E-Invoicing / E-Billing in Europe and abroad

From evolution to revolution

Bruno Koch
Billentis
March 21, 2011
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Author contact:
Bruno Koch
Billentis
9500 Wil
Switzerland
Phone: +41 71 911 60 32
Email: report2011@billentis.com
www.billentis.com

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0. Executive Summary

An organisation or business can save 1-2% of its turnover by replacing paper invoices and optimising the related processes. Due to the legal relevance and the many departments involved in an organisation, the invoice is a key item in the automation of the Procurement and Financial Supply Chain.

Electronic and automated invoice processes can result in savings of 60-80% compared to traditional paper-based processing. Projects typically result in a payback period of 0.5-1.5 years. This report will give the reader useful information for achieving these results.

The global market is estimated to have 150 billion annual invoices. The electronic share is still moderate. The American market is the leading market for E-Bills to consumers, whereas the market leaders in the Business-to-Business and Business-to-Government segment are located in Latin America and Europe.

More than 12 million trees could be saved if electronic channels were to replace the vast majority of European invoices, which are still paper-based.

In 2011, roughly 5 million European businesses and 75 million consumers are expected to send or receive electronic invoices. They likely exchange more than three billion E-Invoices.

<table>
<thead>
<tr>
<th>Number of participants</th>
<th>2008</th>
<th>2009</th>
<th>2010 (E)</th>
<th>2011 (E)</th>
<th>2012 (E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumers</td>
<td>32,000,000</td>
<td>43,000,000</td>
<td>57,000,000</td>
<td>75,000,000</td>
<td>100,000,000</td>
</tr>
<tr>
<td>Corporates &amp; Organisations</td>
<td>1,700,000</td>
<td>2,500,000</td>
<td>3,600,000</td>
<td>4,900,000</td>
<td>6,700,000</td>
</tr>
</tbody>
</table>

Note: Issuing and receiving companies/organisations are taken into account. It is likely that you may already find many of your customers and suppliers amongst these numbers.

<table>
<thead>
<tr>
<th>E-Invoice volume (millions)</th>
<th>2008</th>
<th>2009</th>
<th>2010 (E)</th>
<th>2011 (E)</th>
<th>2012 (E)</th>
</tr>
</thead>
</table>

The overall market penetration still appears to be moderate. However, it must be appreciated that the electronic volume is generated by a fairly limited number of businesses in the market. An organisation supporting E-Invoicing quite often has a ratio of 70% electronic invoices with just 30% remaining as paper invoices.

Owing to the attractiveness of this market, about 530 service providers and another 200 software companies are offering their solutions in Europe.

An increasing number of solution providers support not only invoice messages, but also many other structured messages and integrated processes along the Procurement & Supply Chain.

Currently, a combination of factors should result in steady and strong market growth in Europe, stronger than in any other regions of the world:

- The unstable economy will increase the pressure on organisations to reduce costs, and optimise and automate processes; the potential concerning invoices is impressive
- Many European countries have already declared E-Invoicing as mandatory for all invoices sent from the private to the public sector; these projects are heavily supported by complementary marketing activities
- The European Union has the objective of becoming the leading region worldwide regarding the usage of ICT. As a result the European Commission has launched several projects supporting E-Invoicing
- In each European country, there is a wealth of products enabling organisations of any size to use E-Invoicing at reasonable prices.
1. Introduction

1.1 The purpose of the Report

E-Invoicing / E-Billing is a rapidly expanding technology. Whereas Latin American and many European countries are already considerably advanced in this field, a vast majority of organisations have not yet decided upon one system or service.

A high number of providers offer solutions and services for this matter. In this phase, it is important to have up-to-date information and guidance on selecting the right solution and provider.

An independent international E-Invoicing consultant and market analyst has written this report. Its purpose is to support invoice senders and recipients wishing to replace expensive paper-based invoice management. It gives all the relevant information for succeeding with an E-Invoicing project. The report not only provides facts, but also qualitative views, evaluation and details about the products offered by many providers.

1.2 Methodology

The author has worked in the E-Invoicing business since 1997. During the first two years in Switzerland, he established one of the first E-Invoicing services in Europe. Since 1999, he has acted as an independent consultant and has made business plans, RFPs, system evaluations and many technical and marketing concepts for large invoice senders and recipients, banks, integrators, solution and service providers. During this time, he has constantly collected important data about the relevant markets. The results are repeatedly published in newsletters and market reports.

The report is based on
- Publicly available information; the author gathered information from thousands of sources over the years and adjusted them
- Market research carried out by third parties (representing 15,000+ enterprises and 10,000+ consumers)
- Verification of important figures by customer/provider visits and/or calls
- Own in-depth experience from more than 140 customer consulting projects in 31 countries
- Consolidation of the above information

1.3 Terms and definitions

The term “E-Invoicing” is used in the same context as “E-Billing” and covers electronic invoices among enterprises, from/to the public and private sector.

All statistics and forecasts are based on a very strict definition of E-Invoicing: Transported and archived fully electronically from end-to-end and in a tax compliant manner. Not considered are invoices which are transferred electronically, but violate legislation for some reason and all “semi-electronic” invoices:
- Electronically sent invoices, but printed and archived by recipients as paper invoices
- Scanned paper invoices
- Invoices, which are transferred and processed electronically, but supported by paper summary statements

Other terms and definitions see Glossary in Appendix B.
2. Improving the invoice management & supply chain

2.1 Your trading parties are anticipating the E-Invoice

For many years, strong buying organisations (e.g. in the retail, automotive and healthcare sectors) have been pushing their suppliers towards electronic exchange of messages along the supply chain. Until recently the focus was on large suppliers. They generated the highest volume and they were the only ones able to integrate their environment in a VAT compliant manner at a reasonable cost. For some years, the situation has also been improving for smaller companies:

- Since 2004 E-Invoices have been legally accepted in EU member states and in most other countries
- An extensive range of solutions and services allows even smaller companies to process invoices electronically
- E-Invoicing has become “state-of-the-art” in many industries and countries

A short survey by the author amongst some customers showed that each of them has dozens of trading parties expecting to send or receive an electronic invoice instead of paper. In the past, the smaller customers expressed this as a “nice to have” option, whereas larger businesses described it as a mandatory requirement for future business relationships. Due to increased cost pressures and competition in coming years, the “nice-to-have” option will in most cases become a mandatory requirement with a short deadline for reaction and implementation.

A proactive approach and a well structured project where users can define their own objectives and implementation roadmap is much better.

Your trading parties are awaiting the E-Invoice, because it is an interesting business case for them. The optimisation potential and the business case will also be very interesting to your organisation, if the past and future costs of all relevant processes relating to the invoices are compared.

2.2 Related processes and optimisation areas

Figure 1: Processes and optimisation areas for invoice issuers

<table>
<thead>
<tr>
<th>Sender Process</th>
<th>Manual work and problems with paper based processes</th>
<th>Optimisation with E-Invoice &amp; automated processes</th>
</tr>
</thead>
</table>
| Print, Envelope Send | • High costs  
 • Paper with negative impact on pollution  
 • Long delivery time  
 • No control over whether customers have received the invoices  
 • Customer may reject the invoice weeks later if key data is missing from it | • Send electronic invoices securely via the net  
 • Contributes an improvement of up to 0.8% to the Kyoto protocol requirements  
 • Real-time delivery with receipt/download confirmation  
 • Validation of key data as soon as sent |
## Sender Process

### Payment Reminders
- 10-15% of invoice volume requires a payment reminder as recipients have time-consuming workflows and payment release systems for paper invoices

### Remittance & Cash Management
- Time-consuming and costly manual processes
- Data quality problems

### Archiving
- Hundreds or thousands of folders with paper invoices with high demand for storage capacity
- High costs for manual search

## Manual work and problems with paper based processes

## Optimisation with E-Invoice & automated processes

- Is reduced, as many of the clients process the electronic invoices automatically (below a certain amount and matching with order)
- Automatic payment remittance
- Due to faster electronic feedback regarding payment status, the Cash Manager has full control of all invoices, affording him optimised Cash Management
- Automated archiving
- Easy finding of the original invoice via various keywords
- Quick access to the electronic archive in a decentralized environment
- Instant on-screen auditability of invoices with unprecedented levels of integrity and authenticity guarantees
- Millions of invoices only require the space of a hard disk

## Figure 2: Processes and optimisation areas for invoice recipients

### Recipient Process

#### Receive
- Opening mail
- Check and remove undesired attachments
- Entrance stamp
- Forward to AP department

#### Entering Codification
- Entering to AP system
- 10% of entered data statistically viewed with errors
- Delayed entering during peak season or permanently
- Alternative Scanning solves just a small part of the problem

#### Optimisation with E-Invoice & automated processes
- Fully automated
- Automated import to AP system
- Real-time import, independent of volume
- 100% correct data
<table>
<thead>
<tr>
<th>Recipient Process</th>
<th>Manual work and problems with paper based processes</th>
<th>Optimisation with E-Invoice &amp; automated processes</th>
</tr>
</thead>
</table>
| Validation & Matching     | • Discrepancy in VAT compliance is detected at a (too) late stage  
• Line items in an invoice quite often contain a discrepancy with the order or contract terms. Manual matching is time-consuming and expensive                                                                                                     | • VAT compliance and validation of other key data can be done automatically when E-Invoice is uploaded by sender  
• Line-item matching with order data and contract term is fully automated  
• Faster and better spend analysis, leading to 1.3% to 5.5% spend reduction                                                                                                           |
| Dispute Management        | • The dispute resolution with the supplier is often done today by phone, unstructured email or fax  
• Dispute resolution can be very time consuming                                                                                                                                                                                                     | • Improved dispute handling and avoidance  
• Many solutions or services enable automated, structured and real-time exchange of dispute information between buyers and suppliers                                                                                                                                 |
| Payment & Cash Management | • Time consuming and costly circulation within the company for payment release  
• Manual work for payment order and risk of errors  
• Cash Manager without full transparency for all pending invoices                                                                                                                                                                                 | • Payment relevant invoice data processed directly and automatically into payment orders  
• Every inbound invoice appears on the screen of the Cash Manager immediately after receipt and affords him optimised Cash Management (by offering rebates for payment on time, working capital optimisation)  
• Circulation within company for payment release is automated or at least supported by electronic workflow                                                                                                                                    |
| Archiving                 | • Hundreds or thousands of folders with paper invoices with high demand for storage capacity  
• High costs for manual search  
• Traditionally 6 copies on industry average, not all clearly stated as “copy”                                                                                                                                                                      | • Automated archiving  
• Easy finding of the original invoice via keywords  
• Quick access to the electronic archive in a decentralised environment  
• Instant on-screen auditability of invoices with unprecedented levels of integrity and authenticity guarantees  
• Millions of invoices only require the space of a disk                                                                                                                                  |
3. **Business Case for Sender/Recipient**

3.1 **Saving potential**

The Finnish State Treasury and some Finnish companies have estimated that an incoming paper invoice incurs costs amounting to 30-50 Euros for the receiving company. By moving to electronic invoicing these costs can be reduced to 10 Euros by semi-automating the invoice process and to one Euro by fully automating the process [1]. Regarding in-depth analysis of Politecnico di Milano, the net benefits are 4 – 12 Euros per invoice in case of VAT compliant E-Invoicing and up to 65 Euro per cycle in case of full integration of the trade process [2].

Thanks to electronic and automated invoice processing, savings between 1 and 2% of turnover are realistic objectives.

As a consultant the author analysed the full costs based on traditional paper based processes and compared it with the new electronic automated solution. The example below reflects the situation in an industry company with 5,000 employees, based on calculated staff costs of 60€/hour.

Figure 3: Saving potential for invoice issuers (actual customer case)

The invoices in this example were relatively simple and had an average size of 1.5 pages. In most organisations, the invoices are more complex and the savings are higher.
3.2 Know your volume

Sometimes, larger organisations do not know their precise invoice volume. The reason for this is quite often the decentralised organisation or a heterogeneous layout of their AR and AP systems.

Over the last 14 years, the author has built key-metrics for being able to make a quick estimation of the invoice volume before the project start. Although not perfect in all cases, the key-metrics are based on the number of employees in an organisation and dependent on the industry.

Figure 5: Key-metrics for number of invoices

<table>
<thead>
<tr>
<th>Indication for Number of invoices per employee in various Industries</th>
<th>Outbound invoices per employee</th>
<th>Inbound invoices per employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit &amp; Customer Cards</td>
<td>40,000</td>
<td>n/a</td>
</tr>
<tr>
<td>Mail order houses</td>
<td>8,000</td>
<td>n/a</td>
</tr>
<tr>
<td>Media</td>
<td>2,000</td>
<td>20</td>
</tr>
<tr>
<td>MRO Goods</td>
<td>1,400</td>
<td>450</td>
</tr>
<tr>
<td>Utility with direct distribution</td>
<td>1,200</td>
<td>20</td>
</tr>
<tr>
<td>Insurance</td>
<td>700</td>
<td>30</td>
</tr>
<tr>
<td>Electronic &amp; IT</td>
<td>400</td>
<td>26</td>
</tr>
<tr>
<td>Chemicals &amp; Pharmaceuticals</td>
<td>200</td>
<td>30</td>
</tr>
<tr>
<td>Industry independent average</td>
<td>200</td>
<td>80</td>
</tr>
<tr>
<td>Automotive Supplier</td>
<td>200</td>
<td>50</td>
</tr>
<tr>
<td>Food Supplier</td>
<td>200</td>
<td>20</td>
</tr>
<tr>
<td>Logistics</td>
<td>100</td>
<td>77</td>
</tr>
</tbody>
</table>

Saving per Invoice 10.90€ = 62%
<table>
<thead>
<tr>
<th>Indication for Number of invoices per employee in various Industries</th>
<th>Outbound invoices per employee</th>
<th>Inbound invoices per employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airlines</td>
<td>35</td>
<td>11</td>
</tr>
<tr>
<td>Services &amp; Consulting</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>Banks</td>
<td>n/a</td>
<td>11</td>
</tr>
<tr>
<td>Telco</td>
<td>n/a</td>
<td>39</td>
</tr>
<tr>
<td>Industrial manufacturer</td>
<td>n/a</td>
<td>60</td>
</tr>
<tr>
<td>Catering</td>
<td>n/a</td>
<td>100</td>
</tr>
<tr>
<td>Retail</td>
<td>n/a</td>
<td>250</td>
</tr>
<tr>
<td>Buyer Clubs, Trade, Wholesalers</td>
<td>n/a</td>
<td>300</td>
</tr>
<tr>
<td>Health insurance</td>
<td>n/a</td>
<td>3,100¹</td>
</tr>
</tbody>
</table>

In groups with service centres and/or subsidiaries, up to 10% can be added to the inbound volume for Intercompany Billing.

**Calculation example:** Utility Group with service centre structure and 5,000 employees

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Outbound Volume</td>
<td>5,000 x 1,200</td>
<td>= 6,000,000</td>
</tr>
<tr>
<td>Inbound Volume</td>
<td>5,000 x 20</td>
<td>= 100,000</td>
</tr>
<tr>
<td>Intercompany Billing</td>
<td>10% of Inbound</td>
<td>= 10,000</td>
</tr>
</tbody>
</table>

### 3.3 Know your current and future costs

At first glance only direct costs appear in the organisation budget. However, this is just a fraction of all processing costs.

For a cost comparison, we have to consider
- Direct costs
- Indirect costs
- Hidden costs

#### 3.3.1 Current costs for outbound invoices

On the outbound side, one part of the direct costs includes invoice printing and stamp costs. In a well-known telecom company, this represents just 9% of all directly related costs. Another major part is quite often well hidden and not recognised at first glance. Indirect and hidden cost items, which may be reduced by E-Invoicing are
- Sales Back office (Further inquiries in case of dispute)
- Accounting/Reconciliation manpower
- Debtor interest
- IT development and operation
- Payment fees (reduced or no fees in case of electronically and fully automated processes)
- Customer requests for copies of lost invoices
- Archiving
- Query handling

¹ In countries with healthcare systems like The Netherlands, Switzerland etc.
• Settlement time and improved Cash Management
• Easier and faster audit

3.3.2 Current cost for inbound invoices

Even worse is the cost recognition on the inbound side. Per employee in the AP department, typically just 5,000 – 15,000 paper invoices can be processed per year. So the direct staff costs in the AP department already vary between EUR 5 – 15 per invoice. Further costs are generated in the paper-based workflow and archiving. Analysis in some organisations showed, that on average 6 invoice copies are generated and archived decentralised in the files of secretaries and heads of departments.

3.3.3 Future costs with automated processes

Small companies using E-Invoicing via website, have no implementation costs and very moderate or no running costs.

Besides the integration costs, large accounts have to consider the project costs.

In addition, third party service providers often charge a time and volume based fee for senders and/or recipients. The level of these costs varies considerably depending on customers’ requirements. It is best to summarise customers’ requirements in a document (Request for Proposal) and ask for binding proposals. As an indication, third party costs of EUR 0.50 – 1.00 per invoice should be entered into the business case.

Future internal costs will probably be 40-50% of past costs depending on the individual situation (see also example in chapter “3.1 Saving Potential”).

World class enterprises are able to process 125,000+ electronic invoices per year and AP employee, roughly 10 times more than paper based invoices.

3.4 Business Case

3.4.1 Small businesses

Their large suppliers and clients quite often push them to accept respectively send electronic invoices “as part of the general contract terms or business rules”. Therefore, it is not necessarily the business case pushing them forward for electronic invoicing but good business relationships with their trading partner.

However, in most cases they find an easy and efficient way to practise it. This can be the use of an invoicing portal. Here invoices can be uploaded or downloaded and also stored for several years in a VAT compliant manner. Either no implementation is necessary or the effort required is very moderate.

In cases with small invoice volumes, full costs for the processing of paper invoices are higher than mentioned in the example in chapter 3.1. Although rarely calculated, the business case for small companies is good.
3.4.2 Mid-sized and large businesses

Many solution providers offer an online business case calculation tool. One tools and ROI calculaters are also offered by some universities, eg. from the “Fachhochschule Nordwestschweiz” (in German only): http://www.swissdigin.ch/apps/swissdigin.nsf/de/ressourcen_recommend
or Politecnico di Milano (in Italian only): http://www.osservatori.net/fatturazione_elettronica_e_dematerializzazione/qrat

As many readers of this report perhaps cannot understand German or Italian, here is a translation of the major points to be considered.

Figure 6: Items to be considered in a business case

<table>
<thead>
<tr>
<th>Item to be considered in a business case</th>
<th>Sender</th>
<th>Recipient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantities and basic data</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>- Number of electronic counterparts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Electronic proportion of total invoice volume</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Interest rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Hourly rate of employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer churn rate with and without E-Invoicing</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Costs and Savings in the AR &amp; archiving department</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Costs and Savings in the AP &amp; archiving department</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Cash Management, payment due period, payment discount</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Initial costs (Project, implementation, hardware, software)</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Operation costs internal and third party</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>
4. **How to be successful with your project**

4.1 **Success factors**

Although we have a high number of innovative people in our world, the majority of human beings change their behaviour only under slight pressure. That is why a simple invitation to your trading partners to support E-Invoicing may not automatically result in a quick success.

The weak economical situation results in high cost pressures and will probably become an accelerator for changes in the invoice processing. Readers are not recommended to wait for pressure from their customers or suppliers. Instead, it is wise to start an E-Invoicing project proactively. Only then is it possible to clarify everything without too much time pressure and to move seamlessly from paper to electronic invoices.

Main reasons why E-Invoicing projects have not always succeeded immediately in the past are:

- Underestimating the significance of the project for the many related processes and departments involved
- Poor project management
- Too technical focus (the more important challenges are the process automation and taking on board a high number of suppliers or customers within a short time)

Success factors in E-Invoicing projects:

- Awareness by senior executives about the potential of E-invoicing in a broader sense (the value is much more than just eliminating printing and stamp costs or entering invoice data into the ERP system)
- Management Support, as many divisions within an organisation are involved
- One very active project owner
- Defining a three year objective/strategy, but implementing it step-by-step including a quick-win result for step 1 (best is just one invoice stream in one division of a big company)
- Internal and external communication to key persons affected
- Being a rollout champion with an excellent strategy for taking on board a high number of suppliers/customers (opt-out strategy if possible, combined with active marketing)
- Being realistic regarding mid- and long-term technical capabilities in your organisation including workflow and archiving → right decision for make/buy and direct or consolidator model
- Don’t re-invent and develop solutions which are already available for a fixed price and which have been well tested in other companies
- Being realistic regarding technical capability of your counterparts to send, receive and archive electronic invoices (this is quite often dramatically lower than you expect); simple and economical interfaces and possibly a third party archiving service are essential

The most promising models are described in chapter 5.7.

4.2 **Define the best Scope for your organisation**

Many organisations already exchange some electronic messages along the supply chain with their counterparts. For them, E-Invoicing is just an enhancement and a next step towards automating the whole supply chain.

For a vast majority, E-Invoicing is the first step towards the electronic supply chain. That is why many organisations start with the “queen of all messages”. In most cases, it is a good approach starting with “just” the invoice message and aggressively increases the electronic share within
your environment. E-Invoicing alone will already be an interesting business case! However, more future savings are possible with a fully automated supply chain.

In mid-term planning the next optimisation steps to take should be considered: Either in the pre- or post-processing of the electronic invoice.

Figure 7: Optimisation scope for organisations

![Optimisation Scope Diagram]

Some invoice streams are more dominant and provide higher optimisation potential. The author believes that projects should follow that potential.

Figure 8: Priorities of invoice streams

![Invoice Stream Priorities Diagram]

**Inbound**
Organisations in a strong buying position may decide to replace inbound invoices first, as they are in a strong position to push their suppliers to deliver invoices in electronic format.
Intercompany Billing

Volume and optimisation potential is quite often under-estimated. It is the only invoice stream fully under the control of each organisation. In one scenario, these invoices can quite easily be processed electronically or via account transfer. This is the case if all departments, branches or subsidiaries belong to the same tax entity in the same country. Wherever that is not the case, it can make sense to handle internal electronic invoices as for the external ones, with identical methods guaranteeing authenticity, integrity and legibility.

Outbound

High volume organisations in the B2C sector already provide electronic bills to consumers with direct models. However, the success is limited in most cases to a maximum 40% of clients using it.

For increasing the electronic share, an opt-out rollout model should be practised and/or the distribution to consolidators (e.g. online-banks or other favourite portals of consumers). Delivery of PDF invoices via email or portal has become very popular in many countries (especially Austria, Poland, Germany, The Netherlands, Denmark, Spain and the United Kingdom). The same is true for B2B invoices for small businesses. In this case, the E-Invoices are prepared in a VAT compliant manner by the sender (digital signature, verification and sometimes with long-term online archiving).

4.3 Know your environment

In many projects in larger organisations, it was surprising for the author to see the heterogeneity of customer environments, e.g.:

- High number of different ERP systems
- Decentralised issuing and/or receiving of invoices
- No control and overview regarding paper invoices in the workflow
- No transparency concerning all the invoice streams, volume and the different ways in which they are processed
- Various decentralised long-term archives
- Unclear as to which document is the invoice original and which is a copy
- Parallel and isolated projects in different departments for scanning, workflow, archiving, digital signature solutions and E-Invoicing

If the reader is working in a large organisation, it is helpful to clarify the points above and summarise the current environment and the mid-term target environment.
4.4 **Scenario for internal implementation**

In a fragmented and large environment, the highest benefits can be achieved by following these steps.

Figure 9: Optimisation steps and benefits

As this objective can be (too) time consuming (e.g. 2 years) a good alternative is migration within a decentralised environment. If the constraints of future centralisation are already known, they can be considered in the planning and implementation of systems and processes.
4.5 Know the capabilities & constraints of your trading partner

Although valid in many sectors of our environment, the 80:20 rule is not applicable regarding invoice streams, except in very few industries. The pattern below for inbound invoices in a mid-sized or larger organization is much more likely.

Figure 10: Pattern for inbound invoices

![Graph showing the pattern of inbound invoices](image)

The number of suppliers sending more than 100 invoices per year is quite often just among 20-50. Perhaps another 1,000 send 10-100 annual invoices and the vast majority send less than 10 annual invoices. Large organizations have typically 10,000 suppliers and depending on the product 0,000 customers. The vast majority of suppliers and customers are SMEs with highly fragmented IT landscape and limited capability for import/export of structured invoice content and electronic archiving. In addition, these counterparties can be located in various countries with different legal constraints regarding tax compliant invoices, archiving, language and cultural behaviour.

E-Invoicing projects can just be successful, if the situation of trading partners is strongly considered in the project. This includes also thinking about what the incentives for them are and how they can easily be connected in a VAT compliant manner.

Whereas large senders and recipients fully integrate electronic invoice processing into their environment, the requirements of mid-sized and small enterprises can be different.

