

# E-Invoicing – How to exploit the full potential

## Summary

// E-invoicing and e-invoicing can be quite different. But what is the difference between what many call e-invoicing and real automation of the invoicing process, which only becomes possible by considering the entire Purchase-to-Pay process.

The digitalization of business processes is the order of the day. In this context, many companies also optimize the processing of their incoming invoices. However, the e-invoicing projects initiated for this purpose differ greatly from one another and are carried out with very different objectives. The aim is often simply to increase the proportion of electronically received invoices in order to reduce the processing of paper invoices. For this, it is sufficient to transfer the invoice in the form of an electronic image instead of paper, for example as a PDF file in an e-mail.

This elimination of paper already reduces process costs – both when creating and sending invoices on the supplier side and when receiving and processing incoming invoices on the customer side. Although this is a first step towards digitization, only part of the potential for optimization is being exploited. The other options for automatic checking and posting of electronic incoming invoices remain unused.

Companies that go the decisive step further in their projects focus from the outset on the automation of the Accounts Payable Process (AP). This increases the proportion of incoming invoices that are booked automatically in the AP/ERP system without manual intervention. For this purpose, it must be ensured on the one hand that the invoices meet all relevant legal requirements, on the other hand, the invoices must be able to be checked against all relevant preceding documents. In addition, rule-based checks and data enhancements must ensure that invoices contain all the information required by the customer and that it is correct to enable automatic assignment and posting. Examples include order data, company codes, cost centers, contact data, delivery data, etc.

With this approach, considerable savings can be achieved in the AP area and process optimizations can be implemented – especially when the purchasing and finance areas work closely together.

In order to achieve very high automatic booking rates (>90 percent), further process optimizations are necessary on the customer side, for which all departments must work together, openly and constructively. After all, what use is the best check of invoice data against the order if outdated prices are stored or if the items on the invoice do not match the items on the order and must therefore be manually checked and reworked.

The full optimization potential of e-invoicing only becomes apparent when the entire process chain, from ordering through delivery to goods receipt, is considered. Process costs are significantly reduced not only on the customer side. Suppliers also benefit significantly from the automated, fast processes. In addition, suppliers who create correct and complete invoices for their customers achieve better customer satisfaction and thus greater customer loyalty.

SupplyOn maps the entire process and supports this holistic approach. This means that all the data required for invoicing and invoice verification – from the order, order change and order confirmation through to delivery and confirmation of receipt of goods – is available at all times. In addition, SupplyOn has an extensive master data repository and the ability to perform rule-based checks and data enhancements to support the valid creation of invoices – both from a business and tax compliance perspective.

## Starting point

Traditional invoicing involves significant costs and effort. For example, the supplier often has to pay up to 4 euros per invoice just for printing and shipping. In order to reduce costs, printing and shipping on the supplier side are being increasingly automated. Nevertheless, the high costs and efforts caused by the media discontinuity between electronic data and data on paper remain. The same applies to the receipt of invoices by the customer. Here too, automation leads to increases in efficiency and the automation rate can be increased through the use of robotics. The problems of media discontinuity in invoice verification and posting, however, remain largely unresolved. Systems such as printing lines on the one hand or scanning lines on the other are also very maintenance intensive and prone to errors.

To avoid media discontinuity – i.e. the conversion of electronic invoice data into paper invoices and vice versa – great optimization potential was recognized early on. However, there were initial difficulties in allowing electronic invoices as documents in the legal sense, since electronic documents can be changed quite easily compared to paper documents (data integrity) and the origin (authenticity) was not always clearly traceable. In many countries, an electronic document is today treated in the same way as a paper document if certain conditions (e.g. specific processes or digital signatures) are met that guarantee the integrity and authenticity of the document. Thus, the digitization of invoices is possible in principle in many countries these days.



