Tender XXI/98/CB-5010

Final report

23 August 1999

Study on the requirements imposed by the Member States, for the purpose of charging taxes, for invoices produced by electronic or other means

by

PRICEWATERHOUSECOOPERS

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Introduction

The invoice is probably the most important document in commercial trade. It is prepared in line with commercial practices and certain requirements imposed by the tax authorities. It fulfils many functions (e.g. confirmation of a previously concluded oral agreement, confirmation of a debt, an invitation to pay, evidence between traders, protection of customer).

Practically the only place where the obligation to issue an invoice and a listing of the statements to be mentioned on the invoice can be found is in VAT law. Therefore, we believe a simplification and a harmonisation of the invoice requirements can best be achieved by a simplification and a harmonisation of the VAT requirements for invoices.

Businesses today have to be familiar with the details and practical implementation of the legislation of fifteen Member States in order to be able to operate in the European Union. With the Single Market and the common system of VAT as ultimate goals, a simplification and a harmonisation of the national VAT legislation on invoice requirements is necessary. This will not be easy since the invoice plays an important role in other non-harmonised areas of law (direct tax law, commercial law, accounting law and consumer law). For this harmonised and simplified legislation to have any effect, it is important that no additional requirements for invoices are inserted in national legislation by other areas of law concerning invoices, thus de facto undoing the simplification and the harmonisation. It makes no sense to remove barriers in one area whilst leaving others untouched or even creating new barriers. Therefore, we believe harmonisation on a European level of other areas of law concerning invoices is necessary (or for areas where this is not possible, at least a recommendation at a European level for harmonisation to be carried out at a national level would be needed).

For all invoices, we examine the requirements laid down in Member States' VAT legislation with a view to identifying the minimum common elements that can be considered essential for the security of Member States' tax administrations. The report subsequently indicates the measures that can be taken to simplify and harmonise the invoicing procedure and consequently relieve obligations on traders.

For electronic invoices we propose details of a common European Union invoicing and record-keeping specification that will meet the legitimate concerns of Member States' tax authorities. Therefore, we investigate and evaluated the criteria applicable in those Member States that currently allow electronic invoicing. We explain how new technologies can provide even more security and offer even more information than is currently obtained from invoices and records in conventional "paper" commerce, and in a form that is easier to utilise (e.g. invoicing databases) and less expensive for businesses to produce and store.

The proposed system attempts to simplify and harmonise the invoicing procedure, by removing certain obligations or replacing them by other measures that are more compatible with standard business or accounting practices. The possibilities offered by new technologies are closely investigated. We believe legislation should not hamper the adoption of these new and continuously changing technologies. We therefore propose legislation that is 'technology neutral', allowing the use of all technologies provided that they comply with the security demands of the Member States' tax authorities.

To satisfy their customers' concerns, businesses using new technologies will impose high standards of security on themselves. Taking into account this automatic self-regulation by the business world, we believe regulations should be kept to a strict minimum. We investigate whether Member States' tax authorities have additional requirements on top of the security standards automatically implemented by the business world. These additional requirements should definitely be outlined in harmonised European legislation. We believe a description of the high-level requirements in the law will provide certainty for businesses and will even encourage the adoption of new technologies.

As a result, this report suggests a coherent regulatory framework for invoicing in the European Union. We believe clear legislation will encourage the widespread use of new technologies. We believe companies engaged in cross-border trade and using new technologies should, concerning VAT related issues, operate under the law of the Member State where they are established ("home country control", even in case of multiple VAT registrations).

Methodology

PricewaterhouseCoopers had the honour to win the invitation to tender XXI/98/CB-5010 with respect to the requirements imposed by the Member States, for the purpose of charging taxes, for invoices produced by electronic or other means.

On 8 January 1999, a kick-off meeting was organised in Brussels between the European Commission and PricewaterhouseCoopers. On this meeting we sought final approval on the proposed methodology, refined our common understanding of the scope and confirmed the final objectives of the study and the project plan.

On the basis of the feedback given to us on the kick-off meeting we finalised our proposal and project plan which resulted in the drawing up of the "Agreed Project Scope and Methodology". This document was sent to the European Commission on 16 February 1999.

The first phase of the study primarily consisted of the gathering and analysis of data. In this regard a questionnaire was sent to the PricewaterhouseCoopers offices of the EU Member States. This questionnaire was structured in such a way that it would collect a maximum of appropriate and relevant information and draw our attention to all possible issues and enable us to investigate the possible solutions. The questionnaire was sent to three Member States (i.e. Finland, Germany and the UK) for 'test-driving' and sent to the European Commission on 16 February 1999 for approval. Afterwards the questionnaire was sent to the remaining Member States.

On 5 March 1999, an informal follow-up meeting was organised in Brussels between the European Commission and PricewaterhouseCoopers. During this meeting, the Commission confirmed its agreement with the "Agreed Project Scope and Methodology" and the content and the focus of the questionnaire was discussed.

The deliverable of the first phase was the Interim Report with our findings and first comments. The Draft Interim Report was sent to the European Commission on 23 March 1999, and was be presented to the Commission on 13 April 1999. On this occasion the Commission provided us with their comments on the Draft Interim Report, which have been incorporated in the Interim Report. The European Commission accepted the Interim Report by means of its letter dated 27 May 1999.

The Interim Report included an overview of all requirements regarding invoices, and specifically electronic invoices, currently imposed by the EU Member States and an identification of the minimum common elements required.

For the second phase of the study, the Think-Tank was the major driving force. As a team of specialists, they brought an open eye in the study and added value by bringing their specific concerns and expertise in the picture. To collect their input, the Think-Tank held a meeting on 10 May 1999.

For the continuation of the study, PricewaterhouseCoopers also built on previous studies in the area of (electronic) invoicing performed by or for the European Commission, as there were the TEDIS report and the EAN study on EDI invoicing.

During the course of the whole project we kept in close contact with our colleagues of the PricewaterhouseCoopers offices in the different Member States to benefit from their expertise and experience in certain domains of invoicing.

The draft final report was sent to the European Commission on 23 June 1999, and presented to the Commission on 1 July 1999. During this meeting the European Commission informed us of its observations and suggestions for the final report.

This final report has taken into account all the Commission's suggestions and was sent to the European Commission on August 23, 1999.

For all the comments or suggestions you might have, please do not hesitate to contact Ine Lejeune (+ 32 9 268 83 00 or ine.lejeune@be.pwcglobal.com), Serge Mary (+ 32 2 710 44 94 or serge.mary@be.pwcglobal.com) or Jean-Marc Cambien (+ 32 2 710 43 33 or jean-marc.cambien@be.pwcglobal.com).

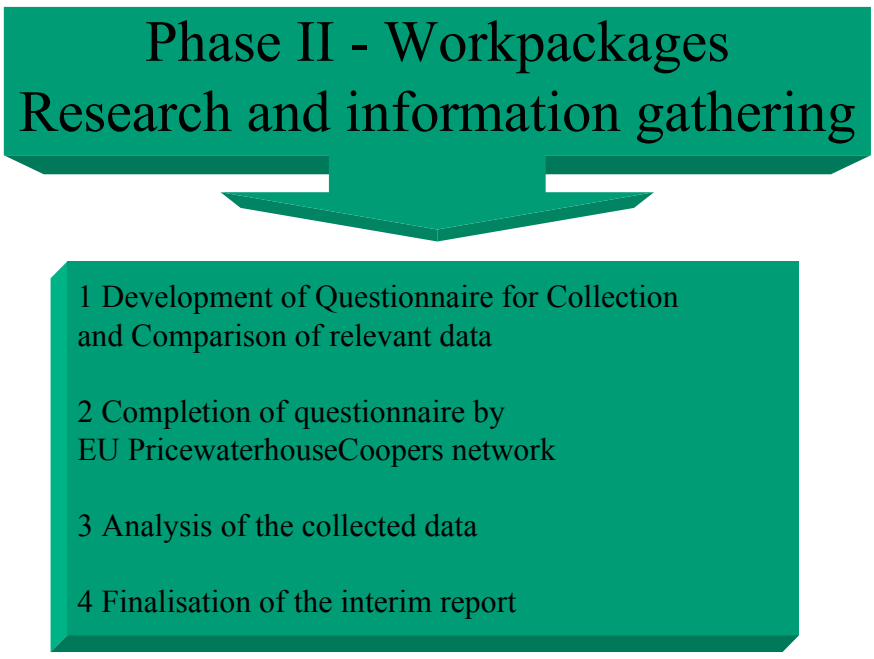
Description of the work carried out

Please find below a description of the work carried out during the different phases, subdivided into workpackages.

2.1 Phase I : Visioning

During the preliminary phase, we focused on the preparation of the kick-off meeting with the Commission. During this kick-off meeting we discussed the methodology and on the basis of the feedback given to us by the Commission on our approach, understandings and goals, we finalised our proposal and project plan and came thus to a common understanding between PricewaterhouseCoopers and the European Commission on the scope, approach and final goals of the study.

2.2 Phase II: Research and information gathering



This research phase mainly focused on the gathering of data concerning the rules applicable to all invoices and record-keeping, with special attention for electronic invoices in all fifteen Member States. The outcome was included in the Interim Report. Below, you will find a description of the workpackages, out of which this phase was made up.

2.2.1 Workpackage 1 -- Development of a questionnaire for collection and comparison of relevant data

The objective of this workpackage was to create a questionnaire in which all invoicing requirements (both regarding traditional and electronic invoicing), as well as for instance the rationale behind them or the corresponding effective administrative or business practice, can be assessed and compared.

2.2.2 Workpackage 2 -- Completion of the questionnaire by the PricewaterhouseCoopers offices in the different Member States

The goal of this workpackage was to have a clear overview of all actual data required in connection with invoices (traditional as well as electronic invoicing). The Belgian team first completed its own questionnaire, which served as the basis for all other Member States. We have then chosen three Member States (i.e. Finland, Germany and the UK) to which the questionnaire was sent for 'test-driving'. After determining that the questionnaire suited our needs, it was send to all Member States. We received the answers from all Member States and thus had an overview of all data actually imposed and any relevant pending legislative initiatives taken by the Member States.

2.2.3 Workpackage 3 -- Analysis of collected data

The goal was to obtain an overview of the existing requirements (and possible planned legislation changes) regarding all invoices as imposed in all Member States. We structured the information in table format. The minimum common elements demanded by the fifteen tax authorities were identified and formed the basis of the study. As a result, we now obtained all actual requirements (and possible planned legislation changes) imposed by the fifteen Member States concerning both traditional and electronic invoicing, self-billing and storage requirements.

2.2.4 Workpackage 4 -- Finalisation of the Interim Report

This phase led to a clear overview of all requirements with regard to invoices actually imposed by the EU Member States and an identification of the minimum common elements. All the data received was integrated in the Draft Interim Report. The comments of the European Commission were integrated in the Interim Report.

2.3 Phase III: Final report with specifications and recommendations for a "common EU invoicing and record-keeping system"

During this phase, we focused on the development of specifications for an invoicing and record-keeping system that will meet the needs of both European Business and Administration in the 21st Century.

2.3.1 Workpackage 5 -- Analysis of current developments

We have obtained an overview of the relevant pending legislative initiatives taken by the Member States.

2.3.2 Workpackage 6 -- Project of common system

We have identified and described a common EU invoicing and record-keeping system, taking into account as far as possible the established commercial accounting and electronic data interchange requirements and the legitimate concerns of tax authorities.

2.3.3 Workpackage 7 -- Draft final Report

All our findings from the previous stages are inserted in this Draft Final Report and we have described our recommendations for a common EU invoicing system. The Draft Final Report was presented in a meeting with the Commission and the Commission's input and remarks are taken into account.

2.3.4 Workpackage 8 -- Finalisation of the Final Report

On the basis of the feedback from the meeting where the Draft Final Report was presented, we have adapted the Draft Final Report to the needs of the European Commission.

VAT requirements for invoices

1. Findings from the questionnaire

We refer to annex 1. This annex includes the data collected with regard to the current VAT requirements for invoices for all 15 Member States and the analysis of these data.

2. Introduction

2.1 General

With respect to the VAT requirements for invoices, two goals must be achieved:

- Simplification, harmonisation and reduction of the burden on traders;
- Maintaining of protection of the security needed by the Member States' tax authorities[1].

2.1.1 Simplification, harmonisation and reduction of the burden on traders

With the reality of the increased international nature of business, a non-simplified and non-harmonised system of invoice requirements constitutes a burden on traders.

Currently, article 22(3)(a) of the Sixth Directive[2] provides for a minimum number of elements to be mentioned on invoices. However, article 22(3)(c) of the Sixth Directive provides that the Member States have the authority to lay down the criteria that shall determine whether a document may be considered an invoice.

The current legislation of the Member States concerning the statements to be mentioned on invoices has not been harmonised and is, for some Member States, quite complex. In this regard, we refer to our findings in annex 1 with respect to the common minimum information to be mentioned on the invoice (questions 31 to 46 and 53 of the reduced questionnaire).

Businesses operating at a European level are obliged to comply with the different local VAT legislations with respect to the requirements for invoices in the various Member States. They encounter difficulties in doing so.

[1] See also guideline 6 'facilitating tax administration' of "E-commerce and indirect taxation", Communication by the Commission to the Council of Ministers, the European Parliament and to the Economic and Social Committee (COM 98/374).

[2] Sixth Council Directive 77/388/EEC of 17 May 1977 on the harmonisation of the laws of the Member States relating to turnover taxes – Common system of value added tax: uniform basis of assessment. Hereafter "Sixth Directive".

2.1.2 Protection of the control facility needed by the tax authorities

The VAT requirements for invoices must enable a simple, efficient and effective control and enforcement of the tax.

For VAT purposes, an invoice has a double function for the tax authorities.

- On the one hand it should ensure that the taxable person liable for any VAT due charges the right amount of VAT.
- On the other hand VAT can in principle only be deducted pursuant to article 18(1)(a) of the Sixth Directive if the taxable person (the purchaser) holds a valid invoice.

An invoice has a key control function for the payment and deduction of the right VAT amount. A simplification and harmonisation of the VAT requirements for invoices must be done in a way as to enable the VAT authorities to continue to perform this control efficiently. Consequently, the security needed by the tax authorities should be guaranteed also for the harmonised and simplified invoicing requirements.

2.2 Simplification and harmonisation at a European level

In order to ensure that the two aforementioned goals are achieved, it is clear that simplification and harmonisation must be achieved at a European level, with respect to both the obligation to issue an invoice and the statements to be mentioned on the invoice.

2.2.1 Obligation to issue an invoice

As mentioned in our findings in annex 1, taxable persons who only perform supplies of goods or services for which these taxable persons have no right of deduction are nevertheless obliged to issue invoices in a small majority of the Member States.

The obligation to issue an invoice should be simplified and harmonised at a European level to the extent that taxable persons who only perform supplies of goods or services for which they have no right of deduction should be permitted not to issue invoices to their customers.

This has a double perspective. (1) On the one hand, it will decrease the administrative burden on those taxable persons. (2) On the other hand, in view of the fact that no VAT is charged on their outgoing transactions and consequently the customer will not effect any VAT deduction, the trail of the invoice is not essential for simple, efficient and effective control and enforcement of the tax.