Figure 11: Requirements of organisations

<table>
<thead>
<tr>
<th>Size</th>
<th>Sender requirements</th>
<th>Recipient requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large</td>
<td>• Full ERP integration</td>
<td>• Full ERP integration</td>
</tr>
<tr>
<td></td>
<td>• Two-way communication</td>
<td>• Two-way communication</td>
</tr>
<tr>
<td></td>
<td>• External archive (sometimes shifted to in-house in step 2)</td>
<td>• External archive (sometimes shifted to in-house in step 2)</td>
</tr>
</tbody>
</table>
4.6 Compliant rollout model for your counterparts

Technique is just a small part of an E-Invoicing project. Much more important for the success and a high electronic share is the rollout strategy (on boarding of trading partner).

Figure 12: Different rollout models in use

| Opt-In | A sender or recipient upgrades his environment for electronic invoice processing. He informs his counterparts about this new opportunity and invites them to send and/or receive invoices electronically. Each participant has to be persuaded to change to electronic invoicing. This can be done with strong arguments, incentives and/or slight pressure. The traditional and friendly method of taking companies on board was used in the past, but is more often replaced by the Opt-Out model where possible. |
| Opt-Out | A sender or recipient upgrades his environment for electronic invoice processing. He informs his counterparts about this new opportunity and explains that after a certain deadline, invoices will only be exchanged electronically. If anybody wants to “opt-out”, they have to give notice. In many cases, it means also a (penalty) fee for keeping to paper based invoices. The Opt-Out model results in very quick results and a high electronic invoice volume. It can be practised by any larger organisation, but is mainly at the forefront for organisations in a steady interaction with a stable base of counterparts (e.g. Leasing companies, Transport & Logistics, Telecom, Utility, Credit & Customer Cards, Office Material, Suppliers of MRO articles and customer packaged goods, Online Services and any communities using Extranets or standard client software). Today’s senders who use this model quite often use signed PDF invoices with or without additional XML data. This guarantees immediate readability by the recipient, although the benefits for them can be quite limited in the case of PDFs. |

Figure 13: Success rate for an organisation and the electronic proportion one year after launch

<table>
<thead>
<tr>
<th>Model</th>
<th>Electronic proportion of all invoices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sender driven „Opt-In“</td>
<td>1-5% with free market range</td>
</tr>
<tr>
<td></td>
<td>5-50% within existing supplier-buyer networks</td>
</tr>
<tr>
<td>Sender driven „Opt-Out“</td>
<td>85-90%</td>
</tr>
<tr>
<td>Recipient driven „Opt-In“</td>
<td>1-5% for organisations without much purchasing power</td>
</tr>
<tr>
<td></td>
<td>50-70% for organisations in strong purchasing position</td>
</tr>
<tr>
<td>Recipient driven „Opt-Out“</td>
<td>Up to 90% for organisations in strong purchasing position and providing electronic orders</td>
</tr>
</tbody>
</table>
The majority of businesses in Europe do not have an ideal environment for using an Opt-Out approach. However, the model should be tailored to its practicability for each environment. Certainly it will be practised sooner or later by some of your counterparts, with a direct impact on your situation.

4.7 Solution scenarios

Complete in-house developments are no longer a realistic option
- No chance for a good business case due to high project/development costs and very high follow-up costs
- Too time consuming
- No reason to re-invent solutions which are already offered by hundreds of solution providers and which are up-and-running already in other companies

Therefore, the real alternatives are purchasing third-party applications or using external services.

Figure 14: Third-party services and applications

<table>
<thead>
<tr>
<th>Services</th>
<th>Applications/Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>SaaS (Software as a Service)</td>
<td>E-Billing/E-Invoicing applications for automated or semi-automated issuing and</td>
</tr>
<tr>
<td></td>
<td>receiving electronic invoices, including handling of various output/input formats</td>
</tr>
<tr>
<td>Signature service</td>
<td>Signature software or devices, Public Key Infrastructure (PKI); Signature</td>
</tr>
<tr>
<td>E-Invoicing consolidator service</td>
<td>verification tools and portals</td>
</tr>
<tr>
<td>Invoice management service</td>
<td>Invoice cockpit (monitor all invoices circulating within an organisation)</td>
</tr>
<tr>
<td>(including digitalisation and</td>
<td>Invoice management</td>
</tr>
<tr>
<td>data capture of remaining paper</td>
<td>Workflow</td>
</tr>
<tr>
<td>invoices)</td>
<td>E-Procurement</td>
</tr>
<tr>
<td>E-Procurement, E-Marketplace</td>
<td>Interface software</td>
</tr>
<tr>
<td>Archiving Service</td>
<td>o data conversion and mapping tools</td>
</tr>
<tr>
<td></td>
<td>o printer driver with E-Invoicing, signature and transfer features</td>
</tr>
<tr>
<td></td>
<td>Archive</td>
</tr>
</tbody>
</table>

The scenario chosen from the above will depend on
- Make or Buy policy of each organisation
- Own IT and processing environment
- Invoice volume
- Business Case
- Internal requirements
- Requirements and capabilities of counterparts

Larger organisations quite often analyse 2-3 scenarios, compare them and decide on one of them. This step is then followed by a Request for Proposal (RFP), sent to 2-4 providers.
4.8 Roadmap
Small organizations can technically become up-and running within just a few days. More time consuming will be the onboarding of the counterparties.

In large organizations, the project and implementation time can strongly vary, depending on existing environment and degree of integration.

Figure 15: Indication for project and implementation time

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Centralised, homogeneous environment</th>
<th>Decentralised, heterogeneous environment</th>
</tr>
</thead>
</table>
| Key-in/upload invoices via 3\textsuperscript{rd} party Web portal or printer driver  
Receive/download invoices via 3\textsuperscript{rd} party Web portal  
Archive operated by 3\textsuperscript{rd} party | 0.1 - 1 days                          | 1 month                                  |
| Invoice export/import via AR/AP application                                | 0.5 – 2 weeks                         | 3 months                                 |
| Archive operated by 3\textsuperscript{rd} party                           |                                      |                                          |
| Scenario above including analysis, re-design, workflow and archive implementation | 6 months                              | 1 – 1.5 years                            |
| Scenario above, including integration of invoices with related messages along the supply chain (order, delivery notes, payment, remittance etc.) | up to 1 year                          | up to 2 years                            |

4.9 Project Checklist

Analysis
- Internal
  - Involved and related processes, systems and divisions/branches/subsidiaries
  - Invoice streams
  - Obstacles and how to solve them
  - Structure, capability and legal constraints (especially in multi-national companies)
- Of your counterparts
  - Volume
  - Technical capability
  - Willingness to adopt
  - Legal framework
- Strategic focus and priorities

Concept
- Solution scenarios
- Decision Make or Buy
- Step-by-Step approach (division by division) or “big-bang” (company-wide project)
- Implementation scenario
- Required investments and operation costs
- Rollout strategy

Request for proposal (RFP)
- Top 20 requirements
- Other “nice to have” requirements
If solution or service is to be purchased
- Provider evaluation
- Benchmark
- Contract
- Test

Implementation
- Internal adoption
- Test
- External adoption with suppliers and customers
- In countries where legally required (Germany, Switzerland, …): Document everything in a “procedure documentation”

Rollout
- Concept with scenarios for each sector of counterparts
- Dialogue with key suppliers and customers
- Mass-rollout
5. The market

5.1 The document landscape

Figure 16: Document landscape

Invoices and other structured documents are privileged to be processed electronically and automated.

5.2 Invoice volume, streams, sectors

The author estimates the global volume for invoices/bills to be at least 150 billion (30 billion in Europe) per year. In most industrialised countries, invoices represent 16-30% of the total (addressed) letter volume and up to 50% in less industrialised countries (Local organisations in an increasing number of countries meanwhile have their own mechanisms to make qualified guesses about their invoice volume). Several service providers processing invoices (paper and electronic) confirmed to the author, that economical cycles do not have a noticeable impact on the invoice volume.

The volume of structured statements is likely 3-5 times the invoice volume. Some of them are exchanged via letter post, electronic channels (EDI, email) and many by fax.

There are several indications that the invoice volume increases 2-3% every year. This is for several reasons:

- Increase of the population, the number of households and enterprises
- Suppliers improve their cash management and are no longer willing to give credit to their clients due to long invoice cycles; by sending invoices every two months instead, they do it after each delivery
- Legal reasons; some countries are demanding to send invoices within 15-30 days of their performance or goods delivered
- Electronic invoices are cheaper and allows suppliers to send invoices more frequently
Approximately half of the invoice volume is send to the B2C sector, the other half to the B2B sector (including B2G, government).

Figure 17: Invoice volume breakdown by industry (issuer view)

The main bulk is sent to private households by Government, the Telecom, Insurance, Card, Media and Utility industries. A very limited number of invoice senders generate the major bulk
of B2C invoices. The B2B sector does not follow an 80:20 rule. Instead, that market sector is completely fragmented. For replacing the majority of those B2B paper invoices, millions of businesses must support E-Invoicing.

In the B2B sector, there are very few industries receiving a very high invoice volume. The industries with the highest inbound volumes are:

Figure 19: Invoice volume breakdown by industry (recipient view)

<table>
<thead>
<tr>
<th>Industries with high inbound volume</th>
<th>% of all B2B invoices, indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare</td>
<td>5-13%, depending on the country</td>
</tr>
<tr>
<td>Retail</td>
<td>10%</td>
</tr>
<tr>
<td>Public sector: National Government, regions &amp; municipalities</td>
<td>9-15%</td>
</tr>
<tr>
<td>Buyer Clubs, Trade</td>
<td>5%</td>
</tr>
</tbody>
</table>

Source: Billentis

All the industries above, except the public sector, were early adopters of EDIFACT or other electronic invoicing channels. The remaining volume of 60%+ is spread out across the other industries.

5.3 Relevance of cross-border traffic

Only a relatively small fraction (1-5%) of all invoices is sent and paid abroad. The larger countries in particular are much more focused on the domestic markets. In Germany, there are 7 billion domestic payment fund transfers compared with just 16 million cross-border transactions to EU countries (<0.3%). In small countries like Luxembourg, the share of cross-border invoices is above 30%.

From a statistical point of view, it appears that E-Invoicing projects could focus on the domestic traffic. In reality, this isolated focus can be a risk for the project, especially if the foreign counterparts are anticipating electronic invoices. Large organisations and even SMEs should consider their international situation from the beginning in order to avoid selecting the wrong solution provider.

Globalisation is in progress and sharply increases cross-border transactions. The author’s experience in customer projects: E-Invoicing is typically an international project immediately after project start.

5.4 Motives for replacing paper invoices

Organisations start E-Invoicing projects for various reasons:

- External pressure (Suppliers, Customers) \(\rightarrow\) increase customer retention
- Internal cost pressure
- Process innovation and automation
- Quality improvement
- Public sector initiatives (with the aim to reduce fraud and increase tax income and to optimise their own invoice processes)

Promoters can be found in various divisions

- Management
5.5 The global E-Invoicing landscape

5.5.1 Market evolution and maturity

Figure 20: Classical evolution pattern in most countries

<table>
<thead>
<tr>
<th>Phase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Large organisations (telcos, utility sector, card issuers, etc.) have tremendous expenditures for printing and mailing invoices. Due to their competitive industry, they are pushed to reduce their costs significantly. They offer the invoices electronically to their clients, either on their portals for download and/or by sending them via an email attachment. The rate of acceptance by clients is very limited, except if clients receive incentives for changing to E-Invoices or if they are punished with penalties for paper invoices. However, this is the first experience with E-Invoicing for most countries. Despite limited success, it can be useful as long as the national legislation does not permit electronic invoicing in the B2B segment.</td>
</tr>
<tr>
<td>2</td>
<td>Relatively soon, users of Biller Direct services will recognise the limited acceptance by their clients for log-in to each biller’s website. They prefer a single point of contact (aggregating website, online banking) for invoices of all their suppliers. The acceptance of a B2C consolidator service can be higher than with the Biller Direct</td>
</tr>
<tr>
<td>Phase</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>-------------</td>
</tr>
<tr>
<td>3</td>
<td>Enterprises can benefit most with electronic and automated processes in their role as sender as well as recipient. As soon as legislation permits paperless invoicing (in most countries, except some in Africa and Asia), large organisations are typically the innovators for E-Invoicing. They push their large trading partners, followed by mid-sized and small ones. Due to the high benefits for issuers and recipients, E-Invoicing in the B2B and B2G segment is much more successful than in the B2C. However, it is still a challenge for large organisations to push a high number of mid-sized and small trading partners to exchange invoices electronically.</td>
</tr>
<tr>
<td>4</td>
<td>The public sector is in an excellent position to initiate the breakthrough in the mass market. In many countries, 2/3 of local enterprises are suppliers to the public sector. The government has the power to push these suppliers to send invoices electronically. They are also in the position to modify the legislation in a user-friendly way if necessary. Even in countries where the public sector is inactive regarding E-Invoicing, the market does move forward rapidly. An increasing number of providers meanwhile offer a broad range of solutions for all types of users and for fair conditions.</td>
</tr>
</tbody>
</table>

The maturity of the market varies between continents and the countries on each continent.

Figure 21: Market maturity for electronic invoices (B2C, B2B, B2G, G2B)

The term “Laggards” in the chart above does not mean that there was no E-Invoicing activity in these countries. It just expresses that they are typically in evolution step 1 or 2. “Developing” means that countries are typically in evolution phase 3. Either they are preparing their legislation also for B2B E-Invoicing or, if already in place, the E-Invoicing volume is still very low.
5.5.2 Asia

Most countries are in evolution phase 1 and 2: Large bill issuers start with “Bill Presentment” via their company portals or internet banking.

E-Invoicing in the B2B is often not yet legally permitted or only with the explicit approval of tax authorities.

However, there are some countries in phase 3: Leaders are Singapore, Hong Kong, Taiwan and South Korea. The government, shipping and retail industry play a key role in the B2B/B2G segment.

Electronic trade (and financing) is more in the foreground than just E-Invoicing.

The Russian legislation was changed in 2010 and now permits E-Invoicing. Legal changes and government projects are also in progress in China and India.

5.5.3 Africa

Most countries are in evolution phase 1: Large bill issuers start with “Bill Presentment” via their company portals. Electronic Bill Presentment and Payment is already up and running in Egypt and Tunisia.

The northern and southern parts of Africa are a bit more advanced than the other parts. An exception is Kenya, where some volume in B2B and B2C is exchanged.

5.5.4 North America

North America started in the nineties with EBPP (Electronic Bill Presentment & Payment, consumer focus) and with EIPP (Electronic Invoice Presentment & Payment, business focus).

Regarding a study conducted by NACHA CEBP, 5.1 billion e-bills were delivered in 2010 in the US. The study says that E-Bills will overtake paper in 2016. Assuming that the same strict definition of the term E-Invoicing is used as the one by the author, it seems that the US is 3-4 years ahead to Europe (in the B2C segment only).

As expressed in the abbreviations EBPP/EIPP, payment is an important driver for electronic invoices. This has to do with the inconvenience of paying invoices, a pain which is less relevant in Europe with the high share of convenient Electronic Fund Transfer and Direct Debit payments.

In the B2B segment, the optimisation of the full supply chain “order-to-cash” and “purchase-to-pay” is a main driver for the E-Invoicing market development. As many companies are giants, they have the critical transaction volume and budget to implement solutions in-house for direct electronic message exchange with trading partners. However, on-boarding of smaller counterparts is not yet very advanced and practiced models do not support a mass adoption in the market. In addition, the public sector is much less active in this segment than Europe.

Considering many local publications, the Northern American B2B/B2G market seems to be 2-3 behind Europe and some Latin American countries. The annual growth rates of about 25% are increasing, but are still almost 10% below European rates.
5.5.5 Latin America

In contrast to the rest of the world, most Latin American countries do not focus too long on evolution phase 1 and 2. Instead, they go straight ahead to phase 3 (e.g. Chile) and phase 4 (Brazil). Argentina and Mexico are other advanced markets in Latin America. The initiator for the market activities is in most cases the government.

Although the legal requirements are among the strictest worldwide, some countries in Latin America seems to take over the global leadership role. Not only do some of them already have good market penetration rates, but their model is also inspiring larger countries in Asia.

Typical characteristics of E-Invoicing in Latin American countries are
- Unique/sequential invoice numbers provided by the tax authorities
- Use of digital signatures
- Nationwide XML standards
- Steady reporting to the tax authorities: “E-Invoices exchanged” at least monthly respecting real-time in Brazil (before shipping goods)
- After review/approval of suppliers’ invoice, tax authorities put a visible “stamp” to the E-Invoices. Either it is a country specific alphanumeric code (Mexico) or a barcode (following the standard CODE-128C in Brazil and PDF417 in Chile).
- Tax authorities validate the invoice data either real time or data-mine to check invoices later.

Service providers play a key role. Many of them are active in several Latin American countries and already process a very remarkable invoice volume.

Thousands of European, American and Asian companies have subsidiaries in these emerging markets. They have to fulfil the local requirements and have to support E-Invoicing.

5.6 E-Invoicing in Europe

5.6.1 Large organisations as innovators

The market development of E-Invoicing follows the decreasing size of the invoice streams (arrows in the chart below):

1. Due to high volume and low legal barriers in the B2C sector, organisations with high outbound volume were first, offering electronic bills to consumers via their customer portals. This development started in most European countries before the millennium. Around 2001, this “Electronic Bill Presentment” channel was upgraded with email delivery of PDFs, causing a huge jump in the number of users.

In the B2B market, the E-Invoicing market was initiated by large purchasing organisations, pushing their large suppliers to deliver electronic invoices.

2. Due to the fragmented invoice situation, even large organisations did not achieve satisfying electronic volumes just with their large trading partners. That is why we are now in the middle of the next evolutionary step: Addressing the SMEs. However, there is a limited but sharply increasing number of SMEs issuing and receiving electronic invoices. In most cases, SME projects have been initiated as large trading partners pushed them to do.

3. The next evolutionary step will be E-Invoicing in the mass market. The various initiatives by the public sector and the European Commission could result in the break-through in this sector.
5.6.2 Adoption and differences in various market segments

Figure 23: Share of European E-Invoicing users in 2010

Source: Several country surveys, mainly [3][4][5] & Billentis
5.6.3 Delivery format and channels

Consumers:
About 20% of European households receive electronic invoices. Roughly every second consumer in Nordic countries prefers to receive electronic invoices via internet banking. In all other countries, Internet banking does not yet play a major role as an E-Invoicing delivery channel. Instead, most consumers prefer to receive electronic invoices via email. Email is gaining ground in many larger countries and could be the preferred delivery channel for 2/3rds of European consumers in the mid-term. Source: AddValue & Itella, 2010 [3].

Enterprises:
The usage of formats and channels differs a great deal depending on the country and the size of companies.
Overall, Email/PDF-Invoice users at least double the number of other companies with fully electronic invoices (receive structured invoice data). This is also confirmed in surveys from other countries not considered in the chart above.

### 5.6.4 Market Maturity in the SME sector

According to Eurostat, 99.8% of European Businesses are SMEs. They represent 2/3rds of all employees in the private sector. Although larger organisations are the primary promoters of E-Invoicing, SMEs play a key role as the trading partners of larger businesses.

Meanwhile, in pioneer countries, the SME segment is mature for E-Invoicing. Despite a high number of appropriate and efficient E-Invoicing solutions and services, there is still much work to prepare the field in this segment.

### 5.6.5 Market Penetration

VAT compliant B2B E-Invoicing has been legally permitted in Switzerland since 2001, and EU member states have had to accept it since 2004. Potential EU users required some time to interpret the new laws and started their projects fairly quickly. As these were mainly large organisations, the projects took some time. Therefore, Europe was in first gear in 2004/2005 and progressed to second gear in 2006/2008 and gains momentum now in third gear.

In 2011, the market achieves an overall penetration of roughly 12% in the B2B and 9% in the B2C sectors.

The status and market improvement differ from country to country.
5.6.6  **Current and estimated market growth**

In 2011, the market is expected to grow by 35%. Sustainable annual growth rates of more than 30% are also expected for the coming years in the B2B and B2C segment.

Extrapolating the organic market growth and with the added effect of some known initiatives (e.g. public sector declaring E-Invoicing as mandatory in some countries), the author expects a market penetration of **above 50% in 2017** for the B2B/B2G segment and in 2020 for the B2C segment. This should be achievable without any intervention from politics and economical development.

5.7  **Evolving market models**

5.7.1  **Overview**

Many large organisations intend to exchange electronic business messages directly with their counterparts. This is still a good approach in the case of stable partnerships with very large trading partners and if the legal requirements for these messages are not very high.

The invoice can be seen as the “queen of documents/messages”. In most countries, it is THE document regarding VAT reclaim, for tax reasons and auditing. If paper based invoices are replaced by electronic invoices, it is essential to stay VAT compliant. Even if very large organisations prefer to exchange electronic invoices directly with their counterparts, the vast majority of companies are advised to use a professional third party service operated by professionals.

We distinguish between several E-Invoicing models:
- Biller Direct Model (in-house)
- Buyer Direct Model (in-house)
- Outsourced Direct Model: Software as a Service (SaaS)
- Consolidator Model, 3rd party Service
- Hybrid Model
• Total Invoice Management (in-house or outsourced)

Figure 27: Overview about main market models

<table>
<thead>
<tr>
<th>Sender</th>
<th>Recipient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biller Direct</td>
<td>Buyer</td>
</tr>
<tr>
<td>1 : Any</td>
<td>Buyer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Buyer Direct</th>
<th>Buyer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any : 1</td>
<td>Buyer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Consolidator</th>
<th>Buyer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any : 1 : Any</td>
<td>Buyer</td>
</tr>
</tbody>
</table>

5.7.2 Biller Direct Model

A supplier implements an E-Invoicing solution within his environment for distributing the electronic invoices via different channels:

- Sends them to the customers via email, SMS etc.
- Provides the E-Invoices on his Website; Customers can login, view and download them

This model is quite popular in telecom, utility and card companies issuing more than 1 million annual bills. In almost all countries, it is the first evolution step in the B2C sector. As the behaviour of small and micro companies is comparable to consumers, it plays also an increasing role in the B2B.

Figure 28: Biller Direct Model
The classic market launch is done with a B2C Customer Portal. Customers can login, view, analyse and download the electronic invoices. Due to the login process on each billers’ site, this route is not very popular. Therefore, customers should at least receive an email notification regarding a new invoice, including a hyperlink to the portal. Much more popular is sending the invoices to the clients as email attachments.

B2B invoices must be VAT and tax compliant. That is why senders in most countries have to sign the invoices digitally. To improve market acceptance, they should also provide

- The most common structured invoice data for download (attachment to PDF invoice)
- Long-term and VAT compliant online archive for the customers’ invoices (as smaller customers quite often do not have the required environment for doing this)
- In case of signatures: Verification tool for customers, reporting the result in a log file (must also be archived)

Figure 29: Advantages and disadvantages of Biller Direct Model

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Direct contact with customers, chance for cross-selling and interaction</td>
<td>− First part of solution development and maintenance seems not to be too</td>
</tr>
<tr>
<td>+ E-Invoicing functionality directly influenced by supplier; e.g. a telecoms</td>
<td>expensive, but this changes dramatically over the years (upgrades;</td>
</tr>
<tr>
<td>operator offers analysis tools with CDRs (Call Detail Records)</td>
<td>accumulation of maintenance costs)</td>
</tr>
<tr>
<td>+ Chance for very close integration with back office environment and</td>
<td>− Customers dislike logging on to various websites of different suppliers or</td>
</tr>
<tr>
<td>automation of processes</td>
<td>making multiple integration projects</td>
</tr>
<tr>
<td></td>
<td>− Customers only get a limited number of formats to download and have to</td>
</tr>
<tr>
<td></td>
<td>convert them for import into their back office systems</td>
</tr>
<tr>
<td></td>
<td>− SME customers don’t get a centralised, efficient and VAT compliant E-Archive</td>
</tr>
<tr>
<td></td>
<td>for E-Invoices of all their suppliers</td>
</tr>
<tr>
<td></td>
<td>− Overall, customer acceptance will be limited</td>
</tr>
</tbody>
</table>

In most market sectors, the customer adoption is much lower than expected, except where the rollout strategy “Opt-Out” can be practised.

Many disadvantages can be reduced/eliminated if this model is operated by a third party (SaaS, Software as a Service) or if it is practised as a complement to a consolidator model → see Hybrid Model

5.7.3 Buyer Direct Model

A buyer implements an E-Invoicing and/or Invoice Management solution within his environment for receiving the electronic invoices via different channels:

- Gets invoices directly as a data stream for importing them into his AP solution (preferred mainly for invoices of large suppliers)
- Smaller suppliers key-in the invoice data in a web-template on the corporate invoice portal of the buyer (webEDI); data can be automatically processed and imported into the AP system
This model is preferred by larger organisations, especially if their suppliers are in strong competition with others (e.g. retail, automotive, trade).

