the law for the suppliers varies according to the company size. Mandatory B2G • **Receiving and processing**: Central authorities, Regional authorities, and Local authorities • **Sending**: Economic operators ○ **Mandatory below the EU thresholds**: Yes Mandatory B2B Article 26 of the amending finance law n°2022-1157 for 2022[147] states an obligation for taxable persons to send eInvoices with mandatory fields in a structured form to be forwarded to the Tax Administration and to transmit data to the tax administration on Business to Consumers and cross-border transactions by means of a platform[148]. In December 2023, the French National Assembly amended the original implementation dates, foreseen under the amending finance law n°2022-1157 for 2022, through an adopted amendment to the 2024 Budget. The revised proposals are outlined as follows: (i) by September 2026, all businesses must be capable of accepting eInvoices, with B2B eInvoicing and eReporting becoming mandatory for large and medium-sized companies. An optional extension is available for an additional three months, allowing flexibility until December 2026; and (ii) by September 2027, small businesses are required to adopt eInvoicing and eReporting, with an option to extend the deadline by a further three months until December 2027.
Platform	In France, due to compulsory legislation concerning eInvoicing, a national unique invoicing portal called Chorus Pro[149] has been developed by the Agence pour l'Informatique Financière de l'État (AIFE), the French national public agency for IT, relying of the Ministry for the Economy and Finance.
Standard(s)	*National Standard in use (if any)* *EN 16931 compliant standard*

[147] https://www.legifrance.gouv.fr/jorf/article_jo/JORFARTI000046186698

[148] The implementation dates of the amending finance law n°2022-1157 for 2022 were the following: starting on 1 July 2024 for large companies; at the latest on 1 January 2025 for medium-size companies; at the latest on 1 January 2026 for all companies.

[149] https://chorus-pro.gouv.fr/cpp/utilisateur?execution=e2s1

	Hybrid format called Factur-X which encapsulates both structured data and a pdf.	The European standard on eInvoicing is fully implemented under UBL 2.1 and CII.
Monitoring	The Agency for State Financial Information (AIFE) operates the central eInvoicing platform Chorus Pro that monitors the uptake of eInvoicing at both central and sub-central levels, including the number of suppliers using eInvoicing and the number of eInvoices submitted electronically.	
Strategy	National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030) B2B eInvoicing will be mandated 2024 to 2026, starting with the large enterprises and finishing in 2026 with SMEs. Strategy for ensuring cross-border eInvoicing interoperability. ViDA (VAT in the digital age proposition of 8 December 2022) proposals will be the driver to consider cross border. This could create additional complexity for companies.	
Structured eInvoicing uptake	In 2013, the State was only able to process 34 000 eInvoices. The following tables show the eInvoicing uptake for France since then.	
	Number of Contracting Authorities using eInvoicing	**2019**: 100% **2020**: 100% **2021**: 100%
	Number of suppliers sending eInvoices for public procurement contracts	**2022**: 892,234
	Number of B2G eInvoices from national suppliers	**Central Level** **2022**: 4 368 900 **Sub-Central Level**

		2022: 66 743 093
	Number of B2G eInvoices from foreign suppliers	**2019**: 143 696 **2020**: 247 140 **2021**: 403 286 **2022**: 532 734

Table 32 Structured eInvoicing uptake in France

Percentage of enterprises sending eInvoices

The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing.

The data[150] from Eurostat does not distinguish between B2G or B2B transactions.

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
9.3%		9.5%			14.9%		25.3%		23.4%

Table 33 sending eInvoices suitable for automatic processing in France

Implementation of EN 16931 compliant eInvoices

Approach

eInvoicing will be mandatory for B2B transactions from 1 July 2024 for B2B transactions and subject to a transmission of data to the tax administration. It will concern 4 million companies. Therefore, the B2G system has been adapted so as to meet the standards of the B2B system.

The current Chorus Pro solution supports the following:

- B2G: Invoicing to public bodies from a national or foreign company (These invoices are sent to their recipient (or made available) directly

[150] The data description can be found at https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm.

by the Chorus Pro platform).

- A user interface for managing eInvoices issued and received (portal).
- APIs for the deposit, retrieval, and management of invoices
- Multiple transmission protocols such as using the PeSIT HS E, AS2 and SFTP protocols.
- PEPPOL as a receiving access point.
- The accepted invoice formats are CII, UBL, CPP Invoice (proprietary format) simple PDF and Factur-X. Invoices are sent in CPP Invoice format (proprietary format)
- Invoice lifecycle data is transmitted via flows in CPPStatut format (proprietary format)

From July 1, 2024, the Chorus Pro solution will also cover the following use cases.

- B2B (eInvoicing): Receiving and issuing invoices between private companies (French or foreign) subject to VAT in France.
    - This case also covers B2G (Invoices to the French public sphere sent by a French or foreign company).
    - This case also covers the G2B (Invoices to private companies (French or foreign) subject to VAT in France addressed by the French public sphere).
    - These invoices will be transmitted to their recipient (or made available), directly (via the Chorus Pro platform) or indirectly (via a private partner platform chosen by the recipient).
    - Invoice data will be used by the administration to **pre-fill the VAT return**.
- International B2B: Receipt of invoices received or sent by a company subject to VAT in France, issued or intended for a company not subject to VAT in France.
- These invoices will not be transmitted to their addressee (exploitation of the data by the administration for the pre-filling of the VAT return).
- B2C: Receipt of invoices issued by a company subject to VAT in France to a final consumer.
    - These invoices will not be transmitted to their recipients (data processing by the administration for the pre-filling of the VAT return)

The Chorus Pro solution will also allow the addition of **AS4 protocol** management to the flow exchange solution (EDI).

It will require compliance with the EN16931 standard for exchanged invoices and will limit the accepted input and output formats to UBL, CII and Factur-X (simple PDF will be depreciated and then rejected within 3 years).

It will use a new format for exchanging invoice life cycle data (UN/CEFACT SCRDM CI Cross Domain Application Response message).

Uptake of EN 16931

According to the Ministère de l'économie - Direction générale des finances publiques (DGFiP), the Directive 2014/55/EU and the introduction of EN 16931 had a very significant impact to increasing the adoption of B2G eInvoicing according to the French authorities. In B2B eInvoicing, the Directive contributed moderately.

Is Peppol / eDelivery used	Yes
Percentage of eInvoices EN 16931 compliant vs. total number of B2G eInvoices	Access point Pagero **2019**: n/a **2020**: **Other**: 16 503 342 **Factur-X** = 414 015 **Total**: 16 917 357 **Percentage Factur-X:** 2.45% **2021**: Other: 22 938 762 **Factur-X:** 675 844 **Total**: 23 614 606 **Factur-X percentage:** 2.86%

Table 34 Uptake of EN 16931 in France

Cost and Benefits

France did not incur costs solely related to transposing the Directive 2014/55/EU and ensuring compliance with EN 16931. There was also no cost burden ensuring the national format complied with the EN. They did not seek funds to ensure compliance.

	The French Ministry stated that overall benefits greatly outweighed the costs. A very high level of legal certainty was introduced by the Directive and significant technical simplification was provided through the use of a common EU eInvoicing standard. There was a considerable cost reduction because of the Directive and the EN 16931. The impact study, related to Ordinance 2014-697 ,estimates the potential for recurring gains, once electronic invoicing is generalised (2021) at EUR 710.2 million per year, which can be broken down into financial gains of EUR 121 million and overall time savings representing 11,925 FTE equivalents. France did not incur costs solely related to transposing the Directive 2014/55/EU and ensuring compliance with EN 16931. CEF Telecom eInvoicing funding • Budget requested: EUR 243 490. eInvoicing services offered by the government (free of charge) The usage of Chorus Pro (processing compliant documents against the EN) is free for any business partners. Consequently, the implementation of the European eInvoicing standard had no direct financial impact on public administrations and suppliers Benefits of the EN 16931 at the national level **Operational efficiency:** One of the aims of the directive 2014/55/UE is to reduce late payments. The average payment time is less than 14 days for state accountants in 2022.
eInvoicing services offered by the government (free of charge)	N/A
Call for evidence	**Feedback from French Building Federation** The quality of the payment process and compliance with payment deadlines by the contracting authority are crucial for construction companies' response to public contracts. Late payments are a significant obstacle for SMEs and micro-enterprises access to public contracts. In France, Chorus Pro is the invoice tracking portal for the public sphere, and all companies supplying public entities must send their invoices electronically. However, late payments are often due to non-compliance with Chorus Pro regulations. Some suppliers or prime contractors use Chorus Pro to a lesser extent, creating informal steps in the payment process, leading to hidden payment delays. When the Chorus Pro procedure is followed, companies recognize

	an improvement in deadlines. **Feedback from EU Citizen** The writer, a professional in electronic invoicing with over 15 years of experience, actively participates in several associations and working groups. They would like to draw the Commission's attention to the fact that the EN16931 standard is primarily adapted to a B2G context and may need to evolve to take into account B2B specificities. The governance of this standard should be reviewed as changes currently seem difficult. The EN16931 standard allows for interoperability of formats, but it is important to also standardize exchanges of statuses after the issuance of an invoice. The EN16931 standard allows for the use of two syntaxes, UBL and CII, but the PEPPOL network only supports UBL. The writer suggests either favouring the use of one syntax or guaranteeing support for both syntaxes by all actors and the possibility of performing exhaustive conversions between them. **Feedback from a Business association - FNFE-MPE** Directive 2014/55/EU has been instrumental in the deployment of electronic invoicing in the EU, allowing for the development of a Semantic Standard for essential invoice data. However, deployment has remained relatively low, except in countries with an obligation. In France, the obligation to issue and centralize flows for the public sector around ChorusPro has resulted in over 80 million electronic invoices issued to the public sector per year since 2021. Flexibilities have been introduced, allowing for hybrid invoices. In practice, EN16931 Standard syntaxes are still rarely used. The proposed ViDA Directive has encountered difficulties, including a different definition of electronic invoicing than Directive 2006/112/EC and difficulties in evolving the EN16931 Standard to address the private sector and all invoicing use cases. **Feedback from National Federation of Public Works (FNTP)** In France, all companies supplying public entities have been required to send their invoices electronically via Chorus Pro since 1 January 2020. The platform, built by the Agency for State Financial Informatics (AIFE), allows companies to submit or enter an invoice, follow its processing, and add additional documents. However, difficulties have been noted, with employees having to modify their working methods and follow training. In 2023, difficulties of use are still noted among large public buyers. The positive points include better traceability of invoice follow-up, but negative points include the possibility for buyers to reject invoices without specific justification, requiring companies to resubmit a new invoice and causing a new payment period to run.
Key findings	Since 2013, when the vast majority of the 95 million annual invoices received by the State, local authorities and public institutions were issued and transmitted in paper format, France has successfully promoted the use of B2G eInvoicing through national policy that gradually mandated suppliers to

eInvoice the public sector from 2017 to 2020.

According to the Ministère de l'économie - Direction générale des finances publiques (DGFiP), the Directive 2014/55/EU and the introduction of EN 16931 had a very significant impact to increasing the adoption of B2G eInvoicing.

From 2019, the eInvoices received from foreign suppliers to France’s public sector have also been on an upward trend, from 143,696 in 2019 to 532,734 in 2022.

The use Peppol eDelivery network has gradually increased.

The Government did not experience any cost in the implementation of the Directive.

A high level of adoption is expected in B2B sector thanks to the introduction of the B2B mandate, from 2024 to 2026, which will impact approximately four million companies.

In the call for evidence, two business organisations state that although Chorus Pro has benefits, the lack of experience or training by Buyers can delay payments. There is also the request to consider syntaxes, specifically the hybrid.

Germany

Legislation

Act transposing Directive 2014/55/EU on electronic invoicing in public procurement[151]/ e-Bill law[152] (E-Rechnungsgesetz[153]); Federal level, Official publication: *Bundesgesetzblatt Teil 1 (BGB 1)*; Number: *19*; Publication date: *2017-04-10*.

Federal Regulation on electronic invoicing in public procurement of the Federal Government[154] (E-Rechnungs-Verordnung), Official publication: *Bundesgesetzblatt Teil 1 (BGB 1)* ; Number: *68* ; Publication date: *2017-10-18* ; Page: *03555-03557*.

Since 18 April 2020, federal states have implemented mandatory eInvoicing in public procurement of the state authorities.

Since 27 November 2020, the receiving of eInvoices by state authorities is mandatory to all public contracting authorities on the state level (Länder).

Mandatory for

- **Receiving and processing**: Central authorities, Regional authorities, and Local authorities since 18 April 2020 for all federal, and state contracting authorities.
- **Sending**: From November 2020, issuing of eInvoices is mandated for all suppliers to all federal and Bremen contracting authorities, only for contracts above the threshold.
    - **Mandatory below the EU thresholds**: Yes, for federal government and some federal states.

Based on E-Rech-VO and decisions by the IT Planning Council, Germany implemented the Procurement Directive in the following way[155]

[151] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=NIM:272704
[152] http://www.verwaltung-innovativ.de/SharedDocs/Publikationen/Organisation/e_rechnung_BGB_e-Rechnung.pdf?__blob=publicationFile&v=2
[153] https://ec.europa.eu/digital-building-blocks/wikis/display/DIGITAL/eInvoicing+in+Germany#_ftn1
[154] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=NIM:272702
[155] Pagero and Crossinx "e-Invoice format best practice: Germany" (2019)

- Mandatory for receiving and processing by public authorities.
  - General readiness:
    - From 27 November 2018 for certain federal authorities such as constitutional bodies and federal ministries,
    - From 27 November 2019 for all other federal authorities,
    - From 18 April 2020 for all other authorities in federal states and municipalities
  - Peppol readiness:
    - From 18 April 2019 for federal authorities,
    - From 18 April 2020 for all other authorities who choose to offer automated data exchange capabilities
- Exempted from the mandate:
  - Direct orders with anticipated net order value of max EUR 1.000,
  - "Organleihen" (German),
  - Foreign procurements, and
  - Defence and security related contracts.

Platform

A shared portal (E-Rechnungs-Portal) was created on the federal level. Some federal states (Länder) use this shared portal too while others built their own portal or do not use any portal. The obligation on suppliers to use a specific eInvoicing platform depends on which public authority is receiving the eInvoice. All authorities at federal and national level are mandated to always offer Peppol as an alternative for B2G eInvoicing.

Standard(s)

National Standard in use (if any)

- XRechnung and ZugFeRD are the national CIUS for eInvoicing and are compliant with the EN 16931. XRechnung can be represented in either UBL or CII, while an eInvoice in ZUGFeRD 2.0 is the CII syntax embedded in a human-readable document in the form of a PDF, aka a hybrid invoice.
- XRechnung was developed by Kosit[156] based on a decision from the national IT Planning Council[157], while the ZugFeRD is developed by the national eInvoice forum, Ferd[158].

EN 16931 compliant standard

The European standard on eInvoicing is fully implemented under CII and PDF/A-3.

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[156] KoSIT is responsible for coordinating the development and operation of IT standards for sharing data within the public administration.

[157] The responsibilities of the IT Planning Council include coordination of federal and state cooperation on information technology issues. security standards

	• In accordance with the German IT Planning Council, Public authorities that automatically process eInvoices must also accept Peppol BIS Billing 3.0.
Monitoring	According to the Hessen Ministry of Finance, to date, no data have been collected for Germany as a whole. In the Member State survey, Germany had no response to specific questions on quantities for central or sub-central authorities.
Strategy	National eInvoicing strategy According to the Hessen Ministry of Finance, B2G in different federal states is planned. On October 25, 2022, the German Congress (Deutscher Bundestag) published a document in which the Federal Ministry of Finance informs about the measures it is taking to reduce tax fraud in the country. The government intends to modernise the tax system to create, verify, and send invoices and improve communications between public administrations and businesses. The Ministry is examining the structure and effectiveness of the eInvoicing models adopted by other countries of the European Union such as Italy, Belgium, and other parts of the world like Mexico, South Korea, and Turkey. For B2B transactions, the German Bundestag parliament has called for the adoption of B2B mandatory eInvoicing to help combat VAT fraud. They expect to be consistent with the VAT in the Digital Age (ViDA) initiative, which involves utilising the European eInvoicing standard. Germany has requested a derogation based on Article 395 of Council Directive 2006/112/EC to make electronic invoicing mandatory for B2B. Strategy for ensuring cross-border eInvoicing interoperability. According to the Hessen Ministry of Finance, the strategy for cross border interoperability is to use invoices compliant with EN 16931.
Structured eInvoicing uptake	In a 2019 survey[159] it projected that about 32 000 million eInvoices are transacted every year in Germany. The survey showed that approximately 33% of larger enterprises (employing more than 500), has already been using eInvoicing, while only 20% of smaller enterprises did so.[160] In a Bitkom survey[161] of enterprises with 20 or more employees who send eInvoices (including PDFs); 44% use EDI, 11% use ZugFeRD, 9% use

[158] https://www.ferd-net.de/about-us/ferd-and-competence-centers/index.html
[159] (E-Invoicing in Germany: progress and current status, 2019)
[160] (Zahorsky, 2020)

XInvoice (xRechnung). The study also found that 44% of enterprises believe that the exchange of structured electronic documents is highly relevant.

According to the Seeburger survey "Results E-Invoicing plus Autumn 2020 survey"[162], addressed to German enterprises, 44% of respondents sent fewer than 100 000 on an annual basis. Only 22% of those surveyed gave a higher value. Around a third of those surveyed stated that they processed fewer than 10 000 incoming invoices a year (35%). 76% of the respondents preferred structured eInvoices such as ZUGFeRD, XRechnung, or EDI. While 13% preferred email and only 4% preferred paper.

55% of the respondents do business with public or government bodies or would be doing so in the near future. They are or will be required to exchange structured invoices with this client base.

41% of the respondents preferred to use the XRechnung format for B2G in Germany, followed by ZUGFeRD (21%). Due to the fact it is not yet wide-spread and possibly due to the costs it incurs, Peppol was not really on the respondents' radar (8%).

Only a few prefer entering invoice data into a public administration portal (11%). Manual entry could be an option if there aren't enough invoices to justify investing in an eInvoicing system.

Percentage of enterprises sending eInvoices

The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing.

The data[163] from Eurostat does not distinguish between B2G or B2B transactions.

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
7%		9.4%	12%	13.5%	15.6%	17.2%	16.5%		17.7%

Table 35 sending eInvoices suitable for automatic processing in Germany

[161] Digital Office Index 2022 (bitkom.org)
[162] Seeburger study link.
[163] The data description can be found at https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm

Implementation of EN 16931 compliant eInvoices	**Approach** Most eInvoicing operations are conducted following bilateral agreements between public entities and economic operators (or solutions providers acting on their behalf). The approach for receiving and processing eInvoices submitted by economic operators is decentralised. Public entities receiving eInvoices decide whether to process eInvoices as structured data or otherwise. For structured data, the Peppol network can be used as well as the federal level shared portal (E-Rechnungs-Portal). Within the B2G context, issuing of eInvoices is mandated for all suppliers to all federal and Bremen contracting authorities. Electronic invoices do not need to be electronically signed and need to be archived for ten years, which, under conditions, is possible abroad[164]. In 2019 it was projected that about 32,000 million eInvoices are transacted every year in Germany. A survey in December 2019 showed that approximately every third enterprise, employing more than 500 people, has already been using eInvoicing, while among smaller enterprises only every fifth did so[15]. As federated state authorities have been mandated to accept eInvoices in November 2020 only, more up-to-date statistics need to be awaited. Uptake of EN 16931 According to the Hessen Ministry of Finance, the Directive 2014/55/EU, and the introduction of EN 16931 has significantly contributed to increasing the adoption of eInvoicing in Germany. XRechnung and ZugFeRD are supported on the federal platform and are fully compliant with EN 16931. In October 2018, the German IT Planning Council made an obligation for all authorities to always offer PEPPOL, if an automated data submission/exchange is provided for the delivery of eInvoices.

[164] (Compliance updates Germany, 2021)

	Based on the Bitkom survey of 2022, 20% of businesses with 20 or more employees use compliant eInvoices i.e. ZUGFeRD or XRechnung.
Cost and Benefits	According to the Hessen Ministry of Finance Germany, the cost reduction as a result of the Directive and EN 16931 was low, however the extent of the costs has yet to be determined. According to the authors of the Seeburger survey, as a rule, a bookkeeper can only process 7 000-16 000 invoices a year. The personnel costs alone for this area work out at EUR 5 – EUR 15 per invoice. In a paper-based workflow, there are further costs incurred for approving the invoice, clarifying discrepancies in amount or price, and then archiving the document. Analysis carried out in some organisations showed that an average of five copies of each invoice were made then redundantly archived (secretary, cost centre manager etc.). As the information in eInvoices is read automatically, it doesn't need to be entered manually into the recipient's ERP system. Furthermore, this reduces the amount of errors made in data entry, or even the amount of invoices lost. At the same time, structured invoices noticeably speed up and improve the whole purchase to pay process. Seeburger has discovered that the savings potential for the invoice recipient works out at around EUR 4.50 per invoice. EU funding Germany did not seek EU funding. eInvoicing services offered by the government (free of charge) E-Rechnungs-Portal is used for eInvoicing with the federal government. Some federal states use this shared portal too, while others use their own portal. All authorities at federal and national level are mandated to always offer Peppol as an alternative for B2G eInvoicing. The obligation on suppliers to use a specific eInvoicing platform depends on which public authority is receiving the eInvoice. Benefits at the national level According to the Hessen Ministry of Finance Germany, these figures were not collected.
eInvoicing services offered by the government (free of charge)	N/A

Call for evidence	**Feedback from: Global Legal Entity Identifier Foundation (GLEIF)** The Legal Entity Identifier (LEI) is a global ISO standard (ISO 17442) for unique, unambiguous legal entity identification. It offers a supra-sectoral and supra-EU solution. It also ensures interoperability across Member States as well as firms participating from non-EU countries The GLEIF suggested to include the LEI as a mandatory data element within the semantics of the European standard for eInvoicing. **Feedback from DATEV eG** The EN 16931 is considered to be a solid framework for the creation of electronic invoices in the B2G environment, which needs to be further specified and expanded regarding the planned application scenario in the B2B context, based on the requirements of the VAT in the Digital Age (ViDA) proposal. It is necessary to add fields to the core data set that were previously only used as options or, if necessary or to develop extensions. These points, which are essential for the standardisation of electronic invoices, should be analysed, discussed, and implemented by DG GROW and the responsible standardisation committees with regard to the desired automated invoicing process. **Feedback from an EU Citizen** The transmission of eInvoices should ensure the protection of personal data, notably in the context of services being invoiced that are subject to the medical secret (invoicing of services rendered by hospitals, laboratories, doctors, etc.). Access by non-authorised people to such sensitive information must be excluded.
Key findings	The Hessen Ministry of Finance in Germany was the authority that answered the survey on behalf of Germany. They stated that the Directive and the European eInvoicing standard has significantly contributed to increasing the adoption of eInvoicing in Germany. While eInvoicing is mandatory for suppliers sending eInvoices to federal public authorities, this is not the case elsewhere. The key driver in the future will be dealing with tax fraud. The government intends to modernise the tax system to create, verify, and send invoices and improve communications between public administrations and businesses. Eurostat figures do not show an increase in the number of enterprises sending eInvoices, however as the B2G mandate did not start effectively until 2021, this was not unexpected. All German formats are now compliant with the EN, but adoption is still not high overall as seen by Eurostat where in 2021 it was less than 19%. Also the 2020 Seeburger survey showed low usage of Peppol at 8%. For B2B transactions, the German Bundestag parliament has called for the adoption of B2B mandatory eInvoicing to help combat VAT fraud. They

expect to be consistent with the European VAT in the Digital Age (ViDA) initiative, which involves utilising the European electronic invoice standard. Germany has requested a derogation based on Article 395 of Council Directive 2006/112/EC to make electronic invoicing mandatory for B2B.

