

EUROPEAN ELECTRONIC INVOICING (EEI)

FINAL REPORT

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PREFACE

The European Commission (EC) has set out to respond to the challenges of economic globalisation. In its “Broad Based Innovation Strategy”, launched in September 2006, the EC observed, “In this new economic order, Europe cannot compete unless it becomes more inventive, reacts better to consumer needs and preferences and innovates more.”

In recognising and reacting to this challenge two aspects emerge as the basis for improving European competitiveness in a global economy; these are efficiency and certainty. Making value chains more efficient reduces cost; improving the certainty of the environment in which they operate makes them more competitive. Therefore achieving value chain efficiency and certainty is a foundation for innovation.

Streamlining the flow of information in any value chain will reduce inefficiencies, improve certainty and reduce cost. As Europe moves to adopt the Single Euro Payments Area (SEPA)¹ it is logical that this is linked to the business processes that necessitate a vast majority of Business-to-Business and Business-to-Government payments. SEPA is expected to contribute significantly to the Lisbon Agenda, an effort to make Europe the most competitive and dynamic knowledge-based economy in the world by 2010. The EC has made the development of e-Invoicing an objective in both the 2002 and the 2005 eEurope Action Plans (eEurope 2005: An information society for all²). The eEurope Action Plans not only target procurement by electronic means, but also encourages small and medium size enterprises (SME's) to “Go Digital”.³

This report was prepared by a Task Force of industry experts. It outlines the creation of a common European Electronic Invoicing (EEI) Framework as the basis for industry to develop and implement products and services that allow their customers to send invoices and receive corresponding payments electronically.

¹ SEPA will be the area where citizens, companies and other economic actors will be able to make and receive payments in euro, within Europe, whether between or within national boundaries under the same basic conditions, rights and obligations, regardless of their location. Under the direction of the European Payments Council (EPC) SEPA will be implemented by 1st of January 2008.

² European Commission, COM(2002)263, *eEurope 2005: An information society for all*, http://ec.europa.eu/information_society/eeurope/2005/index_en.htm

³ European Commission, *SMEs Europe's future - eEurope SMEs GoDigital Conference Report*, http://ec.europa.eu/information_society/topics/ebusiness/godigital/docs/conference_report_smes.pdf

GLOSSARY

EEI	European Electronic Invoicing.
EEI Framework	The EEI Framework establishes a conceptual structure that supports the provision of the e-Invoicing services in an open and interoperable manner. The Framework combines artefacts to form a rulebook that serves to specify a minimum basis by which an EEI Service can be deemed to be compliant with the Framework. These artefacts include legal and best practice guidelines, business/operational rules, and standards.
Market Participant	Public or private sector adopter of an EEI service.
EEI Service	Commercial service based on, and compliant with, the EEI Framework.
Lisbon Agenda	An action and development plan for the European Union set out by the European Council in Lisbon in March 2000.
EDI	Electronic Data Interchange.
XML	eXtensible Mark-up Language.
CEN	European Committee for Standardisation.
SWIFT	Society for Worldwide Interbank Financial Telecommunications.
ISO	International Organisation for Standardisation.
UN/CEFACT	United Nations Centre for Trade Facilitation and Electronic Business.
SEPA	Single Euro Payments Area.
STP	Straight Through Processing is the ability for electronic business data to be processed automatically by computers without the need for manual intervention.

EXECUTIVE SUMMARY

European electronic invoicing (EEI) is set to be a fundamental enabler in contributing to European competitiveness. Realising electronic invoicing could significantly reduce supply chain costs by 243 billion EUR across Europe⁴, as well as helping to streamline business processes and help drive innovation.

At present EEI penetration and adoption in Europe is limited. Technical complexity, legal uncertainty and operational constraints hamper a common European approach. The impact on efficiency should not be underestimated. As Denmark has demonstrated the introduction of e-Invoicing in the Public Sector alone has saved an estimated 100-134 million EUR per annum. Without a common European Framework for EEI the risk is that the current fragmented, complex and costly situation concerning European e-Invoicing will continue.

A policy level cross-European activity on e-Invoicing is needed to help counter act current fragmentation, to tackle barriers to EEI and establish the basis for innovative market driven solutions. The formation of a EEI Steering Committee under the EC will do exactly that. In combining knowledge and expertise to harmonise approaches it should be possible to establish an umbrella EEI Framework. This Framework would set out a conceptual structure that supports the provision of the e-Invoicing services in an open and interoperable manner across Europe.

This report sets out the key barriers inhibiting the adoption of EEI. Only via the participation of policy makers and experts in the EEI Steering Committee, to be formed later this year, will these be successfully addressed.

⁴ The EACT (European Associations of Corporate Treasurers) project CAST (Corporate Action on Standards).

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1. SCOPE AND OBJECTIVES

The scope and objectives of a European Electronic Invoicing (EEI) Framework is to provide the basis to achieve interoperability of e-Invoicing solutions in the public and private sector. It will derive a basis for interoperability through common business rules and standards. Helping to strengthen the positive commercial incentives for electronic trade as a replacement to manual paper-based processes, the Framework will help to remove, or at the very least lower, current barriers to the establishment and take-up of intra-community (cross-border) e-Invoicing solutions.

VISION

The vision is to establish an EEI Framework within Europe that allows for the standardised exchange of e-Invoices by all Market Participants in a commercial supply chain, particularly those involved in purchase and supply. The Framework will facilitate the exchange of e-Invoices (e-Invoice is an electronic harmonised trade document, or instruction, that details the goods sent / services delivered or goods received / services obtained with a statement of the due and payable amount together with a statement of any Value Added Taxes⁵ applicable) in an open collaborative environment. This Framework will establish the basis for interoperability at both the business and technical level, in a competitive and innovative market, thus facilitating the widespread commercial adoption of EEI services across Europe.

Usage of the EEI Framework by Market Participants, or support for the EEI Framework by service providers, will be open and inclusive. Initially the Framework will deliver a description of the mechanism for the exchange of core (request for payment type) e-Invoices between Market Participants. This does not preclude the existence and inclusion of other common business processes (such as self-billing, consolidators etc.) but initially these are considered as value added services around the core EEI Framework. It is the vision that the EEI Framework will develop in complexity and functionality as the market develops, and over time as more complex services migrate to become part of the collaborative service offering.

OBJECTIVES

The following are the key objectives of the EEI Framework:

- Rationalise use of e-Invoices within and between countries in Europe between Market Participants
- Promote common policies and procedures for compliance with legislative and regulatory requirements for the creation, exchange, authentication and storage of e-Invoices between Market Participants across countries in Europe
- Enable a common basis for competition and innovation between infrastructures and or service providers providing competitive service offerings based on the EEI Framework
- Avoid costly commercial investments in proprietary e-Invoice solutions

⁵ Art. 217 cff. of COUNCIL DIRECTIVE 2006/112/EC detailing the requirements on creating invoices for value added tax

- Enable the electronic exchange and Straight-Through-Processing (STP) of e-Invoices by the Market Participants in the supply chain (buyers, suppliers, authorities, agents etc.)
- Support common business processes and modes of operation currently in use across Europe
- Enable interoperability between Market Participants and existing e-Invoicing solutions
- Provide a scalable solution that can advance as the market develops
- Enable European supply chains to remain an integrated and competitive part of the global economy.

SCOPE OF THE EEI INITIATIVE

It is important that the initial scope of the European e-Invoicing initiative focuses on those areas that will yield the maximum initial efficiency gains and cost savings. These are considered to be in the domain of Business-to-Business (B2B) and Government-to-Business/Business-to-Government (G2B/B2G), where the key aspects to be addressed are the:

- Transmission and receipt of e-Invoices and other related business data needed by the Market Participants to complete the buy/sell and financial settlement business processes
- Processes for authentication, integrity and validity under tax, excise and commercial law aspects of e-Invoices
- Requirements for archiving of e-Invoices as business documents⁶
- Requirements for integration of related business processes taking into account existing standards, in particular those related to European payment instruments (SEPA standards).

Although the initial focus is on the B2B market it is anticipated that intellectual cross-fertilisation and re-use of solutions will assist parallel developments in the Business to Consumer (B2C) and Government to Citizen (G2C) environments.

CONTEXT OF THE EEI INITIATIVE

The revised Lisbon Strategy for Growth and Jobs⁷ provides an all-encompassing economic reform agenda, and its micro-economic pillar focuses on creating a business-friendly environment. Within this target, the development of interoperable electronic e-Invoicing solutions is a vital component.