Some providers offer E-Invoicing and Invoice Management solutions just for buyers, whereas others cover both sides: software for suppliers, already preparing and sending a compatible invoice format perfectly matching the requirements of buyers.

If suppliers are located in countries requiring digital signatures, they have to sign the E-Invoices in a VAT compliant manner. To succeed with smaller suppliers, it is of key importance to offer them good tools for this process and most probably a long-term supplier archive too.

The model can also be quite successful with smaller suppliers if orders are sent to them in electronic form alone (e.g. via Extranet Portal). Many solution providers offer a functionality to convert these purchase order data easily into an invoice for sending back to the buyer.

### Figure 31: Advantages and disadvantages of Buyer Direct Model

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Direct contact with suppliers, chance for interaction</td>
<td>− First part of solution implementation and maintenance seems not to be too expensive, but this changes if mid-sized and smaller suppliers must also send electronic invoices; much legal clarification is necessary, especially in cases of cross-border exchange</td>
</tr>
<tr>
<td>+ E-Invoicing functionality directly influenced by recipient</td>
<td>− Suppliers dislike converting their electronic invoices into the various formats requested by the buyers; they also dislike making multiple integration projects (with each buyer)</td>
</tr>
<tr>
<td>+ Chance for a very close integration into back office environment and automation of processes</td>
<td>− SME suppliers don’t get a centralised, efficient and VAT compliant E-Archive for E-Invoices for all invoices sent to various customers</td>
</tr>
</tbody>
</table>
5.7.4 Direct Model as a Service

Over the years, large organisations using biller or buyer direct models concluded that the marketing rollout is harder than expected and that the maintenance of their applications is ultimately too expensive. That is why some service providers in the UK, the Netherlands, France, Germany and other countries started to offer white-label services for them. They run a direct model on behalf of large senders and recipients of invoices. The software is typically developed, maintained and operated by these providers. Customers pay just a fixed integration fee and a volume/time based fee.

Figure 32: Advantages and disadvantages of Direct Model as a Service

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Direct contact with counterparts, chance for interaction</td>
<td>− Counterparts dislike logging on to various websites or making multiple integration projects</td>
</tr>
<tr>
<td>+ E-Invoicing functionality directly influenced</td>
<td>− Counterparties only send/receive a limited number of formats</td>
</tr>
<tr>
<td>+ Chance for very close integration into back office environment and automation of processes</td>
<td>− Overall, acceptance by counterparts will be limited</td>
</tr>
<tr>
<td>+ Lower costs, as application development and maintenance is shared with others</td>
<td></td>
</tr>
<tr>
<td>+ No negative surprise with the costs, as provider offers a fixed integration fee and a price per transaction or user</td>
<td></td>
</tr>
<tr>
<td>+ Complexity regarding VAT compliant processing (and optional archiving) can be outsourced</td>
<td></td>
</tr>
</tbody>
</table>

5.7.5 Consolidator Model

Sender and recipient have just one interface to their service provider, the consolidator. This E-Invoicing network operator manages the VAT compliant invoice transfer to clients. Senders can deliver invoice data (e.g. ERP output format like idocs, any XML data or a flat file) to the consolidator who translates it into the target format of the recipient. The operator guarantees the main legal requirements, authenticity and the end-to-end data integrity. An increasing number of consolidators offer additional services such as long-term archiving.

---

2 In Nordic countries, the term “operator” or “service provider” is more common
Large senders and recipients intend to make a full integration into their AR and AP applications. SMEs often prefer easier and quicker solutions, either by using WebEDI or Printer Drivers. For both channels, suppliers’ AR systems do not need any modification or upgrade. Use of E-Invoicing is possible for them within hours after making their decision.

5.7.6 Hybrid Model

Message transfer with a few high-volume and strategic important counterparts is based on a direct model, whereas mid-sized and small counterparts are addressed via consolidator.

Organisations using this model have combined the advantages and disadvantages of direct & consolidator models.
Advantage: Good solution for all organisations already practising a direct model with chance for an efficient route to all smaller suppliers and customers.

5.7.7 Total Invoice Management

Even at best, there will always be a remaining percentage of paper invoices in tandem with the increasing electronic volume. At worst, this can result in two different workflow and archiving processes. This can be avoided in most cases with innovative solutions for supporting and handling various invoice formats, including paper. If practised as a direct model, such invoice management solutions can be purchased on the market and implemented into the company’s own environment. Organisations not yet using scanning solutions quite often prefer using the complete service of a third party. Ultimately, this means that sender and recipient can exchange invoices 100% electronically.

Figure 35: Total Invoice Management

Figure 36: Advantages and disadvantages of Total Invoice Management

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ 100% solution</td>
<td>− Pressure to move very quickly from paper to electronic channel is limited; as a result, paper can survive longer than desired</td>
</tr>
<tr>
<td>+ Harmonised processes, independent of invoice medium used</td>
<td></td>
</tr>
</tbody>
</table>

5.8 E-Invoicing consolidator situation

5.8.1 Overview

Mid of 2011, more than 500 consolidators are active in the European market. No single player has reached a dominant position in the E-Invoicing market. Most of them have an extensive and balanced product range for senders and recipients of any size. Others are more specialised for either senders or recipients and for the B2B or B2C sectors. Around 70 of them have an international range (5+ countries). An increasing number improve the international scope by linking partner platforms abroad and roaming E-Invoices. Many operators are well established as pure players (focussed on E-Invoicing), whereas others have already enhanced the support for further messages and process automation along the supply chain order-invoice-payment.
Organisations offering consolidator services are founded either as start-ups or often originate as

- Print shops (invoice printing as third party service)
- AR and collection service
- Post
- EDI Clearing centres
- Archiving service
- Scanning service
- Electronic marketplace, procurement platform
- Banks or financial clearing services
- Payment service providers
- ERP integrators
- E-Business operators
- Software houses
- Consultants
- Digital signature service provider

Although some banks also intend serving large organisations with E-Invoicing, the focus of an average bank is still more in the B2C sector and the SME market. Conversely, the non-bank operators have traditionally been successful in aiming their services at large companies and SME suppliers in the B2B market. Large companies require more value-added services (e.g. integration to ERP applications, workflow processes and archiving). Measured by processed volume in 2010, non-bank consolidators have a market share of roughly 84%.

5.8.2 Inter-operability among different consolidators

In the mobile phone area we have many operators in a domestic market which are connected to each other in the local market and with most others abroad. For electronic invoicing we can see a similar market development, but slower and with much higher heterogeneity regarding legal constraints, invoice contents etc. Although there is not yet a single standard for exchanging E-Invoices across the various networks, more and more consolidator platforms are linked together for building inter-operable networks with a broad range. In best case, they migrate towards a unified interoperability model, e.g. the EEIF (European Electronic Invoicing Framework).

Domestic roaming of E-Invoices is already quite popular in many countries. One quarter of operators also practice roaming with international partners. Some service providers have a clear interoperability strategy with links to 200 (GXS) respectively 100+ partners (Basware).

Interoperability among operators is also pushed by initiatives of the European Commission and some associations in the private industry.

5.9 Market preference for various models

Around the millennium, the biller direct model for consumers was dominating the landscape. It is currently dominating in many countries like Austria, Spain, Germany and the UK.
There are indications that the B2B volume exchanged with the direct model could in the mid-term exceed the volume via Service Providers. Smaller pioneer countries had a clear preference for the Service Provider model, whereas developing and larger countries are dominated much more by the direct model. In addition, an increasing number of SMEs exchange E-Invoices as PDFs directly with their trading partners. The planned removal of legal barriers and the increasing popularity of standards will likely also accelerate the direct exchange.

### 5.10 Market Trends

#### 5.10.1 Fees for paper invoices

In most countries, trading partners cannot be legally obliged to support electronic channels. Organisations in a strong position go other ways: They declare E-Invoicing as state of the art and punish counterparties insisting on paper invoices. Paper invoicing surcharges are becoming more and more popular in some countries.

Prices/penalties for paper invoices seen on the market are

- Senders charge EUR 1 – 3.50 to consumers and EUR 5 - 25 for businesses
- Recipients subtract EUR 15 - 25 from a paper invoice amount and pay just the reduced rate
This behaviour mainly appeared in early 2008 and is now increasing sharply. It is expected to gain more ground although consumer protection organisations, suppliers and corporate clients complain vociferously.

5.10.2 More innovative rollout models

Traditionally, counterparts are invited and persuaded to send or receive electronic invoices instead of paper. This friendly (Opt-In) approach was common for a decade and is in line with the culture of most countries. The results are quite often below expectations.

Innovative (and more aggressive) senders and consolidators have changed their strategy in cases where they know the electronic addresses of their clients:
- In stable business networks where clients already use electronic channels, either by email or Extranet (Online Shops, ASP Portals, Payment Networks, Networks using electronic orders/order confirmations/payment advices etc.); the “Opt-Out” rollout is applied: Trading parties have to send/receive E-Invoices per default; only few can resist and Opt-Out
- Online Banking and Payment Service Providers; if customers type in payment data, they pop-up a message inviting them to receive the invoices electronically (customers can activate this enhanced service with a simple mouse-click)

5.10.3 Increasing cost pressure as an accelerator for E-Invoicing

Due to strong competition in most industries, cost pressure is increasing. Investments will be done in a very selective manner, following criteria such as
- Promising business case with good ROI
- Reduce fixed costs and replace them by variable (volume based) costs
- Increase transparency of invoices in company-internal workflow and reduce circulation time
- Increase customer retention
- Future technology
- Buy instead of Make, external solutions or services

These are exactly the ingredients for E-Invoicing and automation of the supply chain.

5.10.4 Improve working Capital

More than ever before is it necessary to always have sufficient cash. Regarding SWIFT, it is estimated that roughly EUR 500 billion of unnecessary working capital is locked up in the financial supply chains of Europe’s top 1,000 companies due to poor visibility of payables and receivables. One major reason for this inefficiency is the huge volume of paper invoices in internal company circulation.

5.10.5 Wide range of solutions offered for any size of organisation

Whereas in the past it was difficult finding any suitable solutions for smaller companies, the challenge today is more in selecting the right one from a wide range. There is sufficient competition amongst providers to get an attractive price. Almost all solutions offer VAT compliance and format flexibility (any format in / any format out).

For more advanced organisations already using E-Invoicing, the leading providers offer the next upgrades for electronic and automated E-Procurement and Financial Supply Chain processes.
5.10.6 Beyond E-Invoicing

5.10.6.1 Replace further invoice related paper documents
After establishing E-Invoicing, the next automation steps soon follow:
- Replace traditional procedures along the **procurement supply chain** with electronic and automated processes
- Replace traditional procedures along the **financial supply chain** with electronic and automated processes

5.10.6.2 Real-Time Economy (RTE)
The first phase of the RTE program in Europe is FullSEPA, concentrating on electronic payment and electronic invoicing. The next step on the Real-Time Economy ladder is Full Value Chain (FVC). FVC aims at extending the electronic payment and invoicing technologies to other messages that are transmitted between the buyer and seller in a commercial transaction (e.g. tender, offer, order, payment and delivery guarantee, etc.). The latest steps by our innovative Finnish colleagues are published on the site [www.realtimeeconomy.net](http://www.realtimeeconomy.net)

5.10.6.3 Real-Time Audit
Brazil established a nationwide system, which enables the tax authorities to audit electronic invoices before goods are shipped by suppliers. Other countries in Latin America and Asia are adopting this approach at least partially.

In EU countries, EMCS (Excise Movement and Control System) is in place since April 1st, 2010. Economic operators in initial Member States are able to submit electronic “Administrative Documents” for excise movements to any other Member State under EMCS. All of these documents are discharged electronically by the consignee in the Member State of destination. All movements of excise goods under suspension of excise duty must be carried out using EMCS, meaning that the existing paper document cannot be used any more since January 2011, as it no longer has any legal basis. As of 14 January 2011, EMCS works fine in 23 Member States out of 27. There are some difficulties in Belgium, Denmark, Italy, and the Netherlands. [7]

EMCS is not currently used for invoice messages, but the model is in a broader sense comparable to parts of the real-time audit model in Brazil.

5.11 Supporting initiatives

5.11.1 Standards
In many cases, standardisation initiatives have failed to produce results and to encourage a majority of market players to use them. A lack of information about existing standards combined with the pride of some introverted organisations has resulted in the re-invention of dozens of niche standards (domestic or industry focus) even during the last years. They can probably only survive if they build a subset of one of the popular global standards (Oasis UBL 2.0, UN/CEFACT) or if they are based at least on the same standard model.

An estimated 10,000 ERP solutions (or at least different AR & AP solutions) are used in Europe. Integrating various E-Invoicing standards is outside the scope of the ERP providers. That is why most E-Invoicing consolidators offer any-to-any-data-formatting services. Besides legal challenges and the networking idea, these formatting services are another main reasons that third party providers play a major role in E-Invoicing in most countries. As a result, senders and recipients of invoices using such services are independent of any standards and they have no longer to wait for a market dominant standard.
Any-to-any-data-formatting sounds very promising. However, it can be a challenge if the number of provided (by sender) and expected (by recipients’ application) data fields is different or if field attributes and length vary. It can result just in an error message or more probably in rejection of the invoice to the sender. The trend for internal process automation and increasing inter-operability of various consolidator platforms are reasons why standardisation projects are still in progress. Standardisation includes the three areas semantic, syntax and processes. International semantic standards have already been a challenge, but they build quite often the first step. Activities for syntactic and process based standards are also in progress in many working groups.

Popular global and industry independent standards for invoices and directly related pre- and post-processes are:

Figure 38: Global and industry independent standards for invoices

<table>
<thead>
<tr>
<th>Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ebXML</td>
<td>ebXML (Electronic Business using eXtensible Mark-up Language), is a modular suite of specifications that enables businesses of any size and in any geographical location to conduct business over the Internet. Using ebXML, companies have a standard method for exchanging business messages, conduct trading relationships, communicate data in common terms, define, and register business processes.</td>
</tr>
<tr>
<td>OASIS UBL 2.0</td>
<td>UBL, the Universal Business Language, is the product of an international effort to define a royalty-free library of standard electronic XML business documents such as purchase orders and invoices. Besides ebXML, this standard is the most important one for E-Invoicing in Europe. It is the base of several country specific standards and it is the intention to merge it into UN/CEFACT. UBL is the first standard implementation of the ebXML (see above) Core Components Technical Specification.</td>
</tr>
<tr>
<td>UBL Northern European Subset (NES)</td>
<td>The Northern European Subset (NES) defines the specific use of UBL 2.0 electronic procurement documents domestically and between the member countries: Denmark, Sweden, Norway, Finland, Iceland, and the UK. NES documentation includes profiles describing business processes and scenarios, profiled UBL documents, and guidelines on the specific usage of UBL entities, as well as schema and schematron validation tools.</td>
</tr>
<tr>
<td>UN/CEFACT</td>
<td>UN/CEFACT, a United Nations body, has a global remit. It encourages close collaboration between governments and private business to secure inter-operability for the exchange of information between the public and private sector. It has developed: • The UN Layout Key for Trade Documents, which is the foundation for the EU’s Single Administrative Document (SAD) • UN/EDIFACT, the international standard for electronic data interchange • numerous trade facilitation recommendations • The UN/CEFACT CII (Cross Industry Invoice) provides not only standard XML schemas, but also globally consistent invoicing</td>
</tr>
</tbody>
</table>
Industry specific standards are
- ETIS: Telecom invoices
- GS1: EANCOM standard for Retail sector
- ISO TC68 and UNIFI (ISO 20022): Financial industry
- LITIG: law firms
- Rosetta Net: vehicle manufacturers

Some country specific standards are
- Austria: ebInterface
- Belgium: BMF
- Denmark: OIOXML
- Finland: Finvoice
- Spain: facturae
- Sweden: Svefaktura, SFTI
- Switzerland: swissDIGIN

Although the author does not see much reason for further standardisation work regarding invoice content/semantic, there is still much work to do due to the heterogeneous legal requirements for electronic invoice transfer (including e-signatures), processing and archiving, especially in the cross-border segment. These are topics of the European Commission ongoing projects and other working groups.

5.11.2 Electronic invoicing on the EU agenda

The Digital Agenda is Europe's strategy for a flourishing digital economy by 2020. It outlines policies and actions to maximise the benefit of the Digital Revolution for all. [8]

The European Commission is focusing its efforts on removing barriers to the broad-scale adoption of electronic invoicing in Europe and the four key priorities on this topic are:
- Ensuring a consistent legal environment for E-Invoicing
- Achieving mass market adoption by getting SMEs onboard
- Stimulating an environment that creates maximum reach between trading partners exchanging invoices
- Promoting a common E-Invoicing standard

For each of these priorities, the Commission Communication sets out a number of specific actions for example:
- In 2011, the Commission will propose a revision of the e-signature Directive to provide cross-border recognition of secure e-authentication systems.
- The Commission will launch two new projects in the framework of the Competitiveness and Innovation Programme (CIP) to help specific sectors to agree on interoperable processes for the electronic exchange of data and documents along the different steps of the supply chain (including E-Invoicing).
- The European Committee for Standardization (CEN), a major provider of European Standards and technical specifications, should develop a Code of Practice including consistent terminology and clearly defined roles and responsibilities for actors involved in E-Invoicing.
• CEN should design implementation guidelines for a Cross-Industry Invoice data model and collaborate with international standards organisations, such as UN/CEFACT (United Nations Centre for Trade Facilitation and Electronic Business) and ISO (International Organization for Standardization).

To facilitate the monitoring and implementation of these actions, the Commission invites Member States to establish national multi-stakeholder fora on E-Invoicing by June 2011. The Commission will complement this by setting up a stakeholder forum on E-Invoicing at EU level.
6. From evolution to revolution

6.1 Achievable results with traditional methods

By monitoring the international markets for 14 years, the author analysed the classical and evolutionary development in companies and countries.

Figure 39: E-Invoicing penetration with traditional rollout methods

<table>
<thead>
<tr>
<th>Company evolution steps</th>
<th>Country evolution steps</th>
</tr>
</thead>
</table>
| 1 | • Mainly large companies are innovators for E-Invoicing  
• They push their larger trading partners to send and receive the invoices electronically. The Opt-In on-boarding method is practiced (convince one by one)  
• For the vast majority of organisations, the achievable share of E-Invoices with large trading partners is just 25-30% |
| A | • Large companies are the promoters, quite often just in high volume industries like retail/healthcare (in the role as invoice recipients) and Telco/Utility/Card Issuers (as invoice senders)  
• SMEs are not very familiar with E-Invoicing and have concerns regarding tax compliance  
• No obligation in place for acceptance of E-Invoicing by trading partners |
| 2 | • The large innovators in addition push their mid-sized and small trading partners to support electronic invoices  
• Even by increasing pressure, a large company does not have the power to make the market alone; they are dependent on maturity for the mass market; annual growth rates are limited |
| B | • Almost all large companies increase the pressure on their mid-sized and small trading partners  
• The industry offers appropriate solutions  
• A snowball effect results from moderate acceleration of the nationwide market penetration |

This market evolution was common in the past and is still in progress today in most countries.
Initiatives which did not cause a broad break-through in the markets up to today

- Classical Opt-In models practiced for on-boarding of trading partners
- Low-cost or free services
- Standards
- Removal of legal barriers

Although the author does not know any country where one of such initiatives was the main reason for a break-through in the market, this does not mean that they were useless. Instead, they can be supportive of or pre-requisites for the successful models as described in the chapter afterwards.

6.2 Ingredients for market revolution

The key criteria for a substantial breakthrough are

- Obligations for trading partners to support E-Invoicing
- Excellence in the on-boarding process; carrot and stick policy; make registration process and usage of E-Invoicing services as easy and quick as possible
- Appropriate service offered to all sizes of trading partners including any-to-any data formatting and e-archiving

After the financial crisis, very many countries have tremendous debts. To reduce this burden, they have already cut parts of their costs as an immediate step. Still, there is a high pressure to reduce remaining cost positions. Two other cost positions to reduce are obvious

- The public sector has much negotiation power in its role as a large buyer. The purchases of the public sector in an industrialised country represent typically 16-18% of the Gross Domestic Product. With better negotiations, the public sector has further potential to reduce these costs.
- The public sector is a major market segment regarding its own inbound and outbound invoice volume. The potential for invoice processing optimisation is tremendous. It could be as much as EUR 25 billion in Europe alone.

Cost optimisation is one side of the equation for the public sector. Another major objective is to increase tax revenues. Depending on the culture of the country, the shadow economy represents 8-45%. Tax income for these undeclared revenues could result in balanced budgets for most countries. Electronic invoicing, combined with real-time audits by government, are keystones to reduce fraud and significantly increase tax revenues.

Due to the very competitive landscape, the private sector is always under cost pressure. Cost optimisation with electronic processes like E-Invoicing is an on-going process in the private industry.

E-Invoicing offers rich and appropriate solutions for any size of organisation.

It is a historic opportunity having all of these ingredients in the same basket simultaneously and to develop the markets in a more revolutionary way.

6.3 Revolutionary models

Revolutions are possible on a micro (company) or macro level (countrywide). As a consultant and market analyst, the author has seen very many successful examples making the difference to traditional models. Through describing some of the successful models, he intends to inspire readers to implement these models soon.
6.3.1 Company 60

For most large companies, it is possible to achieve an electronic invoice share of at least 60% after 3 years. This will not happen with a smart and friendly approach towards trading partners. Instead, powerplay and marketing is necessary for increasing the share of E-Invoices. In addition, the general contract terms should be enhanced to provide the legal instrument to force trading partners towards E-Invoicing.

Although the rollout is strongly based on powerplay, it is still a fair method if the promoter or its service provider offers appropriate solutions for any kind and size of trading partner and for fair conditions. Registration and usage barriers shall be as low as possible. This can happen, for example, by taking the first step using only the internet. An account shall be pre-defined for each trading party and can be activated with just a click of the mouse, followed by completing the user’s master data.

Already, quite a high number of large companies are practicing this method.

Figure 40: E-Invoice penetration of 60% for company with improved rollout methods

6.3.2 Company 80

For most large companies, it is also possible to achieve an electronic invoice share of at least 80% after 3 years. The method “company 60” is enriched with penalties for counterparties which are insisting on paper invoices. Electronic invoice exchange is declared as the default channel, but penalties are applied for paper invoices:

- Suppliers charge typically EUR 1 – 3.50 to consumers and EUR 5 – 25 to companies per paper invoice
- Buyers reduce the paid invoice amount typically by EUR 15 – 25 per paper invoice, if the suppliers are not willing or not able to send the invoices electronically

An increasing number of large companies are practicing this method.
6.3.3 Company 90

In most larger companies, at least 40% of the invoices are based on Purchase Orders (POs). This rate is steadily increasing. Enterprises with more than 50% PO based invoices have the chance to receive all PO based invoices electronically within just a few months.

Suppliers are keen to get purchase orders. If they only receive them electronically in the future, they will accept the new channel rapidly. In addition, they also have the chance to return invoices electronically. This model results in a quick win-win situation for suppliers and buyers.

Figure 42: Model with closed electronic loop for purchase order and invoice
<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Buyer provides purchase orders via E-Service platform; an email notification is sent to suppliers.</td>
</tr>
<tr>
<td>2</td>
<td>Suppliers view or download the PO; Buyer has control that the PO is received.</td>
</tr>
<tr>
<td>3</td>
<td>The Web user clicks a button; with it, order data are flipped into invoices, enriched with supplier’s master data; the platform generates a tax compliant E-Invoice. The ERP user generates the E-Invoice in its system and uploads it to the E-Service platform.</td>
</tr>
<tr>
<td>4</td>
<td>The E-Invoice is sent to the buyer.</td>
</tr>
</tbody>
</table>

A prerequisite for success is a good preparation of the environment and rollout excellence:

- Buyers have to update the master data of their suppliers.
- They prepare online accounts for each of them, which need just the click of a mouse to activate.
- Build a platform or involve a service provider which offers a web interface as well as self-care opportunities to parameterise mapping tables; the platform shall support international standards.
- Rollout:
  - Suppliers are informed that purchase orders will be delivered after a defined deadline just in electronic form and that they have to activate the prepared account (via provided hyperlink) and accept the terms and conditions.
  - Web users can use the new channel immediately as well as ERP users needing some time to define the mapping table.
  - ERP users desiring a full integration into their systems may parameterise the mapping table for downloading purchase orders and uploading invoices.

Figure 43: E-Invoice penetration of 90% for company with perfect rollout methods.