# Aspects to be taken into account in e-invoicing

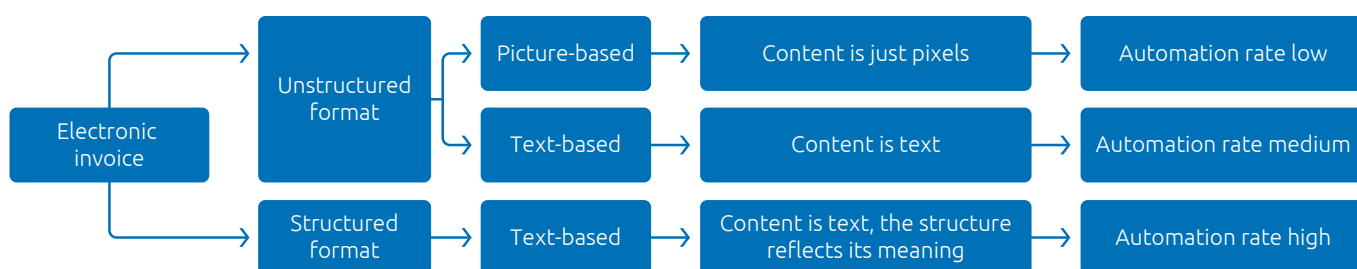
## Structured vs. unstructured invoice data

In the case of electronic invoices, a distinction is made between structured and non-structured formats: With structured formats (e.g. EDI, XML), the meaning of the data is represented in a predefined structure. This data can be processed automatically. Not so for the unstructured formats: Here systems cannot recognize the meaning of the data, an automated process is not possible.

A distinction is made between image and text files for unstructured data. If only the electronic image of an invoice is transmitted, the contents of the invoice are not usable, they are only pixels. There are automatic recognition processes (e.g. OCR - Optical Character Recognition) to convert the pixels into machine-readable characters, but

these have error rates of 20-30 percent. The problem of text recognition can be avoided with text-based invoices in which the data is not stored as an image but as text in the file. But the problem itself, that the data is unstructured, still remains.

This is because, in addition to pure character recognition, the interpretation of the content of the data also plays an important role. This problem can be solved with the help of semantic recognition, which converts unstructured data into structured data. However, the error rates of semantic recognition are often above 40 percent. This means that almost every second invoice must be processed manually before it can be posted. Although attempts are currently being made to optimize this semantic data recognition with the help of learning algorithms and artificial intelligence (AI), an error risk remains. This residual risk can only be avoided with a structured invoice format.



// Structured vs. unstructured invoice data

## Receipt of invoice

In order to automate the invoicing process, all invoices must be channelled via one system in the first step, regardless of transmission path or format. The rules for automatic assignment of invoices to preceding documents can only then be centrally implemented and maintained in the upstream system. This applies in principle to all invoices, even if there is no order, contract or goods receipt to match the invoice data with. By setting up specific processing rules, a high degree of automation can be achieved, e.g. by automatically adding certain information. Automatic checks against contract information or call off plans can also be used to automate services and subscription invoices.

This automated processing transforms the traditional manual machining process into a process for handling exceptions. This approach gives exceptions the appropriate priority, to be handled with the necessary care. This avoids delays and financial losses (unused discounts, additional dunning costs, compliance problems, etc.).

## Invoice verification

As soon as the data of the invoice has been recognized and understood on the receiving side, the actual invoice verification begins. At this stage it happens quite often that discrepancies, missing information and real mistakes are being noticed, as the content of the invoices will not improve simply by digitizing them. Meaning that incorrect data remains incorrect and missing data is still missing. During invoice verification, this leads to complex reconciliations between the business partners involved and to subsequent correction processes. The entire invoicing process is thus delayed, additional expenses and costs are incurred and the achievement of payment targets is becoming difficult.

Compliance with legal requirements is particularly important in auditing. If certain content is missing from invoices or there are formal errors, fines may be imposed and tax refunds may be omitted. In addition to the necessary and correct invoice data, it must be ensured that invoices refer to deliveries and services rendered.

It is therefore necessary for the tax audit that the reference to the purchase order, delivery and provision of services can be clearly demonstrated.