Greece

Legislation

The transposition of the Directive 2014/55/EU[165] into Greek law was adopted in the first quarter of 2019 (Law 4601/2019). The transposition aligns with the text and scope of the Directive however it mandates the issuance of two Joint Ministerial Decisions (JMDs), i.e. secondary level legislation, in order to stipulate the details regarding the adoption of the semantic data model of eInvoices and the architecture of eInvoicing in Greece.

The Ministerial Decision No. 1017 / 14.02.2020[166] (National Gazette, Issue B, Sheet 457) was issued by the Ministry of Finance, which is specifies the eInvoice format for B2B transactions (fully compliant to the European standard on eInvoicing and the chosen Peppol CIUS for B2G),

Also, the Ministerial Decision No. A.1035 / 18.02.2020[167] (National Gazette, Issue B, Sheet 551) was issued by the Ministry of Finance, which is stipulating rules and regulations regarding eInvoicing Service Providers.

For the alignment of the European semantic data model specifications of eInvoice with the procurement rules and financial procedures in Greece, two Joint Ministerial Decisions have been issued for further specifying and providing guidance on how to use it in public procurement (Government Gazette 2338 B' 02-06- 2021). In these Ministerial Decisions the four corner model interoperability architecture of Peppol eDelivery network was adopted (Government Gazette B '2425 18-06-2020).

On September 23, 2022, Greece published Law 4972/2022[168], which includes a mandate on the use of the electronic invoice for all sales made to the government, regardless of the value involved in the transaction. The law further incorporates new sanctions for not transmitting the e-invoice information and other data via the myDATA system. In addition to the current penalties, the tax authorities are now allowed to suspend the operations of non-compliant taxpayers that can go from 48 to 96 hours, depending on the severity of the violation.

Mandatory for

- **Receiving and processing**: National, regional, and local contracting authorities

[165] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014L0055
[166] https://www.vatupdate.com/wp-content/uploads/2020/02/2020-02-16-Greece-einvoicing-EN.pdf
[167] https://www.vatupdate.com/wp-content/uploads/2020/02/2020-02-21-Greece-Einvoicing-English.pdf
[168] https://www.kodiko.gr/nomothesia/document/821127/nomos-4972-2022

	○ **Mandatory below the EU thresholds**: Yes
Platform	"MyData" application i.e. a digital financial information application for taxation managed by the Independent Authority of Public Revenue in Greece. A Web application is available to allow suppliers to send eInvoices to the competent Contracting Authorities. This is managed by the General Secretariat for Information Systems of Public Administration (GSIS PA) at the Ministry of Digital Governance.
Standard(s)	*National Standard in use (if any)* — *EN 16931 compliant standard* The European standard on eInvoicing is fully implemented.
Monitoring	N/A
Strategy	National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030) B2G eInvoicing will be obligatory in the medium term (2023 - 2024) for all Economic Operators that have contracts with the public authorities. In the long term, as part of the Fiscal reform and Digital Transformation of the State, eInvoicing will play a major role towards the implementation of Accrual Accounting. Strategy for ensuring cross-border eInvoicing interoperability. Cross-border eInvoicing interoperability for any foreign B2G supplier is ensured by implementing PEPPOL BIS CIUS and PEPPOL eDelivery network specifications.
Structured eInvoicing uptake	Number of Contracting Authorities using eInvoicing: **Until 2021:** 0 Number of suppliers sending eInvoices for public procurement contracts: **Until 2021:** 0 How many B2G eInvoices from national suppliers does the Public Sector in your country receive on a yearly basis: **Until 2021:** 0; **2022**: 3043 How many B2G eInvoices from foreign suppliers: **Until 2021:** 0

B2B eInvoices exchanged at domestic level	N/A
B2B eInvoices exchanged at cross-border level	N/A

Table 36 Structured eInvoicing uptake in Greece

Percentage of enterprises sending eInvoices

The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing.

The data[169] from Eurostat does not distinguish between B2G or B2B transactions.

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
11.3%		12.1%		10.3%	11.3%		9.2%		

Table 37 sending eInvoices suitable for automatic processing in Greece

Implementation of EN 16931 compliant eInvoices

Approach

The Greek authorities have completed the development and testing of their own Peppol Access Point (AP) implying the usage of Peppol BIS Billing 3.0 which is based on the European standard on eInvoicing (EN 16931). The necessary fields and items of an eInvoice are outlined in the publication of the A. 1017/27-01-2020[170], which is the EN-compliant format used as well as in the relevant information regarding the semantic model.

The Peppol Access Point (AP) exclusively facilitating the issuers of the eInvoices enables the receiving of eInvoices from their ERP systems. Additionally, other systems, including the Peppol Access Point for the Public Administration Authorities are part of the National Interoperability

[169] The data description can be found at https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm

[170] https://www.aade.gr/egkyklioi-kai-apofaseis/1017-27-01-2020

Centre of the General Secretariat for Information Systems of Public Administration at the Ministry of Digital Governance. Other Enterprise Resource Planning systems and standalone applications of the Public Authorities allow further processing of eInvoices, until their liquidation and payment.

The main eInvoice process flow scenario for public procurement includes the following steps:

1. Preparation of eInvoice data by the supplier/contractor and transmission to an eInvoicing service provider.
2. The eInvoicing service provider validates invoice data before submitting it, using the respective Interoperability Centre services.
3. The eInvoicing service provider reports and registers the eInvoice, for taxation reasons, to "MyData" application i.e. to a digital financial information application for taxation operated by the Independent Authority of Public Revenue in Greece.
4. The eInvoicing service provider prepares the eInvoice based on a) the European standard semantic model, b) the national specification that derives from the Joint Ministerial Decisions, and the Peppol BIS.
5. The eInvoicing service provider submits the eInvoice to the access point of the Interoperability Centre through the Peppol network.
6. The Interoperability Centre receives and validates the eInvoice, according to the European and national rules for eInvoicing,
7. The Interoperability Centre routes the eInvoice to the competent contracting authority or competent IT system of the public body,
8. The competent contracting authority and financial service handle the invoice according to their internal procurement and payment practices using one of the IT systems or web application mentioned in the previous section. The competent authorities send the appropriate messages regarding the status of the processing of the eInvoice through the Interoperability Centre and the eInvoicing service providers to the supplier/contractor.

6. Uptake of EN 16931

According to the General Secretariat of Information Systems of Public Administration the Directive 2014/55/EU and the introduction of EN 16931 has contributed to increasing the adoption of eInvoicing in your country. They had a very high impact on B2G but a very low impact on B2B.

Is Peppol / eDelivery used	Yes. The Peppol eDelivery network is used for B2G eInvoicing.
Number of public contracting authorities and entities using eInvoicing compliant with the EN 16931, versus the total	**Up to 2021:** 0 **2022**: 100% (all B2G eInvoices received are compliant with the EN 16931)

Percentage use vs other formats for B2G?	**Up to 2021**: 0
Percentage use vs other formats for B2B?	**Up to 2021:** 0

Table 38 Uptake of EN 16931 in Greece

Cost and Benefits

Greece did not incur costs solely related to transposing the Directive 2014/55/EU and ensuring compliance with EN 16931.

They perceive a high cost-reduction because of the Directive and EN 16931.

Greece did not experience a cost burden associated with ensuring their national format complied with EN 16931.

Implementation costs for EN 16931	• Purchase software/hardware: Adapting software especially for SMEs and contracting authorities. Complementary actions for that are being implemented. • Training costs: Especially for contracting authorities at this stage • Test environment: It has been centrally implemented. • Service providers' fees: Only for the Economic operators for using eInvoicing service providers.

Table 39 Implementation costs for EN 16931 in Greece

EU funding

- Name of the EU funding programme: 2016 CEF Telecom Call - eInvoicing (CEF-TC-2016-3)
- Requested funding (euro): 946,753.
- Year: 2017.

eInvoicing services offered by the government (free of charge)

The National Interoperability Centre is responsible for receiving all the eInvoices.

Suppliers send eInvoices through certified eInvoice Service Providers or the Peppol network.

As mentioned in the Member States survey, Greece are implementing complementary actions for SMEs and contracting authorities to adapt their

	software for eInvoicing. Benefits at the national level According to the General Secretariat of Information Systems of Public Administration, operational efficiencies are expected. There will be improved transparency especially in B2G eInvoicing. Social benefits will be achieved through bureaucracy containment and environmental benefits will occur from a paper-less environment and an increase in tax revenues is expected.
eInvoicing services offered by the government (free of charge)	N/A
Call for evidence	N/A
Key findings	The General Secretariat of Information Systems of Public Administration stated that the Directive 2014/55/EU and the introduction of EN 16931 has a very high impact on B2G but a very low impact on B2B. Greece started with voluntary participation in eInvoicing but that was not very effective as up to 2021 there was no B2G eInvoices and just over 3 000 in 2022. At this stage the national policy is to gradually mandate suppliers as this is expected to accelerate the adoption of eInvoices in the Greek Market. A Joint Ministerial Decision is pending approval for this. It is expected, based on the government strategy, that B2G will be mandated between 2023 and 2024. There are no plans to mandate B2B.

Hungary

Legislation

According to section 174 of the Act CXXVII of 2007 on Value Added Tax[171], an invoice may be printed on paper or issued electronically.

Section 175 of the aforementioned Act lays down the rules related to electronic invoicing (eInvoicing). According to this section, contracting authorities should accept eInvoices if the authenticity of the origin of the eInvoice and the integrity of its content are guaranteed.

Economic operators can ensure these requirements by using an electronic signature[172] and time stamps or by making eInvoices available through Electronic Data Interchange (EDI) systems.

On 1 July 2018, the Hungarian real-time invoice reporting (RTIR) obligation came into force (Act LXXXIII of 2018 amending Act CXLIII of 2015 on public procurement[173]) for domestic eInvoices (and later amended in 2021 to include intra-community transactions). The 2018 obligation requires any taxpayer to register for VAT purposes in Hungary (issuing an invoice with a VAT amount greater than or equal to HUF 100 000) to report the eInvoice data immediately and without human intervention to the Hungarian tax authority (NAV). The new live reporting scheme replaces the existing domestic sales ledger listing, which is filed monthly with the VAT return. This obligation requires companies to adapt their invoicing processes and Enterprise Resource Planning (ERP) systems in order to produce the XML file that must be transmitted to the Hungarian tax authorities' website without human intervention.

Mandatory for

- **Receiving and processing**: Central, regional, and local contracting authorities
- **Sending**: Economic Operators. From 1 January 2021, all B2B and B2C transactions must be reported to Hungarian tax authorities in real-

171 https://encrypted.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwjDtP7WsIvWAhVIvhQKHewkBOUQFgglMAA&url=http%3A%2F%2Fwww.icnl.org%2Fresearch%2Flibrary%2Ffiles%2FHungary%2Fvatact_ENG.pdf&usg=AFQjCNFeFKqydxMQWfab3hnEeJ15Hoymnw

172 https://ec.europa.eu/digital-building-blocks/wikis/display/DIGITAL/eSignature

173 https://eur-lex.europa.eu/legal-content/FR/TXT/?uri=NIM:271618&qid=1581428917945

	time, regardless of the transaction amount. ○ **Mandatory below the EU thresholds**: No
Platform	NAV Online Invoicing System – as a centralised platform enabling real-time eInvoice reporting. The Hungarian Tax Authority has a centralised real-time invoice reporting (RTIR) model. Initially introduced in July 2018, the anti-VAT fraud measure requires that all invoices be reported to authorities live and by electronic means. As of June 2021, National Tax and Customs Administration of Hungary[174] it is mandatory for all taxpayers to use the NAV Online Invoicing System to submit their invoice data. Using a technology provider, the exported data from the Enterprise Resource Planning (ERP) system will be treated and transformed to the required format by the NAV, in accordance with the requirements specified by the NAV. More technical information on the NAV Online Invoicing System can be found on the NAV website[175], along with the technical information[176] of the currently supported version.
Standard(s)	*National Standard in use (if any)* *EN 16931 compliant standard* The European standard on eInvoicing is fully implemented.
Monitoring	Hungary's eInvoicing regulations are part of the country's efforts to reduce its large VAT Gap and ensure collection of indirect taxes. As reported in 2018, these efforts have reduced the country's VAT gap by 10.7% since 2013, with a bigger reduction anticipated now that eInvoicing is in place. These latest eInvoicing changes linked to VAT purposes aim at enabling the Tax Authority to prepare and propose draft VAT returns to taxpayers

[174] https://nav.gov.hu/
[175] https://onlineszamla.nav.gov.hu/api/files/container/download/Online Szamla_Interfesz specifikacio_EN_v3.0.pdf
[176] https://onlineszamla.nav.gov.hu/dokumentaciok

	from the 12th day of the month following the tax assessment period. This will be available based on VAT data for July 2021. (WTS global, 2021). With the changes brought to Hungary's eInvoicing law in 2021 (Act LXXXIII of 2018), the Hungarian Government has taken a significant step forward on the path to invoicing digitisation. A possible next step could be the adoption of a mandatory CTC model inspired by Italy. However, the Hungarian Government would first need to obtain the EU Council's authorisation to introduce a special measure derogating rules from the EU VAT Directive[177].
Strategy	National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030) B2G eInvoicing will be obligatory in the medium term (2023 - 2024) for all Economic Operators that have contracts with the public authorities. In the long term, as part of the Fiscal reform and Digital Transformation of the State, eInvoicing will play a major role towards the implementation of Accrual Accounting. Strategy for ensuring cross-border eInvoicing interoperability. Cross-border eInvoicing interoperability for any foreign B2G supplier is ensured by implementing PEPPOL BIS CIUS and PEPPOL eDelivery network specifications.
Structured eInvoicing uptake	According to szamlazz.hu[178], (a service providing some free eInvoicing), there are 354 389 120 invoices issued involving 805 328 users. Hungary has a single centralised platform at the national level via NAV. Sub-Central contracting authorities and economic operators decide on the eInvoicing solution to use in a prior written agreement with a detailed technical description of EDI data, system, and format to use. In addition, economic operators should ensure that a summary document is sent to the contracting authority reporting on the eInvoices issued during the given month. No electronic signature is required for eInvoices. The archiving period amounts to 5 years[179].

[177] https://sovos.com/blog/vat/hungary-expands-real-time-vat-controls/
[178] https://www.szamlazz.hu/
[179] https://www.pagero.com/compliance/regulatory-updates/hungary

Percentage of enterprises sending eInvoices	The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing. The data[180] from Eurostat does not distinguish between B2G or B2B transactions.

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1.5%		5.2%		6.1%	8.1%	8.4%	9.8%		13.5%

Table 40 sending eInvoices suitable for automatic processing in Hungary

Implementation of EN 16931 compliant eInvoices	According to the Prime Minister's office, electronic invoicing is not mandatory. Electronic reporting to the tax administration on every invoice is mandatory since 2020, promoting the use of electronic invoice. They state that there is no significant use of EN 16931. Peppol is not used in Hungary.
Cost and Benefits	EU funding • Name of the EU funding programme: CEF Telecom • Requested funding (in euro): EUR 1 383 720 eInvoicing services offered by the government (free of charge) The online Szamla web application[181] is provided free of charge.
eInvoicing services offered by the government (free of charge)	N/A

[180] https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm
[181] https://onlineszamla.nav.gov.hu/a_rendszerrol

Call for evidence	N/A
Key findings	According to the Prime Minister's office, In Hungary, they do not see any significant effect of the Directive and the Standard. They state that there is no significant use of EN 16931 and Peppol is not used. For B2G, contracting authorities should accept eInvoices if the authenticity of the origin of the eInvoice and the integrity of its content are guaranteed. Economic operators can ensure these requirements by using an electronic signature and time stamps or by making eInvoices available through Electronic Data Interchange (EDI) systems. The requirements[182] published for the Hungarian central system (NAV), specify the requirements for submission to the tax authority but do not specify requirements for sending to the Buyer. Therefore, the Supplier can send any format to the Buyer including paper.

Iceland

Legislation	Regulation 505/2013[183] on electronic billing, electronic accounting, messaging, message services, storage of electronic data and minimum requirements for electronic accounting and accounting systems. Regulation 44/2019[184] on electronic billing in public procurement. Mandating public authorities to accept invoices compliant to EN 16931. Declaration by city of Reykjavík[185]. As of 1 January 2015, the City of Reykjavík, including all its organisations, will only accept invoices that are in electronic format compliant to an EN 16931 CIUS (TS-236). Declaration by Icelandic Accounting Authority (FJS)[186]. As of 1 January 2020, the Icelandic Government, including all its organisations, will only accept invoices that are in electronic format compliant to an EN 16931 CIUS (TS-236).

[182] https://opd.hu/blog/id/nav_szamlazo_program_kovetelmenyek
[183] https://www.reglugerd.is/reglugerdir/allar/nr/505-2013
[184] https://www.reglugerd.is/reglugerdir/allar/nr/044-2019
[185] https://reykjavik.is/sjalfvirkir-rafraenir-reikningar

	Mandatory for • **Receiving and processing**: Central, regional, and local contracting authorities • **Sending**: Economic Operators. ○ **Mandatory below the EU thresholds**: Yes	
Platform	Peppol eDelivery Network	
Standard(s)	*National Standard in use (if any)*	*EN 16931 compliant standard* The European standard on eInvoicing is fully implemented under UBL 2.1 and CII.
Monitoring	There is no specific approach mentioned toward the eInvoicing monitoring yet. The monitoring so far should be via the Enterprise Resource Planning (ERP) systems in place.	
Strategy	National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030) There is no specific national eInvoicing strategy but the digital strategy for Iceland[187] includes the following policy objective: "Increased competitiveness with emphasis on that public sector data be accessible and in usable format." The B2G invoice data is published on an open web: "Government Invoice Open Data" where certain data is published and downloadable[188]. In addition the strategy for sustainable procurement emphasises the use of data for better contracting and the eInvoice data is collectively used by the Central Procurement Agency for analysis and preparation of contracting[189]. Strategy for ensuring cross-border eInvoicing interoperability.	

[186] https://www.fjs.is/fraedsla-og-verklagsreglur/rafraenir-reikningar/
[187] https://island.is/en/o/digital-iceland/digital-strategy
[188] https://opnirreikningar.is/
[189] https://www.stjornarradid.is/library/02-Rit--skyrslur-og-skrar/Sj%c3%a1lfb%c3%a6r%20innkaup%20-%20stefna%20r%c3%adkisins%20(002).pdf

Structured eInvoicing uptake	The Financial Management Authority handles all payments for central government and agencies and is registered as a Peppol Authority[190]. In 2014 Icelandic government recommended that all invoices sent for government services should be electronic. In 2019 they made it mandatory to use electronic XML invoices.	
	Number of Contracting Authorities using eInvoicing	**2019**: All **2020**: All **2021**: All
	Number of suppliers sending eInvoices for public procurement contracts	**2019**: All **2020**: All **2021**: All
	How many B2G eInvoices from national suppliers does the Public Sector in your country receive on a yearly basis?	The figures below represent both domestic and foreign suppliers. **2019**: 442 000 **2020**: 552 500 **2021**: 585 000
	B2B eInvoices exchanged at cross-border level	Not available

Table 41 Structured eInvoicing uptake in Iceland

[190] https://www.fjs.is/media/rafraenirreikningar/FJS-Peppol-guidelines_en_103.pdf

Percentage of enterprises sending eInvoices	The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing. The data[191] from Eurostat does not distinguish between B2G or B2B transactions.

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
		21.8%	23.2%		33.1%				37.4%

Table 42 sending eInvoices suitable for automatic processing in Iceland

Implementation of EN 16931 compliant eInvoices

Approach

There is a distinction made between the central and the sub-central levels. All public authorities have to follow the guidelines of the Regulation 44/2019. Within the B2G context, all public contracting authorities are mandated to receive and issue electronic XML invoices. In 2022, about 92% of B2G received invoices were electronic and in XML format, as the law allows certain industries may use paper invoices. There is no plan to make electronic invoicing mandatory for B2B and B2C, but the usage of eInvoices is widespread in B2B and B2C procurement. Within the B2B environment, the buyer's consent is needed for receiving eInvoices.

No electronic signature is required for eInvoices, and the archiving period amounts to 7 years.

Uptake of EN 16931

The Ministry of Finance and Economic Affairs in Iceland indicated that the Directive 2014/55/EU and the introduction of EN 16931 has significantly contributed to increasing the adoption of eInvoicing in Iceland

[191] https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm

Is Peppol / eDelivery used	Yes. The Financial Management Authority, that handles all invoices, invoicing and payments for central level is a Peppol Authority.
Number of public contracting authorities and entities using eInvoicing compliant with the EN 16931, versus the total	**2019**: All **2020**: All **2021**: All
Percentage use vs other formats for B2G?	**2019**: **2020**: **2021**:
Percentage use vs other formats for B2B?	**2019**: **2020**: **2021**:

Table 43 Uptake of EN 16931 in Iceland

National Survey 2019
Source: National Survey[192]

[192] https://static1.squarespace.com/static/5ab282a69d5abb391e7e7225/t/5fd7990685a9ac3632ac8a5c/1607964936240/2019+Survey+on+the+usage+of+einvoiceing+in+Iceland.pdf

Survey data was performed in 2019.

Iceland has more than one syntax in use, which has caused various problems. Users are unwilling to update their ERP systems as their current systems still serve them well. Therefore, Service Providers have taken on the role of transforming eInvoices between syntaxes (formats) in cases where the sender and the recipient are not using the same syntax, thus reducing the need for users to upgrade to the latest syntax.

The following XML formats were in use:

- 42% of respondents use TS-136 (CENBII)
- 23% of respondents use TS-135 (NESUBL)
- 12% of respondents use TS-236 (BISENUBL)

Adoption was high among large enterprises and public entities.

- 82% of respondents receive eInvoices.
    - 95% of large enterprises receive eInvoices.
    - 89% of Public entities receive eInvoices.
- 71% of respondents send eInvoices.
    - 84% of large enterprises send eInvoices.
    - 64% of Public entities send eInvoices.
    -

The percentage of eInvoices over other forms e.g. PDF or paper

- The percentage of eInvoices of all issued invoices is on average 30.5%
- The percentage of eInvoices received is, on average, 55.4%
- 29% of entities with more than 11 employees send or receive eInvoices from abroad.

There is a high rate of ERP integration.

- 78.4% of respondents import eInvoices automatically into their accounting or approval system.
- 11.8% of respondents import eInvoices manually.

A high number of respondents see the benefits of eInvoicing.

- 80% of respondents replied that their accounting process has gotten moderately simpler, considerably simpler, or much simpler following the uptake of eInvoice documents.
- 4% of respondents replied that the process has become more complicated.
- 4% of respondents think nothing has changed.
- 12% replied ‘not applicable’.

Cost and Benefits

Iceland did not incur costs solely related to transposing the Directive 2014/55/EU and ensuring compliance with EN 16931.

Iceland perceived a moderate cost reduction because of the Directive and EN 16931.

According to the 2019 survey over 80% of respondents (enterprises and public bodies) replied that their accounting process has gotten moderately simpler or considerably simpler.

Iceland experienced a cost burden associated with ensuring the national format complied with the EN 16931. The estimated cost is EUR 38 000. Their Standards body put together a technical group to work on this that had members from the bigger IT companies and appropriate stakeholders. The two ministries (Business and Ministry of Finance) paid for this standardisation work. Iceland have stated that benefits have outweighed the costs. No other cost has been identified specifically, but of course there has been costs involved.