Consequently the European Commission (EC) has made the development of e-Invoicing an objective in both the 2002 and the 2005 eEurope Action Plans (eEurope 2005: An information society for all⁸). The eEurope Action Plans not only targets procurement by electronic means, but also encourages small and medium size enterprises (SME's) to "Go Digital".⁹ They include the development of interoperable eBusiness solutions.

⁶ CEN Workshop Agreement 15580 on the "Storage of Electronic Invoices"

⁷ http://ec.europa.eu/growthandjobs/index_en.htm

⁸ European Commission, COM(2002)263, *eEurope 2005: An information society for all*, http://ec.europa.eu/information_society/eeurope/2005/index_en.htm

⁹ European Commission, *SMEs Europe's future - eEurope SMEs GoDigital Conference Report*, http://ec.europa.eu/information_society/topics/ebusiness/godigital/docs/conference_report_smes.pdf

The i2010 strategy¹⁰, the Competitiveness and Innovation Framework Programme (CIP)¹¹, and the recent Action Plan for eProcurement¹² have subsequently supported these objectives.

The ICT Task-Force, an initiative under [the Commission's industrial policy](#), and complementing the Commission's [i2010](#) strategy, identified major obstacles to the ICT sector's competitiveness. In its recommendations, it requested to further facilitate the internal market by interoperable solutions for electronic e-business processes and e-Invoicing¹³.

In 2003 the European Council called for *"an integrated strategy to be developed by the Commission, reviewing on a regular basis both horizontal and sectorial issues"*.¹⁴ Subsequently, programmes have been developed based upon the CIP, which aims to reinvigorate the Lisbon Agenda through:

- Supporting regulatory and research actions to stimulate the emerging digital economy through procurement based on technical specifications developed in corporation with the Member States as outlined in articles 6(g) and 35.¹⁵

Most importantly the Commission will facilitate a CIP Pilot for eProcurement, covering e-Invoicing, e-Ordering, digital Signatures and electronic Company Dossiers. Within the CIP and under the ICT PSP call for 2007 the Commission intends to support one pilot action to enable EU-wide public eProcurement which will address the cross-border recognition of eSignatures, the virtual company dossier, eCatalogues, eOrdering and e-Invoicing.

e-Invoicing is also linked to the completion of the Single Market and to making the trading environment of market participants more efficient. In this respect the introduction of the single currency, the integration of financial markets, the streamlining of financial business processes and not least the near completion of a Single Payment Market are important aspects.

Prepared by a Task Force of industry experts, this Report outlines how the EC and Member States can best achieve a foundation for e-Invoicing and develop this into an evolving strategy for long term competitiveness of European value chains in a global marketplace.

¹⁰ i2010: http://europa.eu.int/information_society/eeurope/i2010/index_en.htm

¹¹ European Commission, COM(2005) 121 *Competitiveness and Innovation Framework Programme (CIP)*, http://ec.europa.eu/enterprise/enterprise_policy/cip/index_en.htm

¹² European Commission, COM(2005)229, *i2010 – A European Information Society for growth and employment*, http://ec.europa.eu/information_society/eeurope/i2010/docs/communications/com_229_i2010_310505_fv_en.doc

¹³ http://ec.europa.eu/enterprise/ict/policy/doc/icttf_report.pdf

¹⁴ Presidency conclusions of the Brussels European Council 20-21 March 2003, paragraph 21, 8410/03 of 5 May 2003

¹⁵ CIP: http://ec.europa.eu/enterprise/enterprise_policy/cip/index_en.htm

2. THE COMMERCIAL CASE FOR EEI

There is enormous value which is locked up in the financial supply chain of companies as well as public administrations. Often this is due to an apparent lack of availability of quality, timely and structured information, as well as inefficiencies resulting from disjointed and manual paper-based processes.

The generation of remittances and processing of invoices, including the reconciliation of related payments, is central to any value chain. Therefore, it is clear that making performance improvements will have benefits for a vast number of trading entities. Invoicing, as a process, is central to the cash flow and liquidity of any trading organisation, where even small improvements in efficiency can have tremendous commercial value. Examples of that value are improved working capital, reduced gearing and better liquidity.

The CAST¹⁶ project alone has identified that the average processing cost of a paper invoice across Europe to be in the region 30 EUR, and that by using e-Invoicing an 80% cost saving is possible. Conservative estimates published under this research indicate this amounts to 243 billion EUR across Europe in the business to business alone.

In particular the SME sector, which to a large extent still employs manual paper-based processes, will benefit from dematerialisation of the invoice. Linking these organisations electronically within their respective value chains would contribute enormously to individual efficiency improvements, and to that of European supply chains as a whole, which in turn will help drive the Lisbon Agenda.

- Indeed indicative figures and observations reported in France¹⁷ for 2001 related to the Business-to-Business area highlight the tremendous potential economic and organisational gains in the region of 40 billion EUR, from which little over 1 billion EUR was attributed to the 50 largest corporates, highlighting the importance of an SME focus.

As a further example the introduction of the e-Invoice in Denmark by the Danish Government saves an estimated 100-134 million EUR per annum in public sector procurement spend, and similar savings have been achieved by other regional public sector procurement projects.

The implementation of EEI services across Europe will assist in driving out inefficiencies in the handling and processing of 30 billion plus invoices across Europe per annum. Automating currently manual processes will offer commercial benefits to all Market Participants, not least in terms of streamlining the reconciliation associated with the 70 billion plus payments made across Europe per annum.

¹⁶ The EACT (European Associations of Corporate Treasurers) project CAST (Corporate Action on Standards).

¹⁷ Arthur D. Little for Deskom/Post@xess, June 2001 as translated from "Le Livre Blanc de la Facture Electronique", EBG (Electronic Business Group) - Deskom, September 2004.

3. BARRIERS TO EEI

The following three barriers have been identified. If they can be successfully addressed, their removal will be able to improve the foundation for the commercial adoption of EEI services.

BARRIER 1 - LEGAL

The current legislative environment¹⁸ offers a solid foundation for guaranteeing integrity and authenticity of an e-Invoice, upon which an EEI solution can be built. However, e-Invoicing lies at the crossroads of several areas of legislation – mainly VAT, accounting, payment, authentication, company transparency and data retention. This adds complexity to the implementation of any e-Invoicing solution for both the supplier and buyer, as well as for the vendor or the service provider.

As with any eBusiness legislation, e-Invoices suffer from the same legal and administrative barriers as many e-business activities in the European Union Member States, being:

- legal uncertainty
- non-compliance with requirements
- lack of confidence in the implementation of e-Business solutions

This is further complicated by differing practices implemented across Member States, such as levels of security implemented or methods used to ensure authenticity.

As a result, compliance for any e-Invoice solution, be it for tax or other legal purposes, is a complex issue, from both a legal as well as an Information Technology perspective. To make matters worse, there is currently no certification of e-Invoicing solutions in place, or indeed harmonised legal or administrative practices between Member States. This legal uncertainty must be resolved or adequately managed if e-Invoicing is to develop.

Promoting awareness of the issues and collating emerging tax practices will assist in the identification of best business practices. This will help establish confidence over the implementation of e-Invoicing, and other e-business solutions.

Initial steps have already been taken; several EU projects¹⁹ have recently looked into the national implementation of the relevant Directives and have identified obstacles and major

¹⁸ Council Directive 2001/115/EC of 20 December 2001 amending Directive 77/388/EEC with a view to simplifying, modernising and harmonising the conditions laid down for invoicing in respect of value added tax, *Official Journal L 015*, 17/01/2002 P. 0024 – 0028 (now integrated into Directive 2006/112/EC of 28 November 2006 on the common system of value added tax). Directive 1999/93/EC of the European Parliament and of the Council of 13 December 1999 on a Community Framework for Electronic Signatures, *Official Journal L 013*, 19/01/2000 P. 0012 – 0020 Commission Recommendation 1994/820/EC of 19 December 1994 relating to the legal aspects of electronic data interchange, *Official Journal L 338*, 28.12.1994, p. 98

¹⁹ ELDOC *Legal study and Administrative practices regarding the validity and mutual recognition of electronic documents*; as well as *Benchmarking of existing national legal e-business practices, from the point of view of enterprises (e-signature, e-invoicing and e-contracts)* from Ramboll Management, both available on <http://ec.europa.eu/enterprise/ict/policy/legal/index.htm>

issues from a legal perspective; in addition the CEN/ISSS workshop on electronic invoices²⁰, in response to a mandate of the EU Commission, is addressing the legal issues concerning the implementation of e-Invoices for VAT purposes in a technical context across national borders. National taxation administrations have also started within the Fiscalis program to facilitate cooperation in the field of VAT invoice auditing and compliance²¹. However this can be further hastened by implementing the following key recommendations.

