



**UN/CEFACT**

Simple, Transparent and Effective Processes  
For Global Commerce

## **BUSINESS REQUIREMENTS SPECIFICATION (BRS)**

**Business Domain: Cross Industry – Supply Chain**

**Business Process: Invoice Process**

**Document Identification: CEFACT/Forum/2005/TBG/BS002**

**Title: Cross Industry Invoicing Process**

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# Business Requirements Specification

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## 1. Preamble

The current practice of the exchange of business documents by means of telecommunications – usually defined as e-Business presents a major opportunity to improve the competitiveness of companies, especially for Small and Medium Enterprises (SME).

The commercial invoice is an important document exchanged between trading partners. In addition to its prime function as a request for payment, from the customer to the supplier, the invoice is an important accounting document and, also has potential legal implications for both trading partners. In the Member States of the European Union, the invoice is the key document for VAT declaration and reclamation, for statistics declaration in respect of intra community trade, and to support export and import declaration in respect of trade with countries outside the European community.

Started as an initiative by CEN/ISSS Work shop eBES, the European Expert Group 1 (EEG1) – Supply Chain & e-Procurement developed the Cross Industry Invoice in 2004. The Cross Industry Invoice has been compiled using the EUROFER ESIDEL version 1.0 as the base, with contributions and submissions from: EUROFER, EAN/UCC, CIDX, EDIFICE, AIAG/ODETTE, GHX, UK e-Government, UK HM Customs & Excise, and EDS. The first draft of the Business Requirements Specification (BRS) was presented at the September 2004 UN/CEFACT Forum to the TBG1 members for review and comments from the other regions. Based on comments received TBG1 has drafted the final version of the BRS for further processing through the UN/CEFACT Forum process with the goal of developing a UN/CEFACT ebXML standard message.

The purpose of this document is to define globally consistent invoicing processes for the worldwide supply chains, using the UN/CEFACT Modelling Methodology (UMM) approach and Unified Modelling Language to describe and detail the business processes and transactions involved.

The structure of this document is based on the structure of the UN/CEFACT Business Requirements Specification (BRS) document reference CEFACT/ICG/005.

## 2. References

- UN/CEFACT Modelling Methodology (CEFACT/TMG/N090R10, November 2001)
- UN/CEFACT –ebXML Core Components Technical Specifications version 2.01 – ISO 1500-5
- UN/CEFACT Business Requirements Specification version 1.5 (CEFACT/ICG/005)
- UN/EDIFACT – Invoice message
- Report and recommendations of CEN/ISSS e-Invoicing Focus Group on Standards and Developments on electronic invoicing relating to VAT Directive 2001/115/EC
- Unified Modelling Language (UML version 1.4)

## 3. Objective

The objective of this document is to standardize the Business processes, the Business transactions and the Information entities of the invoice used by the industries in the supply chain.

The business process is the detailed description of the way trading partners intend to play their respective roles, establish business relations and share responsibilities to interact efficiently with the support of their respective information systems.

Each Business transaction is realised by an exchange of Business documents (also called messages). The sequence in which these documents are used, composes a particular instance of a scenario and are presented as use cases in the document.

The business documents are composed of Business Information Entities (BIE), which are preferably taken from libraries of reusable business information entities. The contents of the business documents and the Business Information Entities are presented using class diagrams.

## 4. Scope

This section describes the extent and limits of the business process within the supply chain being described in this document. The class diagram of the invoice business transaction is developed in such a way that it specifies the cross industry reusable business information entities. It allows the extension of industry specific business information entities such as product specification details to describe a specific product. It is up to each industry to specify, based on the BRS of the cross industry invoice, its industry specific invoice transaction.

Categories	Description and Values
Business process	Invoice process in the supply chain
Product Classification	All
Industry Classification	All
Geopolitical	Global
Official Constraint	None
Business Process Role	Private and public procurement
Supporting Role	None
System Capabilities	No limitations

The invoicing process is used to exchange the invoice between the supplier and the customer for the supply of goods or services ordered, delivered, received, consumed, etc..

This document describes the variants of invoicing in use in trade and industry. It considers the legal statements and, to a certain extent, the corrections of a previously sent invoice, by using credit notes or debit notes.

The following functions are part of the invoicing cycle, but only the treatment of the ‘Traditional invoice’ is dealt with at present. Treatment of the self-billing invoice will be developed in a second phase:

- The treatment of the traditional or suppliers’ initiated invoice
- The treatment of the self-billing invoice (second phase)

The payment and remittance processes are not part of the invoicing process, but are detailed in the payment process.

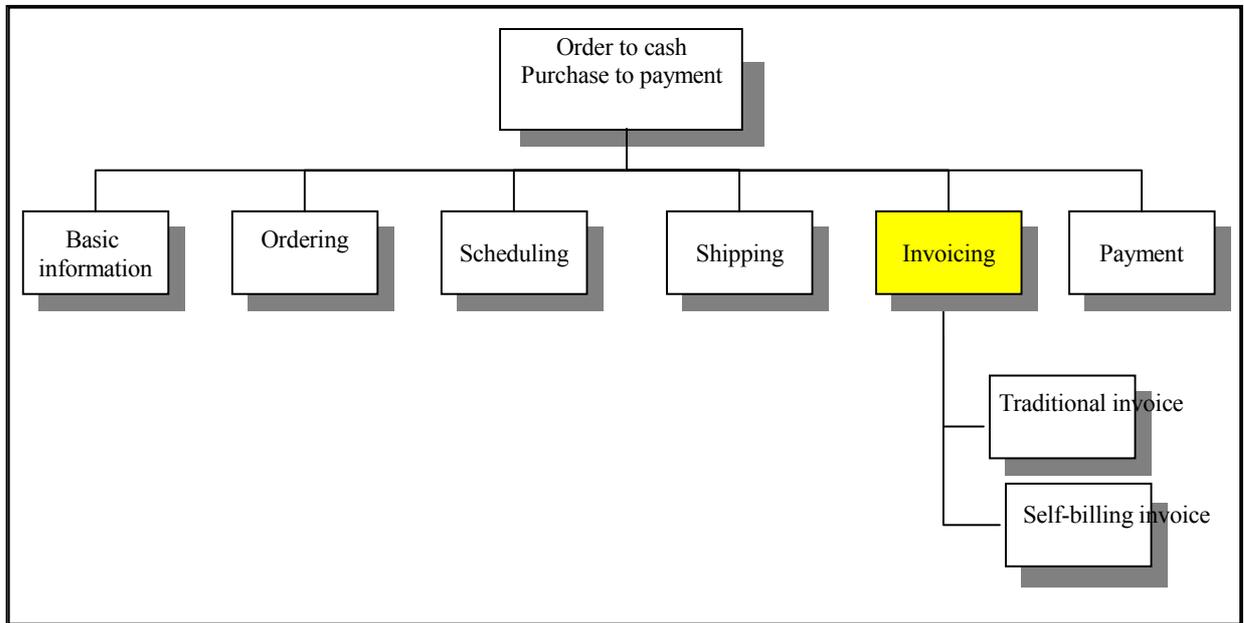
To simplify understanding, the parties involved are limited to customer and supplier. In the total trade business, each of the parties can have more than one role. For the invoicing process, the customer can act as the customer, the consignee, the invoicee and the ordering company. The supplier covers the roles of the seller, the sales agent or sales company, and payee.

To ensure that the invoicing of the ordered, delivered, received or consumed goods or services are in line with common practice used between trading partners, the following scenarios are used:

- The traditional invoicing, by the supplier to the customer (supplier is acting as the invoice issuer)
- The self-billing invoicing, by the customer to the supplier (customer is acting as the invoice issuer) in a second phase.

## 5. Business requirements

### 5.1. Business requirements views



The Invoicing cycle is divided in two processes:

- **The traditional or supplier initiated invoice**  
This process supports the generation of the invoice by the supplier to the customer, and covers also the treatment and the reconciliation of an incorrect invoice.
- **The self-billing invoice**  
This process supports the generation of the self-billing invoice by the customer to the supplier, and covers also the treatment and the reconciliation of an incorrect invoice.

## **5.2. Business process elaboration - Traditional or suppliers' initiated invoice**

### **Scope**

This process details the invoicing process between the supplier and the customer, using the traditional method of invoicing. In this case, the invoice is created by the supplier and sent to the customer, claiming payment for the goods or services that have been ordered, delivered, received or consumed under the conditions agreed by both parties.

Based on the conditions agreed, the invoice can be created at the moment of the acceptance of the order, at the moment of the despatch of the goods or when the customer or a third party gives acknowledgment that the goods are received or consumed or can be invoiced. Today, the most common way used for direct deliveries to the customer, is the creation of the invoice based on the despatch of goods. When an external warehouse or a consignment stock is used for the supply of goods between the supplier and the customer, the invoice based on the received or consumed goods is more relevant.

The invoice can also cover the functions of a pro-forma invoice, a pre-invoice, a consolidated invoice, or a debit note and credit note.

The pro-forma invoice can assist the customer in matters related to import licences, or to advise the value of a consignment, so that the letters of credit can be opened. The pre-invoice is an invoice generated before the delivery of the goods or services. The consolidated invoice covers several deliveries made within in a predefined time frame. The debit and credit note can be used to correct the total invoiced amount, to cancel a previous invoice, or to give an additional rebate covering the treatment and the reconciliation of an incorrect invoice.

If the customer finds an error in the invoice or he detects damaged goods, he can raise a dispute notice by using the Commercial dispute message. By means of a dispute notice, the customer can provide the reason for non-acceptance and can propose the corrections to be made. The supplier can use the dispute notice response to respond with an answer to the customer, mentioning how the incorrect invoice will be settled.

The settlement of the incorrect invoice can be done in one of the following ways. A credit note is generated to cancel the previously sent invoice, together with a new invoice with the correct information. Or a credit or debit note is sent to the customer to settle the corrections agreed between the parties.

### **Principles**

The customer has the obligation to reconcile the invoices against the purchase order and the received and accepted goods. If relevant, the customer should report invoices with errors to the supplier. The customer has the obligation to issue notification of payment and to make remittance to the supplier, based on the reconciled invoices.

### 5.2.1. Use case: Traditional or suppliers' initiated invoice process

The use case for the traditional invoice process shows which Business collaboration use cases are used to compose the process:

- The treatment of an invoice
- The treatment and the reconciliation of an incorrect invoice

For each Business collaboration use case, a description is provided in this chapter.

#### Use case diagram – Traditional or suppliers' invoice process

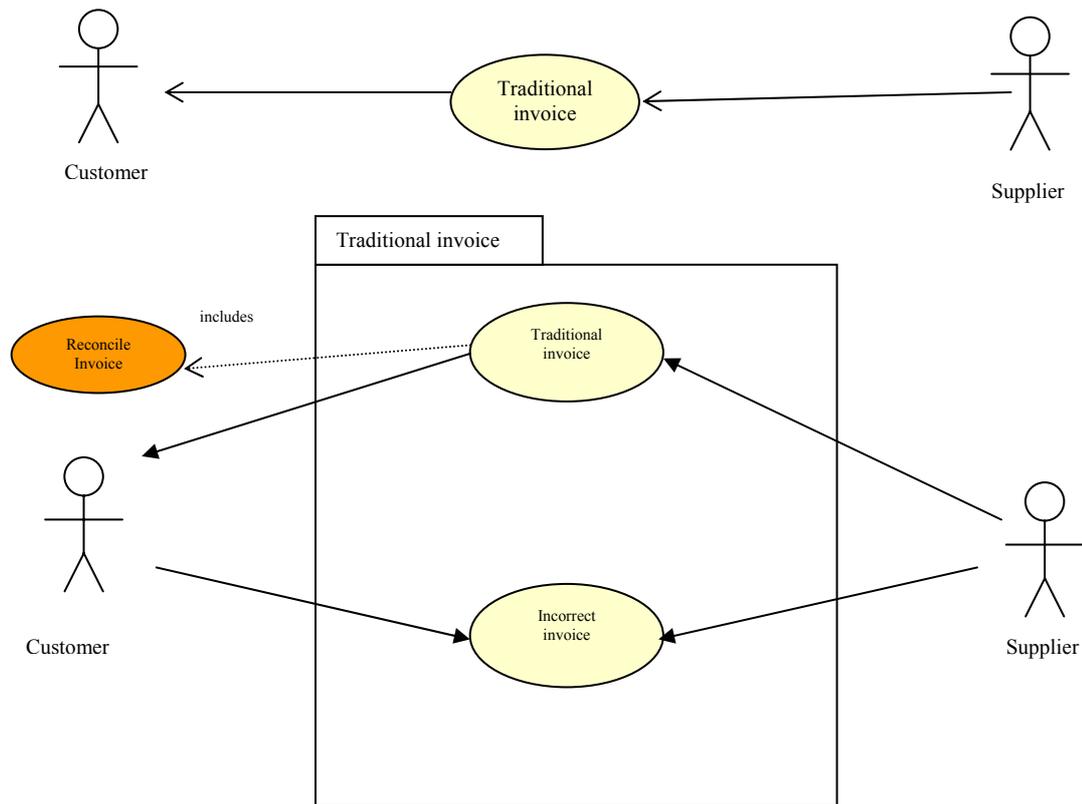


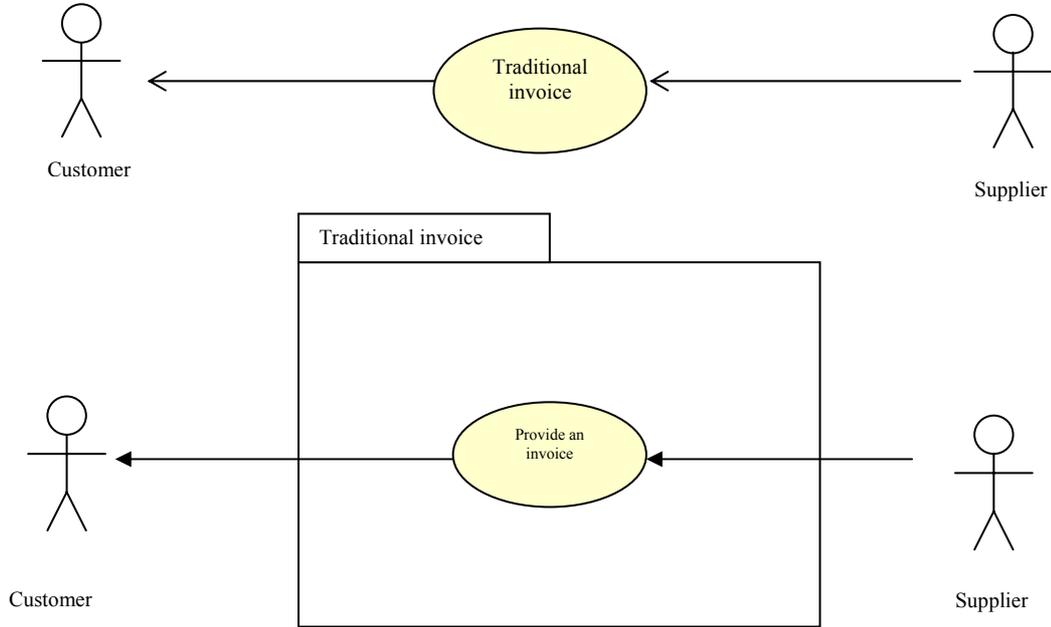
Figure 1 Use Case Diagram – Traditional invoice process

**5.2.2. Use case: Traditional invoice**

The use case for the Traditional invoice has the following business transaction:

- Provide an invoice.

