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**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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### INTRODUCTION

This report analyses the impact of the Directive 2014/55/EU of the European Parliament and of the Council of 16 April 2014 on electronic invoicing in public procurement on the Internal Market and on the adoption of eInvoicing in the European Union. It notably builds upon the results of the evaluation of this legislation conducted by the European Commission (the ‘Commission’)<sup>1</sup>.

The Directive on electronic invoicing in public procurement (the ‘Directive’)<sup>2</sup> aimed at improving the functioning of the Internal Market by harmonising the rules for electronic invoicing in the public sector in the European Union, as well as reducing barriers in cross-border public procurement caused by insufficient interoperability among national eInvoicing legal requirements and systems. In addition, the Directive also aimed at ensuring a widespread harmonised adoption of eInvoicing using a common standard, the European eInvoicing standard, which was instrumental in achieving the Directive’s objectives.

The Commission has conducted data collection and consultation activities with different categories of stakeholders. It has also commissioned an external study to analyse the Directive’s implementation and evaluate its functioning. Based on these activities, the evaluation of the Directive was undertaken in 2023. Data from secondary sources, including statistical data, legislative documents, reports, and studies, were collected, and analysed. Field research included a Call for Evidence and targeted consultation activities in the forms of surveys and interviews with different stakeholder groups, including national authorities, Small and Medium Enterprises (SMEs), large enterprises, eInvoicing service and solutions providers, Enterprise Resource Planning<sup>3</sup> (ERP) vendors, and main professional associations active in this sector, such as OpenPeppol and the Global Exchange Network Association (GENA), former European E-Invoicing Service Providers Association (EESPA). Case studies covering sampled countries were also developed and used as sources of information.

This review is in line with Article 12 of the Directive which requires the Commission to review its impact on the Internal Market and the uptake of electronic invoicing in public procurement within three years of the deadline for the transposition of sub-central authorities, set in April 2020.

### CONTEXT AND BACKGROUND OF THE REPORT

The Directive is part of the follow-up to the 2012 Commission strategy for e-procurement<sup>4</sup>,

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<sup>1</sup> SWD(2024)39

<sup>2</sup> 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. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014L0055>

<sup>3</sup> 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.

<sup>4</sup> COM/2012/0179 final, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, A strategy for e-procurement. <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=COM:2012:0179:FIN>

which aimed at modernising public procurement and fostering the digitalisation of public administration within the EU.

In the 2010 Digital Agenda for Europe<sup>5</sup>, the Commission recognised the potential of electronic invoicing as a key enabler for the digital economy and a means to promote the Digital Single Market. In 2010, the EU's policy on eInvoicing was promoted with the Communication 'Reaping the benefits of e-invoicing for Europe'<sup>6</sup>, advocating its adoption and the development of a standard. However, two years after, the EU landscape of eInvoicing in public procurement had not significantly changed. Therefore, in a resolution in April 2012, the European Parliament called for making eInvoicing compulsory in public procurement by 2016, while Member States called for measures to promote e-invoicing at the Informal Competitiveness Council of February 2012 and in the European Council Conclusions of June 2012<sup>7</sup>.

This led to a 2013 Impact Assessment, accompanying the proposal for the Directive, which explored the effects of promoting eInvoicing adoption and interoperability in public procurement. At that time, eInvoicing constituted 4-15% of invoicing procedures in the EU and it was posing particular challenges to both Small and Medium Enterprises (SMEs) and large enterprises, due to lack of interoperability.

eInvoicing in the private sector had been implemented since the 1980s through the Electronic Data Interchange systems (EDI) to standardise electronic communication between trading partners. EDI was primarily used in industries such as automotive, retail, and logistics. Since 2005, some Member States started to mandate the use of specific national eInvoicing formats and legal requirements to suppliers of the public sector. These formats were not interoperable and forced suppliers to comply with different rules when trading cross-borders.

Since 2007, the European Union has been supporting projects aiming at the harmonisation of public procurement processes including, among others, eInvoicing. In 2008, the EU-funded Pan-European Public Procurement On-Line (Peppol) project was initiated by 18 government agencies in 11 Member States to facilitate eProcurement across borders, building on the work of the European Committee for Standardisation (CEN). It provided a set of technical specifications that can be implemented in existing eProcurement solutions to make them interoperable, and it developed into a network of Access Points for the exchange electronic invoices and other documents. In 2012, the OpenPeppol Association was set up by a group of Member States to ensure the sustainability of the project's results. Since then, it has witnessed a significant expansion of its members' community and its network<sup>8</sup>.

## **TRANSPOSITION AND IMPLEMENTATION OF THE DIRECTIVE**

The Directive was adopted in April 2014, with the general objective to improve the functioning of the Internal Market by reducing barriers in cross-border public procurement caused by insufficient interoperability among national eInvoicing legal requirements and standards.