RECOMMENDATIONS TO ADDRESS LEGAL BARRIERS

It is recommended that the following steps will assist in addressing legal uncertainty regarding the e-Invoice:

- Document legal issues in the context of the overall EEI Framework to;
 - provide an essential commercial context;
 - identify specific areas of concern and;
 - indicate possible solutions/recommendations.
- Develop the EEI Framework as a EC recommendation, promoting a harmonised way of establishing and operating e-Invoicing and wider e-Business solutions.

²⁰ <http://www.cen.eu/iss/einv>

²¹ Fiscalis Committee action plan 2006-2007, Project Group E-audit no2, activity "audit of e-invoicing"

BARRIER 2 – TRUST AND OPERATIONAL ISSUES

Improving operational acceptance of e-Invoices involves better managing, or reducing, the risk associated with the electronic exchange, automated processing and storage of these documents. Operationally, there are no significant issues for suppliers and buyers with the migration from paper based invoicing to e-Invoicing. However, the differences in applying operational controls and in managing commercial and tax law implications are adding significant complexity and cost to the process. These in turn hamper the commercial adoption of e-Invoicing despite the benefits of dematerialisation.

From the perspective of a buyer, an invoice is both a request for payment made by the supplier, and evidence of the right to claim a VAT deduction. The invoice is validated by the buyer before payment and the invoice data are registered for accounting purposes, and processed for VAT declaration. Businesses of all sizes employ a variety of internal business and financial control mechanisms to manage this process and to mitigate the risk of approving, paying and registering incorrect invoices. These controls need to be effective, realistic taking into account factors such as the monetary amounts and the level of trust between the buyer and the supplier.

Whether an invoice is sent in paper form or via electronic means has no bearing upon the level of trust between the trading partners involved. It is to be expected that business and financial controls will be applied for an e-Invoice, as they would for its paper equivalent. Thus, from an operational control point of view, there are no significant additional issues with e-Invoicing provided it remains within a well circumscribed environment.

At a practical level however, e-Invoicing, and the related automated processing of an invoice by the buyer, may lead to more stringent controls. Rejection of an invoice may be seen as an opportunity for the buyer to delay payment. As a result, the buyer may impose specific data requirements and more stringent parameters for the processing of an e-Invoice. These requirements will often differ between buyers, adding significant complexity for the supplier. This is further compounded by the fact that the buyer obtains savings from automation of the receipt, validation and processing of e-Invoices across a wide number of participants in their supply chain, whereas the supplier will have to invest in systems which can cater for this diversity between buyers. Therefore the standardisation of the data exchange can significantly facilitate e-Invoicing as described in this report under Barrier 3: Standardisation.

Complexity for suppliers may also increase when operating intra-community (cross-border). In particular legal requirements over and above (or alongside) ordinary business requirements can add both cost and complexity. Solutions for mitigating operational risk to the buyer are influenced, to a large extent, by the legislative and administrative rules that are applied by Member State fiscal authorities. If these rules differ between Member States, then the supplier may be confronted with conflicting, or at the very least, confusing demands from its international buyers. If these rules are further segregated between paper and e-Invoices then the supplier may be discouraged for adopting e-Invoicing.

According to the Council Directive 2001/115/EC, subject to the acceptance of electronic communication by the buyer, invoices can be sent by electronic means. Member States shall accept the “legal value” of e-Invoices between supplier and buyer provided that the authenticity of the origin and integrity of the contents are guaranteed, during transmission as well as storage, and can be verified by tax authorities as part of an (VAT) audit. In addition, the readability of the invoices must be guaranteed throughout the storage period.

Before Directive 2001/115/EC came into force electronic invoicing was possible in some Member States subject to prior approval by the local tax authority. The Directive removed this discretion from all Member States by specifying both the content and security requirements for a valid tax invoice and by declaring that “Member States may not impose on taxable persons supplying goods or services in their territory any other obligations or formalities relating to the transmission of invoices by electronic means”. This latter statement does not appear to apply to the commercial law requirements for invoice contents – only to the VAT requirements.

The key issue with the regulations on e-Invoicing however is that they do not adequately provide legal certainty for businesses; the implementation and application of the regulation, in practice, are not always clear in their operational implications; are not always available in foreign languages and, furthermore, they differ substantially across Europe.

So even if the Council Directive on invoicing has made e-Invoicing possible in all EU Member States, and has enabled corporations to achieve productivity gains, in practice one of the key aims of the Directive - to treat e-Invoices and paper invoices the same way and facilitate acceleration of e-Invoicing - has still not been fully realised.

RECOMMENDATIONS TO ADDRESS TRUST AND OPERATIONAL RISK BARRIERS

What technological measures are taken to verify authentication of origin and integrity of data throughout the life cycle of the e-Invoice, should be the responsibility of the trading partners. Choices will depend on the level of risk, trust levels, nature of the relationship, technological expertise and experience. However, it is likely that no “one size fits all”-method will exist or will be applicable over the long term. Despite this many of the operational processes around e-Invoicing are likely to remain stable.

The highest cost incurred in many e-Invoicing implementation projects stem from confusion and uncertainty with regards to legal obligations. Clarification of these legal obligations will be most beneficial, as would the resolution of inconsistencies between Member States with regards to the detailed legal requirements for e-Invoicing. Clear “good practices” should be documented which are applicable for e-Invoicing in the EU, both local and intra community. Including a detailed definition of possible operational processes and technical solutions that guarantee authenticity and integrity of the e-Invoice, in transmission as well as in storage, both when electronic signatures are used as well as when they are not.

Special attention should be given to the legal obligations that are stipulated in the tax regulations of the EU Member States. The “good practices” should meet operational

requirements of tax authorities. These in turn should articulate their requirements in an implementation-relevant manner. Such “good practices” should be reviewed by representative corporate buyers and suppliers and extensively disseminated in a range of European languages.

TRUST AND OPERATIONAL BARRIERS – NEXT STEPS

A number of expert groups are already focusing on e-Invoicing issues and are planning to deliver their recommendations within the next 12-24 months. These groups have a strong representation from fiscal auditors, public administrations, e-Invoicing service providers, software solution providers, payment service providers and corporate treasurers. Financial institutions are less represented in their role of providing authentication services for trade facilitation (such as e-Invoicing) or e-Government services. Moreover there is limited representation of corporate buyers and corporate suppliers, which are the ultimate users of e-Invoicing.

It is recommended to develop a set of “good practices” and provide a wide dissemination thereof. This could be delivered by the existing expert groups as long as they adequately co-ordinate their activities between one another, and as long as the engagement of other relevant stakeholder groups is ensured, notably corporate buyers and suppliers.

BARRIER 3 - STANDARDISATION

Standardisation of the e-Invoice is currently fragmented; there are many specifications in use both in Europe and indeed globally. This presents a significant barrier to the adoption of a harmonised EEI Framework and prevents the widespread commercial support of e-Invoice services. As large corporations, SMEs and the public sector drive towards business process automation the present proliferation of proprietary specifications must be addressed. Unfortunately none of the many specifications commonly used today are a perfect fit for the mass-market and neither do they integrate well with SEPA standards. Further standardisation work is therefore deemed necessary to decrease the need for costly integration and improve interoperability between existing European standards and solutions.

An international e-Invoice standard should be developed; building upon existing commonly used business practices, which will help consolidate the number of specifications in use, while establishing a solid well-respected semantic basis upon which the EEI Framework can be launched. This common standard will also establish a migration path for users to adopt the EEI standard and Framework as part of a managed migration strategy. A common international (ISO) EEI standard will also avoid the need for interim European standards, which will be costly to amend or replace in the longer term. Critically the derivation of an International e-Invoice standard must be as open and inclusive as possible, involving or consulting, a wide range of stakeholders. This exercise must also take into consideration that the e-Invoice is part of a wider procurement process, extending from catalogue to payment and including payment reconciliation.