Furthermore, taxable persons are obliged, in some Member States and for some operations, to issue invoices to private persons and to non-taxable persons, though their customers will not have a right to deduct any VAT.

In order to achieve simplification and harmonisation at a European level, the obligation to issue an invoice should not include the supplies of goods (except for intra-Community supplies) and services by taxable persons to private persons and non-taxable persons.

Again, this has a double perspective. (1) It will decrease the administrative burden with regard to the outgoing transactions of the taxable persons and the incoming transactions of the non-taxable persons. (2) In view of the fact that the VAT due on the supplies and services will be levied based on the bookkeeping of the taxable supplier, and that this VAT is not deductible for the non-taxable customer, the existence of the invoice is not essential for simple, efficient and effective control and enforcement of the VAT.

2.2.2 Statements on the invoice

We refer to our findings in annex 1 which clearly show that, at a European level, it is easy to determine a number of minimum common elements to be mentioned on invoices.

In view of the fact that invoices should be kept simple and the legislation with respect to the statements on the invoices should be clear, we advise to impose a precise number of requirements on invoices, that we see as essential for the security of the tax authorities.

On the basis of our findings in annex 1 we have determined a strictly limited number of elements that have to be mentioned on the invoice in all Member States ("minimum requirements"). In the future regime, these minimum requirements should be mentioned on invoices, as essential information relating to the control and enforcement function of the invoice as well as to the right to deduct the tax.

Currently, most Member States require additional statements on the invoice, i.e. on top of these minimum requirements. We shall investigate these additional requirements, taking into account (1) their essential or added value for the tax authorities and (2) their additional burden on businesses. As a conclusion, we shall make a recommendation on which of these additional requirements we believe should be compulsory on the invoice.

3. Common elements for invoices

We were able to list the statements on the invoice that are currently compulsory in at least one Member State. We shall closely evaluate each of these and on the basis of the necessity of each invoice requirement, the compulsory elements will be determined.

3.1 List of invoice requirements

We will evaluate the following list of statements on the invoice:

- Date of issue
- Sequential numbering
- Identity of supplier
- Identity of customer
- Date of supply of goods or completion of service
- Description of goods or services
- Taxable amount per rate
- VAT amount
- VAT rate

3.2 Description of requirements and their necessity

3.2.1 Date of issue

In most Member States there are special requirements with respect to the latest date by which the invoice must be issued. These requirements differ from one Member State to another. Mentioning the date of issue on the invoice permits a control on whether these regulations are followed. These regulations in se are not essential to the VAT system.

However, in most EU Member States, the requirement to mention the date of issue on an invoice is an additional control factor for the date on which the VAT becomes chargeable. Article 10 of the Sixth Directive allows Member States to provide that the tax becomes chargeable, for certain transactions or for certain categories of taxable persons, no later than the date of issue of the invoice or of the document serving as invoice. Therefore, we recommend that the date of issue should be mentioned on the invoice.

When application is made of electronic invoicing, the information technology system will automatically generate and store the date of issue when sending the invoice. Mentioning the date of issue on the electronic invoice will thus not constitute an additional burden on businesses. When the formerly electronic invoice is printed (e.g. on request of the tax authorities), the date of issue should be mentioned thereon.

3.2.2 Sequential numbering

In most EU Member States, the number under which the invoice is recorded in the records for invoices issued must be stated on the invoice. However, this numbering does not always require to be sequential, although the relevant documents must be kept and filed in a systematic manner.

Numbering invoices sequentially is also common in business practice and facilitates internal control (completeness checks).

Sequential numbering also provides security for tax authorities and makes it easier for them to conduct audits. Therefore, we recommend that a sequential number should be stated on the invoice.

When electronic invoicing is used, the information technology system will automatically generate sequential numbers when sending the invoice. Mentioning the sequential number on the invoice will thus not constitute an additional burden on businesses. When the formerly electronic invoice is printed (e.g. on request of the tax authorities), the sequential number should be mentioned thereon.

3.2.3 Identity of supplier

The full identity of a supplier being a legal body is its legal name, registered address and VAT identification number. The full identity of a supplier being a non-legal body is its full name, address and VAT identification number.

It is common business practice to state the full identity of the supplier on invoices.

This information also provides a control facility for tax authorities and makes it easier for them to conduct audits.

If only the VAT identification number would be used to identify the supplier, it should be possible for the tax authorities to obtain the other identification data such as the name and address of the supplier. Therefore, we recommend that only the VAT identification number should be compulsory on the invoice[3].

The requirement to state the full identity of the supplier on the invoice becomes superfluous in the case of electronic invoicing to the extent that the full identity of the supplier should be automatically covered by the information technology system as it becomes part of the 'envelope'[4] or the 'digital certificate'[5], which should also include

[3] In Germany, traders have a VAT number attributed which is normally attributed at the level of the Länder. Such a VAT number does not mention the prefix DE. Only in case the traders have an intra-Community activity an EU VAT number (with a prefix DE) is attributed. If only the VAT identification number is mentioned on the invoice as a full identification of the supplier, it is always the EU VAT identification number that has to be used by the trader in case he has to dispose of such a number. If he does not have to dispose of an EU VAT identification number, the VAT number attributed by the Länder can be mentioned on the invoice. In any case, this problem can easily be solved by attributing an EU VAT identification number (with the ISO code) to all taxable persons performing taxed activities.

[4] See point 3.3.7 of annex 5.

[5] The Commission's proposal of 13 May 1998 for a European Parliament and Council Directive on a common framework for electronic signatures (COM (1998) 297 final) defines a 'qualified certificate' as a digital attestation which links a signature verification device to a person, confirms the identity of that person and contains the following elements:

(a) the identifier of the certification service provider issuing it;
(b) the unmistakable name of the holder or an unmistakable pseudonym which shall be identified as such;

the VAT identification number[6]. When the formerly electronic invoice is printed (e.g. on request of the tax authorities), the VAT identification number of the supplier should be mentioned thereon.

Furthermore, we recommend the use of a database containing VAT identification numbers and the data already available in the VIES system. That database should be made accessible on-line for both customers and suppliers to check the existence of their trade partner.

3.2.4 Identity of customer

The full identity of a customer being a legal body is its legal name, registered address and VAT identification number (if any). The full identity of customer being a non-legal body is its full name, address and VAT identification number (if any).

It is common business practice to state the identity of the customer on invoices.

This information also provides security for tax authorities and makes it easier for them to conduct audits.

However, if only the VAT identification number would be used to identify the customer, it should also be possible to obtain the other identification data such as the name and the address of the customer[7]. In case the customer does not dispose of a VAT identification number, the invoice will have to state the name and address in order to identify the customer.

(c) a specific attribute of the holder such as, the address, the authority to act on behalf of a company, the credit-worthiness, VAT or other tax registration numbers, the existence of payment guarantees or specific permits or licences;
(d) a signature verification device (i.e. unique data, such as codes or public cryptographic keys, or a uniquely configured physical device which is used in verifying the electronic signature) which corresponds to a signature creation device (i.e. unique data, such as codes or private cryptographic keys, or a uniquely configured physical device which is used by the signatory in creating an electronic signature) under the control of the holder;
(e) beginning and end of the operational period of the certificate;
(f) the unique identity code of the certificate;
(g) the electronic signature of the certification service provider issuing it;
(h) limitations on the scope of use of the certificate, if applicable; and
(i) limitations on the certification service provider's liability and on the value of transactions for which the certificate is valid, if applicable.

[6] The Commission's proposal of 13 May 1998 for a European Parliament and Council Directive on a common framework for electronic signatures (COM (1998) 297 final) foresees to include the VAT identification number as a specific attribute of the holder of the certificate.

[7] In Germany, traders have a VAT number attributed which is normally attributed at the level of the Länder. Such a VAT number does not mention the prefix DE. Only in case the traders have an intra-Community activity an EU VAT number (with a prefix DE) is attributed. If only the VAT identification number is mentioned on the invoice as a full identification of the customer, it is always the EU VAT identification number that has to be used by the trader in case he has to dispose of such a number. If he does not have to dispose of an EU VAT identification number, the VAT number attributed by the Länder can be mentioned on the invoice. In any case, this problem can easily be solved by attributing an EU VAT identification number (with the ISO code) to all taxable persons performing taxed activities.

Furthermore, the requirement to state the full identity of the customer on the invoice becomes superfluous with electronic invoicing: the full identity of the customer will be automatically covered by the information technology system as it will become part of the 'envelope' or 'digital certificate', which should also include the VAT identification number (if any). When the formerly electronic invoice is printed (e.g. on request of the tax authorities), the full identity (or - if any - the VAT identification number) of the customer should be mentioned thereon.

3.2.5 Date of supply of goods or completion of service

In principle, the VAT becomes due when the goods are delivered or the services are completed.

In order to determine the date on which VAT becomes due and on which the VAT can be deducted, and to enable the tax authorities to perform controls and enforce the tax simply, efficiently and effectively, it is necessary to mention the date of supply of the goods or the date of completion of the service on the invoice.

3.2.6 Description of goods or services

The description (plus the quantity) of the goods[8] [9] supplied or services rendered is an essential statement on the invoice in order to determine the nature of the transaction and the applicable VAT rate.

We have identified three alternatives that can provide an equal means of control for the tax authorities. We recommend that the option be given to the taxable person to choose between these alternatives, on the condition that the taxable person can provide the tax authorities with the underlying information concerning the goods and services on their demand.

- The first alternative is not to state the full description of the goods supplied or services rendered on the invoice, but to make a reference to related documents such as the contract, the purchase order or the supplier's product catalogue. The nature of the goods and services and the applicable VAT rates can be determined on the basis of the information mentioned in these related documents.

[8] If those goods are new means of transport, the elements mentioned in article 28*bis,* 2 of the Sixth Directive have to be included in the description.

[9] In case the invoice concerns a supply of goods for which the rules related to the simplified triangular transactions apply, this has to be mentioned (e.g. by stating "simplified triangular transaction" or by stating a reference to article 28*quater*, E, 3 of the Sixth Directive). In any case, the reference to the article that transposes the latter article in a local legislation must be prohibited.

- The second alternative is to use a 'commodity code' for all goods and services. Commodity codes exist for goods, i.e. the commodity codes of the Combined Nomenclature. A system based upon the EAN[10] codes can also be used to determine the nature of the goods and the VAT rate applicable to the supply. We recommend the use of the EAN codes instead of the commodity codes, since not all businesses (e.g. local shops) are involved in cross-border activities and would thus have to make large investments in getting to know the commodity codes.

  A similar classification system could be established for services. For example, the sectoral classification generally used to schedule commitments under the GATS[11] contains 11 main services sectors and one residual "other" category. These are business, communication, construction, distribution, educational, environmental, financial, health-related and social, tourism and travel-related, recreational cultural and sporting, and transport services. These sectors are further divided into sub-sectors and, in some cases, sub-sub-sectors. This non-binding classification could serve as a basis to develop a classification system for VAT purposes[12]. The GATS is especially appropriate as it covers all internationally traded services. It also defines the different ways of providing an international service: services supplied from one country to another ("cross-border supplies"), consumers making use of a service in another country ("consumption abroad"), foreign companies setting up subsidiaries or branches to provide services in another country ("commercial presence") and individuals travelling from their own country to supply services in another country ("presence of natural persons").

  As there is a need for a coherent regulatory framework, taking the development of electronic commerce and globalisation of trade in consideration, we are of the opinion that a globally accepted framework is the most expedient solution to avoid any possible discussion on services provided. We recommend that a future VAT Directive on invoicing explicitly states that the use of a GATS or other classification will have no impact on other areas of law, such as direct taxes[13].

- The third alternative can only be applied when electronic invoicing is used. The information technology system can apply reference codes with respect to the goods supplied and services rendered on the invoices sent from system to system. These reference codes can be translated by the recipient system into a full description of the goods or services. Therefore, it is no longer necessary to have a full description of the goods supplied or services rendered on the invoice issued.

Please note that, when using the reference, EAN or commodity codes, there will be no language problem[14].

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[10] EAN stands for European Article Numbering. These are the internationally accepted "bar codes" used for products.

[11] GATS stands for General Agreement on Trade in Services, April 1994. See for more information www.wto.org/wto/services/services.htm and www.wto.org/wto/services/w65.htm.

[12] Developing a positive E-Commerce Environment – University College Dublin 1999 – VAT IN CYBERSPACE, Ralph Korf, PricewaterhouseCoopers Munich.

[13] Such a classification could also provide a solution for the issue of electronic commerce.

[14] For specific requirements with respect to the language in which the invoice should be made out, see also point 3.1 of the chapter on VAT requirements for invoices.

3.2.7 Taxable amount per VAT rate

The taxable amount per VAT rate has to be stated on the invoice in order for the VAT due to be determined[15].

3.2.8 VAT rate

The VAT rate (including the rate of 0 %) has to be stated on the invoice in order to determine the VAT due.

3.2.9 VAT amount

Since the VAT amount is merely the result of a purely arithmetical calculation of two compulsory statements on the invoice, i.e. (1) the taxable amount per VAT rate and (2) the VAT rate, the VAT amount (nor the total amount of the invoice) should not be mentioned on the invoice.

3.3 Proposal of compulsory requirements

On the basis of the description and the necessity of the invoice requirements as set out in paragraph 3.2, we have drawn up our proposal of the requirements in order for an invoice to be valid from a VAT point of view and to give the right to a deduction of the input VAT stated thereon.

Compulsory requirements:

1. Date of issue
2. Sequential numbering
3. VAT identification number of supplier
4. Full identification of customer[16]
5. Description of the goods or services
6. Date of supply of goods or completion of service
7. Taxable amount per VAT rate
8. VAT rate

We regard these requirements as essential in order to provide the control facility needed by the tax authorities. Moreover, a strictly limited, harmonised number of compulsory requirements will respond to the business' and tax authorities' demand for simplification.

[15] When a transaction falls under the margin scheme, as an exception the taxable amount will be replaced by the price of the transaction, being amount inclusive of VAT. In such a case, this will be indicated on the invoice (e.g. "VAT included – Margin scheme").

[16] See section 3.2.4. When the customer is registered for VAT purposes, its VAT identification number could be sufficient to identify this customer for VAT purposes.

4. Additional points for attention with respect to invoice requirements

4.1 Language

In this respect we refer to our findings in annex 1 as well as to question 54 of the reduced questionnaire and question 132 of the original questionnaire.

Only 3 of the 15 Member States (viz. Belgium, France and Greece) impose specific requirements with respect to the language in which the invoice should be made out.

Therefore, we are of the opinion that the invoice can be issued in any of the official languages of the European Union. Please note that, when using the reference/EAN/commodity codes, the language problem - if any - will disappear[17].

4.2 Currency

We refer to our findings in annex 1 as well as to questions 47 to 52 of the reduced questionnaire and questions 121 to 131 of the original questionnaire.

Since 1 January 1999, the Euro has been a legal means of payment in the 11 participating countries of the European Union, but currently, in each Member State the amounts can also be expressed on the invoice in the former national currency. The conversion of these participating former national currencies to the Euro is done on the basis of a single fixed conversion rate (a fixed arithmetical basis), without the intervention of the exchange markets. These former 11 national currencies are merely another way of expressing the amount in Euro.