Implementation costs for EN 16931	Upgrading national format to EN: EUR 38 000

Table 44 Implementation costs for EN 16931 in Iceland

EU funding
No funding requested.

Benefits at the national level

Operational efficiencies	Yes, but it is very hard to put actual monetary values on this. The Financial Management Authority has estimated that 1/3 of efficiencies is for the sender and 2/3 for the buyer and is estimating conservatively ISK 3 000 per invoice. (approx. EUR

		20)
	Tax revenues	N/A
	Improved transparency	High
	Social benefits	N/A
	Environmental benefits	Based on B2G volumes for central government alone, using the CO2 emissions calculator[193] provided by one of the bigger Peppol Access Point service providers the estimated emissions impact of about 600 000 eInvoices is about 11 000kg CO2 per year

Table 45 eInvoicing benefits at national level in Iceland

(FJS) on behalf of the Ministry of Finance and Economic affairs.

eInvoicing services offered by the government (free of charge)

The eInvoicing platform used in Iceland is the Peppol eDelivery Network.

Call for evidence

Icelandic government has decided to make it mandatory from 2019 to submit eInvoices when doing business with the government. This requirement has spearheaded the use of eInvoices throughout the country and businesses and other government levels are also getting almost all of their invoices submitted electronically. To help SMEs submit eInvoices there is an open free gateway to send individual invoices electronically by manually typing the invoice information into a form that then generates eInvoices automatically. All invoices sent to government entities go to one central Financial Management Authority. They are members of the Peppol network. There are several different business entities in the market providing the tech solutions to market to send the xml invoices from accounting software through the Peppol network.

Data: eInvoices received at central government level (B2G):

The tables below show that as the requirement for B2G for suppliers got stricter, the rate of adoption increased.

[193] https://www.advania.is/vorur-og-thjonusta/skeytamidlun/

Voluntary from 2009-2014

2009	2010	2011	2012	2013	2014
0.9%	2.4%	5%	10%	18%	25%

Table 46 Voluntary eInvoices received at central government level (B2G) in Iceland

Requirement 2014-2019

2015	2016	2017	2018
41%	47%	54%	62%

Table 47 Requirement eInvoices received at central government level (B2G) in Iceland

2019 Mandatory

2019	2020	2021	2022
68%	85%	90%	92%

Table 48 Mandatory eInvoices received at central government level (B2G) in Iceland

Key findings

The Ministry of Finance and Economic Affairs in Iceland indicated that the Directive 2014/55/EU and the introduction of EN 16931 has significantly contributed to increasing the adoption of eInvoicing in Iceland.

In 2014 Icelandic government recommended that all invoices sent for government services should be electronic. The requirement got stricter culminating in a legal obligation in 2019. As can be seen from the Call for Evidence data, the adoption rate increased significantly in line with this where it is now over 92%.

According to Eurostat, the number of enterprises sending eInvoices increased from 22% in 2013 up to 33% in 2016 and in 2020 the number increased

to 37.4%. This seems to be corroborated by a study in 2019 that stated that the percentage of eInvoices of all issued invoices is on average 30.5%. However, this adoption rate is not as dramatic as in B2G.

In the Call for Evidence, the Ministry states that to help SMEs submit eInvoices there is an open free gateway to send individual invoices electronically. There are several different business entities in the market providing the tech solutions to market to send the xml invoices from accounting software through the Peppol network.

Ireland

Legislation

- Statutory Instrument 354, in effect from 1 January 2013, established electronic invoices on an equal footing with paper invoices and incorporates the definition of an electronic invoice's processing.
- Statutory Instrument 258[194], in effect from 12 June 2019, transposed the European Directive on eInvoicing (2014/55/EU)[195] in public procurement. The legislation is in line with and does not exceed the scope of the Directive.

There is no legal obligation on economic operators to submit invoices electronically in public procurement at this point in time.

Platform

Mandatory for

- **Receiving and processing**: Central authorities, Regional authorities & Local authorities
  - **Mandatory below the EU thresholds**: No
- All public bodies are expected to be able to receive and process eInvoices via the Peppol network.
- The Office of Government of Procurement has established a national framework agreement[196] with some of service providers for the provision of eInvoicing and Peppol networking services and solutions.

Financial Management Shared Services systems are expected to be the main eInvoicing processing points across the public sector as they are rolled out over the coming years.

Standard(s)

National Standard in use (if any)

EN 16931 compliant standard

The European standard on eInvoicing is fully implemented. The National approach to implementing the eInvoicing Directive recommends that contracting authorities and entities implement support for the Peppol BIS (UBL-XML based syntax standard).

One or more of the following standards are supported by various eInvoicing

[194] S.I. No. 258/2019 - European Union (Electronic Invoicing in Public Procurement) Regulations 2019 (irishstatutebook.ie)
[195] http://data.europa.eu/eli/dir/2014/55/oj
[196] https://www.gov.ie/en/publication/9bee8-einvoicing-framework/

	implementations that currently exist within the public sector: • UBL (UBL-XML based syntax standard). • UN/CEFACT CII (XML-based syntax standard) • EDIFACT (EDI mnemonic-based syntax standard).
Monitoring	Monitoring of eInvoice volumes is not in place.
Strategy	At the end of March 2023, the OGP's Multi Supplier Framework Agreement for the provision of PEPPOL networking and eInvoicing Systems and Services to the Irish Public Sector ('eInvoicing Framework') reached its full term. No new contracts can be entered into off the framework. There is now greater maturity and understanding of public sector needs in the eInvoicing services and solutions available on the market that will help public bodies meet their legal obligations arising from the European eInvoicing Directive. In many cases, eInvoicing services can now be easily, swiftly and cost effectively procured compliantly by a public sector body (PSB) directly from the market. National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030) The national eInvoicing strategy in the medium term is to leverage the financial shared services systems in each of public service sectors in order to provide centres of eInvoicing capability for public bodies and to encourage the adoption of eInvoicing by suppliers in public procurement. The main finance shared services systems continue to gradually increase the number of public bodies they serve and provide an eInvoicing capability for. All the main finance shared services systems support the EU standard for eInvoicing through the Peppol network. In the longer term, options are being considered to introduce measures that will assist the main shared services, and individual public bodies, in driving uptake of eInvoicing in public procurement among suppliers. This may include, among other things, additional communications on the national approach and benefits of eInvoicing, targeting of high-volume invoice suppliers that are common to multiple-public bodies and the facilitation of eInvoicing via clauses in public procurement contracts. eInvoicing is also expected to feature in the B2B domain in the coming years, on foot of the recent the European Commission's proposed series of measures to modernise and make the EU's Value-Added Tax (VAT) system work better for businesses and more resilient to fraud by embracing and

promoting digitalisation.

Strategy for ensuring cross-border eInvoicing interoperability.

The national approach to eInvoicing in public procurement, which is supported by all the main public service sector finance shared services management and systems, is to support the EU eInvoicing standard via the Peppol network.

Structured eInvoicing uptake		
	Number of Contracting Authorities using eInvoicing	No data provided
	Number of suppliers sending eInvoices for public procurement contracts	No data provided
	How many B2G eInvoices from national suppliers does the Public Sector in your country receive on a yearly basis?	**2019**: 48 000 **2020**: 48 000 **2021**: 48 000
	Notes on above data	The number of eInvoices provided relates to Peppol/EN 16931 compliant eInvoices and is predominately accounted for by a Business Shared Services function in the Education sector. While other Shared Services systems in the health, central and local government sectors support Peppol/EN 16931 compliant eInvoicing they are still rolling out initiatives to onboard suppliers to submit eInvoices. Other public service and sector bodies are also receiving eInvoices, but no data is available to confirm the volume.
	How many B2G eInvoices from foreign suppliers	N/A
	B2B eInvoices exchanged at domestic level	N/A
	B2B eInvoices exchanged at cross-border level	N/A

Table 49 Structured eInvoicing uptake in Ireland

Percentage of enterprises sending eInvoices

Percentage of enterprises sending eInvoices

The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing.

The data[197] from Eurostat does not distinguish between B2G or B2B transactions.

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
8%		14.5%	14.2%		15.4%		19.9%		18.7%

Table 50 sending eInvoices suitable for automatic processing in Ireland

Implementation of EN 16931 compliant eInvoices

Approach

At the sub-central level, Ireland has adopted an open-standards-based hybrid model, facilitating implementations by shared services functions and by individual public bodies. All implementations must be able to receive and process European Standard compliant eInvoices via the Peppol eDelivery network.

Sub-central government bodies receive the services they need from the Local Government Management Agency (LGMA) Shared Service. This enables them to receive and process European Standard-compliant eInvoices via the Peppol network.

Many public bodies are scheduled to be on-boarded to a single finance shared services system for invoice processing over the next few years. Until this on-boarding is completed, it makes it more difficult to drive the uptake of eInvoicing, as public bodies are less likely to individually invest in longer-term integrated eInvoicing solutions.

eInvoicing communication mainly goes through the national eInvoicing Ireland Programme[198]. The Steering Committee comprises Senior Business and Finance Management representatives from across the Public Sector.

The benefits being targeted by the adoption of eInvoicing include the reduction of administrative burden, cost savings and enabled the better use of

[197] The data description can be found at https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm

[198] https://www.eolasmagazine.ie/einvoicing-digital-transformation-in-action/

data for more informed decision making and better outcomes for the public and businesses. The implementation of eInvoicing is varied across the sub-central level in Ireland with pockets of excellence, for example in some areas of the education and health sectors. A number of eInvoicing implementations are underway as a result of the impetus created by the EU Directive.

Uptake of EN 16931

According to the Office of Government Procurement under the Department of Public Expenditure and Reform that while the Directive has had a very significant impact on the capability of public bodies to be able to process eInvoices, suppliers are still reluctant to move away from unstructured eInvoicing formats even when presented with the option to do so by Public sector buyers.

Is Peppol / eDelivery used	Yes. The national approach for eInvoicing in public procurement is for all public bodies to support the receipt of EU standard eInvoices via Peppol.
Number of public contracting authorities and entities using eInvoicing compliant with the EN 16931, versus the total	All four government Shared Services have procured a Peppol Service Provider. It is Government policy to use these shared services for Central and sub-central. Public contracting authorities connected to these Shared Services are 100% compliant.
Percentage use vs other formats for B2G?	All public contracting authorities have now adopted European eInvoicing standard compliant eInvoice formats. However the Irish Health Service also receives eInvoices through SAP Ariba in parallel with the Peppol system.
Percentage use vs other formats for B2B?	**2019**: <1%
	2020: <1%
	2021: <1%

Table 51 Uptake of EN 16931 in Ireland

Cost and Benefits

According to the Office of Government Procurement under the Department of Public Expenditure and Reform, Ireland incurred moderate costs solely related to transposing the Directive 2014/55/EU and ensuring compliance with EN 16931.

Implementation costs for EN 16931	• Purchase software/hardware: EUR 894 863

- Change management: EUR 250 000

Table 52 Implementation costs for EN 16931 in Ireland

EU funding

- Name of the EU funding Programme: CEF Programme
- Requested funding (euro): EUR 973 836.
- Year: 2017, 2018, 2019.

eInvoicing services offered by the government (free of charge)

Financial Management Shared Services systems are connected to Peppol service providers.

Suppliers submit eInvoices using Peppol service providers. Some Peppol service providers provide a free option where a supplier can key in the eInvoice.

Benefits at the national level

Benefits are expected in time, but they have yet to be realised due to the limited Shared Services capability in some sectors resulting in low volumes of centralised eInvoicing processing and lack of uptake by suppliers.

eInvoicing services offered by the government (free of charge)	N/A
Call for evidence	**Feedback from Atlantic Technological University (ATU) Ireland.** The proposed EU VAT regulations will mandate intra EU eInvoice transactions. At the moment EN 19631 is focused on B2G transactions. A review is required of EN19631 to ensure that it is capable of support for B2B requirements. It should also require a common community communications network, such as provided by PEPPOL and eDelivery Building Block. With these technical supports in place, a further set of supports should be provided to help SMEs adopt eInvoicing. Included in this would be awareness for the SME sector and training for their IT providers. When this is completed, to drive adoption, member Governments should mandate eInvoicing in a phased manner.

Key findings	The Directive has had a very significant impact on the capability of public bodies to be able to process eInvoices, however, suppliers are still reluctant to move away from unstructured eInvoicing formats even when presented with the option to do so by Public sector buyers. According to the Eurostat figures the number of enterprises sending eInvoices has stayed flat since 2013 at between 14% and 15%. Without a mandate on suppliers the adoption rate is likely to stay low. As in many other countries, the vast majority of structured eInvoices would be in the Retail and Pharmaceutical sectors. Some hospitals have also adopted eInvoicing. The most common format is EANCOM based on EDIFACT. Benefits are expected in time once the adoption rates are increased through further initiatives. The ViDA proposals will be the next opportunity for Ireland to drive these initiatives, particularly for B2B. In the call for Evidence, ATU states that before mandating B2B, several steps need to be taken in advance to ensure readiness and then it should be phased in.

Italy

Legislation	Multiple legislation. • Italian law number 244[199] of 24 December 2007, provisions for drafting the annual and longer-term financial statements of the State (Finance Act 2008). • Decree of 7 March 2008[200], identification of the Provider of the Exchange System for electronic invoicing and the relative attributions and duties. • Decree of 3 April 2013[201], regulation on the issue, transmission, and receipt of electronic invoices to be applied to public authorities. • Decree law of 24 April 2014[202], n. 66. Urgent measures for the competitiveness and social justice (Article 25). • Circular of the State General Accounting Office number 37[203] of 4 November 2013, First Operating Instructions for the implementation of the Regulation on the issue, transmission, and receipt of electronic invoices to be applied to public administrations. • Legislative decree n. 148/2018[204], Transposition of Directive 2014/55/EU. • Provvedimento 18 aprile 2019[205] - Core Invoice Usage Specification. • Decree law of 30 April 2022[206], n. 30 including, effective July 1, 2022, electronic invoicing applicable to taxpayers who adopt the flat-rate tax regime and, effective in 2024, taxpayers with annual revenues up to EUR 25 000 will be required to issue and clear electronic invoices through the Sistema di Interscambio system eInvoicing platform and eInvoicing management solutions. Mandatory for • **Receiving and processing**: Central, regional, and local authorities and entities.

[199] http://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:legge:2007-12-24;244!vig=
[200] http://def.finanze.it/DocTribFrontend/getAttoNormativoDetail.do?id=%7B5AF01086-2D68-46D2-8FD6-FB0B1C744F1C%7D
[201] http://www.normattiva.it/uri-res/N2Ls?urn:nir:ministero.economia.e.finanze:decreto:2013-04-03;55%21vig=
[202] http://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legge:2014-04-24;66!vig=
[203] http://www.fatturapa.gov.it/export/fatturazione/sdi/Circolare_RGS_n._37.pdf
[204] Legislative decree n. 148/2018
[205] Provvedimento 18 aprile 2019
[206] https://www.gazzettaufficiale.it/eli/id/2022/04/30/22G00049/sg

	• **Submitting**: Economic operators.
	  ○ B2G eInvoicing is mandatory since 31 March 2015.
	  ○ B2B and B2C eInvoicing is mandatory since January 2019.
	  ○ **Mandatory below the EU thresholds:** Yes

Platform	Exchange system (Sistema di Interscambio)
Standard(s)	*National Standard in use (if any)* — *EN 16931 compliant standard* FatturaPA (national XML standard) National CIUS implementing the EN 16931 — The European standard on eInvoicing is fully implemented.
Monitoring	There is a monitoring strategy in place at the central and sub-central levels, with the usage of Sistema di Interscambio for eInvoice processing. The control information is based on the number of suppliers using eInvoicing, number of invoices that are submitted electronically and the number of eInvoices submitted in a specific syntax. More than 800 000 suppliers have sent eInvoices, and the eInvoices represent almost **100%** of the invoices exchanged.
Strategy	National eInvoicing strategy in the medium and long-term The Italian Government mandated the use of a centralised national platform, SDI, and the use of a national format, FatturaPA. When a European eInvoicing standard compliant invoice is received, Sistema di Interscambio translates it to the FatturaPA syntax and forwards it, together with the translated eInvoice and a translation report, to the receiving public administration. The public administration can choose to process either the translated invoice in the FatturaPA syntax, for which they are equipped since 2015 or the original European eInvoicing standard compliant eInvoices. The use of Peppol for eInvoicing and eOrdering is mandatory in the Region of Emilia Romagna. National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030) The Italian Government will maintain the current obligations for B2B, B2G, B2C eInvoicing. eInvoice data are used to facilitate compliance.

	Strategy for ensuring cross-border eInvoicing interoperability. The Italian Government supports the use of the EN 16931. There is freedom of choice for suppliers in relations to the transmission method.	
Structured eInvoicing uptake	The following table shows the eInvoicing uptake from 2019 to 2021.	
	Number of Contracting Authorities using eInvoicing	**2019**: 22 800 out of 43 000 **2020**: 22 800 out of 43 000 **2021**: 22 800 out of 43 000
	Number of suppliers sending eInvoices for public procurement contracts	**2019**: 800 000 out of 5 000 000 **2020**: 800 000 out of 5 000 000 **2021**: 800 000 out of 5 000 000
	Number of B2G eInvoices from national suppliers	**Central authorities** **2019**: 8 500 000 **2020**: 8 500 000 **2021**: 8 500 000 **Sub-central authorities** **2019**: 22 500 000 **2020**: 22 500 000 **2021**: 22 500 000

	Number of B2B eInvoices exchanged at domestic level **2019**: 2 000 000 000 **2020**: 2 000 000 000 **2021**: 2 000 000 000

Table 53 Structured eInvoicing uptake in Italy

Percentage of enterprises sending eInvoices

The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing.

The data[207] from Eurostat does not distinguish between B2G or B2B transactions.

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
4.9%		6.7%	5.4%		30.3%		41.6%		94.9%

Table 54 sending eInvoices suitable for automatic processing in Italy

Implementation of EN 16931 compliant eInvoices

Approach

The Italian approach is based on the use of a centralised exchange system, Sistema di Interscambio (SDI). The Revenue Agency manages the SDI with technology and operational support provided by Sogei, an IT provider owned by the Italian Ministry of Economy and Finance.

Economic operators submit eInvoices based on the FatturaPA format through the SDI. The SDI operates as an eDelivery service, transmitting each eInvoice to the receiving administration based on a **unique identifier**. Only formal controls are performed by the Sistema di Interscambio. Economic operators and public entities may use a solution provider for submitting/receiving invoices and check messages to/from the Sistema di Interscambio.

Uptake of EN 16931

[207] The data description can be found at https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm

The Ministero dell'Economia e delle Finanze, stated that the national standard was already in place before EN 16931 was published and vat subjects did not decide to switch to EU standard.

Is Peppol / eDelivery used	Yes, at local level by region Emilia-Romagna
Number of public contracting authorities and entities using eInvoicing compliant with the EN 16931, versus the total	**2021**: a few dozen
Percentage of eInvoices EN 16931 compliant vs. total number of B2G eInvoices	**2021**: 0
Percentage of EN 16931 compliant eInvoices vs. total number of B2B eInvoices	**2021**: 0

Table 55 Uptake of EN 16931 in Italy

Cost and Benefits

From the Government's perspective, the major cost is related to the implementation of the national eInvoicing platform and was paid by the public administration.

Italy experienced benefits from the adoption of eInvoicing. However, as B2G eInvoicing was mandated to suppliers before implementing directive 2014/55/EU, it has not been possible to evaluate benefits directly linked to the Directive.

CEF Telecom eInvoicing funding
Budget requested: EUR 3 609 170.

However, two CEF eInvoicing funded projects were implemented for the alignment of the national standard to the EN 16931: **eIGOR** with funding of EUR 1 252 500 and **EeISI** EUR 1 136 942.

Expected results of the eIGOR project:

1. Update of the national electronic invoice exchange system (Interchange System - SDI) managed by the Revenue Agency to ensure that Italian public administrations can receive invoices conformant to the European standard. In particular, a translation engine was expected to be integrated into the SDI to allow the translation of the xml invoice in the FatturaPA format to and from the two UBL 2.1 and UNCEFACT/CII syntaxes, so that the public administration could receive eInvoices in their chosen format. SDI would be able to receive electronic invoices from the traditional transmission channels, and also from the Peppol network through a Peppol Access Point.
2. Definition of a semantic mapping for electronic invoicing, from the national format to / from what is foreseen by the Directive 2014/55/EU

eInvoicing services offered by the government (free of charge)	and related syntaxes selected by the CEN Technical Committee 434 (CEN/TC 434), together with the implementation of a conversion framework. 3. Update of the Unioncamere (Italian Chamber of Commerce Union) e-Invoicing tool which allows economic operators and contracting authorities to exchange invoices conformant to the European standard for e-Invoicing, making it available free of charge to Italian SMEs. This involves the integration of the electronic invoice converter into the Unioncamere system. 4. Update of the Intercent-ER platform (Peppol partner and one of the leading Italian providers of electronic procurement services for public administrations) by integrating the electronic invoice converter. The main deliverables of the EeISI project are: 1. The specifications of the Italian Core Invoice Usage Specifications (CIUS) which define the adoption of EN 16931 in the Italian domain, ensuring compatibility with the PEPPOL Billing 3.0 specification and the Peppol cross-border network. 2. The translator from the formats required by EN 16931 (OASIS UBL and UN/CEFACT CII) into the national FatturaPA format and vice versa. The project provides for the evolution of the Interchange System (SdI) and of the electronic invoicing systems of Intercent-ER, UnionCamere and Infocert which will integrate the CIUS and the translator. “Fatture e corrispettivi” is a section of the Revenue Agency website, aimed at businesses and professionals (subjects with a VAT number) where the following services are available: • generate, transmit and store electronic invoices (B2C, B2B and B2G) • consult the data of the invoices issued and received. • consult the data of the cross-border invoices issued and received. • transmit and consult the data of the quarterly communications of periodic VAT settlements. • transmit and consult the fiscal receipt data (now transmitted by retailers using Electronic cash registers) • view and access the functions relating to pre-compiled VAT documents. The target users are micro-enterprises and professionals approaching electronic invoicing who usually manage a limited number of invoices. This service is of course not ideal for high e-invoicing volumes. **eInvoicing** The invoice online editor can be used to generate, validate, and transmit electronic invoices according to the Italian FatturaPA xml format.