It is proposed to establish a collaborative activity between the pre-eminent International standardisation bodies, being UN/CEFACT (Trade and Business Process Group (TBG) 1 “Supply Chain” and TBG5 “Finance”) and ISO (Technical Committee 68 “Financial Services”), for the development and delivery of an International EEI standard. This will be an open and transparent process working in partnership with the future EEI Steering Committee (see section 5) to achieve an international, rather than purely European, EEI standard solution. While time to market of any standard is critical, it is also vital that the standard forming the basis of the EEI Framework is International. This will increase market certainty in the solution, and respect the fact that European supply chains extend beyond European geographical boundaries. Experience suggests that a European standard will not readily gain the commercial support and acceptance that an International ISO/UN/CEFACT ratified standard will. In order to facilitate immediate progress towards this goal the next steps will be to agree the existing (or core) e-Invoice data requirements coming from existing standards, solutions and market experience. In order to expedite progress towards an ISO/UN/CEFACT ratified standard it is suggested to establish a collaborative relationship between the EEI Steering Committee and both TBG5 (for ISO20022 co-ordination) and TBG1 (for UN/CEFACT co-ordination). Resources from industry bodies, like SWIFT, will also be key in making effective progress. The following recommendations detail how this will be achieved.

RECOMMENDATIONS TO ADDRESS STANDARDISATION BARRIERS

It is recommended that the future EEI Steering Committee should consider undertaking the following steps in addressing standardisation barriers.

- It is recommended that the EEI Steering Committee take overall responsibility for establishing the EEI Framework. It may wish to seek the assistance of UN/CEFACT/TBG5 with regard to ISO20022 e-Invoice standard²² and/or other specialised bodies for the collation of existing well understood e-Invoicing data requirements²³.
- The EEI Steering Committee should openly disseminate the EEI business requirements once agreed. Requirements linking the invoice and the payment elements (SEPA) are particularly Important. In particular, these requirements should be communicated to CEN ISSS WS eINV²⁴ to ensure that the e-Procurement standards²⁵ align fully with the existing SEPA standards, thus ensuring interoperability.
- The EEI Steering Committee should publish a standards development timeline in order to identify deliverables, responsibilities and resources necessary to produce international standards supporting the EEI Framework. The timeline will convey the approach by which EEI compliant standards will be developed to support the EEI Framework under the direction of the EEI Steering Committee.
- The EEI Steering Committee should assess the need for specialist work under TBG5, supported by SWIFT Standards and in co-operation with CEN, to develop business models and data requirements that fulfil the EEI Framework. It is also recommended that the Steering Committee engage with other private and public sector bodies to help ensure wide enterprise, including SMEs, representation. The resulting business models and semantic components should be used as the basis for the development of EEI compliant international standards to fully address the barriers set out in this report.
- The EEI Steering Committee should encourage both UN/CEFACT (via TBG1) and ISO20022 (via TBG5 with the support of SWIFT) to adopt the EEI business models and to develop, or amend existing, technical solutions in their respective standards (ISO15000, or ISO20022). It is envisaged that this can happen rapidly, producing an international standard within 18 months from the date when the EEI Steering Committee agrees the business requirements for the EEI Framework. This will maximise interoperability with SEPA standards and allow the EEI Framework will be implemented on the basis of either ISO20022 or UN/CEFACT (ISO15000) XML message standards. As both standards will be interoperable this will maximise mass-market appeal by leveraging both the UN/CEFACT and ISO brands.
- Alignment between UN/CEFACT and ISO20022 with regards to EEI standards will be the responsibility of TBG1 and TBG5 respectively.

It is acknowledged that achieving consensus among the key stakeholders (UN/CEFACT TBG5, TBG1, ISO TC68, SWIFT, UBL NES, CEN, TWIST, FINVOICE, ACBI) will require compromise. But it is felt that this compromise will be acceptable on the basis that; it is

²² UN/CEFACT/TBG5 is leading a development project to establish e-Invoice standards under ISO20022. ISO approved the work in May 2007.

²³ Initial business requirements focus the financial elements related to e-Invoicing and will be tightly bound to the existing well-documented requirements.

²⁴ CEN appointed lead Workshop on e-Invoicing matters related to SEPA

²⁵ Being developed by CEN workshop "Business Interoperability interfaces for public procurement in Europe"

inclusive of both ISO and UN/CEFACT. It allows CEN to progress its work with UN/CEFACT; it provides a SEPA compliant ISO standard very rapidly to support the EEI Framework; and ultimately it provides for the EEI Framework being supported by compatible ISO20022 and UN/CEFACT standards for e-Invoicing.

4. CONCLUDING RECOMMENDATIONS

Regarding the establishment of the European e-Invoicing Framework, the key tactical recommendations are:

1. Proceed with the creation of the EEI Framework on the basis of this report's findings, in particular the apparent, positive commercial case for European e-Invoicing and willingness of key stakeholders to engage in the process
2. Address within a period of 18 months the current 'barriers' to e-Invoicing to reduce or eliminate their detrimental effect on market acceptance. In addition this effort needs to integrate with other significant market developments occurring in 2008 across Europe
3. Establish the EEI Framework rapidly. Key stakeholders are eager to use this framework as a basis for service their offerings within the 2008 timeframe, particularly to assist with the commercial leverage of the Single Euro Payments Area (SEPA)
4. Adopt a harmonised cross-industry approach to facilitate broad applicability of market solutions
5. Build critical mass through determined promotion coupled with appropriate incentives.

STRATEGIC RECOMMENDATIONS

Strategically there are longer-term issues to be progressed, and the broader role of addressing these should be given to a EEI Steering Committee. The scope of such a group would initially be two-fold: to oversee the process by which the tactical five steps are addressed; and to own the longer-term strategic vision. This would serve to establish a firm foundation upon which to base further developments while establishing a single co-ordination body, so essential when a high degree of market fragmentation exists.

The formation of such a group would be via the official European Commission processes, inviting experts in accordance with the EC preferred principles. However a number of other independent experts should also be invited to join to ensure both a smooth transition of intellect from the current informal Task Force, and that an adequate representation of the key stakeholders are involved.

Overall the EEI Steering Committee should be responsible for developing, and monitoring progress towards an agreed strategic road-map, and have the remit to assist in drafting appropriate regulatory incentives if necessary.

So in summary, the strategic recommendations are:

- Establish a EEI Steering Committee with responsibility for strategic policy development, initially focusing on managing the method by which the 'barriers' to e-Invoicing are addressed; later developing appropriate policy recommendations to support the European e-Invoicing Framework, in particular a strategic 'road-map'.
- Establish the EEI Steering Committee as the focal point for consolidating European business practice concerning e-Invoicing, and in future e-Procurement

- Vest in the EEI Steering Committee the powers and remit to recommend appropriate regulatory incentives
- Finally, ensure that the EEI Steering Committee markets the business case for e-Invoicing.

5. NEXT STEPS – FORMATION OF EEI STEERING COMMITTEE

The EC should proceed by setting up the EEI Steering Committee to manage the creation of a common conceptual framework to support the provision of EEI Services in an open and interoperable manner across Europe. This EEI Steering Committee should become operational no later than Q4 2007, with a suitable lifespan to adequately deal with the complex issues. It should document EEI business requirements, oversee the establishment of the EEI framework, support the provision of EEI services in Europe and coordinate related initiatives (both private and public sector). It is anticipated that the EEI Framework could be produced by 2009 and that the EEI Steering Committee should take responsibility for allocating specific tasks to third parties to adequately address the barriers identified in this report (Legal - Authenticity and Trust – Standardisation). The composition of the EEI Steering Committee should draw participants from key stakeholders groups, for example the public sector, enterprises (large and small), service providers and standards bodies. To ensure participation is as inclusive as possible it is recommended that three sub-groups focusing on Legal, Authenticity/Trust, and Standardisation support the Steering Committee. It should be considered to combine the workgroups on legal issues and trust. Membership of the sub-groups should be managed but not overly restricted, whereas membership of the Steering Committee should be suitably restricted to assist with focus and aid progress, while ensuring that the group does not become unwieldy. Each sub-group should be permitted to place an ex-officio representative on the Steering Committee to facilitate communication and provide for transparency. Additional seats on the Steering Committee may also be offered to expert representatives where deemed appropriate.

Finally, the existing Task Force should remain in place until the Steering Committee is established. This will serve several purposes including; maintaining co-ordination between the stakeholders; ensuring that momentum of the existing activity is not lost; and assisting with the transition of work to the EEI Steering Committee.

APPENDIX 1: FULL REPORT ON LEGAL ISSUES

Invoices have a pivotal role in the VAT system for European Member States, not least as they form the basis of VAT deduction by the receiver of an invoice. Furthermore, through a more systematic introduction of e-Invoicing, tax administrators may be able to implement new tools and procedures to carry out alternative controls that are less burdensome for businesses.