Since the exchange rates for the 11 participating countries are fixed, we believe that in each of these countries, the amounts mentioned on the invoice can be expressed either in Euro, or in one of the 10 other former national currencies of the participating countries.

Moreover, we propose that, in the countries of the EMU, the use of another currency (e.g. US Dollar or Yen) on the invoice should also be allowed, provided that (1) the exchange rate is clearly determined on the invoice and/or the contract or (2) that the exact daily conversion rate of the European Central Bank can be determined by mentioning the date of delivery of the goods or completion of the service on the invoice.

We see no objection to the same regime applying to the EU Member States not having adopted the Euro, so that, in these 4 countries (i.e. Denmark, Greece, Sweden and UK), it should also be permissible to use any currency, provided that (1) the reasonable exchange rate is clearly determined on the invoice and/or the contract,

[17] See also point 3.2.6 of the chapter on VAT requirements.

or (2) that the exact daily conversion rate of the European Central Bank can be determined by mentioning the date of delivery of the goods or completion of the service on the invoice.

4.3 Summary Invoicing

A summary invoice is one single invoice containing many different supplies performed in a certain period of time.

We refer to our findings in annex 1 as well as to question 39 of the reduced questionnaire and question 91 of the original questionnaire.

We are of the opinion that summary invoicing has to be allowed by law according to the practices of the business sector, including self-billing practices.

Future legislation should guarantee that whether transactions are invoiced by a "single invoice" (i.e. one invoice per transaction) or by means of a summary invoice does not have impact on the payment of the VAT due. Consequently, in both cases the related turnover should be reported in the same VAT return. The only competitive advantage companies may obtain from future summary invoicing legislation is the simplification that only one invoice has to be issued instead of several invoices.

A practical way of implementing a system of summary invoicing is to state in the law that the summary invoice can only include transactions for which the VAT becomes due in the same return period, conforming article 10 of the Sixth Directive.

4.4 Mentioning exemptions on the invoice

We refer to question 46 of the reduced questionnaire and question 106 of the original questionnaire.

The purpose of mentioning the reason for an exemption on the invoice is to facilitate the work of the tax authorities, although it places high demands on businesses to know the exact references to the law.

We have identified the following options:

1. no obligation to mention “exempted” or “no VAT applicable”;
2. mentioning “exempted” or “no VAT applicable”;
3. mentioning exact article and text of the law on which the exemption is based.

We recommend the use of the first option. In any case, it remains up to the supplier to prove that he was not liable for charging VAT for his supply.

A clear distinction should be made between the situation where a transaction is exempted according to the Sixth Directive and the situation where the reduced rate of 0 % is applied. For the latter situation, we refer to section 3.2.8.

4.5 Other laws

It should be taken into account that the Member States could still impose other invoice requirements in other fields of legislation such as direct tax law, economic law or accounting law. It is possible that these potential requirements could impair the success of the harmonisation of the invoice requirements as defined by a European VAT Directive.

We recommend that if an invoice contains all necessary statements for VAT purposes, it will be considered a proper invoice (and thus allowing deduction of VAT), even if the invoice does not contain the requirements imposed by other legislation than VAT legislation.

Furthermore, an initiative should be taken at a European level to harmonise the invoice requirements imposed by other areas of law. In several Member States additional mentions on the invoices are required by commercial, economic, accounting or direct tax legislation. In order to accomplish a full harmonisation it is necessary that the requirements imposed by these other areas of law are in concordance with the VAT legislation. Besides this, it is necessary that all enabling law is existing in the Member States, for instance digital signature law.
If it is not possible to impose harmonisation of all these legislations, the above-mentioned initiative should at least consist of a recommendation in this respect towards the Member States.

For every invoice issued or received it should be possible to trace it instantly in the debtors and creditors subledgers. This means that the ledgers should be set up to allow the immediate reconciliation of all invoices with the general ledger. This obligation will enhance and enforce the controlling and auditing facilities. Besides this, it will result in at least a partial harmonisation of the bookkeeping and accounting requirements in the Member States.

Self-billing and outsourcing of invoicing

1. Findings from the questionnaire

We refer to annex 2. This annex includes the collected data in connection with the current VAT requirements for self-billing and the outsourcing of invoicing for all 15 Member States and the analysis of these data.

2. Business opportunities offered by self-billing and outsourcing of invoicing

VAT legislation was mainly conceived for the classic invoicing process, whereby the supplier of the goods or service sends an invoice to the customer. The purpose of these regulations is for the revenue authorities to maintain their ability to secure access to reliable and verifiable information in order to identify taxpayers and obtain the information necessary to administer their tax system.

In certain industries, steps have been taken to re-design this classic invoicing process[18] and shift the burden of issuing the invoice to the customer (e.g. because of the volume of the turnover or because it is an absolute necessity as only the customer is in possession of the relevant data in connection with the transaction to be invoiced, for example, for sales by auction). Trade partners consider self-billing as a tool that can save them money. When self-billing is used, tax authorities want to maintain the same level of security and access to information as when the classic invoicing process is used. Therefore, other or additional requirements might be necessary.

Self-billing is allowed in all Member States, albeit under different conditions. For companies operating in various Member States, complex and varying legislation could present a barrier to the adoption of self-billing. Harmonised and simplified legislation might encourage businesses to adopt self-billing.

A current trend, closely linked to self-billing, is the outsourcing of the different administrative functions, such as accounting and invoicing. Third persons draw up invoices in the name and on behalf of principals. These third parties act in fact as a sort of "print-shop". This is done, for example, by service providers of logistic services in distribution centres.

Electronic self-billing is considered to be one of the tools that can give a competitive advantage to companies. By combining the advantages of self-billing and electronic invoicing, this way of invoicing lightens the administrative burden and minimises the invoicing costs for companies.

[18] See also annex 5, page 5, point 2.3.

In order to allow self-billing and outsourcing of invoicing on a larger scale and, as a consequence, to allow companies to fully benefit from these tools when working within the European Single Market, a clear, harmonised and simple legal framework should be constructed at a European level.

Although the principle of self-billing is currently generally accepted in all Member States, the different national conditions regarding self-billing are seen as burdensome for EU businesses and as inhibiting cross-border self-billing.

Clear and simple rules concerning self-billing would also enhance the ability of the tax authorities to exercise control. A harmonisation of the requirements and conditions at a European level should be feasible.

3. Self-billing and outsourcing of invoicing: definitions and need for harmonised regulations

3.1 Outsourcing of invoicing

As already mentioned above, outsourcing invoicing means that a third person is ordered by the supplier (or the acquirer in a case of self-billing) to process, print and send the invoices. The third person "invoices" in the name and for the account of the supplier[19].

Like many other administrative functions, outsourcing of invoicing is generally accepted in all Member States. No specific rules in this regard can be found in any national legislation and no specific conditions should be imposed in the future. The supplier of the goods/services nevertheless remains liable towards the authorities for its obligation to issue the invoice and the correctness of the invoice. There is no direct relationship between the third party "print-shop" and the tax authorities. Liability between the supplier of the goods/services and the third party "print-shop" is merely on a contractual basis.

3.2 Self-billing

Self-billing means that the recipient of the supply issues invoices instead of the supplier. Although self-billing is currently allowed in all Member States by law or administrative practice, the different national conditions surrounding it are sometimes seen as burdensome for businesses and as inhibiting cross-border self-billing. Simplification and harmonisation of these conditions are necessary at a European level.

[19] If the third party should invoice in its own name, he might be considered as a commissionair who might be deemed to be the supplier of the services or the goods.

4. Our proposal for legislation on the use of self-billing

4.1 Guiding principles for legislation on self-billing

The following guiding principles should apply to the future self-billing legislation:

- Neutrality: Conditions related to self-billing should not be more burdensome than conditions related to the traditional invoicing process. Both billing processes should be treated as equivalent. When using self-billing, no extra burden or requirements may be imposed on non-EU companies. Self-billing requirements should be the same for all companies, irrespective of their location.
- Efficiency: Legislation should allow companies to minimise the invoicing costs for taxpayers and the administrative costs for the tax authorities.
- Simplicity: The requirements for the use of self-billing should be kept simple, meaning for example that no detailed legislation containing lots of exceptions and specifications should be implemented or that no authorisation procedures will be required.
- Certainty: Companies using self-billing should be assured that the self-bills are acceptable as evidence for the deduction of input VAT.
- Effectiveness: Legislation on the use of self-billing should be effective, meaning that it is controllable, verifiable and enforceable by the tax authorities.
- Fairness: No disproportionate security requirements may be imposed. The potential for abuse should nevertheless be minimised and counteracting measures should be proportionate to the risks involved.
- Flexibility: Legislation should be flexible and dynamic to ensure pace is kept with technological and commercial developments.

Our proposals will be guided by these principles. We recognise that sometimes these principles can conflict. Thus all our proposals will involve an element of judgement and balance.

4.2 No authorisation from or notification to the tax authorities

No authorisation from or notification to the authorities on the use of self-billing should be required by the national legislation from either of the trade partners. This will place the use of the 'normal' invoicing procedure and the use of self-billing on a same level concerning the formalities.

Future legislation should simply allow the use of self-billing, but still clearly indicate that the obligation to issue an invoice lies with the supplier of the goods/services. Hence, the supplier of the goods/services remains liable towards the tax authorities for the obligation to issue the invoice and the correctness of the invoice.

Both parties, of course, remain responsible for the completeness and accuracy of their own book-keeping.

4.3 Approval of self-bill by supplier

The self-bill should be sent to the supplier for approval of its correctness. This will allow the supplier to incorporate the self-bill in his bookkeeping and, if necessary, to account for the correct amount of VAT. Many ways have been proposed for expressing this approval:

1. The supplier signs the self-bill and sends the approved self-bill back to the issuer (when using electronic invoicing, a 'digital signature' will do);
2. The supplier stamps or certifies the self-bill and sends it back to the issuer of the self-bill;
3. Approval of the self-bill can be inferred from a lack of any reaction or protest from the supplier within a reasonable period of time. This period can be determined by law, but trade partners should also be allowed to determine the period in their general conditions of trade.

Taking into account the need for simplification, the third option is to be favoured, i.e. 'silence is consent'. For this method to work well, receipt of the self-bill by the supplier should be guaranteed. When using electronic self-billing, this can easily be achieved by a delivery or receipt acknowledgement. This acknowledgement will be further elaborated on in the chapter on electronic invoicing[20].

This proposed way of approving the self-bill is in line with current business practices and commercial law. Currently, when an invoice is sent to a customer and the customer disagrees with the content of the invoice and thus does not accept the invoice, the customer should ask for a new invoice. When no complaints or disagreements are expressed within a certain period of time, the invoice is deemed accepted. No specific time period is determined in the law for that purpose.

4.4 Statements on the self-bill

The self-bill must contain all the statements required for invoices (including electronic invoices). When using cross-border self-billing, the need for a harmonisation of the statements to be mentioned on an invoice becomes even more apparent. In a non-harmonised environment, the issuer of the self-bill can be obliged to issue up to as much as 15 different self-bills to himself, since the self-bill should be valid according to the VAT law of the country of the supplier of the service or the goods.

[20] See the part on electronic invoicing: point 4.4 'Non-repudiation of origin and receipt'.

The issuer of the self-bill should mention no additional statements, nor should the supplier be obliged to add any items to the self-bill in any way. The self-bill should indicate clearly who is the supplier and who is the customer through their respective VAT identification numbers (or name and address when the customer does not have a VAT identification number).

The issue of who is obliged to issue an invoice and the use of self-billing does not interfere with the issue of who is liable to account for the VAT. The rules concerning the person liable to account for VAT remain untouched by the future legislation on self-billing.

5. Our proposal for legislation on the use of outsourcing of invoicing

Outsourcing of invoicing means that a third person draws up the invoices in the name and on behalf of the principals. It is generally accepted in all Member States.

Future legislation should simply allow the use of outsourcing of invoicing and not impose specific conditions. It should nevertheless clearly indicate that the obligation to issue an invoice lies with the supplier of the goods/services. Hence, the supplier of the goods/services remains liable towards the tax authorities for the obligation to issue the invoice and the correctness of the invoice.

A harmonisation on a European level of the statements to be mentioned on the invoice would boost the outsourcing business, which in turn could provide major cost-saving benefits for businesses.

6. Conclusion

The future invoicing regime will have to be extremely flexible in relation to the person who draws up the invoices, irrespective of whether it concerns paper or electronic invoices. The invoice can be issued by the supplier ("normal" procedure) or by the customer (self-billing). Invoices can even be drawn up by a third party in the name and on behalf of the supplier (outsourcing of invoicing) or on behalf of the customer (outsourcing of self-billing).

All these possibilities of drawing up an invoice are subject to the same formal requirements (e.g. statements to be mentioned on the invoice). No additional license has to be obtained and no notification towards the tax authorities has to be done if businesses have not chosen the "normal" invoicing procedure.

The harmonisation on a European level of the statements to be mentioned on the invoice and the flexibility in who draws up the invoice will in the future boost the business practices of self-billing and outsourcing of invoicing.

However, the issue of who is drawing up the invoice does not interfere with the issue of who is liable to account for the VAT. These two issues have to be strictly separated.

Electronic invoicing

1. Findings from the questionnaire

We refer to annex 3. This annex includes the collected data in connection with the current VAT requirements for electronic invoicing for all 15 Member States and the analysis of these data.

2. Electronic invoicing: concerns and opportunities

Tax authorities should always maintain their ability to secure access to reliable and verifiable information in order to identify taxable persons and obtain the information necessary to administer their tax system. Appropriate systems should be in place to control (audit/verify) and collect taxes.

Secure and verifiable standards for electronic invoicing seem to be the big issue for tax authorities as well as the possibility for them to carry out tax audits.

The fear that electronic invoices do not provide as much security and possibilities for control as their paper cousins is unfounded. New technologies can guarantee integrity, authenticity, verifiability and auditability in a much more complete way than paper invoices can currently do. The preference that companies and tax authorities might still have for paper invoices can solely by explained by the psychological fact that paper invoices are material objects, whereas electronic invoices are non-material and pre-suppose a great deal of trust in the software and hardware infrastructure.

Other concerns of companies and tax authorities are, for example, that invoicing software systems might not be accessible in the future for reasons of (1) encryption key loss, (2) outdated technology, (3) viruses and other reasons. Solutions for these problems exist in the form of key recovery, trusted third parties or other arrangements to guard against the loss of encryption keys.

However, tax authorities are also starting to recognise that there are a number of elements of the new technologies which mean that electronic invoices and electronic records may provide much more information than can be provided by paper invoices and records. And this in a form that is even easier to utilise (e.g. invoicing databases) and less expensive to produce and store.

A paper invoice actually costs between EUR 1.13 and EUR 1.65. Electronic bill presentment and payment will reduce this amount considerably to a figure between EUR 0.28 and EUR 0.47[21]. Moreover, electronic invoices are more manageable, can be searched, and offer customised options such as sorting calls by department or length.