	This tool allows the creation of any invoice and credit note (B2G, B2B and B2C) as well as the reporting of invoices received in the passive cycle, either from Intra-EU or Extra-EU. For the passive cycle, the same FatturaPA xml document is used to: • Issue a supplementary information about an Intra-EU cross-border operation (e.g. with VAT due as per reverse charge) with reference to the original received invoice. • Issue a self-Invoice about an Extra-EU cross-border operation (e.g. with VAT due as per reverse charge) with reference to the original received invoice. Alternatively, the Revenue Agency provides through the SDI hub a series integration services for transmitting invoices using PEC, SFTP or Web Services. This integration services can be implemented by end-users or software solution providers. **eArchiving** Optionally, a user of the Revenue Agency website can join a legal digital archiving facility hosted by the Minister of Finance software house, SOGEI S.p.A. Once the digital archiving has been activated all outgoing and incoming invoices will be automatically archived for 8 years after the related tax declaration. The Revenue Agency acts as Data Controller in the processing of generation, storage and transmission of electronic invoices and makes use of Sogei S.p.A. The Revenue Agency assumes the role of Data Processor for consultation and conservation processing and is authorised to make use of Sogei S.p.A., as sub-processor. Benefits at the national level The Ministero dell'Economia e delle Finanze stated that B2G eInvoicing was adopted before implementing Directive 2014/55/EU. For this reason, they are not able to evaluate benefits directly linked to the Directive.
Call for evidence	**Feedback from A-Cube s.r.l.** Three points of view should be taken into consideration. Government entities are of course the first to get advantage of e-invoices thanks to the

Key findings	obvious optimisations that such automation brings (no more manual entry, automatic monitoring, data reporting, etc...). The private citizen benefit is the enhanced transparency of the relationship between private companies and public administrations. This is an important point. More digitisation must be introduced to ensure this transparency, from the pre-award phases (see tenders) to the post award (see electronic orders). Regarding private companies, electronic invoicing sometimes is seen as a useless obligation, especially when the document flow is just outgoing to PA. But when a B2B obligation comes then private companies must manage incoming flows too. It's here where everyone can see how powerful, time-saving and disruptive the document digitisation revolution is. **Feedback from a business association - Confartigianato Imprese** In Italy, the electronic invoicing system, which today also includes B2B and B2C relationships, was launched precisely with invoicing to the Public Administration. This method of invoicing, over time, has been modified and perfected, to the point that it can be defined as a winning bet, to which the EC could look in order to identify any best practices for future regulatory developments. According to the Italian Ministry of Finance, the Directive represents a milestone for the development of the European standard on eInvoicing. However, the standard should reach critical mass in order to exploit its full potential. eInvoicing was already mandatory in B2G at national level at the time of the introduction of the Directive. Therefore, the intervention was not relevant for Italy. During COVID pandemic emergency, it has been possible to use eInvoices data in order to determine loss in turnover compared to 2019. Thus it has been possible to distribute grants even without request directly to those enterprises which had evident difficulties. Existing issues • eInvoicing is not mandatory in B2G for cross-border transactions. • eInvoicing is rarely used in B2B for cross-border transactions. In the call for evidence, an SME, states benefits such as enhanced transparency dealing with public administrations. B2B brings additional benefits such as time saving. According to the business association, Confartigianato Imprese, Italy should be used as an example of best practices.

Latvia

Legislation

- Public procurement law[208]
- Law on the Procurement of Public Service Providers[209],
- Defense and Security Procurement Law[210]
- Law on Public-Private Partnership[211]
- Cabinet regulation No.154[212] "Applicable standard of electronic invoicing and specification of its basic elements and order of circulation". Adopted on 9 April 2019, it imposes an obligation that the public contracting authority, public service provider or public partner or its representative shall accept an eInvoice which is prepared and issued in electronic form and complies with the Directive 2014/55/EU mentioned standard of electronic invoicing.
- Cabinet Regulation No.877[213] "Accounting rules"

The Law on Official Electronic Address prescribes mandatory use of electronic address account for governmental institutions, registered legal entities and reserve soldiers gradually throughout late 2018 and 2019, transition period ending January 2020.

The institutions of direct administration shall accept an eInvoice starting from 18 April 2019, but the other contracting authorities and public service providers shall do so starting from 18 April 2020.

Mandatory for

- **Receiving and processing**: Central authorities, Regional authorities & Local authorities.
  - **Below the EU Thresholds:** Yes

[208] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=NIM:270633
[209] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=NIM:270634
[210] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=NIM:270639
[211] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=NIM:270638
[212] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=NIM:271801
[213] https://urldefense.com/v3/__https://likumi.lv/ta/id/328707-gramatvedibas-kartosanas-noteikumi/__;!!DOxrgLBm!E7pPCNKAFYJlNFylduOWjxpp9PGysT1MPiprfZcDLx-p0vGuANMbITycWF2B6DplomTYCblHZ7e7_tEetLmMY4-RpFjKQneRJq4$

Platform	latvija.lv[214] (for citizens and entrepreneurs), eAddress (for government bodies)	
Standard(s)	*National Standard in use (if any)*	*EN 16931 compliant standard* The European standard on eInvoicing is fully implemented.
Monitoring	On October 12, 2021, Latvia announced that it plans to start requiring eInvoicing in accordance with the Peppol standard effective 2025 for B2B and B2G transactions. The requirement is intended to ensure convenient and uniform preparation and storage of documents, enabling a faster and more secure flow of information between taxpayers, as well as simultaneous transfer of data to the tax authority[215].	
Strategy	National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030) Latvian government is planning to implement mandatory use of e-invoices between merchants (B2B) and merchants and state and municipal institutions (B2G) starting from 2025. According to the developed concept, it is expected that the e-invoices will be mandatory from January 1, 2025, if all necessary regulations and technical solutions have been provided. • 2023 – 2024: Start the development of the e-invoice circulation system (including documentation). • 2025 – 2030: Establish a mandatory requirement for the use of e-invoices between merchants (B2B) from 2025. Strategy for ensuring cross-border eInvoicing interoperability In Latvia, when implementing goals related to the mandatory introduction of e-invoices for domestic B2B transactions, they must be viewed in conjunction with the ViDA proposals of the EC, which refer to e-invoices in cross-border transactions. To be able to start the development of an e-	

[214] http://latvija.lv/
[215] https://www.fm.gov.lv/lv/jaunums/valdiba-atbalsta-obligatu-e-rekinu-aprites-ieviesanu?utm_source=https%3A%2F%2Fwww.orbitax.com%2F

invoice circulation system that is consistent with currently ongoing work on the introduction of the Latvian e-invoice electronic circulation system, it is important that a mandatory e-invoice standard is introduced for e-invoices that meets Pan-European Public Procurement On-Line (PEPPOL) BIS Billing 3.0.

Structured eInvoicing uptake

According to Digital Economy and Society Index (DESI) 2017, Latvia holds 10th rank in EU in terms of B2B/B2G/G2B eInvoicing usage with 19% usage rate.

In DESI 2020, Latvia is ranked 5th in the field of accessibility of eGovernment services, meaning that there is a growing tendency in Latvia to use services remotely.

Percentage of enterprises sending eInvoices

The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing.

The data[216] from Eurostat does not distinguish between B2G or B2B transactions

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
17.1%		18.1%	10%		18.9%		6.9%		14.9%

Table 56 sending eInvoices suitable for automatic processing in Latvia

Implementation of EN 16931 compliant eInvoices

Approach

The European standard on eInvoicing is implemented through public procurement and accounting legislation and has been transposed in a national standard status.

According to Cabinet Regulation Nr. 154 “The applicable standard of the electronic invoice and the specification of the use of its basic elements and the order of circulation” person registered or permanently resident in a foreign country uses the Pan-European Public Procurement On-Line (PEPPOL) cross-border invoice delivery system to submit electronic invoices to the direct administration authority.

[216] https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm

	Uptake of EN 16931 According to the Ministry of Finance, implementation of the Directive has contributed to the fact that an integral stage of the e-invoicing implementation process is taking place regarding the promotion and revitalisation of the habit of using the e-invoice delivery infrastructure (PEPPOL BIS Billing 3.0 standard and eAddress[217]) in the public sector.
Cost and Benefits	EU funding • Name of the EU funding programme: CEF Telecom eInvoicing funding • Requested funding (in euro): 205 480
eInvoicing services offered by the government (free of charge)	N/A
Call for evidence	**Feedback from the Ministry of Finance** Benefits of using eInvoicing include a secure way of receiving invoices, reduced manual work and risk of errors, options for automating invoice processing, and timely receipt of invoices. eInvoices are received in the accounting system CRVS Horizon, maintained by the Treasury. The State Revenue Service did not participate in developing the technical invoice standard. Following amendments to the Public Procurement Law, the Procurement Monitoring Bureau incorporated validation in public procurement notices that electronic invoices are mandatory for authorities.
Key findings	According to the Ministry of Finance, implementation of the Directive has contributed to the fact that an integral stage of the eInvoicing implementation process is taking place regarding the promotion and revitalisation of the habit of using the eInvoice delivery infrastructure in the public sector. In the call for evidence they describe benefits such as security, reduction of manual labour and errors and timeliness. In the Call for Evidence, the Ministry highlighted the benefits such as a secure way of receiving invoices, reduced manual work and risk of errors, options for automating invoice processing, and timely receipt of invoices.

[217] https://mana.latvija.lv/e-adrese/

However, adoption levels are low, as seen in the Eurostat data, which may be explained through the lack of a mandate on business to use eInvoicing.

The plan is to mandate the use of eInvoices B2B and B2G starting from 2025. It is expected that the eInvoices will be mandatory from January 1, 2025, if all necessary regulations and technical solutions have been provided.

Lithuania

Legislation

- Law No XII-328 amending Law No XIII-2159 on procurement by contracting entities in the field of water management, energy, transport, or postal services. Official publication[218]: Teisės aktų registras; Number: 2017-07551; Publication date: 2017-05-04.
- Law No. XIII-1491 amending the Law on Public Procurement of the Republic of Lithuania No. XIII-2158[219]. Official publication: Teisės aktų registras; Number: 2019-09411; Publication date: 2019-06-10.
- Law No I-1510 amending Articles 3, 22 and 23 and Annex 7 to Law No XIII-2160 on concessions[220]. Official publication: Teisės aktų registras; Number: 2019-09413; Publication date: 2019-06-10.

Mandatory for**:**

- **Receiving and processing**: Central, regional, and local authorities and entities.
- **Submitting**: Economic operators.
  - **Mandatory below the EU thresholds**: Yes, except for oral contracts below EUR 5 000.

Platform

eSaskaita[221], an eInvoicing system connected to the European Peppol platform.

Standard(s)

National Standard in use (if any)

EN 16931 compliant standard

The European standard on eInvoicing is fully implemented under UBL v2.1.

Monitoring

No

Strategy

B2G National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030)

[218] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=NIM:273936
[219] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=NIM:273935
[220] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=NIM:273937
[221] http://www.esaskaita.eu/

	All suppliers to public contracting authorities are obliged to issue only EN-compliant eInvoices namely Peppol BIS Billing 3.0. The eSaskaita is a central information intermediary that performs the service of receiving and sending eInvoicing and accompanying documents between suppliers and public contracting authorities in Lithuania. The suppliers can submit their invoices in three ways: • Manually, by keying in the invoice information in an online portal. • By uploading files in XML syntax, which requires that the economic operator's accounting system is suitable for storing eInvoices in this language, and • By submitting eInvoices via a Peppol-certified Access Point using AS4 communication protocol. B2B National eInvoicing strategy In November 2022, The Lithuanian Government announced its intention to develop an eInvoicing exchange system to promote digitalisation in the country and a harmonious approach for exchanging European eInvoicing standard standard eInvoices between companies. Currently, eInvoicing in B2B/B2C is not mandatory in Lithuania. The introduction of the eInvoicing system is not only a step towards a more harmonised eInvoicing exchange within the country but also with the European Union. Moreover, it could lead to further countrywide regulations being implemented in the future. Technical requirements for the new eInvoicing exchange system: • must meet Peppol Network requirements (AS4 profile, Business Message Envelope (SBDH)) • sent/received electronic records must comply with Peppol BIS 3.0 Post-Award requirements • the created information technology solution must ensure Peppol KYC (Know Your Customer) requirements • solution tests must be performed with at least 3 business management systems (ERP - Enterprise Resource Planning) / e. invoicing (eInvoicing) solution manufacturers using an access point (Access point) connected to Peppol and SMP/SML* and submitted documents confirming a successful test (*SML – Service Metadata Locator; SMP – Service Metadata Publisher). Strategy for cross-border interoperability According to the Ministry of the Economy and Innovation, using decentralised access points i.e. Peppol is the cross-border strategy.
Structured eInvoicing uptake	Number of suppliers sending eInvoices for public procurement contracts **2019**: 4 **2020**: 330

	2021: 432
B2G eInvoices received from national suppliers	N/A
B2G eInvoices received from foreign suppliers	**2019**: 0
	2020: 23
	2021: 107

Table 57 Structured eInvoicing uptake in Lithuania

Percentage of enterprises sending eInvoices

The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing.

The data[222] from Eurostat does not distinguish between B2G or B2B transactions

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
15.6%		14.8%	18.1%	20%	24.4%	23.6%	29.4%		26.7%

Table 58 sending eInvoices suitable for automatic processing in Lithuania

Implementation of EN 16931 compliant eInvoices

Approach

Lithuania made B2G eInvoicing mandatory in July 2017. Peppol BIS Billing 3.0 is adopted although the previously used national XML-based format is also still accepted.

[222] https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm

The eSaskaita is a central information intermediary that performs the service of receiving and sending eInvoicing and accompanying documents between suppliers and public contracting authorities in Lithuania. The suppliers can submit their invoices in three ways:

- Manually, by keying in the invoice information in an online portal.
- By uploading files in XML syntax, which requires that the economic operator's accounting system is suitable for storing eInvoices in this language, and
- By submitting eInvoices via a Peppol-certified Access Point using AS4 communication protocol.

Uptake of EN 16931

The Ministry of the Economy and Innovation stated that the Directive was the impetus for the development of the national system, eSaskaita. This service fully implements Peppol as a four corner model and fully complies with the eInvoicing Directive.

Is eDelivery /Peppol used	Yes
Contracting authorities receiving eInvoices	**2019**: 4 out of total 4 000 **2020**: 330 out of total 4 000 **2021**: 432 out of total 4 000
The extent that EN 16931 is used in eInvoicing versus other formats.	**2019:** 9 out of 1 195 000 **2020:** 20 700 out of 1 121 000 **2021:** 34 500 out of 1 268 000

Table 59 Uptake of EN 16931 in Lithuania

Cost and Benefits

Implementation costs for EN 16931	• Purchase software/hardware: EUR 68 500 • Training costs: 0 • Change management: EUR 16 720 • Test environment: EUR 38 000 • Service providers fees: EUR 7 500

- for legal and solution analysis, publicity, user guides, support, and security audit: EUR 129 800

Table 60 Implementation costs for EN 16931 in Lithuania

EU funding

- **Name of the EU funding program:** Duomenų mainų įrankio sukūrimas (ir privatus sektorius) (Lit.: *Development of a data exchange tool (in the private sector)*) [223]
  - **Requested funding (in euro):** EUR 627 700
  - **Year:** 2022-2023
- **Name of the EU funding program:** eInvoicing cross-border LT[224]
  - Requested funding (in euro): EUR 744 553
  - Year: 2017-2019

Benefits at the national level

According to the Ministry of the Economy and Innovation, since the transposition of the Directive 2014/55/EU and the EN 16931. Lithuania has experienced greater transparency, more effective contract control and less paper used for printing invoices.

The eSaskaita portal, operational since 2015, enables the preparation and submission of eInvoices to public contracting authorities and to promptly

eInvoicing services offered by

[223] https://2021.esinvesticijos.lt/kvietimai/skatinti-duomenu-prieinamuma-ir-pakartotini-naudojima

[224] https://wayback.archive-it.org/12090/20190615092902/https://ec.europa.eu/inea/en/connecting-europe-facility/cef-telecom/2016-lt-ia-0104

the government (free of charge)	receive information on the payment of a submitted eInvoice. There are two ways to submit eInvoices via the portal: • Economic operators can submit eInvoices by via eSaskaita following a necessary registration to the website. • If an economic operator issues or receives a large number of invoices, it is recommended to establish an interface[225] between the eSaskaita portal and the economic operator's financial management and accounting information system. The development of an IT invoicing solution is expected in September 2022 and will be fully paid for by the Lithuanian government. The developer will provide it free of charge to businesses for the first 5 years.
Call for evidence	**Feedback from the Ministry of Finance** Benefits of using eInvoicing include a secure way of receiving invoices, reduced manual work and risk of errors, options for automating invoice processing, and timely receipt of invoices. eInvoices are received in the accounting system CRVS Horizon, maintained by the Treasury. The State Revenue Service did not participate in developing the technical invoice standard. Following amendments to the Public Procurement Law, the Procurement Monitoring Bureau incorporated validation in public procurement notices that electronic invoices are mandatory for authorities.
Key findings	The Ministry of the Economy and Innovation stated that the Directive was the impetus for the development of the national system, eSaskaita. This service fully implements Peppol as a four corner model and fully complies with the eInvoicing Directive. They are also developing an eInvoicing solution that will be made freely available to enable e-invoices to be sent, received, and processed on a large scale in accordance with the European standard for e-invoices. For the last two years all public procurement contract notices include an eInvoicing requirement. The Ministry stated that as far as using eInvocing in B2B is concerned, it needs time to adapt to the new format. They also state that future measures should include the obligation to use eInvoicing for B2B.

225 https://www.esaskaita.eu/web/esaskaita/praktiniai-patarimai/-/asset_publisher/8cAm88D1DS1K/content/integracija-su-fvais-jei-israsoma-daug-saskaitu-fakturu?_101_INSTANCE_8cAm88D1DS1K_redirect=https%3A%2F%2Fwww.esaskaita.eu%2Fweb%2Fesaskaita%2Fpraktiniai-patarimai%3Fp_p_id%3D101_INSTANCE_8cAm88D1DS1K%26p_p_lifecycle%3D0%26p_p_state%3Dnormal%26p_p_mode%3Dview%26p_p_col_id%3Dcolumn-2%26p_p_col_count%3D1&redirect=https%3A%2F%2Fwww.esaskaita.eu%2Fweb%2Fesaskaita%2Fpraktiniai-patarimai%3Fp_p_id%3D101_INSTANCE_8cAm88D1DS1K%26p_p_lifecycle%3D0%26p_p_state%3Dnormal%26p_p_mode%3Dview%26p_p_col_id%3Dcolumn-2%26p_p_col_count%3D1

Luxembourg

Legislation

- In Luxembourg, Directive 2014/55/EU has been transposed via the law of 16 May 2019 on electronic invoicing in public procurement and concession contracts[226]. Receiving and processing of compliant eInvoices are mandatory for central public sector bodies as of 18 April 2019. Sub-central public sector bodies are mandated to receive and process compliant eInvoices as of 18 April 2020.
- On 14 December 2021, the law of 13 December 2021 amending the law of 16 May 2019 on electronic invoicing in the context of public procurement and concession contracts[227] was published together with the Grand-Ducal Regulation of 13 December 2021 fixing the common delivery network and alternative technical solutions used for electronic invoicing in public procurement and concession contracts[228].
- The law of 13 December 2021 amending the law of 16 May 2019 on electronic invoicing in the context of public procurement and concession contracts[229] makes it mandatory for economic operators to send compliant electronic invoices to public sector bodies in the context of public procurement and concession contracts. Businesses were given different deadlines to comply with the law:
    - deadline for large companies: 18 May 2022
    - deadline for medium-size companies: 18 October 2022
    - deadline for small companies and newly created businesses: 18 March 2023 (source).
- The Grand-Ducal Regulation of 13 December 2021 determining the common delivery network and the alternative technical solutions used for electronic invoicing in public procurement and concession contracts[230] selects as the common eDelivery network to be used by public sector bodies for the automated receipt of electronic invoices the European Peppol Network[231].

Mandatory for

- **Receiving and processing**: Central authorities, Regional authorities & Local authorities
- **Submitting:** Enterprises are obliged to send electronic invoices for B2G within different timeframes based on size:
    - large companies: 18 May 2022.

[226] http://legilux.public.lu/eli/etat/leg/loi/2019/05/16/a345/jo
[227] https://legilux.public.lu/eli/etat/leg/loi/2021/12/13/a869/jo
[228] https://legilux.public.lu/eli/etat/leg/rgd/2021/12/13/a870/jo
[229] https://legilux.public.lu/eli/etat/leg/loi/2021/12/13/a869/jo
[230] https://legilux.public.lu/eli/etat/leg/rgd/2021/12/13/a870/jo
[231] http://peppol.org/

	○ medium-size companies: 18 October 2022. ○ small companies and newly created businesses: 18 March 2023 ○ **Mandatory below the EU thresholds:** Yes, for big suppliers. • **B2B eInvoicing**: eInvoices are allowed, however the buyer's consent is needed for receiving.
Platform	Peppol eDelivery Network
Standard(s)	*National Standard in use (if any)* *EN 16931 compliant standard* The European standard on eInvoicing is fully implemented under Peppol BIS Billing 3.0 and UBL 2.1
Monitoring	There is a monitoring strategy in place only at the central level via exploiting statistics from the 2 most important access points, the one of CTIE and the one of SIGI. More than 700 public sector bodies are connected to Peppol in July 2023 and it is expected that in 2023 approximately 1 million B2G electronic invoices will be received.
Strategy	• Using Peppol beyond pure eInvoicing: eOrder, Invoice response, Message response, etc. • Getting businesses to do B2B eInvoicing and starting to use eInvoicing in the framework of VAT. Strategy for ensuring cross-border eInvoicing interoperability. The Luxembourg strategy for cross border is the usage of Peppol and also offering online forms that can also be used by cross-border users[232]
Structured eInvoicing uptake	Number of Contracting Authorities using eInvoicing: Out of approximately 700 Contracting authorities 10 were receiving eInvoices. The remaining were capable to receive but were not sent any. Number of suppliers sending eInvoices for public procurement contracts: 2019: Less than 10 2020: Less than 10 2021: Less than 50

[232] https://digital.gouvernement.lu/en/dossiers/2021/facturation-electronique.html

	How many B2G eInvoices from national suppliers does the Public Sector in your country receive on a yearly basis?	Up to 2021, less than 50. Public sector bodies will probably receive this year close to 700 000 electronic invoices. This increase is only due to the introduction of the obligation for economic operators to invoice electronically in the context of public procurement.
	How many B2G eInvoices from foreign suppliers	Up to 2021,less than 20
	B2B eInvoices exchanged at domestic level	Up to 2021, near to 0
	B2B eInvoices exchanged at cross-border level	Up to 2021, near to 0

Table 61 Structured eInvoicing uptake in Luxembourg

Percentage of enterprises sending eInvoices	The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing. The data[233] from Eurostat does not distinguish between B2G or B2B transactions

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
6.1%		7.4%	6.6%		10.9%		15.8%		13.6%

Table 62 sending eInvoices suitable for automatic processing in Luxembourg

Implementation of EN 16931	**Approach**

[233] https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm

compliant eInvoices

The European standard on eInvoicing is fully implemented by the usage of Peppol BIL Billing 3.0 (UBL 2.1). Each electronic invoice must comply with European standard EN 16931-1 :2017[234] and one of the following two syntaxes:

- XML UBL[235] (Universal Business Language).
- XML UN/CEFACT CII[236] (Cross Industry Invoice).

B2G eInvoices are shared via the Peppol network.

Uptake of EN 16931

According to the Ministry for Digitalisation in Luxembourg, the most effective measures to drive uptake is mandatory B2G and B2B. They also see that integration with ERP systems and aligning to one transmission method such as using Peppol is critical. The most positive impact of the Directive was the creation for the first time of a common semantic standard and an obligation for public sector bodies to receive and process compliant electronic invoices.

Is Peppol / eDelivery used	Yes Peppol is mandatory for transmission of eInvoices.
Number of public contracting authorities and entities using eInvoicing compliant with the EN 16931, versus the total	2019: ~10 2020: ~10 2021: ~10

[234] https://ilnas.services-publics.lu/ecnor/displayStandard.action?id=223359&pattern=EN+16931-1%3A2017+&published=true&project=false&cancelled=false&enquiry=false&resultsPerPage=10
[235] http://docs.oasis-open.org/ubl/
[236] https://unece.org/trade/uncefact/xml-schemas

	Percentage use vs other formats for B2G?	2019: 100% 2020: 100% 2021: 100%

Table 63 Uptake of EN 16931 in Luxembourg

Cost and Benefits

According to the Ministry for Digitalisation, Luxembourg incurred costs solely related to transposing the Directive 2014/55/EU and ensuring compliance with EN 16931.

There was a moderate cost reduction because of the Directive and EN 16931.