In addition to this general objective, the Directive had two specific objectives: (i) reducing complexity and improving clarity and legal certainty for economic operators by enabling firms

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<sup>5</sup> COM(2010)245 final, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, A Digital Agenda for Europe, 19.5.2010. <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0245:FIN:EN:PDF>

<sup>6</sup> COM (2010) 712, final Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Reaping the benefits of electronic invoicing for Europe, 2.12.2010. <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0712:FIN:en:PDF>

<sup>7</sup> <https://data.consilium.europa.eu/doc/document/ST-76-2012-INIT/en/pdf>

<sup>8</sup> <https://peppol.org/>

to send invoices in standards with which they were familiar and which would have been widely accepted; (ii) and lowering operating costs for economic operators participating in cross-border public procurement, such as the cost of supporting multiple eInvoicing standards and systems.

Ultimately, the operational objective of the Directive was to create the conditions for the emergence of technical solutions for eInvoicing in public procurement, which would have ensured cross-border interoperability, so that communication and mapping between eInvoicing systems would have been less resource intensive, allowing buyers and sellers to exchange invoices in public procurement at the lowest cost and with minimal complexity.

To achieve these objectives, according to Article 3 of the Directive, the Commission mandated first of all the development of a European standard for the semantic data model of an electronic invoice, which is properly the content of an invoice, the list of elements or terms that need to be included (European eInvoicing standard or European standard)<sup>9</sup>. Secondly, it required the identification of a limited number of syntaxes (format or language) which comply with the European standard. This standard was designed also to support the EU legislation on Value Added Tax (VAT). The responsibility for creating the standard was entrusted to the European Committee for Standardisation (CEN). The Commission requested that CEN drafted guidelines on transmission interoperability<sup>10</sup>, even if those guidelines were not binding on contracting authorities and contracting entities. A set of ancillary deliverables published by CEN simultaneously accompanies the standard.

To stimulate the uptake of eInvoicing in public procurement in the EU, Article 7 of the Directive required all public administrations in Europe to receive and process electronic invoices issued as the result of the performance of contracts to which the EU Public Procurement Directives apply (Directive 2009/81/EC<sup>11</sup>, Directive 2014/23/EU<sup>12</sup>, Directive 2014/24/EU<sup>13</sup> and Directive 2014/25/EU<sup>14</sup>), if the electronic invoice is compliant with the European standard.

Central authorities had until April 2019 to comply with the provisions of the Directive, and sub-central authorities until April 2020 in those Member States that opted for the one-year extension for sub-central contracting authorities in their national transposition law.

Up to July 2023, significant progress has been made in the adoption of eInvoicing within the European Union. All Member States have transposed the Directive into national laws. Seventeen out of 27 Member States have implemented legislation making it mandatory for suppliers to issue eInvoices to the public sector, fully in 13 of them and only partially in four Member States. Some of these have imposed the obligation on suppliers precisely at the time of transposition of the Directive. Additionally, nine Member States have extended eInvoicing for public procurement contracts below the EU thresholds.

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<sup>9</sup> The European standard on eInvoicing was developed by CEN and published by the European Commission. It defines the core business terms of an electronic invoice in a semantic data model. <https://ec.europa.eu/digital-building-blocks/wikis/display/DIGITAL/Compliance+with+eInvoicing+standard>

<sup>10</sup> The European standard on eInvoicing addresses the issue of transmitting the eInvoices with a guidelines report. The guidelines support implementers in selecting and designing transmission solutions. <https://ec.europa.eu/digital-building-blocks/wikis/display/DIGITAL/Navigating+the+eInvoicing+standard+documentation>

<sup>11</sup> 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.

<sup>12</sup> 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.

<sup>13</sup> 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.

<sup>14</sup> 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.

## CURRENT EVOLUTION OF EINVOICING

The emergence of new EU policy initiatives, in particular the legislative proposals ‘VAT in the digital age’ (ViDA)<sup>15</sup>, will reshape the European eInvoicing landscape in the coming years. On 8 December 2022, the Commission put forth a set of proposals to modernise and enhance the EU VAT system. This reform aims at broadening the scope of EU policy to cover Business-to-Business (B2B) transactions through the implementation of ‘near real-time’ digital reporting for VAT on EU cross-border transactions based on eInvoicing and making eInvoicing the default system for issuing invoices by January 2028. Additionally, the ViDA initiative reinforces the Internal Market as it ensures greater alignment among national systems across the EU: the acceptance of the European standard would have to be guaranteed in all national eInvoicing systems. Ultimately, ViDA presents an opportunity to foster digital integration among businesses within the Digital Single Market, to bolster eInvoicing standardisation and to stimulate innovation.

Another important evolution of eInvoicing is linked to the increasing influence of the European eInvoicing standard at the international level. In order to foster the competitiveness of European businesses and to strengthen EU position as global leader in standardisation, the Commission is actively promoting the EU-model based on the European Standard and Peppol specifications. Currently, non-EU countries, such as Australia, Japan, Malaysia, New Zealand and Singapore, have based their national eInvoicing specifications on the European standard as extensions and are actively interested in the Peppol International Invoice Model (PINT)<sup>16</sup>, operational since July 2023, which generalises the European standard in a systematic way, facilitating the interoperable exchange of invoices across the Peppol Network internationally. Other countries and regions have PINT 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 and minimise trade costs by fostering eInvoicing interoperability across regions.