3. Electronic invoicing systems currently used: EDI and E-mail

3.1 Electronic Data Interchange[22]

In several Member States (Belgium, France, Italy, Spain) that allow electronic invoicing, the use of EDI standards is obligatory. In other Member States (Austria, Denmark, the Netherlands, Sweden, the UK), EDI appears to be the de facto standard. This is because EDI is perceived as being a highly secure way to transmit data electronically.

For the future, EDI standards certainly should continue to be allowed as a standard for electronic invoicing. However, it may not be the only standard allowed. Future legislation should be technology neutral and promote an open standard.

About EDI

EDI is the highly secure electronic transmission of documents from one company to another, using a set of standard forms, messages, and data elements. It is based on pre-existing contractual relations. Documents that can be transmitted electronically include (1) shipping notifications, (2) invoices, purchase orders, (3) remittance advises and (4) acknowledgements. EDI data are exchanged through point-to-point connections, via private networks or value-added networks (VANs), and more recently, via the Internet. Electronic commerce has been virtually synonymous with EDI for many years.

Disadvantages of EDI

The cost of the proprietary networks needed to support EDI transactions, along with the technical complexity of EDI itself, have historically made EDI suitable mainly for very large enterprises and their immediate suppliers only.

[21] Thomson EC Resources, Journal of Electronic Commerce, "Electronic Bill Presentment and Payment: The Next Step for the E-Commerce Market", by Thomas F. Horan.

[22] For a description of EDI, business processes and best practices for supply chain coordination see also annex 5, pages 4-6.

Of importance is also the fact that EDI is not a technology-neutral solution: it depends on a certain infrastructure and many different standards are currently being used, which makes interoperability almost impossible. Prior to using EDI, companies always have to negotiate with each individual trading party, which is a time-consuming and costly process.

Importance of EDI

New technologies and capabilities developed for the Internet are influencing EDI information transport technology and applications. The Internet allows more SMEs to use EDI economically.

Whereas traditional EDI requires complex interfaces to applications and a significant financial investment, Web-based EDI requires only a PC, an Internet connection, and a standard browser for a company to participate in an existing EDI infrastructure. Although this approach does not provide full end-to-end automation, businesses can substitute manual interaction and not implement the complicated EDI translation sets when using Web-based EDI.

The Internet will be a critical factor in expanding the number of new EDI subscribers as large EDI-enabled enterprises are increasingly requiring the use of EDI (not just by their major suppliers but also by their second-tier trading partners) by leveraging lower-cost, Internet-based options. We believe therefore, that EDI should still be allowed as a means for transmitting electronic invoices.

Generally speaking, however, EDI is too demanding on companies and the entry barrier to adopting EDI is practically insurmountable for SMEs.

3.2 E-mail systems

In some Member States (Austria, Denmark, Finland, Ireland, Italy, Sweden and the UK), it is currently allowed to send invoices over the Internet by means of e-mail attachments.

In future, this should be allowed in all Member States, provided that this means of transmission is secure, verifiable and leaves an auditable trail.

Widespread use of e-mail

Increasingly, communications between suppliers and customers are via e-mail. Customers are enquiring about products, placing orders via e-mail and also ordering from on-line catalogues. Suppliers are informing existing and potential customers about new products and services via e-mail. Products (e.g. message-handling solutions) are emerging that address the issues of automating the handling of large volumes of incoming e-mail. Some companies are even building their own technologies to manage customer-facing e-mail on top of their existing messaging systems. E-mail also presents an excellent medium for sending invoices.

Security issues

Internet e-mail transits multiple servers, routers, and other network devices operated by different organisations on its way to the recipient. This process makes the transmission channel difficult to secure and provides numerous opportunities for interference.

The only way to ensure e-mail privacy is to use encryption and a trusted directory service. Currently, multiple standards are competing for the security of Internet mail.

Key security issues concerning e-mail are:

- authentication (ensuring that senders really are who they say they are);
- non-repudiation (ensuring that neither the sender nor the recipient can deny the message exchange occurred);
- integrity (ensuring that nothing in the message changes in transit), and;
- confidentiality / privacy (ensuring that no one other than the sender and designated recipients can read the message).

These issues can be guaranteed by existing technologies[23]. Furthermore, e-mail vendors promise authentication and encryption standards to provide better compatibility between their products so different e-mail systems can exchange encrypted or digitally signed e-mail messages.

Conclusion

Current e-mail software-packages are flexible enough to guarantee the security and integrity required by the tax authorities. Moreover, the widespread use of e-mail and its flexibility could make e-mail the "killer" application for cheap, secure and cross-sector electronic invoicing. Especially SMEs could benefit from this.

[23] S/MIME (Multipurpose Internet Mail Extensions) is such a secure e-mail standard that provides privacy, tamper-proof integrity and authentication services through the use of digital signatures.

4. Our proposal for a simplified and harmonised legislation on the use of electronic invoicing

4.1 Guiding principles for legislation on electronic invoicing

The following guiding principles should apply to the future electronic invoicing legislation:

- Neutrality: Electronic invoices should be of the same value as traditional invoices. Conditions related to electronic invoicing should not be more burdensome than conditions related to paper invoicing (e.g. statements to be put on invoices). When using electronic invoicing, no extra burden or requirements may be imposed on non-EU companies. Electronic invoicing requirements should be the same for all companies, irrespective of their location.
- Efficiency: Legislation should allow companies to minimise the invoicing costs for taxable persons and the administrative costs for tax administrations.
- Certainty: Companies using electronic invoicing should be assured that the electronic invoices they receive are acceptable as evidence for the deduction of input VAT.
- Simplicity: The requirements for the use of electronic invoicing should be kept simple, meaning for example that no detailed legislation containing lots of exceptions and specifications should be implemented or that long authorisation procedures can be required.
- Effectiveness: Legislation on the use of electronic invoicing systems should be effective, meaning that it is controllable, auditable and enforceable by the authorities.
- Fairness: No disproportionate security requirements may be imposed. The potential for abuse should nevertheless be minimised and counteracting measures should be proportionate to the risks involved.
- Flexibility: Legislation should be flexible and dynamic to ensure pace is kept with technological and commercial developments.

4.2 Electronic invoicing should be allowed by law

Although currently the Sixth Directive and the European Court of Justice have confirmed the Member States' authority to determine the criteria under which a "document" can be considered an invoice for VAT purposes (and, as a matter of fact, allow the Member States to accept an electronic document as an invoice for VAT purposes), certain Member States (Germany, Greece, Luxembourg and Portugal) do not recognise paperless electronic invoices as proper invoices for VAT purposes.

In the future, electronic invoicing (including electronic self-billing) should be allowed by law, meaning that the following should be carefully described and defined in the law:

1. the conditions for electronic invoicing;
2. the characteristics of the software systems.

If these conditions and characteristics are met, electronic invoicing will be allowed and the electronic invoices will be considered proper VAT invoices, guaranteeing the right to deduct input VAT. No paper printouts are required, and the input VAT on the invoices can be deducted solely on the basis of the data transferred by electronic means.

Paper printouts (in a readable form) of the electronic invoices can nevertheless be required in case of control by the tax authorities. Also, the possibility of reading the document on a screen or to consult the electronic version on-line can be required.

No prior authorisations or notifications on a case-by-case-basis to use electronic invoicing may be required, since electronic invoicing will be permitted merely by meeting the conditions described in the law.

4.3 Technology-neutral legislation

Future (tax) legislation should be 'technology neutral', meaning being:

1. flexible;
2. able to cope with different existing and future technologies.

The harmonised conditions under which electronic invoicing should be permitted in the European Union should thus be based on an open standard. This will allow companies to use the latest possibilities offered by the new technologies. Agreement on the use of an open standard should be reached at a global level.

The development of technologies should be left to the competition between software developers. Future legislation should not promote specific technology. It should be left to market forces to determine the best solutions.

Which electronic system is used for electronic invoicing should as such be irrelevant. What is important is that it has an auditable trail that maintains its integrity. Therefore, a number of criteria (see below) should be determined and defined in the law. Any electronic data transmission system must meet these criteria to be acceptable for use for electronic invoicing. No specific standard should be prescribed.

Member States should not be allowed to transpose this future European legislation on electronic invoicing by simply making a list of accepted technologies, standards or software programs, saying that only the ones listed respond to the conditions imposed by the law. The essence of an open standard is to prevent such a listing that would be restrictive and not able to cope with different existing and future technologies.

Since electronic invoicing is allowed by law, the burden of proof lies with the tax authorities, i.e. the tax authorities should prove that the electronic invoicing and storage system does not meet the requirements laid down in the law.

Controls might be performed by IT auditors of the tax authorities or by third parties on behalf of the tax authorities.

It should be kept in mind that - in comparison with paper invoicing - electronic invoicing not only substantially limits the possibility for tax fraud with regard to the invoices itself, but that it also leans to an easier and more exhaustive control by the tax authorities because of future software programs and an extensive and easier co-operation between the tax authorities of the Member States, provided that the electronic formats of invoices and related records are compatible[24].

4.4 Determination of high-level characteristics of electronic invoicing systems[25]

A clear description in the law of the conditions for electronic invoicing will provide clarity. This will lead software developers to make compliant software packages and thus encourage further development. Moreover, clarity coupled with off-the-shelf software packages will encourage the adoption of electronic invoicing.

As already mentioned above, the characteristics of invoicing systems should be described and clearly defined in the law. These high-level criteria should be determined at a European level to ensure harmonised conditions.

Whether these conditions are met by the invoicing software systems should at any time be weighed against the then existing status and development of technology.

It is important that legislation does not impose requirements that cannot be achieved technologically (or only at a high cost).

The European Directive should be limited to stating that electronic invoicing is allowed when the conditions and characteristics described in the law are met.

[24] See also "Technology Forecast: 1999" by PricewaterhouseCoopers.

[25] See also the study prepared for the Electronic Commerce Tax Study Group by PricewaterhouseCoopers LLP on " The technologies of Electronic Commerce: The Integrity of Electronic Transactions and Digital Records for Tax Administration and Compliance".

We propose that electronic invoicing systems should guarantee the following:

- authenticity of origin;
- non-repudiation of origin and of receipt;
- integrity of the content of the invoices, not only during transmission but during the whole invoicing process up to the end of the legally required storage period;
- integrity of the sequence of invoices.

Below, these principles will be further developed.

4.5 Control of the invoicing software system

Tax authorities should be allowed to systematically check the enterprise's electronic data processing systems, in order to assess the correctness of the electronic treatment of data in the framework of the invoicing process.

In several Member States, there is at present considerable uncertainty on the part of both the tax authorities and undertakings as to the legal status of such checks, which logically seen should always precede tax audits. These checks, performed by the authorities themselves or by IT experts of a third party, should have a legal status. Authorities should be able to check whether the high-level characteristics – as required by law – are in practice met by the invoicing software system. The invoicing system should provide an acceptable audit trail to give the tax authorities the ability to control and collect taxes.

4.6 Cross-border electronic invoicing ("home-country control")

Taking into account the principle of subsidiarity as determined in article 3B of the EC Treaty of 25 March 1957, we believe only the following should be carefully determined and defined in a European Directive:

1. the top-level[26] conditions for allowing electronic invoicing;
2. the top-level characteristics of electronic invoicing systems.

Cross-border electronic invoicing presents major benefits for companies. Therefore, market forces themselves will guarantee high levels of security to satisfy their customer's concerns.

Electronic invoicing involves at least two parties, i.e. one company is sending the invoice electronically and another company is receiving this invoice electronically. Often these companies are established in different Member States and, consequently, the question arises which Member State is allowed to control what.

[26] 'Top level' means: generic, keeping to the general principles and not going into the specific details.

In all Member States (with the exception of France[27]) where electronic invoicing is allowed, cross-border electronic invoicing is also allowed. The current procedure for the use of cross-border electronic invoicing is seen by companies as burdensome, expensive and time-consuming, since the – sometimes different – conditions of two Member States have to be met and a control of the invoicing system by two Member States might be required. This could discourage companies from adopting electronic invoicing. Companies engaged in cross-border electronic invoicing should operate according to the principle of "home-country control", meaning that the characteristics of the invoicing system should be reviewed by the tax authority of the Member State where the company is established.

A system of home-country control imposes the fewest possible burdens on businesses, since the only Member State allowed to evaluate whether the electronic invoicing system meets the legislative requirements is the Member State in which the company is established. For this system of home-country control to work well, a far-reaching harmonisation of national legislation is essential, imposing a minimum level of security that is acceptable to the tax administrations in all Member States and also a far-reaching administrative co-operation and mutual assistance[28] between the Member States will be necessary.

[27] The French law only allows electronic invoicing between trade partners established in France, for reasons of controllability.

[28] The principle of mutual assistance between Member States is laid down in Directive n° 77/799/EEG of 19 December 1977 (O.J., n° L. 336, 27 December 1977, 15) of the Council concerning mutual assistance of the competent authorities of the Member States in the field of direct taxes and value added taxes (as changed by Directive n° 79/1070/EEG of 6 December 1979, O.J., n° L, 331, 27 December 1979, 8).

5. Description of the high-level characteristics for electronic invoicing systems

5.1 The integrity of the sequence[29] of electronic invoices

The goal of this requirement is to avoid any gaps occurring in the outgoing invoices and to facilitate control. Cheap and user-friendly cryptographic hash functions can ensure data integrity. They will not only ensure the integrity of the content, but also the integrity of sequence of the invoices.

Secure hash functions produce a digital "fingerprint" from a set of input data, similar in concept to a checksum. It is computationally unfeasible for an attacker to find modifications to the input data that would generate a hash value identical to the original. Therefore, if someone sends a file and a fingerprint generated from the file, and if the recipient runs the same hash algorithm on the file received and gets the same fingerprint result, both parties can virtually be certain that the file was received intact.

5.2 Authenticity of origin

Reliable identification of a taxpayer engaged in electronic invoicing is necessary for the tax authorities to clearly identify the parties involved in a taxable transaction. This is one of the most important elements for tax authorities in order to be able to control taxpayers, to collect taxes and to administer their tax system.

Since the use of an EDI infrastructure is based on pre-existing contractual agreements, the authenticity of origin is always ensured when using EDI. However, the problem will become more apparent when the number of occasional business relationships over the Internet booms.

The information reporting requirements and tax collection procedures applicable to taxable persons using electronic invoicing must be neutral and fair, meaning for example that the level and standard of identification required is comparable to what would be required of a taxable person engaged in traditional invoicing. However, there may be differences in the ways in which the requirements are achieved, since electronic invoicing poses special challenges or unique mechanisms.

The use of cryptography and digital signatures[30] can improve user authentication and provide assurance that information came from a particular source, thus guaranteeing

[29] See also annex 5, page 10, point 3.3.7.

[30] A digital signature is a means to bind information to the originator of a transaction. It does not by itself guarantee that the sender of the message is who it purports to be. A digital certificate issued and authenticated by a trusted certification authority is necessary if the identity of the sender needs to be guaranteed. These certificates could also contain other information, such as the tax status of a customer or its VAT identification number.

the authenticity of origin. The parties (and the tax authorities) can trust that signed invoices are legitimate and not forged.