The regulatory environment, which on the European level directly relates to these issues, is mainly built upon:

1. Council Directive 2001/115/EC of 20 December 2001 amending Directive 77/388/EEC with a view to simplifying, modernising and harmonising the conditions laid down for invoicing in respect of value added tax, Official Journal L 015, 17/01/2002 P. 0024 – 0028 (now integrated into Directive 2006/112/EC of 28 November 2006 on the common system of value added tax)
2. Directive 1999/93/EC of the European Parliament and of the Council of 13 December 1999 on a Community Framework for Electronic Signatures, Official Journal L 013, 19/01/2000 P. 0012 – 0020
3. Commission Recommendation 1994/820/EC of 19 December 1994 relating to the legal aspects of electronic data interchange, Official Journal L 338, 28.12.1994, p. 98.

ISSUES REPORTED

Several reviews have been undertaken since the adoption of Council Directive 2001/115. Only the most recent ones are briefly reported.

a. Summary of recent studies done by the Commission

DG Enterprise & Industry has commissioned two studies dealing with different aspects of e-business, including the European legal framework for e-Invoicing:

Study on legal validity and mutual recognition of electronic documents

This legal study clarifies the present situation concerning the national legal and administrative practices in the above mentioned field. It describes and analyses national and legal administrative practices regarding electronic documents in 32 countries.

The main conclusions of this study as to e-Invoicing are:

- The technologically neutral approach taken by both the e-Invoicing Directive and the e-Signatures Directive has caused some legal obstacles for the use of e-Invoicing. This can be explained as follows: the traditional regulatory frameworks applicable to common business documents (including invoices) are drafted from a purely functional perspective: which are the formal requirements to be met in order to ensure that the functions of the document can be met? For invoices, many European countries (including Belgium, Estonia, Finland, Poland, and various others) had concluded in a paper-based context that no signature was required.
- However, when converting this function to an electronic context, this purely functional approach takes on a smaller significance, and the attention shifts to the

added value that electronic processes can offer when compared to the paper based procedures. This occasionally (as was e.g. the case in Belgium and Poland) results in a desire to ensure a maximum amount of security, thus maximising this added value, while much more restricted guarantees were deemed acceptable in a paper environment. In short, the regulation of traditional processes was often functionality-oriented, whereas their modernised versions attempt to maximise utility. As a result, complications may occur, where an unsigned paper document must be replaced by an electronic document signed with a qualified signature, often perceived as the only “full” equivalent of the traditional signature, as the only technology that can guarantee legal validity.

- Given this penchant for overkill in signature requirements for electronic invoices, it should come as little surprise that EDI-based solutions tend to dominate in the market, since it is more flexible from a legal point of view.
- From a cross-border perspective, it should be noted that the necessity of an invoice being legally valid in both the sender's and the recipient's countries means that the strictest legal regime will determine the requirements to be met²⁶. Thus, a European e-Invoicing service provider under these conditions would be confronted with the arduous task of offering a solution that meets the most rigid European requirements (at least when the solution relies on electronic signatures), as any other solution would risk being invalid in stricter countries.
- Furthermore, the Directive allows the Member States to impose additional requirements for invoices from a country with which no legal instrument regarding mutual assistance exists, both with regard to the invoice itself and to its storage in third countries. This requirement has been implemented e.g. in France and in Luxembourg, thus further complicating the picture.

Storage

In order to ensure the proper functioning of the internal market, the e-Invoicing Directive specifies that the place of storage of electronic invoices can be chosen by the issuer, provided that they remain available to the tax authorities without undue delay.

Furthermore, Member States may request a prior notification to the national tax authorities if invoices are stored outside of their national borders, and they may demand that invoices are locally stored (i.e. within the taxable person's country) if the electronic storage does not guarantee full on-line access to the data concerned. Finally, the fixation of the period and terms of storage can also be set freely by the national law makers. The national reports show that this has resulted in quite a diverse picture with regard to the storage of electronic invoices. All countries permit storage outside of their national borders to some extent, but subject to noticeably different conditions. Some countries allow an almost complete freedom with regard to the storage location (e.g. Estonia), while others are quite strict. For example, Germany allows storage only in the EU Member States. Cyprus' law states that storage is allowed everywhere, but only after notification to the fiscal authorities. France on the other hand only allows storage outside its national

²⁶ However this approach needs to be looked at from a taxation point of view as most on the intra-community invoices are zero rated and do not need to be used for VAT return.

borders in countries that have signed mutual assistance agreements. Storage terms too can vary quite extensively, from 3 (e.g. France) to 10 years (e.g. Germany). Finally, in the candidate countries, an inadequate legal framework for e-Invoicing was occasionally reported (e.g. in Romania and Turkey), although this can be expected to be remedied as the *acquis communautaire* is transposed into national law.

Signature holder

One additional problem which has occasionally been mentioned is that national e-Invoicing legislation allows the use of electronic signatures, but that the national e-Signature legislation only accords legal value to electronic signatures held by natural persons. This creates an inconvenient interim step, where the recipient cannot receive an invoice signed directly by an enterprise (or rather: where the electronic signature of an enterprise has a dubious legal value), so that the recipient would strictly speaking be required to verify whether the signature was placed by a natural person, and whether this natural person would be authorised to represent the issuing enterprise in this regard. While this issue has not lead to substantial difficulties in practice – no report has indicated any dispute regarding this matter – it is nonetheless an inconvenience that could be clarified with relative ease.

Summary

While extensive actions are being undertaken on a national level to promote the use of electronic invoices, the question can be raised if the legal framework for electronic invoices has been sufficiently harmonised. Specifically with regard to the use of electronic signatures as a means to ensure the validity and integrity of the document, national requirements can differ quite widely, essentially making the strictest national standards the legal norm for European service providers. For this reason, EDI solutions seem to offer the greater appeal in the marketplace, and this situation is unlikely to change in the short term.

Study on benchmarking of the national administrative and legal practices in the fields of e-signatures, e-invoicing as well as contract conclusion and implementation

This benchmarking project presents the most appropriate national legal and administrative practices from the point of view of enterprises in the 25 Member States. The results of these ongoing activities are available on their web page²⁷.

Main conclusions as to e-invoicing:

- Directive 2001/115/EC has been implemented by all 25 Member States. Various types of legislation have been used by the Member States but the majority have implemented the Directive by amendments to their existing value added tax (VAT) legislation or by issuing new secondary legislation (regulations/administrative orders) authorised by the national VAT legislation. A few Member States have, however, implemented the Directive in several different laws.
- The implementation by Member States through national legislation has, to some extent, not been consistent with the Directive, and the Commission has started

²⁷ <http://ec.europa.eu/enterprise/ict/policy/legal/index.htm>

infraction proceedings against several Member States. This primarily concerns the contents of the VAT invoice.

- Another point of interest in relation to the implementation of the Directive is the fact that a national system of electronic invoicing was already in place in the Netherlands prior to the implementation of the Directive. The requirement of a prior authorisation, which was laid down in a national regulation of 1997, had already been abolished in the Netherlands.
- The Directive affects all enterprises engaging in cross-border [intra-EU] transactions. The harmonisation of VAT rules across the EU will make trading with other Member States much easier from a legal and practical perspective. Enterprises will no longer need to deal with outdated VAT invoice rules, and cross-border [intra-EU] exchange of electronic invoices will provide them with significantly more flexibility than previously. Using an electronic system will save time, reduce costs and improve the speed of payment across the EU Member States. Also, if an enterprise chooses an e-invoicing service provider that utilises encryption and digital signatures to protect the transmission and storage of all e-Invoice data, its e-Invoices will automatically comply with the strictest security regulations²⁸.
- The Directive allows the Member States to use varying degrees of security for electronic invoices. Ranging from just guaranteeing the integrity of the invoice (Sweden, Finland) to requirements of qualified electronic signatures (e.g. Germany, Slovakia, Spain). This means that cross-border use of electronic invoices might be hindered by different requirements for security in the Member States. This would, of course, be especially true for cross-border use of electronic signatures going from a Member State with a low security level to a Member State with a high security level. However, also the different underlying technologies for electronic signatures may cause a hindrance for cross-border use of electronic invoices. Indeed, the establishment of any national common standard may in some cases limit the use of electronic invoicing in cross-border trade as a consequence of the different standards and technical solutions in the Member States.
- The problem of the likelihood of an acceptance of electronic signature seems to be a very genuine problem in relation to cross-border use of electronic invoices, as it seems reasonable to assume that foreign consumers or SMEs will be (even more) hesitant to accept a cross-border electronic invoice than a regular national electronic invoice.