Some companies, mainly in the United Kingdom, are practicing this model successfully.
6.3.4 Country 40

National governments can play a significant role in providing a rapid development of the E-Invoicing market:
- Lead or support countrywide E-Invoicing initiatives; build frameworks which are appropriate for the public and the private sector; ensure and support an encouraging marketing communication
- Make a good example and declare all invoices from the suppliers to the public sector to be compulsory
- Define a market-friendly legislation, if not yet in place

Shortcomings in many countries with an active role in the E-Invoicing market:
- Unclear and/or unstable legal situation can result in partial paralysis of markets
- Some built E-Invoicing frameworks which are just appropriate for the public but not the private sector
- Defined obligations for E-Invoicing following the amount of invoices are not bringing market significantly forward; almost all companies have invoices with high and low amounts in parallel; for them, it doesn’t make sense to follow different rules within their organisation or, even worse, it can result in additional administrative burdens and less efficiency
- Obligations are sometimes in place, but government is allowing too many exceptions for Opting-Out

The public sector can contribute to a market penetration clearly above 10% just with its own invoice streams. If the obligation of the public sector is based on a framework which also generates high value for the private industry, synergies result in a strong acceleration for E-Invoicing within the private sector as well.

Figure 44: E-Invoice penetration of 40% for countries with improved rollout methods

Denmark is close to this model, although the positive impact for electronic invoice exchange within the private sector was not directly visible. Spain has the set-up for succeeding with this model in coming years.
6.3.5 Country 90

Within just a few years, Latin American countries like Brazil established a very successful model regarding E-Invoicing market penetration and fraud reduction. Applying this model, almost all invoices in a country can be audited real-time or near real-time. The implementation in many Latin American countries is already done or in an advanced state. Several Asian countries are adopting at least major parts of this model. Due to the benefits for the government (fraud reduction) and businesses (process optimisation and cost reduction), the author expects to see the adoption of this model in African and some European countries in the long term as well.

Figure 45: Real-time audit master model

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>After receiving a purchase order from the buyer, the supplier generates the invoice data and sends it (typically in a country-specific XML format) to the tax authority for validation.</td>
</tr>
<tr>
<td>2</td>
<td>Tax Authority puts a digital signature or “stamp” on it. This can be hidden or in the form of a visible alphanumeric code or barcode. They send this approved version back to the supplier and a copy to the buyer.</td>
</tr>
<tr>
<td>3</td>
<td>On receipt of this approved version, the supplier is now (not before) entitled to ship the ordered goods. The supplier provides the approved invoice for the “Bill of Lading” to the transport organisation. It can be an electronic download to any mobile device (best case) or a printed version (more common today) with a visible code.</td>
</tr>
<tr>
<td>4</td>
<td>Customs or police can check the Bill of Lading with appropriate equipment and can see immediately if the transported goods are registered correctly.</td>
</tr>
<tr>
<td>5</td>
<td>The buyer controls if the delivery is correct. If so, he has to send an electronic</td>
</tr>
</tbody>
</table>
confirmation (goods received note) to the tax authorities. A copy is provided for the supplier and the electronic loop is closed for all parties involved. As the buyer is fully considered in this cycle, fraud by over- and under-invoicing can be eliminated.

A rollout approach “industry by industry” was successfully carried out in Brazil and it seems to be very convincing.

Figure 46: E-Invoice penetration of 90% for countries with perfect rollout methods

In Europe, the “Excise Movement and Control System” has been in place since April 2010. It could be interpreted as pre-release of the “Country 90” model and has the potential to be enhanced for other industry segments and with E-Invoicing and real-time audit functionality.

6.4 The time is right for taking the next step now

Still wondering how others rapidly achieve very high E-Invoicing penetration rates?

The success factors are well known. Implement a more revolutionary method!
7. **Featured Sponsors**

Anachron  
Ariba  
Basware Corporation  
Bundesdruckerei GmbH  
Celtrino  
Certipost nv/sa  
Crossgate AG  
crossinx  
ebills & more GmbH  
ESKER  
Fundtech FSC Ltd  
GXS  
Itella Information  
MediData AG  
Pagero  
Qvantel  
PostFinance  
secrypt GmbH  
Swisscom IT Services  
Swiss Post Solutions (SPS)  
Tieto  
xyzmo SIGHnificant

**Remarks regarding next chapters**

The following articles/profiles with “Sponsor” in the header are fully provided by sponsors.
7.1 **Anachron**

**Corporate headquarters:**

The Netherlands:
Joop Geesinkweg 310
1096 AW Amsterdam
The Netherlands

European offices:
Belgium, United Kingdom, Lithuania

VAT compliant E-Invoice processing guaranteed for The Netherlands, Austria, Belgium, Denmark, Finland, Germany, Greece, Ireland, France, Cyprus, The Czech Republic, Estonia, Hungary, Latvia, Bulgaria, Italy, Luxembourg, Portugal, Spain, Sweden, UK, Slovenia, Lithuania, Malta, Poland, Slovakia, Switzerland

**Countries with highest E-Invoicing revenues**
1. The Netherlands
2. United Kingdom
3. Belgium
4. Germany
5. France

**Number of employees dedicated to E-Invoicing and directly related offering**
45 Employees

<table>
<thead>
<tr>
<th>Number of customers</th>
<th>Customers on own platform</th>
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<tbody>
<tr>
<td>Connected suppliers</td>
<td>75</td>
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<tr>
<td>Connected corporate buyers</td>
<td>1 Million</td>
</tr>
<tr>
<td>Connected consumers</td>
<td>Approx. 15 Million</td>
</tr>
</tbody>
</table>

**Kind of offering**

SaaS (Software as a Service):
- E-Invoicing
- E-Signature
- Direct biller
- Consolidator service
- E-Payments
- E-documents

**Covered processes/messages along the supply chain**
AR & AP including all documents for Purchase2Pay and Order2Cash.

**Main target market segments**
- Supplier focus
- Large and mid-sized organizations
- All industries (current customers from:
  Financial services, Automotive, Telco,
  Office supplies, Utilities, Travel,
  Insurance, Government)

**Supported languages (with application/service and the online-help/customer support)**
Dutch, English, Spanish, Finnish, German, solution supports UTF-8.
ANACHRON, THE LEADING E-INVOICING COMPANY IN EUROPE

ANACHRON

Anachron is a leading e-Invoicing service provider that was founded in 2000. Anachron is an e-Invoicing market leader in the Netherlands and, according to industry analysts, is amongst top players in Europe. Anachron has 45 employees and it’s headquarters are located in Amsterdam. Anachron’s goal is to develop leading e-Invoicing solutions in Europe, providing services to companies that wish to present invoices, customer statements, order acknowledgements, or other confidential documents online. Anachron’s most competitive advantage is its ability to execute proven by numerous successfull implementations.

OUR VISION

Anachron strives to further develop the e-Invoicing market by maintaining our position as a leading and innovative service provider. We support invoice standards in Europe and provide the market with information to increase the awareness of e-Invoicing. As a market leader in the Netherlands we want to expand our position in Europe through our European partners and network. By the end of 2012 we want to be the number 1 e-Invoicing service provider in Europe.

MULTI FUNCTIONAL PLATFORM

Anachron has developed an e-Invoicing platform to distribute and archive invoices online for both business users as well as consumers. This e-Invoicing platform is a multifunctional platform were invoice data is processed, presented, and stored for online use. The solution is hosted by Getronics (ISO 9001, ISO 27001, Abdo) and therefore allows us to provide our customers with the highest security settings and real time access to all documents.

Additionally, Anachron has developed notification and delivery systems in a variety of formats, including HTML, e-mail, Web Services and SMS. It is our aim to achieve cost reductions for our customers and therefore Anachron also delivers an online query settlement solution. Our online dispute functionality integrates with customer service and/or credit management solutions.

COMPLIANCE AND AUDITS

The Anachron solution fully complies with all the data security requirements of each Tax country. Anachron has implemented procedures to ensure the authenticity and integrity of data and all communications. Anachron will be certified for ISO 9001, ISO 27001 and SAS-70 type II certificate.

INTEROPERABILITY

Anachron strongly believes in making connections with other Service Providers and Government Portals, like Digipoort in the Netherlands. Anachron has connections with several e-Invoicing networks and is expanding continuously.

Visit us at Anachron.com for contact information.
Contact person : Linda van Kampen
Phone : +31-20 53 13 900
e-mail : Linda.vanKampen@anachron.com
7.2 Ariba

Headquarters:
Ariba Inc.
807 11th Avenue
Sunnyvale, CA 94089
USA

Ariba is able to accommodate global business requirements in the following countries:

1. Austria
2. Belgium
3. Cyprus
4. Czech Republic
5. Denmark
6. Estonia
7. France
8. Finland
9. Germany
10. Great Britain
11. Hungary

Countries with highest E-Invoicing revenues: United States, Germany, United Kingdom

Number of employees dedicated to E-Invoicing and directly related offering: 100

<table>
<thead>
<tr>
<th>Number of customers</th>
<th>Customers on own platform</th>
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</thead>
<tbody>
<tr>
<td>Connected suppliers</td>
<td>500,000</td>
</tr>
<tr>
<td>Connected corporate buyers</td>
<td>350</td>
</tr>
</tbody>
</table>

Kind of offering
SaaS Collaborative Finance Management solutions:
- Ariba Invoice Management – e-Invoicing, Scanning, Workflow, Matching, Archival
- Ariba Payment Management – Remittance Statements, ACH Network Integration
- Ariba Discount Professional – Prorated Terms, Dynamic Discounting
- Ariba Receivables Financing
- Ariba Supply Chain Finance

Covered processes/messages along the supply chain
On a single, web-based platform, you and your colleagues can deploy collaborative finance management solutions that automate and streamline PO delivery, invoices and payments, improving cash flow, visibility, and efficiency. The Ariba Network is the world's largest trading partner community, with more than 340,000 suppliers and the industry's fastest growing financial partner eco-system

Main target market segments
Enterprise organizations

Supported languages (with application/service and the online-help/customer support)
English, Spanish, Finnish, German, …
E-INVOICING: THE TICKET TO A/P EFFICIENCY

A/P process remains highly inefficient. According to industry analysts, more than 80 percent of business-to-business commerce transactions are completed manually. And companies still send 85 percent of invoices and payments on paper.

What’s holding companies back from automating the process?

Supplier participation is a key driver of success in any e-invoicing initiative. And, many companies fail to invest the time and resources necessary to target, on-board and maintain their partners. The legacy of EDI costs and complexities may also be a detriment to what are now much simpler methods for submitting electronic invoices.

In addition, country-specific regulations in the European Union have resulted in leaders and laggards. This is primarily driven by different levels and treatment of VAT taxes and requirements related to the storage of paper invoices.

For those companies able to overcome these challenges, the benefits of e-invoicing solutions are substantial.

When evaluating an e-invoicing solution, companies should ensure that it:

- Eliminates (not automates) errors at the source
- Permits suppliers of all sizes to easily and inexpensively connect
- Dramatically reduces the quantity of paper handled, stored and matched
- Improves supplier collaboration
- Matches purchase orders, receipts, and contracts to invoices
- Accommodates varying degrees of supplier sophistication
- Allows 100 percent capture of invoice volume
- Improves compliance across many dimensions, including contracts, preferred suppliers, and global e-invoice tax regulations
- Provides earlier visibility into cash requirements
- Removes latency in invoice and payment processing
- Reduces the volume of supplier inquiries
- Offers multi-lingual, multi-currency capabilities
- Provides global, localized support for your company and its suppliers

And it should deliver measurable and sustainable results that positively impact your operations, and ultimately, your bottom line.

With the right e-invoicing solution and partner, companies can fundamentally improve an ancient business role and achieve new levels of A/P efficiencies and cost savings.
Market-leading PO-Flip service functionality embedded in Ariba Invoice Management enables companies to drive error-free invoice matching, speed approval and payments

Why is it so easy for consumers to pay bills online and on time, and so hard for businesses to do the same? Because when it comes to invoice processing, manual methods still rule. More than 85 percent of all invoices and payments are still sent on paper. Ariba is changing this. Through market-leading PO-Flip® service functionality in its Ariba Invoice Management™ solution, Ariba enables companies to match and process invoices more quickly and efficiently than ever before. Delivered as part of the Ariba® Commerce Cloud, Ariba Invoice Management arms companies with the tools necessary to drive a completely automated, error-free invoice matching process, leading to faster approvals and payments, and ultimately, more effective management of working capital.

With Ariba Invoice Management, buyers and sellers can:

- Collaborate more effectively via the Ariba Network
- Reduce operating costs by 70 percent
- Enable 98 percent touchless processing
- Eliminate exceptions and simplify dispute resolution
- Speed straight through processing rates
- Support global e-invoice operations in more than 70 currencies
- Improve cash flow management

Leveraging the PO-Flip service functionality in Ariba Invoice Management, companies can automatically convert electronic purchase orders into electronic invoices that are error free and an exact match to the purchase orders.

"The ability to simply convert an electronic purchase order into an invoice with a click of the mouse is a great feature of Ariba. With paper invoices, it can take weeks or months to get paid. When we use Ariba for submitting electronic invoices, we always receive prompt payment. In addition, I always know when we will get paid, which is a great help in forecasting cash flow." - Joy Stoelting, studio manager, Big-Giant of Portland, OR

Visit us at www.ariba.com for more information or
Ariba UK Ltd
Baronsmede - 20 The Avenue
Egham, Surrey
TW20 9AB
Phone: +44 (0) 1784 487100
Fax: +44 (0) 1784 487101
7.3 Basware Corporation

Headquarters:
Basware Corporation
P.O. Box 97
FI-02601 Espoo
Finland

VAT compliant E-Invoice processing guaranteed for
Australia, Austria, Belgium, Bulgaria, Canada, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Isle of Man, Israel, Italy, Latvia, Lithuania, Liechtenstein, Luxembourg, Morocco, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Singapore, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, United Kingdom, United States of America

Countries with highest E-Invoicing revenues
(Basware only provides regional information)
Finland
Scandinavia
Europe

Number of employees dedicated to E-Invoicing and directly related offering
150 (including offshore operations)

<table>
<thead>
<tr>
<th>Number of customers</th>
<th>Customers on own platform</th>
<th>Customers on partner platforms, reached via interconnection &amp; roaming (Estimate)</th>
</tr>
</thead>
<tbody>
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<td>Connected suppliers</td>
<td>21,000</td>
<td>200,000</td>
</tr>
<tr>
<td>Connected corporate buyers</td>
<td>3,400</td>
<td>11,500</td>
</tr>
<tr>
<td>Connected consumers</td>
<td>n/a</td>
<td>25,000</td>
</tr>
</tbody>
</table>

Kind of offering
Connectivity services for e-invoices, purchase messages and catalogues

Covered processes/messages along the supply chain
Full e-invoicing solution expanding to supply chain Purchase-To-Pay and Order-To-Cash

Main target market segments
Large suppliers and buyers in any industry
Balanced offering for suppliers and buyers in small- and mid-sized organizations

Supported languages (with application/service and the online-help/customer support)
Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hungarian, Italian, Norwegian, Polish, Portuguese, Russian, Slovak, Slovene, Spanish, Swedish, Turkish
P2P AND O2C PROCESS AUTOMATION IS EASY

Process automation has never been this easy. With Connectivity – a single solution that improves buyer-supplier communication by automating Procurement, Accounts Payable, and Accounts Receivable – you’ll start saving time and money from day one. In addition to guaranteed savings on transaction costs, e-invoices and procurement transactions also improve supply chain transparency by providing a full audit trail.

By combining the Connectivity services to Purchase Management and Invoice Automation solutions, the entire process can be automated and the benefits of Straight-Through-Processing can be gained. The aim should be expanding from e-invoicing to full Purchase-To-Pay and Order-To-Cash processes.

THREE STRATEGIC GOALS FOR THE SUPPLIER

Goal 1 – A fully electronic invoicing process with each and every customer
The fully integrated and electronic buyer-supplier process provides suppliers a new kind of visibility, allowing them to confirm that their invoices have been forwarded to the customers. The most comprehensive e-invoicing solutions send failed-delivery notifications, allowing the suppliers to quickly correct invoice details and resend. This extra layer of visibility enables an accurate prediction of the payment date and hence better optimization of cash flow.

The most flexible e-invoicing solutions also include different tools for e-invoicing based on the customer’s ability to receive and process e-invoices directly into their handling system when requested. With Connectivity, you’ll be able to send e-invoices to all your customers through just one interface no matter if the customer can receive them as e-invoices, through e-mail or as paper invoices. This leads to reduced invoicing costs for the supplier as well as to optimized cash flow and stronger relationships with both new and existing customers.

Goal 2 – A quick shift to electronic
The challenge facing many companies is how to establish the electronic collaboration with their key customer base, both technically and commercially. The shift to electronic should be quick and minimize the burden the finance departments’ resources. As customers expect their suppliers to meet their needs and processes, it is important that the e-invoicing service provider can transmit a wide range of e-invoicing formats, be able to transform a paper invoice into an electronic one and, when needed, to convert an e-invoice into paper and deliver the invoice in the traditional way.

If customers are not proactively requesting e-invoices, it can come as a surprise that a company may need to invest time and effort to get the customers’ support for its new invoicing policy, and to obtain the necessary e-invoicing addresses from the customers.

As an integral part of each project with Basware, both the finance department and the company’s customers are educated about the process and the benefits of sending and processing invoices electronically.

Goal 3 – Expand e-invoicing to full Order-To-Cash (O2C) process
Receiving e-invoices has a range of advantages for customers, and the number of customers that can receive them – and demand to receive them – is growing all the time. When sending e-invoices, a supplier company is not just optimizing its cash flow and saving money, but is also helping customers by making their AP processes easier and more efficient.

By automating also the order processing between the two companies even further benefits for both parties can be gained as the purchase orders can be easily flipped in to invoices resulting to increased invoice accuracy and typically faster payments.. Therefore, the supplier’s ability to integrate into the customer’s purchase-to-pay process increases the customer loyalty and gives the supplier a real competitive advantage.
THREE STRATEGIC GOALS FOR THE BUYER

Goal 1 – Fully electronic supplier collaboration to ensure automation
One of the greatest benefits of the automated P2P solutions is that they can bring the suppliers as part of the process through contract-based electronic catalogs, electronic ordering and electronic invoicing. For AP this would mean complete automation of the invoice processing with a full audit trail all the way from the actual purchase order. Through an automated solution, AP can actually outsource the most time-consuming routine tasks by offering both the suppliers and the company’s employees a self-service purchase order flip, invoice entry, as well as providing visibility through reporting.

For instance, e-invoicing would make it easy for a single shared service center to support an entire global organization. The validation of local suppliers’ invoices, which usually requires language skills, could be automated with multi-currency P2P solutions and carried out as a self service by the approver in case the invoice matching against the supplier contract or purchase order fails.

Goal 2 – Largest invoice volumes should be converted into electronic first
Many e-invoicing projects focus on implementing electronic invoicing yet overlook the partnering plan to increase e-invoicing volumes. Because of this oversight, benefits gained are often minor compared to what their full potential could be.

The best results are achieved through an outsourced professionally lead supplier activation project. However, the supplier prioritization and the activation targets should come from AP based on the processed invoice volumes.

The e-invoicing service provider helps a company’s finance and procurement departments, first, analyze the existing supplier base in order to set the targets and milestones. Then, they take care of necessary supplier communication and support to connect the selected suppliers to the company’s purchasing and finance systems. Again, as an integral part of the project, both the finance department and the company’s suppliers become educated of the appropriate solutions for processing and sending electronic invoices.

In many cases the suppliers may already be providing e-invoices, but through a different service provider. Basware has committed to interoperability to other e-invoicing service providers. Through Basware Open Network suppliers and buyers can get connected through one connection to all of their business partners.

Goal 3 – The supplier integration strategy shared by AP and procurement
The supplier integration is clearly a mutual benefit for both accounts payable and procurement. Getting suppliers to support your AP strategy and to provide electronic invoices immediately eliminates the errors and time-consuming inquiries during the invoice processing. Integrating the suppliers already in the order handling phase of the process provides further benefits in the form of invoice accuracy and improved matching results.

The electronically generated invoice data—matching the negotiated contract terms - also enables the company’s buyers to better take advantage of the possible on-time and early payment discounts and eliminate the late payment penalties.

As the cornerstone of the integration strategy, the supplier activation should be a continuous process and a normal, everyday way of working, not just a project that takes a few months.

Find out how Basware customers have successfully implemented e-invoicing. The customer testimonials are publicly available at www.basware.com/resources.
For more information go to: www.basware.com
7.4 Bundesdruckerei GmbH

Headquarters:
Bundesdruckerei GmbH
Oranienstr. 91
10969 Berlin
Germany

VAT compliant E-Invoice processing guaranteed for Europe and other dedicated countries

Countries with highest E-Invoicing revenues Germany, Austria

Number of employees dedicated to E-Invoicing and directly related offering 40

<table>
<thead>
<tr>
<th>Number of customers</th>
<th>Customers on own platform</th>
<th>Customers on partner platforms, reached via interconnection &amp; roaming</th>
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</thead>
<tbody>
<tr>
<td>Connected suppliers</td>
<td>50,000</td>
<td>Connections to 12 roaming partners</td>
</tr>
<tr>
<td>Connected corporate buyers</td>
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<td></td>
</tr>
</tbody>
</table>

Kind of offering D-TRUST high-security products
D-TRUST Business Portal
- Electronic document and data exchange via all major channels and in various formats
- Consolidator service and SaaS (Software as a Service) signature service

Covered processes/messages along the supply chain Electronic send and receive processes for all kinds of business-process documents

Main target market segments Solution is suitable for SMEs and global players
Special offers for consolidators

Supported languages (with application/service and the online-help/customer support) English, German, French, Italian and Dutch
High-security D-TRUST signature solutions by Bundesdruckerei

Under the D-TRUST brand, Bundesdruckerei develops high-security products related to the electronic signature and sells these to private companies, public agencies and citizens. These products include signature and certification services, as well as electronic notary services. The accredited D-TRUST trust center is based in Bundesdruckerei's high-security banknote printing building in Berlin.

D-TRUST high-security products

If you wish to reliably secure your company's or agency's digital communications, you need a partner who you can fully trust. And you need experts who have a command of the entire range of today's high-security solutions and who can adapt these to the specific needs of your customers.

More than 20 years of experience with signatures and certificates

Bundesdruckerei and its trust center can provide you with experienced and highly qualified support at all times. Since it was founded in Berlin in 1998, subsidiary D-TRUST has been setting standards in all fields of electronic communication and transaction processes and has often proven itself to be a driving force and pioneer when it comes to shaping innovative trust center services. In 2003, TÜViT declared the company to be one of the most secure trust centers in Germany. D-TRUST is the first provider to implement the ISIS-MTT security standard that forms an important part of German certificates.

Your data in the best hands

State-of-the-art ID documents protect your identity in both the real and virtual world. For this reason, more and more ID documents are additionally being provided with or prepared for personal certificates. Complex protection measures are needed to secure this personal data. These measures may only be implemented by so-called "Certification Authorities" (CAs). Together with D-TRUST, as a company accredited by Germany's Federal Network Agency, Bundesdruckerei has persistently geared its activities to this need.

Bundesdruckerei GmbH

Berlin-based Bundesdruckerei GmbH is one of the world's leading companies engaged in developing and supplying systems solutions for secure ID. In addition to full-scale passport and ID-card systems, the company provides national and international customers with ID documents, high-security cards, document verification hardware, security software along with trust center services. Bundesdruckerei also produces banknotes, postage and revenue stamps as well as electronic publications. With its subsidiaries D-TRUST GmbH, BIS Bundesdruckerei International Services GmbH, Maurer Electronics GmbH and iNCO Sp. z o.o., the Bundesdruckerei Group employs a staff of around 1,900 worldwide. The company generated revenue of EUR 314 million in the 2009 financial year. Bundesdruckerei is one of the founding members of the Fraunhofer innovation cluster "Secure Identity Berlin-Brandenburg" and also endows the "Secure Identity" chair at Freie Universität Berlin. For more information, go to www.bundesdruckerei.de.
A new service: the D-TRUST Business Portal

Companies exchange business data and documents often with hundreds and even thousands of business partners and require different options for sending and receiving. In addition, a growing number of companies are looking for ways in which to reduce the cost of business process documents, such as offers, orders, delivery notices, order confirmation letters, invoices and dunning notices. This is where electronic document and data exchange has an important role to play. That's because there is considerable potential to cut costs especially when exchanging paper documents.

**New solutions to optimise processes**

Bundesdruckerei helps companies to drastically cut the costs of communication with customers and suppliers. The services provided for this purpose can achieve savings of up to 70%. All that's needed to avail of the advantages of the new D-TRUST Business Portal quickly and easily is simple Internet access and ten minutes of your time to install Viper Connector as the standard printer driver. The system is integrated without any intervention in existing systems, structures or processes.

**Exchanging data and documents in all formats and with all types of delivery**

The main advantage of this service is that all processes related to the exchange of communication formats (electronic and on paper) are supported. To do this, graphic presentation formats (paper, PDF, TIFF) are combined with all customary methods for exchanging data between IT systems (CSV, XML, i-Doc, Edifact). This means that documents in many different formats can be transmitted and received via various delivery channels (e.g. post, e-mail, portal, FTP, X400). All the user has to do is define the incoming and outgoing formats for each document type. Bundesdruckerei looks after the conversion and delivery of the formats selected.