The Commission's proposal for a Directive on a common framework for electronic signatures (COM (1998) 297 final) determines the essential requirements for electronic signature certificates and certification services so as to ensure minimum levels of security and allow their free movement throughout the European Single Market. Taking into account the current pace of technological innovation, the proposal for a Directive is technology-neutral, i.e. irrespective of the technology used (e.g. digital signatures using asymmetric cryptography or biometrics). A reference to this legislation should be made in future VAT law.

Databases can be developed at a national or European level containing all the certified companies engaging in electronic invoicing.

It is clear that conventional identification practices have to be adapted for businesses engaged in electronic invoicing. Technologies such as 'digital certificates' can make it possible to verify the identity of an on-line counter-party. Other solutions might appear in the future.

5.3 Integrity of the invoices

It should be ensured that invoices cannot be altered intentionally or accidentally during transmission, so that the parties can be confident in the invoice's content.

When archiving the electronic invoices, their integrity can be guaranteed by means of 'hash-algorithms'. The software for this can be found on the Internet and is free of charge ('freeware'). A potential point for attention is that the strength of these algorithms will diminish over time due to technological advancements, which means that their integrity could be in danger. If the integrity is jeopardised during the required integrity timespan, a solution can be to re-sign the invoices by using hash-algorithms or other encryption techniques. Another point of attention is that the algorithms, software and hardware used to sign the invoices should be kept for a period as long as the storage period for the invoices.

Another integrity aspect is that it should be avoided that messages are duplicated when being transferred, since this could for example lead to an unintentional double deduction of input VAT or a double payment of output VAT. This can be guaranteed by using cryptography technologies (see also section 5.1 above).

5.4 Non-repudiation of origin and receipt

Non-repudiation is the ability to prove origin from or receipt by a third party. It protects the buyer and/or the seller in cases of dispute, allowing parties to conduct business without the concern that either party will later disclaim its role in the transaction.

Non-repudiation of origin guarantees that the sender cannot later deny having sent the message, whereas non-repudiation of receipt guarantees that the recipient cannot later deny having received the message. Cryptographic techniques can easily ensure non-repudiation.

Storage of invoices

1. Findings from the questionnaire

We refer to annex 4. This annex includes the collected data in connection with the current VAT requirements for the storage of invoices for all 15 Member States and the analysis of these data.

2. Storage period

For purposes of certainty and simplicity, a harmonisation of the storage period should be considered. Since the storage period is closely linked to the different and differing national VAT procedures (e.g. limitation period, adjustment period), a European harmonisation of the storage period will be difficult. Moreover, national accounting laws prescribe storage periods for invoices. These also differ from one country to another and in some countries it is even so that the storage period is different for VAT law and accounting law. This will complicate even more a possible harmonisation.

The harmonisation of the storage period is not of essential importance, but there are certain elements that indicate that a harmonisation could nevertheless encourage and facilitate the cross-border outsourcing of invoicing within the European Single Market and the electronic storage process.

A harmonised storage period would facilitate compliance for business conducting cross-border trade. For example, when a company is established in a Member State, but also performs taxable supplies in other Member States where it does not have a fixed establishment for VAT purposes and this company wants to centralise the electronic storage of all these invoices, then different storage periods might apply to invoices issued by this company, depending on the Member State in which the client is established.

A problem closely linked with the storage period for (electronic) invoices is the fact that technologies become outdated at a much faster pace then they used to do. Concerns have been uttered concerning the possibility to retrieve electronically stored documents after a long storage period. Moreover, during the course of the storage period, the strength of the cryptographic keys guaranteeing the security of the electronically stored invoices might diminish. A possible solution therefore might be to re-sign the invoices. Escrow agreements[31] might be useful to guarantee both the possibility of reproduction and the security.

[31] An escrow arrangement is an arrangement, normally in writing, among three or more persons or entities, at least two of which are principles to a transaction and one of which is commonly called the escrow agent, the escrow holder, or the escrowee, whereby documents or property are placed in the custody of the escrow agent by one or more of the principles until the occurrence of stipulated conditions, when the escrow agent is required to take specified action.

3. Place of storage

Some Member States' current national legislation sometimes requires that the invoices and other accounting documents are stored at the company's premises (i.e. Belgium, Denmark, Ireland, Luxembourg and Portugal). The tax authorities justify this position by the need to be able to control the VAT taxable person's transactions.

In other Member States (i.e. Austria, Finland, France, Germany, Greece, Italy, the Netherlands, Spain, Sweden and the UK), in whose national legislation this is not required, the tax authorities must be informed about the place where the invoices are stored or the invoices must be made available within a reasonable period of time.

Taking into account the current trends towards the digitisation of documents and outsourcing, future storage legislation should be simplified, harmonised and made more flexible than is currently the case.

The most important issue in this respect is that, in the case of a tax audit, it has to be ensured that the tax authorities have full access to any information on demand.

In a world of on-line transactions the 'place' of storage becomes less important. Future legislation should be based on a more flexible and functional approach.

The flexible and functional term 'access' should replace the outdated term of 'place'. This will allow businesses to store documents abroad or with trusted third parties. Safe storage and safe access should however always be ensured by the electronic storage systems used. A clear definition of what is understood by 'access' will provide businesses and software developers with greater certainty. In this respect 'access' should mean the ability to read, print and check the correctness of the stored documents in such a way that an effective control by the tax authorities is made possible.

An electronic storage system must not be subject to any agreement (such as a contract or licence) that would limit or restrict the tax authorities' access to and use of the electronic storage system on the taxable person's premises (or any other place where the electronic storage system is maintained), including personnel, hardware, software, files, indexes, and software documentation[32].

Taking into account the current trend of specialisation and outsourcing, the storage of paper or electronic invoices with specialised Trusted Third Parties (hereafter referred to as TTPs) might offer sufficient guarantees to tax authorities. These TTPs can guarantee the integrity of the invoices (e.g. by authentication) and keep the invoices at the disposal of these authorities.

[32] See also "U.S. Treasury Department. Internal Revenue Service. 1997. Record-keeping: Electronic records: Requirements: Electronic storage systems. REV-PROC 97FED 46,329, Revenue Procedure 97-22, I.R.B. 1997-13, 7, I.R.B. 1997-13, 9 (Mar. 13, 1997)" and "U.S. Treasury Department. Internal Revenue Service. 1998. Record retention: Automatic Data Processing Systems: Guidelines. REV-PROC 98FED 46,311, Revenue Procedure 98-25, I.R.B. 1998-11, 7 (Feb. 26, 1998)"

The use of a third party to provide the taxable person with an electronic storage system should not relieve the taxable person of its responsibilities towards the tax authorities. The taxable person in question is in the end fully responsible for arranging to make the records available.

4. Electronic storage

4.1 Preservation and archiving of business records

Electronic record management, or the preservation and archiving of business records, has been an integral part of business technology infrastructure for more than two decades. Initially, electronic storage was implemented to reduce cost by minimising physical storage and making record retrieval significantly less labour intensive. Archiving, for instance, allows companies to obtain faster access to the information. The result is quicker and allows more accurate responses to customer inquiries, which can have a positive impact on customer satisfaction and, ultimately, on competitive positioning.

The difficulty of physically storing paper invoices for longer periods of time (e.g. maintain readability of the invoice) can be overcome by a flexible legislation on the electronic storage of invoices.

Typically, information is retained on disks or tapes and, more recently, on optical storage media. Additional backup copies for off-site storage of sensitive records are easily and inexpensively made. Electronic record management has created an entire storage industry, ranging from the hardware and software necessary to create and index archival records (including policies and procedures for their security) to methods for periodically testing archival copies to ensure that they have retained their integrity.

Optical storage technology allows for digitised recording of data in a non-renewable, non-erasable format that cannot be written over. This is commonly referred to as write-once, read-many, or WORM. Examples of optical storage media are optical tape or CD-ROM. Because of the cost-benefit ratio of optical storage, enterprise record archiving and preservation is in a major transition towards the use of this medium.

4.2 Electronic storage: concerns and opportunities

Currently, the rules regarding the storage of invoices differ greatly between Member States. Each Member State sets its own conditions in order to obtain the level of security it requires in order to allow it to control and collect taxes. These differences in national legislation put an extra burden on companies acting in cross-border trade within the European Single Market.

Furthermore, companies that have to meet the requirements imposed by one Member State that are more stringent than those of another, have a competitive disadvantage since they will incur more costs.
The national legislation of the Member States should, as a consequence, be harmonised and simplified.

The future VAT requirements for the storage of invoices should be equivalent to the accounting law requirements for the storage of invoices. Therefore, an adaptation and harmonisation on a national level of the accounting rules might also be required.

Since the electronic storage of invoices is the back end of the electronic invoicing process and since a simplified and harmonised legislation on the use of electronic invoicing is put in prospect by the European Union, we believe that having a simplified and harmonised legislation on electronic storage of invoices is essential. Harmonisation on a European level will allow companies to fully reap the benefits offered by these new technologies, which will reduce compliance costs and strengthen European industry in the Global Information Society.

Future legislative requirements for the electronic storage or retention of invoices should offer the same level of security to revenue authorities as the current paper-based storage requirements. The electronic storage of invoices is capable of being even more secure than the storage of paper invoices in the conventional way.

While tax authorities have identified challenges to the reliability and verifiability of information, they also recognise that the electronic commerce environment offers the prospect of increased use of computerised accounting systems and the completeness, reliability and integrity of records associated with these systems.

4.3 Our proposal for legislation on the electronic storage of invoices

4.3.1 Guiding principles for legislation on the electronic storage of invoices

The following guiding principles should apply to future electronic storage legislation:

- Neutrality: Conditions related to the electronic storage of invoices should not be more burdensome than conditions related to traditional storage methods. When using electronic storage, no extra burden or requirements may be imposed on non-EU companies. Electronic storage requirements should be the same for all companies, irrespective of their location.
- Efficiency: Legislation should allow companies to minimise the storage costs for taxable persons and the administrative costs for tax administrations.
- Certainty: Companies using electronic storage should be assured that the electronic storage of documents is allowed for VAT and accounting purposes.
- Simplicity: The requirements for the use of electronic storage should be kept simple, meaning for example that no detailed legislation containing lots of exceptions and specifications should be implemented or that long authorisation procedures can be required.
- Effectiveness: Legislation on the use of electronic storage systems should be effective, meaning that it is controllable, auditable and enforceable by the authorities.
- Fairness: No disproportionate security requirements may be imposed. The potential for abuse should nevertheless be minimised and counteracting measures should be proportionate to the risks involved.
- Flexibility: Legislation should be flexible and dynamic to ensure keeping pace with technological and commercial developments.

4.3.2 Electronic storage of invoices should be allowed by law

It is essential that the electronic storage systems used have an auditable trail that demonstrates their integrity. The best, simplest and most flexible way to do this is by determining a number of criteria in the law that any electronic storage system must meet. These technical requirements should be carefully outlined and defined in the law. In order to achieve the harmonisation needed, this should happen at a European level.

Businesses themselves are currently applying high levels of IT security to satisfy their customers' concerns. Nevertheless, tax authorities might have some additional requirements on top of the security standards systematically implemented by the business world. Therefore, the requirements should be outlined in a Directive.

When these conditions are fulfilled by the software and hardware infrastructure of a company, no authorisation from or notification to the tax authorities should be required. Electronic storage of invoices should be allowed automatically as from the moment these conditions are fulfilled.

Invoices maintained in an electronic storage system that complies with these requirements will be considered proper invoices for VAT purposes giving rise to the right to deduct VAT.

Not only should the electronic storage of invoices be allowed under the conditions described in the law, but also that of all journals, records and ledgers that should be kept according to VAT and accounting law.

4.3.3 Technical requirements for storage systems

An electronic storage system should be secure, meaning that it should guarantee:

- integrity (i.e. the prevention of modification of information), and
- availability[33] (i.e. the prevention of withholding of information or resources).

No matter what technology or business application is deployed, the basic means of assuring IT security remain:

1. authentication[34];
2. authorisation[35];
3. administration[36];
4. auditing[37];
5. accountability[38], and;
6. data and database integrity.

Each electronic storage system must ensure an accurate and complete transfer of electronic invoices to an electronic storage media. Moreover, it should exclude the possibility of a falsification of the electronically stored invoice subsequent to the storing process.

[33] A DRP (Disaster Recovery Plan) or BCP (Business Continuity Plan) will guarantee the availability.
[34] Authentication is the verification of an individual's claimed identity.
[35] Authorisation or privilege control is the process of determining whether an authenticated user is permitted to use specific resources.
[36] Administration is the process of defining, maintaining and deleting users, resource objects or authorised privilege relationships between users, processes and data.
[37] Auditing is the process of data collection and analysis that allows administrators and others to verify that authentication and authorisation rules are producing the intended results.
[38] Accountability guarantees that the activities of security administrators and auditors are documented, to ensure that they are not abusing their authorised capabilities. In fact, any action on the system will be traceable.

We believe an electronic storage system must include:

1. reasonable controls to ensure the integrity, accuracy, and reliability of the electronic storage system;
2. reasonable controls to prevent and detect the unauthorised creation of, addition to, alteration of, deletion of, or deterioration of electronically stored invoices and records;
3. an inspection and quality assurance program evidenced by regular evaluations of the electronic storage system including periodic checks of electronically stored invoices and records;
4. a retrieval system that includes an indexing system;
5. the ability to reproduce (on paper or on screen) legible and readable hard copies of the electronically stored invoices and records.

4.3.4 Method of storage

The storage technology currently most used, is CD-WORM. This is an optical storage technology whereby digital data are recorded in a non-renewable and non-erasable format.

To avoid the creation of a separate and burdensome tax regime, tax authorities have in the past used or adapted commercial developments for taxation purposes, and should continue to do so.

A future harmonised legislation should, therefore, be 'technology neutral', meaning being flexible and able to cope with different technologies and thus allowing companies to use the latest possibilities offered by the new technologies. The development of electronic storage technologies and standards should be left to the competition between software developers.

No specific technology or method of storage should therefore be promoted or prescribed in the law. Only the characteristics and requirements that an electronic storage system (software and hardware) must meet should be determined in the law. Each system in compliance with the prescribed conditions will be considered a legal method of storage.

4.3.5 Original invoices

Article 22(3) of the Sixth Directive determines inter alia that:

- every taxable person shall issue an invoice…; and that
- a taxable person shall keep a copy of every document issued.

Article 18(1) of the Sixth Directive determines inter alia that a taxable person must, in order to exercise his right of deduction, hold an invoice drawn up in accordance with article 22(3). The concept of 'original' invoice can thus not be found in the Sixth Directive.

The Member States' current legislation, however, requires that:

1. the original of the invoice should be kept by the customer;
2. that only this original invoice gives a right to the deduction of input VAT.

Copies generally do not give a right to deduction. The reason for this strict requirement is that tax authorities of the Member States fear that there will be multiple deductions of input VAT for the same supply. The concept of 'original' invoice has however proven its value in combating fraud when paper invoices are used.

When using electronic invoicing the concept of 'original invoices' becomes less clear. Strictly speaking, the original invoice is a file in a software application of the sender, whereas all subsequent electronic versions could be seen as copies thereof. It is also a common business practice to make back-up files of such documents. We believe, therefore, that the concept of 'original' and 'copy' of the invoice should no longer be used when using electronic invoicing and electronic storage of invoices.