DG Taxud also asked DG Markt to do a survey using the European Business Test Panel (EBTP) to look at VAT obligations and some questions were put to businesses including a couple of questions on invoicing and e-Invoicing. Unfortunately few replies were received

²⁸ This is qualified by the perception that national jurisdictions only accept advanced electronic signatures which they themselves approve. This has led to the situation where, in multi national E-invoicing implementations, invoices carry one advanced electronic signature acceptable in the jurisdiction of the invoice issuer and another advanced electronic signature acceptable in the jurisdiction of the invoice receiver.

but the results do give a feel for businesses' thinking on e-Invoicing and what the take-up is²⁹.

b. Results from CEN/ISSS workshop on electronic invoices

To implement the goals of the VAT-Directive, the European Commission in 2003 requested CEN/ISSS to prepare an overview on standardisation issues relating to electronic invoicing. CEN/ISSS set up an open “e-invoicing Focus Group” and a “CEN workshop on electronic invoices”.

Following these two mandates from the European Commission CEN issued a report analysing requirements on standardisation issues relating to electronic invoicing resulting from the new VAT legal framework in 2003 and, in 2006, issued a series of CEN Workshop Agreements on electronic invoices³⁰.

The CWA's issued are as follows:

- Commission Recommendation 1994/820/EC October 1994, proposed revision with the requirements of Directive 2001/115/EC, present day e-Commerce practices and revised definition of EDI Electronic Data Interchange
- The list of invoice content details expressed as UN/CEFACT Core Components
- Recommendation to allow coded identifiers as an alternative to the current unstructured clear text identifications
- A standardised set of codes with definitions to replace plain text clauses in eInvoice messages
- Survey of VAT Data Element usage in the Member States and the use of codes for VAT Exemptions
- eInvoices and digital signatures
- Storage of Electronic Invoices
- Guidelines for e-Invoicing service providers
- eInvoice Reference Model for EU VAT purposes specification.

The CEN/ISSS workshop has started a Phase II with 50 participants and national tax authorities to draft best practices to help industry to reach compliant e-Invoice processes. Taking into account that the invoice is a central part of all B2B and B2G business activities, the CEN/ISSS open workshop will support the necessary interoperability of applications and services for electronic invoices across Europe and across different application scenarios.

Therefore the general objective of the proposed Phase II of the workshop is to stimulate further standardization work in the domain of electronic invoices in Europe, with a view to supporting:

- the compliance of electronic invoice implementations to Council Directive 2001/115/EC and the national legislation as regards electronic invoices;

²⁹ http://ec.europa.eu/yourvoice/ebtp/latestnews/files/vat_report_en.pdf
³⁰ www.cen.eu/iss/einv

- the effective implementation of compliant electronic invoice systems in using emerging technologies and business processes, in business-to-business as well as in business-to-government scenarios; and
- the emerging network infrastructure of invoice operators throughout Europe.

c. FISCALIS

The EU Commission supports the FISCALIS program, which offers national tax authorities the opportunity to discuss and cooperate on common topics. Since 2005, one of the identified areas has been the question of electronic invoices.

At the October meeting of the e-audit steering group members approved the setting up of 5 task teams. One of which is designated “AUDITING OF ELECTRONIC INVOICING”. The team consists of Denmark, Finland, France, Hungary, Netherlands, Portugal, and United Kingdom.

The adoption of the Invoicing Directive (Directive 2001/115/EC) was a key and tangible manifestation of the Commission’s VAT strategy adopted in 2001. The Directive brought together all four pillars of the strategy. “Modernisation, harmonisation, more uniform application of VAT rules and increased administrative co-operation”. The directive itself created a harmonised legal framework for VAT invoicing³¹ and was transposed into the national law of the “old” Member States before the 1st January 2004 and the “new” Member States that acceded on that date by 1st May 2004.

Although a major step was taken with the implementation there is still fragmentation. Member States implemented the directive differently. For the FISCALIS E-Audit Group the significant aspects are the issue (and storage) of electronic invoices. Some Member States followed the directive strictly. Other Member States took the opportunity of asking for a more secure advanced electronic signature [A Qualified Electronic Signature] – based on a qualified certificate and/or created by a secure signature creation device; or, in case of EDI, a (paper) summary document. Some member states took the opportunity to allow the so called other [third] method to be used.

The SCAC meeting of December of 2005 and the Fiscalis Committee (written procedure 22, May 2006) approved the activity “auditing of electronic invoicing”. The outcome of the discussion in Budapest was that Member States and businesses would both derive most benefit from the establishment of a FISCALIS activity “auditing of electronic invoicing” which would focus on the following tasks:

1. Audit process facilitation
2. Audit facilitation
3. Practical Compliance
4. Provision of examples of good co-operation.

³¹ Examples are the obligatory minimum contents, allowing electronic invoicing and self billing in all member states, requirements for the storage of invoices)

d. Proposed report on invoicing

In the VAT Directive (Article 237 of Council Directive 2001/115/EC) is a requirement for the Commission to "present at the latest on 31 December 2008, a report and, if appropriate, a proposal amending the conditions applicable to electronic invoicing in order to take account of future technological developments in that field".

It is generally understood that the report will go beyond the requirement to look only at future technological developments. Indeed the report will look at the whole of the invoicing rules, as introduced by the Invoicing Directive, to assess the effectiveness of the legislation.

Preparatory work has begun in 2007 on scoping the tasks that a contractor should undertake. It would be hoped that the contract could be awarded in early 2008 and for the work to start immediately afterwards.

It is worth noting that any proposal from the Commission on legislative changes as a result of the report could not be seen as a short term solution to solving the slow take up of e-invoicing. It is hard to imagine any legislative change being in place before 2011. Moreover, it should be remembered that for legislation to be adopted in the area of VAT requires unanimity from the Member States.

APPENDIX 2: FULL REPORT ON TRUST AND OPERATIONAL ISSUES

Improving operational acceptance of e-Invoices involves better managing, or reducing, the risk associated with the electronic exchange, automated processing and storage of these documents. Operationally, there are no significant issues for suppliers and buyers with the migration from paper based invoicing to e-Invoicing. However, the differences in applying operational controls and in managing commercial and tax law implications are adding significant complexity and cost to the process. These in turn hamper the commercial adoption of e-Invoicing despite the benefits of dematerialisation.

From the perspective of a buyer, an invoice is both a request for payment made by the supplier, and evidence of the right to claim a VAT deduction. The invoice is validated by the buyer before payment and the invoice data are registered for accounting purposes, and processed for VAT declaration. Businesses of all sizes employ a variety of internal business and financial control mechanisms to manage this process and to mitigate the risk of approving, paying and registering incorrect invoices. These controls need to be effective, realistic taking into account factors such as the monetary amounts and the level of trust between the buyer and the supplier.

Whether an invoice is sent in paper form or via electronic means has no bearing upon the level of trust between the trading partners involved. It is to be expected that business and financial controls will be applied for an e-Invoice, as they would for its paper equivalent. Thus, from an operational control point of view, there are no significant additional issues with e-Invoicing provided it remains within a well circumscribed environment.

At a practical level however, e-Invoicing, and the related automated processing of an invoice by the buyer, may lead to more stringent controls. Rejection of an invoice may be seen as an opportunity for the buyer to delay payment. As a result, the buyer may impose specific data requirements and more stringent parameters for the processing of an e-Invoice. These requirements will often differ between buyers, adding significant complexity for the supplier. This is further compounded by the fact that the buyer obtains savings from automation of the receipt, validation and processing of e-Invoices across a wide number of participants in their supply chain, whereas the supplier will have to invest in systems which can cater for this diversity between buyers. Therefore the standardisation of the data exchange can significantly facilitate e-Invoicing as described in this report under Barrier 3: Standardisation.

Complexity for suppliers may also increase when operating intra-community (cross-border). In particular legal requirements over and above (or alongside) ordinary business requirements can add both cost and complexity. Solutions for mitigating operational risk to the buyer are influenced, to a large extent, by the legislative and administrative rules that are applied by Member State fiscal authorities. If these rules differ between Member States, then the supplier may be confronted with conflicting, or at the very least, confusing demands from its international buyers. If these rules are further segregated between paper and e-Invoices then the supplier may be discouraged for adopting e-Invoicing.

According to the Council Directive 2001/115/EC, subject to the acceptance of electronic communication by the buyer, invoices can be sent by electronic means. Member States shall accept the “legal value” of e-Invoices between supplier and buyer provided that the authenticity of the origin and integrity of the contents are guaranteed, during transmission as well as storage, and can be verified by tax authorities as part of an (VAT) audit. In addition, the readability of the invoices, must be guaranteed throughout the storage period.