Since digital processes are not so easy to manipulate on the one hand and can be checked more easily on the other, the authorities also have an interest in the progressive digitalization of business processes. This means that tax audits can be carried out much better and faster than before – which also leads to cost savings for companies.

In addition to tax audits, business auditing within companies poses a particular challenge. Financial losses are often not recognized at all or too late. The manual processes for checking and approving invoices are time-consuming, so the benefits of early payment can't be realized. In addition, late payments can lead to dunning processes, which in turn cause additional expenses and costs. Besides that, manual approval processes increase the risk of unpaid invoices, duplicate payments, and fraud.

## Master data

Inconsistent, outdated or incomplete master data becomes a problem in the electronic invoicing process. In particular, fragmented master data, which is distributed across many areas and systems in the company and to which several employees have access, is often of poor quality. There are often duplicate entries with different contents. Validation of the data is not carried out at all or only irregularly. Low master data quality and decentralized master data management across different systems, departments, branches or locations complicate the central optimization and automation of purchasing and financial processes. Digitalization of processes without reliable master data is virtually impossible.

## Creation of transparency

The introduction of a continuous P2P process requires a high level of transparency at management level across departmental boundaries. In projects in which different departments are involved, it is not possible otherwise to identify the overarching dependencies and optimization potential. Often it is not clear which data is available in which departments and which processes could be handled seamlessly in order to reduce costs across departments and increase process quality. Each department has its own rules that are defined independently, although the successive process steps are directly interdependent. For example, different data and criteria are used when assigning delivery notes, goods receipts or invoices to the corresponding purchase orders. Clearly defined, comprehensive data and criteria that do justice to all the departments involved would enable automatic assignment. Manual effort would then only be required in exceptional cases.

## Harmonized processes

The processes of the finance and purchasing department are often not coordinated, which is also due to the fact that the departments are structured differently. While the Accounts Payable area has uniform processes, purchasing is typically divided into the following two areas with different processes and focal points:

### › Strategic Purchasing

Strategic purchasing focuses primarily on direct material groups, services and capital goods with the aim of securing the company's supply. The data for strategic purchasing is usually managed in sourcing management or ERP systems.

### › Operational Purchasing

Operational purchasing comprises indirect materials and services. Here, e-procurement solutions based on catalogs and supplemented by procurement solutions for services are increasingly being used.

Compared to strategic expenses, operational expenses in purchasing are often considered less relevant because the amounts are usually low. Operational expenditure accounts for only up to 30 percent, while strategic expenditure accounts for over 70 percent of total expenditure. Although the amounts in operative purchasing are comparatively low, the document volume, i.e. the number of transactions, is usually very high, which leads to high process costs.