**Use case diagram – Invoice**



**Figure 2 Use Case Diagram – Traditional invoice**

**Use case description – Traditional invoice**

<b>Business process name</b>	Traditional or supplier initiated invoice
<b>Identifier</b>	Cross industry traditional invoice
<b>Actors</b>	Customer, Supplier (Optional, additional roles – Invoicee, Invoice issuer)
<b>Description</b>	The supplier presents to the customer, for the ordered or delivered, received or consumed goods or services, a detailed statement of trade account payable (invoice). The customer reconciles the invoice with the agreed prices and the goods or services rendered and initiates the payment remittance.
<b>Pre-condition</b>	Framework Agreement or Contract and that an order is in place with agreed prices. The supplier has provided goods or services according to the conditions set in the contract and/or order. The customer has received the goods or services.
<b>Post-conditions</b>	Based on the reconciled invoices, the customer should issue the notification for the payments. For the incorrect invoices, the customer will generate a dispute notice to the supplier.
<b>Scenario</b>	Based on the agreed conditions in the contract, order, delivery schedule, delivery just in time, or other relevant transaction, the supplier will provide goods to the customer. In accordance with the shipping instructions, the goods will be delivered directly to the customer, to a third party warehouse, to a consignment stock, or other relevant delivery point, (more details of the different ways are provided in the shipping cycle). Based on the agreement of the point of invoicing between the parties, the supplier will generate the invoice for the goods or services, based on the goods ordered, or delivered, or received or consumed.  Once the goods are delivered to the customer, together with the shipment notice (despatch advice, packing list or waybill), the customer checks the invoice with the order, the contract and with the goods receipt report. If there is any discrepancy found, the customer shall start the process to handle incorrect invoices – otherwise, the invoice will be submitted to the payment cycle.
<b>Remarks</b>	

### 5.2.3. Use case: Incorrect invoice

The use case for the incorrect invoice has the following business transactions:

- To initiate a dispute notice
- To respond to the dispute notice
- To generate the relevant credit and debit notes, or invoice, to settle the dispute.

#### Use case diagram – Incorrect invoice process

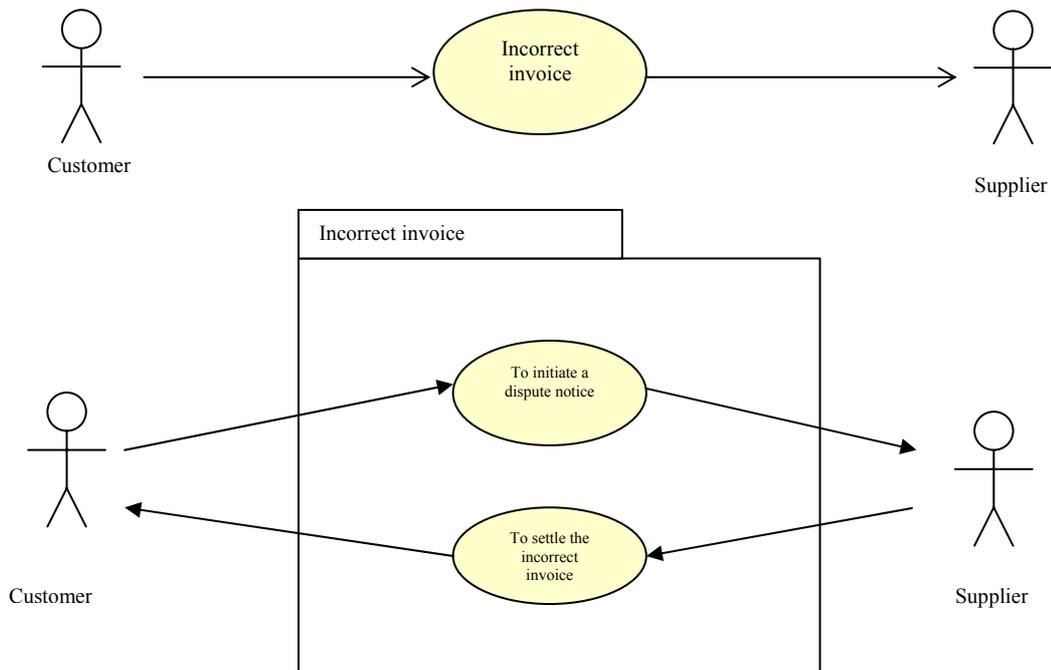


Figure 3 Use Case Diagram – Incorrect invoice

**Use case description – Incorrect invoice**

<b>Business process name</b>	Incorrect invoice
<b>Identifier</b>	Cross industry incorrect invoice
<b>Actors</b>	Customer, Supplier (Optional, additional roles - Invoicee, Invoice issuer)
<b>Description</b>	The Customer has found an error in the invoice from the supplier, a discrepancy between the invoiced goods and the received or consumed goods, or between the price conditions applied and the price conditions agreed.
<b>Pre-condition</b>	The customer received an incorrect invoice from the supplier.
<b>Post-conditions</b>	The supplier has accepted the dispute notice raised by the customer, and the dispute is settled. The supplier rejects the dispute notice.
<b>Scenario</b>	Once the goods are delivered to the customer, together with the shipment notice, the customer checks the received invoice with the order and contract information and with the goods accepted by himself. If there is any discrepancy found, the customer shall generate a dispute notice for the supplier. On receipt, the supplier shall check the dispute notice and shall raise a dispute notice response, to inform the customer if the dispute notice is accepted or not accepted. When accepted, the supplier shall inform the customer how the incorrect invoice shall be settled. To settle the incorrect invoice, the supplier may either send a credit note to cancel the previously invoice and to generate a correct invoice, or he can settle the difference by using a credit note or a debit note.
<b>Remarks</b>	- The credit note and the debit note are covered by the invoice document.

### **5.3. Business process elaboration – Self-billing invoice**

#### **Scope**

This process details the invoicing process between the supplier and the customer, using the self-billing method of invoicing. In this case, the self-billing invoice is created by the customer, in the name and on behalf of the supplier, and sent to the supplier based on the received or consumed goods and the agreed price conditions.

Based on the conditions agreed, the self-billing invoices are produced by the customer on a regular basis; e.g. weekly, period of 10 days, monthly, using the recorded received goods data held within the customers' receiving control system. Today, this way of invoicing is the most common way used between the automotive industry manufacturers and their suppliers and is beginning to be implemented into other industrial sectors.

Together with the self-billing invoice, the customer raises, if valid, an additional list identifying the open items. These items represent previously received goods which are not yet cleared for payment by the customer. There may be different reasons for the frozen deliveries - quality claims, open price agreements (provisionally or zero-prices) or advance deliveries prior to the due date. This additional list allows the supplier to check for the complete quantity delivered and received.

The self-billing invoice can also cover the functions of a credit note for retrospective price corrections, or for the corrections of discrepancies detected by the supplier in a self-billing invoice.

If the supplier finds something incorrect in the self-billing invoice, he can raise a dispute notice to the customer by using the Commercial dispute message. By means of the dispute notice, the supplier can provide the reason for the discrepancy. The customer can use the dispute notice response to respond with an answer to the supplier, mentioning how the discrepancy will be settled.

The discrepancies are corrected by the raising of an additional self-billing invoice or self-billing credit note.

#### **Definition**

The supplier has the obligation to reconcile the self-billing invoices against the purchase order and the delivered, received or accepted goods. If relevant, the supplier should report to the customer incorrect self-billing invoices.

The customer has the obligation to issue notification of payment and make remittance to the supplier, based on the self-billing invoices.

### 5.3.1. Use case: Self-billing invoice process

The use case for the self-billing invoice process shows which Business collaboration use cases are used to compose the process:

- The treatment of a self-billing invoice
- The treatment and the reconciliation of an incorrect self-billing invoice
- The treatment of the list of open items

For each of the Business collaboration use case a description is provided in this chapter.

#### Use case diagram – Self-billing invoice process

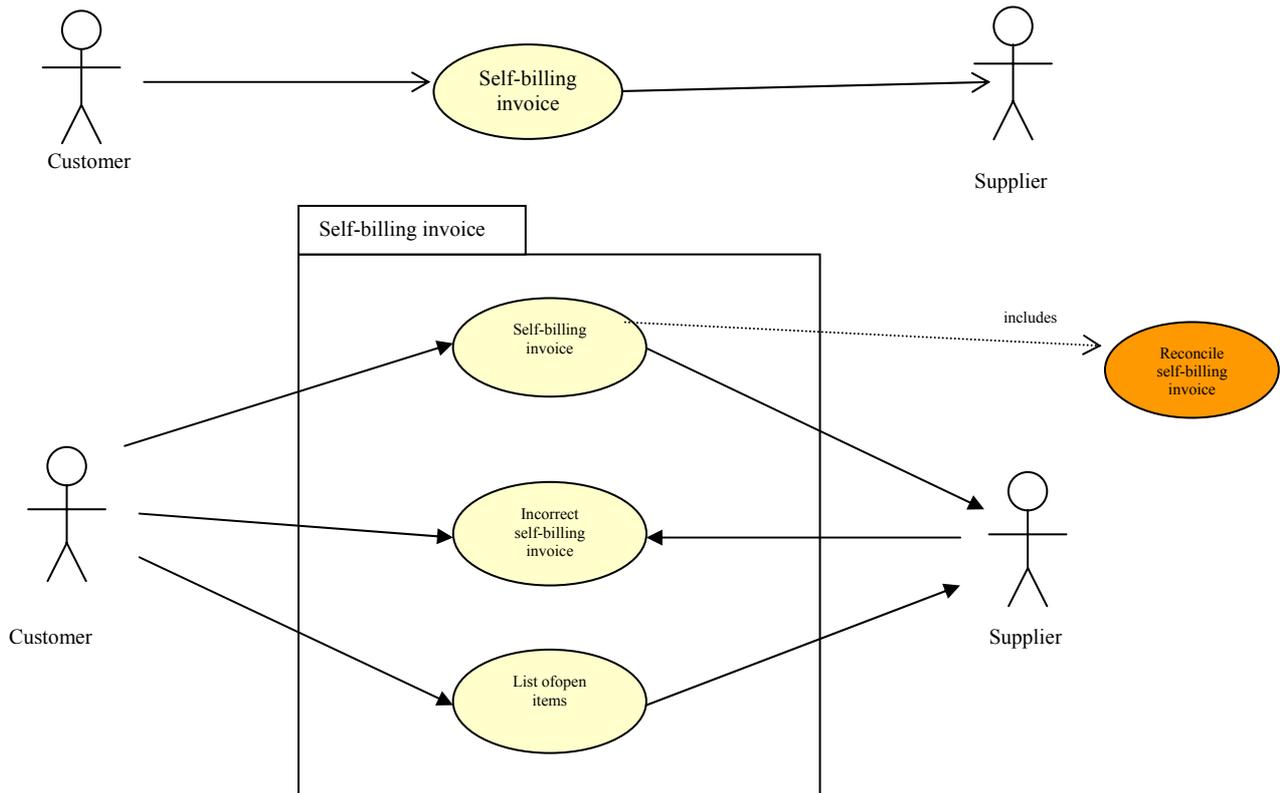


Figure 4 Use Case Diagram – Self-billing invoice process

### 5.3.2. Use case: Self-billing invoice

The use case for the Self-billing invoice has the following business transaction:

- Provide a self-billing invoice.

#### Use case diagram – Self-billing invoice

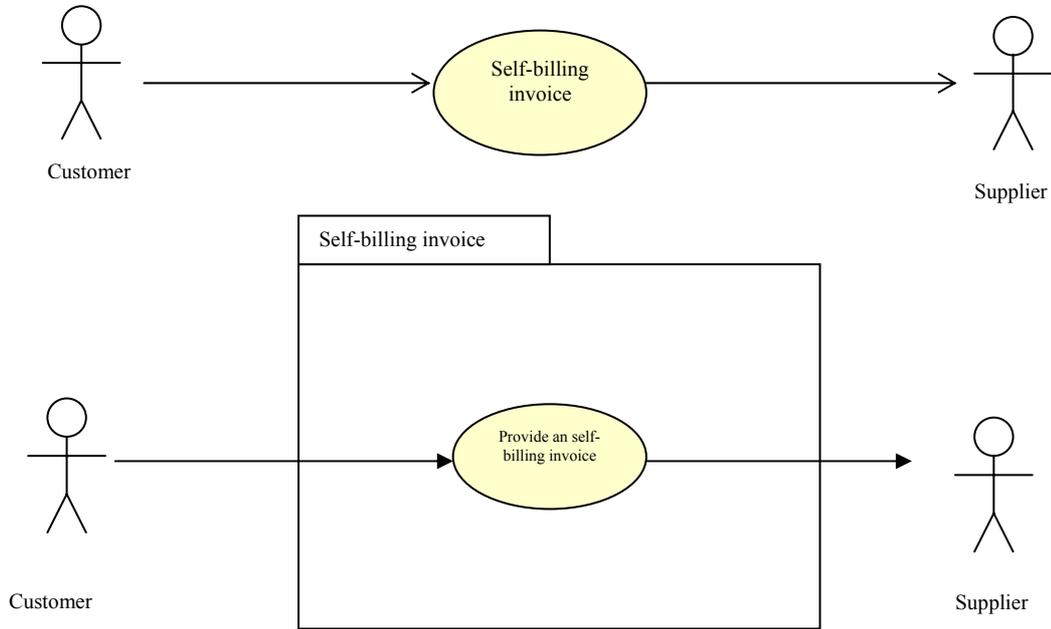


Figure 5 Use Case Diagram – Self-billing invoice

**Use case description – Self-billing invoice**

<b>Business process name</b>	Self-billing invoice
<b>Identifier</b>	Cross industry self-billing invoice
<b>Actors</b>	Customer, Supplier (Optional, additional roles – Invoicee, Invoice issuer)
<b>Description</b>	The customer presents to the supplier, for the received or consumed goods, a detailed statement of trade account payable (invoice). The supplier reconciles the self-billing invoice with the agreed prices and the goods or services rendered.
<b>Pre-condition</b>	Framework Agreement or Contract and order are in place with agreed prices. The supplier has provided goods or services according to the conditions set in the contract and, or order. The customer has received the goods or services.
<b>Post-conditions</b>	Based on the self-billing invoices, the customer should issue the notification for the payments. For incorrect self-billing invoices, the supplier will generate a dispute notice to the customer.
<b>Scenario</b>	Based on the agreed conditions in the contract, order and/ or the delivery schedule or delivery just in time, the supplier will provide goods to the customer. In accordance with the shipping instructions, the goods will be delivered directly to the customer, or to a third party warehouse or to a consignment stock (more details of the different ways are provided in the shipping cycle). Based on the invoicing agreement between the parties, the customer will generate the self-billing invoice for the goods or services, based on the goods received or consumed.  Once the self-billing invoices are received, the supplier checks the invoice with the order and contract information and with the information he has received about the goods received (accepted) or consumed by the customer. If there is any discrepancy found, the supplier shall start the process to treat incorrect self-billing invoices.
<b>Remarks</b>	

### 5.3.3. Use case: Incorrect self-billing invoice

The use case for the incorrect self-billing invoice has the following business transactions:

- To initiate a dispute notice
- To respond to the dispute notice
- To generate the relevant self-billing credit note or invoice to settle the dispute.