Luxembourg does not have a national format, so they did not experience a cost burden associated with ensuring a national format complied with EN 16931.

The following table shows the breakdown of costs to implement the EN. As a significant uptake is only starting, Luxembourg have not realised the full benefits yet, such as, staff reduction or redeployment.

Implementation costs for EN 16931	• Training costs: ~ EUR 10 000 • Service providers fees: ~ EUR 100 000 • Technical implementation costs: ~ EUR 35 000 • Higher electricity usage due to processing power and data storage space: Certainly, but no figures available • Increase in long term of electronic waste products: Probably.

Table 64 Implementation costs for EN 16931 in Luxembourg

EU funding

	No funding requested
eInvoicing services offered by the government (free of charge)	SMEs can avail of free options from Peppol Service Providers. However, this involves keying the eInvoice. In Luxembourg, eInvoices are submitted and processed using a central Peppol Access Point[237] as well as sector-specific dispatching and accounting solutions. The maintenance of the Peppol Access Point is outsourced by the Government IT Centre (CTIE) to an external service provider. The Peppol Access Point is to be used by all central government organisations and can also be used by local organisations, given that they integrate Peppol with their accounting systems[238]. They would have to individually integrate the Peppol Access Point as currently the accounting back office of the government is not used by the local municipalities and only available for the central government.
Call for evidence	N/A
Key findings	Luxembourg stated that having a common standard for eInvoicing was very important. However, they also see the need for one transmission such as eDelivery as is used in Peppol. They further state that the new EU Commission proposal on digital VAT of December 2022 foresees the mandatory use of eInvoicing for cross-border invoices. Peppol would be the ideal candidate to implement on EU level. Uptake is still flat but mandates for suppliers sending to public bodies is only starting and therefore there should be significant increases in the near future. Their strategy for the future is getting businesses to do B2B eInvoicing and starting to use eInvoicing in the framework of VAT.

[237] https://peppol.eu/who-is-who/peppol-certified-aps/
[238] https://www.inposia.com/en/list-of-countries-e-invoicing/

Malta

Legislation

In Malta, the eInvoicing Directive has been transposed via Legal Notices 403[239] and 404[240] of 2018. This Directive was transposed under the Financial Administration and Audit Act and also under the Local Councils Act. This was warranted since Local Councils in Malta have separate financial regulations that are listed in a dedicated act for these local authorities. Moreover, the extra year for sub-central entities applied. There is rather a fragmented picture at the sub-central level for accounting reporting since most entities and local councils use different accounting systems or packages.

The Maltese government promotes the adoption of eInvoicing in its Digital Malta national strategy entitled: Digital Malta 2014-2020[241]. The central government's action to promote the adoption of eInvoicing is an encouragement for local actors' implementation of eInvoicing.

The introduction of eInvoicing was also reflected within "Mapping Tomorrow[242]", the strategic plan for the digital transformation of the public administration for 2019-2021.

Furthermore, as part of the activities of the eInvoicing4Islands project, Malta committed to deploy a new eInvoicing service for Government and its sub-central authorities taking into account the on-going development for central authorities and the required connection to the eDelivery Building Block[243].

Mandatory for

- **Receiving and processing:** Central authorities, Regional authorities & Local authorities
    - **Below the EU Threshold:** No

[239] https://legislation.mt/eli/ln/2018/403/eng/pdf
[240] https://ec.europa.eu/digital-building-blocks/wikis/display/DIGITAL/eInvoicing+in+Malta#scroll-bookmark-1
[241] https://digitalmalta.org.mt/en/Documents/Digital Malta 2014 - 2020.pdf
[242] https://publicservice.gov.mt/en/Documents/MappingTomorrow_StrategicPlan2019.pdf
[243] https://ec.europa.eu/digital-building-blocks/wikis/x/jQTvB

Platform	eInvoicing platform to be put in place	
Standard(s)	*National Standard in use (if any)*	*EN 16931 compliant standard* Peppol BIS 3
Monitoring	There is no monitoring system in Malta to track the use of eInvoices.	
Strategy	National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030) Medium-term Malta is striving to further communicate the eInvoicing initiative so that more Government suppliers start sending eInvoices. Malta is also striving for those entities that still do not have ERPs or Accounts Payable systems that are able to automatically process eInvoices, for them to upgrade their systems. Long-term, it is being considered whether to either lower the thresholds for which eInvoicing applies and/or whether to establish a threshold from which eInvoicing would become mandatory. Strategy for ensuring cross-border eInvoicing interoperability Malta's strategy is to use Peppol for cross-border.	
Structured eInvoicing uptake	Malta's eInvoicing system was put in place in 2022 so no statistics are available for B2G.	
Percentage of enterprises sending eInvoices	The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing. The data[244] from Eurostat does not distinguish between B2G or B2B transactions	

[244] The data description can be found at https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
11.5%		13%	8.8%	7.9%	9%		18%		22.1%

Table 65 sending eInvoices suitable for automatic processing in Malta

Implementation of EN 16931 compliant eInvoices

Approach

Since Malta will adopt the Peppol BIS Billing 3.0 it will be able to receive eInvoices via the Peppol eDelivery network. Moreover, a suppliers' portal will be made available, and suppliers can input their invoice details and send to the relative Ministry, Department, Entity or Local Council. This portal is needed as most suppliers still do not have their systems ready to automatically generate an eInvoice.

There are communication channels to raise awareness about the upcoming mandatory eInvoicing implementation at the sub-central level. More specifically, there is a dedicated contact person in each Ministry and the National Forum on eInvoicing.

Since sub-central entities have different ERP/Accounting packages, not all will be immediately able to adopt an automated approach.

No electronic signature is required for eInvoices, and the archiving period amounts to 6 years.

Uptake of EN 16931

The use of Peppol ensures that all eInvoices B2G will be fully compliant with EN 16931.

The Ministry for Finance and Employment stated that it is too early in the implementation stages to decide if the Directive 2014/55/EU and the introduction of EN 16931 contributed to increasing the adoption of eInvoicing in Malta

Cost and Benefits

Implementation costs for EN 16931

- Purchase software/hardware: EUR 34 750
- Training costs: included above.
- Change management: included above.
- Test environment: included above.
- Service providers' fees: included above.

There will then be a cost per eInvoice received that will be charged according to pre-established bands.

	Table 66 Implementation costs for EN 16931 in Malta
	EU funding • Name of the EU funding programme: CEF Telecom • Requested funding (in euro): 100 000 (partially paid) • Year: 2020/2021 Benefits at the national level According to the Ministry for Finance and Employment, it is too early to assess.
eInvoicing services offered by the government (free of charge)	N/A
Call for evidence	N/A
Key findings	According to Ministry for Finance and Employment it is too early for them to assess the impact or benefits, but it is envisaged that process automation and having a common standard have a substantial impact. As can be seen from Eurostat figures about 20% of businesses send structured eInvoices. This probably only includes B2B as a B2G system was not setup until 2022. Currently there are no plans to mandate business to send eInvoices, the focus is on creating awareness of the eInvoicing potential to public.

Norway

Legislation	Regulation on electronic invoicing in public procurement[245] (FOR-2019-04-01-444), Established by the Ministry of Local Government and Modernization on 1 April 2019 Digitisation circular H-5/19 *(Digitaliseringsrundskrivet*[246]*)*, Official publication : 2019-12-20 Reference directory for IT standards in the public sector[247] ("*Referansekatalogen for IT-standarder i offentlig sektor*") Mandatory for • **Receiving and processing**: Central, regional, and local public contracting authorities since 2012. • **Sending**: Economic operators since 2019. ○ **Mandatory below the EU thresholds**: Yes
Platform	Peppol eDelivery Network
Standard(s)	*National Standard in use (if any)* Legacy format: EHF[248] (Elektronisk Handelsformat) *EN 16931 compliant standard* The European standard on eInvoicing is fully implemented.
Monitoring	From 2020, a monitoring system[249] has been implemented with the aim of tracking the use of eInvoices with central and non-central bodies in Norway[250]. The monitoring strategy is in place at both central and sub-central levels. The available data is expressed in number of invoices that are submitted

[245] https://lovdata.no/dokument/SF/forskrift/2019-04-01-444
[246] https://www.regjeringen.no/no/dokumenter/digitaliseringsrundskrivet/id2683652/
[247] https://www.difi.no/referansekatalogen
[248] https://ecosio.com/en/blog/e-invoicing-in-norway/
[249] https://www.anskaffelser.no/public-procurement/e-procurement/about-e-procurement/e-procurement-statistics
[250] https://www.anskaffelser.no/public-procurement/e-procurement/about-e-procurement/e-procurement-statistics

	electronically.
Strategy	National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030) Medium term : To further improve use of EHF/Peppol BIS and the Peppol Network for B2G invoicing with a target of 100%, increasing from today's 88%[251] (in central government, - no comparable figures for municipal or regional level available). Long term: Work with the Tax Administration on B2B mandate and consider B2C involvement. Strategy for ensuring cross-border eInvoicing interoperability Use of Peppol BIS and the Peppol Network.
Structured eInvoicing uptake	According to the 2019 survey[252], there is great uncertainty associated with the total invoice volume in Norway, overall and for each of the segments. There are central payment statistics, but this does not distinguish between invoices and other types of transactions. It is therefore necessary to make a number of uncertain assumptions in order to estimate the invoice volume in Norway. Our estimate indicates in excess of 136 million invoices per year in the B2B/B2G segment and just under 250 million annual invoices in the B2C/G2C segment.
	Number of Contracting Authorities using eInvoicing
	How many B2G eInvoices from national suppliers does the Public Sector in your country receive on a yearly basis? — The figures below represent both domestic and foreign suppliers combined[253]. **2019**: approx. 10 million **2020**: approx. 10 million

[251] https://dashboard.dfo.no/reports/main_statistics_for_invoices
[252] (page 4, https://www.regjeringen.no/globalassets/departementene/nfd/dokumenter/rapporter/oe-rapport-2020-37-elektronisk-faktura.pdf)
[253] https://www.regjeringen.no/globalassets/departementene/nfd/dokumenter/rapporter/oe-rapport-2020-37-elektronisk-faktura.pdf (page 11).

		2021: approx. 10 million
	B2B eInvoices exchanged at domestic level	The figures below include both domestic and cross-border eInvoices. **2019**: approx. 38 million **2020**: approx. 46 million **2021**: approx. 65 million

Table 67 Structured eInvoicing uptake in Norway

Percentage of enterprises sending eInvoices	The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing. The data[254] from Eurostat does not distinguish between B2G or B2B transactions.

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
13.7%		17.5%	21.1%	30%	47.4%	56.9%	53.5%		64.9%

Table 68 sending eInvoices suitable for automatic processing in Norway

Implementation of EN 16931 compliant eInvoices	**Approach** Economic operators can submit eInvoices either by using their internal Enterprise Resource Planning (ERP)[255] or accounting systems or by using approved eInvoicing solution providers[256]. The Norwegian eProcurement infrastructure is built around the Peppol Business Interoperability Specifications (BIS) and the Peppol eDelivery Network.

[254] https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm
[255] https://en.wikipedia.org/wiki/Enterprise_resource_planning

In addition to Peppol BIS document format, EHF (*Elektronisk Handelsformat*)[257] format is also recognised by Norwegian public bodies. Both are based on UBL (Universal Business Language).

The Norwegian Government Agency for Financial Management (DFØ) receives invoices on behalf of nearly 200 of the country's central government entities.

The DFØ (Norwegian Agency for Public and Financial Management) authorises Norwegian-registered Access Points (AP) and operates the ELMA registry[258] (a Peppol Service Metadata Publisher), with nearly 200,000 receivers, containing the identities and receiving capabilities of all Norwegian public entities and economic operators that communicate using the Peppol eDelivery Network.

The eInvoicing process is mostly automated. Most public entities have an economic system that can handle Peppol invoices. The electronic follow-up systems (invoice flow systems) are used for the approval of the invoice before it is paid. While most of the payments are done electronically for all sub-central levels, the use of eOrder[259] is still in its beginning. The use of Peppol has made the public administration more interested in the use of electronic solutions. The possibility to automate more processes by using eOrder, eCatalogue[260] and eInvoice together is a goal for the public administration.

No electronic signature is required for eInvoices, and the archiving period amounts to 5 years, and 15 years for the petroleum recovery and pipelining industry[261].

Uptake of EN 16931

According to The Norwegian Agency for Public and Financial Management (DFØ), the eInvoicing penetration has not been significantly changed because of the implementation of the Directive and the EN. They don't have data on this development, but a survey was conducted in spring 2022.

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256 https://www.anskaffelser.no/verktoy/veiledere/erp-leverandorer
257 https://docs.microsoft.com/en-us/dynamics365/business-central/localfunctionality/norway/ehf-electronic-invoicing-in-norway
258 https://www.anskaffelser.no/public-procurement
259 https://www.anskaffelser.no/public-procurement/e-procurement/about-e-procurement/e-procurement-statistics
260 https://www.anskaffelser.no/public-procurement/e-procurement/about-e-procurement/e-procurement-statistics
261 https://www.pagero.com/compliance/regulatory-updates/norway

The report can be found on https://anskaffelser.no/sites/default/files/2022-06/Anskaffelsesundersokelsen_hovedrapport_2022.pdf (Norwegian only) showing a high response rate (88% central government, 80% regional authorities, 68% municipalities and 28% public sector owned companies). Total number of respondents was 520, out of that 493 (93%) confirmed that they use eInvoicing tools. Background numbers (not published) show :

93% usage of eInvoicing in central government entities

100% usage in regional authorities

97% usage in municipalities.

Public sector owned companies has the lowest penetration with 88% usage of eInvoicing tools.

The combined number of EHF/Peppol BIS invoices B2B and B2G over the Peppol Network from 2019 until 2021 (with incomplete 2022 numbers included) is as follows :

2019: 57 705 153 (24% increase from 2018), estimated total number of invoices B2G and B2B in Norway: 136 300 000

2020: 66 358 484 (14% increase from 2019), estimated total number of invoices B2G and B2B in Norway: 135 800 000

2021: 84.713.628 (26% increase from 2020), estimated total number of invoices in Norway B2G and B2B in 2021 not yet calculated.

2022 (including November): 96 843 693 (14% increase from November 2021), estimated total number of invoices in Norway B2G and B2B in 2022 not yet calculated.

All suppliers to the public sector are expected to have access to an eInvoice-generating tool either as part of their ERP-system, accounting system, their bank (if they are an SME) or as commercially available invoicing portals (some offering low volume eInvoicing for free). In the Peppol Network, only eInvoicing recipients are listed, not senders. However, the following figures give an indication on the EHF/Peppol BIS based eInvoicing capabilities in Norway (figures from ELMA, the government operated SMP in the Peppol Network):

2014: 30 695 (31.12.2014) of total entities: 280 263 = 11%

2019: 154 401 (31.12.2019) of total entities: 324 367 = 48%

2020: 181 734 (31.12.2020) of total entities: 330 530 = 55%

2021: 220 716 (31.12.2021) of total entities: 342 811 = 64%

2022: 250 959 (30.11.2022) of total entities: 361 338 = 69%

Number of entities from https://www.ssb.no/en/statbank/table/10308/tableViewLayout1/. Households and non-profit institutions as well as unspecified sectors/other are not included.

Is Peppol / eDelivery used	Yes. Use of the Peppol Network has been mandated from 2011 for central government entities. Mandatory for all Contracting Authorities from April 2019 with the introduction of the regulation on e-invoicing in public procurement (FOR-2019-04-01-444, implementing Directive 2014/55/EU).
Percentage use vs other formats for B2G?	**2019**: 100% **2020**: 100% **2021**: 100%
Percentage use vs other formats for B2B?	**2019**: approx. 85% **2020**: approx. 90% **2021**: approx. 95%

Table 69 Uptake of EN 16931 in Norway

Cost and Benefits

Norway incurred costs solely related to transposing the Directive 2014/55/EU and ensuring compliance with EN 16931.

They perceive a low cost-reduction because of the Directive and EN 16931.

Norway experienced a cost burden associated with ensuring the national format complied with the EN 16931. The estimated cost was approximately EUR 450 000.

The benefits outweighed the costs because the costs were relatively low, and this was just an update of already implemented solutions.

Implementation costs for EN 16931	• Purchase software/hardware: Upgrade from earlier versions of EHF/Peppol BIS to the EN16931 compliant version. • Training costs: Negligible. • Change management: Negligible. • Test environment: Negligible. • Service providers' fees: Negligible.

Table 70 Implementation costs for EN 16931 in Norway

EU funding

- Name of the EU funding programme: CEF (2016-EU-IA-0119, CEF-TC-2016-3 - eInvoicing)
- Requested funding (in euro): 887 879.
- Year: 2016

Benefits at the national level

Operational efficiencies: This is the most important driver for the Norwegian e-invoicing efforts. Estimates indicate a yearly socio-economic saving of NOK 4,2 billion annually[262]

The time gain from the transition to electronic invoice is estimated at approximately 1 minute for the sender and 3 to 5 minutes for the recipient in the B2B and B2G markets. These estimates are consistent with previous estimates, taking into account that processing of outgoing and incoming non-electronic invoices already takes place digitally. Previously - and far higher - estimated time gains, based on a fully manual invoice processing that today has largely been replaced with digital processing.

We estimate that society's total time gains from the transition to an electronic invoice result in potential savings of NOK 4.2 billion per year. Gains related to reduced distribution costs contribute with an additional potential of NOK 1 billion per year. The estimates are based on estimated shares and time gains from 2019, and the uncertainty is considerable. Our view is that the share of electronic invoices will continue to increase in the years

[262] page 4 https://www.regjeringen.no/globalassets/departementene/nfd/dokumenter/rapporter/oe-rapport-2020-37-elektronisk-faktura.pdf)

	to come, so that the use of paper and PDF invoices will gradually decrease without the introduction of measures and will largely disappear over a period of years. A gradual transition to electronic invoicing means that the potential annual savings will be reduced year by year.
eInvoicing services offered by the government (free of charge)	Norway is dependent on both the Peppol BIS 3.0 standard and the Peppol eDelivery Network – particularly for cross-border transactions. Both economic operators and contracting authorities in Norway rely on Peppol Access Point (AP) service providers to achieve compliance with national regulations. These service providers offer solutions for creating, submitting, transmitting, receiving, and processing eInvoices. A list of eInvoicing service providers[263] is publicly available.
Call for evidence	N/A
Key findings	Norway has a high adoption rate: • 93% usage of eInvoicing in central government entities • 100% usage in regional authorities • 97% usage in municipalities. Norway had already high adoption rates before the Directive came into force and so did not see a significant impact by the EN. Future plans include a B2B mandate. They believe that the EN will not need to be extended for this mandate.

[263] https://www.anskaffelser.no/verktoy/aksesspunkter-ehf-og-bis-formater

Poland

Legislation

The law transposing the eInvoicing Directive (2014/55/EU) was introduced in November 2018 as the Act of November 9, 2018, on electronic invoicing in public procurement, concessions for construction works or services and public-private partnerships. It has been in force since 18 April 2019.

Poland is advancing on the use of B2B electronic invoicing. According to the plans, the Polish Ministry of Finance will launch a National eInvoicing System (KSeF), which will be a central government platform for the issuance and reception of electronic invoices. Companies must send all electronic invoices to the KSeF, where a digital time stamp will be applied. The goal of this system is to enable the exchange of electronic invoices in the B2B relationship and fit into the CTC monitoring model. In October 2021, a test period began when service providers could participate in system testing with KSeF. In January 2022, a voluntary phase started, where companies could begin issuing "structured" invoices to KSeF and benefit from fiscal benefits. The Ministry of Finance has conducted extensive public consultations and, via a statement[264] with changes to the KSeF system, Poland aims to postpone the implementation date of the B2B electronic invoicing in the country to July 1, 2024, when the use of B2B electronic "structured" invoice (XML) will be mandatory.

Mandatory for

- **Receiving and processing**: Central authorities, Regional authorities & Local authorities since April 2019
- **Sending**: Optional for suppliers of public administrations but will become mandatory for B2B transactions as of July 2024.
    - **Mandatory below the EU thresholds:** No

Platform

National eInvoicing platform (PEF) supported by two service providers. It was launched on 1 April 2019.

Standard(s)

National Standard in use (if any)	*EN 16931 compliant standard*
From 2022: KSeF Interface Specification[265] (planned to be mandatory for B2B from 1st of July 2024)	The European standard is fully implemented under UBL 2.1 and CII in the PEF platform.

[264] https://www.gov.pl/web/finanse/zmiany-w-projekcie-krajowego-systemu-e-faktur-ksef-po-uwagach-biznesu
[265] https://ksef.mf.gov.pl/document/InterfaceSpecification/1.2/EN

Monitoring	There is monitoring in place for both the central and sub-central levels. The number of suppliers using PEF and the number of eInvoices that are submitted via PEF are monitored.	
Strategy	National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030) The Ministry of Finance is working on the implementation of mandatory B2B/B2G eInvoicing from 1 July 2024. A standard for eInvoices in public procurement has been in place for several years. At the same time, from January 1, 2023, a voluntary system based on the national standard developed by the Ministry of Finance has been in operation. From July 1, 2024, it is planned that the systems will be integrated, and that eInvoicing will become mandatory. In the years 2025-2026, the system should operate as a mature one. Strategy for ensuring cross-border eInvoicing interoperability. Cross-border invoices will be exempt from the national obligation, but they will be still possible to be exchanged electronically, for example using the Peppol network.	
Structured eInvoicing uptake	Number of Contracting Authorities using eInvoicing	no information
	Number of suppliers sending eInvoices for public procurement contracts	no information
	How many B2G eInvoices from national suppliers does the Public Sector in your country receive on a yearly basis?	Central level and sub-central from domestic and foreign suppliers for central and sub-central authorities. **2019**: 3 356 **2020**: 90 979 **2021**: 263 829
	Notes on above data	Source: eInvoicing platform report which is the only access point for structured invoices in Poland.
	How many B2G eInvoices from foreign suppliers	no information

B2B eInvoices exchanged at domestic level	no information
B2B eInvoices exchanged at cross-border level	no information

Table 71 Structured eInvoicing uptake in Poland

Percentage of enterprises sending eInvoices

The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing.

The data[266] from Eurostat does not distinguish between B2G or B2B transactions.

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
4%		5.6%		13.7%	12.8%	13.2%	15.7%		13.2%

Table 72 sending eInvoices suitable for automatic processing in Poland

Implementation of EN 16931 compliant eInvoices

Approach

Currently B2G eInvoicing is implemented via Peppol. The current PEF platform and KSeF platform, which will be available for both B2G and B2B, will be integrated before 1st of July 2024. It means that the economic operator will be obliged to use KSeF platform to handle B2B invoices and will be free to choose which one platform (PEF or KSeF) to use for handling B2G invoices.

As a consequence, it is planned to use the national standard in the platform to be developed by the Ministry of Finance that will support B2G and B2B eInvoicing, in parallel with the PEF platform which will continue to be used.

Uptake of EN 16931

According to the Polish Ministry of Economic Development and Technology, the Directive 2014/55/EU, and the introduction of the EN 16931 have moderately contributed to increasing the adoption of eInvoicing.

[266] The data description can be found at https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm

Cost and Benefits

At the end of 2020, over 16 000 entities were registered on the PEF platform, including almost 15 000 from the public sector. At the same time, almost 100 000 Post-Award electronic documents were exchanged using PEF, mostly eInvoices (over 97% of all documents).