It might be so that, in the future, scanning technologies are developed that present sufficient guarantees of security and integrity of the paper invoices thus transferred in an electronic form. The concept of original invoice will not do in this case.

Hence, we propose a more functional legislative approach. Legislation should require that the electronic invoicing and storage system guarantees the non-duplication of electronic invoices, as to avoid that input VAT can be deducted more than once. Software programs can easily check whether the same invoice appears more than once.

We believe that a clear description of the requirements for electronic invoicing and storage systems will further stimulate companies to develop compliant software packages.

Therefore, we suggest that the articles 18 and 22(3) of the Sixth Directive are transposed by the Member States in national legislation in a more strict way, meaning that the requirement of an 'original' invoice cannot be asked anymore. It is evident that the VAT stated on an invoice can only be deducted once.

4.3.6 Audit of the security of an electronic storage system

The tax authorities must be able to verify and control whether the enterprise's electronic data processing systems are fulfilling the required conditions. For that purpose, periodic tests of a taxable person's electronic storage system may be performed by the authorities themselves or by third parties. These tests may include an evaluation (by actual use) of a taxable person's equipment and software, as well as the procedures used by a taxable person to prepare, record, transfer, index, store, preserve, retrieve, and reproduce electronically stored documents. Also, the authorities might choose to review the internal controls, security procedures, and documentation associated with the taxable person's electronic storage system.

At the time of a control or a tax audit of the system the taxable person must be able to retrieve and reproduce (including hard copies if requested) electronically stored invoices and records, and provide the authorities with the resources (e.g. appropriate hardware and software, personnel, documentation, etc.) necessary to locate, retrieve, read, and reproduce (including hard copies) any electronically stored invoices and records.

Electronic record management has created an entire storage industry, ranging from the hardware and software necessary to create and index archival records to methods for periodically testing archival copies to ensure that they have retained their integrity.

An electronic storage system that fails to meet the requirements may be treated as not being in compliance with the record-keeping requirements and thus be subject to penalties.

The determination of the exact procedure for an audit of the security of an electronic storage system should be determined at a European level[39].

4.3.7 Description of the high-level characteristics for electronic storage systems

4.3.7.1 Integrity of sequence

The electronic storage system should permit the identification and retrieval, for viewing or reproducing, of the relevant invoices and records maintained in the system. For example, each electronically stored document may be assigned a unique identification number and a separate database may be obtained that contains descriptions of all electronically stored invoices and records along with their identification numbers. The system should be functionally comparable to a reasonable hard copy or paper-based filing system.

Reasonable controls must be undertaken to protect the indexing system against the unauthorised creation of, addition to, alteration of, deletion of, or deterioration of any entries.

4.3.7.2 Integrity of content

Since databases are the repository of enterprise business records, businesses view the security and integrity of their databases as essential. Therefore, they adopt systems for this purpose that also protect tax-relevant information. Vendors of database systems provide mechanisms to prevent data corruption, modification, or deletion by users.

[39] For an example, we refer to the USA regulations based on Secs. 201-903 of the Federal Food, Drug, and Cosmetic Act (21 U.S.C. 321-393) and sec 351 of the Public Health Service Act (42 U.S.C. 262). These regulations determine obligations with regard to detailed procedures, checks on the accuracy of data and the results of entry of new data, access only for authorised persons, the existence of audit trails and records of changes and deletions, and protection by back-ups.

Traditional security mechanisms for logging and audit of record activity, such as record creation or record update, include:

1. date and time stamps;
2. the identity of the system or the individual responsible for the record activity.

Date and time stamps are supplied by the system and cannot be altered. Log files keep records of individuals or automated functions that access the system, provided that the function is switched on. Databases are also programmed with business-defined integrity rules, which ensure that the database properly handles the data values stored within a database application.

Electronic records which are authenticated (e.g. digital notarisation) may provide much more information than is currently possible from records in conventional, paper-based commerce and in a form that is easier to use and less expensive to produce and store.

5. Conclusion

The future legislation in connection with storage will be a flexible system that allows both paper and electronic storage. Both methods of storage have to be treated equally. Businesses can freely choose the method of storage they want to use.

However, for electronic storage, the system has to be subject to some technical requirements and has to guarantee the integrity of sequence of the stored documents and the integrity of content. This in order to assure the security of the tax authorities.

Furthermore, it has to be possible for businesses to switch from a paper environment towards an electronic environment (or vice versa). E.g. paper invoices can be scanned and stored electronically.

Finally, in connection with the storage of documents, the outdated concept of ‘place’ has to be replaced by the more modern concept of ‘access’. The possibility to access stored documents makes these documents available for the tax authorities and makes the physical attachment to a ‘place’ irrelevant for audits by the tax authorities.

General conclusions

Legislation on the VAT requirements for invoices and storage of documents should be simplified and harmonised at a European level, as to reduce the burden on traders and tax authorities. Moreover it should guarantee at least the same level of security to the tax authorities as is offered by today's legislation.

For this harmonised and simplified legislation to have any effect, it is important that no additional requirements for invoices are inserted in national legislation by other areas of law concerning invoices, thus de facto undoing the simplification and the harmonisation.

We have determined a number of overriding principles that have constantly guided us in making our proposals for a future legislation on invoicing. Whenever these principles conflicted, we have balanced and weighed them against each other. The following principles were set as guiding beacons:

- Neutrality: Invoicing legislation should seek to be neutral, meaning that no burdensome conditions or disadvantageous consequences may be imposed on certain forms or methods of invoicing or storage of invoices. Future invoicing legislation should be the same for all companies, irrespective of their location. Decisions should be motivated by economic rather than by legislation considerations.
- Efficiency: Compliance costs for taxpayers and administrative costs for the tax authorities should be minimised as far as possible.
- Certainty: A clear legislation will incite companies to make strategic decisions on their invoicing process, having the guarantee that their system is compliant with the law and enabling them to foresee the consequences thereof.
- Simplicity: Legislation should be kept simple and easy to understand, meaning that it should not include excessive details, exceptions or specifications.
- Effectiveness: Legislation should be controllable, auditable and enforceable by the authorities.
- Fairness: No disproportionate requirements may be imposed on businesses. The potential for abuse should nevertheless be minimised and counteracting measures should be proportionate.
- Flexibility: Legislation should be flexible and dynamic to ensure pace is kept with technological and commercial developments.

Our proposal

Common elements for invoices

Concerning the obligation to issue an invoice, we recommend that taxable persons who only perform supplies for which they have no right of deduction should be permitted not to issue invoices to their customers.

To ensure harmonisation and simplification, we advise that future European legislation imposes a precise number of elements that have to be mentioned on the invoice. After a close investigation of all potential elements, we propose the following elements to be mentioned compulsory on the invoice in order for the invoice to be valid from a VAT point of view and thus giving the right to a deduction of the input VAT:

1. Date of issue;
2. Sequential numbering
3. VAT identification number of the supplier;
4. Full identity of the customer[40];
5. Description of the goods or services;
6. Date of supply of goods or completion of service;
7. Taxable amount per VAT rate;
8. VAT rate.

The invoice can be issued in any of the official languages of the European Union. The use of harmonised reference or commodity codes could make the language problem -if any - disappear.

In each Member State the amounts mentioned on the invoice can be expressed in Euro, in the former national currency of one of the 15 Member States or in any other currency (provided that the exchange rate is clearly determined on the invoice or in the contract, or that the exact daily conversion rate of the European Central Bank can be determined).

Summary invoicing should be allowed by law. Future legislation should guarantee that whether transactions are invoiced by a "single invoice" (i.e. one invoice per transaction) or by means of a summary invoice does not have impact on the payment of the VAT due. Consequently, in both cases the related turnover should be reported in the same VAT return. The only competitive advantage companies may obtain from future summary invoicing legislation is the simplification that only one invoice has to be issued instead of several invoices.

[40] When the customer is registered for VAT purposes, its VAT identification number could be sufficient to identify this customer for VAT purposes.

When a supply of goods is exempted or when the reverse charge mechanism applies, we propose that there should be no obligation to mention 'exempted' or 'no VAT applicable'. It is up to the supplier to prove that he is not liable for charging VAT on his supply.

We recommend that if an invoice contains all necessary statements for VAT purposes, it will be considered being a proper invoice (and thus allowing deduction of VAT), even if the invoice does not contain the requirements imposed by other legislation (direct tax law, economic law or accounting law).

Self-billing and outsourcing of invoicing

Self-billing can be seen as the reversal of the classic invoicing process, whereby the burden of issuing the invoice is shifted to the customer. Outsourcing of invoicing means that a third person draws up the invoices in the name and on behalf of a principal. Both practices can give a competitive advantage to companies, upon condition that a clear, harmonised and simple legal framework is constructed at a European level.

Whereas a non-formal prior agreement on the use of self-billing between trading partners is necessary, we recommend that no authorisation from or notification to the authorities on the use of self-billing can be required. Future legislation should simply allow the use of self-billing, but still clearly indicate that the obligation to issue an invoice lies with the supplier of the goods/services.

The self-bill should be sent to the supplier for approval of its correctness. We recommend that this approval can be inferred from a lack of any reaction or protest from the supplier within a reasonable period of time. For this method to work well, receipt of the self-bill by the supplier should be guaranteed. When using electronic self-billing, this can easily be achieved by a delivery or receipt acknowledgement.

The self-bill must contain all the statements required for conventional invoices. The issuer of the self-bill should mention no additional statements, nor should the supplier be obliged to add any items to the self-bill.

We recommend that the outsourcing of invoicing should be allowed by law and that no specific conditions therefore should be imposed.

Electronic invoicing

When electronic invoicing is considered, secure and verifiable standards seem to be the big issue for tax authorities as well as the possibility for them to carry out tax audits. New technologies can guarantee integrity, authenticity, verifiability and auditability in a much more complete way than paper invoices can currently do.

EDI is the highly secure electronic transmission of documents from one company to another, using a set of standard forms, messages, and data elements. In all Member States that currently allow electronic invoicing, EDI seems to be the de facto standard. EDI is, however, too demanding on companies (high costs and technical complexity) and therefore the entry barrier to adopting EDI is practically insurmountable for SMEs. Moreover, it is not a technology neutral-solution.

In some Member States (Denmark, Finland, Ireland, Italy and Sweden) it is currently allowed to send invoices over the Internet by means of e-mail attachments. We recommend that in the future, this should be allowed in all Member States, provided that this means of transmission is made secure, verifiable and leaves an auditable trail. Current e-mail software-packages are flexible enough to guarantee the security and integrity required by the tax authorities. The widespread use of e-mail and its flexibility could make e-mail the "killer" application for cheap, secure and cross-sector electronic invoicing.

We recommend that electronic invoicing be allowed by law, meaning that the conditions for electronic invoicing and the characteristics of the software system should be carefully described and defined in the law. The electronic invoices will consequently be considered proper VAT invoices guaranteeing the right to deduct input VAT. No authorisation from or notification to the authorities can be required.

Since electronic invoicing is allowed by law, the burden of proof lies with the tax authorities, i.e. the tax authorities should prove that the electronic invoicing and storage system does not meet the requirements laid down in the law.

Future tax legislation should be 'technology neutral', meaning being flexible, able to cope with different existing and future technologies and not prescribing a specific technology. It is important that electronic invoicing systems leave an auditable trail that maintains its integrity. Therefore, a number of criteria should be determined and defined in the law.

A clear description in the law of the conditions for electronic invoicing will lead software developers to make compliant software packages. Clarity coupled with off-the-shelf software packages will encourage the adoption of electronic invoicing. We recommend that electronic invoicing systems should guarantee the authenticity of origin, the non-repudiation of origin and of receipt, the integrity of the sequence of invoices and the integrity of the content of the invoices, not only during transmission but also during the whole invoicing process up to the end of the legally required storage period.

Tax authorities should be able to check whether the conditions and characteristics – as required by law – are in practice met by the invoicing software system.

The current procedure for the use of cross-border electronic invoicing is seen by companies as burdensome, expensive and time-consuming, since the – sometimes different – conditions of two Member States have to be met. We recommend that companies engaged in cross-border electronic invoicing should operate according to the principle of "home-country control", meaning that the compliance of the invoicing system should be reviewed by the tax authority of the Member State where the company is established.

Storage of invoices

Since the storage period is closely linked to the different and differing national VAT procedures (e.g. limitation period, adjustment period), a European harmonisation of the storage period will be difficult. It should nevertheless be considered, taking into account its benefits and its difficulties. A harmonisation could, for example encourage and facilitate the cross-border outsourcing of invoicing within the European Single Market and the electronic storage process.

Current rules concerning the place of storage state:

1. that invoices have to be stored at the company's premises,
2. that the tax authorities must be informed about the place where the invoices are stored, or
3. that the invoices must be made available within a reasonable period of time.

Storage legislation should be simplified, harmonised and made more flexible. In a world of on-line transactions and with the success of outsourcing of administrative functions, the importance of the element 'place' becomes less important. We recommend, therefore, that the more flexible and functional term 'access' should replace the outdated term of 'place'.

The electronic storage of invoices and records presents numerous advantages to businesses. The current rules regarding the storage of invoices differ however greatly between Member States and are thus putting an extra burden on companies acting in cross-border trade. A simplified and harmonised legislation on electronic storage, taking into account the principles of neutrality, efficiency, simplicity, certainty, effectiveness, fairness and flexibility and offering at least the same level of security to the tax authorities as the current paper-based storage requirements do, will allow companies to fully reap the benefits of electronic storage.

We recommend that electronic storage should be allowed by law, meaning that the conditions for electronic storage and the technical requirements of the electronic storage system should be carefully described and defined in the law. When these conditions are fulfilled no authorisation from or notification to the tax authorities should be required.

An electronic storage system should be secure, meaning that it should guarantee the integrity and the availability of information. The basic means of assuring IT security are authentication, authorisation, administration, auditing and accountability, and data and database integrity.

Future legislation should be 'technology neutral', meaning that no specific technology or method of storage should be prescribed in the law. Each system in compliance with the prescribed conditions will be considered a legal method of storage.

Current national legislation states that the customer should keep the original of the invoice and that only this original invoice gives a right to the deduction of input VAT. When using electronic invoicing the concept of 'original invoices' becomes unclear. Therefore, we propose a more functional legislative approach, meaning that the electronic invoicing and storage system should guarantee the non-duplication of electronic invoices, as to avoid that input VAT can be deducted more than once.

Periodic tests of the electronic storage system may be performed by the authorities or by third parties. At the time of a control the taxable person must be able to retrieve and reproduce electronically stored invoices, and provide the authorities with the resources necessary to locate, retrieve, read, and reproduce (including hard copies) any electronically stored invoice.

Annexes

Annex 1: VAT requirements for invoices

Date of issuance of the invoice (question 29 of the reduced questionnaire; question 38 of the original questionnaire)

In most EU Member States (except for Germany, Finland and Austria), there are special requirements with respect to the date on which the invoice must be issued at the latest. These requirements can be rather undetermined ("as soon as possible") but can also be rather specific ("before the fifth or fifteenth day of the month following the month in which the supply has taken place" or "x days from the day of supply" or even "at the time of the taxable event").