Lastly, emerging technologies and innovative approaches are shaping the future of eInvoicing. For a greener Europe, emissions reporting could become more precise, with emissions calculated and disclosed at the line-item level within electronic invoices, enhancing environmental accountability. For tax purposes, Digital VAT returns pre-filled using data from eInvoices streamline compliance for businesses. Predictive tax calculations, powered by Artificial Intelligence (AI) could allow predictions of tax amounts for businesses and individuals. The battle against fraud employs AI-driven semantic analysis, machine learning, and data mining from structured electronic invoices to enhance monitoring and accuracy. The Real-Time Economy aims to enable real-time information exchange and to this purpose, data from electronic invoices could be used as the most accurate dataset regarding a business transaction, reducing administrative burdens. Additionally, blockchain-enabled invoice financing, with the creation of a unique digital fingerprint for each invoice, addresses the risk of duplicate invoice financing across borders. Ultimately, these advancements reshape eInvoicing and EU and its Member States have the duty to rally around the common objective to create the most favourable conditions for this innovation to develop in the EU.

## KEY FINDINGS FROM THE ANALYSIS OF EINVOICING DIRECTIVE

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<sup>15</sup> [https://taxation-customs.ec.europa.eu/taxation-1/value-added-tax-vat/vat-digital-age\\_en](https://taxation-customs.ec.europa.eu/taxation-1/value-added-tax-vat/vat-digital-age_en)

<sup>16</sup> PINT is the specification that implements the Peppol BIS billing for use in Europe. It describes the use of the invoice and credit note messages in Peppol, and facilitates an efficient implementation and increased use of electronic collaboration. <https://test-docs.peppol.eu/pint/pint-eu/pint-eu/bis/>

## IMPLEMENTATION

The current report, as required by Article 12 of the Directive, reviews the impact of the Directive on the Internal Market, and examines eInvoicing adoption in Europe, starting from the findings of the 2023 Evaluation exercise. To assess the performance and the impact, the analysis focused on the Directive's implementation and achievements between 2014 and 2022, looking more closely at the period after the transposition for central authorities in April 2019, knowing that the final deadline for implementation for sub-central authorities was April 2020.

The findings and conclusions are based on the outcomes of the evaluation of the Directive by the Commission conducted in 2023 before the Report. In line with the Better Regulation principles, this evaluation examined the performance of the Directive according to five evaluation criteria: relevance, effectiveness, efficiency, coherence, and EU added value. It looked at: The challenges to the Internal Market for eInvoicing, the impact of the Directive on the Internal Market and uptake as well as on main categories of stakeholders, the Directive's value added and coherence of the EU eInvoicing policy with other EU policies.

### **Challenges to the Internal Market: past and present**

The Directive is still relevant today as the challenges that prompted its adoption in 2014 persist and still create barriers to the functioning of the Internal Market. In addition, new challenges and developments have emerged since its adoption, leading to the current common positive opinion among national authorities from 18 out of 27 Member States about the ongoing relevance of the Directive<sup>17</sup>.

The challenges identified in 2014 continue to be relevant today: they relate to the adoption level of eInvoicing in Europe and the interoperability of IT systems for electronic invoicing. Concerning the uptake of eInvoicing in public procurement, it is noteworthy that, while the capabilities for receiving electronic invoices are to a certain extent present, significant adoption is mainly observed, firstly, in countries that have required suppliers to send only electronic invoices to public authorities and, secondly, in digitally mature Member States. Notably, 17 Member States, which introduced supplier obligations either fully (13 Member States) or partially (4 Member States), report either 100% uptake of eInvoicing in public procurement or the expectation to achieve this target by the end of year or 2024. Conversely, in other Member States, uptake tends to be low, except for digitally advanced countries, such as Estonia, Finland and Sweden. These countries, equipped with advanced eInvoicing legislation and capabilities, demonstrate higher levels of adoption. Uptake also tends to be high in the scenario where, even if not mandated by law, there is an administrative permission for public authorities to require eInvoicing in tenders, essentially constituting a 'mandate by practice'.

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, without simultaneously requiring the use of the European standard. Consequently, the adoption of the European Standard remains lower, as it relies on a suppliers' voluntary choice. In Member States that had systems pre-existing the adoption of the European standard, the use of the national standard tends to prevail.

In this context, to consolidate the Internal Market for eInvoicing, it would be helpful to

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<sup>17</sup> The results of the National Authorities survey conducted during the Study preparing the Evaluation, see SWD(2024)39.

maximise the use of the European eInvoicing standard in order to reduce administrative burdens for companies. Adopting a single eInvoicing standard across all Member States would streamline invoicing processes and procedures in Europe, simplifying invoicing for public administrations and their business partners. This simplification will be further supported by the application of the same standard for VAT reporting, as foreseen by ViDA. Ultimately, the use of the European eInvoicing standard not only facilitates the consolidation of the Internal Market for eInvoicing but also contributes to the reduction of costs associated to cross-border transactions for economic operators.