Is Peppol / eDelivery used	Yes, Ministry of Economic Development and Technology (MRiT) performs the duties of Peppol Authority
Number of public contracting authorities and entities using eInvoicing compliant with the EN 16931, versus the total	**2019**: 13 477 out of a total of 32 101 **2020**: 14 880 out of total of 32 958 **2021**: 15 361 out of total of 38 618
Percentage use vs other formats for B2G?	lack of information about total number of eInvoices, because for every contract >1 eInvoices may be issued
Percentage use vs other formats for B2B?	**2019**: ~0 **2020**: ~0 **2021**: ~0

Table 73 Uptake of EN 16931 in Poland

Table 74 Implementation costs for EN 16931 in Poland

EU funding

- Name of the EU funding programme: CEF Telecom
- Requested funding (in euro): 100 000 (partially paid)
- Year: 2020/2021

Benefits at the national level

According to the Ministry for Finance and Employment, it is too early to assess.

Poland incurred costs related to transposing the Directive 2014/55/EU and ensuring compliance with EN 16931.

According to the national authorities, the Directive and EN 16931 resulted in a low cost-reduction.

There was a cost burden associated with ensuring the national format complied with the EN 16931 **estimated at ~EUR 1.5M**. It was necessary to implement an extension to the EU-norm, which enables the inclusion of representatives of specific sectors of mass services (such as energy or gas) in the e-invoicing process. They are responsible for issuing millions of invoices, and the basic standard according to EU-norms was too narrow for them and made it impossible to include many important information on the invoice. Cost benefit is expected to be achieved in the coming years - the extension was implemented in mid-2022.

Implementation costs for EN 16931	• Purchase software/hardware: 5 000 000 euro • Training costs: 100 000 euro • Change management: 1 000 000 euro • Test environment: included in software category. • Service providers' fees: included in software category.

Table 75 Implementation costs for EN 16931 in Poland

EU funding

- Name of the EU funding Programme: Operational Program Digital Poland
- Requested funding (in euro): 5 000 000.
- Year: 2016-2019

Benefits at the national level

According to the Polish Ministry of Economic Development and Technology, the implementation of the Directive facilitates operational efficiency and environmental benefits, but research in this area has not been conducted.

eInvoicing services offered by the government (free of charge)

The new KSeF system is available free of charge for B2B and B2G.

Call for evidence

N/A

Key findings

According to the Polish Ministry of Economic Development and Technology, the Directive 2014/55/EU, and the introduction of the EN 16931 have moderately contributed to increasing the adoption of eInvoicing.

At the end of 2020, over 16 000 entities were registered on the PEF platform, including almost 15 000 from the public sector. At the same time, almost 100 000 Post-Award electronic documents were exchanged using PEF, mostly eInvoices (over 97% of all documents).

From 2022, the KSeF Interface Specification is planned to be mandatory for B2B from 1st of July 2024. This is a new national format with a proprietary syntax specifically developed for Polish enterprises for B2B transactions.

Portugal

Legislation	• Decree-Law 123/2018[267] of 28 December sets out the governance model for the implementation of eInvoicing in public procurement.
	• Official publication: Diario da Republica I; Number: 250/2018; Publication date: 2018-12-28; Page: 05960-05962.
	• Order No 289/2019 of 5 September — regulating the supplementary aspects of the electronic invoice[268].
	• Official publication: Diario da Republica I; Number: 170/2019; Publication date: 2019-09-05; Page: 00277-00279.
	• Decree-Law no. 14-A/2020[269] adopted a series of exceptional and temporary measures on 7 April 2020.
	• Lei n. ° 12/2022[270] introduces important changes regarding the digital reporting obligations of taxpayers.
	
	Mandatory for
	
	• **Receiving and processing**: Central, regional, and local authorities
	• **Sending**: economic operators
	  ○ Large Enterprises – January 2021.
	  ○ SME – January 2023.

Platform	• Portal BASE (general eProcurement) • Plataforma Eletronica de Compras (eSPap platform)
Standard(s)	*National Standard in use (if any)* *EN 16931 compliant standard* The European standard on eInvoicing is fully implemented and mandatory for usage under UBL 2.1 or/and XML-GS1.
Monitoring	eInvoicing monitoring is ensured regarding the content of the eInvoices for tax compliance purpose. Suppliers and entities, when transferring and receiving eInvoices, must connect to the eSPap's portal FE-AP, the gateway of the state to financial documents. The documents are transferred

[267] https://dre.pt/web/guest/pesquisa/-/search/117514514/details/normal?q=123%2F2018
[268] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=NIM:276986
[269] https://dre.pt/application/conteudo/131228424
[270] https://dre.pt/dre/legislacao-consolidada/lei/2022-185325094

	through a secure online connection (web-service).
Strategy	B2G eInvoicing in Portugal is operated by different service providers under the licence from IMPIC, supervised centrally by the State through the Centro de Gestão da Rede Informática do Governo (CEGER) and technically accredited by the Gabinete Nacional de Segurança (GNS). National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030) The Portuguese Government continues accrediting new suppliers, since the current legislation and the COVID context do not include any penalties for non-compliance with deadlines. Strategy for ensuring cross-border eInvoicing interoperability For exchanges with other countries, the current strategy involves using the Peppol network, however with some limitations associated with the automatic processing of these invoices. This occurs due to the specification of national tax legislation, VAT being mandatory, and invoices cannot be negative, for example, and which are rules that are also configured in accounting systems.
Structured eInvoicing uptake	In Portugal, 49% of the contracting authorities use eInvoicing and supplier mandates have been gradually introduced since 2021[271]. The following table shows the uptake in eInvoicing from 2019 to 2021. Number of Contracting Authorities using eInvoicing **2019**: 136 **2020**: 1 256 **2021**: 1 768 **2022**: 2 174

[271] https://www.bportugal.pt/page/lista-de-entidades-para-fins-estatisticos

Number of suppliers sending eInvoices for public procurement contracts	
Number of B2G eInvoices from national suppliers	**2019**: 107 **2020**: 352 **2021**: 2 202 **2022**: 4 980
Notes on above data	Given that there are no national studies, the data presented refer to the solution of the Portuguese Ministry of Finance (FE-AP) in which adherence by entities is mandatory only for the central public administration. All the central government contracting authorities using EN 16931-compliant eInvoicing standard.

Table 76 Structured eInvoicing uptake in Portugal

Percentage of enterprises sending eInvoices

The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing.

The data[272] from Eurostat does not distinguish between B2G or B2B transactions.

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
4%		5.6%		13.7%	12.8%	13.2%	15.7%		13.2%

Table 77 sending eInvoices suitable for automatic processing in Portugal

[272] The data description can be found at https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm

Implementation of EN 16931 compliant eInvoices

Approach

The Instituto Português da Qualidade[273] (IPQ) established a technical committee to follow up on the activities performed at European level by the European Committee for Standardization (CEN[274]) and the European Commission. This committee brings together public and private entities to support and prepare compliance with the Directive 2014/55/EU and the European standard on eInvoicing. It is composed of public and private entities such as GS1 Portugal[275], itSMF[276] (Associação Portuguesa de Gestores de Serviços TI), among 20 other entities.

The two European eInvoicing standard formats were adapted to the national B2G eInvoicing context via the creation of two CIUS, i.e. OASIS UBL 2.1 "CIUS-PT" and CEFACT "CIUS-PT". Users connect to the platform via AS2 or Web Services. Portuguese eInvoicing issuers as well as recipients are required to keep documents for 10 years.

Uptake of EN 16931

According to the Ministry responsible, the Directive 2014/55/EU and the introduction of EN 16931 contributed significantly to increasing the adoption of B2G eInvoicing in Portugal. In B2C, the Portuguese Government perceived that the Directive's contribution was limited.

Is Peppol / eDelivery used	Yes, Portugal is operationalizing the Peppol network with the national rules and platform already in place, with some adjustments still in progress to ensure integration with automated processes.
Number of public contracting authorities and entities using eInvoicing compliant with the EN 16931, versus the total	2019: 136 2020: 1 256

[273] http://www1.ipq.pt/PT/Pages/Homepage.aspx
[274] https://www.cen.eu/Pages/default.aspx
[275] http://www.gs1pt.org/
[276] https://www.itsmf.pt/

	2021: 1 768 **2022**: 2 174
	Percentage of eInvoices EN 16931 compliant vs. total number of B2G eInvoices **2021**: 100% Percentage of EN 16931 compliant eInvoices vs. total number of B2B eInvoices **2021**: 100%
	Table 78 Uptake of EN 16931 in Portugal
Cost and Benefits	EU funding CEF Telecom eInvoicing funding Budget requested**:** 5 projects totalling EUR 1 223 910 Benefits at the national level In the case of shared services, the possibility of concentrating efforts and capitalizing on a knowledgeable team capable of supporting the market.
eInvoicing services offered by the government (free of charge)	eInvoicing services offered by the government (free of charge) For B2G eInvoicing, there is Plataforma Eletrónica de Compras, a cost-free platform that enables the launch and management of all public procurement processes, including eInvoicing, in the context of the framework agreements established by eSPap.
Call for evidence	N/A
Key findings	In Portugal, **ESPAP** as a shared services entity was responsible for eInvoicing governance. This structure could concentrate efforts, monitoring the market, and boosting dissemination. It resulted in economies of scale and clear savings for public entities, operators, and suppliers. Semantic challenges: compliance with some fiscal and public procurement requirements that may be different than other countries: retention, budgetary commitment number, negative prices (energy); fields that have one cardinality in semantics, and a different one in UBL2.1 syntactics.

Regarding transmission, the Portuguese authorities often face the EDI's obligation of adding certificates in files.

Regarding governance, the Portuguese government perceives the need of a clarification regarding the possibility of a public entity to require a supplier to pay to adhere to the platform where it receives the eInvoice.

Effective measures for a further increase in of eInvoicing adoption

The FE-AP platform has already been integrated with the software. However, due to certain activity sectors and specific issues, full integration is not possible. For example, there are discrepancies in codes, units of measure, and invoice line details that prevent automation. A portal may be necessary for effective collaboration.

Romania

Legislation

Directive 2014/55/EU has been transposed through the Law 199/2020 on electronic invoicing in public procurement[277], on 8 September 2020.

The Fiscal Code[278], in force from 1st of January 2016, and its implementing rules approved by Law 227/2015[279] are governing the electronic invoicing (eInvoicing) in Romania.

Additional legislation may apply if electronic signature (eSignature) or electronic archiving (eArchiving) is used in the process of electronic invoicing:

- Law 455/2001[280] on electronic signature.
- Law 135/2007[281] on electronic archiving of documents.
- Law 139/2022[282] approves Government ordinance 120/2021[283] focusing on the administration, functioning, eInvoicing, and implementation of the RO e-factura system through the national invoicing system RO e-Factura in UBL 2.1 format, as well as makes the issuing of e-invoices mandatory for specific taxpayers.

In January 2019, the work related to the eInvoicing Directive transposition started. In June 2019, the Parliament received the proposal of the legislation. The law was passed by the Parliament in August 2020, promulgated on 8 September, and published on 9 September 2020.

Mandatory for

- **Receiving and processing**: Central, regional, and local contracting authorities.

277 https://ec.europa.eu/digital-building-blocks/wikis/pages/viewpage.action?pageId=399115161
278 https://static.anaf.ro/static/10/Anaf/legislatie/Cod_fiscal_norme_31072017.htm
279 https://static.anaf.ro/static/10/Anaf/Prezentare_R/Law227_11042018.pdf
280 https://www.comunicatii.gov.ro/wp-content/uploads/2016/01/LEGE-nr-455.doc
281 https://www.comunicatii.gov.ro/wp-content/uploads/2016/01/LEGE-nr-135.doc
282 https://legislatie.just.ro/Public/DetaliiDocument/260213
283 https://legislatie.just.ro/Public/DetaliiDocumentAfis/247243

	• **Submitting**: as of July 2022 The Romanian Government have asked for a derogation to VAT Directive for B2B mandatory eInvoicing starting from 2024.	
Platform	RO e-Invoicing	
Standard(s)	*National Standard in use (if any)*	*EN 16931 compliant standard* The European standard on eInvoicing is fully implemented under EN 16931 with national CIUS on top – the standard will be applied in full for all B2B and B2G transactions.
Monitoring	On April 11, 2022, the Romanian Ministry of Finance implemented the RO e-Transport electronic system for tracking the road transportation of high-tax-risk goods. This introduces a mandatory Transport system to monitor specific goods. The e-Transport is connected to the existing systems of the Ministry of Finance, the National Agency for Fiscal Administration (ANAF), and/or the Romanian Customs Authority. Taxpayers must declare the transportation of high-risk products three days before the start of shipment. The system then generates a unique code that must accompany the goods. The deadline to comply with the mandate was postponed until 1 January 2023. To facilitate the implementation of the mandate, the ANAF published the technical documentation for the e-Transport system including the XSD schema, the XML structure, APIs, as well as samples files of the XML, schema, and validation sheets This system will control the transportation of high tax risk goods between two locations within Romania, relating to intra-community purchases, intra-community deliveries, imports, exports, and intra-community transactions where goods are in transit in Romania.	
Strategy	B2B National eInvoicing strategy *(Source:* Romanian Government[284] and National Agency for Fiscal Administration[285])	

[284] https://legislatie.just.ro/Public/DetaliiDocumentAfis/249349
[285] https://legislatie.just.ro/Public/DetaliiDocument/250346

eInvoicing will be implemented as a standard for all transactions B2B starting from 2024 if the derogation from VAT Directive is obtained and expanded to B2C as a long-term objective.

Government ordinance 130, published on December the 17th 2022, introduces mandatory issuance as of July 2022 for companies whose activity is linked to product categories considered susceptible to tax evasion (ANAF 12/2022 ordinance published on January 6th, 2022): Fruit and vegetables, alcohol, construction, mineral products, and clothing and footwear.

Romania has dropped plans for a phased rollout to all companies of mandatory B2B e-invoicing. Instead, it will aim for a single 2024 introduction of mandatory eInvoicing for B2B[286].

Structured eInvoicing uptake

N/A

Percentage of enterprises sending eInvoices

The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing.

The data[287] from Eurostat does not distinguish between B2G or B2B transactions

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
5.7%		7.9%	7.2%		8.7%	10.9%	20.3%		16.9%

Table 79 sending eInvoices suitable for automatic processing in Romania

Implementation of EN 16931 compliant eInvoices

Approach

The transposition of the European standard was done in 2018 : (EN 16931) by ASRO[288] - In conformity with Law 355/2002, the Romanian Government granted ASRO governmental recognition as a National Standardisation Body developing standardisation activities in all fields of European and international standardisation as member of ISO, the IEC, CEN, CENELEC and ETSI[289].

[286] https://www.avocatnet.ro/articol_63037/e-Factura-obligatoriu-pentru-toate-firmele-Derogarea-ar-trebui-s%C4%83-vin%C4%83-in-perioada-imediat-urm%C4%83toare-conform-MF.html

[287] The data description can be found at https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm

As a bottom-up action, the adoption of the EN standard is promoted by the Romanian IT industry (Cluj IT Cluster[290]).

The Minister of Finance Order no. 1366/2021[291] approved the CIUS (RO_CIUS) for eInvoicing and specific operational rules applicable at the national level, in compliance with the EN 16931 European standard for e-invoicing.

Percentage of EN 16931-compliant eInvoicing over the total number of invoices

2021: <0,1%

Number of contracting authorities using EN 16931: N/A

Number of contracting authorities using eInvoices	2021**: 15 out of 15 065 (0.1%)**
Is eDelivery /Peppol used	No
Number of suppliers sending eInvoices for public procurement contracts	**2021**: 13/600 000 (0.002%)
Number of B2G eInvoices	<0.1%

Table 80 Uptake of EN 16931 in Romania

Cost and Benefits

Implementation costs for EN 16931

- Purchase software/hardware: 68 500 EUR
- Training costs: 0
- Change management: 16 720 EUR
- Test environment: EUR 38 000

[288] https://www.iso.org/member/2058.html
[289] https://www.iso.org/member/2058.html
[290] https://www.clujit.ro/#despre-noi/
[291] https://legislatie.just.ro/Public/DetaliiDocument/248303

- Service providers fees: EUR 7 500
- for legal and solution analysis, publicity, user guides, support, and security audit: EUR 129 800

Table 81 Implementation costs for EN 16931 in Romania

eInvoicing services offered by the government (free of charge)	N/A
Call for evidence	N/A
Key findings	The uptake in Romania as of 2021 is low. But the Government planned to implement mandatory B2G eInvocing in 2022. So, the volumes are expected to be higher. Also, the Romanian Government has asked for a derogation at the EC to make B2B eInvoicing mandatory as of 2024. The introduction of B2B eInvoicing is a long-term objective. As a bottom-up action, the adoption of the EN standard is promoted by the Romanian IT industry.

Slovakia

Legislation

Act No. 2015/2019[292] on Guaranteed Electronic Invoicing and the Central Economic System is in force from 01 August 2019. The act specifies regulation for the requirements of eInvoicing for public administrations and their suppliers.

The law above covers the transposition as stated in Article 11(1) of Directive 2014/55/EU, however, eInvoicing is not yet fully implemented. The obligations of the entities involved in eInvoicing will be introduced incrementally, according to the readiness of the eInvoicing platform called Information System for Electronic Invoicing (IS EFA) [293]

In February 2021, the Ministry of Finance in Slovakia revealed a new draft law[294] on sending invoice data to the Financial Administration. According to the authorities' preliminary statements, the aim is to introduce real-time invoice reporting that is supposed to be mandatory for all transactions (i.e. including B2B too) over time.

A public consultation on the above-mentioned measure was conducted until the end of March 2021. Preliminarily, the validity of the law is proposed at the beginning of 2022. Subsequently, there will be room for testing technical solutions. The latest date for the start of live operations can be expected in January 2023.

Mandatory for

- **Receiving and processing**: Central authorities, Regional authorities & Local authorities. They are obliged to use eInvoicing if the invoice amount issues by a public supplier is higher than EUR 5 000.
- **Sending**: The use of eInvoicing in Slovakia, in the private sector, is on a voluntary basis.

Platform

The national centralised eInvoicing platform, Information System for Electronic Invoicing (IS EFA) is currently in the initial stages of being released.

Standard(s)

National Standard in use (if any)

EN 16931 compliant standard

[292] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=NIM:275943
[293] https://wtsklient.hu/en/2021/05/13/electronic-invoicing-information-system-in-slovakia
[294] https://www.skdp.sk/webnew/main.nsf/0/430C1ADDC6CA5CEDC125865C003D7496?opendocument

	There is a Web API service for eInvoice users based on the Open API specification However the invoice content uses JSON as the syntax that is not standardised and is therefore proprietary to Slovakia.
Monitoring	It is not foreseen that the IS EFA, the central eInvoicing solution will monitor the eInvoicing uptake.
Strategy	N/A
Structured eInvoicing uptake	Most of the data represented below, in the Eurostat data, is based on traditional EDI e.g. EDIFACT, such as is used in the retail sector. However the Ministry of Finance[295] is planning the roll-out of a new system. The Information System for Electronic (IS EFA)[296] will gradually be mandatory for all state and public administration bodies in Slovakia and business who supply them with goods or services. The schedule for its implementation consists of four phases, which will be implemented progressively over the course of 2023. • Q3 2023 – Ministry of Finance of the Slovak Republic and Datacentrum and its suppliers • Q4 2023 – Budget organisations of the Ministry of Finance of the Slovak Republic, including the Financial Administration of the Slovak Republic • Q1 2024 – Other government and public administration entities • Engaging entrepreneurs for transactions with government and public administration institutions
Percentage of enterprises sending eInvoices	The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing. The data[297] from Eurostat does not distinguish between B2G or B2B transactions

[295] https://www.mfsr.sk/en/
[296] https://web-einvoice-demo.mypaas.vnet.sk/
[297] https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
11.4%		13.8%		11.3%	14.5%	17.9%	15.4%		16.5%

Table 82 sending eInvoices suitable for automatic processing in Slovakia

Implementation of EN 16931 compliant eInvoices	Based on data gathered from Desk Research, there are no EN 16931 compliant eInvoices being used in Slovakia. The new system from the Ministry of Finance, which is in Beta, is not yet compliant.
Cost and Benefits	EU funding • Name of the EU funding programme: CEF telecom • Requested funding (in euro): 118 030
eInvoicing services offered by the government (free of charge)	N/A
Call for evidence	N/A
Key findings	Although Slovakia has legislation that transposes the Directive, there is no evidence of any system that is compliant. In the Country Factsheet, it states that, the EN will be implemented by using the centralised eInvoicing solution (IS EFA) following Stage II. It was forecasted to be fully introduced in July 2022. However, to date, this is not implemented. The current specifications[298] are based on JSON in a proprietary format, which is at odds with the legislation. The conclusion is that they have not reached the compliance stage yet and the roll-out of the national system is continuing albeit behind schedule.

[298] https://api-einvoice-demo.mypaas.vnet.sk/

Slovenia

Legislation	eInvoicing has been mandatory in Slovenia since 1 January 2015. Provision of Payment Services to Budget Users Act[299] mandates the use of eInvoices in billing for public procurement. The use of eInvoices is fully applied in the public sector (B2G and G2G). The law further mandates the use of the Public Payments' Administration of the Republic of Slovenia (PPA) eInvoicing system and details its tasks. The transposition of the eInvoicing Directive (2014/55/EU) into Slovenian law is contained in Act Amending the Provision of Payment Services to Budget Users Act[300]. Mandatory for • **Receiving and processing**: Central, regional, and local authorities • **Sending**: B2G and G2G eInvoicing is mandatory in Slovenia since 1st January 2015. Mandatory below the EU thresholds: No
Platform	PPA eInvoicing system[301] (UJP eRačun[302])
Standard(s)	*National Standard in use (if any)* *EN 16931 compliant standard* e-SLOG 2.0, XML based on EDIFACT and EANCOM.
Monitoring	The monitoring is ensured by the PPA eInvoicing system.
Strategy	National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030)

[299] http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO7120
[300] https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2019-01-2291?sop=2019-01-2291
[301] http://www.ujp.gov.si/
[302] https://eracuni.ujp.gov.si/

Structured eInvoicing uptake	Between 2023 and 2024, the strategy is to mandate eInvoicing for B2B. Strategy for ensuring cross-border eInvoicing interoperability. cross-border eInvoicing interoperability will be achieved by using Service providers, and Peppol.	
	Number of Contracting Authorities using eInvoicing	**2021**: 3 030
	Number of suppliers sending eInvoices for public procurement contracts	N/A
	How many B2G eInvoices from national suppliers does the Public Sector in your country receive on a yearly basis?	Including data from Central + Sub-central authorities **2019**: 432 894 **2020**: 403 859 **2021**: 437 212
	How many B2G eInvoices from foreign suppliers	**2021**: 360
	B2B eInvoices exchanged at domestic level	**2019**: 7 000 000 **2020**: 7 000 000 **2021**: 7 000 000
	B2B eInvoices exchanged at cross-border level	**2021**: 140 000

Table 83 Structured eInvoicing uptake in Slovenia

Percentage of enterprises sending eInvoices	The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing. The data[303] from Eurostat does not distinguish between B2G or B2B transactions.

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
5.4%		9.8%	5.8%	16.3%	56.7%		61.9%		58.4%

Table 84 sending eInvoices suitable for automatic processing in Slovenia

The following graphs are taken from the Rose2 project report named Digitalisation of business from order to payment - Standardisation of eInvoicing and eOrdering[304]. This was funded by the EU CEF Telecom initiative.