## Joint goals

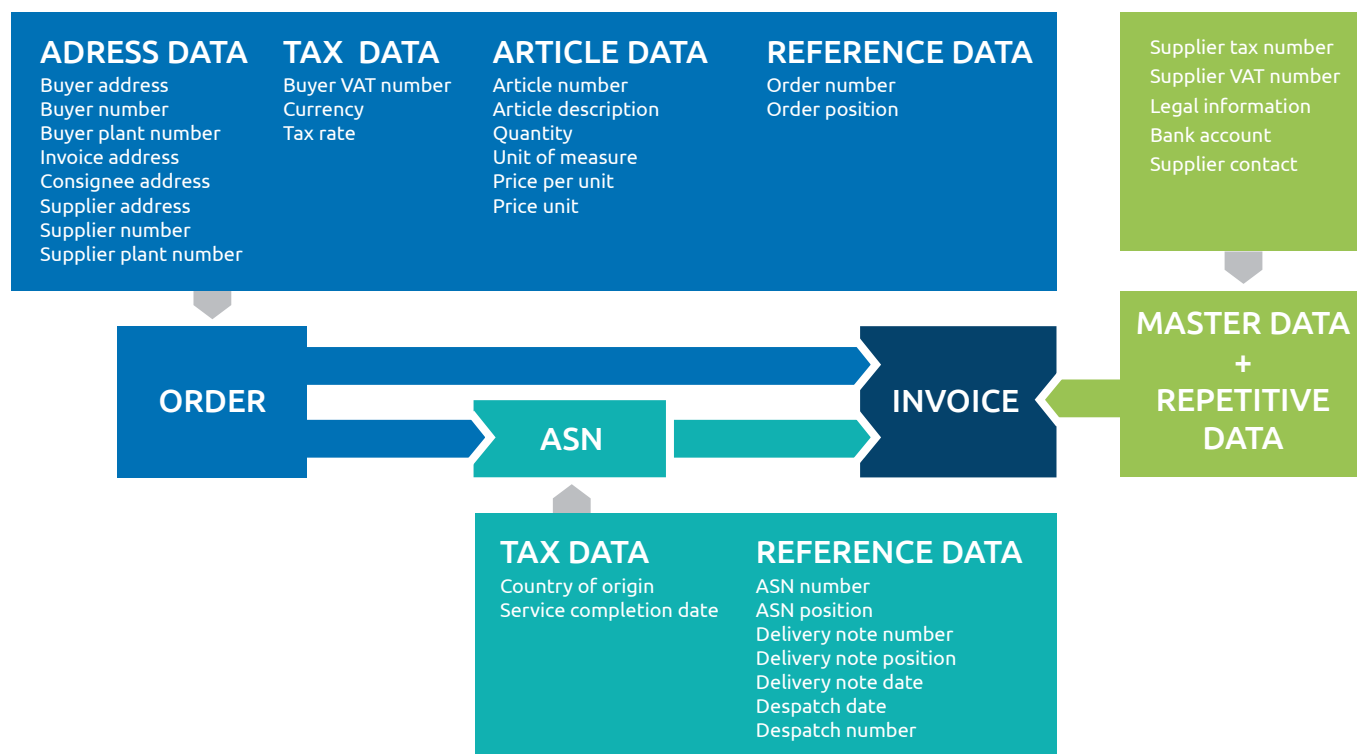
In addition to the different processes, the different targets for purchasing and finance must also be considered. Purchasing objectives typically include managing suppliers, reducing purchasing costs, minimizing supply risks, defining procurement policies and framework agreements. The finance department, on the other hand, aims to optimize invoice processing, prevent fraud and errors, meet payment targets and provide transparent reporting. It is therefore important to understand the difference in the objectives of the departments involved in the overall process and to define common objectives. Only by harmonizing the goals, companies can achieve a harmonization of their processes.

# The solution

## Consistent and correct data

A continuous digitalization of the entire procurement process is crucial for the provision of digital data for the billing process. Without purchasing data, there is no way to automatically compare invoices with purchasing and delivery documents.

In order to be able to use the full optimization potential in invoice processing, the upstream processes must therefore be digitized together with the invoice process.



// Relation of invoice to preceding documents (purchase order, delivery, goods receipt) and master data

It is just as important that the customer data matches the supplier data. Data quality is essential to enable an automated validation process. For this purpose, the customer and supplier must be equally aware of any changes to purchase orders, delivery or goods receipt data. This reduces the need for time-consuming clarifications both in purchasing and in the finance department. Process throughout times are shortened, payment targets are met and early payment discounts are used to a greater extent.

Thus, efficient and automatic invoice processing has a positive direct effect on purchasing costs and purchasing processes. Security of supply is guaranteed because, for example, delivery stops and late deliveries due to late payments are avoided. On the other hand, suppliers benefit from timely incoming payments, which avoids liquidity bottlenecks for suppliers and dunning costs. Since supply chain risks such as quality deficits, supply bottlenecks and supplier insolvencies often arise due to the lack of liquidity of suppliers, the introduction of electronic invoicing can help to reduce these risks too.

To ensure that minor variances between invoices and preceding documents are automatically processed, for example, due to additional freight or packaging costs, it is advisable to set up corresponding tolerances in the system. This applies to the same extent to over- or underdeliveries as well as to price deviations which are accepted within a certain tolerance range.