#### Use case diagram – Incorrect invoice process

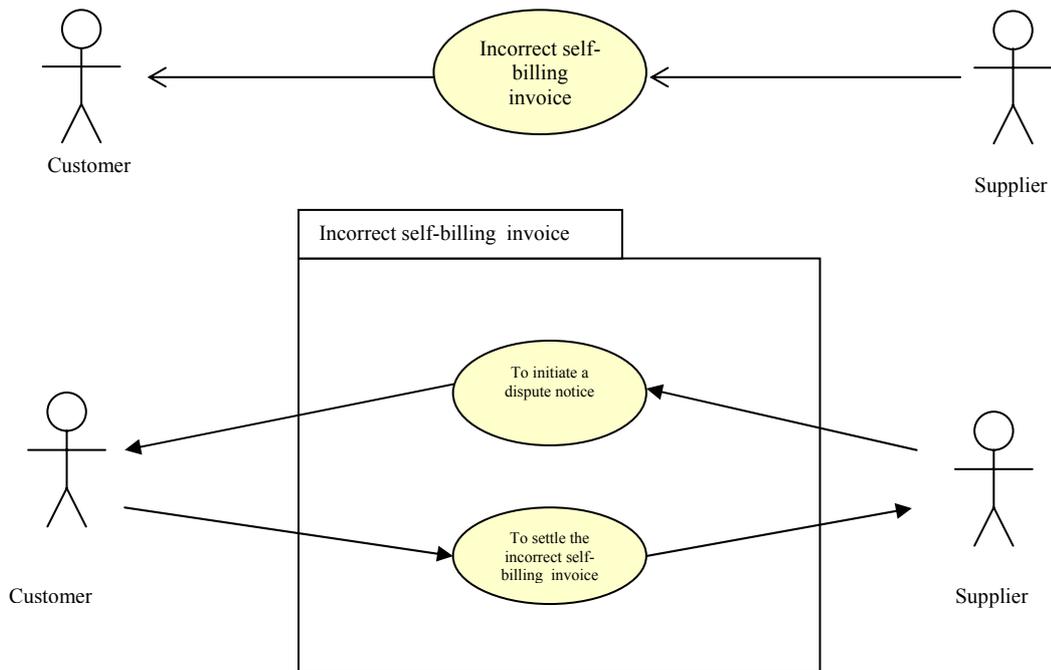


Figure 6 Use Case Diagram – Incorrect self-billing invoice

**Use case description – Incorrect self-billing invoice**

<b>Business process name</b>	Incorrect self-billing invoice
<b>Identifier</b>	Cross industry incorrect self-billing invoice
<b>Actors</b>	Customer, Supplier (Optional, additional roles - Invoicee, Invoice issuer)
<b>Description</b>	The supplier has found, on the self-billing invoice from the customer, a discrepancy between the invoiced goods and the received or consumed goods or between the price conditions applied and the price conditions agreed.
<b>Pre-condition</b>	The supplier received an incorrect self-billing invoice from the customer.
<b>Post-conditions</b>	The customer has accepted the dispute notice raised by the supplier, and the dispute is settled. The customer rejects the dispute notice.
<b>Scenario</b>	The supplier checks the received self-billing invoice with the order and contract information and with the goods accepted (received or consumed) by the customer. If there is any discrepancy found, the supplier shall generate a dispute notice for the customer. On receipt, the customer shall check the dispute notice and shall raise a dispute notice response, to inform the supplier if the dispute notice is accepted or not accepted. When accepted, the customer can inform the supplier how the incorrect self-billing invoice shall be settled. To settle the incorrect self-billing invoice the customer generates a self-billing credit note or self-billing invoice to settle the difference.
<b>Remarks</b>	- The self-billing credit note and the self-billing invoice are covered by the Invoice document.

### 5.3.4. Use case: List of open items

The use case for the list of open items has the following business transaction:

- List of open items

#### Use case diagram – List of open items

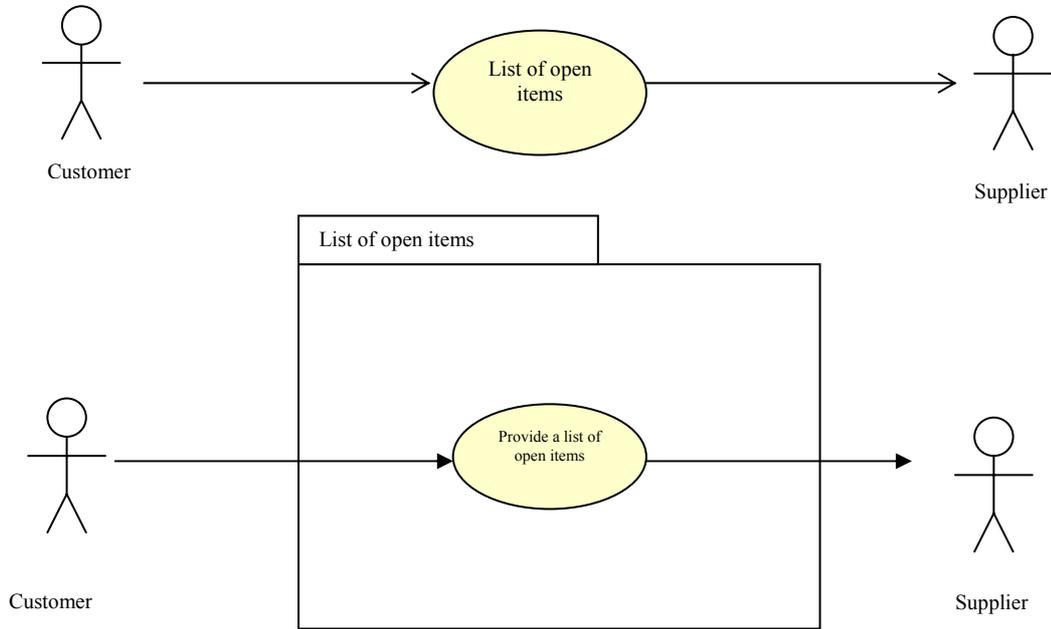


Figure 7 Use Case Diagram – List of open items

**Use case description – List of open items**

<b>Business process name</b>	List of open items
<b>Identifier</b>	Cross industry list of open items
<b>Actors</b>	Customer, Supplier (Optional, additional roles – Invoicee, Invoice issuer)
<b>Description</b>	The customer presents to the supplier a list of open items, for items that were part of a delivery but are not yet cleared for payment. There may be different reasons for this: claims, open price agreements or advance deliveries prior to the due date.
<b>Pre-condition</b>	Framework Agreement or Contract and order are in place with agreed prices. The supplier has provided goods or services according to the conditions set in the contract and, or order. The customer has received the goods or services.
<b>Post-conditions</b>	The supplier is informed of goods for which it is not possible to generate a self-billing invoice.
<b>Scenario</b>	Based on the agreed conditions in the contract, order and/ or the delivery schedule or delivery just in time, the supplier will provide goods to the customer. In accordance with the shipping instructions, the goods will be delivered directly to the customer, or to a third party warehouse or to a consignment stock (more details of the different ways are provided in the shipping cycle). Based on the agreement of the point of invoicing between the parties, the customer will generate the self-billing invoice for the goods or services, based on the goods received or consumed. During the process of the self-billing invoice, the customer detects that, due to missing information, some received goods cannot be invoiced. For these goods, the customer will provide a list of open items.
<b>Remarks</b>	

## 5.4. Information flow definition - Traditional or suppliers' initiated invoice

For each of the use cases mentioned in chapter 5.2., the corresponding activity diagrams are presented.

### 5.4.1. Activity diagram: Traditional invoice

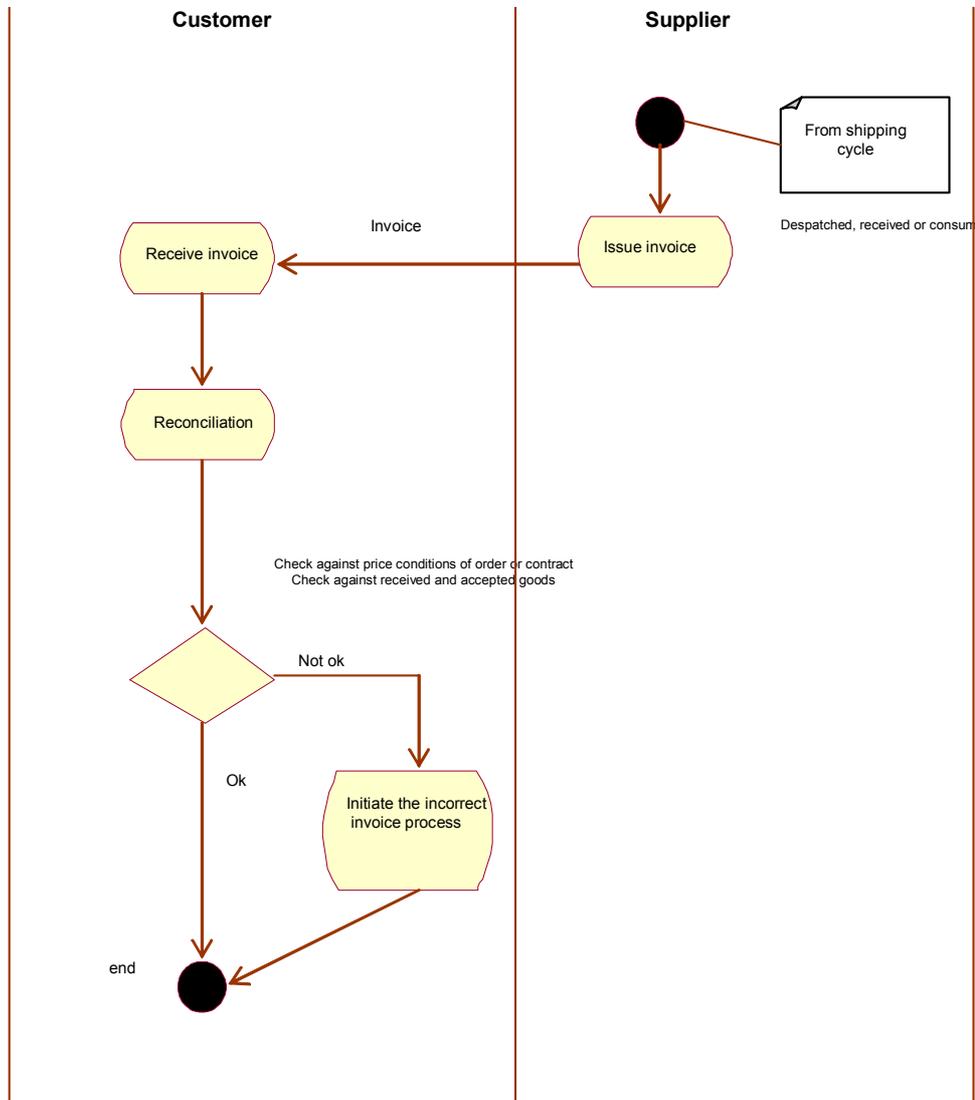


Figure 8. Activity Diagram – Traditional invoice

## Activity diagram description – Traditional invoice

Based on the conditions agreed between the customer and supplier, the supplier shall initiate the invoicing of goods delivered. The point of invoicing is one of the following triggers:

- **Before the shipment of the goods:**  
The preparation of a consignment, based on the shipment instructions for the pro-forma invoice. The invoice is created based on the consignment, before the shipment takes place, because the invoice should be used for customs clearance.
- **Based on the despatched goods:**  
The invoice is created after the shipment of the goods and is based on the goods present in the consignment. This is the normal case for direct delivery of goods from the supplier to the customer.
- **Based on the received goods:**  
The invoice is created based on the information of the received goods, from the customer or a third party service provider. This is the normal case when a third party warehouse is used between the supplier and the customer. In this case, the supplier should receive the information of the goods delivered from the warehouse and received by the customer. This case can also be agreed between the customer and the supplier for direct delivery.
- **Based on the consumed goods:**  
The invoice is created based on the information of the consumed goods, from the customer. This is the normal case when an agreement exists between the customer and the supplier to use a consignment stock, being located in the customers' warehouse. In this case, the goods can be invoiced when they are taken out of the consignment stock.

The supplier sends the invoice to the customer. When the customer receives the invoice, he checks the price conditions applied, against the price conditions agreed and specified in the contract or order. The customer also checks the goods invoiced against the goods received and accepted. If no discrepancies are detected, the invoice is accepted and will be submitted to the payment administration.

If there is any discrepancy detected by customer, the customer should initiate the incorrect invoice procedure, to advise the supplier by a non-conformity notification and corrective action has to take place.

5.4.2. Activity diagram: Incorrect invoice

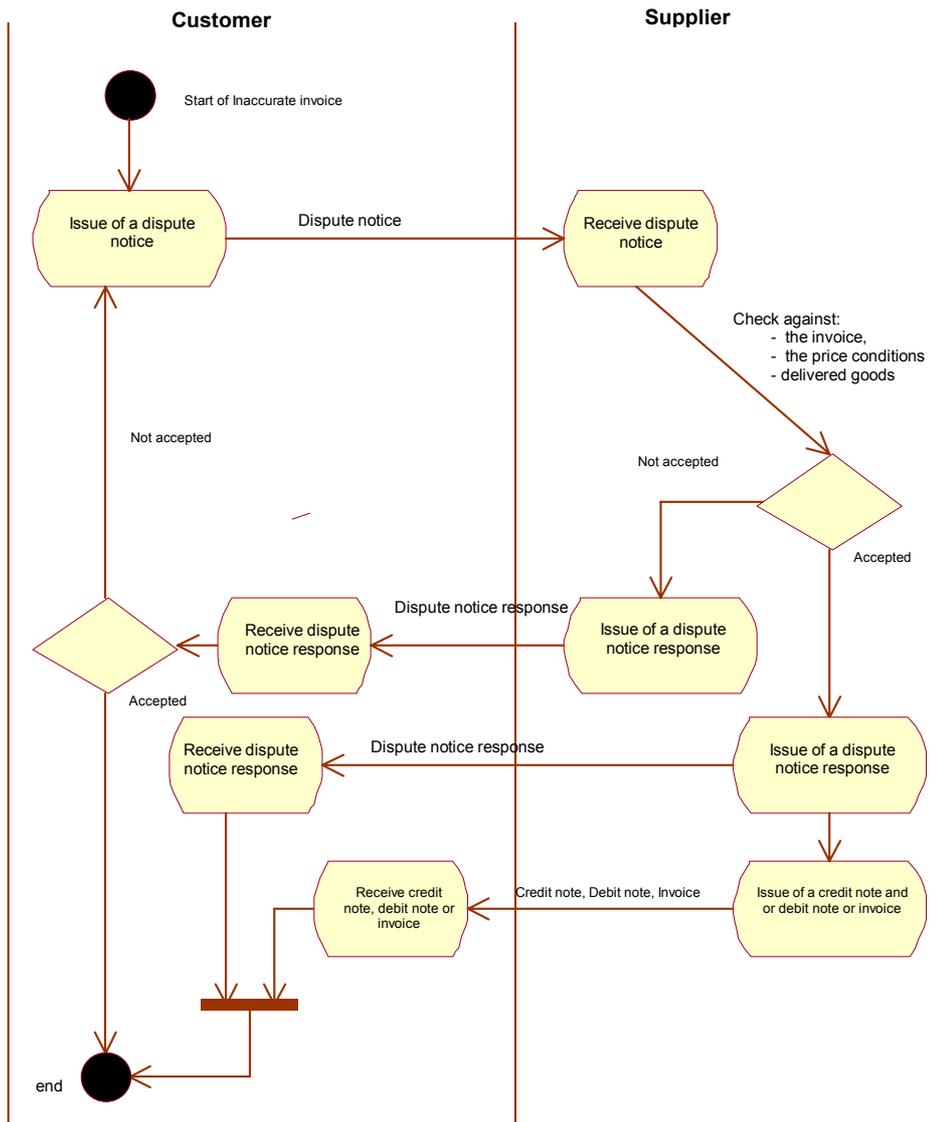


Figure 9. Activity Diagram – Incorrect invoice

## **Activity diagram description – Incorrect invoice**

If there are any discrepancies detected in the invoice, the customer initiates the incorrect invoice procedure by raising a dispute notice. By this dispute notice, he informs the supplier about the discrepancies found and can propose the relevant corrective action to be taken by the supplier. When the supplier receives the dispute notice, he checks the non-conformity notification with his information concerning the invoice, the price conditions and the delivered goods.

Based on his findings, the supplier shall accept or not accept the dispute notice and the corrective action proposed. If the dispute notice is not accepted, the supplier shall raise a dispute notice response to the customer, mentioning the reason for non-acceptance and/ or propose another corrective action. On receipt of the dispute notice response, the customer shall, after evaluation of the response, raise a new dispute notice containing a new proposal or to confirm the acceptance of the proposal made by the supplier in the dispute notice response.

If the dispute notice is accepted, the supplier shall raise a dispute notice response to inform the customer and shall take the corrective actions. To resolve an incorrect invoice, the supplier has the option to cancel the incorrect invoice by using a credit note and to generate the correct invoice, or he can raise a credit note or debit note for the difference between the amount of the incorrect invoice and correct amount. On receipt of the dispute notice and the credit note, debit note and or invoice, the customer shall check them against the dispute notice initiated by him.