The person liable for drawing up the invoice (question 30 of the reduced questionnaire; question 42 of the original questionnaire)

In most countries there is no legislation with respect to who is allowed to draw up the invoice. In the countries where there is legislation in this regard, it is generally stated that it is the supplier who should draw up the invoice.

Common minimum information to be mentioned on the invoice (questions 31 to 46 and 53 of the reduced questionnaire; question 43 to 145 of the original questionnaire)

The common minimum information, which must be stated in order to have a valid invoice from a tax/legal point of view in all of the Member States, is the following:

- The full identity of the supplier of the goods and/or services (both name and address)
- The identity of the customer
- The description of the goods (plus quantity) or services supplied in order to determine their nature and the applicable VAT rate
- The price and other elements of the taxable amount (to be split up per VAT rate, if applicable)

The following mentions are required in most Member States:

- The date of issuance (not in Germany and Austria)
- The number under which it is recorded in the records for invoices issued (not in Luxembourg, Ireland, Germany and Austria)
- The date of supply of the goods (not in Denmark)
- The date of completion of the service (not in Sweden, Ireland and Denmark)
- The applicable VAT rate (not in Austria, Germany and Denmark)

- The amount of VAT (to be split up per VAT rate, if applicable) (not in Denmark)

In general, there are no specific requirements, other than these mentioned above, with respect to information on documents serving as invoice drawn up for deemed supplies of goods or deemed supplies of services (for example the use of goods forming part of the assets for the private us of the taxable person or of its staff (e.g. articles 5.6., 5.7. and 6.2. of the Sixth VAT Directive)).

Summary invoicing (question 39 of the reduced questionnaire; question 91 of the original questionnaire)

Summary invoicing once a month is allowed in 14 of the 15 Member States (exception is France).

Currency (questions 47 to 52 of the reduced questionnaire; questions 121 to 131 of the original questionnaire)

In 7 of the 15 Member States (UK, Italy, Spain, Ireland, Greece, France and Belgium) specific requirements exist as to the currency in which the invoice should be issued. With respect to the Euro all Member States, except Greece, allow the use of the Euro on the invoice. Both the national currency and the Euro can be stated on the invoice. All Member States also allow stating another currency (not national currency or Euro) on the invoice.

Language (question 54 of the reduced questionnaire; question 132 of the original questionnaire)

Only in 3 of the 15 Member States (Greece, France and Belgium) specific requirements exist with respect to the language in which the invoice should be made out.

Nevertheless, in Portugal, Spain and Denmark the authorities can ask for a translation. In Italy also, the use of Italian is recommended in practice.

Data carrier of the invoice (question 55 of the reduced questionnaire; questions 139 to 144 of the original questionnaire)

13 of the 15 Member States allow the supply of invoices on another data carrier[41] instead of a hard copy (exceptions are Portugal and Greece).

[41] We can determine two kinds of 'data carriers': (1) the transfer of the invoice in its traditional paper version (i.e. hard copy) usually sent by mail or directly handed over to the client and (2) the transfer of the invoice by electronic means (such as EDI, e-mail, fax etc.).

Annex 2: Self-billing

Use of self-billing (question 58 of the reduced questionnaire; questions 209 to 211 of the original questionnaire)

Self-billing is common practice in all EU Member States. There are always certain conditions that have to be met or formalities that have to be performed (e.g. prior agreement between parties on the use of self-billing, prior notification to the authorities, self-bill should be signed by supplier of service). These conditions are sometimes laid down in the VAT law itself (e.g. in Belgium and Luxembourg), whereas in other countries the use of self-billing is an administrative tolerance subject to the conditions determined by the VAT authorities (e.g. the Netherlands, Sweden and Portugal).

Formal requirements (questions 59 to 60 of the reduced questionnaire; questions 216 to 222 of the original questionnaire)

The formal requirements are in general the same as for normal invoicing. However, there are deviations in some EU Member States with regard to the issuing date (e.g. UK, Spain).

Conditions (question 58 of the reduced questionnaire; questions 212 to 213 of the original questionnaire)

Out of the enclosed questionnaires it also appears that in most of the EU Member States no special application or notification towards the VAT authorities is necessary. This is only required in Belgium and Portugal.

Furthermore, in most of the Member States self-billing is possible in situations where the supplier and recipient are established in different countries (even with a trade partner established outside the EU).

Only in Belgium, Luxembourg, Germany and Austria an agreement between the supplier and his customer is required before self-billing can be applied. In most countries the invoice should be sent to the other party to be signed or certified. These are requirements which can make self-billing unattractive for companies.

Link with electronic invoicing

It is expedient to link rules on self-billing with electronic invoicing regulations, as these two topics can lighten the administrative burden for companies considerably.

As we mention in our findings concerning electronic invoicing, we believe that explicit regulations concerning the application of electronic invoicing under simple and clear conditions will enhance the possibilities of control for the authorities. The same applies for electronic self-billing.

Annex 3: Electronic invoicing

Legal basis of electronic invoicing (questions 68 to 69 of the reduced questionnaire; questions 237 to 238 of the original questionnaire)

All Member States (except Greece and Portugal) accept electronic invoicing. In Germany, however, electronic invoicing is only possible if in addition a written document is sent to the customer. The Luxembourg VAT authorities recently decided not to allow electronic invoicing since until now no legal provisions are available in this respect. However, as a draft bill concerning electronic business has recently (on 10 March) been approved by the Luxembourg Government Council, the Luxembourg VAT authorities should change their position in the future.

Although electronic invoicing as a method to invoice is accepted in most of the EU Member States, there is no uniformity between the EU Member States in connection with the rules applicable to electronic invoicing. Even within an EU Member State various rules can be applicable (e.g. in Belgium: licenses granted on a case-by-case basis).

There are 3 different approaches to regulate electronic invoicing, i.e. (1) a regulation by law, (2) a regulation by administrative practice (mostly on an individual basis) or (3) no mentioning of electronic invoicing at all (whereby the principle "what is not forbidden, can be used" is applied).

(1) In a number of the EU Member States (i.e. in 6 of the 15), there is a specific set of rules on electronic invoicing included in the law.
(2) In other countries (i.e. Belgium, Italy, Germany, Austria) electronic invoicing is regulated by administrative practice. In most cases authorisations or permissions from the authorities are necessary and conditions are put forward. Mostly, authorisations are given on a case-by-case basis.
(3) In Sweden, it appears that there is no mentioning at all in the law or in the administrative practice. No permissions are needed. It is thus allowed to invoice electronically.

The possibility of cross-border electronic invoicing (questions 70 to 71 of the reduced questionnaire; questions 239 to 240 of the original questionnaire)

Contract partner is established in the EU

In all Member States that allow electronic invoicing, cross-border electronic invoicing between trade partners established within the EU is accepted (the 'home country control' thus applies). The only exception to this principle is France, that only allows electronic invoicing between trade partners established in France, for reasons of control by the authorities.

Contract partner is established outside the EU
In all Member States that allow electronic invoicing, cross-border electronic invoicing with a trade partner established outside the EU is accepted (the 'home country control' thus applies). The only exception to this principle is France, that only allows electronic invoicing between trade partners established in France, for reasons of control by the authorities.

The requirement of having a permission to use electronic invoicing (questions 72 to 75 of the reduced questionnaire; questions 241 to 244 of the original questionnaire)

Permission
If electronic invoicing is allowed, some Member States (being the Netherlands, the UK, Ireland, Belgium) state that a permission should be obtained from the authorities to issue or receive electronic invoices. We have determined two scenarios:

(1) In some countries this authorisation is mandatory (Spain, Belgium, Ireland, the Netherlands, Ireland and Germany, for the latter only in case non-established entrepreneurs will be involved)
(2) In Italy it is merely advisable to ask for permission
(3) In other Member States it is sufficient to inform the authorities up-front (the UK and in Germany when no non-established entrepreneurs will be involved).

Permission to issue electronic invoices and permission to receive electronic invoices go hand in hand. Only in Spain a permission to issue electronic invoices is necessary, whereas none is required to receive electronic invoices.

No permission
In Finland, Denmark, Sweden and France no prior permission must be obtained from the authorities to use electronic invoicing, since electronic invoicing is regulated by law in these countries (except Sweden). In France, the use of electronic invoicing must however still be declared to the authorities, whereas even this is not necessary in Finland, Denmark and Sweden.

Prescribed term to issue a permission
Generally, the term seems to be approximately one year. But mostly there are no specific terms determined in laws or other regulations for this purpose.

Obtaining of a permission by the supplier for its clients.
Only in Belgium, the supplier can obtain a licence for its customers, so that these customers do not need to obtain separate, individual licences.

Standards for electronic invoicing (questions 76 to 77 of the reduced questionnaire; questions 245 to 246 of the original questionnaire)

EDI

In some countries (e.g. Italy, Spain, France and Belgium) it is mandatory to use EDI for electronic invoicing. In other Member States (e.g. the Netherlands and Denmark) other standards could also be accepted, as long as it is ensured that they are verifiable and secure, but in those countries also EDI appears to be the de facto standard.

E-mails

In Denmark, Finland, Sweden and in a few other countries (e.g. Italy, Ireland), it is possible to send bills via e-mail over the Internet.

Language requirements (question 78 of the reduced questionnaire; question 247 of the original questionnaire)

The normal language requirements for invoices apply. There are no specific rules for electronic invoices.

Electronic invoicing and self-billing (question 79 of the reduced questionnaire; question 248 of the original questionnaire)

Electronic invoices can be used for all types of transactions, including self-billing.

Special or additional requirements regarding the content of electronic invoices (question 80 of the reduced questionnaire; question 249 of the original questionnaire)

Generally speaking the requirements for 'traditional' invoices also apply to electronic ones.

The requirement of issuing periodical overviews of issued electronic invoices to the customers or the tax authorities (question 82 to 83 of the reduced questionnaire; questions 251 to 252 of the original questionnaire)

The general principle seems to be that no general overviews of issued electronic invoices should be issued to customers or to the tax authorities. Exceptions hereto are rare (e.g. the Netherlands, Ireland, Germany, Austria).

Electronic administration or hard copies (questions 84 to 85 of the reduced questionnaire; questions 253 to 254 of the original questionnaire)

The electronic invoices can be stored electronically. The companies must, however, be able to print these electronic invoices, for auditing purposes.

In most cases no specific data carrier is requested. The fundamental principle to be adhered to seems to be that it must be made sure that a falsification of the invoice electronically stored is not possible subsequent to the storage process.

Retention period for hard copies of invoices and electronic invoices (questions 86 to 87 of the reduced questionnaire; questions 255 to 256 of the original questionnaire)

The general rule applies; there is no specific different retention period for electronic invoices.

Random use of traditional and electronic invoices, i.e. optional per transaction (question 88 of the reduced questionnaire; question 257 of the original questionnaire)

There seems to be no specific rules regarding this issue. However, all Member States allowing electronic invoicing (except for Ireland) have no objections thereto. Special attention must however be given to the correct numbering of the invoices.

Deduction of VAT charged on electronic invoices (questions 89 to 90 of the reduced questionnaire; questions 258 to 259 of the original questionnaire)

The VAT charged on electronic invoices can be reclaimed by the receiver of the invoice merely on the base of that electronic invoice (except for Germany and Austria).

The situation whether the VAT charged on electronic invoices can be reclaimed by non-established customers is unclear in all Member States.

Period of time that current rules regarding electronic invoicing have been in place (question 91 of the reduced questionnaire; question 260 of the original questionnaire)

Some regulations have been in place since the early '90's. Other countries still haven't got any regulations regarding electronic invoicing.

Additional conditions regarding electronic invoicing (question 92 of the reduced questionnaire; question 261 of the original questionnaire)

In some countries there are requirements regarding the reliability and accuracy of the system. These conditions are often determined on a case-by-case basis.

Annex 4: Storage by the issuer of invoices or documents serving as invoice

Storage period (question 93 of the reduced questionnaire; questions 147 to 150 of the original questionnaire)

The required storage period varies between 4 and 15 years (or even longer, e.g. France for fixed assets). A lot of Member States (the Netherlands, Portugal, Belgium, Denmark and Austria) have two or more different storage periods. They frequently require a longer storage period for documents related to immovable property.

Storage medium (question 94 of the reduced questionnaire; questions 151 to 152 of the original questionnaire)

Besides the storage of the hard copies (i.e. paper versions) of the invoices, it is possible in all Member States to store invoices electronically.

The media most often used for electronic storage of invoices is the CD-WORM (write once, read many), but storage is also generally allowed on microfiche or microfilm. The use of these storage media is sometimes limited to companies of a specific industry sector (Greece and Portugal).

Generally speaking, the storage media should allow for the invoices to be printed and legible on a screen within a reasonable period. The leading principle is that a falsification of the invoice electronically stored is not possible subsequent to the storing process. Sometimes an authorisation of or a notification to the authorities is necessary.

Place of storage (question 95 of the reduced questionnaire; questions 156 to 161 of the original questionnaire)

In 9 of the 15 Member States the invoices do not always have to be stored at the company's premises. However, if the documents are stored at another place than the company's premises, it is necessary to inform the authorities or else, to guarantee that the documents are available for presentation within a very short period of time.

Annex 5: The invoicing process and the opportunities offered by the new technologies

I Background

DG XXI has a keen interest in a clear and simple procedure for the exchange of invoices (be it on paper or in electronic format) in all the Member States and wants to provide the business community (including small and medium enterprises) and the public guidelines in order to simplify this business process and to facilitate the introduction of the most advanced and competitive techniques. The administration must also ensure maximum auditability and control of the invoices between businesses (B2B) and between businesses and consumers (B2C).

The fast and ubiquitous spread of the Internet and Open Systems opens up a number of opportunities to simplify several key business processes. Large businesses have adopted EDI (Electronic Data Interchange) as an enabling technology to exchange business documents between applications. EDI has delivered significant benefits to these organisations. Some of them, urged by the lean manufacturing wave, completely re-designed the process and eliminated the invoice as a separate document. But EDI never stood up against its promised rewards. Implementation required considerable investment in hardware, software and human resources. Integration proved extremely cumbersome. Document standards differed per industry and even per country and were rather a reflection of the specific interests of a business group than the reflection of common sense business practices. SMEs could only be forced to introduce it and almost never reaped the true benefits.

The Internet may shift the balance considerably since its Open architecture allows the extension of the back office processes into the front office. SMEs will have a hard time to resist pressure from their business partners. Cheap and user-friendly access even promotes emerging bill presentment and payment systems for customers.

Technology will relieve the users from the burden of repetitive and non value added tasks. The administration must find an equilibrium between need-to-have and nice-to-have. Any regulation may either improve the competitiveness of the EU enterprises or compromise it. In addition to that, the administration will need to align auditing, VAT and economic laws with respect to the exchange of invoice data.

II Business to Business

Invoices are exchanged on paper and electronically be it via e-mail, fax and the Internet. Invoices are used in the business to consumer (B2C) and the business to business (B2B) environments. Both environments have their specific requirements. EDI (Electronic Data Interchange) has played a prominent role in the exchange of invoices for the B2B world.