**Fast, secure and extremely cost efficient**

Thanks to its modular design, private companies and public administrations can choose to use this service only for part of their document and data exchange or to handle all business processes. No matter what they choose, their protected area in the D-TRUST Business Portal provides them at all times with full cost transparency for each send and receive transaction.

**Benefits for all**

Around 50,000 participants from different sectors and with very different organisation structures - from SMEs to international corporations - have already chosen to use the service network due to the flexibility and easy integration it offers. Every day, up to 200,000 paper documents and electronic data are now being exchanged in different formats on the network.

For more information please contact:
Bundesdruckerei GmbH
Oranienstraße 91
10969 Berlin
Germany
Tel.: +49 (0) 30 – 2598 0
Fax: +49 (0) 30 – 2598 22 05
E-mail: info@bdr.de

Ivo Moszynski
Tel: +49 (0) 30 - 25 98 25 48
Fax: +49 (0) 30 - 25 98 17 17
E-mail: ivo.moszynski@bdr.de
7.5 Celtrino

Headquarters:
Parnell Business Centre
125 Parnell Street
Dublin 1
Ireland

VAT compliant E-Invoice processing guaranteed for All EU countries

Countries with highest E-Invoicing revenues Ireland
UK
Germany

Number of employees dedicated to E-Invoicing and directly related offering 29

<table>
<thead>
<tr>
<th>Number of customers</th>
<th>Customers on own platform</th>
<th>Customers on partner platforms, reached via interconnection &amp; roaming (Estimate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connected suppliers</td>
<td>980</td>
<td>20,000</td>
</tr>
<tr>
<td>Connected corporate buyers</td>
<td>6,500</td>
<td>10,000</td>
</tr>
</tbody>
</table>

Kind of offering
Consolidator Service and SaaS (Software as a Service)
Signature Service

Covered processes/messages along the supply chain
Smart Admin for full trade cycle including eInvoicing, e-payments, business process automation, ERP integration, exception handling workflow, dispute resolution, on-boarding, transaction and aggregate reporting, eInvoice archiving.

Main target market segments
Retail Grocery, Pharmaceutical, FMCG, Entertainment, Agri Foods, Food Manufacturing, Distribution, Public Sector.

Supported languages (with application/service and the online-help/customer support)
Currently English with in-house language capability in French, German, Spanish, Czech and Polish.
Celtrino delivers business process and supply chain document automation solutions, and eInvoicing is a key specialty. With over 20 years of successful trading, Celtrino has consistently delivered outstanding business value to our customers, almost 1,000 paying companies of all sizes, from multinationals to small businesses.

Central to our continued success is our industry leading Celtrino Platform. The Celtrino Platform comprises a suite of outsourced supply chain management automation services, each designed to individually save money and improve the effectiveness and efficiency of how you manage your B2B trading activities. We refer to this optimal way of doing business as Smart Admin™.

**Smart Admin™**

Smart Admin™ underpins the effective and efficient management of B2B intercompany transactions. The Smart Admin™ opportunity is primarily related to back office activities. It facilitates greater productivity and use of your company's intellectual capital without overloading individual, team or departmental capabilities.

As a pioneer in the provision of outsourced managed EDI services and eInvoicing, Celtrino has long championed and delivered innovative reliable e-services via the cloud. At Celtrino, we are dedicated to harnessing technology developments to economically deliver a secure reliable and integrated suite of feature rich on-demand supply chain solutions to you and to your business partners across Europe.

There is no doubt that the pace of adoption of supply chain business process automation is accelerating across Europe. Celtrino’s eInvoicing success stories are well documented and proven. Celtrino also has a clearly stated goal to be the European leader in the delivery of Smart Admin™ trading solutions in the 21st century. We will achieve this goal by leveraging our best-in-class technology, superior talent pool and commitment to customer service.

Next step, contact Celtrino today to speak to one of our Smart Admin specialists and discover how we can help reduce your operating costs and generate more profit for you.

Celtrino, a European leader in the delivery of eInvoicing solutions and now supporting integrated SEPA compliant payment instructions and management.

Visit us at [www.celtrino.ie](http://www.celtrino.ie)
Tel: +353 1 873 9900
Email: [info@celtrino.ie](mailto:info@celtrino.ie)
7.6 Certipost nv/sa

Headquarters:  
Certipost nv/sa  
Ninovesteenweg 196  
9320 Erembodegem  
Belgium

VAT compliant E-Invoice processing guaranteed for:  
Belgium, Luxembourg, The Netherlands, France, Germany, Spain, Portugal, Italy, Austria, Great Britain, Ireland, Denmark, Poland, Czech Republic, Slovakia, Hungary, Romania, Bulgaria, Greece, Cyprus, Malta, Sweden, Finland, Estonia, Latvia, Lithuania, Slovenia

Countries with highest E-Invoicing revenues:  
Belgium  
The Netherlands  
Luxembourg

Number of employees dedicated to E-Invoicing and directly related offering: 80+

<table>
<thead>
<tr>
<th>Number of customers</th>
<th>Customers on own platform</th>
<th>Companies in reach via interconnection &amp; roaming</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connected suppliers</td>
<td>85,000</td>
<td>100,000+</td>
</tr>
<tr>
<td>Connected corporate buyers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connected consumers</td>
<td>520,000</td>
<td>0</td>
</tr>
</tbody>
</table>

Kind of offering:  
Consolidator Service / Archiving  
Supplier Portal  
SaaS (Software as a Service)  
Self-Service Portal  
End-to-end business integration services covering also printing and scanning (hybrid)

Covered processes/messages along the supply chain:  
e-Invoicing (including self billing)  
Full Supply Chain Order-Invoice-Payment

Main target market segments:  
Large & midsized organisations/companies in any industries

Supported languages (with application/service and the online-help/customer support):  
English, Dutch, French, German, Italian, Polish
CERTIPOST

Certipost is a specialised and experienced service provider enabling secure electronic data interchange between companies, consumers and government institutions. From our headquarters in Belgium, we develop and implement solutions for the domestic and European market.

With Certipost e-Invoicing you can exchange legal electronic invoices with your suppliers and customers throughout Europe. We offer companies several formulas to fit all budgets: from a free, secure mailbox to fully automated document exchange with back-office integration.

Top 5 reasons to choose Certipost

- **one-stop shop:** Our offer is not limited to one or a few aspects of electronic communication. We develop and deliver total solutions for all your e-communication needs. Being a subsidiary of bpost, the Belgian postal service, we are in the unique position of offering a total solution for all your incoming and outgoing document flows, both paper-based and electronic. Our service includes the provision of an online legal archive for long-term storage of all your invoices.

Besides solutions for electronic document exchange, we also offer solutions that ensure the protection of your identity and your documents on the Internet.

- **international legal compliance:** We enable electronic business across the border. Certipost e-Invoicing is fully compliant with the applicable EU Directive, as well as with the national VAT legislations applying in the EU Member States. Through interconnections with other platforms we reach over 100,000 companies across Europe.

- **proven, innovative solutions:** You can rely on our many years of experience and our deep technological know-how. As we develop our solutions in-house, we can swiftly respond to recent technological requirements or legal changes. As a result, you are always working with the most advanced tools to quickly and securely exchange electronic invoices.

- **consistent quality services:** We are monitoring our systems round the clock in order to assure you 99,96% availability of our services. We hold various certificates and quality labels, such as ISO 9001 and SAS 70, which validate that we are working in accordance with internationally recognised standards in the field of quality and information security management.

- **service management:** We provide a total service, from transparent SLA management to qualitative project follow-up with regular progress reporting and optimal support in case any problems should occur. We also offer you accurate advice and hands-on assistance to help you roll out your project to your trading partners quickly and efficiently.

Visit us at [www.certipost.com](http://www.certipost.com) for contact information. or send a mail to [sales@certipost.com](mailto:sales@certipost.com)
7.7 Crossgate AG

Headquarters:
Crossgate AG
Balanstr. 73, Bldg. 11
81541 Munich
Germany

VAT compliant E-Invoice processing guaranteed for
38 Countries: EU and Non-EU Countries +
South America

Countries with highest E-Invoicing revenues
D-A-CH (Germany/Austria/Switzerland)
US
South America (Mexico, Brazil)

Number of employees dedicated to
E-Invoicing and directly related offering
40

<table>
<thead>
<tr>
<th>Number of customers</th>
<th>Customers on own platform</th>
<th>Customers on partner platforms, reached via interconnection &amp; roaming (Estimate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connected suppliers</td>
<td>45,000</td>
<td>120,000</td>
</tr>
<tr>
<td>Connected corporate buyers</td>
<td>3,500</td>
<td>5,500</td>
</tr>
<tr>
<td>Connected consumers</td>
<td>600,000</td>
<td>-</td>
</tr>
</tbody>
</table>

Kind of offering
Consolidator Service and SaaS (Software as a Service)
Signature Service & Archiving
Rollout/Onboarding- Services

Covered processes/messages along the supply chain
Full Supply Chain Order-Invoice-Payment and electronic reporting to authorities (customs, tax administration etc.). Complete O2C and P2P process

Main target market segments
Large suppliers in any industry
Balanced offering for suppliers and buyers in mid-sized organizations

Supported languages (with application/service and the online-help/customer support)
English, Spanish, German, Italian, French, Portuguese
Crossgate e-Invoicing Services – Customer Case

“Crossgate is well known in the e-Invoicing market for its comprehensive range of services. This is a result of the testimonials received from numerous customers in various industries, including the automobile, consumer goods and manufacturing industries. Thanks to its global activities, Crossgate is capable of fulfilling country-specific legal requirements; a very important aspect for us. The final decisive factors for choosing the Crossgate e-Invoicing service were cost transparency and the fast Return on Investment.”

A typical scenario which Crossgate covers with its e-Invoicing services is summarized below:

Company:
A multinational building material company, with subsidiaries in over 50 countries using SAP

Initial situation:
Customer/Suppliers request to participate in their E-invoicing projects + Company is aiming to optimize the entire financial process globally + Being an innovative company that is open to new, trend-setting technologies and approaches.

Challenges:
International Project: Missing e-Invoicing standards, fast changing and internationally different legal requirements and the existence of very few international service providers lead to a high degree of uncertainty.
Technical scope: Fully integrated e-Invoicing service into the SAP landscape

Goal:
Significant cost savings, much faster processes and innovative solution for customer/suppliers - differentiation to the competitors

Crossgate Service:
Legally compliant e-Invoicing services for the migration from paper-based to electronic invoicing (in and outgoing invoices, digital signatures including long-term archiving) in over 15 countries

When the company made the decision to replace its paper-based invoice processes, it started looking for a suitable solution in the e-Invoicing market. This is not an easy part, cause there are currently more than 350 e-Invoicing services providers in Europe.

A convincing product portfolio, excellent overall concept and good price/performance ratio were the decisive factors for choosing Crossgate. In addition to this, the company also benefits from the business partners that are already connected to the Crossgate B2B-Network (Business-Ready Network).

With the help of the external integration service provider, the building material manufacturer is now migrating the business partners, such as customers and suppliers, throughout Europe and, ultimately, the rest of the world to electronic invoicing. Electronic orders will be the next area to be tackled within the scope of optimizing the accounts receivable process.

Visit us at www.crossgate.com for contact information.
Contact: Stefan Türke, Stefan.tuerke@crossgate.com
### 7.8 crossinx

Headquarters:  
crossinx gmbh  
Hanauer Landstrasse 521  
60386 Frankfurt am Main  
Germany

VAT compliant E-Invoice processing guaranteed for  
Australia (AU), Austria (AT), Belgium (BE), Bulgaria (BG), Canada (CA), Cyprus (CY), Czech Republic (CZ), Denmark (DK), Estonia (EE), Finland (FI), France (FR), Germany (DE), Greece (GR), Hong Kong (HK), Hungary (HU), Iceland (IS), Ireland (IE), Israel (IL), Italy (IT), Latvia (LV), Liechtenstein (LI), Lithuania (LT), Luxembourg (LU), Mexico, Morocco (MA), Netherlands (NL), New Zealand (NZ), Norway (NO), Poland (PL), Portugal (PT), Romania (RO), Singapore (SG), Slovakia (SK), Slovenia (SI), South Africa (ZA), Spain (ES), Sweden (SE), Switzerland (CH), United Kingdom (GB), United States of America (US).

Countries with highest E-Invoicing revenues  
Germany  
Austria  
Mexico

Number of employees dedicated to E-Invoicing and directly related offering  
15

<table>
<thead>
<tr>
<th>Number of customers</th>
<th>Customers on own platform</th>
<th>Customers on partner platforms, reached via interconnection &amp; roaming (Estimate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connected suppliers</td>
<td>1,800</td>
<td>150,000</td>
</tr>
<tr>
<td>Connected corporate buyers</td>
<td>2,000</td>
<td>60,000</td>
</tr>
</tbody>
</table>

Kind of offering  
Consolidator Service and SaaS (Software as a Service)  
Signature Service  
Scanning

Covered processes/messages along the supply chain  
Full Supply Chain Order-Invoice-Payment

Main target market segments  
Large buyers and suppliers in any industry  
Balanced offering for suppliers and buyers in mid-sized organizations

Supported languages (with application/service and the online-help/customer support)  
English, Spanish, German, French, Russian, Persian, Pashtun, Rumanian
crossinx - the international document exchange

crossinx offers a full service worldwide for the exchange of electronic invoices and document based business processes. The company is based in Frankfurt, Germany with subsidiaries in Spain and Moldova and is one of the leading e-Invoicing service providers in Germany and Europe. Customers like Bayer, Beiersdorf, DPD, Enercon, Evonik, Fresenius, Gildemeister and VWR can use the tax compliant services in over 30 countries worldwide.

Modular and carefree services

crossinx uses one of the most secure and scalable platforms based upon the latest technology, which makes the exchange of all financial supply chain documents (invoices, orders, delivery notices etc.) possible without having to change the existing IT infrastructure of the participating business partners.

Small companies without their own IT infrastructure, as well as companies with complex book keeping solutions, can use the crossinx solutions. As part of our service, we manage connection to your accounting and ERP systems, the addressing of business partners, their technical conversion, the securing of an international tax compliant solution, as well as support and operation in several languages.

Our 100% solution covers all aspects for a short term and successful implementation with all your business partners:

- Any format in, any format out
- Manual and automatic data processing
- Content verification of the data
- Electronic signature and verification
- Different options for Archiving
- Scanning

International connections

The company is an expert in the area of eInvoicing, with personnel having implemented eInvoicing projects since 1999. Founder and Managing Director Marcus Laube was member of the e-Invoicing expert group of the European Commission. Our membership in the European Association of e-Invoicing providers “Hub Alliance” and the e-invoice alliance Germany “VeR” allows the interoperability with more than 40 service providers worldwide.

To guarantee the success of e-Invoicing projects crossinx developed processes and tools to facilitate the participation of all business partners. A service team is responsible to contact business partners and support the technical implementation worldwide.

Visit us at www.crossinx.com
Contact: Marcus Laube, +49 69 4800 651-10
7.9  ebills & more GmbH

Headquarters:
ebills & more GmbH
Küterstraße 8 - 12
24103 Kiel
Germany

VAT compliant E-Invoice processing guaranteed for Germany and EU

Countries with highest E-Invoicing revenues Germany

Number of employees dedicated to E-Invoicing and directly related offering 20

<table>
<thead>
<tr>
<th>Number of customers</th>
<th>Customers on own platform</th>
<th>Customers on partner platforms, reached via interconnection &amp; roaming (Estimate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connected suppliers</td>
<td>Potentially 500,000 via e-banking integration and other payment solutions (e.g. claim tracking)</td>
<td>25,000</td>
</tr>
<tr>
<td>Connected corporate buyers</td>
<td>500,000 via e-banking integration</td>
<td>25,000</td>
</tr>
<tr>
<td>Connected consumers</td>
<td>500,000 via Sparkassen (savings banks) and Volksbanken Raiffeisenbanken (local cooperative banks)</td>
<td></td>
</tr>
</tbody>
</table>

Kind of offering Consolidator service

Covered processes/messages along the supply chain Full supply chain order-invoice-payment

Main target market segments Suppliers in any industry
Balanced offering for suppliers and buyers in mid-sized organizations

Supported languages (with application/service and the online-help/customer support) German
eBills: biggest portal for small and medium-sized businesses in Germany

ebills & more is an independent provider of tax law-compliant eBilling solutions. Its key product is eBill, an open network for electronic invoice processing being marketed under three strong brands:
• ServiCon Rechnungsportal
• Sparkassen RechnungsService
• VR-RechnungsService
All brands offer small and medium-sized businesses a platform for the electronic transfer of invoices within Germany. At present this particular platform is unique on the market.
ebills & more was founded in 1999 by the Sparkassen (savings banks) of Hamburg and Schleswig-Holstein and is now an associate company of Currentum, AlphaPlus and ServiCon.

Our vision
ebills’ goal is to make the invoice processing chain completely digital; from the supplier who writes the invoice and the tax law-compliant transfer to its processing and payment by the customer avoiding manual data input as far as possible. This is to let all participants benefit from the economies of scale of digital processes.

eBill facts for customers
• no need to invest in hard and software
• easy to use
• quick invoice delivery, i.e. easier to benefit from cash discount periods
• shorter processing times
• less data input, i.e. less data entry errors
• continuous transparency in all invoice-related processes
• data storage in online archive
• full VAT deduction according to §14 UStG due to a legally approved digital signature including audit report
• optional import of invoice data into existing programs via several interfaces to:
  - bookkeeping software including DATEV programs
  - online banking software, for example GENOcash, SFirm32, Starmoney, Windata

eBill: it’s simple
Our answer to the restrained attitude towards the electronic transfer of invoices is our open network. All participating parties find it easy to use: All they need for using eBill is a computer with internet access. After a short registration procedure, they are ready to start. Special training is not required, as the user interface is intuitive.

eBill: it’s economical
The extensive costs of an internal eBilling project are a thing of the past, as the users can benefit from the existing web infrastructure. Additionally, they can use the interface of all well-known e-banking software products offered by banks to access the ebills & more platform. So it is not necessary to invest in hard or software in order to exchange invoices and invoice data electronically.
The costs involved are invoiced based on a pay-per-use model. Several rates are available depending on, for example, the number of transactions per month. And it’s always cheaper than postage. This is why eBill is financially attractive, even if your number of invoices is low.

eBill: it’s safe
ebills’ products cover the complete invoice processing chain – it’s safe and in compliance with the governing law, so that you can benefit from VAT deduction. Auditors and accountants have verified this service several times.
Due to the cooperation with the Sparkassen (savings banks) and Volksbanken Raiffeisenbanken (local cooperative banks) in the distribution of our service, we are able to access the biggest European banking network. eBill is also compatible with the DATEV programs, so that accountants can also receive digital invoice data.

**eBill: it’s ecological**
The electronic exchange of invoices is beneficial to the environment, because less paper prints are required, which reduces the amount of CO2 emissions. It improves the ecological balance of every company, it contributes to the corporate social responsibility and in the end, enhances the companies’ image.

### eBill facts for suppliers
- no need to invest in hard and software
- easy to use
- quick invoice delivery, i.e. earlier receipt of payments
- online archive included
- customer support for electronic receipt of invoices
- 1:1 display of logos and attachments
- higher level of transparency in the work flow
- safe and law-compliant according to §14 UStG due to a legally approved digital signature including audit report
- compatible with DATEV

### eBill case study: Kaffee Partner
Lowering costs, protecting the environment and saving time: These were the Kaffee Partner Group’s reasons for introducing the electronic invoice with eBill. After having received a positive feedback from about 300 customers all over Germany, who already get the digital invoice, Kaffee Partner will be going one step further: In March a second information campaign is going to be launched in order to convince as many of the 60,000 customers as possible of the new procedure. “Compared with paper invoices, we save over one fourth of the dispatch handling costs”, explains Jens Strebe, Member of the Board of Directors at Kaffee Partner Leasing. Moreover, it saved time for delivery leading to earlier settlements and an improved cash flow. “Every customer who changes to the electronic system provides an advantage for us. And, in the end, all parties benefit from reduced administrative costs and lower prices”, says Jens Strebe. In the future they want to include their suppliers in the project, so that Kaffee Partner can also receive invoices electronically. To this end, they will soon be launching a pilot project with selected customers.

The specialist for coffee and more established the technical basis in 2010 by implementing the send and receive options for electronic invoices to their existing ERP system Navision and by testing it thoroughly. No large investments in hard and software were required, because the web-based procedures offered by ebills & more enable an easy technical integration and take over all tasks, such as the application and verification of the electronic signature. The cost of this transaction is below the usual postage. The tax law-compliant receipt of PDF invoices is free of charge. Companies that do not want to archive electronic invoices themselves can make use of ebills’ web archive, where the invoices are retrievable for over 10 years. As an option, the recipient can get the invoice data in the required data format, thus avoiding time-consuming manual data input.

Kaffee Partner has chosen eBilling by ebills & more because of its open architecture allowing an easy integration into any IT environment. It is exactly this network approach that Jens Strebe feels has a significant advantage over point-to-point methods “in order to reach as many recipients as possible in a simple way”. And finally 60 to 70 % of the Kaffee Partner customers keep accounts with Sparkassen and Volksbanken Raiffeisenbanken. This is a strong argument for the related brands.
7.10 ESKER

Headquarters: ESKER
10 rue des Emeraudes
69006 LYON
FRANCE

VAT compliant E-Invoice processing guaranteed for More than 40 countries around the world:
All European countries and Australia, Canada, Hong Kong, Iceland, Israel, Liechtenstein, Morocco, New Zealand, Norway, Poland, Portugal, Singapore, South Africa, Switzerland, United States.

Countries with highest E-Invoicing revenues Spain
France
Italy

Number of employees dedicated to E-Invoicing and directly related offering 200 employees

<table>
<thead>
<tr>
<th>Number of customers</th>
<th>Customers on own platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connected suppliers</td>
<td>200</td>
</tr>
<tr>
<td>Connected corporate buyers</td>
<td>15,000</td>
</tr>
<tr>
<td>Connected consumers</td>
<td>10,000</td>
</tr>
</tbody>
</table>

Kind of offering Document Process Automation
SaaS (Software as a Service) solutions

Covered processes/messages along the supply chain Sales Order Processing
Accounts Receivable: Paper and E-invoicing
Accounts Payable

Main target market segments Large and SMBs in any industry

Supported languages (with application/service and the online-help/customer support) English, French, German, Italian, Spanish
Esker Accounts Receivable Solution: 100% automation of customer invoice delivery worldwide

Esker is a worldwide leader in document process automation solutions, helping organisations around the globe to eliminate paper and improve business processes. Esker offers a best-of-suite solution (on-demand and on-premise) to automate every type of business information exchange, as well as specialised expertise and a unique value to businesses running SAP. Thousands of Esker solutions worldwide enable businesses to reduce document processing time and costs by at least 40%, significantly reduce Days Sales Outstanding (DSO), greatly increase their competitive advantages, gain valuable and immediate operational efficiencies, and realise measurable ROI in as little as three to six months.

Cloud-based Esker Accounts Receivable solution

Esker Accounts Receivable is the first Software as a Service (SaaS) solution to offer 100% automation of customer invoice delivery worldwide. Esker offers a complete customer invoice automation solution that grows with businesses. The cloud-based Esker AR solution seamlessly integrates with invoicing applications, completely automating the sending and archiving of customer invoices regardless of the media type (paper or electronic invoices) preferred by individual customers.

E-invoicing worldwide compliance

Esker automation helps to support e-invoice compliance with tax regulations in over 40 countries. The Esker AR solution applies appropriate signatures, time-stamps and verifications to comply with the EU Directive and individual country regulations. Esker ensures the integrity and authenticity of each electronic invoice during transmission and archiving.

Worldwide network of mail factories

Esker processes millions of pieces of mail each month for organisations around the world, making traditional business mail completely electronic for the sender. With this on-demand service, mail is securely submitted to the worldwide network of Esker production facilities (France, Belgium, the United States, Australia, Spain, Singapore and the United Kingdom), where documents are processed (printed, inserted into envelopes, and stamped) and put into the postal stream in less than 24 hours. Strategically located facilities enable customers to benefit from least cost routing via the facility nearest to the recipient and significant reduction in mail delivery time.

Managing customers’ paper and electronic invoices

Esker delivers both paper and e-invoices according to customer preference, demonstrating a capacity to easily adapt to customer needs. The same quality processing, delivery and traceability is guaranteed regardless of invoice format type. With Esker, a company can make it easy for its customers to move to e-invoicing when they are ready, on their own terms and in their own time frame.