Secondly, the challenge of interoperability persists, as not all the four levels of interoperability, as defined by the European Interoperability Framework, including transmission and governance, were addressed by the Directive. While interoperability at the semantic and syntax level was identified as a challenge to be addressed in EU policy already in 2014 and it was addressed by the creation of a European eInvoicing standard in 2017, transmission has emerged as one of the main challenges during the implementation of eInvoicing. Only recommendations on transmission, which are non-binding, were issued by CEN alongside the European standard, as mentioned in the recitals of the Directive. However, this situation may evolve in the light of new EU eInvoicing policy developments related to the ViDA legislative proposals.

Currently, as regards interoperability in B2B, businesses and, in particular small businesses, are forced to use the specific eInvoicing networks of their large customers. These networks are closed networks and do not interoperate with each other. This has negative consequences for small companies that cannot use a single eInvoicing provider to exchange invoices with their trading partners, in their own country and furthermore at the EU level. If common transmission methods and protocols are agreed between parties (or mandated by law), this issue can be easily overcome. In addition, if at national level a platform for B2G has been put in place, this would mean that a company will have to use still another system to send eInvoices to the public sector.

For service and solutions providers, offering pan-European services for eInvoicing based on a common standard, the European eInvoicing standard, created opportunities to reach an EU-wide customer base. However, when country-specific requirements are imposed on them, such as the registration of a VAT number, or stringent certification schemes, which generate high investment costs, their benefits are reduced. This challenge exists in both Greece and France<sup>18</sup>. Moreover, an increasing number of Member States are planning to introduce national certification systems for eInvoicing services and solutions which will create new barriers to the Internal Market. In parallel, the use of eSignatures to guarantee the authenticity and integrity of eInvoices, which was imposed by some Member States, constitutes another challenge to cross-border eInvoicing. As proven by systems that do not use this method of authentication, the use of such requirement has not proven to be necessary in practice.

New developments have taken place since the Directive's adoption. In particular, the ViDA (VAT in the Digital Age) legislative proposals will, when adopted, impose that, starting from January 2028, eInvoicing would become the default method for issuing invoices. This means eInvoices must be issued, transmitted, and received in a structured electronic format, enabling automatic and electronic processing. 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) either directly between trading parties or

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<sup>18</sup> SWD(2024)39

through public portals set up by tax administrations.

Additionally, several Member States are currently preparing new legislation to mandate eInvoicing in B2B transactions, based on a derogation from the VAT Directive, in line with Article 395 of that Directive. Sometimes, the scope of these policies might extend also to B2C, and in that regard, it should be noted that there is current standardisation work in CEN: CEN TC434 is currently developing technical specifications for eReceipt. In this context, alignment between B2G, B2B and B2C eInvoicing setups and systems would avoid excessive technical complexity and legal uncertainty for economic operators, in their own country or when engaging in cross-border trade within the EU.

Lastly, data security and privacy have emerged as challenges during the evaluation consultation activities. To tackle this issue, agreements between service and solution providers generally include a clause that requires the safeguarding of client data and forbids its use for anything other than what is explicitly necessary and agreed upon. However, its use is not systematic.

In summary, the Directive remains relevant in addressing the challenges identified in 2014, which persist. However, the latest developments of eInvoicing created new challenges to be tackled in view of enhanced efficiency and harmonisation of electronic invoicing rules within the EU.

### **Impact of the Directive on the Internal Market, eInvoicing uptake and stakeholders**

The implementation of the Directive and the adoption of the European eInvoicing standard have significantly contributed to the harmonisation and interoperability of electronic invoicing in Europe and to its uptake, as explained below. However, the Directive has been partially effective in fulfilling its objectives. Its two direct objectives are (i) the removal of market barriers and obstacles to trade deriving from the existence of differing national rules and standards and (ii) ensuring interoperability. In achieving these two objectives, the adoption of the European eInvoicing standard was a key element.

Regarding the first objective, the harmonisation of eInvoicing rules and standards in Europe was achieved to a certain extent by establishing a European standard for eInvoicing developed by CEN and endorsed by the Commission<sup>19</sup> in October 2017, and by creating the conditions for an Internal Market in public procurement. The European eInvoicing standard encompasses two interoperability levels, semantic and syntax, which were identified as challenges to intra-EU interoperability in 2014.