5.4.3. Business collaboration diagram: Traditional invoice

<b>Business Collaboration</b>	
<b>Identifier</b>	Cross industry traditional invoice
<b>Description</b>	The supplier raises and sends an invoice to the customer. When the customer receives the invoice, he checks the invoice against the price conditions and the invoiced goods against the received and accepted goods. If the invoice is correct, the invoice is accepted and submitted to the payment administration. If there is any discrepancy detected, the customer shall initiate the incorrect invoice process.
<b>Partner Types</b>	Customer Supplier
<b>Authorized Roles</b>	Customer (Customer's agent, Buyer or Buyer's agent, Invoicee) Supplier (Supplier's agent, Seller or Seller's agent, Invoice issuer)
<b>Legal Steps/Requirements</b>	None
<b>Economic Consequences</b>	None
<b>Initial/Terminal Events</b>	<ul style="list-style-type: none"> <li>• Initial: the supplier sends the invoice</li> <li>• Terminal: the customer accepts the invoice or initiates the incorrect invoice process</li> </ul>
<b>Scope</b>	To request payment for the ordered and delivered goods.
<b>Boundary</b>	Not defined yet
<b>Constraints</b>	The supplier shall have full traceability of his invoice, to make sure it has been received. Failing this technical acknowledgement, the supplier shall re-issue his invoice message

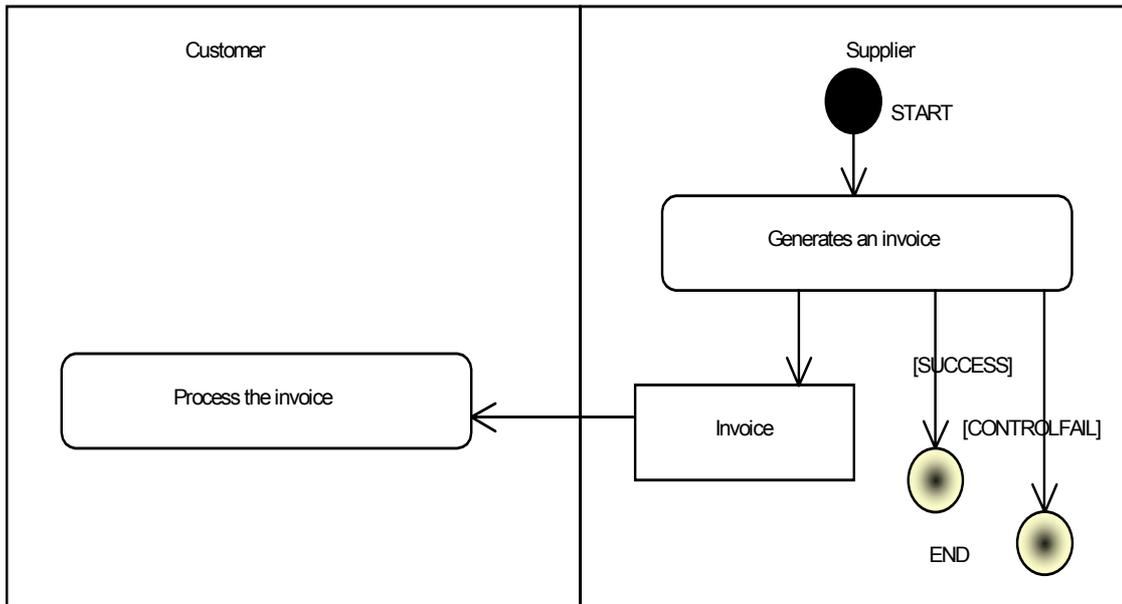


Figure 10. Business transaction activity graph – Traditional invoice

5.4.3. Business collaboration diagram: Incorrect invoice

<b>Business Collaboration</b>	
<b>Identifier</b>	Cross industry incorrect invoice
<b>Description</b>	The customer raises and sends a dispute notice to the supplier to report any discrepancy in an invoice. When the supplier receives the dispute notice, he checks the referred invoice with the price conditions and the invoiced goods with the delivered goods. Based on his findings, he raises and sends a dispute notice response, to reject the dispute notice or to propose another settlement, or he raises and sends a dispute notice response together with a credit note, debit note and/ or invoice to settle the incorrect invoice.
<b>Partner Types</b>	Customer Supplier
<b>Authorized Roles</b>	Customer (Customer's agent, Buyer or Buyer's agent, Invoicee) Supplier (Supplier's agent, Seller or Seller's agent, Invoice issuer)
<b>Legal Steps/Requirements</b>	None
<b>Economic Consequences</b>	None
<b>Initial/Terminal Events</b>	<ul style="list-style-type: none"> <li>• Initial: the customer sends a dispute notice</li> <li>• Terminal: the incorrect invoice is settled, or the supplier propose another settlement</li> </ul>
<b>Scope</b>	To settle any discrepancy in the invoice.
<b>Boundary</b>	Not defined yet
<b>Constraints</b>	The customer shall have full traceability of his dispute notice, to make sure it has been received. Failing this technical acknowledgement, the customer shall re-issue his dispute notice

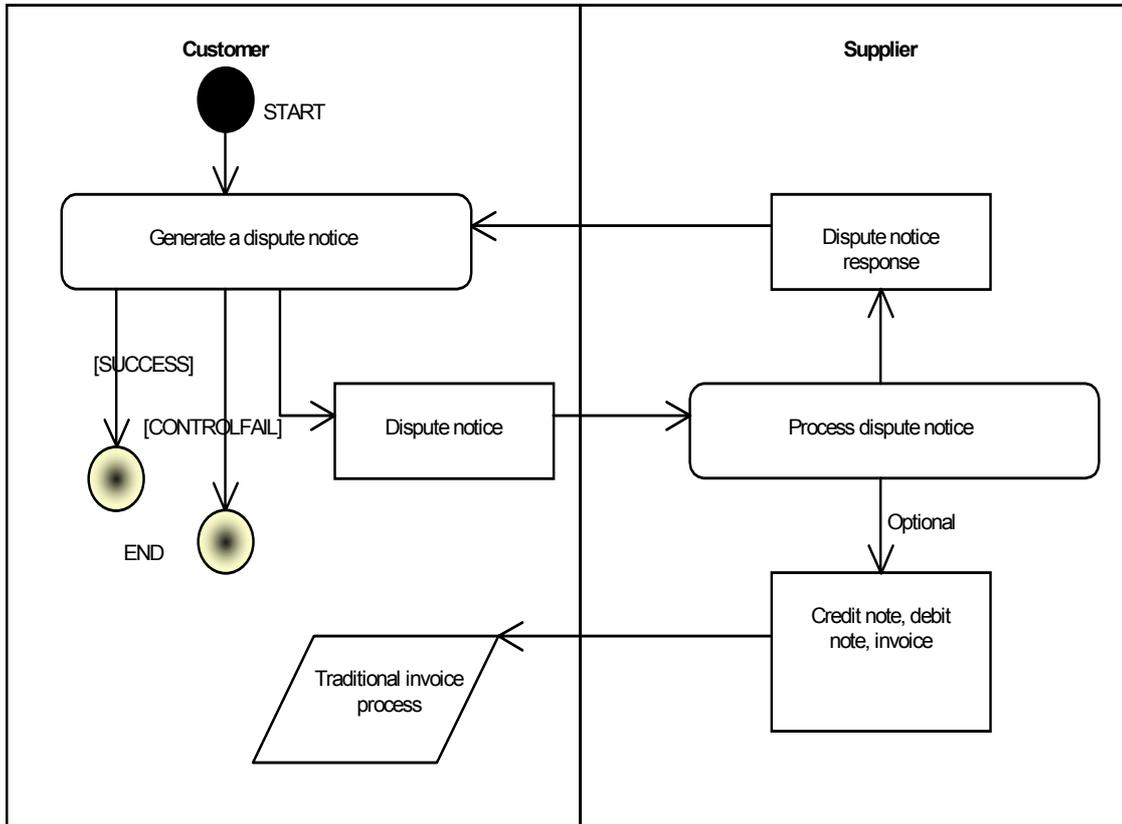


Figure 11. Business transaction activity graph – Incorrect invoice

## 5.5. Information flow definition – Self-billing invoice

For each of the use cases mentioned in chapter 5.3., the corresponding activity diagrams are presented.

### 5.5.1. Activity diagram: Self-billing invoice

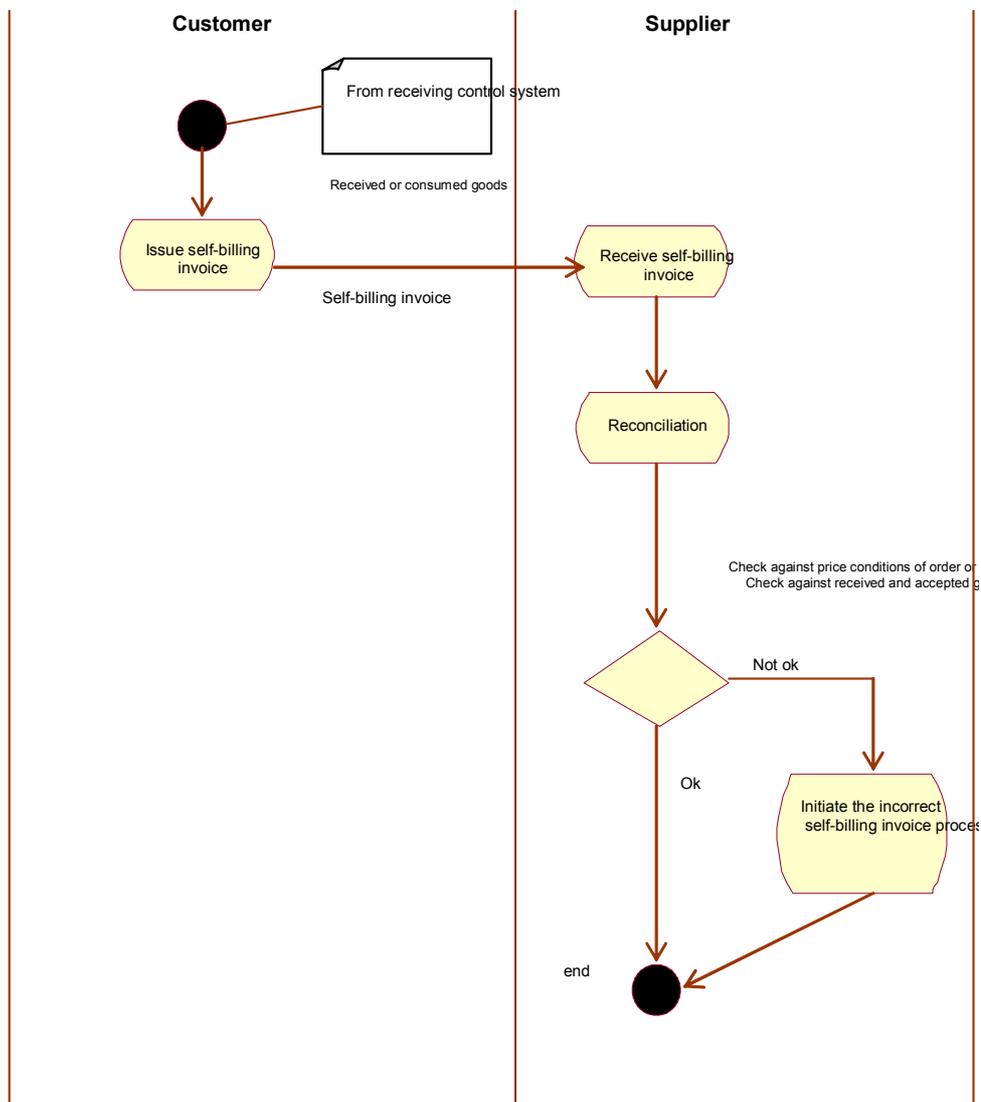


Figure 12. Activity Diagram – Self-billing invoice

## Activity diagram description – Self-billing invoice

Based on the conditions agreed between the customer and supplier, the customer shall initiate the self-billing invoicing of goods or services received or consumed. The point of invoicing is one of the following triggers:

- **Based on the received goods:**

The invoice is created, based on the information of the received goods from the customers' receiving control system. Depending on the customers' system, additional information from the supplier or warehouse (e.g. despatch advice) may be needed to create the self-billing invoice. This is the normal case when a third party warehouse is used between the supplier and the customer. In this case, the supplier should receive the information of the goods delivered from the warehouse and received by the customer.

This case can also be agreed between the customer and the supplier for direct delivery.

- **Based on the consumed goods:**

The invoice is created, based on the information of the consumed goods from the customers' production control system. This is the normal case when an agreement exists between the customer and the supplier to use a consignment stock, being located in the customers' warehouse.

In this case, the goods can be invoiced when they are taken out of the consignment stock.

The customer sends the self-billing invoice to the supplier. When the supplier receives the self-billing invoice, he checks the price conditions that have been applied against the price conditions agreed and specified in the contract or order. The supplier also checks the goods invoiced against the goods delivered, or received and accepted. If no discrepancies are detected, the invoice is accepted and will be submitted to the accounting administration.

If there is any discrepancy detected by the supplier, the supplier should initiate the incorrect self-billing invoice procedure, to advise the customer by a non-conformity notification and corrective action has to take place.

5.5.2. Activity diagram: Incorrect self-billing invoice

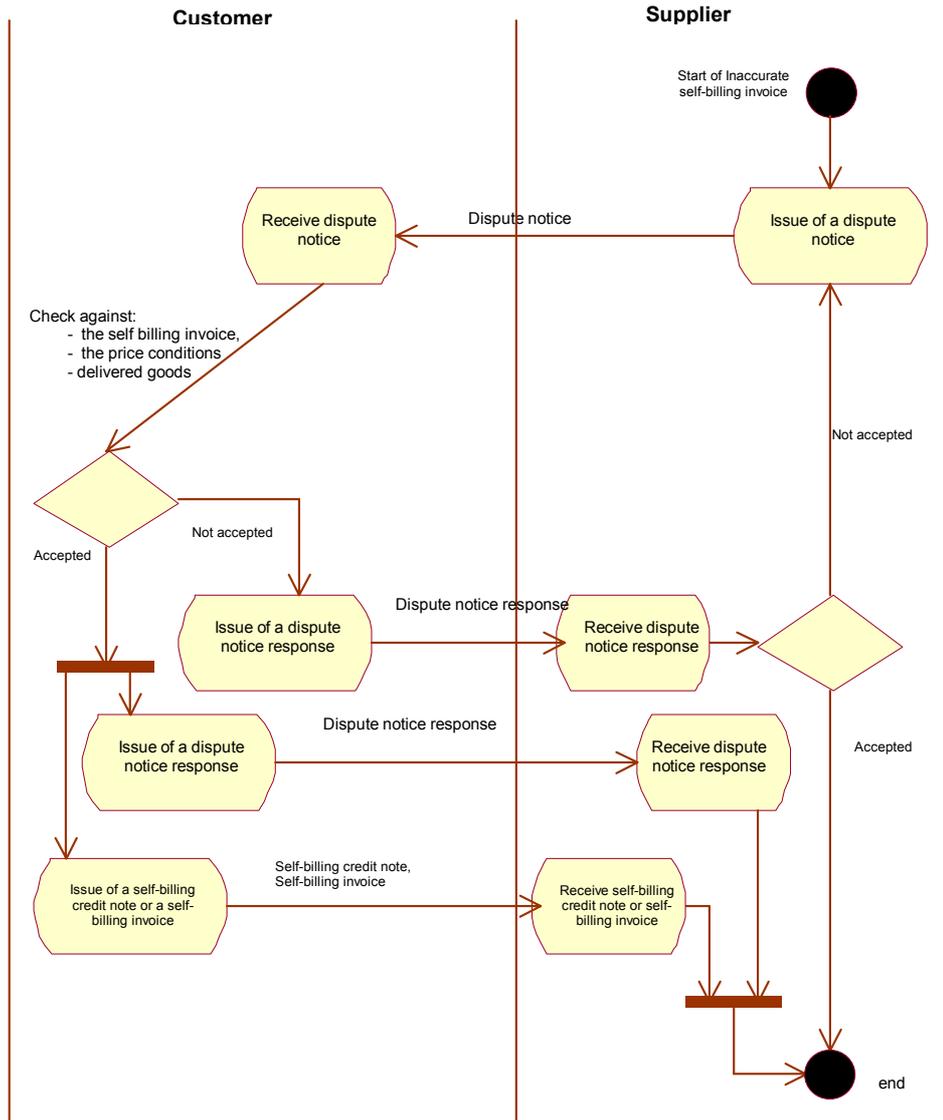


Figure 13. Activity Diagram – Incorrect self-billing invoice

## **Activity diagram description – Incorrect self-billing invoice**

If there is any discrepancy detected in the invoice, the supplier initiates the incorrect self-billing invoice procedure by raising a dispute notice. By using this dispute notice, he informs the customer about the discrepancies found and can propose the relevant corrective action to be taken by the customer.