[303] https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm
[304] https://epos.si/assets/docs/ROSE_Zbornik2020_EN_Web.pdf

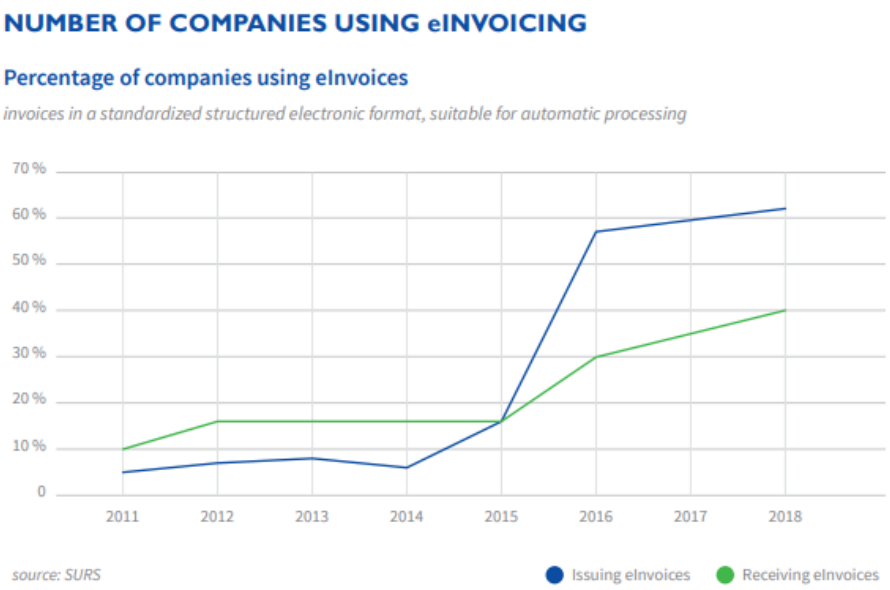


Figure 35 Percentage of companies using eInvoices in Slovenia (Source Rose2 project)

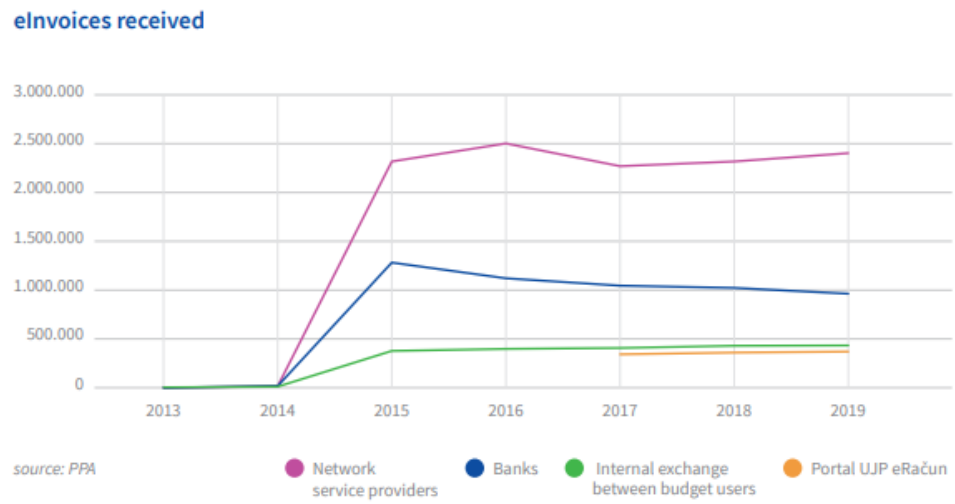


Figure 36 Number of eInvoices received in Slovenia (Source Rose2 project)

eInvoices sent

Implementation of EN 16931 compliant eInvoices	**Approach** Slovenia uses the eSlog eInvoice[305] which is an XML format, but it is not UBL or UN/CEFACT XML formats. However, they state it is in line with the EN 16931, which infers it is semantically interoperable. According to the ROSE 2 project funded by the EU CEF Telecom, there are two certified PEPPOL access points in Slovenia, the PPA for budget users and the ZZI for other users. Therefore they also support the Peppol formats which are fully compliant with the EN. In the report Slovenia state that a very important step towards cross-border transactions with eInvoices was provided by Directive 2014/55/EU on eInvoicing in public procurement, which introduces a single European standard for eInvoices. For the introduction of the European semantic standard EN 16931 in Slovenia, the ROSE "Readiness of Slovenian eInvoicing" project was established in 2017[306]. One of the main objectives of the project was to upgrade the eSLOG eInvoice standard to version 2.0, which is in line with the European standard. The project also included the establishment of the eRegistry of eInvoice recipients, an upgrade of the environment for the exchange of eInvoices, inclusion of Slovenia in the European PEPPOL4 network for the exchange of eInvoices and promotional activities in the form of conferences and workshops. In 2019, under the auspices of the Chamber of Commerce and Industry of Slovenia, the Slovenian National eBusiness Centre (EPOS) was launched, which combines various activities in the field of eBusiness, which until then had been carried out separately. The National Forum became actively involved in the technical committees of the Slovenian Institute for Standardisation (SIST) and the European Committee for Standardisation (CEN). At the annual meeting in 2019, the National Forum proposed that the mandatory exchange of eInvoices between legal entities in Slovenia be regulated by law. As of October 1, 2020, only the eSLOG eInvoice 2.0 is valid, as the eSLOG eInvoice 1.6 and 1.6.1 ceased to be used. This assures full compliance with EN 16931. According to the Country Factsheets,

[305] https://epos.si/assets/docs/e-SLOG-2.0-08-2020-EN.zip

[306] The ROSE and ROSE 2 projects are co-financed through the Connecting Europe Facility (CEF)

In Slovenia, economic operators send all eInvoices to the PPA through its central eInvoicing system (PPA eInvoicing system).

Suppliers can submit eInvoices:

- Manually via the web-portal PPA eInvoicing (*UJP eRačun*).
- Automatically via eInvoicing solution providers that have successfully obtained certification from the PPA eInvoicing system and have established a direct link with it. This method for sending eInvoices is recommended for medium and large-sized enterprises due to the process automation and the data integration with the companies' in-house management systems.
- Automatically through Bankart[307] eInvoicing solutions provided by banks participating in the eInvoicing inter-bank exchange in Slovenia. It is used in the eInvoicing inter-bank exchange with the PPA. The Bankart allows the participating banks and the PPA to submit and receive electronic invoices to and from their clients using their own solutions (e.g. electronic banking services).

No electronic signature is required for eInvoices, and the archiving period amounts to 10 years, and it increases to 20 years for immovable property.

Uptake of EN 16931

The Ministry of Finance, Public Payments Administration of the Republic of Slovenia indicated that the Directive 2014/55/EU and the introduction of EN 16931 contributed very significantly to increasing the adoption of eInvoicing in Slovenia

[307] http://www.bankart.si/en/services/simp/

	Is Peppol / eDelivery used	Yes, Public Payments Administration is linked to the PEPPOL only for budget users.
	Number of public contracting authorities and entities using eInvoicing compliant with the EN 16931, versus the total	**2021**: 3 121
	Percentage use vs other formats for B2G?	**2019**: 100% **2020**: 100% **2021**: 100%
	Percentage use vs other formats for B2B?	**2019**: 98% **2020**: 98% **2021**: 98%

Table 85 Uptake of EN 16931 in Slovenia

Cost and Benefits

Slovenia incurred costs related to transposing the Directive 2014/55/EU and ensuring compliance with EN 16931.

According to the national authorities, the Directive and the EN 16931 resulted in a low cost-reduction.

There was no cost burden associated with ensuring the national format complied with the EN 16931.

Implementation costs for EN 16931	• Purchase software/hardware: No • Training costs: No • Change management: No • Test environment: No • Service providers fees: Public Payments Administration of the Republic of Slovenia pays an annual membership fee for Peppol. • Reduced number of staff working on manual invoicing: No • Number of staff redeployed in value added No • Higher electricity usage due to processing power and data storage space: No • Increase in long term of electronic waste products: No

Table 86 Implementation costs for EN 16931 in Slovenia

EU funding

- Name of the EU funding programme: ROSE and ROSE 2
- Requested funding (in euro):
  - ROSE: 50635 EUR for PPA, total: 570 248 EUR.
  - ROSE2: 37772 EUR for PPA, total: 645 075 EUR
- Year: 1.6.2017-1.6.2018 (ROSE) and 1.10.2019-30.9.2020 (ROSE 2)

Benefits at the national level

Since the transposition of the Directive 2014/55/EU and the EN 16931, Slovenia experienced higher levels of automation for eInvoice processing, reduced operational costs and improved transparency.

eInvoicing services offered by the government (free of charge)

Access to the national platform is free of charge. Suppliers may submit eInvoices manually via the web-portal PPA eInvoicing (UJP eRačun). This service is provided for small businesses that submit up to 60 eInvoices per year.

Suppliers may also use certified solution providers that include Banks.

Call for evidence

N/A

Key findings	The Ministry of Finance, Public Payments Administration of the Republic of Slovenia stated that the Directive and EN 16931 contributed significantly to both B2G and B2B increase of adoption. Looking at the statistics from Eurostat and the ROSE 2 project, it was the mandating of B2G in 2015 that drove the adoption 10-fold from 5.8% to 56.7% of enterprises sending eInvoices. However, they subsequently updated the national format to be aligned to the EN Semantic Model and introduced Peppol. Peppol is seen as part of their strategy for cross-border eInvoicing. Since the transposition they state that there is more automated eInvoice processing. They believe that Large Enterprises, large Contracting Authorities and Service Providers bore the highest costs, while Micro-enterprises had the lowest costs. There are no current plans for B2B, however in the Member State survey, they did indicate that it is part of their medium-term strategy to mandate it.

Spain

Legislation	Law 25/2013[308] establishing the obligation of the electronic invoicing and the creation of the entry registration point. In accordance with the law, B2G eInvoicing is mandatory in Spain since 2015. Law 18/2022[309] establishes that all B2B transactions should be exclusively supported by electronic invoices, and the solutions and platforms used by taxpayers to generate, process, and validate those invoices should be in accordance with the regulations. Businesses with total revenues of EUR 8 million or more a year will be required to comply with the mandate one year from the date the eInvoicing technical regulations are enacted by the central government/tax administration. The remaining businesses will have two years from the date the eInvoicing technical regulations are enacted by the central government/tax administration. Mandatory for • **Receiving and processing**: Central, regional, and local authorities, as well as economic operators with regard to B2B transactions. • **Sending**: Economic operators with regard to B2G and B2B transactions.
Platform	In the context of B2G, FACe[310] is the general eInvoicing entry point. Some regional governments manage their own eInvoicing entry point. Contractors can choose between both means at their convenience. FACeB2B, is the platform allowing B2B electronic invoicing in the very limited case of subcontractors of public administrations. In the general context of B2B, it is important to note that the Law 18/2022 established a period of 6 months from the publication of the law (29 September 2022) for the administrations involved to determine the technical and information requirements to be included in the electronic invoice for all B2B transactions. The procedure to approve technical requirements has started and is advanced, but the mentioned period has been exceeded.

[308] https://www.boe.es/diario_boe/txt.php?id=BOE-A-2013-13722&lang=en
[309] https://www.boe.es/diario_boe/txt.php?id=BOE-A-2022-15818
[310] https://face.gob.es/

Standard(s)	*National Standard in use (if any)* Facturae[311] – XML based national standard (used in association with an eSignature following the XAdES standard). The draft technical regulations of the Law 18/2022 have already undergone 2 rounds of public consultation but have not been enacted yet. The draft allows Facturae, UBL, CII and EDIFACT syntaxes.	*EN 16931 compliant standard* The European standard on eInvoicing is fully implemented. The European standard on eInvoicing is required by the draft regulations irrespective of the syntax used.
Monitoring	The B2G eInvoicing monitoring is ensured via the platform FACe. The monitoring is based on the analysis of the number of invoices that are submitted electronically and submitted in a specific syntax. The data is publicly available and continually updated in OBSAE[312].	
Strategy	N/A	
Structured eInvoicing uptake	(Source: FACe[313])	

	2014	**2015**	**2016**	**2017**
No. of invoices presented in FACe	884	6M	7.9M	9.8M
No. of local entities attached and in production (FACe)	2 389	7 571	7 779	7 882

[311] http://www.facturae.gob.es/formato/Paginas/formato.aspx
[312] http://dataobsae.administracionelectronica.gob.es/
[313] https://dataobsae.administracionelectronica.gob.es/cmobsae3/dashboard/Dashboard.action?request_locale=en

No. of organisations that have received invoices in FACe (accumulated)	132	11 591	14 116	15 769
% of population with access to FACe	72.84%	93.24%	94.07%	94.26%

Table 87 eInvoicing uptake in Spain

	2018	**2019**	**2020**	**2021**	**2022**
No. of invoices presented in FACe	11.5M	12.7M	12.8M	14.4M	15.9M
No. of local entities attached and in production (FACe)	7 991	8 060	8 112	8 181	8 356
No. of organisations that have received invoices in FACe (accumulated)	17 215	18 516	19 877	20 982	21 618
% of population with access to FACe	94.54%	94.91%	94.99%	95.29%	95.48%

Table 88 eInvoicing uptake in Spain

	Total number of invoices (Millions)	**Percentage**	**Amount of invoices (EUR Millions)**	**Percentage**

General State Administration	8.7	9.25%	97 850	22.10%
Autonomous Administration	40.3	42.44%	195 779	44.21%
Local Management	41.1	43.34%	135 219	30.54%
Universities	4.1	4.34%	9 957	2.25%
Other institutions	0.6	0.64%	4 003	0.90%

Table 89 Structured eInvoicing totals in Spain

Percentage of enterprises sending eInvoices

The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing.

The data[314] from Eurostat does not distinguish between B2G or B2B transactions.

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
6.4%		6.8%		10%	25%	31.7%	31.7%		32.8%

Table 90 sending eInvoices suitable for automatic processing in Spain

[314] https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm

Implementation of EN 16931 compliant eInvoices	**Status on the implementation of the European Standard on eInvoicing (EN)** The implementation of European eInvoicing standard in public entities is accomplished through FACe, the general single-entry point for eInvoices. This platform provides a translation mechanism to the national format (Facturae[315]) allowing any public entity to process European eInvoicing standard invoices with the current set of tools and applications available. In order to strengthen this translation process a dedicated CIUS[316] has been developed applying national regulations and conventions for eInvoicing to the public sector and restricts data formats in compliance with the eInvoice national format. The draft technical regulations for mandatory B2B electronic invoicing require all electronic invoices to comply with the EN16931 standard, while allowing the use of different eInvoicing syntaxes. **Approach** FACe is the general entry point of eInvoices for central government. Local and regional governments can either develop their own solutions or use a reception system provided by other administrations. In most cases the system of choice is FACe. Suppliers can retrieve 'eInvoicing addresses' for any public administration (even those not connected to FACe) using the directories and query services available in the FACe portal. All eInvoice reception systems are integrated with the specific Accounting Register of Invoices in each administration, which acts as a centralised mechanism of the payment process control. Electronic invoicing services provided by FACe can be accessed through the platform's portal. A web services interface is also provided in order to support direct integration of invoice processing applications. Its services include, directory of financial units and discovery of invoice presentation points, submission of eInvoices and tracking and management of presented eInvoices. This open approach has contributed to the success of eInvoicing in Spain. The FACe system processes more than 12 million eInvoices annually (updated information is available in OBSAE[317]), providing considerable savings for the public and private sectors due to the use of a fully automated

[315] http://www.facturae.gob.es/formato/Paginas/formato.aspx
[316] https://administracionelectronica.gob.es/ctt/face/descargas

	invoicing process.
Cost and Benefits	EU funding • Name of the EU funding Programme: CEF Telecom eInvoicing funding. • Requested funding (in euro): 3 950 010 Benefits at the national level The main identified benefits are cost and operational savings, the reduction of administrative burden and optimisation of time to payments and the contribution to process automation
eInvoicing services offered by the government (free of charge)	**Feedback from EU Citizen** The General State Administration offers an eInvoicing entry point (FACe) to all public entities as a free of charge service. Public administration suppliers can create eInvoices using any compliant invoicing application; using an eInvoicing service provider (e.g. banks); or, especially in the case of SMEs processing low volumes of invoices, using the free eInvoicing client[318] software provided by the Spanish Ministry of Industry. This free eInvoicing client software is fully integrated into the FACe platform through the aforementioned web services interface.
Call for evidence	N/A
Key findings	The European eInvoicing Directive and the EU Standard has had a significant impact on streamlining invoicing processes in Spain and promoting digitalisation in both the public and private sectors. The level of B2G eInvoicing uptake in Spain has been high, primarily driven by national policies mandating its use since 2015. The implementation of the FACe platform as a centralised entry point for eInvoices, combined with the availability of open and free automated interfaces, has facilitated widespread adoption among public administration suppliers. FACe is mandatory for central government, while optional for regional and local

[317] http://dataobsae.administracionelectronica.gob.es/
[318] http://www.facturae.gob.es/formato/Paginas/descarga-aplicacion-escritorio.aspx

governments.

In the B2B sector, eInvoicing in Spain has seen steady growth. According to Eurostat, in 2020, 32.8% of Spanish enterprises were using eInvoicing for both B2G and B2B transactions, compared to only 6.4% in 2011. The implementation of a B2B eInvoicing mandate, starting from 12 months after the approval of the technical regulations needed, for taxpayers with an annual turnover of EUR 8 million or greater and 24 months after the approval of the technical regulations needed for remaining taxpayers, is expected to significantly increase adoption rates.

In terms of future plans and strategy, Spain has demonstrated a commitment to eInvoicing by implementing the EN 16931 standard and leveraging the FACe platform as a key infrastructure. The increasing number of structured eInvoices presented in FACe each year, as well as the growing count of organisations receiving eInvoices through the platform show growth. The availability of EU funding and the perceived cost saving potential through the fully automated invoicing process provided by FACe should also drive adoption over the years.

In the Call for Evidence, a Spanish citizen stated that the existing systems of each State while should be respected, while establishing a standard of exchange for intra-Community invoicing.

Sweden

Legislation

1. Ordinance for accounting[319](*Förordning (2000:606) om myndigheters bokföring §21f*).
2. Ordinance for electronic information exchange[320](*Förordning (2003:770) om statliga myndigheters elektroniska informationsutbyte § 3*). The law has been amended multiple times, with the latest amendment in 2021. It also includes the mandated use of eProcurement in the procurement processes.
3. (SFS 2018:1277)[321]. The law implemented the EU eInvoicing directive into national law. More information regarding the Act is provided below.

The Act regarding eInvoicing in public procurement:

- became effective 1 April 2019.
- it covers the complete public procurement process, **above and below** EU threshold and includes direct procurement.
- the law makes it mandatory for public sector suppliers to send eInvoices for all contracts signed after 1 April 2019.
- public sector must be able to receive and process eInvoices according to the European standard, EN 16931. However, there are some exceptions which includes national security, specific privacy situations, etc.
- DIGG, the Agency for Digital Government, can impose fines to suppliers that do not comply with the law.
- the law permits the use of other/older formats, which may be set out in bilateral agreements.
- DIGG has issued accompanying regulation, which **mandates** all public entities to be registered in **Peppol**.

Mandatory for

- **Receiving and processing**: All public sector contracting authorities
- **Submitting:** Suppliers to the public sector

[319] http://www.esv.se/ea-boken/?page=eabok_ch_4_sec_Myndigheters%2520bokf%25C3%25B6ring
[320] https://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/forordning-2003770-om-statliga-myndigheters_sfs-2003-770
[321] https://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/lag-20181277-om-elektroniska-fakturor-till_sfs-2018-1277

	○ **For contracts below the EU thresholds:** Yes	
Platform	N/A	
Standard(s)	*National Standard in use (if any)*	*EN 16931 compliant standard*
	Svefaktura version 1 (a national subset of UBL 1.0 defined in 2004) - old legacy format. Not recommended by SFTI as of 1 April 2021.	The European standard on eInvoicing is fully implemented.
	SFTI Fulltextfaktura (an EDIFACT D96A invoice adjusted to GS1 EANCOM specifications) - old legacy format. Not recommended by SFTI as of 1 April 2021.	
Monitoring	The Swedish government does not have a systemic approach towards eInvoicing monitoring. However, there are several systems and tools in place to monitor the uptake and implementation of eInvoicing.	
Strategy	National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030) Medium term: getting average adoption rates over 90% B2G Long term: expanding target groups involving B2B and G2B Strategy for ensuring cross-border eInvoicing interoperability Implementation of the Peppol specifications and establishment of a Peppol authority.	
Structured eInvoicing uptake	Number of Contracting Authorities using eInvoicing	**2019**: 500/500 **2020**: 500/500 **2021**: 500/500
	Number of suppliers sending eInvoices for public procurement contracts	The data below represents the percentage of invoices, Sweden has no data regarding the no. of suppliers.

	2019: 60% **2020**: 70% **2021**: 80%
How many B2G eInvoices from national suppliers does the Public Sector in your country receive on a yearly basis?	**2019**: 4 000 000 **2020**: 4 200 000 **2021**: 4 300 000

Table 91 Structured eInvoicing uptake in Sweden

B2G eInvoicing uptake

DIGG[322] published the results of a survey[323] on eInvoicing and eCommerce in 2022 addressed to the public sector, including the state, municipalities, and regions, with 357 respondents (the response rate was 71%).

On average over 80% of incoming invoices (supplier invoices) are handled as an eInvoice in public administration. The eInvoice act (2018:1277) has been in force for almost four years and the share of eInvoices should continue to rise as new procurements replace older agreements.

Peppol's infrastructure is mainly used for handling supplier invoices as close to 70% of the respondents' state that these flows are entirely or largely via Peppol.

In the figure below, the average use of eInvoicing for B2G in Sweden for 2022 is at 82% among all the levels of public administration. As seen below, the average for the state is 84%, the average for regions is 80%, and municipalities is 82%. The value for the State was similar in 2021. The

[322] Digg (Agency for Digital Government) is tasked with supporting and increasing the use of e-commerce in public administration.

[323] https://www.digg.se/analys-och-uppfoljning/publikationer/publikationer/2022-12-09-e-fakturering-och-e-handel-i-offentlig-forvaltning

total volume is 24 700 000 eInvoices.

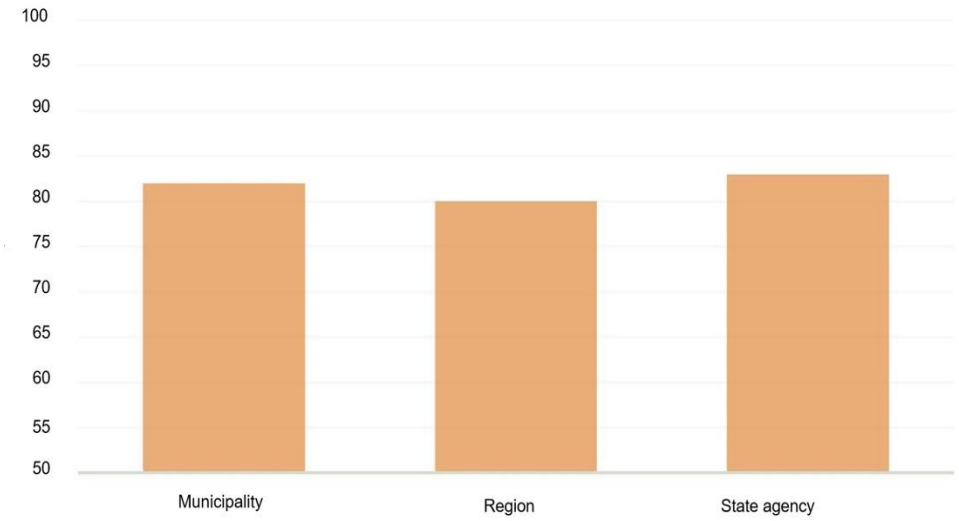


Figure 38 The average use of eInvoicing for B2G in Sweden for 2022 (Source Swedish study)

eInvoicing in municipalities and regions

SKR's[324] task is to support and contribute to the development of Swedish municipalities and regions' activities. SKR conducts recurring surveys. The current report[325] is based on a survey conducted from April to June 2022.