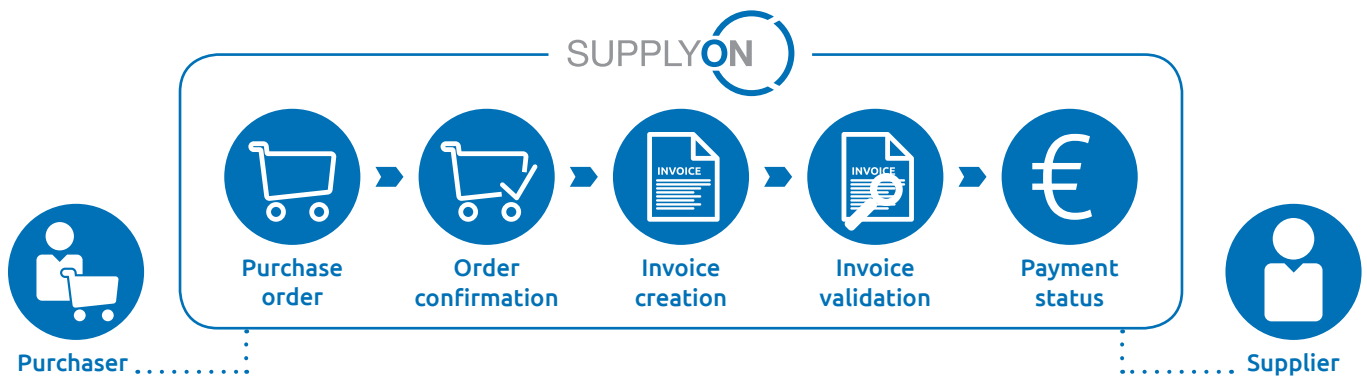
By including the electronic invoice in the framework agreements with suppliers, the purchasing department can ensure that the advantages mentioned are fully exploited. On the other hand, the electronic invoice serves as a driver for the digitization of ordering processes, which also reduces process costs in purchasing and increases transparency in purchasing.

## The end-to-end Purchase-to-Pay process via SupplyOn

SupplyOn's goal is the end-to-end digitalization of business processes across company boundaries and the digital exchange of all associated business documents. This combination of interrelated processes and comprehensive analytics makes synergies transparent.

At SupplyOn, the electronic invoicing process is an integrated component of the Purchase-to-Pay solution because invoicing

is an important part of the end-to-end process. The links and interrelationships between the various documents within the entire P2P process are fully mapped. By using SupplyOn as a central system, uniform checking rules are implemented so that the assignment of invoices to documents from different business processes (e.g. direct, indirect goods or service orders, call-off, delivery, incoming goods) can take place automatically.



### // The electronic invoice as an integrated part of the P2P process

In view of the current business environment and changing requirements, SupplyOn supports various invoice entry channels such as e-mail, web user interface with predecessor-based invoicing, and structured (EDI, XML, CSV) as well as unstructured (text-based) PDF files. Unstructured files are converted into a structured format. This makes it possible to optimize the invoice verification of PDF invoices and significantly reduce time-consuming manual processes and processing times at the invoice recipient. If the invoices are available in a structured form (e.g. XML, EDIFACT, CSV), SupplyOn converts the various formats into a uniform format for the invoice recipient. This eliminates the need for further time-consuming and error-prone transformation processes at the recipient.

In a comprehensive data validation, the system checks the entered and transmitted data on their formal correctness. SupplyOn may set up customer-specific checking rules on behalf of the customers so that the suppliers can check whether all necessary information is available on the invoice before the invoices are sent to the customers, thus guaranteeing fast processing by the customers. Fraudulent actions are prevented and payment is initiated immediately. The expected input per field can be defined and configured for each customer and supplier relationship. The invoice is not sent until all data has been validated successfully.