For more information, visit www.esker.com/einvoicing
7.11 Fundtech FSC Ltd (formerly Accountis Europe Ltd)

Headquarters:
Fundtech FSC,
Intec, Parc Menai,
Bangor, Gwynedd,
UK LL57 4FG

VAT compliant E-Invoice processing guaranteed for: UK, Ireland, Germany, Baltics, Benelux, Switzerland, France, Spain, Austria, Czech Republic, Hungary, Italy, Romania, Slovenia, Israel, USA, Canada, Australia, New Zealand, and APAC.

Countries with highest E-Invoicing revenues: UK & Ireland, Italy, Germany, Belgium, Netherlands, Spain, France, Denmark.

Number of employees dedicated to E-Invoicing and directly related offering: 75

<table>
<thead>
<tr>
<th>Number of customers</th>
<th>Customers on own platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connected suppliers</td>
<td>173,472 live connected corporates trading documents every month, growing at a rate of 10,000 new connections a month</td>
</tr>
<tr>
<td>Connected corporate buyers</td>
<td></td>
</tr>
<tr>
<td>Connected consumers</td>
<td>Volumes mostly B2B</td>
</tr>
</tbody>
</table>

Kind of offering:
- Consolidator service
- SaaS (Software as a Service)
- Licenced Signature service
- White label for corporates and financial institutions
- Geographical and numerical visualisation of document data

Covered processes/messages along the supply chain:
- E-invoicing, e-billing, integrated payments EDI, secure document exchange, customer portals, any-to-any format, e-dunning, print and post, supplier and buyer portals, AP workflow integration, online expense management, global compliance, multi-entity and multi-regional.

Main target market segments:
Balanced offering for suppliers and buyers in any sized company and all vertical market sectors. Direct or white label for corporates and financial institutions.

Supported languages (with application/service and the online-help/customer support):
All major European and character based languages.
Innovative and flexible EIPP solutions for all organisations across the globe.

Fundtech is a global leader in the Electronic Invoice Purchase to Pay (EIPP) market.
With our Accountis EIPP solution, Fundtech offers full Enterprise AP and AR functionality and a comprehensive suite of e-invoicing, invoice automation, procurement, integrated international payments and outsourced scan, print, post and capture services. Our solutions work together to deliver value by improving operational efficiencies, providing compliance and control, and substantially lowering costs and days sales outstanding (DSO). The product is multilingual and multicurrency ready, catering for a global customer base.

Accountis EIPP solutions are available as licenced, hosted, or on-demand (SaaS) software. Accountis EIPP can be deployed as a complete end-to-end solution or phased in a modular approach that allows corporates of any size to control their project rollout. Our innovative and flexible solutions eliminate the most common barriers to e-invoicing entry, such as trading network adoption and technology integration. In addition, the services are free to the Buyer or Supplier’s trading network. Users can immediately access our growing Global E-invoicing Directory of over 178,000+ suppliers, which enables faster rollout across the supply chain. Once enrolled, customers can immediately exchange documents with other businesses in the network.

Compliant, AR & AP solutions that seamlessly integrate with existing ERP or invoicing systems. The Accountis AR module automates your entire accounts receivable process from capturing e-purchase orders and issuing e-invoices to controlling debtors and collecting payments online. The Accountis AP module automates your entire procure-to-pay process from the creation of purchase orders and receipt of invoices, to handling disputes and submitting payments online. The system has robust reporting capabilities that offer a real-time view of all your documents and transactions.

Incorporate invoice capture capabilities from day one. When it comes to the submission of invoices, Fundtech offers a range of options. Users can enable suppliers to login to an e-invoicing portal to view, file and manage their Purchase Orders and Invoices online. They can also import data from their existing ERP or finance systems or utilise Fundtech’s ebPrinter capabilities to send e-invoices directly from their billing system. Fundtech also provides an outsourced scan and capture service for paper invoice management.

Optimise with payments for a complete end-to-end process. The full value of e-invoicing lies in completing the transaction end-to-end which includes payment and reconciliation. Collecting invoice payments online in real-time drastically speeds up the settlement process and helps to improve cashflow. Fundtech operates its own payments platform that processes more than 2 million transactions each day. The platform supports multiple options including: Credit/Debit cards, Direct Debits and Credits (Bacs), SWIFT, CHAPS and online gateways such as PayPal.

Stay in control by mobilising your e-invoicing. Our mobile platform supports all major mobile devices and features include notifications, invoice approval, invoice creation and delivery, attachments and payments.

Eliminate repetitive tasks and optimise existing processes and improve efficiency with robust, customisable workflow and approval processes. Fundtech offers a full range of workflow capabilities. They can be fully automatic (all rules information is known), semi-automatic (only some information needs to be supplied), or manual (an easy-to-use interface allows users to directly send an invoice for review or approval). Our document workflow capabilities include rules-based data or validation, approvals, manual or auto enrichment and supplier and buyer interaction points, query management and outbound data formats. The model supports both fully automated and portal-based supplier/customer interactions.

Visit us at www.accountis.com for more information.
Richard Cogswell, Director of Sales and Marketing.
richard.cogswell@fundtech.com
Tel: +44 (0)845 120 8050
7.12 GXS

Headquarters:
GXS
9711 Washingtonian Boulevard,
Gaithersburg,
MD 20878.
United States of America.

VAT compliant E-Invoice processing guaranteed for
Australia, Austria, Belgium, Bulgaria, Canada, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Latvia, Lithuania, Luxembourg, Morocco, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Singapore, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, United Kingdom, United States of America.

Countries with highest E-Invoicing revenues
France, United Kingdom, Germany, United States of America

Number of employees dedicated to E-Invoicing and directly related offering
500

<table>
<thead>
<tr>
<th>Number of customers</th>
<th>Customers on own platform</th>
<th>Customers on partner platforms, reached via interconnection &amp; roaming (est)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Truly Connected suppliers</td>
<td>150,000</td>
<td>1,000,000+</td>
</tr>
<tr>
<td>Truly Connected corporate buyers</td>
<td>40,000</td>
<td>95,000+</td>
</tr>
</tbody>
</table>

Kind of offering
SaaS Consolidator Service - EIPP, EBPP
e-Invoice Connectivity
B2B Integration
Trade Finance: Receivables, Payables
SWIFT Service Bureaux

Covered processes/messages along the supply chain
Full physical and financial supply chain: procurement, logistics, purchase orders, advance shipping notices, goods receipts, (compliant) invoices, (international) payments, remittance advices, cash management, trade finance.

Main target market segments
Specialised integration services for larger organisations. Balanced software and services offering for suppliers and buyers in mid-sized organizations. Connection utilities for small organisations.

Supported languages (with application/service and the online-help/customer support)
e-Invoicing Solution and online help: English, German, French, Portuguese, Spanish, Italian, Chinese, Japanese and Czech.
Customer Support Services: 15 Languages
The Truly Global Trading Community

GXS has been sending and receiving electronic invoices on behalf of our customers for over 20 years. GXS Trading Grid® is the largest global cloud integration platform connecting a B2B trading community of 40,000 customers with over 150,000 trading partners. The Trading Grid processes over 10bn transactions annually representing an estimated $6.5tn in spend, of which estimated 1bn transactions are electronic invoices.

The GXS Trading Grid® e-Invoicing solution fully automates the order-to-pay process, ensuring companies no longer have to manually capture, validate and match data. Consequently invoices are processed quickly and are visible within a business, giving improved financial reporting.

Collaboration with suppliers is improved by providing invoice status visibility, payment status and remittance presentment. The improved reconciliation and cash management, combined with prompt data capture, matching and approval ensures that both buyer and supplier can benefit from new trade finance models.

GXS has been the global leader in enabling B2B connectivity for many years. We underpin our global trading network with dedicated community management, providing over 20 different connectivity tools for both large suppliers requiring ERP integration and smaller suppliers who required easily implemented, simple to use solutions.

GXS is a global e-Invoicing solution provider compliant in 39 countries. Our project teams in 20 countries provide multinational implementation experience and support our customers 24/7 in 15 languages.

The Business Challenges

Invoices received in e-mail or paper format introduce unnecessary costs and complexities into the Accounts Payable and Accounts Receivable processes.

For paper invoices received via mail, the documents must be sorted, routed, opened and rekeyed into an AP system. For invoices received via e-mail, the documents must be saved, printed, rekeyed and possibly forwarded. Data re-entry is the most problematic of financial processes as it is time-consuming and error-prone.

AP organizations perform multiple manual validations of line items on the invoice before being routed for approval. Buyers often require suppliers to list the buyer’s part number, buyer’s purchase order number and general ledger or cost code on an invoice. In addition, AP clerks must ensure that the arithmetic such as the calculation of extended costs is accurate and there may be a need to validate VAT or GST calculations as well.

One of the more complex line-item validations performed is matching between an invoice and the related documents in the order-to-pay lifecycle. The pricing and terms on an invoice should match those negotiated in the master contract with the vendor. Additionally, the line-item quantities, product descriptions and per-unit pricing on the invoice must match those of the purchase order and the actual goods received.

In many industries invoices are fraught discrepancies which lead to disputes, chargebacks and late payments. Invoice disputes can cost $50 or more to resolve leading to inefficiencies in the financial supply chain. Perhaps, the most costly aspect of invoice processing is staffing call centres to support vendor inquiries. Significant time and expense is incurred responding to supplier calls and researching the status of invoices and payment.

Suppliers are often willing to exchange a discount of 1-2% of the total charges on invoices in exchange for an earlier payment, however many discounts are lost due to the buyer’s inefficient processes.

Suppliers are often challenged to reconcile the payments they receive from customers against the original invoices they submitted. To reduce banking fees, customers will frequently
consolidate payments for multiple invoices into one single funds transfer. Additionally, customers may claim deductions against an invoice due to shipment problems such as damaged or missing items. Upon receiving a consolidated payment, confused suppliers will once again call the buyer’s AP department to inquire about the details behind the funds received.

Paper or e-mail based invoices take longer to become visible in AP systems. Paper and e-mail based documents also have a higher probability of being lost in the approval process. Without visibility to invoices in the approval process, cash managers lack the comprehensive data necessary for forecasting.

Companies large and small are under constant pressure to reduce costs. Cuts which eliminate waste or inefficiency are always preferred to those which impact the labour force, product development or customer service. Spend management programs can identify sources of fraud, waste and abuse by aggregating data from purchasing, contracts and AP systems into a data warehouse that can be analysed for cost saving opportunities. Examples might include reducing maverick, off-contract buying; cancelling unused services and consolidating spend with fewer suppliers.

**The Business Solution**

Electronic invoicing addresses each of these business challenges. The GXS Trading Grid® e-Invoicing solution offers the international legal compliance, global connectivity and depth of functionality required to ensure solutions for our customers.

With 40 years industry experience, GXS is a global leader in physical and financial supply chain automation. Our customers are located in 61 different countries and range from 75% of the Fortune 500 to the suppliers providing goods and services at the foundation of the supply chain.

GXS solutions continue to be recognised as industry leading by analysts such as Gartner and Forrester and we provide solutions for 24 of AMR Research’s top 25 supply chain companies. We are recognised by experts as having the largest global trading community, as all 40,000 customers and 150,000 trading partners are truly connected.

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Visit us at [www.gxs.com](http://www.gxs.com) for more information or email us on email [today@gxs.com](mailto:today@gxs.com).

GXS EMEA
18 Station Road
Sunbury on Thames
Middlesex TW16 6SU

Tel: +44 (0)1932 776047
### 7.13 Itella Information

**Headquarters:**
Itella Information Oy  
Keilaranta 13  
FI-02150 Espoo  
Finland

VAT compliant E-Invoice processing guaranteed for: Finland, Sweden, Denmark, Norway, Germany, Estonia, Lithuania, Latvia, Poland, Slovakia, Czech, Austria, Hungary, Netherlands, Belgium, France, Italy, Greece, Spain, Portugal.

Countries with highest E-Invoicing revenues: Denmark, Estonia, Finland, Germany, Lithuania, Latvia, Norway, Poland, Sweden

Number of employees dedicated to E-Invoicing and directly related offering: 2,000

<table>
<thead>
<tr>
<th>Number of customers</th>
<th>Customers on own platform</th>
<th>Customers on partner platforms, reached via interconnection &amp; roaming (Estimate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connected suppliers</td>
<td>10,000</td>
<td>120,000</td>
</tr>
<tr>
<td>Connected corporate buyers</td>
<td>6,000</td>
<td>120,000</td>
</tr>
<tr>
<td>Connected consumers</td>
<td>-</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Kind of offering: EU-level Service Provider offering, Consolidator Service and SaaS (Software as a Service) Signature Service

Covered processes/messages along the supply chain: Full Supply Chain Order-Invoice-Payment and Electronic reporting to authorities (customs, tax administration etc.)

Main target market segments: Large suppliers in any industry  
Balanced offering for suppliers and buyers in mid-sized organizations

Supported languages (with application/service and the online-help/customer support): Always local language
Five innovators for your financial process

Transition to electronic invoicing is a significant step in reducing the costs and also improving the processes. The cost for example of handling one purchase invoice can be as much as 40 euros. For a company that is really using the transition to e pays only 3 euros per invoice. The difference is significant but can be achieved only by considering also other aspects of the process, like automation. Sometimes e-invoice projects are not paying back quickly enough. E-invoicing itself is not enough, but the automation of the process itself again is the key. And finally the nearshoring possibility for processes or part of the processes can make the significant difference.

Providing you with immediate impact and full control

For purchase to pay processes Itella Information offers a ready to use, best in class and easy to implement service. Itella promises cost savings, improved quality and an efficient process. Because Itella is running a Europe wide standard process for scanning and processing of invoices, Itella’s service is ready to implement with immediate effect to the customers process. Itella promises improved process with savings in both money and time.

Itella Information has a solution for the management of order to cash process. With Itella companies can save time, improve the cash flow, use the invoice as a channel for customer communications and marketing messages and also with the e-invoice solution save environment and reduce CO2. All processes are multichannel (EDI, elinvoice, Printing) ready and costs are variable depending on the volume. The process is transparent and best in class automated.

Itella Alligator is an all-in-one outsourcing solution for financial processes. The service is fully scalable to your needs and allows you to focus on developing the financial administration processes, frees up resources and delivers all reports needed for decision-making on time. Our specialists will be happy to assist you in financial process development, employing the best industry practices. Our skilled and professional staff will be at your disposal, ensuring smooth and efficient introduction and maintenance of services. The benefits of process harmonization and automation to your company include cost savings and process reliability. Optimized financial processes translate into shorter turnaround times and higher quality of operations. With Itella Alligator, you can focus on business development instead of financial administration.

Itella in a nutshell

Itella Information offers financial process innovation as a service for more than 10,000 customers. Itella improves the efficiency of financial and accounting processes like purchase to pay and order to cash with ready-made and modular best practice processes. Itella Information’s roots are in financial information logistics with over 20 years of experience about paper and electronic invoice processes. Itella has the needed transaction volumes to use scaling effects, automated and industrialized processes and the innovation competence to make financial transactions management flexible and effective. Itella Information operates throughout Europe with subsidiaries in 15 countries and staff of about 1,900 professionals. Net sales in 2010 amounted to EUR 260 million. Itella Information business group is part of the Itella Group.

Visit us at www.itella.com for contact information.
7.14 MediData AG

Headquarters:
MediData AG
D4 Platz 6
6039 Root Längenbold
Switzerland

E-Invoice processing guaranteed for Switzerland, Fürstentum Liechtenstein

Countries with highest E-Invoicing revenues Switzerland

Number of employees dedicated to E-Invoicing and directly related offering 42

<table>
<thead>
<tr>
<th>Number of customers</th>
<th>Customers on own platform</th>
<th>Customers on partner platforms, reached via interconnection &amp; roaming (Estimate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connected suppliers</td>
<td>6,500</td>
<td>2,400</td>
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<tr>
<td>Connected corporate buyers</td>
<td>65</td>
<td>15</td>
</tr>
<tr>
<td>Connected consumers</td>
<td>400,000</td>
<td>400,000</td>
</tr>
</tbody>
</table>

Kind of offering B2B and B2C Solutions and Services
Consolidator

Covered processes/messages along the supply chain E-Invoicing, transport of electronic administrative data (E-Invoice, electronic cost crediting eKoGu) Healthcare and medical data (electronic image data and findings)

Main target market segments Offerings for any size of company mainly in the Healthcare Section.

Supported languages (with application/service and the online-help/customer support) German, French, Italian and english (other languages on demand)
The electronic postman in the Swiss health care system.

What started in 1994 as a project for transmitting invoices electronically between doctors, hospitals and insurers is now the most important and comprehensive data exchange platform for the Swiss health care system. That is how MediData with its current workforce of 42 was able in just a few years to become the leading full service provider of electronic health care services. Having transmitted 24 million documents in 2010, the dynamic company is now one of the 10 largest providers in Europe in terms of volume.

The stated objective of MediData with its registered office in Root Längenbold (Canton of Lucerne, Switzerland) is to reduce administrative costs in the Swiss health care system. An important milestone along the way is helping its customers to implement the Swiss Federal Council’s e-Health Strategy 2015.

Intermediary and full service provider at the same time.

The holistic approach to the health care system and associated challenges is one of the crucial factors involved in the success of MediData. For instance, MediData noticed early on that electronic invoice transmission was only one of many advantages which had to be taken advantage of due to the electronic interconnectedness of all players. And MediData developed more sophisticated solutions for both health care providers, such as doctors, hospitals, etc. and insurers. That is how the company came to assume its two main roles which it still plays today: that of intermediary and that of solution provider and full service provider.

As an intermediary, MediData ensures that all players are interconnected and today operates the largest network in the Swiss health care system. Due to, among other things, interconnections with other providers, MediData currently reaches 95% of all hospitals, 98% of all pharmacies, 86% of all laboratories, over 4,300 doctors and 93% of all insurers. This extensive network is the ‘lifeline’ for implementing solutions and products, which in future will not only be directed at doctors, hospitals, etc. and insurers, but also at patients.

Data interface MediPort: electronic service billing with MediPort – current EDI market

Another role of MediData that of full service provider – with an extensive range of products and services from a single source. They can be tailored to your specific requirements, seamlessly integrated into existing structure and expanded at any time to include future innovations.

In this way, MediData now not only enables its customers to use electronic invoicing, but also secure transmission of medical data, such as medical reports and electronic image data (expl. X-rays). Other solutions and added value services of MediData include the processing and supply of electronic catalogues (price and reference data) as well as automatic invoice checking.
Easy: for healthy development.

Thanks to its network, solutions, products and extensive know-how, MediData helps its customers to develop well – and hence indirectly also ensures the healthy development of the entire health care system. Our promise to clients including insurers, doctors, hospitals etc. and patients is always the same: better services for less money. For example: thanks to electronic service billing, a medical practice can reduce administration costs and time spent on it. In doing so, it can save several thousand francs a year and spend the time saved on caring for its patients, thus becoming more competitive. In this respect, the whole health care system benefits from the same effect: by consistently sending invoices electronically, around CHF 200 millions can be saved each year, a large proportion of which in respect of insurers, and so ultimately the patients and premium payers also benefit. It is a win-win-win situation.

The complex world of MediData

The mission may sound easy enough, but implementing it in day-to-day business is complex. This is not least due to the fact that the solutions and products of MediData ultimately affect everyone – some more and some less. Those slightly more affected include, for example, users from our customer base (health care providers and insurers), whereas the approx. 7 million patients in Switzerland are somewhat less affected. However, the latter ensure that political decisions are highly significant for MediData’s business activities. Accordingly, being in contact and exchanging ideas with political lobby groups are also part of MediData’s daily business. In order to briefly point out the complexity in conjunction with the target groups, we will take a hospital as an example of a health care provider: in this small subarea alone, MediData needs to contact decision makers from hospital management, finance and IT and reconcile their different interests.

Bring about a real win-win situation

Only if all participants benefit can the necessary ‘self-propelling’ be created which a network must have to work and be sustainable in the long term. For that reasons, MediData always tries to find real solutions for individual interests, which at the same time constitute real solutions for the whole thing.

This means that in future MediData must continue to: ensure healthy development both in the microcosm of the individual target groups and that of the health care system.

Milestones

1994 MediData is founded by Helvetia (now Helsana), Suva and the consulting company ICME
1994 Transmission of the first invoices in UN-EDIFACT standard via X-400 networks
1997 The price and reference database MediFrame is created
1999 All health care providers are eligible to become shareholders
2004 Data exchange forum approves XML standard
2006 Electronic transmission of X-rays – MediPort X-Ray
2007 Launch of MediFrame 2.0 for insurance companies
2009 15-year anniversary of MediData
2010 More than 4,200 doctors transmit via MediPort

For more information go to: www.medidata.ch or email: info@medidata.ch
7.15 Pagero

Headquarter: Gothenburg, Sweden
Box 11006
SE-404 21 Gothenburg
Sweden

VAT compliant E-Invoice processing guaranteed for

Australia, Austria, Belgium, Bulgaria, Canada, Chile, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Latvia, Lithuania, Luxembourg, Morocco, Netherlands, New Zealand, Norway, Poland, Romania, Singapore, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, United Kingdom, USA

Countries with highest E-Invoicing revenues

Sweden, Norway, Finland

Number of employees dedicated to E-Invoicing and directly related offering

65

<table>
<thead>
<tr>
<th>Number of customers</th>
<th>Customers on own platform</th>
<th>Customers on partner platforms, reached via interconnection &amp; roaming (Estimate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connected suppliers</td>
<td>3,000</td>
<td>50,000+</td>
</tr>
<tr>
<td>Connected corporate buyers</td>
<td>4,000</td>
<td>50,000+</td>
</tr>
<tr>
<td>Connected consumers</td>
<td>n/a</td>
<td>n/a</td>
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</table>

Kind of offering

Consolidator Service with many-to-many architecture delivered in the cloud, SaaS (Software as a Service).

Covered processes/messages along the supply chain

E-invoice, E-order and E-payment. Purchase to Pay.

Main target market segments

Large, medium and small companies (Tier 1, 2 and 3). We also cater for the public sector.

Supported languages (with application/service and the online-help/customer support)

English, Swedish, Finnish, Danish and Norwegian.
PAGERO – YOUR FINANCIAL SUPPLY CHAIN NETWORK

The key to financial control

Pagero’s vision is to offer cloud services that enable business systems (ERP) to digitally connect with each other regardless of company size and location.

Since all business documents utilize one common platform, companies using our services will benefit from full visibility and control over all major company transactions – in real time.

One solution for the entire market segment

Businesses in all tiers need to be able to communicate affordable with each other – regardless of ERP and location.

Traditionally large companies have pushed for electronic document exchange in their effort to streamline their purchase-to-pay processes (supply chains). Investments in creating these point-to-point EDI solutions have been significant. Subcontractors and suppliers have also been forced to make large investments just to satisfy a few customers.

Pagero offers small, medium and large companies a scalable solution on one common platform that is delivered as a Cloud Service – Pagero Online. The platform has a unique many-to-many architecture with bank grade security that allows users to exchange business documents regardless of ERP system, format and protocol including a state of the art format converter. This creates efficiency and reach at a defendable cost for all parties.

A changing world demands high agility

It must be easy to connect with new business partners. Pagero’s self service architecture allows users to add new business partners in a few clicks, and customers have access to a library of formats (XML, EDI) as standard, as well as a large community of companies. Openness is evident and Pagero Online is also connected to leading network operators (VAN).

Value added services are crucial to raise the level of ERP and workflow usability

Shifting paper invoicing to electronic must appeal to all tiers and give value for both the buyers and the suppliers. Pagero offers a wide range of value added services within the scalable platform to supplement the usage of ERP and workflow systems:

One channel strategy: Many-to-many format conversion, E-print & E-scanning services
Collaboration: E-business locator

Data quality: Validation & Enrichment services, Master data handling

Legal compliance: Digital signature, E-archive - fully searchable

Financial control: Extended reports, Multi company support, E-Factoring, E-Netting

Security: Encryption, Strong authentication, Role based access control

Activation projects make the shift to e-invoicing faster and more efficient

Pagero offer clients tailored activation projects to increase their inbound/outbound e-invoice flows. Pagero’s own in-house organization proactively contacts client’s supplier/buyers and advise the most appropriate solution for each supplier/buyer. Pagero also helps them get started.

During the entire project Pagero delivers continues progress reports to reach 100% activation.

Pagero e-Invoicing Services

One connection, supporting all formats on a common platform for the entire B2B and B2G e-invoicing, both directions (see picture below).

The Supplier: The supplier creates the invoices as usual in the ERP system. All the invoices are sent to Pagero Online using one preferred data format (CSV, PDF (Virtual Printer), XML, EDIFACT) and one single routine for all the buyers regardless of buyer abilities and specific file format demands. Pagero Online processes the data files, targets the recipients, converts to buyers’ preferred data file formats, adds attachments, creates human readable invoice images, signs according to local VAT directives, stores and finally delivers them electronically to the buyers.
Archived e-invoices are easily accessed and searchable online during the entire storage period.