188 municipalities and 20 regions answered the survey.

[324] Swedish Association of Local Authorities and Regions (SALAR) (skr.se)

[325] https://skr.se/download/18.ba5afac18482ebd585116a1/1668783132660/E-handel,%20e-fakturering%20och%20e-upphandling.pdf

The diagram below shows the distribution of the share of eInvoices for municipalities and regions in 2021.

Among the municipalities, several only indicated how many supplier invoices they received in total in 2021, but not quantify the number of those that were eInvoices.

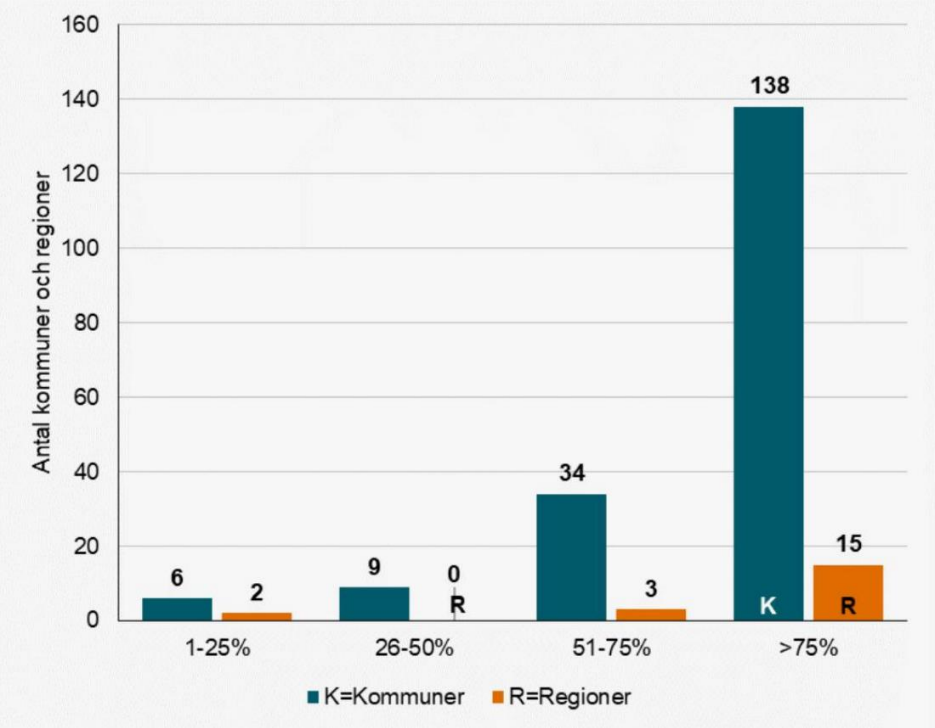


Figure 39 The average use of eInvoicing for B2G in Sweden for 2022 (Source Swedish study)

The diagram shows that in 2021 the majority of municipalities and regions received most of their invoices as eInvoices. In particular, 138 municipalities and 15 regions received more than 75% of invoices as eInvoices. Of those 138 municipalities, 51 received over 90% of their invoices as eInvoices, and among the 15 regions 12 received more than 80% as eInvoices.

Compared to previous years' surveys there has been a sharp increase in the share of eInvoices received for both municipalities and regions. For municipalities, the average share of eInvoices was 79% and for regions 74%. In the previous survey, the average was 56% for both municipalities and regions.

The next diagram shows the distribution of the share of eInvoices compared to previous years at municipalities and regions.

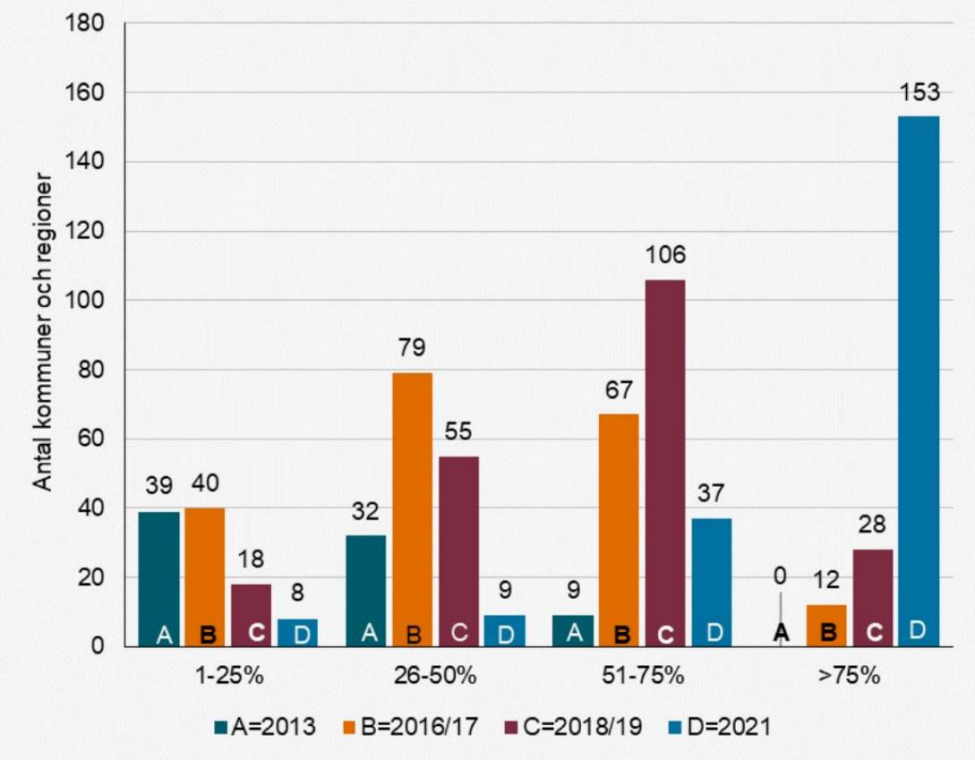


Figure 40 Distribution of the share of eInvoices in Sweden compared to previous years at municipalities and regions (Source Swedish study)

The survey uses data from 2021, which is after the law that transposed the Directive on eInvoices that came into force on 1 April 2019.

Percentage of enterprises sending eInvoices	The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing. The data[326] from Eurostat does not distinguish between B2G or B2B transactions

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
18.5%		21.8%	23.2%		33.1%		35.7%		45.4%

Table 92 sending eInvoices suitable for automatic processing in Sweden

Implementation of EN 16931 compliant eInvoices

Approach

Solution providers, on behalf of public sector organisations, operate the access point to receive eInvoices from economic operators. For the central government, the Legal, Financial and Administrative Services Agency[327] manages framework agreements for the provision of a common infrastructure for central government organisations. Currently, Visma[328] and CGI[329] are the solution providers operating these framework agreements. These framework agreements can be used by all central government agencies and approximately 120 municipalities and regions, which have given consent to use them.

Several platforms are in use by the public sector. In Sweden, the solutions used are based on the recommendations by Single Face To Industry (SFTI[330]) regarding standards for both messages and other infrastructure. **SFTI recommends Peppol** for the Swedish public sector and its suppliers.

No electronic signature is required for eInvoices, and the archiving period amounts to 7 years[331].

Uptake of EN 16931

[326] https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm
[327] https://www.kammarkollegiet.se/en
[328] http://www.visma.se/commerce/
[329] https://www.cgi.com/en
[330] http://www.sfti.se/utbildningarochstod/englishpages.4193.html
[331] https://www.pagero.com/compliance/regulatory-updates/sweden

The Agency for Digital Government (DIGG) indicated that the Directive 2014/55/EU and the introduction of EN 16931 had a high impact on B2G eInvoicing whereas it had a low impact on B2B in Sweden.

B2B is not regulated in any way, however, EN16931 has replaced the Swedish national format Svefaktura. EN 16931 is perceived as the preferred standard by authorities.

Is Peppol / eDelivery used	Yes. Sweden has a Peppol Authority (DIGG), 27 contracted service providers and around 70000 End-users connected in Sweden.
Number of public contracting authorities and entities using eInvoicing compliant with the EN 16931, versus the total	**2019**: 450/500 **2020**: 490/500 **2021**: 500/500
Percentage of eInvoices based on the EN 16931 vs other formats for B2G	**2019**: 40% **2020**: 50% **2021**: 60%

Table 93 Uptake of EN 16931 in Sweden

Cost and Benefits

The Agency for Digital Government (DIGG) indicated that Sweden incurred costs solely related to transposing the Directive 2014/55/EU and ensuring compliance with EN 16931.

They also indicated that the Directive and EN 16931 resulted in costs that will diminish over time. Although there was a cost burden upgrading the national format to European eInvoicing standard compliance, Sweden perceive that the benefits still outweigh the costs. Actual costs were not available.

EU funding
No funding requested.

Benefits at the national level

eInvoicing services offered by the government (free of charge)	According to a business case study conducted by Visma in September 2019 in the Nordic countries (Norway, Sweden, Denmark, Finland), the introduction of eInvoicing (B2G/B2B/B2C) could result in annual potential savings of 9,159,391,103 EUR[332]. According to DIGG, environmental benefits are estimated at 10 000 ton less CO2 for over 7 years. Other perceived benefits include operational efficiencies, improved control, enhanced communication and improved transparency for the public sector and to most of their suppliers. There is no central solution or platform. Service providers are offering services both to the public sector and to private suppliers. Peppol is the preferred solution. Suppliers submit eInvoices using Peppol service providers. Sweden encourages the use of Peppol for electronic procurement, enabling connected public entities and economic operators to communicate with each other. Legacy eProcurement solutions based on EDIFACT (GS1 EANCOM) are still supported by the central, regional and municipalities.
Call for evidence	**Feedback provided by Pagero** Pagero believes that the introduction of the Directive 2014/55/EU has had a significant impact on eInvoicing adoption in the EU both specifically for B2G transactions and overall for B2B. The effect of the introduced harmonisation and standardisation efforts cannot be underestimated. As outcome of the evaluation, Pagero believe that the Commission could be less modest if revising the Directive and propose more far-reaching changes aimed on harmonisation and standardisation, such as extension of the EN 16931 or introduction of eDelivery Building Blocks, as the market has become more mature to take the next step within the eInvoice digitalisation journey. **Feedback from DIGG** Within the government, there is already relatively high average figures for the proportion of eInvoices of all invoices received. With the introduction of the law, there has been a clear increase in the share of eInvoices also in other parts of public administration. Today, the average proportion of eInvoices in public administration is 82%. However, many have a share of eInvoices of over 90%. DIGG believe it is crucial for continued success that the EU works to ensure that the European standard can be handled as uniformly as possible in order to facilitate cross-border trade and that the

[332] Visma Business case: E-invoicing across the Nordics, September 2019

Key findings	standard remains **free** to use. A recent DIGG survey[333] shows that Peppol's network is increasingly used for the distribution of incoming invoices. See also results for the central government sector[334]. DIGG see a need to steer B2B invoicing more towards eInvoices instead of paper invoices or PDF. ViDA will significantly affect many SMEs in Sweden and it needs to be communicated several years in advance how an eInvoice should be defined and give time to prepare both systems and entrepreneurs and their organisations' routines and working methods. DIGG also believe that **Peppol is suitable for B2B** to handle eInvoices given that the network and messages are established, transparent and standardised communication solutions. The Directive 2014/55/EU and the introduction of EN 16931 had a high impact on B2G eInvoicing whereas it had a low impact on B2B. EN 16931 is perceived as the preferred standard by public authorities. Sweden incurred costs solely related to transposing the Directive 2014/55/EU and ensuring compliance with EN 16931, including upgrading to European eInvoicing standard compliance. However, benefits still outweigh costs. The SKR survey shows that eInvoicing has continued to increase in the last few years. The most recent survey shows that for municipalities the average percentage of eInvoices is 79% and for regions 74%. In the previous survey the average was 56% for both municipalities and region. The previous survey was based on responses from the 2018 financial year, which was before the Act that transposed the Directive. The current survey is based on responses from the business year 2021, which is after the law came into force. A comparison of the results from the two surveys clearly shows that the entry into force of the law had a major impact on the share of eInvoices among municipalities and regions. Eurostat also showed an increase in line with the adoption of EN 16931. In 2020 45% of enterprises were sending invoices. This included both B2B and B2G. The future strategy is, in the medium term, getting B2G average rates over 90%. In the longer term it is to target B2B and G2B. In the Call for Evidence, Pagero sees a maturing market that now needs more far-reaching changes aimed on harmonisation and standardisation, such

[333] https://www.digg.se/analys-och-uppfoljning/publikationer/publikationer/2022-12-09-e-fakturering-och-e-handel-i-offentlig-forvaltning
[334] https://www.digg.se/kunskap-och-stod/e-handel/att-forvalta-e-handel/uppfoljning-av-myndigheternas-e-handel

as extension of the EN 16931 or introduction of eDelivery Building Blocks.

DIGG states that ViDA will significantly affect many SMEs in Sweden. It needs to be communicated to them several years in advance how an eInvoice should be defined. Time should be given to prepare both organisations and their systems. Sweden also believe that Peppol is suitable for handling B2B eInvoices given that the network and messages are established, transparent and standardised communication solutions.

The Netherlands

Legislation

According to the law of 20 December 2017 amending the Public Procurement Law 2012 to include Directive 2014/55/EU, the implementation deadline for B2G eInvoicing for all public authorities in The Netherlands was 18 April 2019.

The Dutch government had already implemented part of the Directive 2010/45/EU in national law in 2012 (Implementation of the Billing rules Directive of 15 March 2012[335]), simplifying rules in the field of billing regarding the levying of VAT and harmonising the requirements for the invoicing and electronic invoicing (eInvoicing).

Mandatory for

- **Receiving and processing**:
  - Submitting, receiving, and processing: Central government agencies, since January 2017.
  - Receiving and processing: local government and all other contracting authorities since 18 April 2019.
- **Sending**: suppliers to the Dutch central Government

Platform

Multiple platforms are available:

- Management of the Dutch substandard NLCIUS: STPE
- National Forum on eProcurement policy: NMBF
- Management Peppol BIS standards and Peppol infrastructure: Netherlands Peppol authority (NPa)

Standard(s)

National Standard in use (if any)

The European standard on eInvoicing is fully implemented:

- UBL-OHNL (national UBL)
- SI-UBL is the National implementation of the NLCIUS (Dutch CIUS)
- SETU (HR – XML)

EN 16931 compliant standard

Peppol BIS 3.0 is a subset of the European Standard EN 16931 for use in Europe. Country-specific rules, based on NLCIUS, are planned to be added to Peppol BIS 3.0 in 2021.

[335] https://www.eerstekamer.nl/behandeling/20120322/publicatie_wet_2/document3/f=/viy0gs2a6rhh.pdf

Monitoring	At the moment, there is only a monitor on registrations, not on documents exchanged. This will change under the new Peppol contracts, although Open Peppol needs to put in place a process to be able to receive and process the monitoring data they are going to receive from the Service Providers.
Strategy	In 2020, The Netherlands Peppol Authority (NPa) published its roadmap which is a multi-year programme describing the ambitions of the NPa for the coming years. There are three focus points of the NPa, defined as tracks in this roadmap: • improving the Peppol framework: ensure the correctly executed and applied Peppol framework on a national level. • expanding post-award domain: conduct an analysis of the existing Peppol BIS standard, and possibly country specific additions, and align these developments with the service providers, stakeholders and OpenPeppol. • communication and marketing: increase the awareness and the use of Peppol. National eInvoicing strategy in the medium (2023-2024) and long term (2025-2030) Focus upon the use of open standards and Peppol as the main open infrastructure for B2G and G2B. Because of the Open characteristic of the network, the Dutch authorities expect it to connect other open networks that use open standards. Strategy for ensuring cross-border eInvoicing interoperability Use of Peppol.
Structured eInvoicing uptake	The following table shows the uptake for data for eInvoices received by the central government and the percentage compared to the total number of invoices.

Number of B2G eInvoices from national suppliers	**2019**: 1 176 044 (59%) **2020**: 1 290 275 (66%) **2021**: 1 646 106 (77%)

Percentage of enterprises sending eInvoices

Table 94 Structured eInvoicing uptake in The Netherlands

The following table refers to the percentage of enterprises with more than 10 employees sending eInvoices suitable for automatic processing.

The data[336] from Eurostat does not distinguish between B2G or B2B transactions

2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
			10.9%	15.3%	18.8%	19%	21.9%		25.4%

Table 95 sending eInvoices suitable for automatic processing in The Netherlands

Implementation of EN 16931 compliant eInvoices

Approach

All government organisations (such as Ministries, municipalities, provinces, and non-departmental public bodies) are obliged to be able to receive and process eInvoicing.

eInvoices can be submitted to the centralised government in the following ways:

- via the secure Peppol network. Most administration software that Dutch companies use is suitable for sending eInvoices via the Peppol network. The Access Point of the national government automatically converts the Peppol invoice into an eInvoice in the government format. The invoice will then be sent via Digipoort to the relevant National Service. Peppol is the preferable channel for exchanging e-invoices, the other options are temporarily or meant as a back-up.
- via the Logius eInvoice portal. It is suitable for suppliers who send a limited number of invoices, have no objection to manual entry into a portal, do not want to incur extra costs for sending an eInvoice, and who do not have the (technical) possibilities for an extensive ICT infrastructure.
- eInvoicing manually using the online portal of an ICT service provider. Suppliers can submit eInvoices for central government via solution providers that have established direct link with the central hub. Logius provides a list of solution providers on their website. eInvoicing via service is suitable for those suppliers who are sending mid-volume invoices, have a fully automated eInvoicing process or that have no

[336] https://ec.europa.eu/eurostat/cache/metadata/en/isoc_e_esms.htm

possibility for direct connection to the central hub.

- via Digipoort, which is the ICT centre where message traffic for the government is handled. eInvoicing via a direct link with Digipoort is suitable for suppliers who send large volumes of invoices (approximately more than 50 per week), want to fully automate eInvoicing; want a direct connection with Digipoort; have an extensive automated ICT infrastructure, or the ability to set it up.
- No electronic signature is required for eInvoices and the archiving period amounts to 7 years, with the exception of invoices related to Immovable Property whose archiving period is 10 years.

Uptake of EN 16931

According to the Dutch authorities, the Directive 2014/55/EU and the introduction of EN 16931 did not contribute to increasing the adoption of either B2G or B2B eInvoicing in The Netherlands. However, they indicate that it has increased legal certainty for eInvoicing requirements and reduced technical complexity, providing a clear legal basis and common specifications.

Is Peppol / eDelivery used	Yes, Peppol is used for B2G, with some exception at the municipality level, the standard for exchanging e-invoices B2G. As a spin-off of having nationalised The Netherlands Peppol authority (Minister of the Interior is the PA) there is an increase in large companies and their suppliers that have switched, try to switch or are in the process of switching to Peppol.
Percentage of eInvoices EN 16931 compliant vs. total number of B2G eInvoices	**Central government:** **2019**: 100% **2020**: 100% **2021**: 100%

Table 96 Uptake of EN 16931 in The Netherlands

Cost and Benefits

CEF Telecom eInvoicing funding

- Budget requested: 1 207 670

Benefits at the national level

According to the Ministry of the Interior and Kingdom Relations Central authorities have benefitted the most, while sub-central and service providers

	have not benefitted. The mandate and the process running up to this mandate made it a new reality to formulate and invest in eInvoicing.
eInvoicing services offered by the government (free of charge)	N/A
Call for evidence	**Feedback from FedEx (Netherlands)** The EN16931 is not able to combine elements, such as import VAT and duties paid for a customer, with elements of a different VAT treatment on one invoice. If implemented for mandatory B2B eInvoicing, it would increase the administrative burden and require more invoices/documents to be issued and tracked. An earlier proposal included a change request to amend the standard to combine out of scope elements and elements with a different VAT treatment on the same eInvoice, but it was rejected. The respondent is in favour of automation and digitalisation of invoicing, but not if it leads to disruption or negative commercial impact and asks to consider implementing the change request. **Feedback from an EU Citizen** It is suggested to include the following topics as a part of standardisation discussion: other information/document exchanges, three/four-way match, business budget cycles, targeted stakeholder involvement, etc. A broader approach could further help adoption and reaping of benefits. **Feedback from Invest BV** In The Netherlands, the EU rules on eInvoicing are minimally implemented. The central government has made e-invoicing mandatory for new agreements, but local authorities have not. Companies have the right to send eInvoices based on EU rules but are not informed about this. Many local authorities still invest in OCR solutions and receive XML invoices by email. Adoption depends on clear government communication. The Dutch Peppol authority has been established, giving confidence in the government's ambitions, and ensuring greater reliability of Peppol's active service providers. However, the government often leaves the used channel free, resulting in most exchange by email. The adoption of e-invoicing in The Netherlands would accelerate if the government clearly communicated one preferred channel, stopped investing in OCR solutions, and set a good example by sending eInvoices. The EU regulations have been important for the development of the EN, which could now be better aligned with global developments within Peppol.
Key findings	According to the Ministry of the Interior and Kingdom Relations, the impact of the Directive and the European eInvoicing standard has not contributed significantly to the increase in adoption B2G. According to the Ministry, simply mandating is more a business model for companies to be able to set prices to their advantage. Instead, a policy

should be made regarding the use of open networks. It will be decisive for a cost-effective adoption. In this way, larger companies using existing ERP solutions and document exchanges systems will be capable of relatively easy (through a Service Provider/Access Point) connect to open networks. This will make a positive business case for business partners that have intensive relations with a multinational (Supermarkets chains for example) and because of the 'connect once, connect to all' principle, it will be also possible to reach any other receiver on the Open Networks.

Although most government entities have been investing in an e-invoicing solution, it is mostly dormant.

According to the Dutch authorities, only the government entities that have mandated eInvoicing, adopted Peppol as their Open infrastructure and invested in onboarding of their suppliers have been successful in the Directive's adoption. Usually, those were the entities that had larger circulation of invoices tend to better perceive the advantages of eInvoicing and switch faster.

The Dutch Government perceives several measures that might increase eInvoicing adoption:

- Add valuable functionalities such as BLR/MLR (message responses).
- Make a positive business case for software solutions to build in a connection with an open network, using open standards.
- Mandate closed networks to open up in order to stimulate unrestricted exchange of procurement documents between public and private sectors.
- Mandating eInvoicing top down.

In the Call for Evidence, FedEx states that the standard needs to include features required for cross-border transport systems.

An EU citizen highlights a document developed by the MSFeI which includes topics like other information/document exchanges, three/four-way match, business budget cycles, targeted stakeholder involvement, etc. A broader approach could further help adoption and reaping of benefits.

A Dutch company states that the EU rules on e-invoicing are minimally implemented and the adoption of e-invoicing in The Netherlands would accelerate if the government would stop investing in solutions such as OCR and set a good example by sending e-invoices.

Most effective measures that could further increase eInvoicing adoption at EU and national level

The Dutch authorities perceive that the most effective measure would be a policy regarding the use of open networks. The Netherlands considers that such an action will be decisive for eInvoicing adoption itself and for its cost-effectiveness.

The Government finds that the measure will make larger companies use existing ERP solutions and document exchanges systems being capable to

easily to open networks through a service provider/access Point.

Moreover, the Dutch authorities assume that this will make a positive business case for business partners that have intensive relations with multinationals (i.e. supermarket chains) and because of the 'connect once, connect to all' principle, it will be also possible to reach any other receiver on the Open Networks.

The authorities in The Netherlands find that simple mandating will encourage companies to set prices to their advantage.