In regards to the second objective, the Directive imposed an obligation on Member States and their public authorities by requiring 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. In order to achieve this objective and, hence, ensure interoperability, the Directive required Member States to either establish systems for Business-to-Government (B2G) eInvoicing incorporating the European eInvoicing standard or to adapt their existing systems to accept electronic invoices compliant with the standard. For the central level, the capabilities are in place in 25 Member States and two Member States, Cyprus and Slovakia are still developing their national central platforms. For the sub-central level, it is not possible at this stage to fully check the implementation of the Directive, as only few Member

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<sup>19</sup> Commission Implementing Decision (EU) 2017/1870 of 16 October 2017 on the publication of the reference of the European standard on electronic invoicing and the list of its syntaxes pursuant to Directive 2014/55/EU of the European Parliament and of the Council (Text with EEA relevance), C/2017/6835, OJ L 266, 17.10.2017, p. 19–21.



States have created mechanisms to monitor eInvoicing implementation within their countries. Typically, these are Member States that have mandated their suppliers to send eInvoices to the public sector and have central monitoring tools in place, such as France, Italy and Spain.

One of Directive's expected impacts on the Internal Market was to increase adoption of eInvoicing in a harmonised way throughout the EU. For the adoption of eInvoicing in general, the percentage of EU enterprises sending eInvoices (in general, not exclusively in B2G) has grown from approximately 10.3% in 2013 to 32.2% in 2020, based on a Eurostat survey of companies with more than 10 employees. Although the analysis faced limitations in terms of data availability and consistency since there is no reporting obligation for the Member States applicable under the Directive, data from Eurostat<sup>20</sup>, desk research and interviews with stakeholders have compensated for the shortcomings<sup>21</sup>.

For the uptake in public procurement, the analysis revealed that B2G eInvoicing adoption has increased mainly in the Member States that introduced suppliers' obligation to send eInvoices to the public sector, showing that voluntary adoption by the private sector can be challenging. In France, for example, where an obligation was introduced gradually between 2017 and 2020, 34 000 electronic invoices were received in 2013 versus 4.3 million in 2022 by the national authorities and 66.74 million by the sub-central authorities; in Spain, where the obligation was introduced in 2015, data gathered from the national platform showed an increase from 884 000 eInvoices in 2014 to 9.5 million in 2017 and 15.9 million in 2022 – data refer only to the central level. Mandating eInvoicing, which is the obligation for suppliers in B2G (only) to send exclusively electronic invoices to their national authorities has proved to have an effect on the general rate of adoption, including B2B, as the Eurostat data show that the number of enterprises using eInvoicing in Italy, Slovenia and Spain significantly increased in correlation to the time the obligations entered into force in each country, respectively in 2014 and 2015, reflected in 2016 Eurostat figures.

In the absence of a mandate for sending electronic invoices (either in B2G or B2B), the adoption level has increased slowly. According to the SMEs targeted consultation, the most efficient measure to increase adoption by businesses that are already using ERP and accounting software is to ensure that these solutions also include an eInvoicing functionality. This means that they can immediately be enabled to send and receive an eInvoice from their existing system without having to manually enter data, ensuring automation. This was already suggested by SMEs in the 2013 Impact Assessment<sup>22</sup> of the Directive, which shows that it is a critical factor for adoption of eInvoicing by SMEs. This is the policy chosen by Denmark, for example, with their recent Bookkeeping Act<sup>23</sup>.

For the Directive's underlying objectives enshrined in its recitals and in the 2013 Impact assessment, they were partially fulfilled. The Directive aimed at fostering the Internal Market by addressing interoperability, increasing legal certainty, reducing legal complexity, and lowering the costs for economic operators. This was complemented by an operational objective: creating the conditions for the emergence of technical solutions for eInvoicing in public procurement to ensure interoperability.

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<sup>20</sup> The data represented in this section are an elaboration of the following Eurostat's dataset: [ISOC\\_EB\\_IC3](#).

<sup>21</sup> SWD(2024)39

<sup>22</sup> 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. <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=SWD:2013:0222:FIN:EN:PDF>

<sup>23</sup> Bill on the Danish Bookkeeping Act ([danishbusinessauthority.dk](http://danishbusinessauthority.dk))

The Danish parliament passed the Bookkeeping Act on May 19th, 2022, initially stated to take effect on July 1st, 2022. The Act mandates all companies of all sizes to issue, receive, process, and archive invoices electronically.

The Directive primarily focused on addressing interoperability challenges related to semantic and syntax levels, but it did not tackle all four interoperability layers, including transmission and governance. The development of the European eInvoicing standard effectively tackled the semantic and syntax interoperability layers. Evidence of this is that, 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. Three Member States - Estonia, Finland and Sweden, have been gradually replacing their national standard with the European Standard. Other Member States, which mandated the use of a national standard before the introduction of the European eInvoicing standard, simply allow for the use of the European Standard. It is important to stress that, while transmission and governance have not been addressed by the Directive, in practice, interoperability across borders has been ensured by the implementation of Peppol-based solutions in 23 Member States. The Directive fostered the Internal Market by increasing legal certainty and reducing technical complexity for eInvoicing: it established a clear legal basis and set the European eInvoicing standard as the common standard to be supported by the entire EU public sector. Fourteen Member States out of the 21 that responded to the targeted survey, reported that the intervention had a positive impact on increasing legal certainty and reducing technical complexity<sup>24</sup>. About 80% of SMEs in the targeted survey perceived that national legal requirements for eInvoicing are clear and accessible and these requirements are mainly the result of the transposition of the Directive into national law.