When the customer receives the dispute notice, he checks the dispute notice with his information concerning the self-billing invoice, the price conditions and the delivered goods.

Based on his findings, the customer shall accept or reject the dispute notice and the corrective action proposed. If the dispute notice is rejected, the customer shall raise a dispute notice response to the supplier, giving the reason for non-acceptance and /or propose another corrective action. On receipt of the dispute notice response, the supplier shall, after evaluation of the response, raise a new dispute notice containing a new proposal, or to confirm the acceptance of the proposal made by the customer in the dispute notice response.

If the dispute notice is accepted, the customer can raise a dispute notice response to inform the supplier and shall take the corrective actions. To correct an incorrect self-billing invoice, the customer raises a self-billing credit note, or a self-billing invoice, to settle the difference. On receipt of the dispute notice response and the self-billing credit note or self-billing invoice, the supplier shall check them against the dispute notice initiated by him.

### 5.5.3. Activity diagram: List of open items

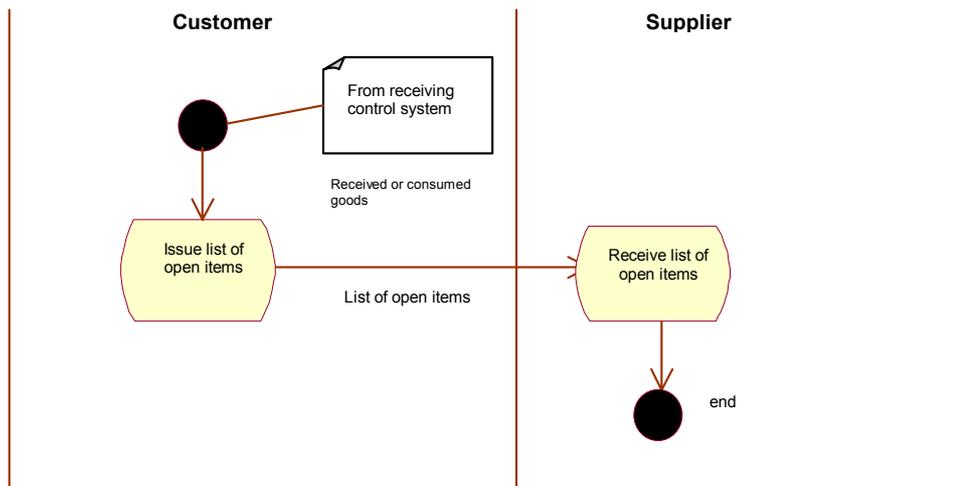


Figure 14. Activity Diagram – List of open items

#### Activity diagram description – List of open items

During the self-billing invoice process, the customer detects that there are some received goods for which he is not able to generate the self-billing invoice. To inform the supplier of these goods, the customer shall issue a list of open items, giving the reason for not being able to self-bill. This information is sent, together with the self-billing invoice, to inform the supplier and to allow the reconciliation of the self-billing invoice. On receipt of the list of open items, the supplier will take this list into account during the check of the self-billing invoice.

**5.5.4. Business collaboration diagram: Self-billing invoice**

<b>Business Collaboration</b>	
<b>Identifier</b>	Cross industry self-billing invoice
<b>Description</b>	The customer raises and sends a self-billing invoice to the supplier. When the supplier receives the self-billing invoice, he checks the invoice against the price conditions and the invoiced goods against the delivered or received or consumed goods. If the self-billing invoice is correct, the invoice is accepted and submitted to the accounting administration. If there is any discrepancy detected, the supplier shall initiate the incorrect self-billing invoice process.
<b>Partner Types</b>	Customer Supplier
<b>Authorized Roles</b>	Customer (Customer's agent, Buyer or Buyer's agent, Invoicee) Supplier (Supplier's agent, Seller or Seller's agent)
<b>Legal Steps/Requirements</b>	None
<b>Economic Consequences</b>	None
<b>Initial/Terminal Events</b>	<ul style="list-style-type: none"> <li>• Initial: the customer sends the self-billing invoice</li> <li>• Terminal: the supplier accepts the self-billing invoice or initiates the incorrect self-billing invoice process</li> </ul>
<b>Scope</b>	To request payment for the ordered and delivered goods.
<b>Boundary</b>	Not defined yet
<b>Constraints</b>	The customer shall have full traceability of his self-billing invoice to make sure it has been received. Failing this technical acknowledgement, the customer shall re-issue his invoice message

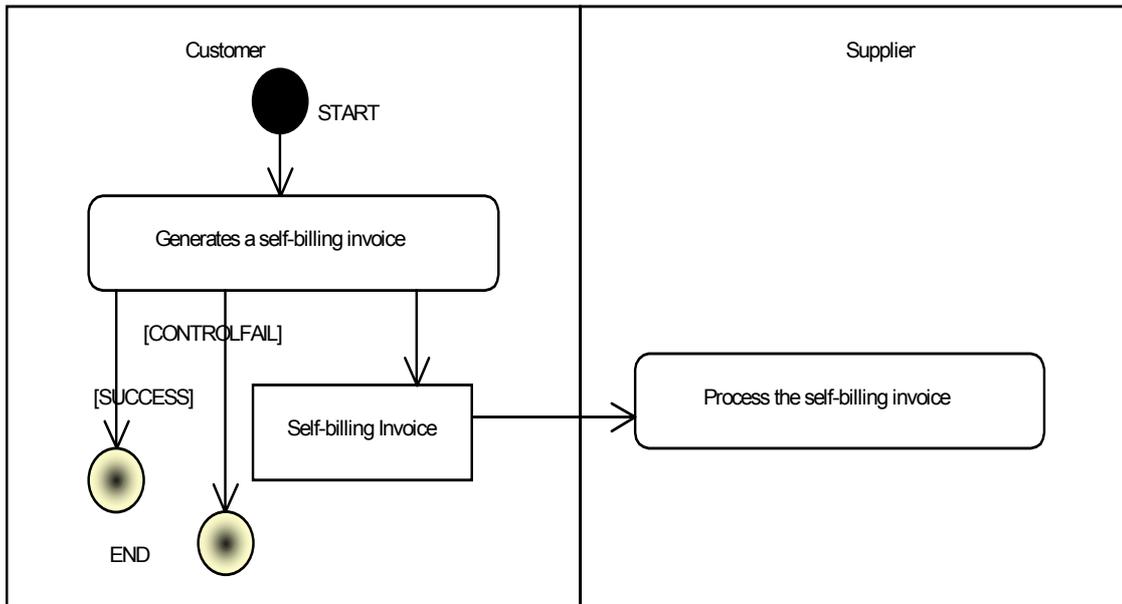


Figure 15. Business transaction activity graph – Self-billing invoice

5.5.5. Business collaboration diagram: Incorrect self-billing invoice

<b>Business Collaboration</b>	
<b>Identifier</b>	Cross industry incorrect self-billing invoice
<b>Description</b>	The supplier raises and sends a dispute notice to the customer, to report any discrepancy in a self-billing invoice. When the customer receives the dispute notice, he checks the referred self-billing invoice with the price conditions and with the delivered goods. Based on his findings, he raises and sends a dispute notice response to reject the dispute notice or to propose another settlement, or he raises and sends a dispute notice response, together with a self-billing credit note or a self-billing invoice, to settle the difference.
<b>Partner Types</b>	Customer Supplier
<b>Authorized Roles</b>	Customer (Customer's agent, Buyer or Buyer's agent, Invoicee) Supplier (Supplier's agent, Seller or Seller's agent)
<b>Legal Steps/Requirements</b>	None
<b>Economic Consequences</b>	None
<b>Initial/Terminal Events</b>	<ul style="list-style-type: none"> <li>• Initial: the supplier sends a dispute notice</li> <li>• Terminal: the incorrect self-billing invoice is settled, or the customer propose another settlement</li> </ul>
<b>Scope</b>	To settle any discrepancy in the self-billing invoice.
<b>Boundary</b>	Not defined yet
<b>Constraints</b>	The supplier shall have full traceability of his dispute notice to make sure it has been received. Failing this technical acknowledgement, the supplier shall re-issue his dispute notice

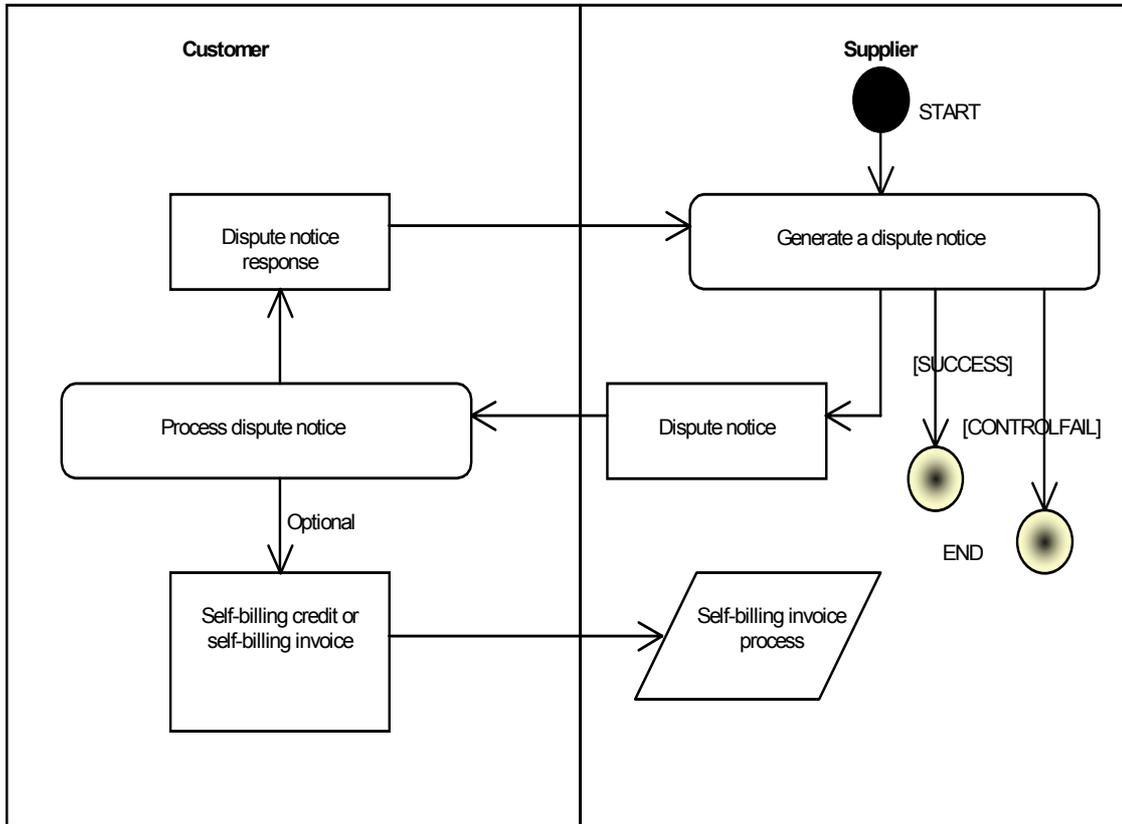


Figure 16. Business transaction activity graph – Incorrect self-billing invoice

**5.5.6. Business collaboration diagram: List of open items**

<b>Business Collaboration</b>	
<b>Identifier</b>	Cross industry list of open items
<b>Description</b>	The customer raises and sends a list of open items to the supplier. When the supplier receives the list of open items, he can take the list in account during the checking of the self-billing invoice.
<b>Partner Types</b>	Customer Supplier
<b>Authorized Roles</b>	Customer (Customer's agent, Buyer or Buyer's agent, Invoicee) Supplier (Supplier's agent, Seller or Seller's agent)
<b>Legal Steps/Requirements</b>	None
<b>Economic Consequences</b>	None
<b>Initial/Terminal Events</b>	<ul style="list-style-type: none"> <li>• Initial: the customer sends the list of open items</li> <li>• Terminal: the supplier accepts the list of open items</li> </ul>
<b>Scope</b>	To inform the supplier of goods received not invoiced
<b>Boundary</b>	Not defined yet
<b>Constraints</b>	The customer shall have full traceability of his list of open items. Failing this technical acknowledgement, the customer shall re-issue his list of open items

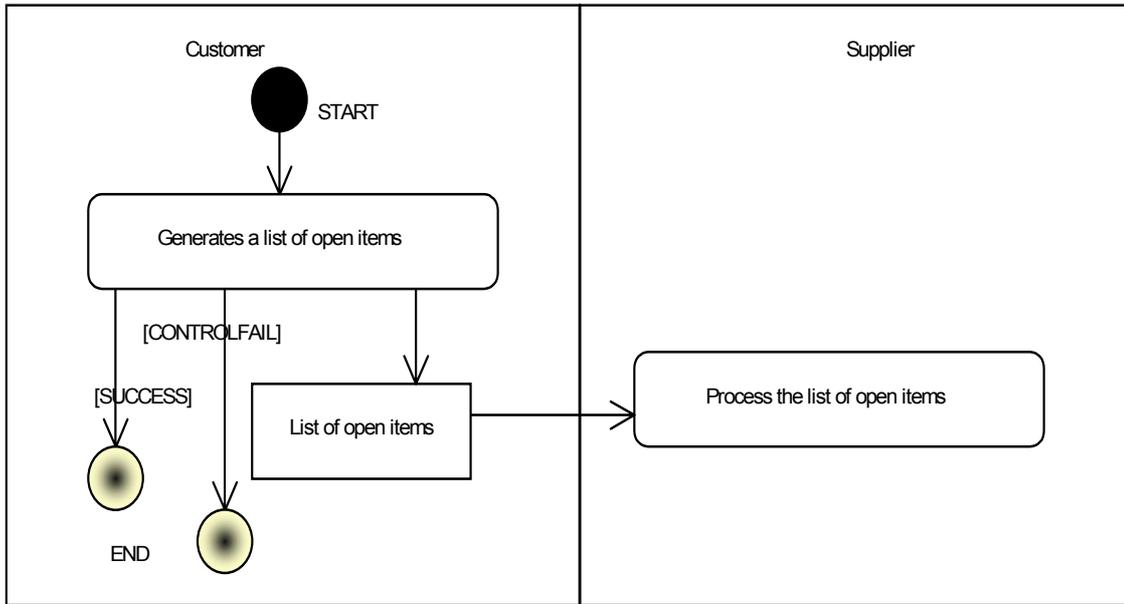


Figure 17. Business transaction activity graph – List of open items

## 5.6. Information model definition – Invoice (Class diagram)

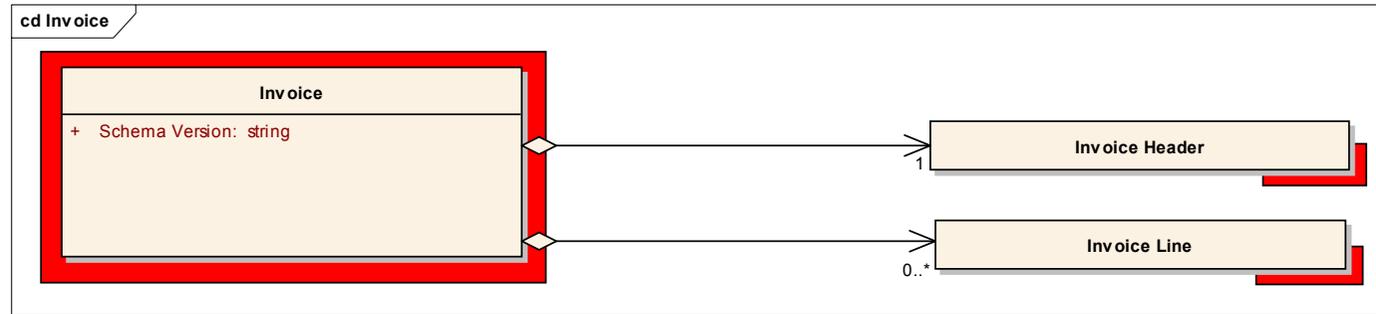


Figure 1: Invoice

### Invoice

Description: A message claiming payment for goods or services supplied under conditions agreed between the seller and the buyer. The invoice details references, terms of delivery, payment, identification of goods and services, quantities, prices and currencies, conditions, taxes and items being invoiced.