If there is a buyer demanding specific invoice data (i.e. ERP-id, supplier-id or specific VAT codes) that the supplier’s ERP system is not able to produce, Pagero can assist by automatically enriching specific invoice data, which takes place in Pagero Online.

Pagero’s e-printing service sends paper invoices to buyers that cannot yet receive e-invoices.

Pagero e-business locator gives the supplier suggestions when new business partners (buyers) are ready to receive e-invoices via the Pagero network. With the self-service architecture a new e-invoice connection is added and set up in few clicks. This proactively assists suppliers to speed up the shift from paper to electronic invoicing thus lowering invoicing costs rapidly.

**The Buyer:** The supplier e-invoices are received in Pagero Online and converted into the correct buyer format. To minimize the amount of error handling derived from incorrect supplier invoices (missing ERP-Id, Supplier-Id etc) Pagero offers a specific content validation service that stops incorrect invoices before they are delivered to the buyer. An e-mail is automatically sent to the supplier with detailed information about what to adjust in order to resend a correct invoice. Pagero tailors the validation schemes to fit the buyer’s demands. If the original invoice has been digitally signed by the supplier the Pagero signature validation service automatically validates according to local VAT directives before the files are stored.

Archived e-invoices are easily accessed and searchable online during the entire storage period.

Pagero offers an e-scanning service to supplement the e-invoice service that turns supplier paper invoices to electronic files in the same preferred data format and connection as the parallel e-invoicing service. The e-business locator proactively finds and suggests suppliers that are able to send e-invoices via Pagero instead of paper invoices to the buyer. With a few simple clicks the supplier is notified and will send e-invoices the next time.

**E-Netting**

Get one step ahead of your financial system and take control over intercompany claims. E-Netting is an automatic process for reconciliation and netting intercompany invoices in real time. The service supports cash planning, currency hedging and it is easy to add new acquired companies to the group, independently of ERP systems and versions.

**Expert Services**

Pagero offers numerous types of expert services, for example supplier and customer activation projects, integration services, software development and customization, banking and payment services, training programmes etc.

**Shifting to electronic is the right way to go**

Today a number of Fortune 500 global businesses, thousands of small and medium businesses successfully operate using the Pagero Online services. We look forward to expand our network and to continue our journey shifting paper documents to electronic.

Visit us at [www.pagero.com](http://www.pagero.com) for contact information. Contact: Jonas Edlund, Vice President Marketing & Alliances, [jonas.edlund@pagero.com](mailto:jonas.edlund@pagero.com)
### 7.16 PostFinance

**Headquarters:**
Swiss Post  
PostFinance  
Berne  
Switzerland

VAT compliant E-Invoice processing guaranteed for Switzerland

Countries with highest E-Invoicing revenues Switzerland

Number of employees dedicated to E-Invoicing and directly related offering 20

<table>
<thead>
<tr>
<th>Number of customers</th>
<th>Customers on own platform</th>
<th>Customers on partner platforms, reached via interconnection &amp; roaming (Estimate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connected suppliers</td>
<td>600</td>
<td>1,000+</td>
</tr>
<tr>
<td>Connected corporate buyers</td>
<td>500</td>
<td>1,000+</td>
</tr>
<tr>
<td>Connected consumers</td>
<td>180,000</td>
<td>220,000</td>
</tr>
</tbody>
</table>

**Kind of offering**

Consolidator Service

**Covered processes/messages along the supply chain**
Full Supply Chain Order-Invoice-Payment (all messages from procurement to the payment)

**Main target market segments**
Balanced offering for senders and recipients in all industries, independent of its’ size

**Supported languages (with application/service and the online-help/customer support)**
German, French, Italian, English
PostFinance – trendsetter in e-invoicing

PostFinance was early to recognize the trend towards electronic billing and payment. As the number one in Swiss payment transactions, PostFinance carried out a great deal of pioneering work in this field and continued to develop its products accordingly. E-invoicing reduces administrative expense, lowers costs and provides billers and recipients with additional benefits.

PostFinance has been providing a nationwide service for payment transactions in Switzerland for more than 100 years. As the number one in Swiss payment transactions, PostFinance recognized the trend towards issuing and paying invoices electronically at an early stage and systematically introduced and further developed its range of products and services. In 1998, the financial arm of Swiss Post was one of the pioneers of e-banking. In the meantime, PostFinance has chalked up ten years of experience in e-invoicing.

First EBPP product in 2001

At the beginning, PostFinance was involved in the PayNet project on behalf of the former Europay. When this project was discontinued, it developed its own solution for electronic bill presentment and payment (EBPP) and thus took a further step towards offering a professional e-invoicing service. The B2C solution was piloted at the end of 2001 and made officially available to customers at the beginning of 2002. Three years later in 2005, PostFinance extended its services to encompass VAT compliance and opened the door to B2B processes. Since then, e-invoicing has also been incorporated into PostFinance's services for business customers. In addition, PostFinance provides SMEs, public entities and associations with a comprehensive range of services in the fields of payment, savings, investment, financing and cash management.

Combinable solution

PostFinance's e-invoicing solution is a comprehensive, multi-sector platform – irrespective of the size of the biller's company. From the recipient's perspective, it can be used by individuals and small companies as part of the online banking system. Fully integrated solutions are available for large companies. E-invoicing from PostFinance encompasses three core services:

- Conversion of data into the format requested by the recipient
- Data processing to conform with legal requirements
- Data transport.

Support tools – including a registration function which enables companies to request electronic bills from their suppliers – are also available to customers. PostFinance's e-invoicing solution has huge potential. It can also be combined with multiple Swiss Post services. Thanks to these synergies, business customers can integrate data processing, data printing, data archiving, order data management and bill processing workflow into the e-invoice solution from PostFinance, creating unique added value. PostFinance is also working together with network partners and software providers which offer services for upstream and downstream billing processes or standardized interfaces for the PostFinance solution.
**Advantages of e-invoicing in terms of B2B**

PostFinance is the market leader in Swiss bulk payment transactions, processing around 894 million transactions in 2010 alone. More than half of all payments made in Switzerland are processed by PostFinance. Unlike with electronic invoices, conventional paper bills must be recorded manually by the recipient in an accounts payable management system before being paid. Electronic invoices dispense with the time-consuming process of inputting payment details and eliminate the risk of frequent errors in the payment of electronic invoices. E-invoicing has even more advantages for companies: It reduces administrative expense, saves times, and bill data can be automatically processed electronically by the recipient. Bill recipients save up to CHF 50 on each e-invoice processed in this way.

<table>
<thead>
<tr>
<th>The advantages of e-invoicing at a glance (B2B)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Billers</strong></td>
</tr>
<tr>
<td>No printing, franking or filing required.</td>
</tr>
<tr>
<td>Bill data can be clearly structured and sent quickly and easily.</td>
</tr>
<tr>
<td>The invoice is with the recipient within minutes.</td>
</tr>
<tr>
<td>Simple, secure and quick solution plus speedy payment of invoices.</td>
</tr>
<tr>
<td>Invoices comply with legal requirements.</td>
</tr>
<tr>
<td>Ability to meet growing customer demand and thus increased customer retention.</td>
</tr>
</tbody>
</table>

**Who is PostFinance?**

With customer deposits totaling almost CHF 84 bn, PostFinance is the fourth-largest financial institution in Switzerland. It has 2.7 million customers and manages some 4 million customer accounts. Payment services with the postal account and the PostFinance Card represent the core focus of its product range. PostFinance also offers savings, investment, loan and retirement provision product solutions. PostFinance offers its business customers a range of accounts receivable/payable facilities, money and capital market investments as well as various loans. Currently employing around 3,900 employees in Switzerland, PostFinance generated earnings of CHF 575 million in 2010.

**Contact:**

Adrian Sem  
Product Manager e-invoicing  
PostFinance  
+41 79 576 34 62  
adrian.sem@postfinance.ch
### 7.18 Qvantel Corporation

**Headquarters:** Espoo, Finland  
Hevosenkenkä 3  
Espoo  
Finland

| Countries with deployed Business Support Systems | Finland  
| Sweden  
| Norway  
| Spain  
| Estonia |

Number of employees dedicated to E-Invoicing and directly related offering  
90

<table>
<thead>
<tr>
<th>Kind of Applications</th>
</tr>
</thead>
</table>
| • Carrier grade Business Support Systems  
| • Product Management  
| • Order Management  
| • Business Process Orchestration  
| • Customer Care  
| • Self Service  
| • Business Activity Monitoring |

<table>
<thead>
<tr>
<th>Kind of Services</th>
</tr>
</thead>
</table>
| Platform-as-a-Services  
| Platform Development  
| Project Management  
| Consultation  
| Off shore development |

Covered processes/messages along the supply chain  
Product Management, Order intake, Mediation, Rating, Billing, Customer Management, Customer Care, Business Activity Monitoring

<table>
<thead>
<tr>
<th>Main target market segments</th>
</tr>
</thead>
</table>
| E-Invoice Operators  
| Telecommunication Service Providers  
| Media companies |

| Supported languages (with application/service and the online-help/customer support) |
| English, Spanish, Finnish, Swedish, Platform is also configurable to any language |
The mission of E-Invoice Operators

The mission statement of E-Invoice Operators is to deliver the correct E-Invoice at an accurate point of time in the correct format for the intended recipient at the appropriate location utilizing digital networks. The mission statement of a telecommunication service provider or better known as operator is to deliver the correct communication service (voice call, short message, multimedia message, etc.) at an accurate point of time in the correct format for the intended recipient at the right location utilizing digital networks. As business volumes increase and product complexity increases E-Invoice Operators will greatly benefit from the best business practices and carrier grade Business Support Systems (BSS) implemented in the innovative and competitive telecommunication markets.

The volume of electronic invoices will grow exponentially from the 2010 levels of plus 2 billion per annum, as the Business-to-Business (B2B) E-Invoice penetration increases throughout Europe and progressively companies convert their processes to E-Invoices only. As the number of electronic invoices increases, MS-Excel and, other home grown applications will no longer be able to support the ever-growing volume and complexity. Neither can MS-Excel or home grown application support the innovation and business agility needed in the ever-competitive market place.

The investment in Business Support Systems (BSS) has an average life cycle of 7-10 years and therefore, deserve a well-planned architectural design and delivery project execution. Following are few of the main reasons for addressing the Business Support System architecture early on and with care to ensure superior platform availability, scalability, agility and required feature set in the chosen Business Support System to secure future growth and business agility.

Revenue Assurance

According to the KPMG 2009 Revenue Assurance Report, 37% of European telecommunication Service Providers did not know exactly the magnitude of on their Revenue Leakage and 17% estimated that their Revenue Leakage was greater than 1%.

The most common sources of revenue leakage are undefined business processes, misconfiguration of products and pricing plans in the billing platforms, loss of billable items in the collection and invoicing processes, and miscalculation of pricing schemes, and discounts. In fact, the revenue leakage percentages in the mature telecommunication sector are surprisingly high; therefore one can safely assume that revenue leakage is equally high or higher at E-Invoicing Operators with many manual processes and, unproven platforms in the invoicing process.

KPMG concludes that: “It is imperative for operators to assess the complete life cycle of capturing leakage data, identifying the leakages and recovering them.”

In many cases, lowering revenue leakage by 1-2% with a carrier grade business processes and an invoicing platform is sufficient to offset the implementation costs of a state-of-the-art Business Support System. And, from second year onwards the savings will cover the ongoing operational expenses of the system.

Carrier Grade Business Support System

A versatile Business Support System orchestrates all the aspects of order-to-cash business processes and, supports continuous product, price and business innovation. It manages product and service life cycle as well
as pricing, discount and campaign life cycles. After product launch, order management captures the flow of new orders and communicates the fulfilment and provisioning messages to production environment and business partners. Mediation collects the billable events and, rating engine applies the accurate pricing scheme on each event. Billing maintains customer accounts in real time and, issues invoices or invoice line items to financial ERP. Business Area Monitoring generates a real time dash board of the volume of business activities and reports on any deviations.

**Product Management**

Despite the fact that E-Invoicing products are rather simple, a robust Product Management application ensures that as product portfolio expands, managing product life cycles remains simple and efficient. Product Management is the central repository of Product, Service and Price related information and communicates any changes to upstream and downstream applications. Product Management application maintains product related dependencies in products and services and, packages for up sell and cross sell opportunities.

**Order Management**


Order Management orchestrates order capture, order decomposition, service provisioning, order fulfilment and order completion, while providing real time information on order status. Order management also identifies errors and deviations, and executes required corrective measures and, generates wealth of reports.

**Mediation, Rating and Billing**

As volume of transactions increase to millions and tens of millions a month, the scalability of the platform to handle efficiently ever-growing volume becomes crucial. Simultaneously, increasing competition will require capabilities for differentiating in pricing, product packaging and campaigning models. The capabilities to combine all above will represent the sustainable competitive advantage. Providing event itemization by product and service boosts customer satisfaction, as customers are well-informed of exactly what they are paying for. End to end audit trail ensures that each event may be tracked in dispute resolution situation and provides complete exposure on each event.

**Customer Care and Self Services**

In order to sustain long term customer satisfaction, Operators need a state-of-the-art Customer Care application to managed service and billing related issues. Providing versatile Online Self Services Operators saves a lot of resources as most of the work flow can be reassigned to Self Service whereby customers may report and resolve their issues any time and any place.

**Business Activity Monitor**

Accurate, forward looking, and real-time reporting provides the tools for managing the business based on up to date data, instead of historic data looking in the back view mirror. Thanks to the fact that Business Support System is involved in all the order-to-cash business processes, it can also report on any activity that flows through it. Business Activity Monitoring reports on both operational data and financial data. Typical aspect of reporting are number of new orders by sales channel, geography and product, volume and monetary value of processes e-invoices and other services, number of activities in self-services, and system availability measures.

**What is your vision?**

What is your vision of the future characteristics and business demands for E-Invoicing? Qvantel’s Mission is to enable the realization of your vision. Our motto is Delivering your vision!
Basware has set growth as its primary strategic target. To improve the invoicing process and ensure capabilities for exponential growth, Basware ordered Product Management, Mediation, Rating and Billing platforms from Qvantel Corporation.

The application automates the collection, pricing and invoicing processes of events. It significantly enhances Basware’s operations in an environment where, the volume of transmitted documents is in the tens, even hundreds of millions per month for tens of thousands of different organisations. In addition to processing efficiency, the application offers advantageous pricing, discount and product packaging capabilities for Basware’s current and future business needs.

"We chose the Qvantel platform because Qvantel has years of experience in the collection of large volumes of event as well as rating and billing in the telecom business. Qvantel offers Basware a centralised, effective and, globally scalable platform, with which we can ensure controlled growth of our business," commented Basware General Manager Esa Tihilä.

The Q-Platform
Qvantel’s Q-Platform is a versatile end-to-end Business Support System for all the order-to-cash business processes. The platform has 8 installations across Europe and rates more than 900 million transactions a month, generating more than 60 million Euros of monthly revenue for the operator customers.

Mode of Operations
Qvantel offers the above described carrier grade Business Support System on Platform-as-a-Service or Cloud Services business model. E-Invoice Operator does not need to invest in its own hardware, software or hosting infrastructure at all. The charging of the Q-Platform is based on the number of transactions invoiced utilizing the Q-Platform. This pay-as-you-go revenue sharing model eliminates large up-front investments and, formulates a true partnership because Qvantel’s business success is realized only when the E-Invoice Operator’s business grows and through its success in serving its customers. The only charges are the one time implementation project and the monthly platform fee based on the number of transactions or customers served.

Qvantel Corporation
The Qvantel Group is a 150-person strong information technology services company. Qvantel’s annual revenue for fiscal year 2011 is 10 million Euros. Qvantel offers business-critical Business Support Systems and IT consulting services. Qvantel’s value-added services to its customers are business agility, operational cost efficiency and proven scalability. Qvantel’ customers include Basware, TDC Group, TeliaSonera Group, Elisa Group, Finnet Group as well as Ericsson AB and ST Ericsson AB. Qvantel has customers in Finland, Sweden, Norway, Estonia, Spain and Indonesia. The privately owned Qvantel Group has offices in Espoo and Jyväskylä in Finland, Malmö in Sweden, Singapore, as well as Hyderabad and Bangalore in India.

Please give me a call and let start shaping the future together.

Ilkka Aura, Chairman of the Board
Mobile: +358-45-6345252
Email: ilkka.aura@qvantel.com
You may also visit us at www.qvantel.com
7.19 secrypt GmbH

Headquarters:
secrypt GmbH
Bessemerstr. 82
12103 Berlin
Germany

VAT compliant E-Invoice processing guaranteed for all EU countries

Countries with highest E-Invoicing revenues
Germany
Austria
Switzerland
Belgium
Irland
Spain
Netherlands
Czech Republic
Denmark
Poland

Number of employees dedicated to E-Invoicing and directly related offering
6

<table>
<thead>
<tr>
<th>Number of customers</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Connected suppliers</td>
<td>600</td>
</tr>
<tr>
<td>Connected corporate buyers</td>
<td>a few thousand</td>
</tr>
<tr>
<td>Connected consumers</td>
<td>a few thousand</td>
</tr>
</tbody>
</table>

Kind of offering

e-invoicing solutions including electronic signature technology for in-house use and deployment by outsourcing and application service providers (ASPs), Consulting

Covered processes/messages along the supply chain
Transport and Signature of electronic invoices in any format (e.g. EDI, XML, PDF)

Main target market segments
Large suppliers in any industry; Outsourcing Service Providers, who use our technology

Supported languages (with application/service and the online-help/customer support)
English, Spanish, German, Dutch…
secrypt GmbH – the signature specialist

As an ISO 9001-certified company, secrypt GmbH specialises in solutions for optimising, accelerating and securing digital business processes with legally compliant electronic signatures, time stamps and encryption. With its digiSeal® product family, secrypt ensures not only the authenticity, tamper-resistance and confidentiality of sensitive electronic data in the healthcare, business and public sectors but also maintains their long-term probative value in electronic archives. The solutions, technologies and digiSeal® products are used nationally and internationally, e.g. in the manufacturing, trade, finance and insurance sectors, in publishing, healthcare and public administration, as well as in the telecommunications and IT industries.

Unique feature: 2D barcode
A worldwide unique feature of secrypt is its ability to print verifiable and legally binding hardcopies of electronically signed documents on paper: Combining electronic signatures with 2D barcode technology makes it possible, for example, to use the established and proven digiSeal® server signature solution not just for generating signatures for all kinds of datasets (e.g. EDI, XML, PDF) but also for the VAT-relevant signing of computer fax invoices.

Electronic billing signature according to EU Directive and German Value Added Tax Act (UStG)
Art. 14 UStG also allows electronic billing to be accepted for VAT purposes as long as the invoices have been signed with a qualified electronic signature. The same applies for invoices that are sent by computer fax, i.e. from a fax server to a fax printing device or vice versa.

Solutions for dispatchers and recipients
The client- and server-based digiSeal® software components generate and verify invoices signed with a qualified electronic signature for the purpose of billing electronically or by computer fax. They meet all relevant legal provisions and can be used internationally. They complete all necessary processes both for the dispatcher and the recipient, and can be conveniently integrated into existing environments via standard interfaces and connectors.

Toolbox for automatically securing electronic invoices and individual solutions

- legally compliant, electronic mass signatures according to SigG and SigV
- conforms with EU directive and national legislation
- for in-house use and deployment by outsourcing and application service providers (ASPs)
- integrated in components from various providers

For more information please visit www.secrypt.com. Feel free to contact us for further information: sales@secrypt.com.
7.20 Swisscom IT Services

Headquarters:
Swisscom IT Services
CH-3050 Berne
Switzerland

VAT compliant E-Invoice processing guaranteed for
Australia, Austria, Belgium, Bulgaria, Canada, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Isle of Man, Israel, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Morocco, The Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Singapore, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, United Kingdom, United States

Countries with highest E-Invoicing revenues
Switzerland

Number of employees dedicated to E-Invoicing and directly related offering
20+

<table>
<thead>
<tr>
<th>Number of customers</th>
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</thead>
<tbody>
<tr>
<td>Connected suppliers</td>
<td>25,000+</td>
<td>1,000+</td>
</tr>
<tr>
<td>Connected corporate buyers</td>
<td>50+</td>
<td>50+</td>
</tr>
<tr>
<td>Connected consumers</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Kind of offering
Consolidator Service and SaaS (Software as a Service) for E-Procurement and E-Invoicing (e.g. Signature, Archive and Scanning Services)

Covered processes/messages along the supply chain
Full Supply Chain Order-Invoice-Payment

Main target market segments
Large organisations with a balanced supplier and buyer focus across all industries

Supported languages (with application/service and online help/customer support)
German, English, French, Italian (other languages on demand)
The Geberit Group operates production plants and sales organisations in some 40 countries worldwide. Group-internal services are billed using inter-company invoices – this results in 82 business relations. In spring 2009, the company switched to the E-Invoicing International solution from Swisscom IT Services and all bills have been issued and processed electronically since then.

“The decision to replace the time-honoured paper billing process by electronic means was taken following intensive preliminary considerations and analyses,” says Roland Iff, Chief Financial Officer of Geberit. The expectation was that it would eliminate media breaks and increase the overall accuracy of accounting.

**E-Invoicing International**

End-to-end digital invoice processing, from the initial exchange all the way to processing and billing, raises process efficiency. An absolute prerequisite for this change is compliance with all rules and regulations. E-Invoicing International from Swisscom IT Services guarantees the legal security and reliability of processes, something indispensable for any company that has to meet legal requirements and rules in a number of countries.

**Compliant and expandable**

Geberit’s expectations of E-Invoicing International have been met in every respect.

In ensuring full compliance, Swisscom IT Services guarantees the conformity of E-Invoicing International with local legal requirements. The technical processes are also audited to ensure process security.

Geberit also views the amendment to the EU VAT Directive 2006/112/EC as confirmation that it has chosen a secure, standardised and cost-effective procedure in the shape of the electronic signature.

The entirely paperless exchange of invoices has led to substantial cost savings. And the solution can be expanded whenever required to optimise processes even further. Geberit is already in the process of integrating suppliers and customers into the electronic invoice processing workflow. “We will continue to expand the solution,” confirms Ueli Vogt, IT Manager SAP Logistics.

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Swisscom IT Services Ltd
eTrade Solutions
Foerlibuckstrasse 60/62
CH-8005 Zurich
Phone +41 (0)848 860 200
Email customercare.etrade@swisscom.com
www.swisscom.com/etrade
7.21 Swiss Post Solutions (SPS)

Headquarters:
Swiss Post Solutions AG
Mingerstrasse 12 / P.O. Box 3030 Bern
Switzerland

UK Office:
Swiss Post Solutions
Richmond upon Thames
United Kingdom

VAT compliant E-Invoice processing guaranteed for:
Europe – Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, UK
Global – Asia, Australia, Mexico, New Zealand, USA

Countries with highest E-Invoicing revenues:
United Kingdom, Netherlands, Scandinavia

Number of employees dedicated to E-Invoicing and directly related offering:
40 - 50

<table>
<thead>
<tr>
<th>Number of customers</th>
<th>Customers on own platform</th>
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<tr>
<td>Connected suppliers</td>
<td>82</td>
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<tr>
<td>Connected corporate buyers</td>
<td>250,000 (E)</td>
</tr>
<tr>
<td>Connected consumers</td>
<td>1,200,000 (E)</td>
</tr>
</tbody>
</table>

Kind of offering:
Managed client migration from print to online encompassing hosted multi-channel e-presentment and customer messaging, e-analysis, document management, scanning, automated Accounts Receivable and Accounts Payable processing service solutions.
In addition to this, Swiss Post Solutions offers a wide range of services in the area of document and information management, as well as multi-channel customer communication and loyalty solutions.

Covered processes/messages along the supply chain:
Supplier-centric model specialising in the conversion of traditional paper based document process flows from print to online for both the Biller and the Receiver. This is not exclusive to just invoicing – it includes multi-channel customer communications and e-presentment.

Main target market segments:
Key large and SME markets including Construction, Telco, Utilities, Logistics, Transport & Distribution, Entertainment, Public Sector and Asset Based Lending.

Supported languages (with application/service and the online-help/customer support):
Current multi-lingual application and support available in English, French, Spanish, German, Dutch, Italian, Flemish, Danish, Finnish, Norwegian, Portuguese, Czech, Slovakian, Polish, Hungarian, and Swedish. Other languages are available on request.
Swiss Post Solutions: leading the way from print to online billing and customer interaction

Swiss Post Solutions (SPS) provides multi-channel client communication solutions, helping organisations to interact and engage with their clients, partners and suppliers on their own terms. Designed to support the adoption of digitally equivalent mediums in conjunction with traditional paper-based channels, the solutions can be applied to invoices, statements, copy invoices, chaser letters and supporting material such as proof of delivery notices, and much more.