The Directive, in its Article 2, 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, consistency with the relevant provisions of Directive 2006/112/EC<sup>25</sup>, etc.

Moreover, by addressing interoperability at the semantic and syntax level with the European standard, the Directive contributed further to reducing technical complexity. This is particularly true for public procurement, where suppliers have the opportunity to use the same standard for eInvoicing for all their public procurement procedures into the scope of EU public procurement in their own country and most importantly in all other EU countries.

The majority (66%) of the SMEs surveyed in the targeted stakeholder consultation for the evaluation view the European eInvoicing standard as a means of significantly simplifying intra-EU trade. 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. However, as regards technical complexity, 41% of SMEs surveyed still experience technical challenges when using eInvoicing, while the others declare not facing challenges. These challenges include: 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 standard but did not require its use

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<sup>24</sup> SWD(2024)39 .

<sup>25</sup> Council Directive 2006/112/EC of 28 November 2006 on the common system of value added tax, OJ L 347, 11.12.2006.

by suppliers. As a result, enterprises must support multiple eInvoicing formats in Member States where a national standard is required for B2G transactions while using other formats for B2B transactions. The public sector essentially acts as a large buyer, imposing its requirements on suppliers.

For the specific objective of lowering operating costs for economic operators, the evaluation concluded that this depends mainly on the take-up of eInvoicing and its mass-adoption in two dimensions: firstly, on the prices of eInvoicing services and secondly, on the network effects, as the possibility to make use of these services with all business partners and for many other applications of eInvoicing. On the one hand, in general, companies have to acquire eInvoicing services or software, and the prices for the eInvoicing services are still relatively high. The results from the consultation activities targeting SMEs show that 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). It should be noted however that there is a considerable difference in pricing models or SMEs, in particular for those with very low invoicing models – in some exceptional cases, the price per eInvoice can be up to 10 euros. 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, number of countries in which the businesses operate as specialised support is required in each Member State that has defined specific formats and requirements.

On the other hand, the SMEs survey revealed that even when they acquired the respective software/service, a company fully reaps the benefits of its investment when it is able to profit from the network effects and use electronic invoicing with all its business partners, which is far from being the case. In addition, companies pointed out that they would maximise their benefits, also in terms of simplification or streamlining of reporting obligations, if they were 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.

Mass adoption of eInvoicing would both allow lowering of fees for eInvoicing services, by creating competition between the numerous service and solutions providers in each Member State and maximising the benefits from using eInvoicing by default and for further applications.

As regards the operational objective of creating the conditions for the emergence of technical solutions for eInvoicing in public procurement, this was achieved 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 interoperable eInvoicing. 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) remains in certain Member States. Monitoring technical developments and adoption of eInvoicing at the EU level also poses challenges due to the heterogeneity of procedures and requirements across EU Member States and to the absence of a monitoring obligation for Member States.

Secondly, since its adoption, the Directive facilitated and gave an impetus to the use of Peppol

as a technical interoperable solution and network for eInvoicing between EU countries. Peppol is used in 23 Member States with common specifications, legal agreements, and a governance model.

Looking at the impact of the Directive on stakeholders, it appears that the different categories of stakeholders incurred different types of costs; national authorities, economic operators - amongst which service and solutions providers, SMEs or large corporations have been addressed separately. However, the reliability of the findings is contingent on the limited availability of data. The analysis of the efficiency of the Directive presented several limitations related to lack of 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. The evaluation thus relies primarily on stakeholder-reported data and data published on national authorities' portals.

Regarding the efficiency for public authorities the analysis of the costs and benefits shows a very varied situation from Member State to Member State. The benefits include operational efficiencies, improved transparency, and environmental benefits. Process 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 to receive and process eInvoices compliant with the European standard largely depend on the IT maturity level of the public sector: the higher the digital maturity, the lower the costs, as revealed by the targeted consultation of the national authorities. The costs specifically linked to the implementation of European standard vary depending on the existence of a national standard or technical specifications and the requirement to ensure interoperability with the European eInvoicing standard, but the highest costs are related to the establishment and maintenance of the national eInvoicing infrastructure.

To fulfil their obligations stemming from the Directive, some Member States had to create new systems, in certain cases national central systems, for eInvoicing in public procurement, ensuring that the implementation is fully covered at the central level. At the same time, they built their systems in order to support the European standard. Other Member States, those whose IT maturity level was higher, or they had a system for eInvoicing in place, had to modify their system/systems in order to make sure these were able to accept European standard-compliant electronic invoices. It happened either at the central level system or in the decentralised set-ups; all eInvoicing solutions for public procurement had to be adapted.