Mult.	Business term	Rel.	Type	BIE name	Description
1	Schema version	Att.	string		Business document version number.
1	Invoice header	Ass.	<a href="#">Invoice header</a>		The entity contains the general information about an invoice, a debit note or credit note, such as the number, date and the relevant monetary amounts.
1..*	Invoice line	Ass.	<a href="#">Invoice line</a>		The entity contains, for an invoice item, the relevant weights, invoiced quantities and monetary amounts.

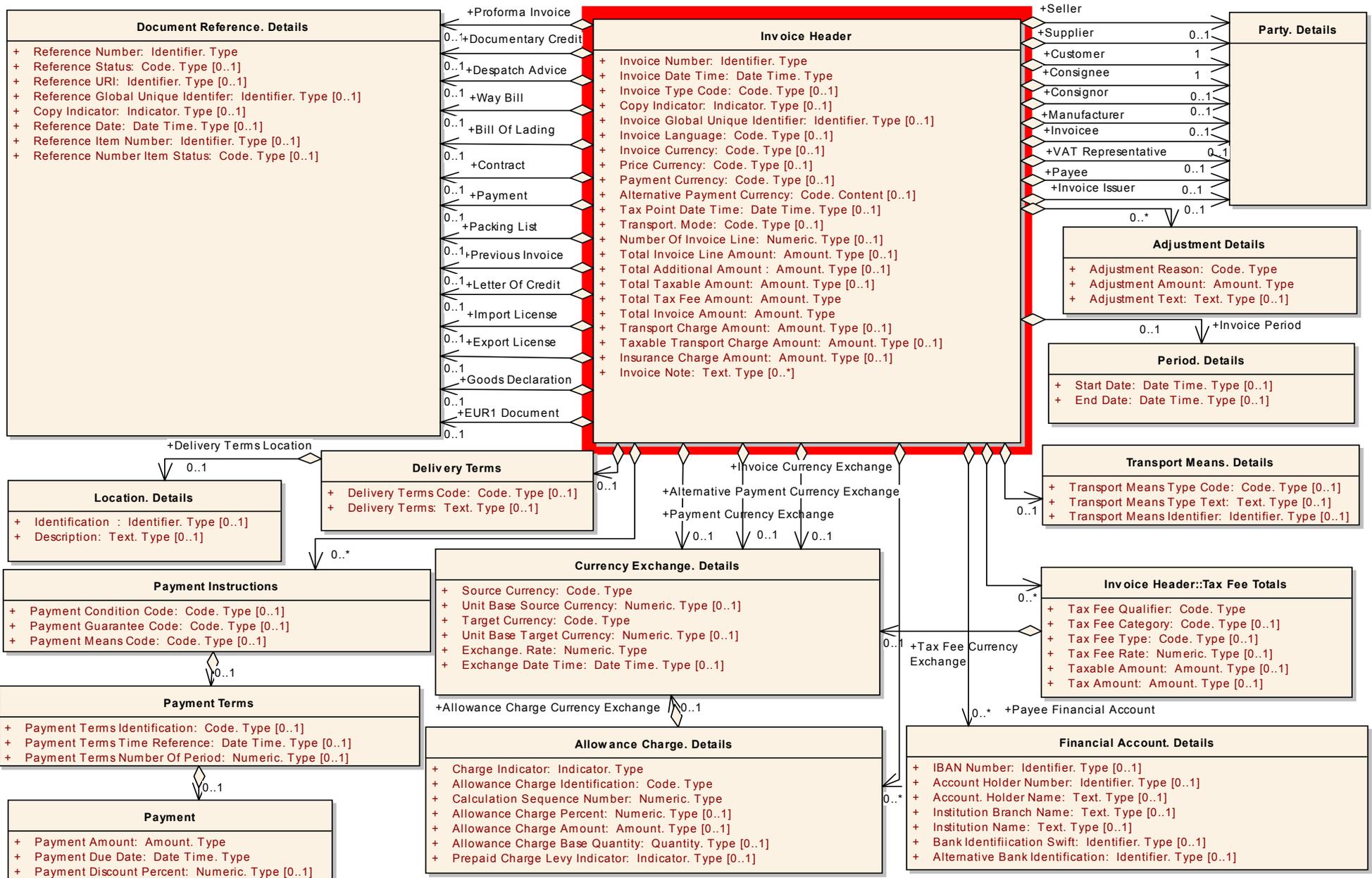


Figure 2: Invoice header

## **Invoice header**

Description: The entity contains the general information about an invoice, a debit note or credit note, such as the number, date and the relevant monetary amounts.

<b>Mult.</b>	<b>Business term</b>	<b>Rel.</b>	<b>Type</b>	<b>BIE Name</b>	<b>Description</b>
1	Invoice number	Att.	Identifier		The unique number assigned by the issuer to identify an invoice.
1	Invoice date time	Att.	Date Time		The date/time when the invoice is issued.
0..1	Invoice type code	Att.	Code		The code specifying the invoice type (e.g. invoice, debit note, credit note).
0..1	Copy indicator	Att.	Indicator		The indicator that the invoice is a copy of an original invoice.
0..1	Invoice Global unique identifier	Att.	Identifier		The Global unique identifier (GUID) of the invoice.
0..1	Invoice language	Att.	Code		The code specifying the language of the free text of the invoice.
0..1	Invoicing currency	Att.	Code		The coded identifier of the monetary unit used for invoice line amounts and invoice total amounts.
0..1	Price currency	Att.	Code		The coded identifier of the monetary unit used for the price.
0..1	Payment currency	Att.	Code		The coded identifier of the monetary unit to be used for the payment of an invoice.
0..1	Alternative payment currency	Att.	Code		The coded identifier of the monetary unit to be used as an alternate currency for the payment of an invoice.
0..1	Tax point date time	Att.	Date Time		The date on which the supply of goods or services was made / completed for VAT purposes, or the date on which any payment on account was made, where this date can be determined and differs from the issue date of the invoice.
0..1	Transport mode	Att.	Code		The code specifying the mode of transport.
0..1	Number of invoice lines	Att.	Numeric		The number of invoice lines.
0..1	Total invoice line amount	Att.	Amount		The sum of all invoice lines amounts, including all allowances and charges related to the invoice line before tax or fee.
0..1	Total invoice additional amount	Att.	Amount		The sum of all allowances and charges at the invoice header level before tax or fee.
0..1	Total taxable amount	Att.	Amount		The total amount subject to tax or fee.
1	Total tax fee amount	Att.	Amount		The sum of all tax and fee amounts.
1	Total invoice amount	Att.	Amount		The total amount of the invoice, being the sum of total invoice line amount, total invoice additional amount and total tax fee amount.
0..1	Transport charge amount	Att.	Amount		The amount including tax charged by shipper for moving goods, by whatever means, from one place to another.
0..1	Taxable transport charge amount	Att.	Amount		The amount before tax charged by shipper for moving goods, by whatever means, from one place to another.

<b>Mult.</b>	<b>Business term</b>	<b>Rel.</b>	<b>Type</b>	<b>BIE Name</b>	<b>Description</b>
0..1	Insurance charge amount	Att.	Amount		The amount of premium payable to the insurance company to insure the goods.
0..1	Invoice note	Att.	Text		The free text information related to the complete invoice.
0..1	Invoicing currency exchange	Ass.	<a href="#">Currency Exchange. Details</a>		The exchange rate used for the conversion of the invoicing currency from a source currency.
0..1	Payment currency exchange	Ass.	<a href="#">Currency Exchange. Details</a>		The exchange rate used for the conversion of the payment currency from a source currency.
0..1	Alternative payment currency exchange	Ass.	<a href="#">Currency Exchange. Details</a>		The exchange rate used for the conversion of the alternative payment currency from a source currency.
0..1	Invoicing period	Ass.	<a href="#">Period. Details</a>		The accounting period of the invoice.
0..*	Invoice adjustment	Ass.	<a href="#">Adjustment. Details</a>		The entity to identify the adjustment reason for the credit note, debit note or invoice.
0..1	Seller	Ass.	<a href="#">Party. Details</a>		The entity contains the details of the seller.
1	Supplier	Ass.	<a href="#">Party. Details</a>		The entity contains the details of the supplier.
1	Customer	Ass.	<a href="#">Party. Details</a>		The entity contains the details of the customer.
0..1	Consignee	Ass.	<a href="#">Party. Details</a>		The entity contains the details of the consignee.
0..1	Consignor	Ass.	<a href="#">Party. Details</a>		The entity contains the details of the consignor.
0..1	Manufacturer	Ass.	<a href="#">Party. Details</a>		The entity contains the details of the manufacturer.
0..1	Invoicee	Ass.	<a href="#">Party. Details</a>		The entity contains the details of the invoicee.
0..1	VAT representative	Ass.	<a href="#">Party. Details</a>		The entity contains the details of the VAT representative.
0..1	Payee	Ass.	<a href="#">Party. Details</a>		The entity contains the details of the payee.
0..1	Invoice issuer	Ass.	<a href="#">Party. Details</a>		The entity contains the details of the invoice issuer.
0..*	Financial institution	Ass.	<a href="#">Financial Account. Details</a>		The entity contains the details of the financial institution and the account holder name and account number of the payee.
0..1	Pro-forma invoice reference	Ass.	<a href="#">Document Reference. Details</a>		The unique identifier assigned by the issuer to a pro-forma invoice.
0..1	Documentary credit reference	Ass.	<a href="#">Document Reference. Details</a>		The unique identifier assigned by the issuing bank to a Documentary credit.
0..1	Despatch advice reference	Ass.	<a href="#">Document Reference. Details</a>		The unique identifier given by the consignor to identify a despatch advice.
0..1	Way bill reference	Ass.	<a href="#">Document Reference. Details</a>		The unique identifier assigned by the issuer to a Way bill
0..1	Bill of lading reference	Ass.	<a href="#">Document Reference. Details</a>		The unique identifier assigned by the issuer to a bill of lading.
0..1	Contract reference	Ass.	<a href="#">Document Reference. Details</a>		The unique identifier assigned to a Contract concluded between buyer and seller.
0..1	Payment reference	Ass.	<a href="#">Document Reference. Details</a>		The unique identifier assigned to a payment.
0..1	Packing list reference	Ass.	<a href="#">Document Reference. Details</a>		The unique identifier given by the consignor to identify a packing list.

<b>Mult.</b>	<b>Business term</b>	<b>Rel.</b>	<b>Type</b>	<b>BIE Name</b>	<b>Description</b>
0..1	Previous invoice reference	Ass.	<a href="#">Document Reference. Details</a>		The unique identifier assigned by the issuer to a previous invoice.
0..1	Letter of credit reference	Ass.	<a href="#">Document Reference. Details</a>		The unique identifier assigned to a letter of credit.
0..1	Import license reference	Ass.	<a href="#">Document Reference. Details</a>		The unique identifier assigned by the issuing authority to an import license.
0..1	Export license reference	Ass.	<a href="#">Document Reference. Details</a>		The unique identifier assigned by the issuing authority to an export license.
0..1	Goods declaration reference	Ass.	<a href="#">Document Reference. Details</a>		The unique identifier assigned or accepted by Customs, to identify a Goods declaration.
0..1	EUR1 document reference	Ass.	<a href="#">Document Reference. Details</a>		The unique identifier assigned or accepted by Customs, to identify a EUR1 document.
0..1	Delivery terms	Ass.	<a href="#">Delivery Terms</a>		The entity contains the details of the delivery terms and the place if relevant for the delivery terms.
0..1	Transport means	Ass.	<a href="#">Transport Means. Details</a>		The entity contains the identification of the means of transport (e.g. license plate of the lorry, wagon number, name of the vessel).
0..1	Payment instructions	Ass.	<a href="#">Payment Instructions</a>		The entity contains the information describing the conditions and guarantee under which the payments will be made.
0..1	Payment terms	Ass.	<a href="#">Payment Terms</a>		The entity contains the details of the payment terms and date/time basis.
0..1	Payment amount	Ass.	<a href="#">Payment</a>		The entity contains the payment amount related to the payment terms.
0..1	Tax fee totals	Ass.	<a href="#">Tax Fee Totals</a>		The entity contains of the invoice the tax type, tax rate, the taxable amount and the tax amount for the tax type and rate.
0..*	Allowance and charge	Ass.	<a href="#">Allowance Charge. Details</a>		The entity contains the details of the allowance and charge valid for the invoice header.

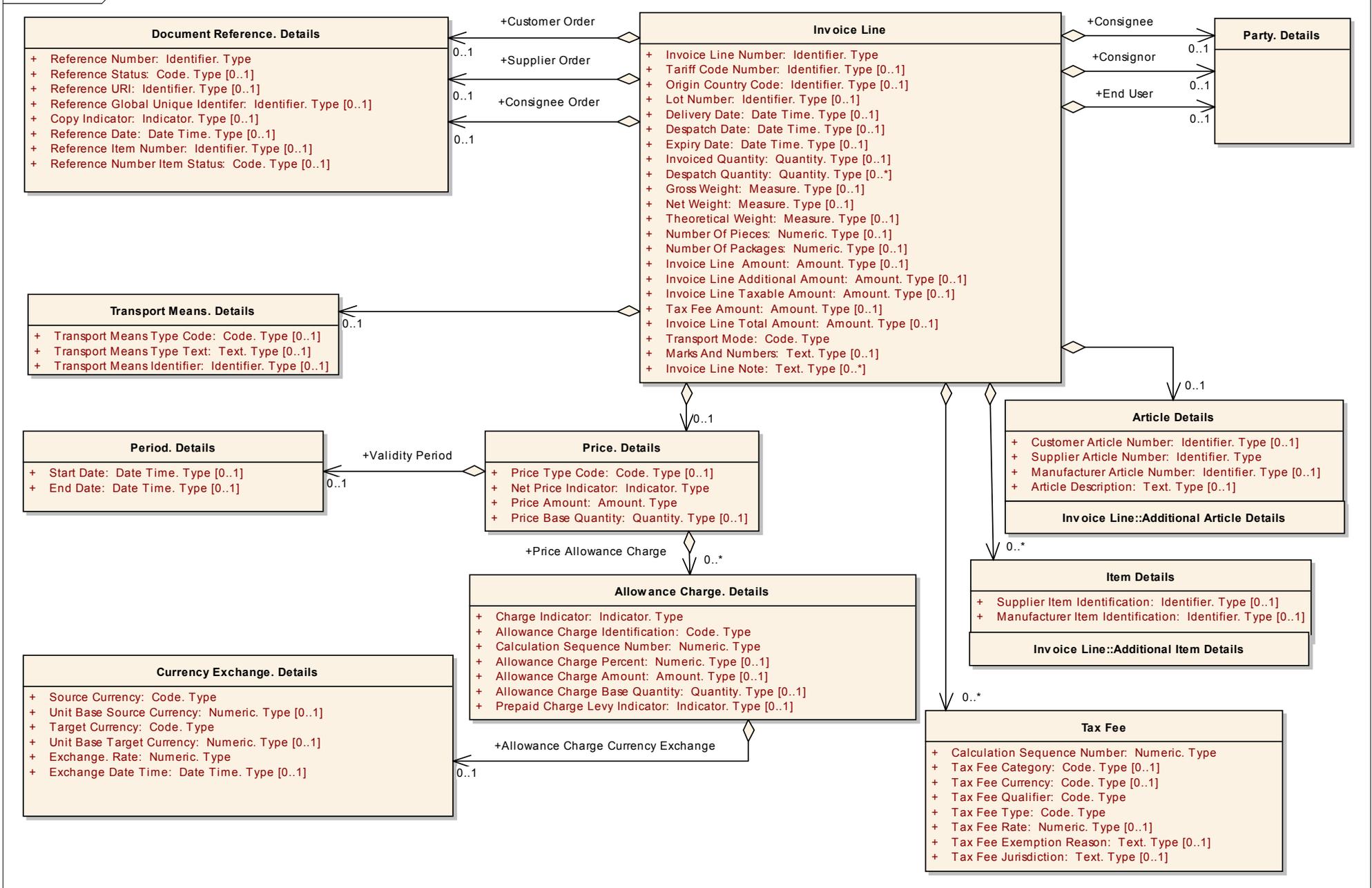


Figure 3: Invoice line

## **Invoice line**

Description: The entity contains of an invoice item the relevant weights, invoiced quantities and monetary amounts.