In 2009, SPS acquired the Billing Services Division (BSD) of Microgen, so strengthening our experience and expertise in e-presentment solutions. The acquisition further cemented SPS’ commitment to transforming the information world of our clients to a more evolved and efficient model that makes information accessible to customers and suppliers online, at any time.

The integration of BSD into SPS has been highly successful, embedding a valuable synergistic solution within SPS’ broader information management proposition. Notwithstanding that it represents a strong and timely strategic move given the changing nature of the market, the capability to provide a managed service that processes, stores and distributes billing and related customer documentation perfectly complements SPS’ core mail and document processing services offering.

Today SPS provides hosted B2B and B2C billing, e-presentment, printing, online billing analytics, document management, scanning, automated accounts receivable and accounts payable processing, e-payroll and client interaction solutions to leading blue chip organisations across a diverse spectrum of industries.

SPS’ Software as a Service (SaaS) model provides real-time visibility of key information, such as financial documents and customer usage analytics, and all in a fully auditable process flow. By offering a market leading migration service, SPS is able to facilitate the seamless and effortless migration of their clients’ paper-based customers to online billing and document presentation.

As the paradigm of multi-channel billing and customer communication gains market acceptance and momentum, SPS foresees three main drivers which together will shape and define the effect this will have on the market for e-business solutions:

1. **International Precedence**
   While the UK market has been relatively conservative in adopting e-presentment technologies in certain industries out of concern for both security and customer retention, the model has seen significant and successful uptake in European countries where regulations enforce public sector providers to bill their customers electronically.

   Ultimately, e-presentment offerings will win the support of both government and the broader private sectors that are constantly looking to drive cost efficiencies and promote greener, more sustainable methods of doing business.

2. **Economic Conditions**
   The economic downturn has inarguably impacted the way companies strategise, plan and run their operations. The focus has noticeably shifted from turnover and sales to gaining operational efficiency, driving down
costs, reducing risk and improving credit control.
The immediate business benefits around Creditor and Risk management are applicable across a huge range of businesses. In 2009, the asset-based lending market in the UK, for example, serviced some 49,000 clients and over £191 billion in invoice value. In this market, SPS’ electronic services benefit both the organisation being financed and the lender by reducing the lender’s risk and maximising cash flow and leverage for the financed company.

By combining existing Payments Allocation software into Accounts Receivable (AR) service capability, SPS’ clients benefit from full self-learning functionality, fully automated receipts matching, increased operational efficiency and cash recognition. This function closes the AR loop from the invoice being issued, to the cash being collected and the funds correctly allocated against the Sales Ledger.

3. Social Acceptance
As Europe’s large utility and telco companies increasingly move towards e-billing as the accepted ‘norm’, and the benefits of cost savings, efficiency gains and improved customer service become apparent, the rest of the market is primed to follow.

Two years ago we helped one of our major B2C clients double their e-billing penetration amongst their customers in less than two months without any adverse reaction from their customers. With today’s level of social acceptance of e-presentment as a convenient and cost-effective communication channel, the task becomes even easier and more profitable.

In conclusion, our view is that the number of convergent influences will see e-billing and workflow based e-presentment enjoy considerable market growth as a service in 2011.

With our full service offering we are well-placed to help educate the market on the benefits of e-services in enhancing and improving customer communication and interaction while driving down the associated costs.

We have a proven and established offering, backed up by in-depth technical capability, financial stability and a clear vision of how the market will continue to evolve.

Visit us at www.swisspostsolutions.co.uk or contact:
Charlie Peters
Director of Sales and Marketing
+44 7814 026 725
charlie.peters@swisspost.co.uk
7.22 Tieto

Headquarters:
Tieto Corporation
Aku Korhosen tie 2-6
FI-00440 Helsinki
Finland

VAT compliant E-Invoice processing guaranteed for
Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom, Australia, Canada, Israel, Hong Kong, Morocco, New Zealand, Singapore, South Africa, United States

Countries with highest E-Invoicing revenues
Finland
Sweden
Czech Republic

Number of employees dedicated to E-Invoicing and directly related offering
160

<table>
<thead>
<tr>
<th>Number of customers</th>
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</tr>
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<tbody>
<tr>
<td>Connected suppliers</td>
<td>1,600</td>
<td>160,000</td>
</tr>
<tr>
<td>Connected corporate buyers</td>
<td>1,700</td>
<td>115,000</td>
</tr>
<tr>
<td>Connected consumers</td>
<td>170,000</td>
<td>900,000</td>
</tr>
</tbody>
</table>

Kind of offering
Consolidator service, Portals, Tax & legal compliance services, Invoice visualization, Archiving, White label services for sales partnerships, Printing and scanning for 100% coverage

Covered processes/messages along the supply chain
Full supply chain order-invoice-payment for buyers and suppliers, Electronic reporting to authorities, SWIFT Service Bureau

Main target market segments
Balanced offering for suppliers and buyers in all industries and organization sizes, Co-operation with banks in SME sector and consumer services

Supported languages (with application/service and the online-help/customer support)
English, Finnish, Swedish, German, Dutch, Czech, Russian, other languages on request
TIETO – LEADING WITH EXPERTISE

Tieto provides IT, R&D and consulting services. With approximately 17,000 highly skilled employees, we are one of the top IT service companies in Northern Europe and the global leader in selected segments. Our extensive infrastructure, which includes 20,000 servers and the services of 2,000 dedicated employees worldwide, allows us to offer superior data centre support.

We are also a leading business integration service provider in Europe with more than 200 integration experts in the Czech Republic, Finland, Sweden, Germany, the Netherlands, Russia, the UK and Belarus, plus the expertise of our base in India. Our business-to-business (B2B) transaction volumes are approaching 1 billion annually.

E-invoicing and the financial value chain

E-invoicing is part of our financial value chain offering, which also includes e-trading, financial messaging (corporate-to-bank connectivity and SWIFT Service Bureau) and community management.

Our e-invoicing services include messaging traffic, internet portals, international invoicing in 40 countries, invoice visualization with attachments, targeted customer communications and archiving.

Our community management services enable customers to reach their trading partners by using Tieto financial value chain services. This includes onboarding new trading partners, managing existing relationships and linking up with other service providers.

Tieto and its customers have received a raft of international awards for their e-invoicing and business integration services. For example, Swedbank received the Celent Model Bank 2010 Nomination for Transaction Processing based on Tieto’s B2B e-invoicing service, while Tieto is rated in Gartner’s Magic Quadrant for Integration Service Providers.

We are also a member of many European and global cooperation organizations playing a central role in trade and financial services standardization and facilitation.

What do we offer customers?

• Full purchase-to-pay and order-to-cash process coverage.
• Extensive international functionality and large-scale service provision experience
• Cloud service delivery model, easy implementation and no maintenance.
• SWIFT Service Bureau for payments covering 8,500 banks in 210 countries.

Visit us at www.tieto.com/fvc for more information.

Contact Tieto

Benelux: Michiel Dietvorst, +31 651 244 833, michiel.dietvorst@tieto.com
Czech: Petr Herudek, +420 725 543 903, petr.herudek@tieto.com
Finland: Nina Isaksson, +358 40 764 8380, nina.isaksson@tieto.com
Russia: Inga Major, +7 916 700 5726, inga.major@tieto.com
Sweden: Jeanette Jäger, +46 708 378 024, jeanette.jager@tieto.com
Other: Aldo Caiani, +39 335 632 0512, aldo.caiani@tieto.com
### 7.23 xyzmo SIGNificant

Headquarters: xyzmo SIGNificant Group
Haiderstraße 23
Ansfelden
Austria

<table>
<thead>
<tr>
<th>VAT compliant E-Invoice processing guaranteed for</th>
<th>Germany, Austria, Switzerland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Countries with highest E-Invoicing revenues</td>
<td>Austria Germany</td>
</tr>
</tbody>
</table>

| Number of employees dedicated to E-Invoicing and directly related offering | 25 |

<table>
<thead>
<tr>
<th>Number of customers</th>
<th>Customers on own platform</th>
<th>Customers on partner platforms, reached via interconnection &amp; roaming (estimate)</th>
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</thead>
<tbody>
<tr>
<td>Connected suppliers</td>
<td>~25 (on-premises)</td>
<td>100+</td>
</tr>
<tr>
<td>Connected corporate buyers</td>
<td>~25 (on-premises)</td>
<td>100+</td>
</tr>
<tr>
<td>Connected consumers</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Kind of offering**

On-premises Solution

**Covered processes/messages along the supply chain**

Digital signing and sending of Invoices
Verification of received Invoices

**Main target market segments**

Large Corporations
Service Providers

**Supported languages (with application/service and online help/customer support)**

English, German
xyzmo SIGNificant for E-Invoicing and beyond

Our SIGNificant Server incorporates itself easily and quickly into your existing systems. For many ERP-systems and integration scenarios, it is proven that you can integrate SIGNificant Server within just a few days.

The SIGNificant Server caters for every need, from the version for SMEs to the solution for large corporations and service providers. The software is equally suitable for both senders and recipients of invoices.

The functions of the SIGNificant Server E-Invoicing are:

- Free choice of document format (PDF, XML)
- PDF/A support
- Variety of signatures: simple signature, advanced signature, qualified signature
- High scalability of the Server – hundreds of thousands of signatures can be generated automatically and verified every hour
- SIGNificant server can be integrated fully into any existing DMS, ERP, CRM, Exchange or proprietary application
- Can easily be integrated into a portal
- Server can be configured remotely via a web-based interface
- SIGNificant Server is designed for both in-house use and deployment by outsourcing and service providers (multi-client)
- Very convenient for recipients – the signature format of the document is recognized automatically
- Supports several digital signature formats for sealing and verification (XMLDSig, PKCS#7, Adobe PDF, S/MIME etc.)
- Optional output of a sealed verification report (PDF or XML), including a trusted timestamp.

Beyond E-Invoicing – Support for signature capture tablets and digital certificates

Every day, businesses throw away hard-earned income by printing, copying, faxing, sending, scanning, shredding and storing documents that require a signature. With xyzmo, it is very easy to enhance your existing infrastructure with all necessary functionalities for a totally paperless process. The xyzmo platform supports not only E-Invoicing but also multiple methods of digital signing, including signature pads, certificates and ‘click-to-sign’.

Speed up your processes with a solution that offers a fast, complete and secure way to process all of your transactions electronically so that you can reduce costs and accelerate your business. xyzmo offers you the most complete, open and signature-pad-independent e-signature software.

- Handwritten Signature Capturing – Our captured electronic signature is much more than just an electronic image of a digitized signature. We record the handwritten signature of a person using parameters of pressure, acceleration, speed and rhythm. These parameters are unique to every individual and cannot easily be reproduced by a forger. Once a signature – including all the biometric parameters – has been embedded into a document, it is turned into a signed and sealed PDF.
- Completely Signature-Pad-Independent – Our system is a device-independent
solution, meaning it enables the use of a broad range of signature pads from various manufacturers. As some companies require basic signature pads, while others require more advanced devices, a signature-pad-independent solution offers the necessary flexibility and leads to improved satisfaction rates, due to the fact that each customer who integrates this solution can choose the signature pad that best fits their needs. Amongst others, pads from Wacom, Topaz, Interlink, Waltop, Aiptek and MyNote are supported, along with terminals from Ingenico, Hypercom and Verifone.

- **Support for Smartphones and Tablets** – xyzmo is also supporting smartphones and tablets based on Android and Apple iOS technology. This enables customers to use these devices instead of, or in combination with, signature pads, with all the advantages of the xyzmo platform, including the signature comparison.

- **Biometric Comparison of Signatures** – xyzmo’s top-notch version of the SIGNificant Biometric Server features a new generation of signature comparison capabilities, enabling the performance of real-time biometric verification of a person’s signature on the SIGNificant platform by comparing the recorded parameters of their handwritten signatures against their pre-enrolled profile. Therefore, documents are only processed if their signatures were authenticated.

- **Server- or Desktop-Based Solution** – SIGNificant solutions can be based either on a Server or on a Client, depending on the requirements. The SIGNificant Server enables digital signature processes from multiple disparate or interconnected business processes to support signing and verification with a consistent technology platform. The SIGNificant Client is especially suited for professionals whose working conditions do not include online connectivity on a regular basis, or those who wish to work offline/locally.

**About xyzmo SIGNificant**

xyzmo brings signatures into the modern age. No longer scan, fax or mail your important document that you need to be signed; just get your customer to e-sign it with xyzmo. It could not be easier or more secure. Our solutions have processed millions of electronic signatures to date.

Thanks to our e-signature solutions, signing remains as easy and convenient as ever, but is performed directly in the electronic document and can be integrated with any existing application or document workflow.

xyzmo SIGNificant is a private company based in Ansfelden, Austria, with international offices in the United States and Germany.

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Visit us at [www.xyzmo.com](http://www.xyzmo.com) for contact information.
8. Appendix A: Law and regulations

8.1 Legal acceptance of electronic invoices

Almost all countries on the world, except some ones in Africa and Asia, accept correctly processed & archived electronic invoices as originals. Therefore, from the legal point of view, there is no longer any reason to wait with an E-Invoicing project.

Only where E-Invoicing is an in-house development do users have to invest a significant amount of time and money in further legal analysis. That is why the author recommends either purchasing existing solutions or using third party services compliant with law and legislation in all countries where your trading parties are located. Experienced providers of such solutions and services will be able to inform you in more detail about the legal requirements. The following chapters will give just a brief overview for readers interested in a generic overview.

For detailed questions, the author recommends to investigate the sources as mentioned in appendix B or a discussion with your solution/service provider.

8.2 Minimum legal requirements

The legal framework of most countries includes these mandatory rules for the tax compliance of electronic invoices

- Authenticity of origin
- Integrity of the content
- Legibility (until the end of the period for storage)

These main requirements can be fulfilled with

- Digital signatures (advanced or qualified)
- EDI method with Point-to-Point security: Secure platforms (e.g. VAN) and processes among supplier and buyer
- Audit trail: Control systems of business processes on supplier and buyer side; Audit trails for two or three way matching (invoice authenticity/integrity with contract, order, delivery and/or payment data)

Many countries describe rules regarding the human- and machine-readability of E-Invoices and mandatory invoice content (typical in EU member states 12-15 fields are mandatory), format, archiving and auditing. Other rules can be defined if third party service providers are acting on behalf of invoice senders and recipients. If not stated in the original law text of any country, it is quite often described in complementary side letters.

8.3 Electronic invoice transport/processing and archiving by third parties

The EU Directive allows outsourcing of tax-relevant functions to third parties. This gives senders and recipients of electronic invoices the opportunity to offload technical and legal complexity to experienced service providers. They then act in the name of and on behalf of the sender/recipient. Such services can include data conversion from source to target format, digitally signing and verifying, validating invoice content, exchanges between sender and recipient, archiving data on behalf of users, etc.

Outsourcing of tax-relevant functions never changes the fact that the parties to the underlying sales transaction are accountable to the tax authorities.
In many countries, restrictions are in place regarding the location for the archiving of E-Invoices. This is of special interest, if cloud computing is the base for archiving. Cloud computing is a very young technology. It is for sure not the objective of legislators to prohibit the usage of cloud computing, but the legislation is lagging behind the practice. Enterprises in EU member states are advised to ensure, that archiving services by 3rd parties are done in private clouds within EU member states [6]. It likely takes several years, until the legislation will allow invoice archiving in the public and global cloud.

8.4 Procedure description

Most country regulations require a document describing the environment, the end-to-end electronic invoice transport, processing and storage. It has to include all relevant information about

- Flow of invoices & related documents
- Manual and automated process steps
- IT and communication environment, interfaces, database
- Procedures for guaranteeing invoice integrity
- How the validity of signatures is verified

Procedure description play also a major role for users practicing the EDI method and “other electronic means”.

8.5 Legislation in move

8.5.1 World splits into two groups regarding legal requirements

In the early days of E-Invoicing, legislators assumed that risk of fraud with electronic methods would be higher than with paper invoices. That is why E-Invoicing legislation is stricter than for paper invoices almost everywhere on the world. These high requirements are seen as a necessity by one group and as a barrier by the other. For several years, a weighty discussion has been in progress: Should paper-based and electronic invoices be treated equally in law or not? This discussion is erroneously often reduced to the question of whether the digital signature for E-Invoices should be pushed or avoided.

Latin America and Asia have a clear preference for prior validation mechanisms by tax authorities before issuing an E-Invoice. There are no indications that the legislations in these countries will push the equal treatment method.

The VAT and tax system in the US is quite different to the European system. For this reason, legal requirements for electronic invoices are lower compared to countries with the classical VAT system. Although digital signatures do not play the same role for invoice exchanges among businesses, the usage is rising for other reasons. An increasing number of E-Invoices are digitally signed by companies internally. This is for fulfilling other legal requirements, especially the Sarbanes-Oxley Act.

The author estimates that 55% of B2B E-Invoices in Europe are currently exchanged & archived by using the signature method, 40% are based on the EDI method and 5% on the equal treatment method. Equal treatment is currently mainly used in smaller European countries. Other EU member states have to change their national legislation to permit the equal treatment method after January 1st 2013. The signature and EDI method will furthermore remain permitted.
8.5.2 Objectives and status of legal changes in the European Union

8.5.2.1 Objectives

Rules and regulations about E-Invoicing and E-Archiving are relatively young. In addition, new technologies generate further possibilities for electronic processing. Due to globalisation, cross-border exchange for tax-relevant business documents (e.g. E-Invoices) plays an increasing role. European and national governments intend to remove legal barriers to reduce administrative burdens. These are reasons why the legislation around E-Invoicing is currently on the move.

In 2010 the Council of the European Union adopted VAT Directive No. 2010/45/EU, which amends Directive 2006/112/EC to simplify invoicing requirements. Some Articles refer to E-Invoicing. Member States have to bring their national legislation in line with the new provisions by 1 January 2013. The objective of this activity is to reduce administrative burdens for businesses [9].

The key points of the Directive are [9]

- The use of an electronic invoice shall be subject to acceptance by the recipient (remark of author: this can be a constraint for the usage of the Opt-Out rollout)
- It must comply with VAT Regulations
  - Electronic and paper invoices are to be treated equally – the administrative burden on paper invoicing should not increase.
  - The authenticity of the origin, the integrity of the content and the legibility of an invoice, whether on paper or in electronic form, shall be ensured from the point in time of issue until the end of the period for storage of the invoice.
- Proof of authenticity and integrity may be provided with any mechanism the taxable person deems suitable, among which
  - A business audit trail, which creates a reliable audit trail between an invoice and a supply of goods or services.
  - an advanced electronic signature based on a qualified certificate and created by a secure signature creation device
  - Electronic data interchange (EDI)
- However, taxable persons should not be required to use any particular electronic invoicing technology.
- Member States do not have the option to impose other rules for E-Invoices
- The rules regarding electronic invoices that apply are the rules of the Member State where the supplier is established.
- Rules concerning the storage of invoices are determined by the Member State where the taxpayer is established.

8.5.2.2 Status

The legislation in some European countries already supports the Equal Treatment method to some extent for domestic invoices, e.g. in Belgium, Denmark, Estonia, Finland, Germany (planned for second half of 2011), Norway, Poland, Sweden, The Netherlands and The United Kingdom

For cross-border exchanges, requirements are higher and use of the signature or EDI method is common.

8.5.2.3 Outlook

Once the national legislation is in place, businesses can choose among three options:

- Signature
• EDI
• Equal Treatment (with business audit trail)

Whereas the first two methods are already supported in all European countries, the Equal Treatment method will be permitted after 2013 in all EU member states.

Defining the legal pre-requisites for Equal Treatment is one part; the practical use afterwards is another. A weighty discussion is in progress as to if and how the new option should be used in the future.

The initial aim of stakeholders with this third method is to accelerate the E-Invoicing market growth significantly. As the current growth rates are already around 35%, the author sees the objective as achieved, if annual growth rates will jump to more than 50%. Currently, too many options seem much more to result in a dilemma for decision makers. A breakthrough would be possible, however, if one or two large countries declared E-Invoicing as obligatory, based on the equal treatment method.
9. Appendix B: Glossary, Sources

9.1 Glossary

In the course of this report, a number of key notions are frequently referred to. To avoid any ambiguity, the following definitions apply to these notions.

Figure 47: Glossary

<table>
<thead>
<tr>
<th>AR</th>
<th>Accounts Receivable</th>
</tr>
</thead>
<tbody>
<tr>
<td>AP</td>
<td>Accounts Payable</td>
</tr>
<tr>
<td>B2B Invoices</td>
<td>In this report: Includes all VAT compliant invoices to corporate as well as to the public sector</td>
</tr>
<tr>
<td>Bill</td>
<td>Includes all categories of bills/invoices, especially B2B, B2C, B2G</td>
</tr>
<tr>
<td>Consolidator</td>
<td>Service provider respectively operator with any-to-any model; an invoice sender or recipient needs just one interface for achieving any other counterparty in the same network</td>
</tr>
<tr>
<td>E-Billing</td>
<td>New generation for electronic invoicing; VAT compliant; Completely paper free from End-to-End (so electronic invoices supported by paper summary invoices are not part of this strict definition); used in the same sense in this report as E-Invoicing independent of the distinct definition in some countries</td>
</tr>
<tr>
<td>EBPP</td>
<td>Electronic Bill Presentment and Payment; focus in B2C; this acronym is more popular outside Europe</td>
</tr>
<tr>
<td>EIPP</td>
<td>Electronic Invoice Presentment and Payment; focus in B2B; this acronym is more popular outside Europe</td>
</tr>
<tr>
<td>E-Invoicing</td>
<td>Electronic invoicing is the sending, receipt and storage of invoices in electronic format without the use of paper-based invoices as tax originals. Scanning incoming paper invoices, or exchanging electronic invoice messages in parallel to paper-based originals is not electronic invoicing.</td>
</tr>
<tr>
<td>Order-to-Cash</td>
<td>Supplier perspective for the processes order-delivery-invoicing-payment</td>
</tr>
<tr>
<td>Purchase-to-Pay</td>
<td>Buyer perspective for the processes order-delivery-invoicing-payment</td>
</tr>
<tr>
<td>Sender</td>
<td>Invoice issuer, Supplier, Biller</td>
</tr>
<tr>
<td>SME</td>
<td>Small and Medium sized Enterprise</td>
</tr>
</tbody>
</table>

© B. Koch, Billentis
Recipient

Buyer, Customer; The individual or organization that will receive the invoice

9.2 Sources

Figure 48: Key sources used in this report

<table>
<thead>
<tr>
<th>Ref</th>
<th>Document and/or hyperlink</th>
<th>Date or version</th>
</tr>
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<tbody>
<tr>
<td>[1]</td>
<td>Helsinki School of Economics, „Electronic Invoicing Initiatives in Finland and in the European Union”</td>
<td>2008, B-95</td>
</tr>
<tr>
<td>[2]</td>
<td>Politecnico di Milano, Alessandro Perego, Presentation “Process Optimization and Saving Potential with e-Invoicing” at the EXPP Summit in Munich/Germany</td>
<td>October 2010</td>
</tr>
</tbody>
</table>
Figure 49: Other interesting sources & literature

<table>
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<th>Ref</th>
<th>Document and/or hyperlink</th>
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<tr>
<td>[A]</td>
<td>BPO &amp; financial supply chain related feeds and sites: <a href="http://www.cxofeed.com">http://www.cxofeed.com</a></td>
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<td>[B]</td>
<td>EEI Platform: <a href="http://eeiplatform.com">http://eeiplatform.com</a></td>
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<td>[D]</td>
<td>Leading E-Invoicing solution and service providers: <a href="http://www.expp-summit.com/whoiswho.htm">http://www.expp-summit.com/whoiswho.htm</a></td>
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<tr>
<td>[E]</td>
<td>Annual international E-Invoicing Congress: <a href="http://www.expp-summit.com">www.expp-summit.com</a></td>
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<td>[G]</td>
<td>The Association for Electronic Invoicing: <a href="http://www.e-invoice-alliance.de">http://www.e-invoice-alliance.de</a></td>
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<td>[H]</td>
<td>Blog of Julián Inza: <a href="http://inja.wordpress.com/category/factura-electronica">http://inja.wordpress.com/category/factura-electronica</a></td>
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<td>[I]</td>
<td>Blog of Bo Harald: <a href="http://boharald.blogspot.com">http://boharald.blogspot.com</a></td>
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<td>[K]</td>
<td>Real-Time Economy: <a href="http://realtimeeconomy.net">http://realtimeeconomy.net</a></td>
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<td>[P]</td>
<td>Norwegian E-Invoicing association: <a href="http://www.b2bconnect.no">http://www.b2bconnect.no</a></td>
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<td>[Q]</td>
<td>Spanish overview and news: <a href="http://www.facturae.es">http://www.facturae.es</a></td>
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<tr>
<td>[R]</td>
<td>Swiss overview and news: <a href="http://www.swissdigin.ch">www.swissdigin.ch</a></td>
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