The costs for aligning with the European standard varied depending on whether a national standard already exists, as it needed to be adapted to comply with the European standard. Nine Member States incurred costs to ensure compliance of their existing national formats with the European standard, and three of them (Sweden, Finland, and Estonia) opted to completely replace their legacy formats with the European standard. The costs associated with ensuring national format compliance with the European standard vary per Member State, ranging from EUR 250 000 in Finland to approximately EUR 1.5 million in Poland and EUR 2.5 million in Italy (funded to a certain extent, in all cases, through CEF Telecom eInvoicing projects).

As mentioned above, the most significant costs are related to establishing and maintaining a national eInvoicing infrastructure, mainly involving software and hardware expenses, testing costs, training costs and administrative costs, which include: legal and solution analysis, publicity, user guides, support, security, audit, etc.

CEF funding, through the mechanism of grants managed by the EU, allowed Member States to cover their costs partially. Twenty-four Member States received a budget of 28.9 million for over 40 projects during the CEF telecom programme 2015-2020. These projects supported the creation of a central system or the adaptation to the European standard.

As regards the efficiency analysis for economic operators, 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: 97% of the SMEs surveyed have purchased eInvoice packages at fixed yearly costs, while 3% SMEs purchased eInvoice packages with fixed costs and variable fees depending on transaction volumes. For companies, the lower the number of invoices, the higher the costs.

Free-of-charge packages for SMEs with basic eInvoicing functionalities are available in most of the Member States analysed. Nine Member States provide a free central system for sending eInvoices directly to public bodies.

However, according to SMEUnited, which responded to the targeted consultation, there are difficulties for SMEs inherent to their size and a lack of expertise on the subject. Therefore, these stakeholders make a plea that the deployment of the eInvoicing obligation needs to be gradual to allow meeting the obligations in the best conditions. As eInvoicing is considered to be quite expensive for SMEs, they need time to adapt their accounting system.

Multinational corporations surveyed in the targeted stakeholder consultation underpinning the evaluation of the Directive reported significantly high set-up costs for establishing eInvoicing in different EU Member States for both B2G and B2B. These costs are correlated to the need to use different service providers to cover specific national requirements. Recurring costs vary considerably.

Quantitative benefits from automating the invoicing process are estimated at around EUR 5.28 per eInvoice issued and EUR 8.4 per eInvoice received, considering the cost of labour per hour at EUR 46<sup>26</sup>. 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<sup>27</sup>.

## **Coherence with other EU policies and EU added value**

To support the creation of the Digital Single Market for eInvoicing, the Directive needed to be coherent with all other EU policies, mainly those targeting digitisation. The coherence of the Directive has been evaluated on two main levels: internal and external coherence. Internal coherence examines how the different components of the EU intervention work together, while under external coherence, the analysis looks into how the Directive is aligned with a few EU policy initiatives, legislative and non-legislative: 2014 Public Procurement Directives<sup>28</sup>, Late

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<sup>26</sup> European Commission, Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, Ciciello, 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>

<sup>27</sup> <https://www.corrierecomunicazioni.it/digital-economy/polimi-da-fattura-elettronica-risparmi-per-3-miliardi/>

<sup>28</sup> 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

Payment Directive<sup>29</sup> and 2023 proposal for a Regulation repealing the current Late Payment Directive<sup>30</sup>, 2022 VAT in the Digital Age (ViDA) legislative proposals, European Interoperability Framework (EIF)<sup>31</sup>, Connecting Europe Facility (CEF) eInvoicing and eDelivery Building Block<sup>32</sup> and the Commission policy work on the global dimension of eInvoicing and the promotion of the EU model.

For the internal coherence, the Directive is coherent with the subsequent work on the European eInvoicing standard as all the requirements of the Directive have been satisfied. First, the Directive called for the creation of a European standard for the semantic data model of core elements in an electronic invoice and listed a list of mandatory elements to be included. Secondly, it required a limited number of syntaxes and only two syntaxes were identified by CEN and published in 2017 together with the standard. Additionally, non-binding guidelines for eInvoicing transmission were created together with the European standard to ensure further interoperability. These requirements have been successfully reflected in CEN deliverables, confirming the coherence between legislative objectives and standard development. Furthermore, consistency is also ensured with the standardisation work that CEN TC434 is undertaking as regards e-Receipt. 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 policies promoting the digitisation of public procurement and related activities. 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 Commission VAT in the Digital Age (ViDA) legislative proposals<sup>33</sup> as regards the role of eInvoicing. The proposal aims to modernise the EU VAT system, addressing challenges related to the platform economy and introducing a single VAT registration to avoid multiple registrations within the EU. Furthermore, it will implement a reporting system for VAT for EU cross-border transactions, which will be based on eInvoicing and on the European eInvoicing standard, while requiring Member States that want to put in place a VAT reporting system for domestic transactions to also base it on eInvoicing. As part of the proposal, eInvoicing is set to become the default invoicing method by January 2028.

The coherence between the Directive and ViDA is ensured with the current draft legislative proposals, which are, however, subject to evolution during the adoption process. The ViDA proposals are an opportunity to ensure alignment on the EU definition of electronic invoicing

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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

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

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

<sup>29</sup> 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.