When validating the authenticity of the origin of a paper invoice (but not its content) the buyer may only rely on the letterhead on the invoice coupled with the knowledge that an invoice is expected from that source. According to Article 2 of the Council Directive 2001/115/EC, “Member States shall not require invoices to be signed”. It does not stipulate further how national tax authorities can obtain assurance of legitimacy of paper invoices. Since the publication of the Directive, this point has been clarified: Member States may not ask for “signatures” in the traditional sense (handwritten or electronic signatures that express the signatory’s intent to be bound by the signed document), but in some cases an electronic “seal” (a digital signature or “seal” used merely to enhance authenticity and integrity) is required.

Before Directive 2001/115/EC came into force electronic invoicing was possible in some Member States subject to prior approval by the local tax authority. The Directive removed this discretion from all Member States by specifying both the content and security requirements for a valid tax invoice and by declaring that “Member States may not impose on taxable persons supplying goods or services in their territory any other obligations or formalities relating to the transmission of invoices by electronic means”. This latter statement does not appear to apply to the commercial law requirements for invoice contents – only to the VAT requirements.

The goal of the tax authorities is to obtain sufficient assurance to make a judgment on whether a transaction that has been recorded by the firm is valid, i.e. whether the invoice represents a genuine supply of goods or services by the supplier to the buyer. Several Member States already expressed these goals into more detailed legal/technical requirements/regulations. The objectives of the tax authorities are in general consistent with the interests of the buyer (and by and large also the supplier).

The key issue with the regulations on e-Invoicing however is that they do not adequately provide legal certainty for businesses; the implementation and application of the regulations, in practice, are not always clear in their operational implications; are not always available in foreign languages and; furthermore, they differ substantially across Europe.

So even if the Council Directive on invoicing has made e-Invoicing possible in all EU Member States, and has enabled corporations to achieve productivity gains, in practice one of the key aims of the Directive - to treat e-Invoices and paper invoices the same way and facilitate acceleration of e-Invoicing - has still not been fully realised.

AUTHENTICITY OF ORIGIN, INTEGRITY OF CONTENT AND READABILITY

Directive 2001/115/EC requires companies to structure their e-invoicing process in a manner that enables themselves and the tax authorities to know for the lifetime of the invoice:

- who created the invoice (guarantee of authenticity), and
- that the invoice has not been changed since it was created (guarantee of integrity)

According to the same Directive, the authenticity of the origin and integrity of e-Invoices can be guaranteed either by:

1. advanced electronic signatures with or without a qualified certificate;
2. use of electronic data interchange (EDI);
3. or other means acceptable to the relevant Member State's fiscal authorities.

Taking each of these in turn there are clearly issues to be addressed.

1. Electronic Signatures

Of the three options the electronic signature may be the easiest to implement. Given that it provides assurance that the invoice has not been manipulated after the electronic signature was applied.

The electronic signature provides an effective means of guaranteeing authenticity and integrity of the e-Invoice during its life. The early adopter implementation projects have proven that it is possible to implement, at an acceptable cost (at least for the large corporate), a technical solution for domestic e-Invoicing in Europe using electronic signatures.

Yet the complexity and hence cost of e-signature implementations are negatively affected by the following:

- There is no mutual recognition of Certification Authorities (CAs, or CSPs - Certification-Service-Providers - in EU terminology). The CSP is just one among a number of components of e-signatures that would benefit from greater acceptance in the Internal Market. The Commission continues to work in these areas, but breakthroughs in the short or medium-term are not anticipated.
- Transparency is lacking concerning the grounds for acceptability of an e-signature from other EU countries (provided that at least an advanced level signature is applied). The result being that in some countries corporates implement so-called double signatures – one for the sender's and one for the buyer's own country.
- Some countries (e.g. Germany, Italy, Poland, Portugal, Spain, Hungary) require qualified signatures based on certificates issued to natural persons. For e-Invoicing purposes it should be sufficient to use certificates issued to legal persons to create the electronic signature. The latter is the case for instance in Denmark (and outside the EU in Switzerland) where it appears to work well. Views differ as to whether personal identities for employees of firms should be incorporated as a basic requirement for authentication solutions. Such personal identities add to the specificity of authentication but may also enhance the complexity of implementing and maintaining authentication solutions. Differences in approach between firms

can further lead to additional complexity and create logical barriers within and across company perimeters. The specificity of authentication with personal identities however may not be of high importance for e-Invoicing.

- Requirements that some Member States have in place that require (for example via VAT) an additional signature and/or timestamp to be applied before storage. Time-stamping is a method to provide traceability of the invoice. The additional signature and/or timestamp however creates substantial barriers, and for some seems technically unnecessary.

2. Electronic Data Interchange (EDI)

Although EDI has been used for the electronic exchange of invoices throughout Europe for more than twenty years, there remains uncertainty whether the EDI option satisfies the requirement for authentication of origin. In particular, for smaller companies in the EU, the EDI option is unclear in its description, interpretation and consequences. In a number of Member States the local authorities have stipulated – as described in the Directive – “...that an additional summary document on paper is necessary.” The need to provide paper documentation in parallel to e-Invoicing reduces efficiency gains and virtually rules out the EDI option as viable in these Member States.

3. Other Means

The third option – “by other electronic means” is also subject to implementation variances among Member States (such as, security measures, content checks, audit trails, summary statements and other country-specific requirements). The result is uncertainty as to what will be judged by the tax authorities as effective and documented controls for safeguarding authenticity and integrity. No matter how effective EDI or electronic signatures are in terms of guaranteeing integrity and authenticity from a technical perspective, neither guarantees that the content (price, VAT amount, goods and or services charged for, supplier details etc) of the e-Invoice received is correct. Even when e-Invoices are received from suppliers with a digital signature, there is no guarantee that the content of the message is correct or that the document matches the book entry in the supplier’s accounting ledger. As mentioned before, appropriate invoice approval processes (either automatic or manual) must be in place for the processing of paper invoices and e-Invoices, irrespective of whether or not these invoices are delivered via EDI or accompanied with an electronic signature.

Tax authorities in the United Kingdom, the Netherlands and Denmark are of the view that the use of e-Invoicing does not increase the risk of VAT fraud, irrespective of whether or not stringent rules for authentication of electronic invoices are applied. In other Member States however, the use of advanced electronic signatures and also qualified certificates are mandated.

STORAGE OF DIGITAL MEDIA

Directive 2001/115/EC stipulates that the readability of the invoices must be guaranteed throughout the storage period. A document is considered “readable” if all components of the corresponding record, the original content plus metadata and electronic signature (if

there is one) may be retrieved and viewed on a screen or printed on paper in such a way as to be understood by a person.

Storage of digital media and its continued readability – for the periods of time required by VAT legislation across the EU – presents some special challenges for both corporates and tax authorities to which there are no easy solutions. For example, at about the same time (1999) that the EC was drafting Directive 2001/115/EC, Jeff Rothenberg, Senior Researcher, RAND Corporation, published a paper entitled “Ensuring the Longevity of Digital Information” in which he noted that whilst digital storage media had a *practical, physical, lifespan* of between 2 and 59 years, the *average* time until the media became *obsolete* was 5 years. He noted “Reading current digital documents in the future will not be easy.”

Different Member States specify different storage periods for invoices but the average is around ten years. In most situations however the business need to refer to invoices reduces significantly after they have been paid and the company’s accounts for that fiscal year have been audited. Therefore in order to comply with the ‘readability’ requirement, the company will almost certainly have to arrange to have a copy of the software that was used to create the document stored with the document itself. Where very long periods of storage are likely it is probable that a copy of the operating system will be needed as well. Similar complications arise for prolonged readability of the possible digital signatures that are stored with the e-Invoice given the need to prove that the signature was verified at the time of their original application.

APPENDIX 3: STAKEHOLDER GROUPS

ACBI Interbank Corporate Banking Association - Association created by ABI (Italian Banker's Association) and representing an ABI satellite agency. The ACBI's purpose is to define and maintain payment initiation standards and models of communication between companies and banks. In particular, ACBI owns the governance of the CBI Service, which is a system created to facilitate the corporate management of electronic multibanking connections.

CEN - CEN is one of the three recognised European Standardisation Organisations. The field of action of CEN is very broad, virtually all domains except the electro-technical sector (CENELEC) and electronic communications (ETSI). CEN's ICT activities (CEN/ISSS) are mainly in the field of applications, and the standards documents are usually by informal open Workshops publishing CEN Workshop Agreements (CWAs). eBusiness is a specialty, and CEN/ISSS Workshop eBES is the European Entry Point to the UN/CEFACT eBusiness and EDI standards process.