2.1. The Purchasing Process

The purchasing process does not require any complex infrastructure. Cross-industry, the acquisition of goods and/or services follows the same methods. Before changing a proven concept, a detailed study of the current process might be appropriate. The paper-based process was seldom scrutinised. A careful evaluation of the process, the added value of the different steps and the redundant data in the information flow could have revealed a number of alternative routes to improve the purchasing process. In most cases a company automated the existing paper flow and created more problems than it resolved.

The invoice plays an important role in this process. Although a simple document, the invoice requires a number of cross-departmental checks before the actual payment may occur. The accounting department, the purchasing department, the (goods) receiving department and the mailroom are in most enterprises not located in one and the same physical location. An electronic integrated solution will speed-up the processing of invoices considerably. The computer system transfers an incoming invoice and reconciles the invoice data with the data stored in the accounting, purchasing and receiving systems. In an instance, a process normally taking weeks to accomplish, is executed error free and without human intervention. EDI plays an important role in that process.

2.2. EDI

Electronic Data Interchange (EDI) enables the exchange of structured data from one computer application to another via electronic transmission. Efficient use of this technique may streamline the flow of data between business partners considerably. Since a computer does not interpret text, a lot of descriptions and addresses could be replaced by codes.

In practice many EDI implementations do not reflect this simple rule. The remarkable resemblance between an EDI file and its paper equivalent is most of the time more than striking.

The integration of EDI files with legacy systems and other applications reveals another weakness in that lots of recipients do not forward the EDI messages into their applications. These companies print the messages out and treat them manually, rather than distribute them electronically and update all their internal systems at once.

The true value of EDI – replacing manual, step by step processes with automatic, parallel transactions – has not been realised in most cases where organisations were forced to adapt to this new technology.

EDI standards describe the message syntax in detail. Since business practices differ per industry and even per country, Europe has seen the advent of many standards and even versions of messages in a standard.

Lite EDI and FEDI[42] are so many versions of the same idea but they could never convince the 80 % of the supplier community, that were too small to introduce EDI, to bear the cost of the investment. Many small enterprises did not perceive the benefits and feared the cumbersome and never ending implementation.

The Internet provides them with a viable alternative. The limited communications cost in combination with free browser software plus a learning curve near to zero allows practically any partner to exchange files be it HTML and/ or XML (eXtended Mark-up Language) or any other format.

Many companies offer secure extra-net (secure and private environment based upon Internet technology and standards) solutions to their partners to improve the exchange of valuable information.

2.3. Self-Billing (Evaluated Receipts Settlement)

In certain industries, bold steps were taken to re-design the classic invoice process. These initiatives reviewed the business practices and proposed a new working method based upon information already available in the current process. EDI was the enabler, since the electronic exchange of data allowed for a reorganisation of the documents exchanged and a simplification of the data in the transmitted files.

Although GM initiated the effort, the Chrysler model has now become the recommended business practice in the automotive industry[43]. With Evaluated Receipts Settlement, the ship notice (shipping advice or dispatch advice) becomes the invoice. The customer's computer system forwards the shipping data upon receipt to the receiving location and accounts payable. In accounts payable the ship notice replaces the invoice.

Upon receipt of the shipment from the supplier, the receiving clerk would physically check the shipment and reconcile or note any discrepancies in that particular shipment to the supplier's receipt advice. Only the discrepancies were transmitted to accounts payable and in the receipt advice to the supplier.

For the first time an EDI document contained exception reporting. This process has reduced EDI activity and data files considerably.

[42] Financial EDI
[43] The Journal of Electronic Commerce, Lee Pittman: "Eliminating the invoice: A look at Evaluated Receipts settlement"

2.4. Best Practices for Supply Chain Co-ordination

Over the years a number of organisations have compared business processes and exchanged ideas on the improvement of certain practices. Thomson EC Resources collects data on the subject of Electronic Commerce management best practices. Among seventeen identified EDI management best practices, only the requirement to acknowledge the receipt of critical transaction sets has been retained by a strong majority (79%) of all EDI user companies.

Other best practices, though not in use by a majority of the respondents, are certainly worthwhile to bring under the attention of any interested party:

- Auto notification of transaction set error
- Archive EDI data for ten years for audit purposes
- Design application interface independent of EDI standards
- Application integration within company
- Application integration at the supplier's end of the chain

The best practices show the business environment's adherence to secure and seamless exchange of data independent of any given standard. Changes in the standards should not impact the implemented solution.

III Business to Consumer

Electronic Bill Presentment and Payment (EBPP) will no doubt take the lead for the B2C (Business to Consumer) environment. The Internet enables the invoice to move from the back office to the front office.

3.1. Electronic Bill Payment

Online bill payment services are available from banks today both through the Internet and through direct dial-up access (home and/or phone banking). Proprietary direct-dial PC programs dominate the electronic bill payment market today, primarily through bank supplied software and to a minor extent through PFM (Personal Finance Management) software.

These systems are growing in popularity but standards issues, communication costs and technological barriers prevent its widespread use with the large public. Research in Belgium has revealed that the more senior citizens prefer to handle those transactions manually.

3.2. Electronic Bill Presentment and Payment (EBPP)

Integrated electronic bill presentment and payment can be implemented according to three different models, depending upon how the billing data is accessed by the consumer: directly from a biller's site, from a third-party processor's site, or from a bank site via a bill concentrator. Each presents its own set of advantages and disadvantages for consumers, banks, and billing entities.

3.2.1. Billing Data Accessed from Biller's Site

The most direct form of integrated bill presentment and payment is where billing data are accessed from the bill-issuing entity's own site. With this method, the billers themselves manage bill presentment and payment.

This approach places the greatest burden upon the billers themselves to implement electronic bill presentment and payment[44].

[44] The Tower Group report, D. Medeiros, February 1998

3.2.2. Billing Data Accessed from a Bill Concentrator's Site

With this approach, billing data are maintained at the site of a bill concentrator.

- A biller provides a bill concentrator with billing information (both summary-level and detail), which is maintained at the bill concentrator's site.
- A consumer accesses the bill concentrator's site, reviews billing information, and authorises payment.
- The bill concentrator initiates payment from the consumer's bank to the biller's bank, and notifies the biller that payment has been authorised.

This approach places the greatest burden upon a third-party bill concentrator to implement electronic bill presentment and payment, requiring that the bill concentrator establishes and maintains relationships with a large number of both billers and banks, and develops a business model that makes such a service profitable.

3.2.3. Billing data accessed from a Bank Site via a Bill Concentrator

Given the expense and complexity of dealing with multiple billers and their different electronic billing data and presentation formats, as well as the complexity and expense of processing payments through home banking programs, it is unlikely that banks themselves will take a leading role in implementing electronic bill presentment and payment. Rather, it is much more likely that they will enlist the services of a bill concentrator to manage the process for them.

With billing data accessed from a bank site, bill presentment and payment are managed by bill concentrators and banks in co-operation.

- Billing data, both summary-level (customer name, amount owed, and date owed) and billing detail is networked to a bill concentrator, which then maintains the billing data at its own data centre.

- Consumers connect to their banks' home banking programs via Web access, third-party PFM[45] software, or bank-supplied software. When the customer requests electronic bill processing from the home banking options, summary-level information is automatically accessed from the billing concentrator by the bank and presented to the consumer.
- If the consumer requests billing detail, a separate network connection and session between the consumer and the bill concentrator is established and detailed information is provided to the consumer directly, without the information passing through the bank.
- Once the consumer has approved bill payment, payment instructions are transmitted to the consumer's bank.

[45] Personal Finance Management

- The consumer's bank then processes the payment and transmits confirmation that the bill has been paid back to the biller by way of the bill concentrator. The bank, bill concentrator, and biller update their files based on the confirmation they receive that the bill has been paid.

This approach places banks in the most active and visible role in the electronic bill presentment and payment process. However, as in the case of electronic bill presentment and payment at a bill concentrator's site, it places the greatest burden upon a third-party bill concentrator to implement electronic bill presentment and payment, requiring that the bill concentrator establishes and maintains relationships with a large number of both billers and banks.

3.3. Key Issues Stakeholders

Electronic Bill Presentment and Payment (EBPP) presents a lot of opportunities but demands a careful look into the different issues the stakeholders are facing.

3.3.1. Consumer

The consumer requires convenience above all other things. Ease of use and integration with existing bank software and/or PFM modules seem a minimum to create a critical mass of consumers ready to adopt this new feature.

Potentially, one financial application allows the consumer to process not only his payments but to plan and analyse his personal financial situation and to manage his cash position more pro-actively.

The actual visible cost to consumers of paying bills by today's methods is only about € 3.2 to € 5.3 per month per household for checks and postage. Therefore, consumers will adopt EBPP only if the service provides more convenience, security, ease-of-use and decreases the cost of the transaction.

3.3.2. Biller

The cost of an invoice seems the greatest incentive for the biller. A paper invoice actually costs between € 1.13 and € 1.65. EBPP reduces this amount considerably to a figure between € 0.28 and € 0.47.

Naturally, the biller will integrate his EBPP application with his legacy and/or ERP[46] billing application. His biggest concern though, will be to retain his customer. His EBPP system must therefore push the customer's billing data in a pro-active mode onto the user's desktop. In addition to that, the biller will see to it that he creates an avenue of opportunities based upon the customer's buying pattern.

[46] Enterprise Resource Planning

The electronic bill may contain cross-selling information and promotions in order to attract the customer's attention to new products and/or services.

3.3.3. Concentrator

A concentrator offers the possibility of one single point of bill presentment and payment for invoices from communications companies, utilities, credit cards organisations, loans and insurance companies. The concentrator maintains the billing data both summary and detail.

The biller looses direct contact with his customer and will have to maintain links with one or more concentrators.

3.3.4. Bank

Banks run the risk of dis-intermediation. Technology companies like Microsoft offer or intend to offer EBPP services. Research has revealed though that consumers trust banks more than technology corporations.

Banks will find EBPP also a key to cross-selling other products and/or services.

3.3.5. Standards

Standards are often more a competitive weapon than a means to simplify and streamline the exchange of data between applications. More and more standards emerge, but that does not improve the effort of standardisation one bit.

Standards must ensure the interoperability of the solution and reduce cost. The standard must therefore be meaningful and not cause any entry barriers.

3.3.6. Security

The customer requires privacy of his billing data. Nowadays security (i.e. encryption, authentication, non-repudiation and integrity) is not an issue anymore. The idea would be to find a balance between privacy and convenience.

Any company offering e-billing features will want to make sure that the service is secure and private. They will not run the risk of exposure to hackers and bad publicity. The level of security counts as well. Many customers find digital certificates, smart cards and other hardware secure devices (e.g. Digipass in Belgium) difficult to use.

3.3.7. Content

Messages (i.e. invoice, acknowledgement, etc…) must be concise and meaningful. Electronic messages do not contain text fields, addresses and descriptions.

A biller could no doubt send invoice information to a customer without any reference of the customer in the invoice file. The network knows the customer's network address perfectly. This method ensures also the privacy. Unauthorised access to the file does not reveal the identity of the sender nor the receiver. This technique mirrors the idea of an envelope with a window in it to display the address on the letter. Normally, the address must appear twice, once on the letter and once on the envelope.

The messages must also take into consideration the tax and statistics authorities' role to control and audit the invoices in a reasonable and efficient manner. The administration must carefully look into the burden their information requests put onto the business world. The sequential numbering of an invoice puts an additional burden on an electronic solution. A supplier may send several invoices to his customer. Due to network problems, the invoices are not transferred immediately. After the resolution of the network failure, the network re-starts and in an effort to process the backlog quickly, the network software might send the smallest files first. As such the sequential numbering of the invoice files is disturbed. Are some of these requirements still valid in the electronic age?

IV Emerging Solutions

4.1. Electronic Communities

An e-billing solution must reflect the new business models or at least take into account that the business world constantly changes and transforms itself. BPO (Business Process Outsourcing), electronic communities (vertical and horizontal) and electronic markets are not merely buzzwords but a clear and present reality.

Companies outsource non-core activities such as invoicing (BPO). Others create complete virtual value chains for certain business processes (vertical communities) or for specific functions (horizontal communities).

Electronic markets such as auctions or e-procurement solutions introduce the ubiquitous aspect of the Internet.

A company can source products in one country and currency, ship it to another country in another currency and sell it on the Internet in many different currencies. Obviously, this remarkable evolution challenges the status quo. Competitive positions are at stake. DG XXI must be careful not to support a solution that adds too much cost to the EU based enterprises vis-à-vis US or Asiatic based enterprises.

4.2. Seal, Store, Share

Technology enables a widespread application of solutions. Before the user introduces technology, he should carefully examine his business process. An examination of the different steps in a process and their added value can help to determine which of the parties involved can perform best certain steps.

Therefore the concept of the Trusted Third Party (TTP) for the storage and distribution of the invoices within the EU looks very appealing. The technology enables the enterprises to seal, store and share documents on the Internet. Since the authorities want to be able to control and audit the invoices at anytime this concept is worthwhile looking at.

At this moment a Belgian company Waveresearch owns and markets a technology named Filepool (www.filepool.com). This technology provides a biller with an application to convert any document (i.e. also an invoice) into an e-CLIP of 34 characters. The e-CLIP is encrypted and can be programmed to limit access to certain parties (i.e. tax administration, Intrastat). In addition to that, the e-CLIP can be time stamped and destroyed automatically after the legal storage term.

The TTP would issue certificates to the tax administrations. The tax administration can then resell the certificate while checking the status of the requestor[47]. This certificate is an identity card for the user of the e-CLIP and ensures authenticity. The TTP will then store the invoice and provide limited access to all parties concerned.

The use of the e-CLIP limits the transport over the network (only 24 chars.) and eliminates bandwidth congestion. The invoice can be consulted whenever necessary and will only be transported if necessary. Filepool uses a unique and simple content addressable networking principle that uses open Internet standards and allows a unique digital identifier of your data on the network. As such the e-CLIP allows you to reproduce the original invoice document.

[47] Within the European Community, the issue of cross certification of digital certificates is not yet resolved i.e. a certificate issued in Brussels will not be acceptable in Germany.

V Conclusions

The electronic exchange of invoices requires stable state of the art solutions based on open standards and protocols. The business world and the consumers will not adapt to uncertain and proprietary solutions promising limited and inflexible use. On the other hand, the authorities require the means to audit and control the monetary flows from and to all parties involved.

Electronic solutions offer a means to improve the efficiency of the information flow, to eliminate non-value-added steps and to enable maximum control.

The Internet and its open standards remove a number of obstacles and ensure maximum efficiency at minimum cost. As such electronic invoices will gradually replace their paper equivalents.

Business to Consumer solutions require convenience, security and integration with home banking and/or Personal Finance Modules.

Business to Business will maximise their EDI investments in a combination of classic EDI and Web technology. Small enterprises have the opportunity to join their partners electronically via easy to implement and use web applications.

Both Business to Consumer and Business to Business put efficient integration with legacy and customer care applications high on their agenda.

Regulators must pick technology neutral solutions with a focus on lean message content to avoid network congestion.

Trusted Third Parties may play an increasing role as Certificate Authority and data store for invoice data.

E-billing solutions need to address the continuous evolution in business practice and technology. The self-billing practice proves the added value of a re-engineered business process.