<sup>30</sup> 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\(01\)](https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52023PC0533(01))

<sup>31</sup> <https://ec.europa.eu/isa2/eif/en/>

<sup>32</sup> <https://joinup.ec.europa.eu/collection/digital-building-blocks/solution/edelivery/about>

<sup>33</sup> 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. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2022%3A701%3AFIN>

in the VAT legislation and in the Directive. The ViDA's new definition of electronic invoicing is consistent with the one included in the Directive. This alignment ensures coherence across various EU policies and facilitates the smooth implementation of eInvoicing initiatives within the EU.

Furthermore, the Directive focuses specifically on B2G eInvoicing and aligns in its current main lines with the ViDA proposal, which targets B2B eInvoicing. Ultimately, the ViDA proposals complement the eInvoicing Directive, especially in ensuring harmonisation and interoperability in cross-border eInvoicing in B2G and B2B transactions, allowing the reduction of administrative burden, and fostering convergence towards the European eInvoicing standard, as also stressed in the 2023 Rolling Plan for ICT standardisation<sup>34</sup>.

The implementation of eInvoicing and the Directive is coherent with the provisions of the revised the Late Payment Directive and 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 European Interoperability Framework (EIF), the eInvoicing Directive effectively addresses interoperability at both the semantic and syntax layers, as the EIF foresees. It has not addressed, however, all four layers of interoperability, including transmission and governance, which would have further facilitated interoperability.

The eDelivery Building Block was developed in parallel and in a consistent manner with the eInvoicing Building Block package of services under CEF. 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, the current activities carried out by the Commission with its international partners are coherent with the Directive, both in the formal negotiations and during bilateral dialogues. The EU-model PINT (Peppol-based) has been adopted in several countries outside of the EU, including Australia, Japan, Malaysia, New Zealand, and Singapore. As regards U.S., 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.

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

As regards EU added value, there is a broad consensus among EU Member States that the Directive has improved the functioning of the Internal Market since its adoption in 2014.

From the perspective of national authorities, the main EU contribution consists in reducing barriers in cross-border public procurement, by limiting the emergence of various national eInvoicing standards. The Directive required public administrations throughout the European

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<sup>34</sup> [e-Invoicing \(RP2023\) | Joinup \(europa.eu\)](#)

Union to receive and process eInvoices issued under contracts subject to EU Public Procurement directives, provided they comply with the European e-invoicing standard. This Directive-induced action has not only prevented the fragmentation of the internal market but has also fostered EU-wide eInvoicing interoperability.

Beyond its immediate impact within the public procurement sphere, the Directive has played a pivotal role in promoting further harmonisation of eInvoicing solutions and set-ups in the B2B context. By establishing a common foundation for eInvoicing standards and practices within the EU, the Directive has encouraged developments in B2B, where the EU standard will be reused under the ViDA proposals. For this purpose, the European eInvoicing standard is due to evolve to cover all use cases and meet the needs of specific sectors. The CEN Technical Committee TC434 is responsible to make sure that the European standard will be fit for purpose by the end of 2024.

Finally, the Directive is considered to have generated international added value by promoting global interoperability. This is exemplified by the adoption of the Peppol Interoperability Framework outside the EU, including in countries such as Australia, Japan, Malaysia, New Zealand, and Singapore, further extending the positive impacts of the Directive.

## **CONCLUSIONS**

Under the Directive, significant achievements were made towards the removal of Internal Market barriers and obstacles to trade deriving from the existence of differing national eInvoicing rules and standards.

For this reason, the Directive's impact was assessed as positive considering its effects in terms of cross-border interoperability and uptake of eInvoicing in public procurement. The main expected impact of the Directive - interoperability - was improved, as eInvoices compliant with the European eInvoicing Standard need to be accepted by all public buyers. This, in turn, was led to its second expected effect, namely an increased uptake of eInvoicing.

The EU's intervention in eInvoicing for public procurement supported harmonisation and interoperability across technical requirements and standards, preventing further fragmentation within the Internal Market. Interoperability has been achieved at the semantic and syntax levels through the creation of a European eInvoicing Standard. However, the implementation of the Directive by the Member States showed that addressing interoperability at the transmission level is a critical element for full interoperability.

The increase of eInvoicing uptake in Europe was the expected second impact of the Directive. The availability of a European standard and obligation to accept compliant eInvoices on public authorities were expected to significantly increase the uptake of eInvoicing, depending however on business decisions. For public procurement, the findings showed that 100% eInvoicing adoption is (or is to be) achieved only in the Member States that mandated B2G eInvoicing to their suppliers or in digitally mature Member States. The uptake of eInvoicing in general has increased but it does not yet represent the majority of transactions.

Overall, the Directive on eInvoicing has provided significant value at EU level but challenges still exist. Further efforts to stimulate the uptake of eInvoicing within the EU, and to foster interoperability are therefore needed.