CEN/ISSS e-Invoicing Workshop - DG Enterprise has issued a mandate (request for actions) concerning standardisation in the domain of electronic invoices in the European Union, with the view to supporting the effective implementation of the related Council Directive 2001/115/EC. CEN has set up the eInvoicing Workshop to carry out the work. This Workshop has already produced a first set of. A phase 2 of the Workshop (started in May 2007) is extending the work. This Workshop has been given the overall lead responsibility for CEN's response to the currently proposed work, but other groups may be involved also, depending on the context.

CEN/ISSS Business Interoperability Interfaces on public procurement in Europe Workshop - This Workshop started in May 2007. The aim is to identify business requirements related to pan-European electronic transactions in public procurement expressed as a set of technical specifications developed taking due account of current and emerging UN/CEFACT standards in order to ensure global interoperability. Invoicing is one issue in these requirements.

Euro Bankers Association - A discussion forum for payments practitioners, the Euro Banking Association plays a major role in the financial industry as a developer of European payment infrastructures. The initiation and development of cost-effective and efficient euro clearing systems are core activities of the association and have led to the creation of Europe's leading private large-value clearing system EURO1, the low-value payment system STEP1 and the first PE-ACH (pan-European automated clearing house) STEP2.

FPG E-Audit Steering Group - The adoption council directive 2001/115/EC created a harmonised legal framework for VAT invoicing. However uncertainty remains between businesses tax auditors how to deal with different e-invoicing solutions. The FISCALIS activity was established to address the need for further harmonisation and to share and publish good practice experience.

Finvoice - Finvoice is an electronic invoice for electronic/online presentment by the invoice issuer to the receiver. Finnish banks originally design it as invoice in machine-readable form (XML) enclosed in an electronic envelope to replace the traditional paper invoice. Finvoice can be sent to recipient through banks' online invoice transmission service or by using invoice processor. It is a solution suitable for invoicing between businesses of any size, also for invoicing to consumer customers. In June 2007 there are about 70 000 corporates using Finvoice. Finvoice format is also used in solutions for invoice financing, order financing piloted in VAT declarations.

SWIFT Standards - Offers a range of SWIFT Standards products, tools and services to support the financial industry. SWIFT is committed to the collaboration of efforts and interoperability of standards.

TWIST - TWIST specifies open standards that enable market participants and their service providers to obtain and deliver business value.

UBL/NES - Northern European Subset (NES) was formed in January 2006 with the objective to facilitate the establishment of a common platform for eCommerce in national and cross border trade. Currently, the initiative comprises government representation from six countries: Norway, Sweden, Finland, Great Britain, Iceland and Denmark. NES has as its first task produced a subset of UBL 2.0.

United Nations' Centre for Trade Facilitation and Electronic Business (UN/CEFACT)

- UN/CEFACT, a United Nations body, has a global remit. It encourages close collaboration between governments and private business to secure the interoperability for the exchange of information between the public and private sector. It has developed:

- The UN Layout Key for Trade Documents
- UN/EDIFACT, the international standard for electronic data interchange
- Core Components technology, UML methodologies and related XML standards
- Numerous trade facilitation recommendations

UN/CEFACT Forum International Trade & Business Processes Working Group 1 Supply Chain (TBG1)

- The purpose of the TBG1 is to develop and maintain Business Process Models, the Business Transaction Models, the semantics and the contents in a syntax neutral way that they fulfil the requirements of the Trade and Industry communities within the framework of the UN/CEFACT Forum Supply Chain and e-Procurement. The supply chain and e-procurement covers the Purchasing, Invoicing, Material Management and Product development areas.

UN/CEFACT Forum International Trade & Business Procedures Working Group 5 Finance (TBG5)

- TBG5 is positioned as the co-ordination point between pure Financial Services standardisation, which takes place under ISO Technical Committee 68, and that of the wider trade domains represented under UN/CEFACT. The key objective in this respect is to offer interoperability, and indeed in the longer term convergence, between

standards and solutions offered by either of these bodies. This objective is reflected in a formal Memorandum of Understanding between ISO/TC68 and TBG5, to which SWIFT is also co-signatory.

APPENDIX 4: EEI RELATED EUROPEAN COMMISSION TIMESCALE AND PROJECTS

The timescale outlined in the table below illustrates key activities related to the establishment of the EEI Framework and integration with European payments leading up to 2010.

2006-2008	SEPA Implementation and deployment
Dec 2006 DG MARKT/H3 and ENTR/D4	Establishment of the Informal Task Force on e-Invoicing The Task Force has been created with the aim to establish the terms of reference for the work on a European e-Invoicing Framework, defined the potential governance structure and roadmap for an e-Invoicing programme.
Dec 2006 – June 2007	Meetings of the Informal Task Force on e-Invoicing (2006: 19 Dec; 2007: 5 Feb, 5 March, 23 April, 31 May, 25 June)
30 April 2007	Interim Report of the Informal Task Force on e-Invoicing issued
May 2007 – May 2009	CEN/ISSS Workshop on eInvoicing Phase 2
May 2007 – Nov 2008	CEN/ISSS Workshop on Business Interoperability Interfaces for public procurement in Europe
July 2007	Final Report of the Informal Task Force on e-Invoicing
Planned (2007-2009) DG MARKT/H3 and ENTR/D4	Steering Committee for the creation of a EEI Framework Responsible for: 1) Contributing to the removal of legal barriers (EC regulator) 2) Establishing and documenting business requirements and addressing commercial barriers 3) Establishing input for single, interoperable data standard for e-Invoicing
Planned 2007 – 2009 (ISO, UN/CEFACT TBG1 & TBG5, CEN, SWIFT, UBL/NES..)	Work on the creation of a single, interoperable data standard for e-Invoicing Under the umbrella of both International and European standards bodies with support from other entities

Forthcoming June 2007 – Dec 2008 TAXUD/D1	Legal study on functioning of the Invoicing Directive (2001/115/EC)³²
2007-2008 DIGIT/DG MARKT	IDABC study on e-invoicing requirements (for public sector, enterprises and service providers)
2008-2010	SEPA Co-existence and gradual adoption
Forthcoming –2008 TAXUD/D1	EC Report on the Invoicing Directive (2001/115/EC)³³ and potential proposals for amendments
2008 - 2009 DIGIT/DG MARKT	IDABC pilot project in the European Commission based on e-invoicing requirements
2008-2010 DG INFSO	Large-scale CIP pilots on e-procurement, including e-invoicing (Consortium: min. 6 Member States participation)

STATUS OF THE DIFFERENT ONGOING OR PLANNED ACTIVITIES IN THE COMMISSION ADJACENT TO THE WORK OF THE TASK FORCE

The initiatives in the field of tax legislation pursued by the Commission (DG TAXUD) consist of three parts:

- The FISCALIS initiative on e-audit, including auditing of e-Invoices. The MS responsible in the group are Denmark, Finland, France, Hungary, Netherlands, Portugal, and United Kingdom. The aim is to create a best practice reference guide for Member States' tax authorities on e-Auditing.
- DG TAXUD will carry out a study on e-Invoicing legislation in order to prepare a report of the Commission for a potential revision of Directive 2001/115. The study should cover four areas, storage of invoices, e-Invoicing, content of e-Invoices and legal requirements. The implementation should proceed in three phases (gathering of information on the rules applicable in the 27 MS, analysis of those rules and recommendations). The study should be completed for mid 2008.
- DG TAXUD review of Directive 2001/115. If a proposal, based on above study, to amend the Directive was considered necessary, this would take place in 2009, with a view to an adoption by Member States not before 2011/2012.

The joined initiatives by the Commission concerning the application of e-Invoicing (DG's MARKT, DIGIT and INFSO) consist of three parts:

³² Now incorporated in the VAT Directive (2006/112/EC)

³³ Now incorporated in the VAT Directive (2006/112/EC)

- IDABC study on e-Invoicing business requirements (for public sector, enterprises and service providers). This phase would start in 2007 under and is to be finalised in 2008.
- During the second phase of this IDABC project from 2008 – 2009 a pilot application for e-Invoicing should be developed. The main deliverable of this phase is a global implementation plan and pilot based on the business requirements identified in the previous phase. This would be the first application based on common specifications (both business and technical) to be used by the European Commission with its suppliers.
- CIP large-scale pilot project on e-procurement, including e-Invoicing funded by the Competitiveness and Innovation Program. A call for proposals to Member States (consortium: minimum 6 Member States participation) has been launched in May and concerns four domains (e-Catalogue, eID, Electronic Company Dossier and e-Ordering/e-Invoicing). During 2008 - 2010 Member States should accelerate common specifications of key elements for cross border use of public e-Procurement and launch implementation pilots.