<b>Mult.</b>	<b>Business term</b>	<b>Rel.</b>	<b>Type</b>	<b>BIE Name</b>	<b>Description</b>
1	Invoice line number	Att.	Identifier		The unique reference given by the issuer to identify an invoice line within an invoice
0..1	Tariff code number	Att.	Identifier		The code number of the goods in accordance with the tariff nomenclature system of classification in use where the Customs declaration is made.
0..1	Origin country code	Att.	Identifier		The code specified in ISO 3166 - 1993 (2 alpha positions) to identify the country in which goods have been produced or manufactured, according to criteria laid down for the purposes of application of the Customs tariff, of quantitative restrictions, or of any other measure or regulation applicable to trade.
0..1	Lot number	Att.	Identifier		The identification number assigned to a lot which includes the goods of the invoice line.
0..1	Delivery date	Att.	Date Time		The date when the goods were delivered to the customer.
0..1	Despatch date	Att.	Date Time		The date when the goods were despatch by the supplier.
0..1	Expiry date	Att.	Date Time		The expiry date of the lot (goods of the invoice line).
0..1	Invoiced quantity	Att.	Quantity		The invoiced quantity of the invoice line..
0..*	Despatch quantity	Att.	Quantity		The quantity of the invoice line despatch by the seller.
0..1	Gross weight	Att.	Measure		The weight of the goods including packing but excluding the carriers' equipment.
0..1	Net weight	Att.	Measure		The weight of the goods themselves without any packing. (Net net weight)
0..1	Theoretical weight	Att.	Measure		The calculated weight of the goods based on the dimensions ordered.
0..1	Number of pieces	Att.	Numeric		The total number of pieces in the invoice line.
0..1	Number of packages	Att.	Numeric		The total number of packages comprising an invoice line.
0..1	Invoice line amount	Att.	Amount		The monetary amount of the invoice line, without all allowances and charges related to the invoice line before tax or fee.
0..1	Invoice line additional amount	Att.	Amount		The sum of all allowances and charges at the invoice line level before tax or fee.
0..1	Invoice line taxable amount	Att.	Amount		The invoice line amount subject to a tax or fee.
0..1	Tax fee amount	Att.	Amount		The sum of all tax and fee amounts valid for the invoice line.

<b>Mult.</b>	<b>Business term</b>	<b>Rel.</b>	<b>Type</b>	<b>BIE Name</b>	<b>Description</b>
0..1	Invoice line total amount	Att.	Amount		The total amount of the invoice line, being the sum of Invoice item amount, Invoice item additional amount and Tax fee amount.
0..1	Transport mode	Att.	Code		The code specifying the mode of transport.
0..1	Marks and numbers	Att.	Text		The information requested on the transport label of the package.
0..1	Invoice line note	Att.	Text		The free text information related to the invoice line.
0..1	Consignee	Ass.	<a href="#">Party. Details</a>		The entity contains the details of the consignee.
0..1	Consignor	Ass.	<a href="#">Party. Details</a>		The entity contains the details of the consignor.
0..1	End user	Ass.	<a href="#">Party. Details</a>		The entity contains the details of the end user.
0..1	Customer order reference	Ass.	<a href="#">Document Reference. Details</a>		The unique identifier of the order assigned by the customer to an order and the issuing date.
0..1	Supplier order reference	Ass.	<a href="#">Document Reference. Details</a>		The unique identifier of the order assigned by the supplier to an order and the issuing date.
0..1	Consignee order reference	Ass.	<a href="#">Document Reference. Details</a>		The unique identifier of the order assigned by the consignee to an order and the issuing date.
0..1	Article details	Ass.	<a href="#">Article. Details</a>		The entity contains the article identifications of the customer, supplier, manufacturer and a description of the article. This entity can be extended with industry or sector specific information.
0..*	Item details	Ass.	<a href="#">Item. Details</a>		The entity contains the information of each of the items of the consignment, such as the material identification. This entity can be extended with industry or sector specific information.
0..1	Transport means	Ass.	<a href="#">Transport Means. Details</a>		The entity contains the identification of the means of transport (e.g. license plate of the lorry, wagon number, name of the vessel).
0..*	Tax fee	Ass.	<a href="#">Tax Fee</a>		The entity contains the details of the tax or fee applicable to the invoice line.
0..1	Price	Ass.	<a href="#">Price. Details</a>		The entity contains the details of the price of the invoice line.

## Business Information Entities

### Address

Description: The entity contains the details of a geographical location and of a postal communication channel.

Mult.	Business term	Rel.	Type	BIE Name	Description
0..1	Post box	Ass.	<a href="#">Post Box. Details</a>		The entity the details of a box post.
0..1	Structured address	Ass.	<a href="#">Structured Address. Details</a>		The entity contains the details of a specific address in a structured way.
0..1	Unstructured address	Ass.	<a href="#">Unstructured Address. Details</a>		The entity contains the details of a specific address in an unstructured way.

### Adjustment details

Description: The entity contains the adjustment reason for the credit note, debit note or invoice.

Mult.	Business term	Rel.	Type	BIE Name	Description
1	Adjustment reason	Att.	Code		The code identifying of the adjustment reason.
0..1	Adjustment text	Att.	Text		The free text information explaining the adjustment.
1	Adjustment amount	Att.	Text		The amount of the adjustment.

### Allowance and charge

Description: The entity contains the details of an allowance or charge.

Mult.	Business term	Rel.	Type	BIE Name	Description
1	Charge indicator	Att.	Indicator		Indicates if the entity is detailing a charge. If no it's detailing an allowance.
1	Allowance charge identification	Att.	Code		The code identifying the type of an allowance or charge.
1	Calculation sequence number	Att.	Numeric		The sequence number in which an allowance and charge applies relative to other allowance and charge items.
0..1	Allowance charge percent	Att.	Numeric		The percentage of the allowance or charge.
0..1	Allowance charge amount	Att.	Amount		The amount of the allowance or charge.
0..1	Allowance charge base quantity	Att.	Quantity		The unit of the basis value on which the allowance or charge percentage or amount applies (e.g. per X unit, per X ton, ...)
0..1	Prepaid charge levy indicator	Att.	Indicator		Indicates whether The charge is levied on a prepaid basis (true) or collected (false).
0..1	Allowance charge exchange rate	Ass.	<a href="#">Currency Exchange. Details</a>		The exchange rate used for the conversion of the allowance or charge currency from a source currency.

### Article details

Description: The entity contains the article identifications of the customer, supplier, manufacturer and a description of the article. This entity can be extended with industry or sector specific information as defined in the entity Additional article details.

Mult.	Business term	Rel.	Type	BIE Name	Description
0..1	Customer article number	Att.	Identifier		The unique number given by the customer to identify an article.
0..1	Supplier article number	Att.	Identifier		The unique number given by the supplier to identify an article
0..1	Manufacturers article number	Att.	Identifier		The unique number given by the manufacturer to identify an article
0..1	Article description	Att.	Text		The text describing the article.

### Additional article details

Description: The entity contains the industry or sector specific additional article identifications of the customer, supplier, manufacturer and a description of the article. The content of this entity should be specified in the specific industry or sector BRS documents for the invoice.

Mult.	Business term	Rel.	Type	BIE Name	Description

### Contact details

Description: The entity contains the details of the contact person or department.

Mult.	Business term	Rel.	Type	BIE Name	Description
0..1	Contact identifier	Att.	Identifier		The unique identifier of a contact person or department.
0..1	Contact person	Att.	Text		The name of a contact person.
0..1	Contact department	Att.	Text		The name of identification of a department.
0..1	Phone number	Att.	Text		The number of the telephone.
0..1	Direct phone number	Att.	Text		The number of the direct telephone.
0..1	Mobile phone number	Att.	Text		The number of the mobile telephone.
0..1	Telefax number	Att.	Text		The number of the facsimile.
0..1	Telex number	Att.	Text		The number of the telex.
0..1	E-Mail address	Att.	Text		The E-Mail address.

### **Currency exchange details**

Description: The entity contains the details of the rate of exchange between two currencies.

<b>Mult.</b>	<b>Business term</b>	<b>Rel.</b>	<b>Type</b>	<b>BIE Name</b>	<b>Description</b>
1	Source currency	Att.	Code		The code identifying the currency from which the exchange is being made.
0..1	Unit base source currency	Att.	Numeric		The unit base of the source currency for currencies with small denominations.
1	Target currency	Att.	Code		The code identifying the currency to which the exchange is being made.
0..1	Unit base target currency	Att.	Numeric		The unit base of the target currency for currencies with small denominations.
1	Exchange rate	Att.	Numeric		The exchange rate, from the source currency to the target currency.
0..1	Exchange date time	Att.	Date Time		The date of the rate of exchange.

### **Delivery terms**

Description: The entity contains the details of the delivery terms and the place if relevant for the delivery terms.

<b>Mult.</b>	<b>Business term</b>	<b>Rel.</b>	<b>Type</b>	<b>BIE Name</b>	<b>Description</b>
0..1	Delivery terms code	Att.	Code		The code identifying the delivery terms requested by the customer.
0..1	Delivery terms	Att.	Text		The text identifying the delivery terms requested by the customer.
0..1	Delivery terms location	Ass.	<a href="#">Location Details</a>		The entity contains the location relevant to the terms of delivery specified.

### **Document reference details**

Description: The entity contains the identification of the references to documents, such as contract, order item, price list.

<b>Mult.</b>	<b>Business term</b>	<b>Rel.</b>	<b>Type</b>	<b>BIE Name</b>	<b>Description</b>
1	Reference number	Att.	Identifier		The unique identifier of the referenced document.
0..1	Reference number status	Att.	Code		The code giving the status of the referenced document.
0..1	Reference URI	Att.	Identifier		The Uniform Resource Identifier of the referenced document.
0..1	Reference GUID	Att.	Identifier		The Global unique identifier (GUID) of the reference document.
0..1	Copy indicator	Att.	Indicator		The indicator that the referenced document is a copy of the original document.
0..1	Reference date	Att.	Date Time		The issue date or date time of the referenced document.
0..1	Reference item number	Att.	Identifier		The unique number to identify an item of the referenced document.
0..1	Reference number item status	Att.	Identifier		The code giving the status of the item of the referenced document.

### **Financial account details**

Description: The entity contains information of the financial institution and the account holder name and number of the payee.

<b>Mult.</b>	<b>Business term</b>	<b>Rel.</b>	<b>Type</b>	<b>BIE Name</b>	<b>Description</b>
0..1	IBAN number	Att.	Identifier		The international bank account number uniquely identifying the account number of the holder of an account.
0..1	Account holder number	Att.	Identifier		The account number of the holder of an account.
0..1	Account holder name	Att.	Text		The name of the holder of the account.
0..1	Institution branch name	Att.	Text		The name of the financial branch.
0..1	Institution name	Att.	Text		The name of the financial institution.
0..1	Bank identification SWIFT	Att.	Identifier		The identification of the financial institution (bank) given by SWIFT.
0..1	Alternative bank identification	Att.	Identifier		The identification of the financial institution (bank) given by SWIFT.

### **Item details**

Description: The entity contains the information of each of the items of the consignment, such as the material identification. This entity can be extended with industry or sector specific information as defined in the entity Additional item details.

<b>Mult.</b>	<b>Business term</b>	<b>Rel.</b>	<b>Type</b>	<b>BIE Name</b>	<b>Description</b>
1	Supplier item identification	Att.	Identifier		The unique identification assigned by a supplier to an item.
0..1	Manufacturer item identification	Att.	Identifier		The unique identification assigned by the manufacturer to a item.

### **Additional item details**

Description: The entity contains the industry or sector specific additional the information of each of the items of the consignment, such as the material identification. The content of this entity should be specified in the specific industry or sector BRS documents for the invoice.

<b>Mult.</b>	<b>Business term</b>	<b>Rel.</b>	<b>Type</b>	<b>BIE Name</b>	<b>Description</b>

### **Location**

Description: The entity contains the identification of a location by its identifier and or by its name.

<b>Mult.</b>	<b>Business term</b>	<b>Rel.</b>	<b>Type</b>	<b>BIE Name</b>	<b>Description</b>
0..1	Identification	Att.	Identifier		The unique number to identify a location.
0..1	Description	Att.	Text		The name or description to identify a location.

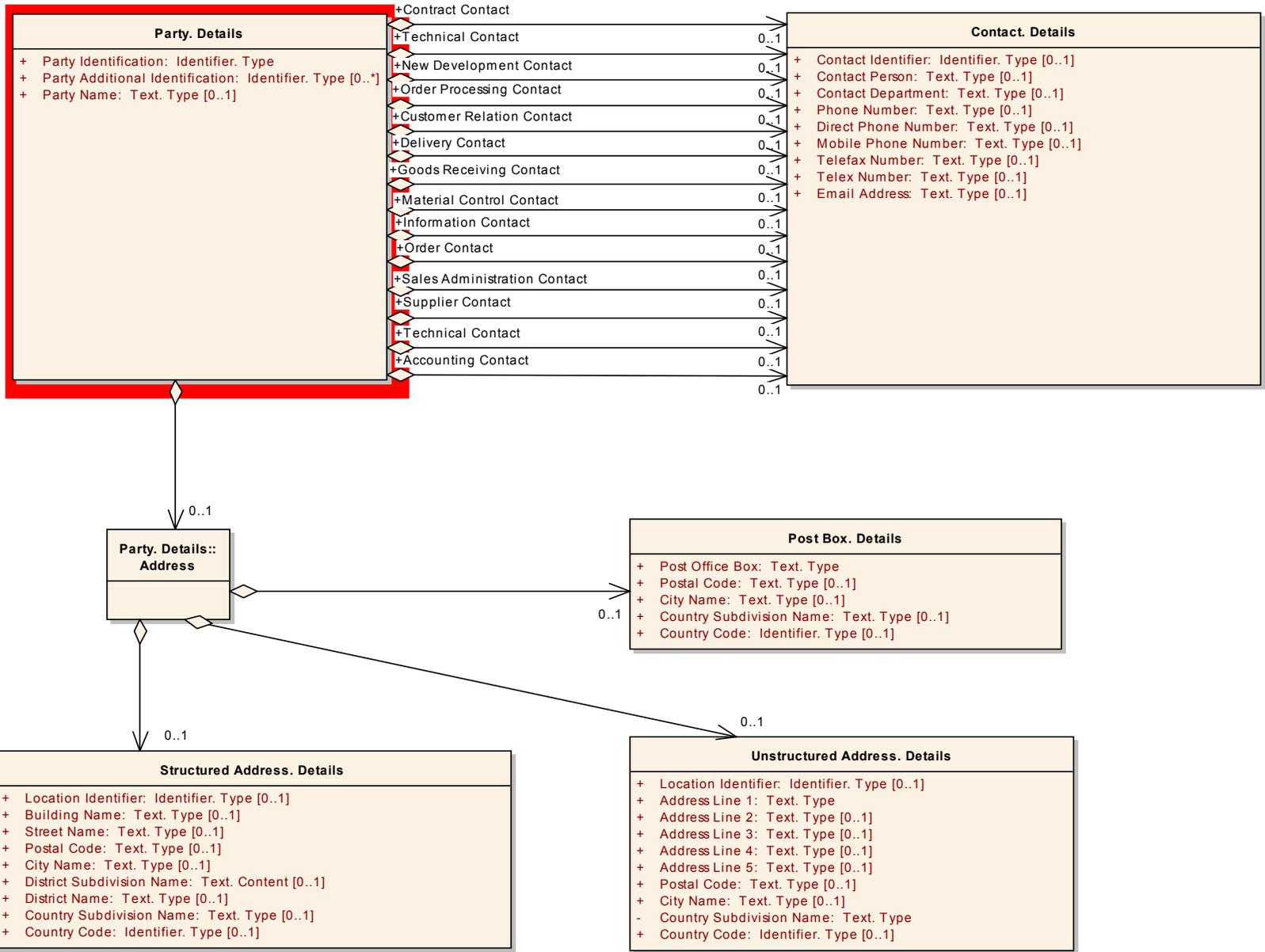


Figure 4: Party

## Party details

Description: The entity contains the name and the prime identification of a party.