The use of SupplyOn can significantly improve the quality of master data. On the one hand, SupplyOn's master data is stored in a central archive – thus avoiding fragmentation across different systems. On the other hand, the respective business partners themselves are responsible for the completeness and maintenance of the master data. Since obsolete or incomplete

master data has a direct effect on digital business processes, it is in the business partners' own interest to keep the master data up-to-date. In some cases, the system automatically reminds you to check and update company master data at regular intervals.

SupplyOn offers a convenient function for billing services to transparently document and invoice the successive provision of agreed services.

If required, the invoice can be enriched with additional content (e.g. specific barcode or unique ID) so that it can be uniquely assigned by the auditor.

SupplyOn also covers the legal requirements of numerous countries worldwide as standard and thus supports the international exchange of invoices. Due to the high flexibility and configurability of the application, the tax laws of further countries that are not yet included in the standard can be implemented quickly.

Clearing requirements such as Golden Tax (Fapiao) in China are supported. The Chinese state, for example, requires invoices to be taxed in advance. With the SupplyOn solution, high data quality is achieved in advance, thus avoiding the need to reverse invoices approved by the tax authorities with high administrative costs.

# SupplyOn approach – much more than software

With our platform, SupplyOn offers a global network for the manufacturing industry with a clear focus on improving the business relationships of its customers and optimizing processes throughout the entire supply chain. The solutions are developed in close cooperation with the customers in order to establish industry-wide uniform processes that reflect operational and legal compliance.

SupplyOn's services for its customers are based on four pillars:

## Software

- › Industry-specific processes for cross-company collaboration
- › Alerting and monitoring functionalities



## Community

- › Global business network with 65,000 active companies
- › One solution for all (many-to-many)



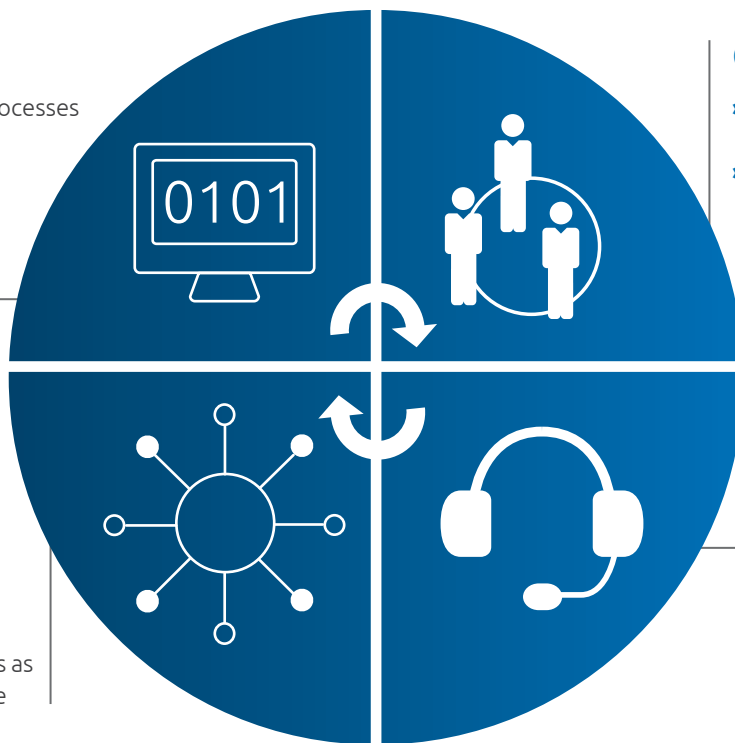
## Plattform

- › High security and availability
- › Provision of solutions as Software-as-a-Service



## Support

- › Professional consulting during implementation
- › Multilingual, worldwide user support





# Conclusion

// With the integrated Purchase-to-Pay process via SupplyOn, a very high degree of automation in invoice verification and processing can be achieved. All relevant data is updated in the course of the process from the order to the order confirmation to the shipping notification and forms the basis for invoicing. This means that automatic booking rates – i.e. the proportion of invoices that are automatically processed by the system and instructed to pay – of over 90 percent can be achieved. In this way, the optimization potential of the P2P process can be fully exploited by all business partners involved.

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