Mult.	Business term	Rel.	Type	BIE Name	Description
1	Party identification	Att.	Identifier		The code identifying a party involved in a transaction.
0..*	Party additional identification	Att.	Identifier		The additional identification of a party involved in a transaction.
0..1	Party name	Att.	Text		The name of the party involved in a transaction.
0..1	Address	Ass.	<a href="#">Address</a>		The collection of information which locates and identifies a specific address.
0..1	Contract contact	Ass.	<a href="#">Contact. Details</a>		The department or person to contact for matters regarding contracts.
0..1	Technical contact	Ass.	<a href="#">Contact. Details</a>		The department or person to contact for matters regarding technical issues.
0..1	New development contact	Ass.	<a href="#">Contact. Details</a>		The department or person to contact for matters regarding new developments (e.g. construction).
0..1	Order processing contact	Ass.	<a href="#">Contact. Details</a>		The department or person responsible for the processing of purchase orders.
0..1	Customer relations contact	Ass.	<a href="#">Contact. Details</a>		The department or person responsible for the customer relations.
0..1	Delivery contact	Ass.	<a href="#">Contact. Details</a>		The department or person responsible for the delivery.
0..1	Goods receiving contact	Ass.	<a href="#">Contact. Details</a>		The department or person responsible for receiving the goods at the place of delivery.
0..1	Material control contact	Ass.	<a href="#">Contact. Details</a>		The department or person responsible for the controlling/inspection of goods.
0..1	Information contact	Ass.	<a href="#">Contact. Details</a>		The department or person to contact for questions regarding transactions.
0..1	Order contact	Ass.	<a href="#">Contact. Details</a>		The department or person to contact for questions regarding the order.
0..1	Sales administration contact	Ass.	<a href="#">Contact. Details</a>		Name of the sales administration contact within a corporation.
0..1	Supplier contact	Ass.	<a href="#">Contact. Details</a>		The department or person to be contacted at the supplier.
0..1	Technical documentation contact	Ass.	<a href="#">Contact. Details</a>		The department or person to receive technical documentation.
0..1	Accounting contact	Ass.	<a href="#">Contact. Details</a>		The department or person to contact for accounting matters.

### Payment

Description: The entity contains the payments amount related to the payment terms.

Mult.	Business term	Rel.	Type	BIE Name	Description
1	Payment amount	Att.	Amount		The actual amount paid, or to be paid.
1	Payment due date	Att.	Date Time		The date when an amount due should be made available to the creditor, in accordance with the terms of payment.
0..1	Payment discount percent	Att.	Numeric		The percentage deductible from the total amount due if payment takes place within a specified period or before the fixed due date.

### Payment instructions

Description: The entity contains the set of information describing the conditions and guarantee under which the payments will be made.

Mult.	Business term	Rel.	Type	BIE Name	Description
0..1	Payment conditions code	Att.	Code		The code identifying the method employed or to be employed in order that a payment may be made or regarded as made.
0..1	Payment guarantee code	Att.	Code		The code specifying the means of payment guarantee.
0..1	Payment means code	Att.	Code		The code specifying the means of payment.

### Payment terms

Description: The entity contains the details of the payment terms and date/time basis.

Mult.	Business term	Rel.	Type	BIE Name	Description
1	Payment terms identification	Att.	Code		The identification of the terms of payment.
0..1	Payment terms time reference	Att.	Code		The code referencing a point in time for the calculation of the payment date.
1	Payment terms number of periods	Att.	Numeric		The number of periods applicable to calculate from the payment term time reference the latest payment date.

### Period details

Description: The entity contains the start date time and, or end date time of the period.

Mult.	Business term	Rel.	Type	BIE Name	Description
0..1	Start date	Att.	Date Time		The end date of a period.
0..1	End date	Att.	Date Time		The start date of a period.

### PostBox

Description: The entity contains the details of the postbox address.

Mult.	Business term	Rel.	Type	BIE Name	Description
1	Post office box	Att.	Text		The post box identifier.
0..1	Postal code	Att.	Text		The national postal code (ZIP code) of the address
0..1	City name	Att.	Text		The name of a city
0..1	Country sub-division name	Att.	Text		The name of a state or province in a country.
0..1	Country code	Att.	Identifier		The country code specified in ISO 3166-1993 (2 alpha positions)

### Price

Description: The entity contains the details of the price.

Mult.	Business term	Rel.	Type	BIE Name	Description
0..1	Price type code	Att.	Code		The code identifying the type of price of an item
1	Net price indicator	Att.	Indicator		The indicator that the price is a net price, taken in account the allowances and charges.
1	Price amount	Att.	Amount		The amount of the price.
0..1	Price base quantity	Att.	Quantity		The basis to which the price amount applies.
0..*	Price allowance charge	Ass.	<a href="#">Allowance Charge. Details</a>		Allowance or charge applied to the price.
0..1	Validity period	Ass.	<a href="#">Period. Details</a>		The time period during which the price is valid.

### **Structured address details**

Description: The entity contains the details of a specific address in a structured way.

<b>Mult.</b>	<b>Business term</b>	<b>Rel.</b>	<b>Type</b>	<b>BIE Name</b>	<b>Description</b>
0..1	Location identifier	Att.	Identifier		The unique identification of a location based on the Duns (Duns & Bradstreet) number of the company followed by four numeric digits.
0..1	Building name	Att.	Text		The name of a building
0..1	Street name	Att.	Text		The name of a street.
0..1	Postal code	Att.	Text		The national postal code (ZIP code) of the address
0..1	City name	Att.	Text		The name of a city
0..1	District sub-division name	Att.	Text		The name of a sub-division of a district of a city
0..1	District name	Att.	Text		The name a district of a city
0..1	Country sub-division name	Att.	Text		The name of a state or province in a country.
0..1	Country code	Att.	Identifier		The country code specified in ISO 3166-1993 (2 alpha positions)

### **Tax fee**

Description: The entity contains the tax type and tax rate valid for the invoice line

<b>Mult.</b>	<b>Business term</b>	<b>Rel.</b>	<b>Type</b>	<b>BIE Name</b>	<b>Description</b>
1	Calculation sequence number	Att.	Numeric		The sequence in which the tax or fee applies.
0..1	Tax fee category	Att.	Code		The code identifying the tax or fee category.
0..1	Tax fee currency	Att.	Code		The code identifying the monetary unit used for the tax or fee.
1	Tax fee qualifier	Att.	Code		The code identifying if the entity is detailing a tax or a fee.
1	Tax fee type	Att.	Code		The code identifying the type of tax or fee.
0..1	Tax fee rate	Att.	Numeric		The rate of duty or tax or fee.
0..1	Tax fee exemption reason	Att.	Text		The text giving the reason for the exemption of duty, tax or fee.
0..1	Tax fee jurisdiction	Att.	Text		The text giving the jurisdiction to which the duty or tax or fee or applies (e.g. city tax or state or country).

### **Tax fee totals**

Description: The entity contains of the invoice the tax type, tax rate, the taxable amount and the tax amount for the tax type and rate.

<b>Mult.</b>	<b>Business term</b>	<b>Rel.</b>	<b>Type</b>	<b>BIE Name</b>	<b>Description</b>
1	Tax fee qualifier	Att.	Code		The code identifying if the entity is detailing a tax or a fee.
0..1	Tax fee category	Att.	Code		The code identifying the tax or fee category.
0..1	Tax fee type	Att.	Code		The code identifying the type of tax or fee.
0..1	Tax fee rate	Att.	Numeric		The rate of duty or tax or fee.
0..1	Taxable amount	Att.	Amount		The invoice amount subject to the identified tax fee category, type and rate.
0..1	Tax amount	Att.	Amount		The tax and fee amount for the identified tax fee category, type and rate.
0..1	Tax fee exchange rate	Ass.	<a href="#">Currency Exchange. Details</a>		The exchange rate used for the conversion of the tax fee currency from a source currency.

### **Transport means details**

Description: The entity contains the identification of the means of transport (e.g. license plate of the lorry, wagon number, name of the vessel).

<b>Mult.</b>	<b>Business term</b>	<b>Rel.</b>	<b>Type</b>	<b>BIE Name</b>	<b>Description</b>
0..1	Transport means type code	Att.	Code		The code specifying the means of transport.
0..1	Transport means type text	Att.	Text		The code specifying the means of transport.
0..1	Transport means identifier	Att.	Identifier		The identification of the means of transport (e.g. license plate of the lorry, wagon number, name of the vessel).

## **Unstructured address**

Description: The entity contains the details of a specific address in an unstructured way.

<b>Mult.</b>	<b>Business term</b>	<b>Rel.</b>	<b>Type</b>	<b>BIE Name</b>	<b>Description</b>
0..1	Location identifier	Att.	Identifier		The unique identification of a location based on the Duns (Duns & Bradstreet) number of the company followed by four numeric digits.
1	Address line 1	Att.	Text		The first line of the address.
0..1	Address line 2	Att.	Text		The second line of the address.
0..1	Address line 3	Att.	Text		The third line of the address.
0..1	Address line 4	Att.	Text		The fourth line of the address.
0..1	Address line 5	Att.	Text		The fifth line of the address.
0..1	Postal code	Att.	Text		The national postal code (ZIP code) of the address
0..1	City name	Att.	Text		The name of a city
0..1	Country sub-division name	Att.	Text		The name of a state or province in a country.
0..1	Country code	Att.	Identifier		The country code specified in ISO 3166-1993 (2 alpha positions)

## 5.7. Business rules

In Trade, the Invoice (message) is used to request payment for goods or services that have been ordered or received or consumed. In practice, there are currently different ways in which goods or services can be invoiced. For instance, the normal invoicing way (supplier initiated invoice) and the Self-billing way, also known as payment on receipt.

### Normal Invoicing (Traditional supplier initiated invoice)

Normal invoicing is where the supplier invoices the customer when the goods are delivered, or the services provided. In this case, the invoice can be created at the time of despatch or when the customer or a third party gives an acknowledgement to the supplier that the goods have been received.

When there are discrepancies between the despatch advice, the invoice and the goods actually received, or rejection of goods for quality reasons, the customer will either request a credit note from the supplier, or issue his own debit note, before paying the invoice. A credit note or debit note may also be issued in the case of retrospective price change.

### Self-billing (Payment on receipt)

The second way of invoicing is self-billing, a process whereby a customer “invoices” or “bills” himself, in the name and on behalf of his supplier, and provides the supplier with a copy of the self-billed invoice. Where a customer knows what was ordered from a specific supplier, what prices were agreed and what was actually delivered, there is no real business need for an invoice to be issued by the supplier, before paying what is due.

There are, however, some very basic recommendations which need to be fulfilled before self-billing can be implemented, since the legal provisions for this method of invoicing do vary from country to country. Some countries are very flexible and encourage self-billing. In other countries, self-billing is only allowed with specific restrictions and in other countries, self-billing is not allowed at all. Some countries do not allow self-billing, but do allow “pre-notice”, where the customer informs the seller about what the invoice should contain, and the supplier prepares his invoice accordingly. The shift from normal invoicing to self-billing will be increasingly more evident, as countries drop their local and cross-border restrictions – for example, in the European Union, the introduction of the EC Directive on Invoicing (operative from 1 January 2004) now provides for the use of self-billing, in all Member States, both for domestic and Intra-EU trading.

Under self-billing arrangements, it is mandatory that the customer receives a despatch advice or a delivery note, giving details of the shipment, to advise him about the goods being despatched. After detailed checks for quantity and quality, an advice of discrepancies may be sent by the recipient of the goods to the sender of the despatch advice or delivery note. Only goods accepted by the customer are invoiced and if the supplier finds that the self-billed invoice that he has received is incorrect, e.g. wrong quantities, wrong prices, or if the goods have not been invoiced at all, he may send a claim for non-invoiced goods to the customer. The customer will then verify whether the claim is accepted or not and consequently issue a self-billed invoice, a credit note or a debit note. In the case of a retrospective price change, which was not included in the original self-billed invoice, a retroactive self-billing credit note or debit note may be issued.

## **The business functions covered by the invoice**

The Invoice is intended to cover the following functions:

### **For normal invoicing (Traditional supplier initiated invoice)**

- to invoice the goods or services based on one delivery
- to generate a pro-forma invoice for customs purposes
- to generate a pre-invoice before the delivery of the goods or services
- to generate a consolidated invoice covering several deliveries made in a predefined time frame
- to generate a credit note to cancel a previously sent invoice
- to generate all kinds of credit notes, for example to settle claims for damaged goods, wrong deliveries, invoice errors, price changes, etc...

### **Self-billing (Payment on receipt)**

- to self-bill the goods or services based on the receipt or on the consumption during a certain period of time
- to generate all kind of credit notes or self-billing invoices, for example to settle claims for damaged goods, wrong deliveries, invoice error, price changes, etc...

## 5.8. Definition of terms

### 5.8.1 Parties and party roles

<b>Terms</b>	<b>Definition</b>
Customer	The customer is the person or organization who acquires goods or services from a supplier. The following roles can be found in a customer company: buyer, consignee, invoicee, VAT representative.
Buyer	The buyer is the person or organization acting on behalf of the customer and who buys or purchases the goods or services.
Consignee	The consignee is the person or organization who receives the goods or service on behalf of the customer.
Invoicee	The invoicee is the person or organization to whom the invoice is sent, to claim payment for the goods and services rendered to the customer.
VAT representative	The VAT representative is the person or organization who is liable to pay the tax on behalf of the supplier or customer.
Supplier	The supplier is the person or organization who supplies goods or service to a customer. The following roles can be found in a supplier company: seller, consignor, manufacturer, VAT representative, invoice issuer, payee.
Seller	The seller is the person or organization acting on behalf of the supplier and who sells goods or services to the customer.
Consignor	The consignor is the person or organization who provides (despatch) the goods or services on behalf of the supplier.
Manufacturer	The manufacturer is the person or organization making the goods on behalf of the supplier.
Invoice issuer	The invoice issuer is the person or organization making the invoice, claiming payment for the goods or services rendered to the customer.
Payee	The payee is the person or organization to whom the invoice should be paid on behalf of the supplier.